IMPORTANT NOTICE

THIS OFFERING IS AVAILABLE ONLY TO INVESTORS WHO ARE EITHER (I) QIBS (AS DEFINED BELOW) UNDER RULE 144A OR (II) OUTSIDE THE UNITED STATES IN ACCORDANCE WITH REGULATION S (AS DEFINED BELOW).

You must read the following disclaimer before continuing: The following disclaimer applies to the attached Offering Memorandum. You are therefore advised to read this disclaimer carefully and in full before reading, accessing or making any other use of the attached Offering Memorandum. In accessing the attached Offering Memorandum, you agree to be bound by the following terms and conditions, including any modifications to them from time to time, each time you receive any information from us as a result of such access.

Confirmation of your representation: You have accessed the attached document on the basis that you have confirmed your representation to Citigroup Global Markets Singapore Pte. Ltd., DBS Bank Ltd., The Hongkong and Shanghai Banking Corporation Limited, Singapore Branch, Deutsche Bank AG, Hong Kong Branch and Mandiri Securities Pte Ltd (the "**Initial Purchasers**") that (i) either (a) you are outside the United States and, to the extent you purchase the Notes, as defined and described in the attached Offering Memorandum, you will be doing so pursuant to Regulation S under the U.S. Securities Act of 1933, as amended (the "**Securities Act**") or (b) you are acting on behalf of, or you are, a qualified institutional buyer ("**QIB**"), as defined in Rule 144A under the Securities Act, and (ii) you consent to delivery of the attached Offering Memorandum and any amendments or supplements thereto by electronic transmission.

The attached Offering Memorandum has been made available to you in electronic form. You are reminded that documents transmitted via this medium may be altered or changed during the process of transmission and consequently neither the Initial Purchasers or any of their respective directors, officers, employees, representatives, agents or affiliates accepts any liability or responsibility whatsoever in respect of any discrepancies between the document distributed to you in electronic format and the hard copy version. We will provide a hard copy version to you upon request.

Prospective purchasers that are QIBs are hereby notified that the seller of the Notes described in the Offering Memorandum will be relying on the exemption from the provisions of Section 5 of the Securities Act pursuant to Rule 144A.

Restrictions: The attached Offering Memorandum is being furnished in connection with an offering exempt from registration under the Securities Act solely for the purpose of enabling a prospective investor to consider the purchase of the Notes described in the Offering Memorandum. You are reminded that the information in the attached Offering Memorandum is not complete and may be changed.

NOTHING IN THIS ELECTRONIC TRANSMISSION CONSTITUTES AN OFFER OF THE NOTES FOR SALE IN ANY JURISDICTION WHERE IT IS UNLAWFUL TO DO SO. THE NOTES HAVE NOT BEEN, AND WILL NOT BE, REGISTERED UNDER THE SECURITIES ACT, OR THE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES OR OTHER JURISDICTIONS AND THE NOTES MAY NOT BE OFFERED OR SOLD WITHIN THE UNITED STATES (AS DEFINED IN REGULATION S UNDER THE SECURITIES ACT), EXCEPT PURSUANT TO AN EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND APPLICABLE STATE OR LOCAL SECURITIES LAWS.

Except with respect to eligible investors in jurisdictions where such offer is permitted by law, nothing in this electronic transmission constitutes an offer or an invitation by or on behalf of the Company or any Subsidiary Guarantor (each as defined in the attached Offering Memorandum) or the Initial Purchasers to subscribe for or purchase any of the Notes described therein, and access has been limited so that it shall not constitute a general advertisement or general solicitation (as those terms are used in Regulation D under the Securities Act) or directed selling efforts (within the meaning of Regulation S under the Securities Act) in the United States or elsewhere.

The attached Offering Memorandum does not constitute, and may not be used in connection with, an offer or solicitation in any place where offers or solicitations are not permitted by law. If a jurisdiction requires that the offering of the Notes be made by a licensed broker or dealer and the Initial Purchasers or any affiliate of any Initial Purchaser, licensed brokers or dealers in that jurisdiction, the offering of any of the Notes shall be deemed to be made by the Initial Purchasers or such affiliates on behalf of the Company in such jurisdiction.

You are reminded that you have accessed the attached Offering Memorandum on the basis that you are a person into whose possession this Offering Memorandum may be lawfully delivered in accordance with the laws of the jurisdiction in which you are located and you may not nor are you authorised to deliver or forward this document, electronically or otherwise, to any other person. If you have gained access to this transmission contrary to the foregoing restrictions, you will be unable to purchase any of the Notes described therein.

Actions that you may not take: You should not reply by e-mail to this announcement, and you may not purchase any Notes by doing so. Any reply e-mail communication, including those you generate by using the "Reply" function on your e-mail software, will be ignored and/or rejected.

THE ATTACHED OFFERING MEMORANDUM MAY NOT BE FORWARDED OR DISTRIBUTED TO ANY OTHER PERSON AND MAY NOT BE REPRODUCED IN ANY MANNER WHATSOEVER. ANY FORWARDING, DISTRIBUTION OR REPRODUCTION OF THIS DOCUMENT IN WHOLE OR IN PART IS UNAUTHORISED. FAILURE TO COMPLY WITH THIS DIRECTIVE MAY RESULT IN A VIOLATION OF THE SECURITIES ACT OR THE APPLICABLE LAWS OF OTHER JURISDICTIONS. IF YOU HAVE GAINED ACCESS TO THIS TRANSMISSION CONTRARY TO ANY OF THE FOREGOING RESTRICTIONS, YOU ARE NOT AUTHORISED AND WILL NOT BE ABLE TO PURCHASE ANY OF THE NOTES DESCRIBED IN THE ATTACHED OFFERING MEMORANDUM.

You are responsible for protecting against viruses and other destructive items. Your use of this e-mail is at your own risk and it is your responsibility to take precautions to ensure that it is free from viruses and other items of a destructive nature.

PT CHANDRA ASRI PETROCHEMICAL TBK

(incorporated with limited liability under the laws of the Republic of Indonesia)

US$300,000,000 4.95% Senior Unsecured Notes due 2024

The US$300,000,000 4.95% senior unsecured notes due 2024 (the "**Notes**") to be issued by PT Chandra Asri Petrochemical Tbk (the "**Company**") will bear interest from 8 November 2017 at 4.95% per annum payable semi-annually in arrears on 8 May and 8 November of each year, beginning 8 May 2018. The Notes will mature on 8 November 2024. The Notes will constitute general, direct and unconditional obligations of the Company. They will rank at least *pari passu* in right of payment with all other unsecured, unsubordinated indebtedness of the Company (subject to priority rights under applicable law) and senior to subordinated indebtedness of the Company. The Notes will be unconditionally and irrevocably guaranteed on a senior basis (the "**Guarantees**") by Subsidiary Guarantors (as defined herein). The Guarantees constitute general, direct and unconditional obligations of the Subsidiary Guarantors and will rank at least *pari passu* in right of payment with all other unsecured, unsubordinated indebtedness of the Subsidiary Guarantors (subject to priority rights under applicable law) and senior to subordinated indebtedness of the Subsidiary Guarantors.

At any time and from time to time on or after 8 November 2021, we may redeem the Notes, in whole or in part, at the redemption prices set forth in the section titled "*Description of the Notes—Optional Redemption,*" plus accrued and unpaid interest to, but not including, the redemption date. At any time prior to 8 November 2021, we may at our option redeem the Notes, in whole but not in part, at a redemption price equal to 100% of the principal amount of the Notes plus a premium as set forth in this Offering Memorandum, and accrued and unpaid interest, if any. At any time and from time to time prior to 8 November 2021, we may redeem up to 35% in aggregate principal amount of the Notes, at a redemption price equal to 104.95%, plus accrued and unpaid interest, if any, with the proceeds from certain equity offerings. The Notes are subject to redemption in whole but not in part, at 100% of their principal amount, together with accrued and unpaid interest to the date of repurchase, at the option of the Company at any time in the event of certain changes affecting taxes of the Republic of Indonesia ("**Indonesia**"). For a more detailed description of the redemption features of the Notes, see "*Description of the Notes—Optional Redemption*" and "*Description of the Notes—Redemption for Change in Taxes*".

Upon the occurrence of a Change of Control, as defined in the indenture governing the Notes (the "**Indenture**"), we must make an offer to repurchase all Notes outstanding at a purchase price equal to 101% of their principal amount, plus accrued and unpaid interest, if any, to the date of repurchase.

For a more detailed description of the Notes, see "*Description of the Notes*" beginning on page 148.

Investing in the Notes involves risks. See "*Risk Factors*" beginning on page 11.

Issue Price: 99.126% plus accrued interest, if any, from the issue date.

The Notes and the Guarantees have not been and will not be registered under the United States Securities Act of 1933, as amended (the "Securities Act") or the securities laws of any other jurisdiction, and may not be offered or sold within the United States except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act. Accordingly, the Notes are being offered and sold only (i) to qualified institutional buyers in reliance on the exemption from the registration requirements of the Securities Act provided by Rule 144A ("Rule 144A") and (ii) persons outside the United States in offshore transactions in reliance on Regulation S under the Securities Act ("Regulation S"). Prospective purchasers are hereby notified that the seller of the Notes may be relying on the exemption from the provisions of Section 5 of the Securities Act provided by Rule 144A. For a description of certain restrictions on resale or transfer, see the section titled "*Transfer Restrictions.*"

The offering of the Notes does not constitute a public offering in Indonesia under Law No. 8 of 1995 regarding Capital Markets. This Offering Memorandum may not be distributed in Indonesia and the Notes and the Guarantees may not be offered or sold in Indonesia or to Indonesian citizens wherever they are domiciled or to residents of Indonesia, in a manner which constitutes a public offering of the Notes and the Guarantees under the laws and regulations of Indonesia.

There is currently no public market for the Notes. Approval-in-principle has been received for the listing and quotation of the Notes on the Singapore Exchange Securities Trading Limited (the "**SGX-ST**"). The SGX-ST assumes no responsibility for the correctness of any of the statements made, opinions expressed or reports contained in this Offering Memorandum. Admission of the Notes to the Official List of the SGX-ST and the quotation of the Company on the SGX-ST are not to be taken as an indication of the merits of the Company, the Guarantors, their associated companies or the Notes. See "*Listing and General Information.*"

The Notes are expected to be rated "Ba3" by Moody's Investor Service, Inc. ("**Moody's**"), "BB-" by Fitch, Inc. ("**Fitch**") and "B+" by Standard & Poor's Ratings Group ("**S&P**"). A security rating is not a recommendation to buy, sell or hold securities and may be subject to suspension, reduction or withdrawal at any time by the assigning rating agency.

The Notes will be issued in registered form in minimum denominations of US$200,000 and integral multiples of US$1,000 in excess thereof. The Notes will be represented on issuance by two or more Global Notes (as defined herein) and it is expected that delivery of the Notes will be made on or about 8 November 2017 (the "**issue date**"), in New York, New York through the facilities of The Depository Trust Company ("**DTC**") against payment therefor in immediately available funds.

Joint Global Coordinators and Joint Bookrunners

citi DBS HSBC

Joint Bookrunners

Deutsche Bank mandiri securities

Offering Memorandum dated 30 October 2017.

CONTENTS

NOTICE TO INVESTORS

This Offering Memorandum does not constitute an offer to sell or a solicitation of an offer to buy the Notes in any jurisdiction to any person to whom it is unlawful to make the offer or solicitation of the Notes in such jurisdiction. Neither the delivery of this Offering Memorandum nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in our affairs since the date of this Offering Memorandum or that the information contained in this Offering Memorandum is correct as of any time after that date.

This Offering Memorandum is not a prospectus for the purposes of the European Union's Directive 2003/71/EC, and any amendments thereto, as implemented in member states of the European Economic Area (the "**EU Prospectus Directive**"). This Offering Memorandum has been prepared on the basis that all offers of the Notes made to persons in the European Economic Area will be made pursuant to an exemption under the EU Prospectus Directive from the requirement to produce a prospectus in connection with offers of the Notes.

IN CONNECTION WITH THIS OFFERING OF NOTES, CITIGROUP GLOBAL MARKETS SINGAPORE PTE. LTD., AS STABILISING MANAGER, OR ANY PERSON OR ENTITY ACTING ON ITS BEHALF, MAY OVER-ALLOT THE NOTES OR EFFECT PURCHASES AND SALES OF THE NOTES IN THE OPEN MARKET. THESE TRANSACTIONS MAY, TO THE EXTENT PERMITTED BY APPLICABLE LAWS AND REGULATIONS, INCLUDE SHORT SALES, STABILISING TRANSACTIONS AND PURCHASES TO COVER POSITIONS CREATED BY SHORT SALES. THESE ACTIVITIES MAY STABILISE, MAINTAIN OR OTHERWISE AFFECT THE MARKET PRICE OF THE NOTES. AS A RESULT, THE PRICE OF THE NOTES MAY BE HIGHER THAN THE PRICE THAT OTHERWISE MIGHT EXIST IN THE OPEN MARKET. IF THESE ACTIVITIES ARE COMMENCED, THEY WILL BE CONDUCTED IN ACCORDANCE WITH APPLICABLE LAWS AND REGULATIONS AND MAY BE ENDED AT ANY TIME, BUT MUST END NO LATER THAN THE EARLIER OF 30 DAYS AFTER THE ISSUE DATE OF THE NOTES AND 60 DAYS AFTER THE ALLOTMENT OF THE NOTES. THESE ACTIVITIES WILL BE UNDERTAKEN SOLELY FOR THE ACCOUNT OF CITIGROUP GLOBAL MARKETS SINGAPORE PTE. LTD., AS STABILISING MANAGER (OR ANY PERSON OR ENTITY ACTING ON ITS BEHALF) AND NOT FOR THE COMPANY OR ON ITS BEHALF. THERE IS NO ASSURANCE THAT CITIGROUP GLOBAL MARKETS SINGAPORE PTE. LTD., AS STABILISING MANAGER (OR ANY PERSON OR ENTITY ACTING ON ITS BEHALF) WILL UNDERTAKE ANY SUCH STABILISATION ACTION.

We, having made all reasonable inquiries, confirm that: (i) this Offering Memorandum contains all information with respect to us and our subsidiaries referred to herein and the Notes and the Guarantees that is material in the context of the offering and issue of the Notes; (ii) the statements contained in this Offering Memorandum relating to us and our subsidiaries are in all material respects true and accurate and not misleading; (iii) the opinions and intentions expressed in this Offering Memorandum with regard to us and our subsidiaries are honestly held, have been reached after considering all relevant circumstances and are based on reasonable assumptions; and (iv) there are no other facts in relation to us, our subsidiaries, the Notes and the Guarantees, the omission of which would, in the context of the offering and issue of the Notes, make this Offering Memorandum, as a whole, misleading in any material respect.

This Offering Memorandum is strictly confidential. We are providing it solely for the purpose of enabling you to consider a purchase of the Notes. You should read this Offering Memorandum in its entirety (including the financial statements included elsewhere herein) before making a decision whether to purchase the Notes. You must not use this Offering Memorandum for any other purpose, or create copies, or give copies or disclose any information in this Offering Memorandum to any other person.

We have prepared this Offering Memorandum, and we are solely responsible for its contents. You are responsible for making your own examination of us and your own assessment of the merits and risks of investing in the Notes. By possessing this Offering Memorandum or purchasing the Notes, you will be deemed to have acknowledged that you have made certain acknowledgements, representations and agreements as set forth under the section titled "*Transfer Restrictions.*"

No representation or warranty, express or implied, are made by the Initial Purchasers (as defined herein) or the Trustee (as defined herein) or any of their respective affiliates as to the accuracy or completeness of the information set forth herein, and nothing contained in this Offering Memorandum is, or shall be relied upon as, a promise or representation by the Initial Purchasers, whether as to the past or the future. To the fullest extent permitted by law, the Initial Purchasers and the Trustee do not accept any responsibility for the contents of this Offering Memorandum or for any other statement made or purported to be made by the Company or any Subsidiary Guarantor in connection with the offering of the Notes. The Initial Purchasers accordingly disclaim all and any liability whether arising in tort or contract or otherwise which they might otherwise have in respect of this Offering Memorandum or any such statement. The Initial Purchasers do not undertake to review the financial condition or affairs of the Company or any Subsidiary Guarantor during the life of the Notes and the Guarantees or to advise any investor or potential investor in the Notes or the Guarantees of any information coming to the attention of the Initial Purchasers.

Prospective investors in the Notes should rely only on the information contained in this Offering Memorandum. Neither we nor the Initial Purchasers have authorised the provision of information different from that contained in this Offering Memorandum. If given, any such information should not be relied upon. Neither the Company nor the Initial Purchasers are making an offer of the Notes in any jurisdiction where an offering of the Notes is not permitted. The information contained in this Offering Memorandum is accurate in all material respects only as of the date of this Offering Memorandum, regardless of the time of delivery of this Offering Memorandum or of any sale of the Notes. Neither the delivery of this Offering Memorandum nor any sale made hereunder shall under any circumstances imply that there has been no change in our affairs or those of each of our respective subsidiaries or that the information set forth herein is correct in all material respects as of any date subsequent to the date hereof.

Each person receiving this Offering Memorandum acknowledges that: (i) such person has been afforded an opportunity to request from us and to review, and has received, all additional information considered by it to be necessary to verify the accuracy of, or to supplement, the information contained herein; (ii) such person has not relied on any Initial Purchasers or the Trustee or any person affiliated with the Initial Purchasers or the Trustee in connection with any investigation of the accuracy of such information or its investment decision; and (iii) no person has been authorised to give any information or to make any representation concerning us, our subsidiaries and affiliates, the Notes or the Guarantees (other than as contained herein and information given by our duly authorised officers and employees in connection with investors' examination of us and the terms of the offering of the Notes) and, if given or made, any such other information or representation should not be relied upon as having been authorised by us or the Initial Purchasers or the Trustee.

The Notes and the Guarantees have not been approved or disapproved by the United States Securities and Exchange Commission (the "**SEC**"), any state securities commission in the United States or any other United States regulatory authority, nor have any of the foregoing authorities passed upon or endorsed the merits of the offering or the accuracy or adequacy of this Offering Memorandum. Any representation to the contrary is a criminal offense in the United States.

Prospective purchasers of the Notes are hereby notified that sellers of the Notes may be relying on the exemption from the provisions of Section 5 of the Securities Act provided by Rule 144A. We are not, and the Initial Purchasers are not, making an offer to sell the Notes in any jurisdiction except where an offer or sale is permitted. The distribution of this Offering Memorandum and the offering of the Notes may in certain jurisdictions be restricted by law. Persons into whose possession this Offering

Memorandum comes are required by us and the Initial Purchasers to inform themselves about and to observe any such restrictions. For a description of the restrictions on offers, sales and resales of the Notes and distribution of this Offering Memorandum, see the sections titled "*Transfer Restrictions*" and "*Plan of Distribution.*"

This Offering Memorandum does not take into account the objectives, financial situation or needs of any potential investor. Each prospective investor should consult its own advisors as needed to make its investment decision and to determine whether it is legally permitted to purchase the Notes under applicable legal investment or similar laws or regulations.

In making an investment decision, you must rely on your own examination of us and the terms of the offering, including the merits and risks involved. None of us, the Initial Purchasers, the Trustee or any of our respective affiliates or representatives are making any representation to you regarding the legality of an investment in the Notes by you under any legal, investment, tax or similar laws or regulations. You should not consider any information in this Offering Memorandum to be legal, business or tax advice. You should consult your own attorney, business advisor and tax advisor for legal, business and tax advice regarding an investment in the Notes. You should be aware that you may be required to bear the financial risks of this investment for an indefinite period of time.

The information contained in this Offering Memorandum under the heading "*Exchange Rates and Exchange Controls*" includes extracts from information and data released by official and other sources. While we accept responsibility for summarising such information, we accept no further responsibility in respect thereof.

We reserve the right to withdraw the offering of the Notes at any time, and the Initial Purchasers reserve the right to reject any commitment to subscribe for the Notes in whole or in part and to allot to any prospective purchaser less than the full amount of the Notes sought by such purchaser. The Initial Purchasers and certain related entities may acquire for their own account a portion of the Notes.

AVAILABLE INFORMATION

To permit compliance with Rule 144A under the Securities Act in connection with resales of the Notes, we are required to furnish upon request of a holder of the Notes and to any prospective purchaser designated by a holder of the Notes the information required to be delivered under Rule 144A(d)(4) if at the time of such request we are neither a reporting company under Section 13 or Section 15(d) of the United States Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), nor exempt from reporting pursuant to Rule 12g3-2(b) thereunder. Any such request should be directed to the Company.

We are not currently, and will not be, subject to the periodic reporting and other information requirements of the Exchange Act. So long as any of the Notes remain outstanding, we will provide to the Trustee for forwarding to the holders of the Notes certain periodic information to holders of the Notes. See "*Description of the Notes.*"

INDUSTRY AND MARKET DATA

This Offering Memorandum includes statistical data provided by us and various third parties and cites third party projections regarding growth and performance of the industry in which we operate. This data is taken or derived from information published by industry sources and from our internal data. In each such case, the source is acknowledged in this Offering Memorandum, **provided that** where no source is acknowledged, it can be assumed that the information originates from us. In particular, certain information in this Offering Memorandum is extracted or derived from the report prepared by Nexant Asia Limited ("**Nexant**") which is included as Annex A of this Offering Memorandum. We had appointed Nexant to provide an independent market and industry review. In compiling their data for the review, Nexant relied on industry sources, published materials, its own private databanks and direct contacts within the industry. The information on the industry as contained in this Offering

Memorandum and the other statistical data and projections cited in this Offering Memorandum is intended to help prospective investors understand the major trends in the industry in which we operate. However, we, the Joint Global Coordinators and the Joint Bookrunners and their respective advisers have not independently verified these figures. Neither we nor Joint Global Coordinators or the Joint Bookrunners and our or their respective advisers make any representation as to the correctness, accuracy or completeness of such data and accordingly, prospective investors should not place undue reliance on the statistical data cited in this Offering Memorandum. Further, third-party projections cited in this Offering Memorandum are subject to significant uncertainties that could cause actual data to differ materially from the projected figures. No assurances are or can be given that such projections or estimates will be achieved, and you should not place undue reliance on the third-party projections cited in this Offering Memorandum.

CONVENTIONS WHICH APPLY IN THIS OFFERING MEMORANDUM

In this Offering Memorandum, unless otherwise specified or the context otherwise requires, all references to "**Indonesia**" are references to the Republic of Indonesia. All references to the "**Government**" herein are references to the Government of Indonesia. All references to "**United States**" or "**U.S.**" herein are to the United States of America. All references to "**Rupiah**" and "**Rp**" herein are to the lawful currency of Indonesia and all references to "**U.S. dollars**" or "**US$**" herein are to the lawful currency of the United States.

No representation is made that the Rupiah or U.S. dollar amounts referred to in this Offering Memorandum could have been or could be converted into U.S. dollars or Rupiah, as the case may be, at any particular rate or at all. See "*Exchange Rates and Exchange Controls.*"

In this Offering Memorandum, except as indicated (including as indicated above with respect to financial information) or the context otherwise requires, "**we**", "**us**" and "**our**" refers to PT Chandra Asri Petrochemical Tbk and its consolidated subsidiaries. Except as indicated (including as indicated below with respect to financial information) or the context otherwise requires, all references to the "**Company**" are to PT Chandra Asri Petrochemical Tbk. Unless the context otherwise requires, all references to "**PT Chandra Asri**" or "**CA**" are to the company incorporated with limited liability under the laws of Indonesia in 1989 and approved by the Minister of Laws and Human Rights in 1990. Unless the context otherwise requires, all references to "**PT Tri Polyta Indonesia Tbk**" or "**TPI**" are to the Company prior to its merger with CA.

Unless the context otherwise requires, all references to the "**merger**" in this Offering Memorandum are to the merger effective as of 1 January 2011 between CA and TPI pursuant to a merger deed dated 9 November 2010 as declared effective by BAPEPAM-LK Letter No. S-9563/BL/2010 dated 21 October 2010, pursuant to which CA was merged into and with TPI, the surviving company.

In this Offering Memorandum, references to "**2014**", "**2015**" and "**2016**" are to the calendar years ended 31 December 2014, 31 December 2015 and 31 December 2016, respectively.

"**Asrene**®", "**Trilene**®" and "**Grene**®" are trademarks of the Company, registered under the name of the Company. "**UNIPOL™**" is a registered trademark of the Dow Chemical Company or an affiliate of the Dow Chemical Company.

In this Offering Memorandum, all references to "**capacity**" with respect to a plant are references to the estimates of the maximum production possible in the year or period in question, under normal working conditions, adjusted for debottlenecking and expansion projects and scheduled turnaround and maintenance during the period on such plant. The calculation of capacity for our various plants is based upon the relevant licensor's technical specifications for those plants and should not be relied upon as an accurate predictor of the actual manufacturing tonnage that will or can be produced in any future period. Actual production by facility may differ from capacity as a result of variations in product mix and other factors.

Certain numbers, including percentages, have been rounded for convenience. Any discrepancies in the tables included in this Offering Memorandum between the listed amounts and their totals are due to rounding.

Unless the context otherwise requires, references to "**management**" are to the commissioners, directors and the senior management team of the Company as of the date of this Offering Memorandum. Statements in this Offering Memorandum as to beliefs, expectations, estimates and opinions of the Company are those of the management. For the meaning of other terms, including terms used in the petrochemical industry, used in this Offering Memorandum, see "*Glossary of Technical Terms.*"

PRESENTATION OF FINANCIAL INFORMATION

Our consolidated financial information as of and for the calendar years ended 31 December 2014, 31 December 2015 and 31 December 2016 and as of and for the six-month periods ended 30 June 2016 and 30 June 2017 included in this Offering Memorandum has been prepared in accordance with Indonesian Financial Accounting Standards ("**Indonesian FAS**"), which differ in certain significant respects from generally accepted accounting principles in the United States ("**U.S. GAAP**"). We maintain our accounts and prepare and present our consolidated financial statements in U.S. dollars. For a summary of certain principal differences between Indonesian FAS and U.S. GAAP, see "*Summary of Certain Principal Differences between Indonesian Financial Accounting Standards and U.S. GAAP*" contained in this Offering Memorandum.

NON-GAAP FINANCIAL MEASURES

"**Adjusted EBITDA**" is defined as profit for the period before finance costs - net of interest income, income tax expense - net, depreciation and amortisation, adjusted for net unrealised foreign exchange loss/(gain), gain (loss) on derivative financial instruments, share in net loss of an associate and write down of inventories to net realisable values. Adjusted EBITDA, as well as the related ratios presented in this Offering Memorandum, are supplemental measures of performance and liquidity that are not required by, or presented in accordance with Indonesian FAS or U.S. GAAP, are not measurements of financial performance or liquidity under Indonesian FAS or U.S. GAAP and should not be considered as alternatives to profit for the period, operating income or any other performance measures derived in accordance with Indonesian FAS or U.S. GAAP or as alternatives to cash flow from operating activities as a measure of liquidity. In addition, adjusted EBITDA is not a standardised term, hence a direct comparison between companies using such terms may not be possible.

FORWARD-LOOKING STATEMENTS

This Offering Memorandum includes "forward-looking statements". All statements other than statements of historical fact contained in this Offering Memorandum, including, without limitation, those regarding our future financial position and results of operations, strategy, plans, objectives, goals and targets, future developments in the markets where we participate or are seeking to participate, and any statements preceded by, followed by or that include the words "believe", "expect", "aim", "intend", "will", "may", "project", "estimate", "anticipate", "predict", "seek", "should" or similar expressions or the negative thereof, are forward-looking statements. These forward-looking statements involve known and unknown risks, uncertainties and other factors, some of which are beyond our control, which may cause our actual results, performance or achievements, or industry results to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. These forward-looking statements are based on numerous assumptions regarding our present and future business strategies and the environment in which we will operate in the future. Important factors that could cause our actual results, performance or achievements to differ materially from those in the forward-looking statements include, among others, the following:

- general economic, political and business conditions in our markets, both in Indonesia and abroad;
- possible disruptions to commercial activities owing to natural and human-induced disasters, including earthquakes, terrorist activities and armed conflict;
- the cyclical nature of the petrochemical industry and the demand for petrochemical products;
- the competitive environment in the petrochemical industry in Indonesia and abroad;
- fluctuations in prices of petrochemical products or petrochemical feedstock, including naphtha;
- technical difficulties in the operation of our plants, reducing the expected levels of output and efficiency;
- delays, cost overruns, shortages in materials, feedstock or labour, or problems with debottlenecking and new projects;
- changes in the value of the Rupiah against the U.S. dollar and other currencies;
- increases in regulatory burdens in Indonesia and other countries in which we transact business, including environmental regulations and compliance costs;
- changes in import or export controls, duties, levies, tariffs or taxes, either in Indonesia or in international markets;
- changes in governmental regulation and licensing of our businesses in Indonesia;
- our relationship with the Government and our key customers and suppliers;
- the financial health of our key customers;
- the level of our indebtedness and related debt service requirements;
- our ability to obtain financing on satisfactory terms; and
- other operating risks and factors discussed in this Offering Memorandum.

Additional factors that could cause actual results, performance or achievements to differ materially include, but are not limited to, those discussed under "*Risk Factors*" and elsewhere in this Offering Memorandum. We caution you not to place undue reliance on these forward-looking statements which reflect our management's view only as of the date of this Offering Memorandum. We undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. In light of these risks, uncertainties and assumptions, actual results and events might differ from what we expect.

ENFORCEABILITY OF THE GUARANTEES IN INDONESIA

In several court cases in Indonesia, Indonesian companies that had defaulted on debt incurred through offshore financing entities (using structures similar to that used in this offering) have sued their creditors to, among other things, invalidate their debt obligations and have sought damages from creditors exceeding the original proceeds of the debt issued. In one case, which was subsequently settled, an Indonesian court annulled the transaction documents in a structure involving a guarantee issued by an Indonesian company for debt of an offshore subsidiary. In another case, an Indonesian court declared a loan agreement between an offshore entity and its creditors null and void, awarding damages to the defaulting borrower. The courts' reports of these decisions do not provide a clear factual basis or legal rationale for the judgments.

The Indonesian legal system does not recognise the concept of "precedent" recognised in the common law system but acknowledges the concept of jurisprudence. This means that while lower courts are not bound by the Supreme Court decisions, Supreme Court decisions have persuasive force. However, the outcome of specific cases in the Indonesian legal system is subject to considerable discretion and uncertainty.

Under the Indonesian Civil Code, a guarantor may waive its right to require an obligee to exhaust its legal remedies against an obligor's assets on a guaranteed obligation prior to the obligee exercising its rights under the related guarantee, and the waiver is enforceable against the guarantor. The Guarantees contain a waiver of this obligation. The Indonesian Civil Code stipulates that once a guarantor has waived its rights to require a lender to exhaust its legal remedy against the obligor, such guarantor may no longer claim otherwise. We have been advised by our Indonesian counsel that even though the Guarantees contain such a waiver, the Subsidiary Guarantors could successfully petition a court to require the Trustee and holder of the Notes to exhaust their remedies against the Company before acting against the Subsidiary Guarantors. If a court grants such a request, the Subsidiary Guarantors may not be required to comply with their obligations under their Guarantees until the Trustee and Holder of the Notes have exhausted all legal remedies against the Company. This could increase the costs of pursuing a claim and the time required to obtain relief. For more information on the enforceability of the Guarantees in Indonesia, see "*Risk Factors — Risks Relating to the Notes and the Guarantees — Through the purchase of the Notes, holders of the Notes may be exposed to a legal system subject to considerable discretion and uncertainty; it may be difficult or impossible for the holders of the Notes to pursue claims under the Notes or the Guarantees*".

ENFORCEABILITY OF CIVIL LIABILITIES

The Notes, the Indenture and the Guarantees are governed by the laws of the State of New York. The Company and the Subsidiary Guarantors are established and existing under the laws of Indonesia. The majority of the Company and the Subsidiary Guarantors' commissioners and directors reside in Indonesia and all or a substantial portion of the Company's and the Subsidiary Guarantors' assets and the assets of such persons are located in Indonesia. As a result, it may not be possible for investors to effect service of process within the United States upon the Company or such persons or to enforce against the Company or any of them in U.S. courts judgments obtained in U.S. courts, including judgments based upon the civil liability provisions of the securities laws of the United States or any state or territory within the United States.

We have been advised by our Indonesian legal counsel, Assegaf Hamzah & Partners, that judgments of non-Indonesian courts based upon the civil liability provisions of the federal securities laws of the United States are not recognised or directly enforceable in Indonesia, although such judgments could be admissible as evidence in a proceeding on the underlying claim in an Indonesian court with respect to the matter of law of the jurisdiction of such non-Indonesian court and may be given evidentiary weight if the Indonesian court in its sole discretion, deems it appropriate. Accordingly, to obtain an order of an Indonesian court in respect of a claim, a successful party in a foreign proceeding must commence a new action in an Indonesian court on the basis of Indonesian law and reargue the matter on its merits. Re-examination of the underlying claim *de novo* would be required before an Indonesian court. There can be no assurance that the claims or remedies available under Indonesian law will be the same, or as extensive, as those available in other jurisdictions. In addition, there is doubt as to whether Indonesian courts will enter judgments on original actions brought in Indonesian courts based solely upon the civil liability provisions of the federal securities laws of the United States. For more details on the enforcement of the foreign judgments in Indonesia, see "*Risk Factors — Risks Relating to the Note and the Guarantees — It may not be possible for investors to effect service of process or to enforce certain judgments on us*".

INDONESIAN REGULATION OF OFFSHORE BORROWINGS

Under Presidential Decree No. 59 of 1972 dated 12 October 1972 on Offshore Commercial Borrowings ("**PD 59/1972**"), which was last amended by Presidential Decree No. 120 of 1998 dated 12 August 1998 ("**PD 120/1998**"), The Company and the Subsidiary Guarantors are required to report the particulars of their offshore borrowings to the Minister of Finance of Indonesia and Bank Indonesia, on the acceptance, implementation, and repayment of principal and interest. The Ministry of Finance Decree No. KEP-261/KMK/IV/5/1973 dated 3 May 1973, as amended by the Ministry of Finance Decree No. 417/KMK.013/1989 dated 1 May 1989 and the Ministry of Finance Decree No. 279/KMK.01/1991 dated 18 March 1991, as the implementing regulation of PD 59/1972 and PD 120/1998, further set forth the requirement to submit periodic reports to the Minister of Finance of Indonesia and Bank Indonesia on the effective date of the contract and each subsequent three-month period. In addition, under Presidential Decree No. 39 of 1991 dated 4 September 1991 ("**PD 39/1991**"), all offshore commercial borrowers must submit periodic reports to the Offshore Commercial Borrowings Team (*Tim Pinjaman Komersial Luar* Negeri, or the PKLN Team) upon the implementation of their offshore commercial borrowing. PD 39/1991 does not stipulate the time frame, the format or the contents of the periodic reports that must be submitted.

Bank Indonesia issued Bank Indonesia Regulation No. 16/22/PBI/2014 dated 31 December 2014 on Reporting of Foreign Exchange Activity and Reporting Application of Prudential Principles in relation to an Offshore Loan Management for Non-Bank Corporation ("**PBI 16/22/2014**"). Based on PBI 16/22/2014, any non-bank entity engaged in activities that cause a movement of (i) financial assets and liabilities between an Indonesian citizen and a non-citizen or (ii) offshore financial assets and liabilities between Indonesian citizens, must submit a foreign exchange activities report with respect to any foreign exchange activities to Bank Indonesia. Non-bank entities include state-owned enterprises, regional government-owned enterprises, private enterprises and other entities that are not enterprises, whether in the form of legal entities or non-legal entities established by government or the public. The report must include, among other things, information relating to (i) trade activities in goods, services or other transactions between an Indonesian citizen and a non-citizen; (ii) the entity's position with respect to or changes in its offshore financial assets and/or liabilities; and/or (iii) any plans to incur offshore loans and/or its implementation. In addition, PBI 16/22/2014 requires any non-bank entity which applies prudential principles to submit reports which cover (i) the implementation of prudential principles which has complied with an attestation procedure; (ii) notification of compliance of credit ratings; (iii) financial statements and (iv) a report on the implementation of prudential principles (the "**Implementation of Prudential Principle Report**"). Bank Indonesia requires foreign exchange activity reports to be submitted monthly through an online system by the fifteenth day of following month. In the event that there is a correction that needs to be made, the correction must be submitted no later than the 20th day of the reporting month through the online system. The Implementation of Prudential Principle Report is required to be submitted quarterly or on any other submission deadline as elaborated under PBI 16/22/2014.

The reporting obligations under PBI 16/22/2014 are implemented under the following Bank Indonesia Circular Letters as follows:

(i) According to Bank Indonesia Circular No. 15/16/DInt dated 29 April 2013 on Reporting of Foreign Exchange Activities in the form of Offshore Loan Realization and Position, any person, legal entity or other entity domiciled in Indonesia or planning to be domiciled in Indonesia for at least one year, who obtain offshore commercial borrowings in foreign currency and/or Rupiah pursuant to a loan agreement, debt securities, trade credits and other debts without any minimum amount requirement (in contrast to reporting obligations of an individual's offshore borrowings which are required to be in an amount of at least US$200,000 or its equivalent in any other currency) must submit reports to Bank Indonesia. The reports consist of the main data report and/or its amendment and the monthly recapitulation data report. The main data report and/or its amendment must be submitted to Bank Indonesia no later than the fifteenth day of the following month at 14:00 Western Indonesian Time after the signing of the loan agreement or the issuance of the debt securities and/or the debt acknowledgement over the trade credits and/or other loans, and a monthly recapitulation data report must be submitted to Bank Indonesia between the first and the fifteenth day of each successive month at 24:00 Western Indonesian Time, until the offshore commercial borrowing has been repaid in full. Any failure to submit the required reports may result in certain administrative sanctions in the form of fines; however the failure will not invalidate the obligations under the debt instruments;

(ii) Under Bank Indonesia Circular No. 17/4/DSta dated 6 March 2015 on Reporting of Foreign Exchange Activities on the form of Offshore Loan Plan and Amendment of Offshore Loan, an Indonesian company that intends to obtain a long-term offshore loan in a foreign currency and/or Rupiah is required to submit a report to Bank Indonesia by no later than 15 March of each year in relation to such loan including company's annual offshore borrowing plans. In the event there is a change to the company's plan to obtain an offshore loan, any amendment to such report must be submitted to Bank Indonesia by no later than 1 July of the year of such change;

(iii) Under Bank Indonesia Circular No. 17/26/DSta dated 15 October 2015 on the Reporting of Foreign Exchange Activities Other than Offshore Loan, an Indonesian company conducting foreign exchange activities other than offshore loan (which includes a guarantee by an Indonesian party in favor of an offshore party) must submit monthly reports with respect to such foreign exchange activities other than offshore loans to Bank Indonesia no later than the fifteenth day of each month at 24:00 Western Indonesian Time after the maturity date of report period; and

(iv) Under Bank Indonesia Circular No. 17/3/DSta dated 6 March 2015 as amended by Bank Indonesia Circular No. 17/24/DSta dated 12 October 2015 on the Reporting Application of Prudential Principles in relation to an Offshore Loan Management for Non-Bank Corporation, a non-bank corporation must submit reports as follows: (i) the Implementation of a Prudential Principle Report on a quarterly basis; (ii) the Implementation of Prudential Principle Report that have undergone an attestation procedure no later than the end of June of each year; (iii) the information of credit rating no later than the end of following month; and (iv) financial statements consisting of quarterly financial statements (unaudited) that must be submitted on a quarterly basis and annual financial statements (audited) that must be submitted no later than the end of June.

Any delay in submitting foreign exchange reports as mentioned above (other than the offshore loan plan report) is punishable by a fine of Rp500,000 for each day of delay, subject to a maximum fine of Rp5,000,000. Furthermore, any failure to submit any such report (other than the offshore loan plan report) is punishable by a fine of Rp10,000,000 per reporting period. Failure to submit the offshore loan plan report and the financial information report will be subject to administrative sanction in the form of warning letters and/or notice to the relevant authority. The aforementioned sanctions became effective as of March 2015, except for the foreign exchange reports other than offshore loan.

On 14 May 2014, Bank Indonesia issued Bank Indonesia Regulation No. 16/10/PBI/2014 on Receipt of Foreign Exchange Export Revenue and Withdrawal of Foreign Exchange Offshore Loan ("**PBI 16/10/2014**") as amended by Bank Indonesia Regulation No. 17/23/PBI/2015 dated 28 December 2015, as implemented by Bank Indonesia Circular No. 18/5/DSta dated 6 April 2016 on Receipt of Foreign Exchange Offshore Loan ("**CL 18/5/DSta**"). Under PBI 16/10/2014, each Indonesian debtor is required to withdraw its offshore loan (in foreign currencies) which originated from (i) a non-revolving loan agreement for a purpose other than financing, (ii) the margin between the new foreign loan and the initial refinanced loan, or (iii) debt securities (i.e. bonds, medium-term notes, floating rate notes, promissory notes and commercial paper) through foreign exchange banks located in Indonesia, and such withdrawal must be reported, and the supporting document of which must be submitted, to Bank Indonesia no later than the fifteenth day of the following month. The accumulated amount of foreign exchange received from an offshore loan should be equal to the total commitment. If the accumulated amount of foreign exchange received from an offshore loan is less than committed amount under the offshore loan, with a difference of more than the equivalent of Rp50,000,000, a debtor must submit a written explanation and supporting documents to Bank Indonesia prior to expiry of the loan term. An Indonesian debtor must report the receipt of proceeds from the offshore loan to Bank Indonesia monthly using the recapitulation data report as regulated under PBI 16/10/10/2014, CL 18/5/Dsta, and Bank Indonesia Circular No. 15/16/Dint dated 29 April 2013. Any Indonesian debtor failing to comply with the obligation may be imposed with an administrative sanction in the form of a fine of 0.25% of the amount of every withdrawal that is not withdrawn through an Indonesian foreign exchange bank, with a maximum sanction of Rp50,000,000, PBI 16/10/2014 does not specifically require the foreign currency brought into Indonesia to be converted into Rupiah and kept in Indonesia for a specified period of time.

On 29 December 2014, Bank Indonesia issued Bank Indonesia Regulation No. 16/21/PBI/2014 on Application of Prudential Principles in Management of Offshore Loan of Non-Bank Corporations as amended by Bank Indonesia Regulation No. 18/4/PBI/2016 ("**PBI 16/21/2014**"). Further to PBI 16/21/2014, Bank Indonesia also issued Circular Letter No. 16/24/DKEM dated 30 December 2014 as amended by Circular Letter No. 17/18/DKEM dated 30 June 2015 and Circular Letter No. 18/6/DKEM dated 22 April 2016 ("**CL16/24/2014**"). PBI 16/21/2014 requires Indonesian non-bank corporations that obtain borrowings from non-Indonesian residents in foreign currency to maintain the following (the "**Prudential Principles**"):

(i) The minimum hedging ratio for non-bank corporations that have offshore loans in foreign currency is set at 25% of (i) the "negative difference" between the foreign exchange assets and the foreign exchange liabilities that will become due within three months from the end of the relevant quarter, and (ii) the "negative difference" between the foreign exchange assets and the foreign exchange liabilities that will become due in the period of more than three months up to six months after the end of the relevant quarter. From 1 January 2017, the requirement to use Indonesian banks for hedging applies, except for existing hedging agreements entered into before 1 January 2017;

(ii) The ratio of foreign exchange assets to foreign exchange liabilities (liquidity ratio) must be at least 70.0% and at the end of each quarter, such non-bank corporation must have sufficient foreign currency assets to cover the foreign currency liabilities that will become due within three months from the end of the relevant quarter; and

(iii) The non-bank corporation that obtains offshore loans signed or issued after 1 January 2016 in a foreign currency must have a minimum credit rating of "BB-" for offshore borrowings issued by a rating agency recognised by Bank Indonesia. Such credit rating, which is valid for two years from the rating issuance, will be in the form of a rating over the relevant corporation and/or bonds. However, pursuant to PBI 16/21/2014 corporations may use their parent company's credit rating if (i) such corporation obtains offshore debt in foreign currency from its parent company, or the offshore debt is guaranteed by the parent company, or (ii) such corporation has been in existence for less than three years since it began its commercial operations.

The obligation to have a minimum credit rating does not apply to offshore loans in foreign currency that are in the form of trade credit, which refers to debt arising from credit that is granted by offshore suppliers over transactions relating to goods and/or services. Exemptions from the requirement to satisfy the minimum credit rating are available for (i) the refinancing of offshore loans in foreign currency, (ii) offshore loans in foreign currency that finance infrastructure projects from (a) international bilateral/multilateral institutions; and (b) syndicated loans, with the contribution of international bilateral/multilateral institutions exceeding 50%, (iii) offshore loans in foreign currency in relation to government (central and regional) infrastructure projects; (iv) offshore loans in foreign currency that are guaranteed by international bilateral/multilateral institutions; (v) offshore loans in foreign currency in the form of trade credit; (vi) offshore loans in foreign currency in the form of other loans (i.e. any other loan than loan agreements, debt securities and trade credit that are, among others, payments of insurance claims and unpaid), (vii) offshore loans in foreign currency of finance companies, provided that, when the Indonesian Financial Services Authority (*Otoritas Jasa Keuangan* or "**OJK**") last determined the "soundness" level of the relevant finance company, the finance company had a minimum "soundness" level (tingkat kesehatan) and fulfilled the maximum gearing ratio as regulated by OJK, and (viii) offshore loans in foreign currency of the Indonesian Export Financing Institution.

Under PBI 16/21/2014, Indonesian non-bank corporations are required to report to Bank Indonesia with respect to their implementation of the Prudential Principles. Further, failure to comply on the fulfillment of the Prudential Principles will result in administrative sanctions in the form of a warning letter of which the relevant creditor(s) and certain government institutions such as the relevant offshore creditors, the Ministry of Finance on behalf of the Directorate of Tax, OJK and the Indonesian Stock Exchange ("**IDX**") will be notified.

Under Bank Indonesia Regulation No. 17/3/PBI/2015 on the Obligation to Use Rupiah in the Territory of Indonesia ("**PBI 17/3/2015**"), and Circular Letter of Bank Indonesian No. 17/11/DKSP on 1 June 2015 ("**CL17/2015**"), each party is required to use Rupiah for cash and non-cash transactions conducted within the territory of Indonesia, including (i) payment of transactions; (ii) monetary settlement of obligations; and/or (iii) other financial transactions (including deposits of Rupiah in various amount and types of Rupiah denomination from customers to banks). Subject to further requirements under PBI 17/3/2015, the obligation to use Rupiah does not apply to (i) certain transactions relating to the implementation of state budget, (ii) the receipt or granting of grants either from or to an overseas source; (iii) international trade transactions, which includes (a) export and/or import of goods to or from outside Indonesian territory and (b) activities relating to cross border trade in services; (iv) bank deposits denominated in foreign currencies; (v) international financing transactions; and (vi) transactions in foreign currency which are conducted in accordance with applicable laws, including, among others (x) a bank's business activities in foreign currency which is conducted based on applicable laws regarding conventional and syariah banks, (y) securities in foreign currency issued by the Indonesian government in primary or secondary market based on applicable laws, and (z) other transactions in foreign currency conducted based on applicable laws, including the law regarding Bank Indonesia, the law regarding investment and the law regarding Lembaga Pembiayaan Ekspor Indonesia (Indonesia Eximbank). According to CL17/2015, businesses in Indonesia must only quote prices of goods and/or services in Rupiah and are prohibited from quoting prices of such goods and/or services if such prices are listed both in Rupiah and a foreign currency (dual quotation). This restriction applies to, among others, (i) price tags, (ii) services fees, such as agent fees in the sale and purchase of property, tourism or consultancy services, (iii) leasing fees, (iv) tariffs, such as loading/unloading tariffs for cargo or airplane tickets, (v) price lists, such as restaurant menus, (vi) contracts, for clauses on pricing or fees, (vii) documents of offer, orders or invoices, purchase orders or delivery orders, and (viii) payment evidence, such as the price listed on a receipt, PBI17/3/2015 also states that written agreements which were signed prior to 1 July 2015 that contains provision for the payment or settlement of obligations in foreign currency for non-cash transaction will remain effective until the expiry of such agreements. However, any extension and/or amendment of such agreements must comply with PBI 17/3/2015. A failure to comply with the obligation to use Rupiah in cash transactions will be subjected to criminal sanctions in the form of fines and imprisonment. While a failure to comply with the obligation to use Rupiah in non-cash transactions will be subjected to administrative sanctions in the form of (i) written warning, (ii) fines, and/or (iii) prohibition from undertaking payment activities. Bank Indonesia may also recommend to the relevant authority to revoke the business license or stop the business activities of the party which fails to comply with the obligation to use Rupiah in non-cash transactions. See "*Exchange Rate Information—Indonesian law on Currency and the Mandatory Use of Rupiah in The Territory of Indonesia*" and "*Risk Factors—Risk Relating to Our Business—We are exposed to uncertainty in the application of Bank Indonesia regulation on the use of foreign currency for Indonesian domestic transaction.*"

SUMMARY

Overview

We are the largest integrated petrochemical producer in Indonesia and operate the country's only naphtha cracker, styrene monomer and butadiene plants. We are also the country's largest polypropylene producer and leading producer of polyethylene.

We produce the following products:

- olefins, comprising ethylene and propylene as well as their by-products, such as pygas and mixed C_4;
- polyolefins, comprising polyethylene and polypropylene;
- styrene monomer as well as its by-products, such as ethyl benzene, toluene and benzene toluene mixture; and
- butadiene as well as its by-products, such as raffinate.

Our products are fundamental to the production of a diverse range of consumer and industrial products, including packaging, containers, construction materials and automotive parts. During the year ended 31 December 2016, we produced 1,672 KT of olefins and its by-products, 757 KT of polyolefins, 282 KT of styrene monomer and its by-products and 208 KT of butadiene and its by-products. For the same period, our sales of olefin and by-products, polyolefin, styrene monomer and its by-products and butadiene and its by-products contributed to 31.6%, 45.8%, 15.0%, and 7.2% of our net revenue, respectively.

Our polypropylene impact copolymer resins are used as raw materials for the manufacturing of car and motorcycle components. We are the only producer of polypropylene impact copolymer resins in Indonesia and are the first company to supply vehicle-oriented resins to the domestic automotive component manufacturing industry in accordance with international standards.

We sell our products to customers in both the domestic and regional markets. We are the only domestic producer of ethylene, styrene monomer and butadiene, one of only two domestic producers of propylene and polyethylene and the largest polypropylene producer in Indonesia. According to Nexant, we accounted for approximately 58% of the total market share of ethylene in 2016 in Indonesia. In addition, we had a market share in Indonesia of approximately 24% for polyethylene and 29% for polypropylene. We are the sole domestic producer of styrene monomer in 2016.

We operate an integrated petrochemical complex located in Banten Province of Indonesia, approximately 120 km from Jakarta. Our integrated petrochemical complex comprises (i) our main petrochemical complex in Ciwandan, Cilegon, located 120 km from Jakarta, which houses one naphtha cracker, two polyethylene plants, three polypropylene trains and one butadiene plant that produce olefins, polyolefins and butadiene and its by-products and (ii) a styrene monomer complex approximately 40 km from our main petrochemical complex, in Bojonegara, Serang, and located 110 km from Jakarta, which houses two styrene monomer plants that produce styrene monomer and its by-products. Our styrene monomer plants are directly connected by pipelines to our main petrochemical complex in Cilegon, Banten Province. The strategic location of our integrated petrochemical complex provides us with convenient access to our key ethylene and propylene customers, which are directly connected to our production facilities in Cilegon by pipelines. Our petrochemical complex has integrated support facilities including pipelines, power generators, boilers, water treatment plants, storage tanks and jetty facilities.

The Company is a surviving entity from a merger between PT Chandra Asri and PT Tri Polyta Indonesia Tbk, which took effect on 1 January 2011. CA was incorporated in 1989 and its naphtha cracker plant commenced operations in 1995. TPI was incorporated in 1984 and its polypropylene plant commenced operations in 1992. As of 30 September 2017, our principal shareholders were PT Barito Pacific Tbk. ("**Barito Pacific**") and SCG Chemicals. Barito Pacific directly and indirectly, through its wholly-owned subsidiary Marigold, owned 46.26% of our outstanding shares, SCG Chemicals owned 30.57%, of our outstanding shares and Prajogo Pangestu owned 14.11% of our outstanding shares. Prajogo Pangestu also owned 69.23% of the outstanding shares of Barito Pacific as of 30 September 2017.

During the years ended 31 December 2014, 2015 and 2016 and the six months ended 30 June 2017, we generated net revenues of US$2.5 billion, US$1.4 billion, US$1.9 billion and US$1.2 billion, respectively. During the years ended 31 December 2014, 2015 and 2016 and the six months ended 30 June 2017, our Adjusted EBITDA was US$134.5 million, US$154.8 million, US$509.5 million and US$294.8 million, respectively and our Adjusted EBITDA margin was 5.5%, 11.2%, 26.4% and 24.7%, respectively. As of the date of this Offering Memorandum, our long-term corporate credit was rated "Ba3" by Moody's, "BB-" by Fitch and "B+" by S&P and our national credit ratings were "AA-" by Fitch and "idAA-" by PEFINDO.

Competitive Strengths

We believe our principal competitive strengths are:

- We are Indonesia's largest petrochemical producer with a diverse product portfolio.
- We are well-positioned to take advantage of strong economic fundamentals and growth in the petrochemical industry in Indonesia and Asia.
- We benefit from operational integration to optimise production efficiency, flexibility and cost-savings.
- We have developed a diversified client base and strategically located to supply key customers.
- We possess diverse and secure sources of feedstock and raw materials.
- Our market leading position, highly integrated operations and attractive feedstock costs, has allowed us to enjoy robust cash flow and a balance sheet underpinned by a prudent financial policy.
- Our highly experienced management team has a strong track record of managing and expanding our operations.
- We benefit from the strong support of our principal shareholders.

Business Strategies

Our strategic objective is to maximise our shareholder value by maintaining our leading position in the Indonesian petrochemical industry, and to be the leading and preferred petrochemical company in Indonesia. We seek to achieve this by executing the following strategies:

- Increase our capacity and build on our leading market position to take advantage of growth in the Indonesian petrochemical industry.
- Expand our product offerings and further optimise integration along the petrochemical value chain.
- Maintain and further improve our operating standards and cost efficiency.
- Ensure management continuity, and acquire and retain talented employees.
- Leverage our infrastructure and customer service to maintain long-standing relationships with customers.

SUMMARY OF THE TERMS OF THE OFFERING

The following is a brief summary of the terms of the offering and is qualified in its entirety by the remainder of this Offering Memorandum. The Description of the Notes contained in "Description of the Notes" relating to the Notes will prevail to the extent of any inconsistency with the terms set out in this section. Capitalised terms used in this summary and not otherwise defined shall have the meanings given to them in "Description of the Notes."

Company	PT Chandra Asri Petrochemical Tbk.
Notes Offered	US$300,000,000 in aggregate principal amount of 4.95% Senior Unsecured Notes due 2024 (the "**Notes**").
Issue Price	99.126% of the principal amount of the Notes.
Issue Date	8 November 2017
Maturity Date	8 November 2024
Interest	The Notes will bear interest from and including 8 November 2017, at the rate of 4.95% per annum, payable semi-annually in arrears.
Interest Payment Dates.	8 May and 8 November or each year, commencing 8 May 2018.
Ranking of the Notes	The Notes will be: • general unsecured obligations of the Company; • pari passu in right of payment with all existing and future unsecured unsubordinated Indebtedness of the Company; • senior in right of payment to any future subordinated Indebtedness of the Company; and • unconditionally guaranteed by the Subsidiary Guarantors; • structurally subordinated to all obligations of any of the Company's Subsidiaries that do not guarantee the Notes; and • effectively subordinated to all to all existing and future secured Indebtedness of the Company to the extent of the value of the assets serving as security therefor.
Subsidiary Guarantors	Certain of the Company's subsidiaries (the "**Subsidiary Guarantors**") will unconditionally and irrevocably guarantee (the "**Guarantees**") the due and punctual payment of all amounts at any time becoming due and payable in respect of the Notes. On the Issue Date, the Subsidiary Guarantors will be PT Styrindo Mono Indonesia and PT Petrokimia Butadiene Indonesia.

Ranking of the Guarantees	The Guarantees will be: • a general unsecured obligation of that Subsidiary Guarantor; • pari passu in right of payment with all existing and future unsecured unsubordinated Indebtedness of that Subsidiary Guarantor; • senior in right of payment to any future subordinated Indebtedness of that Subsidiary Guarantor; and • effectively subordinated to all existing and future secured Indebtedness of that Subsidiary Guarantor to the extent of the value of the assets serving as security therefor.
Use of Proceeds	The aggregate net proceeds from the offering of the Notes (after deduction of fees, commissions and estimated transaction expenses) are expected to amount to approximately US$291.1 million. We intend to use the net proceeds of this offering to fund our capital expenditures related to increasing our production capacity and/or product diversification and other capital expenditures to further increase the scale of our business. See "*Use of Proceeds*".
Optional Redemption	At any time on or after 8 November 2021, the Company may redeem the Notes, in whole or in part, at the redemption prices set forth under "*Description of the Notes—Optional Redemption,*" plus accrued and unpaid interest, if any, to the redemption date. At any time prior to 8 November 2021, the Company may redeem the Notes, in whole or in part, at a redemption price equal to 100% of the principal amount of the Notes, plus the Applicable Premium (as defined herein) and accrued and unpaid interest, if any, to the redemption date. At any time prior to 8 November 2021, the Company may redeem up to 35% of the aggregate principal amount of the Notes with proceeds from certain equity offerings at a redemption price of 104.95% of the principal amount of the Notes redeemed, plus accrued and unpaid interest, if any, to the redemption date; provided that at least 65% of the aggregate principal amount of the Notes originally issued on the Issue Date remains outstanding after each such redemption and any such redemption takes place within 60 days after the closing of such equity offering.
Repurchase of Notes upon a Change of Control	Upon the occurrence of a Change of Control, the Company will make an offer to repurchase all outstanding Notes at a purchase price equal to 101.0% of their principal amount plus accrued and unpaid interest, if any, to the date of purchase.

Redemption for Taxation Reasons	Subject to certain exceptions and as more fully described herein, the Company may redeem the Notes, in whole but not in part, at a redemption price equal to 100% of the principal amount thereof, together with accrued and unpaid interest, if any, to the date fixed by the Company for redemption, if, as a result of certain changes in tax law, the Company would be required to pay certain additional amounts; provided that were the additional amounts payable as a result of changes affecting Indonesian taxes, the Notes may be redeemed only in the event that the withholding rate exceeds 20%.
Withholding Tax; Additional Amounts	All payments of principal and interest in respect of the Notes shall be made free and clear of, and without withholding or deduction for or on account of, any taxes, duties, assessments or governmental charges, unless such withholding or deduction is required by law. In that event, we shall pay such additional amounts as will result in the receipt by the holder of the Notes of such amounts as would have been received by them had no such withholding or deduction been required, except in circumstances specified in "*Description of the Notes—Additional Amounts.*"
Change of Control	Within 10 days of the occurrence of a Change of Control, the Company must make an offer to repurchase all Notes at a purchase price in cash equal to 101.0% of the principal amount of the Notes repurchased, plus accrued and unpaid interest, if any, on the Notes repurchased to the date of purchase, subject to the rights of the holders of the Notes on the relevant record date to receive interest due on the relevant interest payment date.
Covenants	The Indenture will limit the ability of the Company and the Restricted Subsidiaries to, among other things: (1) incur or guarantee additional indebtedness and issue certain preferred stock; (2) create or incur certain liens; (3) make certain payments, including dividends or other distributions with respect to our or our Restricted Subsidiaries' shares; (4) prepay or redeem subordinated debt or equity; (5) make certain investments and capital expenditures; (6) create encumbrances or restrictions on the payment of dividends or other distributions, loans or advances to and on the transfer of assets by any Restricted Subsidiary to the Company or any of its Restricted Subsidiaries; (7) sell, lease or transfer certain assets, including stock of restricted subsidiaries;

	(8) engage in certain transactions with affiliates; (9) enter into unrelated businesses or engage in prohibited activities; and (10) consolidate or merge with other entities. These covenants are subject a number of important qualifications and exceptions described in "*Description of the Notes—Certain Covenants.*"
Events of Default.	Certain events will permit acceleration of the principal of the Notes (together with all interest and additional amounts accrued and unpaid thereon). These events include, among others, defaults with respect to payments of principal of, premium, if any, or interest on, the Notes. See "*Description of the Notes—Events of Default and Remedies.*"
Form and Denomination.	The Notes will be issued only in global form in minimum denominations of US$200,000 and in integral multiples of US$1,000 in excess thereof and will be initially represented by one or more Global Note registered in the name of a nominee of DTC.
Delivery of the Notes.	The Company expects to make delivery of the Notes through the facilities of DTC against payment in same-day funds, on or about 8 November 2017, in New York, New York, which the Company expects will be the seventh business day following the date of this Offering Memorandum, referred to as "T+7." You should note that initial trading of the Notes may be affected by the T+7 settlement. See "*Plan of Distribution.*"
Trustee.	Deutsche Bank Trust Company Americas
Paying Agent, Transfer Agent and Registrar.	Deutsche Bank Trust Company Americas

	Rule 144A	**Regulation S**
CUSIP	69371G AA8	Y7141G AA0
ISIN.	US69371GAA85	USY7141GAA05
Common Code	171131294	171131308

Selling and Transfer Restrictions .	The Notes will not be registered under the Securities Act or under any state securities law of the United States and will be subject to restrictions on transfer and resale. The Notes may not be offered or sold in Indonesia or to Indonesian citizens, wherever they are domiciled, or to Indonesian residents, in a manner which constitutes a public offering under the laws and regulations of Indonesia. See "*Transfer Restrictions.*"
Ratings	The Notes have been rated "Ba3" by Moody's, "BB-" by Fitch and "B+" by S&P. A security rating is not a recommendation to buy, sell or hold securities and may be subject to suspension, reduction or withdrawal at any time by the assigning rating agency.

Listing and Trading	Approval-in-principle has been received for the listing and quotation of the Notes on the SGX-ST. The Notes will be traded on the SGX-ST in a minimum board lot size of US$200,000 for so long as the Notes are listed on the SGX-ST.
Governing Law	The Notes and the Indenture will be governed by the laws of the State of New York. The guarantees to be entered into by the Subsidiary Guarantors will be governed by the laws of the Republic of Indonesia.
Risk Factors.	For a discussion of certain factors that should be considered in evaluating an investment in the Notes, see "*Risk Factors.*"

SUMMARY FINANCIAL INFORMATION AND OTHER DATA

The following summary financial information and other data for the periods indicated should be read in conjunction with the section of this document entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements, accompanying notes and the related auditors' report for the years ended 31 December 2014, 2015, 2016, and for the six month periods ended 30 June 2016 and 2017, included elsewhere in this Offering Memorandum. Results for the interim period are not necessarily indicative of results for the full year.

Consolidated Statements of Profit or Loss and Other Comprehensive Income

	For the year ended 31 December			For the six months ended 30 June	
	2014	2015	2016	2016	2017
			(US$ millions)		
Net Revenues	2,460.1	1,377.6	1,930.3	882.1	1,195.3
Cost of Revenues	2,342.6	1,231.8	1,436.0	664.1	903.1
Gross Profit	117.5	145.7	494.3	218.0	292.2
Profit Before Tax	24.8	55.9	400.6	178.0	231.6
Income Tax Expense — Net	(6.4)	(29.6)	(100.4)	(46.2)	(57.4)
Profit for the Period	18.4	26.3	300.1	131.8	174.2
Total Comprehensive Income for the Period	16.4	25.9	298.5	129.8	172.6
Basic Earnings per Share (in full U.S. Dollar amount)	0.0056	0.0080	0.0913	0.0401	0.0529

Consolidated Statements of Financial Position

	As of 31 December			As of 30 June
	2014	2015	2016	2017
		(US$ millions)		
ASSETS				
Total Current Assets	666.4	416.6	692.5	681.7
Total Noncurrent Assets	1,257.1	1,445.8	1,436.7	1,469.6
TOTAL ASSETS	1,923.5	1,862.4	2,129.3	2,151.3
LIABILITIES AND EQUITY				
Total Current Liabilities	477.9	377.8	453.9	477.2
Total Noncurrent Liabilities	579.7	597.8	533.7	477.2
TOTAL LIABILITIES	1,057.6	975.5	987.6	954.4
EQUITY				
Equity attributable to owners of the Company				
Total equity attributable to owners of the Company	858.3	880.1	1,135.0	1,190.3
Non-controlling interests	7.6	6.7	6.7	6.6
TOTAL EQUITY	865.9	886.8	1,141.7	1,196.9
TOTAL LIABILITIES AND EQUITY	1,923.5	1,862.4	2,129.3	2,151.3

Our Other Financial Data

	For the year ended 31 December			For the six months ended 30 June	
	2014	2015	2016	2016	2017
	(US$ millions, except where stated)				
Adjusted EBITDA[(1)]	134.5	154.8	509.5	224.0	294.8
Net debt[(2)]	282.5	450.9	126.2	307.5	160.6
Gross profit margin (%)[(3)]	4.8	10.6	25.6	24.7	24.4
Adjusted EBITDA margin (%)[(4)]	5.5	11.2	26.4	25.4	24.7
Days accounts receivable (days)[(5)]	20.6	19.1	17.1	19.4	23.2
Days accounts payable (days)[(6)]	70.1	90.1	71.7	69.5	71.5
Days in inventory (days)[(7)]	32.8	45.6	36.3	38.0	31.9
Capital expenditures[(8)]	194.2	223.8	73.4	30.9	69.1
Finance costs	31.9	22.5	31.9	14.2	17.5
Total debt[(2)]	490.5	547.7	425.0	463.4	372.9
Adjusted EBITDA/Finance costs ratio	4.2	6.9	16.0	15.8	16.8
Total Debt/Adjusted EBITDA ratio	3.6	3.5	0.8	2.1	1.3
Net Debt/Adjusted EBITDA ratio	2.1	2.9	0.2	1.4	0.5

(1) "**Adjusted EBITDA**" is defined as profit for the period before finance costs — net of interest income, income tax expense — net, depreciation and amortisation, unrealised foreign exchange loss/(gain), gain (loss) on derivative financial instruments, share in net loss of an associate and write down of inventories to net realisable values.

	For the year ended 31 December			For the six months ended 30 June	
	2014	2015	2016	2016	2017
	(US$ millions, except where stated)				
Profit for the period	18.4	26.3	300.1	131.8	174.2
Add/(Deduct):					
Finance costs — net of interest income	29.2	21.7	30.0	13.8	16.4
Income tax expense — net	6.4	29.6	100.4	46.2	57.4
Depreciation and amortisation	63.5	63.8	74.9	35.1	39.2
Unrealised foreign exchange loss/(gain)	8.9	8.2	(1.1)	(7.4)	4.7
Gain (loss) on derivative financial instruments	2.6	1.5	(0.6)	1.6	(1.0)
Share in net loss of an associate	0.8	3.7	5.9	2.9	3.9
Write down of inventories to net realisable values	4.5	—	—	—	—
Adjusted EBITDA	**134.5**	**154.8**	**509.5**	**224.0**	**294.8**

(2) Net debt is total debt minus cash and cash equivalents. Total debt are short-term and long-term liabilities, which include bank loans, finance lease obligations, and bonds payable.

(3) Gross profit margin is calculated by dividing gross profit by net revenues.

(4) Adjusted EBITDA margin is calculated by dividing Adjusted EBITDA by net revenues.

(5) Days accounts receivable represents the average number of days that we collected payments on products sold. It is calculated based on average account receivables divided by net revenues over 360 days for the years ended 31 December 2014, 2015 and 2016, and 180 days for the six-month periods ended 30 June 2016 and 2017.

(6) Days accounts payable represents the number of days that we took to pay its creditors. It is calculated based on average account payables divided by cost of revenues over 360 days for the years ended 31 December 2014, 2015 and 2016, and 180 days for the six-month periods ended 30 June 2016 and 2017.

(7) Days in inventory is calculated based on average inventory, excluding spare parts inventory, divided by cost of revenues over 360 days for the years ended 31 December 2014, 2015 and 2016, and 180 days for the six-month periods ended 30 June 2016 and 2017.

(8) Capital expenditures represents spending for debottlenecking and expansion, plant improvement, TAM and others.

RISK FACTORS

An investment in the Notes involves a number of risks. You should carefully consider all the information contained in this Offering Memorandum, including the risks described below, before making an investment decision. Our business, financial condition and results of operations could be materially adversely affected by any of these risks. The market price of the Notes could decline due to any one of these risks and you may lose all or part of your investment.

Risks Relating to Our Business and Operations

Cyclicality in the petrochemical industry may materially and adversely affect our profitability.

Capacity utilisation rates and margins in the petrochemical industry have historically been characterised by a high degree of cyclicality. Prices for petrochemical products are sensitive to changes in supply and demand, both regionally and internationally. Demand for our petrochemical products is, in general, positively correlated with the level of economic activity and GDP growth and is particularly dependent on the demand from and performance of countries in the Asia-Pacific region, particularly China, with weak economic conditions tending to reduce demand. Supply is affected by significant capacity additions, and if such additions are not matched by corresponding growth in demand, average industry operating rates and margins will face downward pressures. Supply is particularly key to the prices of our petrochemical products and, therefore, our gross margins. As a result, the petrochemical industry cycles have historically been characterised by periods of tight supply, leading to high operating rates and margins, followed by periods of oversupply primarily resulting from significant capacity additions, leading to reduced operating rates and margins. It is not possible to accurately predict the changes in supply and demand, market conditions and other factors that may affect our operating rates and margins, nor is it possible to accurately predict the timing, severity or duration of future down-cycles in the petrochemical industry that may materially and adversely affect our profitability.

Our historical operating results reflect the cyclical nature of the petrochemical industry. Our gross profit margins, which are calculated by gross profit divided by net revenue, between 2008 and 2016 have ranged from -5.0% in 2008, when the global financial crisis occurred, causing petrochemical industry margins to be volatile, to 25.6% in 2016 when the global petrochemical industry margins reached their most recent peak. Our gross profit margins were 4.8%, 10.6%, 25.6% and 24.4% in the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, respectively. Whilst global petrochemical industry margins reached a peak in 2016, Nexant has forecasted that the average spread of ethylene prices over naphtha prices for the period between 2017 to 2023 will decrease to approximately US $486/MT. Accordingly, there can be no assurance that profit margins in the petrochemical industry will continue at current levels or increase, or that the petrochemical industry, and our profit margins, will not under go a decline or changes which could materially and adversely affect our gross profit margins and profitability. Additionally, we cannot assure you that we will be able to maintain or improve on the profitability and results of operations we have achieved in recent financial periods or that such profitability and results of operations will not decline for future periods, including in the third financial quarter of 2017, or that future changes in supply or demand for our products will not adversely affect our gross profit margins and profitability.

The volatility of the international market prices for petrochemical products may adversely affect our operating results.

Even though a substantial majority of our sales are made in the domestic market, our product prices are benchmarked to regional or international prices. As a result, our operating results are affected by the prices of our products in the regional or international markets, which historically have been volatile. Although a substantial portion of our sales are made pursuant to supply agreements with terms of one year, our sales arrangements generally provide for the purchase price to be determined, in part, by reference to published industry benchmarks. Published industry benchmark prices for our products have been volatile in the past. For example, the high and low SEA CFR spot prices per tonne for ethylene were US$1,406/MT and US$1,384/MT, US$1,118/MT and US$1,090/MT and US$1,053/MT and US$1,021/MT in 2014, 2015 and 2016, respectively. The high and low SEA CFR spot prices per tonne for polyethylene were US$1,573/MT and US$1,513/MT, US$1,272/MT and US$1,199/MT and US$1,184/MT and US$1,118/MT in 2014, 2015 and 2016, respectively. The high and low SEA CFR spot prices per tonne for polypropylene were US$1,576/MT and US$1,497/MT, US$1,178/MT and US$1,095/MT and US$1,076/MT and US$977/MT in 2014, 2015 and 2016, respectively. The high and low SEA CFR spot prices per tonne for styrene monomer were US$1,535/MT and US$1,522/MT, US$1,115/MT and US$1,091/MT and US$1,075/MT and US$1,063/MT in 2014, 2015 and 2016, respectively. Similarly, the high and low SEA CFR spot prices per tonne for butadiene were US$1,302/MT and US$1,253/MT, US$898/MT and US$845/MT and US$1,156/MT and US$1,097/MT in 2014, 2015 and 2016, respectively.

These fluctuations had a corresponding impact on the prices we received for our products and our revenues. We have experienced a decrease in the average sales price per tonne of our products since 2014 in tandem with lower crude oil prices. From 2014 to 2016, our average sales prices per tonne of olefins, polyolefins, styrene monomer and butadiene decreased by 33.9%, 28.2%, 35.9% and 41.1%, respectively. We expect the prices for ethylene, polyethylene, polypropylene, styrene monomer, butadiene and the other products we produce will, due in part to their commoditised nature, continue to be volatile and may cause significant fluctuations in our margins and adversely affect results of operations.

Fluctuations in the cost of feedstock may result in increased operating expenses and adversely affect our results of operations, cash flows and margins.

The feedstock we use to produce our products are commodities subject to international and domestic market forces. Our historical operations and margins have been affected by fluctuations in prices for feedstock and we expect that our operations and margins will continue to be affected by such fluctuations in prices for feedstock as well.

The cost of naphtha, the primary feedstock used to produce our products, most of which we historically purchased from independent third parties, represented a substantial portion of our cost of revenues, accounting for 62.8%, 45.9%, 61.3% and 61.7% of our cost of revenues for the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, respectively.

The price of naphtha generally follows the price trend of crude oil, and varies with the market conditions for crude oil, which in recent times have been highly volatile. Naphtha price increases are not always of the same magnitude or direction as changes in the prices we receive for our products. As a result, increases in naphtha prices may have a material adverse effect on our margins and cash flows, to the extent that we are not able to pass such increases through to the selling prices of our products. Significant volatility in naphtha costs may also put pressure on our margins, since sales price increases for our products may lag behind naphtha price increases. For example, while the price of oil has generally decreased since 2014, it recovered in the first half of 2017, which led naphtha prices to increase. The average price per tonne of naphtha decreased from US$931/MT in 2014 to US$551/MT in 2015 and US$410/MT in 2016, before increasing to US$486/MT in the six months ended 30 June 2017. There can be no assurance that changes in naphtha prices will not affect our business or results of operations in the future.

Naphtha price increases may also increase our working capital needs and, accordingly, may adversely affect our liquidity and cash flow requirements. Currently, we do not enter into hedging agreements with respect to prices of feedstock. No assurance can be given that in the future we will hedge any of our feedstock costs or that any such hedges will have successful results.

While naphtha is a globally-traded commodity and can be obtained from many sources, any major disruption in the global supply of naphtha would be likely to have a material adverse effect on our operations. We currently purchase our naphtha and other feedstock from a variety of sources, both on the spot market and through contracts that typically cover a one-year period and are renewable annually upon agreement of both parties. Approximately 30.3%, 30.4%, 23.9% and 37.4% of our total naphtha purchases in 2014, 2015, 2016 and the six months ended 30 June 2017, respectively, were made on a spot basis and were hence subject to market price movements. The MOPJ average spot prices for naphtha per tonne were US$860/MT in 2014, US$455/MT in 2015 and US$400/MT in 2016. The high and low spot prices for naphtha per tonne were US$863/MT and US$857/MT in 2014, US$457/MT and US$454/MT in 2015 and US$401/MT and US$399/MT in 2016.

In the event that we are required to purchase a greater proportion of our feedstock in the spot market, the cost of our feedstock may become more volatile and we may need to purchase naphtha at higher prices, which could have an adverse effect on our results of operations and cash flows.

We currently manufacture approximately half of the ethylene and all of the propylene that we use as feedstock for our production of polyethylene and polypropylene. Similarly, we currently manufacture all of the mixed C_4 that we use as feedstock for our production of butadiene. We still import a small amount of propylene to run our polypropylene plants at full production capacity, exposing us to fluctuations in prices of propylene in the global markets.

We purchase all of the benzene that we consume to produce styrene monomer from third parties. The cost of benzene represented a substantial portion of our cost of revenues, accounting for 10.8%, 11.1%, 9.4% and 13.6% of our cost of revenues for the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, respectively. We primarily purchase the benzene that we consume from SCG Chemicals Co., Ltd. ("**SCG Chemicals**"). During the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, we purchased 49.5%, 28.0%, 41.4% and 41.5%, respectively, of our total benzene purchases by volume from SCG Chemicals. We source the remainder of the benzene from other third party suppliers. Any major disruption in the supply of benzene may have a material adverse affect on our production of styrene monomer and may, in turn, have a material adverse effect on our results of operations.

We may not be able to complete our capacity and product expansion plans for our existing and new products.

We intend to expand the production capacity of our butadiene, polypropylene and ethylene plants by the second quarter of 2018, the third quarter of 2019 and the first quarter of 2020, respectively. We intend to achieve these production capacity targets through our butadiene expansion project, our polypropylene debottlenecking project and our naphtha cracker furnace revamp. We are also planning to construct a new polyethylene plant to maintain and grow our polymer market share in Indonesia and to conduct a feasibility study to construct and operate a second petrochemical complex next to our existing main petrochemical complex in Cilegon, Banten Province. We have not made any final decisions regarding our proposed second petrochemical complex.

We are also working on several product expansion plans. SRI, our joint venture company between our wholly-owned subsidiary SMI and Compagnie Financiere Du Groupe Michelin 'Senard et Cie' ("**Michelin**"), commenced construction of a new synthetic rubber plant to produce synthetic butadiene rubber in Cilegon, Banten Province in November 2015 and we are planning to construct a new plant to produce methyl tert-butyl ether ("**MTBE**") and butene-1 products to complete our integration of the mixed C_4 and raffinate product chain. For more information on our capacity and product expansion plans, see "*Business — Capacity and Plant Improvements.*"

We anticipate that we will require approximately US$555.4 million of capital expenditures for our current capacity and product expansion plans (excluding our initial spend for our second petrochemical complex). We cannot assure you that our capacity and product expansion plans will be successful or that such capacity and product expansion plans will be completed on schedule, or at all.

Our capacity and product expansion plans involves many risks, any of which could give rise to delays or cost overruns, including the following:

- shutdown of certain plants, which may result in reduced production capacity and volumes;
- shortages, production delays, shipment or delivery delays or other availability issues related to the equipment or materials;
- unforeseen engineering, design or environmental problems;
- delays or other difficulties in obtaining required licenses or permits; or
- work stoppages, weather interferences and other unanticipated cost increases.

Our expansion plans may not be completed on schedule and within estimated costs and we may not be able to obtain financing for our projects on terms that are acceptable to us. In addition, our management may be unable to successfully implement the expansion plans because management's time and services will be shared among the expansion plans and the normal duties related to our business. There is no guarantee that we would be able to obtain the necessary operating licenses upon construction of our new plants.

Even if we successfully complete our expansion plans, there is no assurance that we would be able to utilise the increased production capacity as intended. Moreover, we may be unable to attract new customers to purchase products produced with our expanded capacity and may be unable to develop and manage our relationships with an enlarged universe of suppliers.

If we are unable to successfully complete our expansion plans on time or at all and at the expected cost, our business, financial condition and results of operations may be materially and adversely affected.

Loss of our competitiveness and market share in the Indonesian markets or increased global competition could materially and adversely affect our future growth, profitability and results of operations.

We sell our products in highly competitive markets. Due to the commodity nature of our principal products, competition in these markets is based to a large extent on price and security and reliability of supply, and to a lesser extent, on proximity and customer service. We generally are not able to protect our market position for such products by product differentiation or other non-price related factors. In addition, there can be no assurance that additional or existing competitors will not commence or expand production of products produced by us, or substitute products, or intensify price competition, in particular by producers with access to cheaper feedstock or introduce more advanced technologies or more integrated production plants, which may increase competition and have a material adverse effect on our results of operations.

The Indonesian markets for ethylene, propylene, polyethylene, polypropylene, styrene monomer and butadiene are highly competitive. However, we believe that our main competitors are other petrochemical producers in the Middle East and Southeast Asian regions. We compete globally with other petrochemical producers, many of whom are larger than us and may have greater financial resources than we do. Such competitors may also benefit from greater economies of scale and operating efficiencies. Although we believe our naphtha cracker is competitive compared to other naphtha crackers, ethane crackers in the Middle East and U.S. shale gas typically produce the lowest cost ethylene, primarily due to the availability of low cost feedstock. Any increase in the supply of these lower cost products to the Indonesian market from our competitors in the Middle East or the U.S. could contribute to downward pricing pressures on the global markets for our products generally and decreased margins for us.

Our competitors in the polyolefin market include producers of polypropylene, polyethylene and other petrochemical products that can be substituted for polyethylene and polypropylene. Prices and demand for polyolefin products are generally influenced in part by the price, availability and growth of polyolefin derivative markets and we could be adversely affected by negative or declining growth with respect to such products.

In certain countries, including countries in Southeast Asia, the development of petrochemical industries has been made a national priority. Subsidies provided by foreign governments may, directly or indirectly, have the effect of lowering foreign competitors' costs and thereby increasing competition. In addition, if the Government should in the future impose tariffs, duties or other costs on imported feedstock, such action could increase our production costs relative to competitors in locations without such costs. There can be no assurance that we can continue to effectively compete with such foreign producers in the future and any failure to compete effectively could have an adverse effect on our business operations, results of operations, financial condition and prospects. See "*Business — Competition.*"

In addition to foreign competition, we may face increased domestic competition. According to Nexant, we are currently the only domestic producer of ethylene, butadiene and styrene monomer, a leading producer of polyethylene, one of only two domestic producers of propylene and the largest domestic producer of polypropylene. However, the Government may grant licenses for other plants capable of manufacturing products that compete with our products in the future. For example, another petrochemical producer in the region, PT Lotte Chemical Titan Nusantara, has announced its intention to build an integrated petrochemical plant in Indonesia and may directly compete with us to serve the Indonesian petrochemical market which currently still relies on imports. There can be no assurance that we can continue to effectively compete with domestic producers in the future and any failure to compete effectively could have an adverse effect on our business operations, results of operations, financial condition and prospects. See "*Business — Competition.*"

Our operations are subject to factors beyond our control, which may subject us to unscheduled outages and shutdowns and which could have a material and adverse effect on our results of operations.

As our plants are dependent on a continuous supply of electricity to maintain stable operations, any significant power outages could materially and adversely affect our business, financial condition and results of operations. As of 30 June 2017, our full production facilities at Cilegon and Serang in Banten Province required 62MW of electric power during normal operations.

Our naphtha cracker, polyethylene and butadiene plants source approximately half of their power requirements from PT PLN Persero ("**PLN**") and the remaining half from our on-site gas turbine generator ("**GTG**"), with our steam turbine generator ("**STG**") used as a backup source of electricity in the event of a loss of power from the grid. We obtain gas for our GTG pursuant to contracts with PT Perusahaan Gas Negara (Persero) Tbk and PT Banten Inti Gasindo and use the steam generated by the naphtha cracking furnaces and two utility boilers to power our STG. Our polypropylene plant and our styrene monomer plants on the other hand source all of their power requirements from PLN. If such supply of electricity, gas or steam is not available for any reason, we will need to rely on captive generators, which may not be able to consistently meet our requirements. For example, while our naphtha cracker, polyethylene and butadiene plants currently have adequate power sources to maintain normal production capacity in the event of an outage, the two emergency generators at our styrene monomer plants are insufficient to maintain production at our styrene monomer plants at normal operating levels. For more information on our power utilities, see "*Business — Support Facilities — Power Utilities.*" Moreover, we cannot assure you that these systems will always function in a reliable manner. Further, we may need to shut down our plants until an adequate supply of electricity, gas or steam is restored. Interruptions of electricity, gas or steam supply can also result in production shutdowns, increased costs associated with restarting production and the loss of production in progress.

Similarly, there is a risk that production difficulties such as capacity constraints, mechanical and systems failures, construction/upgrade delays and delays in the delivery of machinery or spare parts may occur, causing suspension of production, loss of plant efficiency, reduced output and production delays, which could have a material adverse effect on our business, results of operations and financial condition. For instance, our naphtha cracker experienced several unplanned shutdowns in 2015 due to us running several of our machineries for a longer time than usual to align them with the scheduled shutdown in relation to the scheduled turnaround maintenance and expansion tie-in works for our cracker expansion project towards the end of 2015. The unplanned shutdowns, 85-day TAM and expansion tie-in works resulted in a decrease in the utilisation rate of our naphtha cracker from 93.5% in 2014 to 56.5% in 2015.

Our operations require us to schedule regular shutdowns for maintenance, which could adversely affect our ability to make and sell products, which could have a material adverse effect on our business, financial conditions and results of operations.

Scheduled maintenance programs may affect our production output. We are scheduled to conduct turnaround maintenance ("**TAM**") every five years at our naphtha cracker plant. During the period from September to December 2015, we conducted a scheduled TAM and expansion tie-in works in conjunction with our cracker expansion project, which resulted in the shutdown of our production of ethylene for 85 days and limited our production capacity for 2015. See "*Business — Maintenance.*" The next scheduled TAM for our naphtha cracker plant is in 2020.

Each of our two styrene monomer plants requires a once every two year shutdown maintenance ("**SDM**") for a period of 26 days to 30 days. We intentionally schedule alternate years for each styrene monomer plant's SDM. We conducted our most recent scheduled SDM in December 2016, which resulted in the stoppage of our styrene monomer plants for 30 days and are scheduled to conduct the next SDM at the end of 2018. We conduct maintenance programs for our butadiene plant at the same time as a TAM for our naphtha cracker plant, during which we shut down our production of butadiene for a period of up to 40 days.

Although our polyolefin plants do not require extensive TAM or SDM since most maintenance can be done in brief periods, our polyethylene plants may be affected by any required TAM on common utilities, such as steam and electricity systems. Any significant manufacturing disruption or equipment supply disruption could adversely affect our ability to make and sell products, which could have a material adverse effect on our business, financial condition and results of operations. See "*Management's Discussion and Analysis of Financial Condition and Results of Operations — Key Factors Affecting Results of Operations and Financial Condition — Outages.*"

Our actual results may vary significantly from the industry forecasts, projections and estimates set forth herein.

This Offering Memorandum includes certain industry forecasts, projections and estimates. This industry information is based on both assumptions and estimates made by an independent third party, Nexant. These forecasts, projections and estimates are based on a number of assumptions, which are inherently subject to uncertainty. Many of these factors are not within our control and some of the assumptions with respect to industry growth are subject to change and actual results may vary materially from those estimated, anticipated or projected and such differences may be material. Specifically, but without limitation, future realised prices of our products may differ from forecasts, capital costs could increase, projects could be delayed and anticipated improvements in production, capacity or performance might not be fully realised. The underlying assumptions, calculations and methodologies of the industry forecasts, projections and estimates provided by Nexant and included in this Offering Memorandum have not been verified or ascertained by us or the Initial Purchasers. Accordingly, prospective purchasers are cautioned not to place undue reliance on such information.

We do not own all of the land on which our existing pipelines and planned pipeline extensions are located. Inability to get the necessary consents to operate on these lands could disrupt our operations.

Our main petrochemical complex is separated by a national road where our cracker, polyethylene and butadiene plants are on one side and our polypropylene plant and jetty are on the other and we rely on our pipelines to transport products within our main petrochemical complex. For example, we transport certain of the feedstock that we consume, such as naphtha and benzene, from our jetty to our naphtha cracker through our pipelines and similarly, we transport certain products that we export, such as pygas and butadiene, from our production plants to our jetty through our pipelines. Our existing pipelines also connect our integrated petrochemical complex to our customers.

We do not own all of the land on which our existing pipelines and planned pipeline extensions have or will be constructed, and we are therefore subject to the possibility of increased costs to retain our land use rights. We obtain the rights to construct and operate our pipelines on land owned by third parties for specific periods of time, typically for periods of five to twenty years, subject to renewal. We have also obtained licences from the local government of Banten Province to use a certain national road at Cilegon, Banten Province which allows our pipelines to access and cross such national road. The licenses will expire in November 2017 and we have submitted renewal applications for them. See "*Business — Support Facilities — Pipelines.*" Our loss of these rights, through our inability to renew right-of-way contracts or otherwise, may limit our ability to transport, among other things, feedstock from our jetty to our production plants or our products from our production plants to our jetty for export. Our inability to transport our products within our integrated petrochemical complex or deliver our products to customers by pipeline could have a material adverse effect on our business, results of operations and financial condition.

Our level of indebtedness and other demands on our cash resources could materially and adversely affect our ability to execute our business strategy.

As of 30 June 2017, we had US$372.9 million of total indebtedness outstanding, representing 23.8% of our total capitalisation. Although we believe that we are not currently highly leveraged, we may incur substantial additional indebtedness in the future. Our financial performance could be affected by our indebtedness. If new debt is added to our current debt levels, the related risks that we now face could increase. Any substantial increase in indebtedness could therefore have a material adverse effect on our business.

Our level of indebtedness could have important consequences to our business and prospects as it could increase our vulnerability to general adverse economic and industry conditions, make it difficult or impossible to obtain insurance and surety bonds or letters of credit, limit our ability to enter into new sales contracts, make it more difficult for us to pay interest and satisfy our debt obligations, require us to dedicate a substantial portion of our cash flows from operations to payments on our indebtedness, therefore reducing the availability of our cash flows to fund working capital, capital expenditures, acquisitions and other general corporate activities, limit our ability to obtain additional financing to fund future working capital, capital expenditures, research and development, debt service requirements and other general corporate requirements, limit our flexibility in planning for, or reacting to, changes in our business and in the various industries in which we operate, and limit our ability to borrow additional funds at competitive rates or at all.

Our ability to operate our business could be adversely affected if we are unable to service our debt, or if we breach covenants in respect of our currently outstanding indebtedness and such breach is not waived.

In addition, should we wish to refinance our liabilities, our ability to obtain such refinancing (and the cost of such refinancing) depends on numerous factors, including general economic and market conditions, international interest rates, credit availability from banks or other financiers, investor confidence in us, our financial condition and the performance of our business. There can be no assurance that external financing will be available for any such refinancing objective or, if available, that such financing will be obtainable on terms that are not more onerous to us than the terms of our existing facilities. Our inability to obtain refinancing in the future may have an adverse effect on our business, results of operations and financial condition.

Trade-regulating actions by the Government, such as reducing or eliminating tariffs on imported polyethylene and polypropylene, could adversely affect our profitability.

Indonesian tariff protection for our principal products generally has been a favourable factor in our ability to price our products competitively against imports of the same products in Indonesia, our principal market. The Government is a party to various trade agreements, such as the Association of Southeast Asian Nations ("**ASEAN**") - China Free Trade Agreement ("**ACFTA**"), which took effect on 1 January 2010, and bilateral agreements, with the objective of reducing or eliminating tariffs on goods that are imported into Indonesia. As of 1 March 2017, the import of naphtha, ethylene, propylene, styrene monomer and butadiene is not subject to tariffs. The import of polyethylene and polypropylene is subject to a tariff of 5% to 15% of the import price if imported from non-ASEAN countries and is not subject to tariff if imported from ASEAN countries.

The elimination of any existing import tariffs or any other changes to trade regulations and export policies in Indonesia or member countries of the ASEAN could lead to a decrease in the tariff-related pricing advantage we are able to achieve for our products and could have a material adverse effect on our results of operations and cash flows.

Our operations involve risks that may not be covered by our insurance or may have a material adverse effect on our business.

Although we have implemented strict safety measures for the operation and maintenance procedures of our production plants in order to enhance the safety of our operations and minimise the risk of disruptions, our operations are subject to hazards inherent in the production of petrochemical products. These hazards include: mechanical failures, unscheduled downtimes, pipeline leaks and ruptures, transportation interruptions, storage tank leaks, fires or explosions, severe weather and natural disasters, discharges or releases of toxic or hazardous substances or gases, remediation complications, and other risks. Some of these hazards can cause bodily injury and loss of life, severe damage to or destruction of property and equipment and environmental damage, and may result in the suspension of our operations and the imposition of civil or criminal penalties and liabilities.

We maintain property, business interruption and casualty insurance which we believe is in accordance with industry standards in Indonesia and the region, but we are not fully insured against all potential hazards incidental to our business, including losses resulting from war risks or terrorist acts. Our income and cash flows may be adversely affected by any disruption of operations of, or damage to, our existing production facilities or the incurrence of significant liabilities for which we are not fully insured. See "*Business — Insurance.*"

Compliance with environmental and occupational health and safety laws and regulations may require us to incur costs or restrict our operations in a manner that could have a material adverse effect on our business, financial condition, profitability or cash flows.

The manufacture of petrochemicals involves the handling, production and use of a number of environmentally hazardous substances, including certain components in the catalysts used in the manufacture of polyethylene and polypropylene, which are subject to environmental regulation in Indonesia. As a result, we are subject to stringent environmental, health and safety laws and regulations addressing air pollutant emissions, discharge of treated waste, solid waste management and other aspects of our operations. The Government has the power to take action against us for past or future failure to comply with the Government's environmental regulations, including the imposition of fines, suspension and revocation of licenses. The Government, through, among others, the Investment Coordinating Board (*Badan Koordinasi Penanaman* Modal, or the "**BKPM**"), the Ministry of Industry, the State Ministry of Environmental Affairs or the Environmental Impact Management Agency (*Badan Pengendalian Dampak Lingkungan)* and the relevant regional governments could impose additional regulations which might require additional expenditures on environmental matters by us. Typically, these laws and regulations provide for substantial fines and potential criminal sanctions for violations and therefore may expose us to liability for the conduct of, or conditions caused by, our acts or acts caused by, or attributable to, a third party. For instance, Law No. 32 of 2009 regarding Environmental Protection and Management ("**Law No. 32/2009**") provides that every license issued in relation to environmental management by any governmental authority prior to 3 October 2009, the date on which Law No. 32/2009 was enacted, must be integrated into an environment license within one year as of such enactment date. While Law No. 32/2009 does not provide any sanction for failure to comply with such law, there is no assurance that government regulations that will be issued in the future to implement the law would not impose such sanctions. Violation of any laws or regulations can also result in permit revocation, cessation of our business operations and/or plant shutdown. Any occurrence of environmental damage may result in the disruption of our operations or cause reputational harm and significant liability could be imposed on us for damages, clean-up costs or penalties, which may have a material adverse effect on our business, results of operations and financial condition.

In addition to environmental licenses, according to Law No. 32/2009, each holder of environmental licenses is required to effect a cash deposit in a designated state-owned bank. As of the date of this Offering Memorandum, no government regulation had been issued to stipulate the amount of such cash deposit, and we have accordingly not made such deposit as the date of this Offering Memorandum. If, in the future, government regulations are issued to stipulate the amount of the cash deposit, we expect to have to invest a certain amount to comply with Law No. 32/2009.

In addition, we may face liability for alleged personal injury or property damage due to exposure to chemicals or other hazardous substances at our plants or chemicals that we otherwise produce, handle or own. Although we have not experienced any claims of this nature to date, claims of this nature can be substantial and could in the future materially adversely affect our business, financial condition, profitability or cash flows, if they are not adequately covered by insurance.

We invest financial and managerial resources to comply with environmental and safety laws and regulations and anticipate that we will continue to do so in the future in order to comply with laws in Indonesia. It is likely that we will be subject to increasingly stringent environmental standards in the future and may be required to make additional capital expenditures relating to environmental and safety matters on an ongoing basis. Failure to comply with present and future environmental and safety laws could subject us to future liabilities or suspension of production and/or distribution. Environmental and safety laws could also restrict our ability to expand our facilities or could require us to acquire costly equipment or to incur other additional expenses in connection with our manufacturing and distribution processes. No assurance can be given that material capital expenditures, costs or operating expenses beyond those currently anticipated will not be required under applicable environmental, health and safety laws and regulations, or that developments with respect to such laws or regulations will not adversely affect our production or revenues.

We depend on third party providers for various aspects of our business and such providers could fail to meet their obligations, which may have a material adverse effect on our business, results of operations and financial condition.

We depend on a number of third parties for various aspects of our business. For example, we are dependent on third party suppliers for feedstock and raw materials. Discontinuation of production by these suppliers or a failure of these suppliers to adhere to the delivery schedule or the required quality could hamper our production schedule and therefore affect our business and results of operations. This dependence may also adversely affect the availability of key materials at reasonable prices thus affecting our margins and may have an adverse effect on our business, results of operations and financial condition. There can be no assurance that strong demand, capacity limitations or other problems experienced by our suppliers will not result in occasional shortages or delays in their supply of raw materials. If we were to experience a significant or prolonged shortage of raw materials from any of our suppliers, and we cannot procure the raw materials from other sources, we would be unable to meet our production schedules for some of our key products and to deliver such products to our customers in timely fashion, which would adversely affect our sales, margins and customer relations. We cannot assure you that a particular supplier will continue to supply the required components or raw materials to us in the future. Any change in the supplying pattern of our raw materials can adversely affect our business and profits.

We also use third parties for the delivery of products to our domestic and overseas customers. An increase in freight costs or the unavailability of adequate port and shipping infrastructure for transportation of our products to our markets may have an adverse effect on our business and results of operations.

We also rely on third party contractors for the engineering, procurement and construction works of our expansion and capacity improvement projects. Any issues with our third party contractors may result in delays or cost overruns. If we are unable to successfully complete our expansion plans on time and at the expected cost, our business, financial condition and results of operations may be materially and adversely affected. For more information, see "*Business — Capacity and Plant Improvements*" and "*— We may not be able to complete our capacity and product expansion plans for our existing and new products.*"

We also rely on third party vendors for the treatment and processing of substances and compounds that may be considered toxic or hazardous within the meaning of the relevant environmental and safety laws. We hold a permit for the temporary storage of hazardous and toxic waste, and under the relevant environmental regulations, are required to enter into agreements with third parties to process hazardous and toxic waste. Failure to comply with such requirement may subject us to administrative sanctions in form of written warning, temporary suspension of relevant activity and suspension of our permit. Any issues with our third party vendors may also result in liability for alleged personal injury, property damage or product defects due to exposure to toxic or hazardous substances at our facilities or the products or materials we manufacture, handle, own or sell.

If we are unable to obtain, renew or maintain our permits, approvals and technology licenses required to operate our business this may have a material adverse effect on our business.

We require certain permits and approvals to operate our business. In the future, we may be required to renew such permits and approvals and/or to obtain new permits and approvals. While we believe that we will be able to obtain such permits and approvals and we have not experienced any difficulty in renewing and maintaining these permits and approvals in the past, as and when required, there can be no assurance that the relevant authorities will issue any of such permits or approvals in the timeframe we anticipate, or at all.

In addition, we rely for the operation of our plants on technology that is licensed to us by certain third parties. While these technology licenses have generally been granted to us for long periods, there can be no assurance that we will not breach the terms of the technology licenses, resulting in the revocation of all rights to the technology or that such third party technology providers will renew or extend the provisions contained in the agreements or will not terminate the technology licenses. Any such termination would materially and adversely affect our operations and consequently could have a material adverse effect on our business prospects, results of operations and financial condition. Furthermore, in the event that such third party technology providers withhold the authorisation to use these technologies or fail to perform the agreements, we will be compelled to search for alternatives that might be of a lesser quality or more costly to implement, or subject to delays in their implementation, thus materially and adversely impacting our operations and financial performance.

We operate three jetties for our business. We hold jetty management licenses which give us the right to operate such jetties for the conduct of non-commercial activities that support its main business. Any failure by us to maintain such licenses may result in our inability to use such jetties.

Failure by us to renew, maintain or obtain the required permits, approvals or technology licenses may result in the interruption of our operations or delay or prevent any capacity expansions or planned plant improvements and may have a material adverse effect on our results of operations, financial condition and prospects.

Our ability to compete effectively depends in part on our ability to attract and retain key personnel with relevant industry knowledge.

In light of increasing deregulation and competition in the petrochemical industry, both in Indonesia and elsewhere, our success will depend in part upon, among other factors, our ability to continue to attract and retain key personnel with relevant industry knowledge. There is global and domestic competition, whether from existing petrochemical producers or new petrochemical producers, in the petrochemical industry for top managers, experienced technical and operational personnel and other skilled professionals. We can make no assurance that we will be able to hire or retain necessary personnel in the future. Moreover, we have in the past lost the services of a substantial number of skilled employees primarily to competitors in the Middle East which are able to offer more lucrative compensation packages than those offered by us. The loss of the services of key personnel, or the inability to attract new qualified personnel or to retain existing personnel, could have a material adverse effect on our prospects, financial condition and results of operations.

The loss of any of our large customers could have a negative impact on our results of operations.

Our top ten customers represented 43.6% and 48.1% of our net revenues for the year ended 31 December 2016 and the six months ended 30 June 2017, respectively. The majority of our customers are located in Indonesia and are significantly affected by the performance of the broader Indonesian economy and have, in the past, suffered periods of decreased production and financial instability, leading to reduced domestic demand for our products. In the event that one or more of our major customers halts or substantially reduces its purchases of our products, we would be forced to seek new customers for our products. There can be no assurance that we would be able to find such customers or that we could realise satisfactory prices for our products under new sales arrangements. We might also incur additional costs in connection with our having to ship our products to such customers or reduce our cracker utilisation rate.

Our production plants are located in a single geographic area. Any disruption in our operations due to accidents or natural disasters in this area could have a material adverse effect on our operations.

Our production operations could be disrupted for reasons beyond our control. These disruptions may include extreme weather conditions, fire, natural catastrophes or raw material supply disruptions. The Indonesian archipelago is one of the most volcanically active regions in the world. Because it is located in the convergence zone of three major lithospheric plates, it is subject to significant seismic activity that can lead to destructive earthquakes and tsunamis, or tidal waves.

Our production plants consist of a production complex that operates our naphtha cracker, two polyethylene plants, three polypropylene trains, two styrene monomer plants and our butadiene plant. All of our sales have been and will continue for the foreseeable future to consist of products produced at our production plants located in Cilegon and Serang in Banten Province, approximately 50 kilometres from Krakatau Island, an area known for volcanic and seismic activity. Our production plants are dependent on the continued operation of our jetty facilities, utility plant, and other supporting facilities, as well as the related pipelines and other infrastructure. A disruption to the operation of any one part of these facilities could have a significant impact on our ability to continue operating our other facilities and could significantly affect our ability to carry on our business in the ordinary course. Propylene from our cracker is transported to our polypropylene plant through pipelines. We also deliver a substantial part of our ethylene through pipelines directly to four ethylene derivative customer plants and our polyethylene, polypropylene and styrene monomer plants. The volume of sales delivered by pipeline accounted for approximately 99.6%, 81.6%, 69.6% and 75.0% of our total sales volume of ethylene in the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, respectively. All of our domestic sales of polyethylene, polypropylene, styrene monomer and butadiene in the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017 were delivered by land through trucks and all of our export sales were delivered by ships. Arranging for shipments of propylene or ethylene may take up to several weeks, and we have only limited storage facilities for ethylene and propylene. In addition, there is no assurance that our current jetty facilities could accommodate sales of all the ethylene and propylene we produce. In the event storage capacity is filled and adequate shipments could not be arranged, we would need to reduce production of our naphtha cracker, which would adversely affect our results of operations. See "*Business — Support Facilities — Storage Tanks and Warehouses*" and "*Business — Sales, Marketing and Customers.*"

While we believe that we have put in place adequate insurance coverage, including for natural catastrophes, any significant manufacturing disruption could adversely affect our ability to make and sell products, which could have a material adverse effect on our business, financial condition and results of operations. Significant damage to our production plants, pipeline or docking facilities, or the roads between our production facilities and our customers would have a material adverse effect on our operations.

Failure or disruption of our IT and/or ERP systems may adversely affect our business, financial condition, results of operations and prospects.

We have implemented various information technology ("**IT**") and/or enterprise resource planning ("**ERP**") solutions to cover key areas of our operations, procurement, dispatch and accounting. We have also implemented a disaster recovery system ("**DRC**") to ensure our business continuity. However, there is still a risk that these systems could be damaged or interrupted for a variety of reasons, which could result in a material adverse effect on our operations. In addition, although we have implemented various IT security measures to protect our information systems, it is possible that a malfunction of such security measures could enable unauthorised persons to access sensitive business data, including information relating to our intellectual property or business strategy, or those of our customers. Such malfunction or disruptions could cause economic losses for which we could be held liable. A failure of our information technology systems could also cause damage to our reputation which could harm our business. Any of these developments, alone or in combination, could have a material adverse effect on our business, financial condition and results of operations.

Any failure or disruption in the operation of these systems or the loss of data due to such failure or disruption (including due to human error or sabotage) may affect our ability to plan, track, record and analyse work in progress and sales, process financial information, meet business objectives based on IT initiatives such as product life cycle management, manage our creditors, debtors, manage payables and inventory or otherwise conduct our normal business operations, which may increase our costs and otherwise adversely affect our business, financial condition, results of operations and prospects.

Failure to fulfil our obligations under supply agreements may result in lower sales prices and may adversely affect our business, financial condition, results of operations and prospects.

We have entered into sales contracts for both monomer and polymer products, under which we are obligated to supply our products to counterparties at a designated volume during the contract period. Under the terms of the contracts, if we fail to meet our supply obligations, the shortage will carry over to the next contract period and will be delivered in the next contract period or when the product becomes available, at the price under the original contract or the price upon the actual delivery, whichever is lower. Lower sales prices due to such shortage may affect our profitability, which could have a material adverse effect on our business, financial condition and results of operations.

Risks Relating to Indonesia

Since we are incorporated, and all of our operations and assets are located, in Indonesia, we could be adversely affected by changes in Government policies, social instability, natural disasters or other political, economic, legal, social, regulatory or international developments in or affecting Indonesia which are not within our control, examples of which are described below. These could, in turn, have an adverse effect on our business, financial condition, results of operations and prospects.

Domestic, regional or global economic changes may adversely affect our business.

The economic crisis which affected Southeast Asia, including Indonesia, from mid-1997 was characterised in Indonesia by, among other things, currency depreciation, negative economic growth, high interest rates, social unrest and extraordinary political events. These conditions had a material adverse effect on Indonesian businesses. In addition, the economic crisis resulted in the failure of many Indonesian companies to meet their debt obligations. More recently, the global financial crisis, which was triggered in part by the subprime mortgage crisis in the United States, caused failures of large U.S. financial institutions and rapidly evolved into a global credit crisis. U.S. bank failures were followed by failures of a number of European banks and declines in various stock indexes, as well as large reductions in the market value of equities and commodities worldwide, including in Indonesia. According to the IMF, the world economic downturn adversely affected the economic performance of Indonesia, slowing real GDP growth to 5.6%, 5.0% and 4.8% in 2013, 2014 and 2015, before strengthening to 4.9% in 2016. A loss of investor confidence in the financial systems of emerging or other markets may cause increased volatility in Indonesian financial markets which may, in turn, adversely affect the Indonesian economy in general. Any worldwide financial instability could also have a negative impact on the Indonesian economy, which could have an adverse effect on our business, financial condition, results of operations and prospects. There can be no assurance that the recent improvement in economic condition will continue or that adverse economic conditions will not recur. Such developments could have a material adverse effect on us and our business, financial condition, results of operations and prospects.

An economic downturn in Indonesia could also lead to additional defaults by Indonesian borrowers and could have a material adverse effect on our business, financial condition and results of operations and prospects. A loss of investor confidence in the financial systems of emerging and other markets, or other factors, including the deterioration of the global economic situation, may cause increased volatility in the Indonesian financial markets and a slowdown in economic growth or negative economic growth in Indonesia. Any such increased volatility or slowdown or negative growth could have a material adverse effect on our business, financial condition, results of operations and prospects.

Political and social instability in Indonesia may adversely affect us.

Since 1998, Indonesia has undergone significant political and social changes which have highlighted the unpredictable nature of Indonesia's changing political landscape. As a relatively newly democratic country, Indonesia continues to face various socio-political issues and has, from time to time, experienced political instability and social and civil unrest. Indonesia also has many political parties, without any one party winning a clear majority to date.

Since 2000, thousands of Indonesians have participated in demonstrations in Jakarta and other Indonesian cities both for and against former President Wahid, former President Megawati, and former President Yudhoyono, as well as in response to specific issues, including fuel subsidy reductions, privatisation of state assets, anticorruption measures, minimum wage, decentralisation and provincial autonomy, potential increases in electricity charges and the American-led military campaigns in Afghanistan and Iraq. Although these demonstrations were generally peaceful, some have turned violent.

In 2004, Indonesians directly elected the President, Vice-President and representatives to the Indonesian parliament for the first time in its history through proportional voting with an open list of candidates. At the lower levels of government, Indonesians have also started directly electing their respective heads and representatives of regional governments and local legislative assemblies. In April 2009, another set of elections was held in Indonesia to elect the President, Vice-President and representatives to the Indonesian parliament (including national and local representatives). In October 2009, President Yudhoyono was inaugurated for his second five-year term, which expired in October 2014. The Indonesian Constitution limits presidential tenure to two five-year terms. In July 2014, Indonesia had a presidential election resulting in Joko Widodo being elected as the new President of

Indonesia, with a term which will expire in five years. Mr. Widodo was sworn in as President of Indonesia in October 2014. Initially, Mr. Widodo's coalition had a minority position in Indonesia's parliament, which has since grown to a majority position. However, due to political instability and uncertainty in Indonesia, such coalition may collapse at any time.

Political and social developments in Indonesia have been unstable and unpredictable in the past and there can be no assurance that there will not be any political and social instability in the future. Any political or social instability in Indonesia may, directly or indirectly, materially and adversely affect our business, financial condition, results of operations, and prospects.

Indonesia is located in a geologically active zone and is subject to the risk of significant geological and other natural disasters, which could lead to social and economic instability.

All of our existing operations are located on the Indonesian archipelago and our production plants are located in Cilegon and Serang in Banten Province, approximately 50 km from Krakatau Island, an area known for volcanic and seismic activity. See "— *Our production plants are located in a single geographic area. Any disruption in our operations due to accidents or natural disasters in this area could have a material adverse effect on our operations.*"

Many parts of Indonesia are vulnerable to natural disasters such as earthquakes, tsunamis, floods, volcanic eruptions as well as droughts, power outages or other events beyond our control.

The Indonesian archipelago is one of the most volcanically active regions in the world. It is located in the convergence zone of three major lithospheric plates and, accordingly, it is subject to significant seismic activity that can lead to destructive earthquakes and tsunamis, or tidal waves, that could lead to substantial economic loss and social unrest. On 26 December 2004, an underwater earthquake off the coast of Sumatra released a tsunami that devastated coastal communities in Indonesia, Thailand and Sri Lanka. In Indonesia, more than 220,000 people died or were recorded as missing in the disaster and damages were estimated to be in billions of U.S. dollars. Aftershocks from the December 2004 tsunami also claimed casualties. In September 2009, two major earthquakes struck West Java and West Sumatra, with magnitudes of 7.0 and 7.6 respectively, leading to the death of more than 600 people. On 25 October 2010, a 7.7 magnitude earthquake struck Mentawai Island, adjacent to West Sumatra, and on 26 October 2010, Mount Merapi, located in Central Java, erupted.

In addition to these geological events, seasonal downpours have resulted in frequent landslides and flash floods in Indonesia, including Jakarta, Sumatra and Sulawesi, displacing a large number of people and killing others. In August 2012, flash floods and a landslide triggered by torrential rains in eastern Indonesia killed at least eight people and left three others missing in Sirimau village and in the capital of Maluku province, Ambon.

While these events did not have a significant economic impact on the Indonesian capital markets, the Government has had to spend significant amounts of resources on emergency aid and resettlement efforts. However, there can be no assurance that such aid will be sufficient to aid all victims, or that it will be delivered to recipients on a timely basis. If the Government is unable to deliver aid to affected communities in a timely fashion, political and social unrest could result. Additionally, recovery and relief efforts may strain the Government's finances and may affect its ability to meet its obligations on its sovereign debt. Any such failure on the part of the Government, or declaration by it of a moratorium on its sovereign debt, could potentially trigger an event of default under numerous private-sector borrowings, and thereby may have a material adverse effect on our business, cash flows, results of operations, financial condition and prospects.

In addition, there can be no assurance that future geological occurrences or other natural disasters will not significantly affect the Indonesian economy. A significant earthquake or other geological disturbance in any of Indonesia's more populated cities and financial centres could severely disrupt the Indonesian economy and undermine investor confidence, thereby potentially adversely affecting our business, results of operations, financial condition and prospects.

We cannot assure you that our insurance coverage will be sufficient to protect us from potential losses resulting from such natural disasters and other events beyond our control. In addition, we cannot assure you that the premium payable for these insurance policies upon renewal will not increase substantially, which may materially and adversely affect our financial condition and results of operations. We also cannot assure you that future geological or meteorological occurrences will not have more of an impact on the Indonesian economy. A significant earthquake, other geological disturbance or weather-related natural disaster in any of Indonesia's more populated cities and financial centres could severely disrupt the Indonesian economy and undermine investor confidence, thereby materially and adversely affecting our business, financial condition, results of operations and prospects.

Terrorist attacks and activities could cause economic and social volatility, which may materially and adversely affect our business.

Terrorist attacks and associated military responses have resulted in substantial and continuing economic volatility and social unrest in the world. During the last several years and as recently as 14 January 2016, there have been various terrorist attacks directed towards the Government, foreign governments and public and commercial buildings frequented by foreigners in Indonesia, which killed and injured a number of people. There can be no assurance that further terrorist acts will not occur in the future. Terrorist acts could destabilise Indonesia and increase internal divisions within the Government as it considers responses to such instability and unrest, thereby adversely affecting investors' confidence in Indonesia and the Indonesian economy. Violent acts arising from and leading to instability and unrest have in the past had, and could continue to have, a material adverse effect on investment and confidence in, and the performance of, the Indonesian economy, which could have a material adverse effect on our results of operations, financial condition and prospects.

Our employees are members of a labour union and we may be subject to labour disputes, industrial unrest, slowdowns and increased wage costs, which may adversely affect our business and results of operations.

As of 30 June 2017, approximately 89.1% of our employees are members of the Labour Union of PT Chandra Asri Petrochemical Tbk ("**Labour Union**"). Our relations with our employees have generally been good and there have not been any instances of collective union action, strikes and labour disruptions in the past three years. See "*Business—Human Resources—Employees.*" The employment of union-affiliated employees and industrial action limits our flexibility in dealing with employees and may lead to increased operating costs and reduced production levels. Any prolonged work stoppage or strike at any of our facilities, or any significant increase in employee costs, including wages, could have a material adverse effect on our business, results of operations, financial condition or prospects. Labour disputes are common in Indonesia and we cannot assure you that such disputes will not arise in the future. See "*—Labour activism and legislation could adversely affect us, our customers and Indonesian companies in general, which in turn could affect our business, financial condition and results of operations.*"

Labour activism and legislation could adversely affect us, our customers and Indonesian companies in general, which in turn could affect our business, financial condition and results of operations.

Laws and regulations which facilitate the forming of labour unions, combined with weak economic conditions, have resulted, and may continue to result, in labour unrest and activism in Indonesia.

In 2000, the Indonesian Parliament enacted Law No. 21 of 2000 on Labour Unions ("**Labour Union Law**"). The Labour Union Law, which took effect on 4 August 2000, permits employees to form unions without employer intervention. In March 2003, the Indonesian Parliament enacted Law No. 13 of 2003 on Employment ("**Labour Law**"), which, among other things, increased the amount of severance, service and compensation payments payable to employees upon termination of employment. Based on the Labour Law, companies that have 50 employees or more are required to have a bilateral forum consisting of both management and employees. The Labour Law also requires a labour union with more than half of a company's employees participating as members and who may represent the employees to negotiate the collective labour agreements with the employers. The law also established more permissive procedures for staging strikes. Under the Labour Law, employers have the right to terminate their employees in the event of a change of status, change of ownership or merger or consolidation, and employees have the right to receive severance pay, tenure appreciation pay and other compensation, as calculated based on their basic salary and fixed allowances, as well as their length of employment with such employer.

Following its enactment, several labour unions moved the Indonesian Constitutional Court to declare certain provisions of the Labour Law unconstitutional and ordered the Government to revoke those provisions. The Indonesian Constitutional Court declared the Labour Law valid except for certain provisions, including those relating to the right of an employer to unilaterally terminate an employee who committed a serious violation and the imposition of criminal sanctions against an employee who instigates or participates in an illegal labour strike. As a result, we may not be able to rely on certain provisions of the Labour Law.

Labour unrest and activism in Indonesia could disrupt our, our customers' and/or our suppliers' operations and could have a material adverse effect on the financial condition of Indonesian companies in general, which in turn could adversely affect prices of Indonesian securities on the IDX and the value of the Indonesian Rupiah relative to other currencies. Such events could have a material adverse effect on our business, cash flows, results of operations, financial condition or prospects. In addition, general inflationary pressures or changes in applicable laws and regulations could increase labour costs, which could have a material adverse effect on our business, cash flows, results of operations, financial condition and prospects.

The Labour Law provides that the employer is not allowed to pay an employee wages below the minimum wage stipulated annually by the provincial or regional/city government. The minimum wage is set in accordance with the need for a decent standard of living and taking into consideration the productivity and growth of economy. However, as there are no specific provisions on how to determine the amount of a minimum wage increase, minimum wage increases can be unpredictable. Recently, the provincial government of Jakarta through the Governor of DKI Jakarta Regulation No. 227 of 2016, which became effective on 1 January 2017, stipulated that the minimum wage of Jakarta for 2017 is Rp3,355,750 per month, an increase from Rp3,100,000 previously. In addition to directly increasing wages for lower-level employees, these minimum wage increases indirectly apply upward pressure on the wages of higher-level employees over time. As a result, any significant increase in the minimum wage in Indonesia may increase our manpower costs and have a material adverse effect on our business, cash flows and financial condition.

Furthermore, the recent change in the social security program from "Jamsostek" to "BPJS" in accordance with Law No. 24 of 2011 on Social Security Administrator also increased our costs, and any further changes to social security arrangements could have an adverse effect on our business, cash flows, financial condition and prospects.

Outbreak of an infectious disease, or fear of an outbreak, or any other serious public health concerns in Asia (including Indonesia) and elsewhere may adversely impact our business and financial conditions.

The outbreak of an infectious disease in Asia, including Indonesia, or elsewhere, or fear of an outbreak, together with any resulting travel restrictions or quarantines could have a negative impact on the economy and business activity in Indonesia and thereby adversely impact our revenue.

An outbreak of an infectious disease, including the avian flu, SARS, H1N1, MERS, the Ebola virus, the Zika virus or another contagious disease or measures taken by the governments of affected countries, including Indonesia, against potential or actual outbreaks, could seriously interrupt our operations or those of our distributors, suppliers and customers, which could have a material adverse effect on our business, financial condition, results of operations and prospects. The perception that an outbreak of a contagious disease may occur may also have an adverse effect on the economic conditions of countries in Asia, including Indonesia, and thereby adversely affect our business, financial condition, results of operations and prospects.

Growing regional autonomy creates an uncertain business environment for us and may increase our costs of doing business.

In response to a rise in demand for and assertion of autonomy in local governments in Indonesia, the Government has recently devolved some autonomy to local governments, allowing the imposition by such local governments of taxes and other charges on businesses within their jurisdiction and often requiring local participation and investment in such businesses. Increased regional autonomy may increase regulation of our business, disrupt sources of raw materials, require organisational restructuring to be undertaken and increase taxes and other costs of doing business, all of which could have material and adverse effect upon our business, prospects, financial condition, cash flows and results of operations.

Fluctuations in the value of the Rupiah may materially and adversely affect our financial conditions and results of operations.

One of the most important immediate causes of the economic crisis which began in Indonesia in mid-1997 was the depreciation and volatility of the value of the Rupiah as measured against other currencies, such as the U.S. dollar. Although the Rupiah has appreciated considerably from the low point of approximately Rp17,000 per one U.S. dollar in January 1998, the Rupiah continues to experience significant volatility. More recently, the Rupiah depreciated from approximately Rp9,670 per U.S. dollar as of 31 December 2012 to approximately Rp13,447 per U.S. dollar as of 31 December 2016. See "*Exchange Rates and Exchange Controls*" for further information on changes in the value of the Rupiah as measured against the U.S. dollar in recent periods. There can be no assurance that the Rupiah will not be subject to depreciation and continued volatility, that the current exchange rate policy will remain the same, or that the Government will, or will be able to, act when necessary to stabilise, maintain or increase the value of the Rupiah, and will not act to devalue the Rupiah, or that any such action, if taken, will be successful.

The Rupiah has generally been freely convertible and transferable (except that Indonesian banks may not transfer Rupiah to persons outside of Indonesia and may not conduct certain transactions with non-residents). However, from time to time, Bank Indonesia has intervened in the currency exchange markets in furtherance of its policies, either by selling Rupiah or by using its foreign currency reserves to purchase Rupiah. We cannot assure you that the Rupiah will not be subject to depreciation and continued volatility, that the current floating exchange rate policy of Bank Indonesia will not be modified, that additional depreciation of the Rupiah against other currencies, including the U.S. dollar, will not occur, or that the Government will take additional action to stabilise, maintain or increase the value of the Rupiah, or that any of these actions, if taken, will be successful. Modification of the current floating exchange rate policy could result in significantly higher domestic interest rates, liquidity shortages, capital or exchange controls or the withholding of additional financial assistance by multinational lenders. This could result in a reduction of economic activity, an economic recession, loan defaults or declining interest by our customers, and as a result, we may also face difficulties in funding our capital expenditure and in implementing our business strategy. Any of the foregoing consequences could have a material adverse effect on our business, financial conditions, results of operations and prospects.

Downgrades of credit ratings of the Government or Indonesian companies could materially and adversely affect our business.

Beginning in 1997, certain recognised statistical rating organisations, including Moody's, S&P and Fitch, downgraded Indonesia's sovereign rating and the credit ratings of various credit instruments of the Government and a large number of Indonesian banks and other companies. As of the date of this

Offering Memorandum, Indonesia's sovereign foreign currency long-term debt was rated "Baa3" by Moody's, "BBB-" by S&P and "BBB- (Positive)" by Fitch. These ratings reflect an assessment of the Government's overall financial capacity to pay its obligations and its ability or willingness to meet its financial commitments as they become due.

We cannot assure you that Moody's, S&P, Fitch or any other statistical rating organisation will not downgrade the sovereign rating and credit ratings of Indonesia or Indonesian companies, including us. Any such downgrade could have an adverse impact on liquidity in the Indonesian financial markets, the ability of the Government and Indonesian companies, including us, to raise additional financing and the interest rates and other commercial terms at which such additional financing is available. Such events could have material adverse effects on our business, financial condition, results of operations and prospects.

Indonesian accounting standards differ from U.S. GAAP.

Our financial statements are prepared and presented in accordance with Indonesian FAS, which differs from U.S. GAAP in certain material respects. Thus, our financial statements may differ from, and in some cases may contain less information than, those prepared for companies in the United States. See "*Summary of Certain Principal Differences between Indonesian Financial Accounting Standards and U.S. GAAP.*" This Offering Memorandum does not include a reconciliation of our financial statements to U.S. GAAP, and we cannot assure you that such a reconciliation would not identify material quantitative differences.

Indonesian law contains provisions which may cause us to forego transactions that are in our best interests.

In November 2009, Bapepam-LK issued Rule No. IX.E.1 on Affiliated Party Transaction and Conflict of Interest of Certain Transaction which replaced the previous rule issued in 2008 ("**Rule No. IX.E.1**"). This rule was issued to provide more legal certainty and protection to shareholders, particularly independent shareholders, in connection with affiliated party transactions or conflict of interest transactions conducted by an issuer or an Indonesian public company.

Rule No. IX.E.1 requires an issuer or the Indonesian public company to publish information to the public or to submit a report to OJK on its affiliated party transaction (as applicable) by the end of the second working day following such a transaction and further stipulates that any conflict of interest transaction conducted by Indonesian public companies would require prior independent shareholders' approval of the issuer or the said Indonesian public company, unless such affiliated party transaction or conflict of interest transaction meets certain exemptions stipulated under this rule.

Transactions between us and other persons could potentially constitute an affiliated party transaction or conflict of interest transaction under Rule No. IX.E.1. If such a transaction is considered a conflict of interest transaction, the approval of holders of a majority of shares owned by independent shareholders must be obtained prior to conducting such a transaction. OJK has the power to enforce this rule and our shareholders may also be entitled to seek enforcement or bring enforcement actions based on Rule No. IX.E.1. The approval of independent shareholders is designed to curtail abuse by controlling shareholders. However, the requirement to obtain independent shareholder approval may be burdensome to us in terms of time and expense and may cause us to forego entering into certain transactions which we may otherwise consider to be in our best interests. Moreover, we cannot assure you that approval of the independent shareholders will be obtained if sought.

Regional authorities may impose additional and/or conflicting local restrictions, taxes and levies.

Indonesia is a nation with diverse customs and culture. During the Soeharto administration, the central government controlled and exercised decision-making authority on almost all aspects of national and regional administration, which led to a demand for greater regional autonomy. In response, the Indonesian Parliament passed Law No. 22 of 1999 on Regional Government ("**Law No. 22/1999**") and

Law No. 25 of 1999 on Fiscal Balance between the Central and the Regional Governments ("**Law No. 25/1999**"). Law No. 22/1999 has been revoked and replaced by the provisions of Regional Government Law No. 32 of 2004 ("**Law No. 32/2004**") as amended by Law No. 8 of 2005 on the First Amendment of Law No. 32/2004 and Law No. 12 of 2008 on the Second Amendment of Law No. 32/2004 which has been revoked by Law No. 23 of 2014 on Regional Government, as further amended by Government Regulation in lieu of Law No. 2 of 2014 on Amendment of Law No. 23 of 2014 and Law No. 9 of 2015 regarding Second Amendment of Law No. 23 of 2014. Law No. 25/1999 has been revoked and replaced by Law No. 33 of 2004 on the Fiscal Balance between the Central and the Regional Governments. These regional autonomy laws are expected to give the regions greater power and responsibility over the use of national assets and to create a balanced and equitable financial relationship between central and local governments. Although there are few developments within the regional autonomy laws and regulations, uncertainty on autonomy still exists, specifically with respect to issues of certain regulatory, taxing and other powers transferred from the central government to regional governments. These uncertainties include a lack of implementing regulations on areas of regional autonomy and a lack of government personnel with relevant sector experience at some regional government levels. Moreover, limited precedent or other guidance exists on the interpretation and implementation of the regional autonomy laws and regulations.

Moreover, the various restrictions, taxes and levies put in place by one regional government may differ than those put in place by other regional governments and may even differ than those put in place by the Government. Conflicting or additional restrictions, taxes and levies that may be imposed by the applicable regional authorities may have a material adverse effect on our business and operations.

Indonesia may suffer from governmental or business corruption.

We operate and conduct our business and operations in Indonesia, a country that is ranked 90 out of 176 in Transparency International's 2016 Corruption Perception Index. While we do not currently conduct any business with government-related entities, we interact with government officials in the ordinary course of business to, among other things, apply for and obtain the necessary licenses, permits and other approvals for our business and operations. Corrupt practices by government officials may have a material adverse effect on our business, results of operations or financial condition. For example, in the event that a government official requests us for a payment or promise of benefit beyond those required or permitted by law, we will not be able to comply with the request and the issuance of the license, permit or approval may be delayed, which may prevent us from conducting our business and operations, which may materially and adversely affect our business, results of operations and financial condition.

Potential enforcement of collateral against our assets could have a material adverse effect on our business operations

As of the date of this Offering Memorandum, a substantial part of our assets in PT Petrokimia Butadiene Indonesia ("**PBI**") and PT Styrindo Mono Indonesia ("**SMI**") and all of the existing shares in PBI owned by the Company are pledged to the lenders of our term loans and bond investors pursuant to certain financing arrangements. Unless the total outstanding amount under those financing arrangements has been fully paid by us, the pledge will remain in place with respect to those shares. Any enforcement of collaterals due to our default could, directly or indirectly, have a material adverse effect on our business, financial condition and results of operations.

Risks Relating to the Notes and the Guarantees

It may not be possible for investors to effect service of process or to enforce certain judgments on us.

We are a limited liability company incorporated in Indonesia and substantially all of our assets and operations are located in Indonesia. In addition, the majority of our commissioners and directors reside in Indonesia. As a result, it may be difficult for investors to effect service of process, including judgments, on us or our commissioners and directors outside Indonesia or within the U.S., or to enforce against the Company and the Subsidiary Guarantors or our commissioners and directors judgments obtained in non-Indonesian courts, including judgments predicated upon the civil liability provisions of the U.S. federal securities laws or the securities laws of any state within the United States, or upon other basis.

We have been advised by our Indonesian legal advisors that judgments of non-Indonesian courts are not enforceable in Indonesian courts. However, a foreign court judgment could be offered and accepted into nonconclusive evidence in a proceeding on the underlying claim in an Indonesia court as the Indonesian court may deem appropriate in its sole discretion. A claimant may be required to pursue claims in Indonesian courts on the basis of Indonesian law. There is doubt as to whether Indonesian courts will enter judgments in original actions brought in Indonesian courts predicated solely upon the civil liability of jurisdictions other than Indonesia. As a result, holders of the Notes would be required to pursue claims against the Subsidiary Guarantors or their respective or its commissioners and directors in Indonesian courts. There can be no assurance that the claims or remedies available under Indonesian law will be the same, or as extensive, as those available in other jurisdictions.

The claims and remedies available under Indonesian law may not be as extensive as those available in other jurisdictions. No assurance can be given that the Indonesian courts will protect the interests of the holders of the Notes in the same manner or to the same extent as would courts in more developed countries outside of Indonesia.

Through the purchase of the Notes, holders of the Notes may be exposed to a legal system subject to considerable discretion and uncertainty; it may be difficult or impossible for the holders of the Notes to pursue claims under the Notes or the Guarantees.

Indonesian legal principles relating to the rights of debtors and creditors and their practical implementation by Indonesian courts differ materially from those that would apply within the United States or the European Union. Neither the rights of debtors nor the rights of creditors under Indonesian law are as clearly established or recognised as under legislation or judicial precedent in most United States and European Union jurisdictions. In addition, under Indonesian law, debtors may have rights and defenses to actions filed by creditors that such debtors would not have in jurisdictions such as the United States and the European Union member states.

Indonesia's legal system is a civil law system based on written statutes; judicial and administrative decisions do not constitute binding precedent and are not systematically published. Indonesia's commercial and civil laws were historically based on Dutch law as in effect prior to Indonesia's independence in 1945, and some of these have not been revised to reflect the complexities of modern financial transactions and instruments. Indonesian courts may be unfamiliar with sophisticated commercial or financial transactions, leading in practice to uncertainty in the interpretation and application of Indonesian legal principles. The application of Indonesian laws depends upon subjective criteria such as the good faith of the parties to the transaction and principles of public policy, the practical effect of which is difficult or impossible to predict. Indonesian judges have very broad fact-finding powers and a high level of discretion in relation to the manner in which those powers are exercised. As a result, the administration and enforcement of laws and regulations by Indonesian courts and Indonesian governmental agencies may be subject to considerable discretion and uncertainty. Furthermore, corruption in the court system in Indonesia has been widely reported in publicly-available sources.

In addition, under the Indonesian Civil Code, although a guarantor may ostensibly waive its right to require the obligee to exhaust its legal remedies against the obligor's assets prior to the obligee exercising its rights under the related guarantee, a guarantor may be able to argue successfully that the guarantor can nonetheless require the obligee to exhaust such remedies before acting against the guarantor. No assurance can be given that an Indonesian court would give effect to the express waiver by the Subsidiary Guarantors of this obligation in the Guarantees. As a result, it may be difficult for the holders of the Notes to pursue a claim against the Company or the Subsidiary Guarantors in Indonesia, which may adversely affect or eliminate entirely the ability of holders of the Notes to obtain and enforce a judgment against the Company or the Subsidiary Guarantors in Indonesia.

Under Indonesian law, parties to an agreement are free to choose the laws which govern their agreements **provided that** the law chosen has sufficient relationship with the agreement or the parties to that agreement and **provided that** the choice of law is not contrary to public policy in Indonesia. Subject to considerations of Indonesian public policy, the choice of New York law as the governing law of the Notes, the Guarantees and the related transaction documents is a valid choice of law and Indonesian courts should honor this choice of law, **provided that** the courts will be in a position to determine the applicable rules of New York law. A judgment of a non-Indonesian court will not be enforceable in Indonesia although such judgment could be admissible as non-conclusive evidence in proceedings on the underlying claim in an Indonesian court. However, in practice Indonesian courts from time to time have applied Indonesian law notwithstanding the choice of law provisions in the relevant documents. A non-Indonesian judgment may, however, be given such evidentiary weight as an Indonesian court considers appropriate.

On 2 September 2013, the holders of notes issued by BLD Investments Pte. Ltd. and guaranteed by PT Bakrieland Development Tbk. ("**Bakrieland**"), under a trust deed governed under English law, filed a postponement of debt payment petition with the Jakarta commercial court on grounds including that Bakrieland had failed to comply with its obligation to repay the principal amount of the notes when holder of the Notes exercised their put option under the terms of the notes. In its decision dated 23 September 2013, the commercial court ruled, among other things, that since the trust deed relating to the notes is governed by English law, all disputes arising out of or in connection with the trust deed must be settled by English courts and, accordingly, that the Jakarta commercial court does not have authority to examine and adjudicate this case.

On 8 December 2014, the Supervisory Judge in proceedings before the Commercial Court of the Central Jakarta District Court determined that holder of the Notes were not creditors of PT Bakrie Telecom Tbk ("**Bakrie Tel**") for purposes of its court-supervised debt restructuring, known as a suspension of payment obligation or a (*Penundaan Kewajiban Pembayaran Utangi* ("**PKPU**")). Bakrie Tel, an Indonesian telecommunications company, was the guarantor of US$380 million of senior notes issued in 2010 and 2011 by a subsidiary of Bakrie Tel, which was a Singapore-incorporated special purpose vehicle. The proceeds from the offering of the notes were on-lent to Bakrie Tel pursuant to an intercompany loan agreement, which was assigned to the holder of the Notes as collateral. In its decision affirming the composition plan, the Commercial Court accepted the Supervisory Judge's determination that the relevant creditor of Bakrie Tel in respect of the US$380 million notes was the issuer subsidiary, rather than the holder of the Notes or the trustee, and gave no effect to the guarantee. As such, only the intercompany loan was recognised by the Commercial Court as indebtedness on which Bakrie Tel was liable for purposes of the Bakrie Tel PKPU. As a result, only the issuer subsidiary had standing as a Bakrie Tel creditor to vote in the Bakrie Tel PKPU proceedings, which substantially altered the terms of the U.S. dollar bonds and the guarantee.

As a result, it may be difficult for holders of the Notes to pursue a claim against us in Indonesia, which may adversely affect or eliminate entirely such holders' ability to obtain and enforce a judgment against us in Indonesia or increase their costs of pursuing, and the time required to pursue, claims against us.

The Indenture and certain other documents entered into in connection with the issuance of the Notes will also be prepared in Bahasa Indonesia as required under Indonesian law. However, there can be no assurance that, in the event of inconsistencies between the Bahasa Indonesia and English language versions of these documents, an Indonesian court would hold that the English language versions of such documents would prevail. Further, it may raise issues as to the enforceability of agreements entered into in connection with the offer and sale of the Notes and the Guarantees.

Pursuant to Law No. 24 of 2009 regarding Flag, Language, Coat of Arms and National Anthem enacted 9 July 2009 ("**Law No. 24**"), agreements between Indonesian entities and other parties must be set out in Bahasa Indonesia, which is the national language of Indonesia, save that where such party is a foreign entity or individual, the agreement may also be prepared in the language of such foreign party or in the English language. Law No. 24 does not specify any consequences in the event that applicable agreements are not prepared in the Bahasa Indonesia language. The Indenture and certain other documents entered into in connection with the issuance of the Notes will be prepared in English and Bahasa Indonesia form as required under Law No. 24 and, pursuant to Law No. 24, each version will be considered equally original. Although the transaction documents may provide that in the event of a discrepancy or inconsistency, the English versions of the transaction documents will prevail, we cannot assure you that an Indonesian court will hold that the English language version will prevail. In addition, certain concepts in the English language may not have a corresponding term in Bahasa Indonesia, or may not be fully captured by the Bahasa Indonesia version. If this occurs, there can be no assurance that the terms of the Notes, will be as described in this Offering Memorandum or will be interpreted and enforced by the Indonesian courts as intended.

Detailed implementing regulations for Law No. 24 have not been published and Law No. 24 does not specify any sanction for non-compliance. We cannot predict as to how the implementation of this new law will impact the validity and enforceability of the Notes and the Guarantees under Indonesian laws. This creates uncertainty as to the ability of holders of Notes to enforce the Notes and the Guarantees in Indonesia.

On 20 June 2013, the District Court of West Jakarta released Decision No. 451/Pdt.G/2012/PN.Jkt.Bar, which annulled a loan agreement between an Indonesian borrower, namely PT Bangun Karya Pratama Lestari as plaintiff, and a non-Indonesian lender, Nine AM Ltd as defendant. The loan agreement was governed by Indonesian law and was drafted only in the English language. The court ruled that the agreement had contravened Article 31(1) of Law No. 24 and declared it to be invalid. In arriving at this conclusion, the court relied on Articles 1320, 1335 and 1337 of the Indonesian Civil Code, which taken together render an agreement void if, inter alia, it is tainted by illegality. The court held that as the agreement had not been drafted in Bahasa Indonesia, as required by Article 31(1), it therefore failed to satisfy the "lawful cause" requirement and was void from the outset, meaning that a valid and binding agreement had never existed. Then, the defendant appealed to the Jakarta High Court. On 7 May 2014, the Jakarta High Court released Decision No. 48/PDT/2014/PT.DKI, which affirmed the District Court's decision. Further, on 23 October 2015, the Indonesian Supreme Court through its decision No. 1572 K/Pdt/2015 rejected the appeal filed by Nine AM Ltd and upheld two lower court decisions reached by the Jakarta High Court and District Court of West Jakarta, which stated the loan agreement between Nine AM Ltd and PT Bangun Karya Pratama Lestari was annulled (null and void). The annulment of the loan agreement resulted in the annulment of the fiduciary agreement. Indonesian court decisions are generally not binding precedents and do not constitute a source of law at any level of the judicial hierarchy, as would typically be the case in common law jurisdictions such as the United States and the United Kingdom. However, we cannot assure you that an Indonesian court will not, in the future, issue similar decisions to the foregoing.

On 7 July 2014, the Government issued Government Regulation No. 57 of 2014 on Development, Fostering, and Protection of Language and Literature and Enhancement of the function of the Bahasa Indonesia, to implement certain provisions of Law No. 24. While this regulation focuses on the promotion and protection of Bahasa Indonesia and literature in that language, the regulation is silent on the question of contractual language and reiterates that contracts involving Indonesian parties must be executed in Bahasa Indonesia (although versions in other languages are also permitted). As Law No. 24 does not specify any sanctions for non-compliance, we cannot predict how the implementation of Law No. 24 (including its implementing regulation) will impact the validity and enforceability of the Notes and the Guarantees in Indonesia, which creates uncertainty as to the ability of holder of the Notes to enforce the Notes and the Guarantees in Indonesia.

We will require a significant amount of cash to meet our obligations under the Notes and to sustain our operations which we may not be able to generate or raise.

Our ability to make scheduled principal (including mandatory redemption) or interest payments on our current and future indebtedness, including under the Notes, and to fund our ongoing operations, will depend on our future performance and our ability to generate cash which, to a certain extent, is subject to general economic, financial, competitive, legislative, legal, regulatory and other factors, as discussed in this section, many of which are beyond our control.

We may not generate sufficient cash flows from operations and future sources of capital may not be available to us in an amount sufficient to enable us to service our indebtedness, including the Notes, or to fund our other liquidity needs. If we are unable to generate sufficient cash flows and capital resources to satisfy our debt obligations or other liquidity needs, we may have to undertake alternative financing plans, such as refinancing or restructuring our debt, selling assets, reducing or delaying capital investments or seeking to raise additional capital. There is no assurance that any refinancing would be possible, that any assets could be sold or, if sold, of the timing of the sales and the amount of proceeds that may be realised from those sales, or that additional financing could be obtained on acceptable terms, if at all. In the absence of such operating results and resources, we could face substantial liquidity problems and might be required to dispose of material assets or operations to meet our debt service and other obligations. Other credit facilities and the Indenture that will govern the Notes will restrict our ability to dispose of assets and use the proceeds from the disposition. We may not be able to consummate those dispositions or to obtain the proceeds which we could realised from them and these proceeds may not be adequate to meet any debt service obligations then due.

Our inability to generate sufficient cash flows to satisfy our debt obligations, or to refinance our indebtedness on commercially reasonable terms and in a timely manner, would materially and adversely affect our financial condition and results of operations and our ability to satisfy our obligations under the Notes. Furthermore, if we do not have sufficient foreign currency assets or hedges in place to satisfy the hedging and liquidity requirements under the Prudential Principles of Offshore Loan for Non-Bank Corporations Regulation, we may cease to be in compliance with the prudential principles set forth in the Prudential Principles of Offshore Loan for Non-Bank Corporations Regulation at the relevant periods stated therein (which are generally within six months of the end of the relevant quarter) near the stated maturity date of the Notes if we are unable to repay the Notes earlier. See "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources*", "*Description of the Notes*" and "*Indonesian Regulation of Offshore Borrowings*".

The Notes are not secured by our assets and the lenders under our credit facilities will be entitled to remedies available to secured lenders, which gives them priority over the holder of the Notes.

The Notes will be effectively subordinated in right of payment to all of our secured indebtedness to the extent of the value of the assets securing such indebtedness. Creditors under our credit facilities and outstanding bonds are secured by security interests in substantially all of our assets, our capital stock and in certain of the capital stock held by us (subject to certain significant exceptions). See "*Description of Our Material Indebtedness*". As of 30 June 2017, we had US$372.9 million of total indebtedness, all of which was secured. If we become insolvent or are liquidated, or if payment under the credit facilities or of any other secured indebtedness is accelerated, the secured creditors and holders of other secured indebtedness (or an agent on their behalf) will be entitled to exercise the remedies available to a secured creditor under applicable law (in addition to any remedies that may be available under documents pertaining to our credit facilities). For example, the secured creditors could foreclose and sell those of our assets in which they have been granted a security interest to the exclusion of the holder of the Notes, even if an event of default exists under the Notes at that time. As a result, upon the occurrence of any of these events, there may not be sufficient funds to pay amounts due on the Notes.

We may not have the ability to raise the funds necessary to finance an offer to repurchase the Notes upon the occurrence of certain events constituting a Change of Control event as required by the Indenture.

Upon the occurrence of certain events constituting a "**Change of Control**" as such term is defined in the Indenture, the Company is required to offer to repurchase all outstanding Notes at a purchase price in cash equal to 101.0% of the principal amount of the Notes. If a Change of Control were to occur, no assurance can be given that the Company would have sufficient funds available at such time to pay the purchase price of the outstanding Notes. A change of control may result in an event of default under, or acceleration of, other indebtedness. The repurchase of the Notes pursuant to such an offer could cause a default under such indebtedness, even if the change of control itself does not. Any such event of default, cross-default and/or acceleration would materially and adversely affect our financial condition.

The change of control provision contained in the Indenture may not necessarily afford holders of the Notes protection in the event of certain important corporate events, including a reorganisation, restructuring, merger or other similar transaction involving the Company that may adversely affect holders of the Notes, because such corporate events may not involve a shift in voting power or beneficial ownership or, even if they do, may not constitute a "**Change of Control**" as defined in the Indenture.

The definition of "**Change of Control**" contained in the Indenture includes the direct and indirect sale of all or substantially all of the consolidated assets of the Company to any person. Although there is a limited body of case law interpreting the phrase "all or substantially all," there is no precise established definition of the phrase under applicable law. Accordingly, in certain circumstances there may be a degree of uncertainty as to whether a particular transaction would involve a disposition of "all or substantially all" of the assets of the Company. As a result, it may be unclear as to whether a Change of Control has occurred and whether the Company is required to make an offer to repurchase the Notes.

The ratings assigned to the Notes may be lowered or withdrawn entirely in the future.

We expect the Notes to be assigned a provisional rating of "Ba3" by Moody's, "BB-" by Fitch and "B+" by S&P. The ratings address our ability to perform our obligations under the terms of the Notes and credit risks in determining the likelihood that payments will be made when due under the Notes. A rating is not a recommendation to buy, sell or hold securities and may be subject to revision, suspension or withdrawal at any time. We cannot assure you that a rating will remain for any given period of time or that a rating will not be lowered or withdrawn entirely by the relevant rating agency if in its judgment circumstances in the future so warrant. We have no obligation to inform holders of the Notes of any such revision, downgrade or withdrawal. Additionally, other statistical ratings organisations may issue an unsolicited rating. If any such unsolicited ratings are issued, we cannot assure you that they will not be different from those ratings assigned by Moody's, Fitch or S&P. A suspension, reduction or withdrawal at any time of the rating assigned to the Notes or the issuance of different unsolicited ratings with respect of the Notes may adversely affect the market price of the Notes.

An active trading market for the Notes may not develop and the trading price of the Notes could be materially and adversely affected.

The Notes are a new issue of securities for which there is currently no trading market. Although the Initial Purchasers have advised us that they intend to make a market in the Notes, they are not obligated to do so and may discontinue such market making activity at any time without notice. We cannot predict whether an active trading market for the Notes will develop or be sustained.

If an active trading market were to develop, the Notes could trade at prices that may be lower than the initial offering price. The liquidity of any market for the Notes depends on many factors, including:

- the number of holders of Notes;
- the interest of securities dealers in making a market in the Notes;
- prevailing interest rates and interest rate volatility;
- the market for similar securities;
- our operating and financial results;
- the publication of earnings estimates or other research reports and speculation in the press or the investment community;
- the market price of the Notes;
- changes in our industry and competition; and
- general market and economic conditions.

If an active market for the Notes fails to develop or be sustained, the trading price of the Notes could be materially and adversely affected. We have submitted an application to the SGX-ST for the listing of the Notes on the SGX-ST. However, no assurance can be given that we will be able to maintain such listing or that, if listed, a trading market will develop. We do not intend to apply for listing of the Notes on any securities exchange other than the SGX-ST. Lack of a liquid, active trading market for the Notes may adversely affect the price of the Notes or may otherwise impede a holder's ability to dispose of the Notes.

Historically, the market for non-investment grade debt has been subject to disruptions that have caused substantial volatility in the prices of such securities. We cannot assure you that the market for the Notes will not be subject to similar disruptions. Any such disruptions may have an adverse effect on the market price of the Notes.

The Notes may not be a suitable investment for all investors.

Each potential investor in the Notes must determine the suitability of that investment in light of its own circumstances. In particular, each potential investor should:

- have sufficient knowledge and experience to make a meaningful evaluation of the Notes, the merits and risks of investing in the Notes and the information contained in this Offering Memorandum or any applicable supplement;
- have access to, and knowledge of, appropriate analytical tools to evaluate, in the context of its particular financial situation, an investment in the Notes and the impact such investment will have on its overall investment portfolio;
- have sufficient financial resources and liquidity to bear all of the risks of an investment in the Notes, including where the currency for payments is different from the potential investor's currency;
- understand thoroughly the terms of the Notes and be familiar with the behaviour of any relevant indices and financial markets; and

- be able to evaluate (either alone or with the help of a financial adviser) possible scenarios for economic, interest rate and other factors that may affect its investment and its ability to bear the applicable risks.

The liquidity and price of the Notes following the offering may be volatile.

The price and trading volume of the Notes may be highly volatile. Changes in our revenue, earnings and cash flows and proposals of new investments, strategic alliances or acquisitions, interest rates, changes in our industry, government regulations applicable to our industry and general economic conditions nationally or internationally could cause the price of the Notes to change. Any such developments may result in large and sudden changes in the volume and price at which the Notes will trade. We cannot assure you that these developments will not occur in the future.

There may be less publicly available information about us than is available in certain other jurisdictions.

There may be less publicly available information about companies listed in Indonesia than is regularly made available by public companies in certain other countries. Furthermore, we will be subject to reporting obligations in respect of the Notes to be listed on the SGX-ST. The disclosure standards imposed by the SGX-ST may be different than those imposed by securities exchanges in other countries or regions such as the United States.

In addition, the financial information in this Offering Memorandum has been prepared in accordance with Indonesian FAS, which differ in certain respects from generally accepted accounting principles in other jurisdictions, or other generally accepted accounting principles, which might be material to the financial information contained in this Offering Memorandum. We have not prepared a reconciliation of our consolidated financial statements and related footnotes between Indonesian FAS and other generally accepted accounting principles. In making an investment decision, you must rely upon your own examination of us, the terms of the offering and our financial information. You should consult your own professional advisers for an understanding of the differences between Indonesian FAS and other generally accepted accounting principles and how those differences might affect the financial information contained in this Offering Memorandum.

The transfer of the Notes and the Guarantees is restricted, which may adversely affect their liquidity and the price at which they may be sold.

The Notes and the Guarantees have not been registered, and we are not obligated to register the Notes or the Guarantees, under the Securities Act or the securities laws of any other jurisdiction and, unless so registered, the Notes and the Guarantees may not be offered or sold except pursuant to an exemption from, or a transaction not subject to, the registration requirements of the Securities Act and any other applicable laws. See "*Plan of Distribution*" and "*Transfer Restrictions.*" We have not agreed to or otherwise undertaken to register the Notes (including by way of an exchange offer), and the Company has no intention of doing so.

Holders of the Notes will not have voting rights at shareholders' meetings.

Holders of the Notes do not have any right to vote at any of our shareholders' meetings. Consequently, holders of the Notes cannot influence any decisions by our Board of Commissioners, Board of Directors or any decisions by shareholders concerning our capital structure, including the declaration of dividends in respect of our ordinary shares.

Interest rate risks may affect the value of the Notes.

The Notes are fixed interest rate securities. Subsequent changes in market interest rates may adversely affect the value of the Notes.

We may be unable to repay the Notes at maturity.

At maturity, the entire outstanding principal amount of the Notes, together with accrued and unpaid interest, will become due and payable. We may not have the funds to fulfill these obligations or the ability to refinance these obligations. If the maturity date occurs at a time when other arrangements prohibit us from repaying the Notes, we would try to obtain waivers of such prohibitions from the lenders and holders under those arrangements, or we could attempt to refinance the borrowings that contain the restrictions. In these circumstances, if we cannot obtain such waivers or refinance these borrowings, we would be unable to repay the Notes.

The terms of the Notes will contain restrictive debt covenants that may limit our ability to finance our future operations and capital needs and to pursue business opportunities and activities.

The Indenture will, among other things, restrict our ability and the ability of our Restricted Subsidiaries to:

- incur or guarantee additional indebtedness and issue certain preferred stock;
- create or incur certain liens;
- make certain payments, including dividends or other distributions, with respect to our or our Restricted Subsidiaries' shares;
- prepay or redeem subordinated debt or equity;
- make certain investments and capital expenditures;
- create encumbrances or restrictions on the payment of dividends or other distributions, loans or advances to and on the transfer of assets to the Guarantors or any of their restricted subsidiaries;
- sell, lease or transfer certain assets, including stock of restricted subsidiaries;
- engage in certain transactions with affiliates;
- enter into unrelated businesses or engage in prohibited activities;
- consolidate or merge with other entities; and
- impair the security interest for the benefit of the holders of the Notes.

All of these limitations will be subject to significant exceptions and qualifications. See "*Description of the Notes — Covenants.*" These covenants could limit our ability to finance future operations and capital needs and our ability to pursue business opportunities and activities that may be in their interest. Any future inability to incur additional debt could materially and adversely affect our business, financial conditions, results of operations and prospects.

Any defaults of covenants contained in the Notes may lead to an event of default under the Notes and the Indenture and may lead to cross-defaults under our other indebtedness. No assurance can be given that the Company will be able to pay any amounts due to holders of the Notes in the event of such default, and any default may significantly impair the Company's ability to pay, when due, the interest of and principal on the Notes.

We may incur additional indebtedness and make certain restricted payments, which could exacerbate the risks described above.

Subject to restrictions in the Indenture and the terms of our financing facilities, we may incur additional indebtedness, including secured indebtedness and make certain restricted payments which could increase the risks associated with our existing indebtedness. If we incur any additional indebtedness that ranks equally with the Notes, the relevant creditors will be entitled to share ratably with the holder of the Notes in any proceeds with respect to any unsecured assets that are distributed in connection with any insolvency, liquidation, reorganisation, dissolution or other winding-up of the Company. The Indenture permits additional indebtedness to be secured by assets and such indebtedness will rank senior to the Notes to the extent of the value of that collateral. This may have the effect of reducing the amount of proceeds paid to holder of the Notes. Covenants in agreements governing debt that we may incur in the future may also materially restrict our operations, including our ability to incur debt, pay dividends, make certain investments and payments, and encumber or dispose of assets. In addition, we could be in default of financial covenants contained in agreements relating to our future debt in the event that our results of operations do not meet any of the terms in the covenants, including the financial thresholds or ratios. A default under one debt instrument may also trigger cross-defaults under other debt instruments. An event of default under any debt instrument, if not cured or waived, could have a material adverse effect on us. In addition, the Indenture will allow us to include the proceeds of our recent rights offer as funds available to make restricted payments. Accordingly, we will be able to make restricted payments of not less that US$350 million immediately after the Issue Date. The amount of these payments, if made, may have an adverse effect on our ability to meet our obligations under the Notes or our other Indebtedness in the future.

The Guarantees may be challenged under applicable financial assistance, insolvency or fraudulent transfer laws, which could impair the enforceability of the Guarantees.

Under bankruptcy, fraudulent transfer, financial assistance, insolvency or unfair preference or similar laws in Indonesia, where the Subsidiary Guarantors are incorporated and where all of their significant assets are currently located (as well as under the law of certain other jurisdictions to which in certain circumstances the Subsidiary Guarantors may be subject), the enforceability of a Guarantee may be impaired if certain statutory conditions are met. In particular, a Guarantee may be voided, or claims in respect of a Guarantee could be subordinated to all other debts of that Subsidiary Guarantor, if the Subsidiary Guarantor, at the time that it incurred the indebtedness evidenced by, or when it gives, its guarantee:

- incurred the debt with the intent to hinder, delay or defraud creditors or was influenced by a desire to put the beneficiary of the Guarantee in a position which, in the event of the Subsidiary Guarantor's insolvency, would be better than the position the beneficiary would have been in had the Guarantee not been given;

- received less than reasonably equivalent value or fair consideration for the incurrence of such Guarantee;

- received no commercial benefit;

- was insolvent or rendered insolvent by reason of such incurrence;

- was engaged in a business or transaction for which the Subsidiary Guarantor's remaining assets constituted unreasonably small capital; or

- intended to incur, or believed that it would incur, debts beyond its ability to pay such debts as they mature.

The test for insolvency, the other particular requirements for the enforcement of fraudulent transfer law, and the nature of the remedy if a fraudulent transfer is found, may vary depending on the law of the jurisdiction which is being applied. Under the laws of Indonesia, it would also be necessary for the directors to ensure that the guarantor is solvent immediately after entry into, and performance of any obligation under, the transaction, that:

(a) it will be able to satisfy its liabilities as they become due in the ordinary course of its business; and

(b) the realisable value of the assets of the guarantor will not be less than the sum of its total liabilities other than deferred taxes, as shown in the books of account, and its capital.

The directors are required to ensure that the issued capital of the Subsidiary Guarantor is maintained and that, after the giving of a guarantee, the guarantor would have sufficient net assets to cover the nominal value of its issued share capital.

If a court voided the Guarantee, or held the Guarantee unenforceable for any other reason, then the holder of the Notes would cease to have a claim against the Subsidiary Guarantors based upon such Guarantee, and would solely be creditors of the Company. If a court subordinated the Guarantee to other indebtedness of a Subsidiary Guarantor, then claims under the Guarantee would be subject to the prior payment of all liabilities (including trade payables). We cannot assure you that, after providing for all prior claims, there would be sufficient assets to satisfy the claims of the holder of the Notes.

Payments under the Notes and the Guarantees will be structurally subordinated to liabilities and obligations of certain of our subsidiaries.

We have only a shareholder's claim on the assets of any subsidiary in our group. This shareholder's claim is junior to the claims that creditors of any such subsidiary have against it. The holder of the Notes will only be creditors of the Company, and not of our other subsidiaries. Only two of our subsidiaries are providing Guarantees. In addition, the holder of the Notes will not have the benefit of any security interest over the shares of the Subsidiary Guarantors or any of our other subsidiaries or any security interest over the assets of the Subsidiary Guarantors or any of our other subsidiaries. As a result, liabilities of any of our other subsidiaries, including any claims of trade creditors and preferred stockholders and any secured obligations of the Subsidiary Guarantors, will be effectively senior to the Notes and the Guarantees. Any of these other subsidiaries may in the future have other liabilities, including contingent liabilities, which may be significant. Although the Indenture contains limitations on the amount of additional debt that we and our restricted subsidiaries may incur, the amounts of such debt could be substantial. As of 30 June 2017, our subsidiary, excluding the Company and the Subsidiary Guarantors, had US$0.3 million of indebtedness outstanding.

The Notes will initially be held in book-entry form, and therefore you must rely on the procedures of the relevant clearing systems to exercise any rights and remedies.

The Notes will initially only be issued in global certificated form and held through DTC and its participants, including Euroclear and Clearstream. Interests in the global notes will trade in book-entry form only, and the Notes in definitive registered form, or definitive registered notes, will be issued in exchange for book-entry interests only in very limited circumstances. Owners of book-entry interests will not be considered owners or holders of the Notes. The custodian for DTC will be the sole registered holder of the global notes representing the Notes. Payments of principal, interest and other amounts owing on or in respect of the global notes representing the Notes will be made to the paying agent, which will make payments to DTC. Thereafter, these payments will be credited to accounts of participants (including Euroclear and Clearstream) that hold book-entry interests in the global notes representing the Notes and credited by such participants to indirect participants. After payment to the custodian for DTC, we will have no responsibility or liability for the payment of interest, principal or other amounts to the owners of book-entry interests. Accordingly, if you own a book-entry interest, you must rely on the procedures of DTC, Euroclear and Clearstream, and if you are not a participant in DTC, Euroclear and Clearstream, on the procedures of the participant through which you own your interest, to exercise any rights and obligations of a holder of Notes under the Indenture.

Unlike the holders of the Notes themselves, owners of book-entry interests will not have the direct right to act upon our solicitations for consents, requests for waivers or other actions from holders of the Notes. Instead, if you own a book-entry interest, you will be permitted to act only to the extent you have received appropriate proxies to do so from DTC, Euroclear and Clearstream. The procedures implemented for the granting of such proxies may not be sufficient to enable you to vote on a timely basis. Similarly, upon the occurrence of an event of default under the Indenture, unless and until definitive registered notes are issued in respect of all book-entry interests, if you own a book-entry interest, you will be restricted to acting through DTC, Euroclear and Clearstream. The procedures to be implemented through DTC, Euroclear and Clearstream may not be adequate to ensure the timely exercise of rights under the Notes.

Investment in the Notes may subject you to foreign exchange risks.

The Notes are denominated and payable in U.S. dollars. If you measure your investment returns by reference to a currency other than U.S. dollars, an investment in the Notes entails foreign exchange-related risks, including possible significant changes in the value of the U.S. dollars relative to the currency by reference to which you measure your investment returns, due to, among other things, economic, political and other factors over which we have no control. Depreciation of the U.S. dollar against the currency by reference to which you measure your investment returns could cause a decrease in the effective yield of the Notes below their stated coupon rates and could result in a loss to you when the return on the Notes is translated into the currency by reference to which you measure your investment returns. In addition, there may be tax consequences for you as a result of any foreign exchange gains resulting from any investment in the Notes.

It may not be possible for the Trustee to take certain actions.

The Notes and the Indenture provide for the Trustee to take action on behalf of the holder of the Notes in certain circumstances, but only if the Trustee is indemnified to its satisfaction. It may not be possible for the Trustee to take certain actions and accordingly in such circumstances the Trustee will be unable to take such actions, notwithstanding the provision of an indemnity to it, and it will be for the holder of the Notes to take such actions directly.

Enforcing the rights of holders of the Notes under the Notes or the Guarantees across multiple jurisdictions may prove difficult.

The Company and the Subsidiary Guarantors are established under the laws of Indonesia. The Notes and the Indenture will be governed by the laws of the State of New York. In the event of a bankruptcy, insolvency, suspension of debt payment, or similar event, proceedings could be initiated in Indonesia and the United States. Such multi-jurisdictional proceedings are likely to be complex and costly for creditors and otherwise may result in greater uncertainty and delay regarding the enforcement of your rights. The rights of holder of the Notes under the Notes and the Guarantees will be subject to the insolvency and administrative laws of several jurisdictions and there can be no assurance that you will be able to effectively enforce your rights in such complex multiple bankruptcy, insolvency or similar proceedings. In addition, the bankruptcy, insolvency, suspension of debt payment, administrative and other laws of Indonesia and the United States may be materially different from, or be in conflict with, each other and those with which you may be familiar, including in the areas of rights of creditors, priority of governmental and other creditors, ability to obtain post-petition interest and duration of the proceeding. The application of these laws, or any conflict among them, could call into question whether any particular jurisdiction's laws should apply, adversely affect your ability to enforce your rights under the Notes and the Guarantees in the relevant jurisdictions or limit any amounts that you may receive.

Holders of the Notes are exposed to risks relating to Singapore taxation.

The Notes to be issued are intended to be "qualifying debt securities" for the purposes of the Income Tax Act, Chapter 134 of Singapore ("**ITA**"), subject to the fulfilment of certain conditions more particularly described in the section "*Taxation—Singapore Taxation*". However, there is no assurance that the Notes will continue to be "qualifying debt securities" or that the tax concessions in connection therewith will apply throughout the tenure of the Notes should the relevant tax laws, administrative guidelines or circulars be amended or revoked at any time.

USE OF PROCEEDS

We estimate that the net proceeds from this offering, after deducting the underwriting discounts, commissions and other estimated expenses in connection with this offering, will be approximately US$291.1 million. We intend to use the net proceeds from this offering to fund our capital expenditures related to increasing our production capacity and/or product diversification and other capital expenditures to further increase the scale of our business, namely to expand our butadiene plant, to construct a new polyethylene plant, to revamp our naphtha cracker furnace, to debottleneck our polypropylene plant, to construct a new MTBE and Butene-1 plant, and to conduct initial feasibility studies for the construction of a second petrochemical complex. Our planned capital expenditures are in line with our business strategy to increase our production capacity and efficiency as well as further diversify our product offerings to maintain our position as a market leader in the Indonesian petrochemical industry. For more information, see "*Business — Capacity and Plant Improvement*" and "*Management's Discussion and Analysis of Financial Condition and Results of Operations — Capital Expenditures — Planned Capital Expenditures*."

EXCHANGE RATES AND EXCHANGE CONTROLS

Exchange Rates

The table below shows the exchange rate of Rupiah to U.S. dollars based on the closing rates of the last trading day of the year or month, the average of the daily closing rate for the period and the high and low daily closing rate for the year or month. None of us, or the Initial Purchasers makes any representations that the Rupiah or U.S. dollar amounts referred to in this Offering Memorandum could have been or could be converted into U.S. dollars or Rupiah, as the case may be, at the rate indicated or any other rate or at all.

Bank Indonesia is the sole issuer of Rupiah and is responsible for maintaining the stability of the Rupiah. Since 1970, Indonesia has implemented three exchange rate systems: (i) a fixed rate between 1970 and 1978, (ii) a managed floating exchange rate system between 1978 and 1997 and (iii) a free floating exchange rate system since 14 August 1997. Under the managed floating exchange system, Bank Indonesia maintained stability of the Rupiah through a trading band policy, pursuant to which Bank Indonesia would enter the foreign currency market and buy or sell Rupiah, as required, when trading in the Rupiah exceeded bid and offer prices announced by Bank Indonesia on a daily basis. On 14 August 1997, Bank Indonesia terminated the trading band policy and permitted the exchange rate of the Rupiah to float without an announced level at which it would intervene, which resulted in a substantial subsequent decrease in the value of the Rupiah relative to the U.S. dollar. Under the current system, the exchange rate of the Rupiah is determined solely by the market, reflecting the interaction of supply and demand in the market. Bank Indonesia may take measures, however, to maintain a stable exchange rate.

The following table sets forth information on the exchange rates between the Rupiah and U.S. dollar.

	Period End	Period Average(1)	High(2)	Low(2)
		Rp per US$		
2014	12,385	11,875	12,698	11,288
2015	13,788	13,394	14,698	12,473
2016	13,473	13,305	13,960	12,948
2017				
January	13,352	13,361	13,480	13,290
February	13,336	13,338	13,373	13,297
March	13,326	13,345	13,387	13,310
April	13,329	13,304	13,336	13,256
May	13,323	13,321	13,358	13,295
June	13,328	13,298	13,328	13,283
July	13,325	13,347	13,403	13,308
August	13,351	13,342	13,374	13,318
September	13,492	13,303	13,492	13,154
October (through to 27 October)	13,630	13,521	13,630	13,483

Source: Bloomberg, Bank of Indonesia.

(1) The average exchange rate shown for the periods indicated are based on the average of the daily closing rate.

(2) The high and low amounts for each year and month are based on the daily closing rate for the periods indicated.

Exchange Controls

Indonesia has limited foreign exchange controls. The Indonesian Rupiah has been, and in general is, freely convertible within or from Indonesia. However, to maintain the stability of the Rupiah and to prevent the utilisation of the Rupiah for speculative purposes by non-residents, Bank Indonesia has introduced regulations to restrict the movement of Rupiah from (i) banks within Indonesia to banks domiciled outside of Indonesia or to offshore branches of Indonesian banks, or (ii) any Rupiah-denominated investment with foreign parties or Indonesian parties domiciled or permanently residing outside of Indonesia, thereby limiting offshore trading to existing sources of liquidity. In addition, Bank Indonesia has the authority to request information and data concerning the foreign exchange activities of all persons and legal entities that are domiciled, or plan to domicile, in Indonesia for at least one year. Bank Indonesia regulations also require resident banks and companies that have total assets or total annual gross revenues of at least Rp100 billion to report to Bank Indonesia all data concerning their foreign currency activities involving transactions not conducted via a domestic bank or domestic non-bank financial institution (for example, insurance companies, securities companies, finance companies, or venture capital companies). However, if such transactions are conducted via a domestic bank or a domestic non-bank financial institution, the requirement to report to Bank Indonesia is imposed on the relevant Indonesian bank or non-bank financial institution that carried out the transaction. The transactions that must be reported include receipt and payment of foreign currency through bank accounts outside of Indonesia.

Foreign Exchange Transactions

Pursuant to Bank Indonesia Regulation No. 16/22/PBI/2014 on Reporting of Foreign Exchange Activities and Reporting of the Implementation of Prudential Principles in the Management of Non-Bank Corporation Offshore Borrowings ("**PBI 16/22/2014**"), all Indonesian residents, ie, bank institutions, non-bank financial institutions, non-financial institutions, state/regional-owned companies, private companies, business entities and individuals are required to submit a report to Bank Indonesia on their foreign exchange activities. The report is required to include: report to Bank Indonesia: (i) trade activities in goods, services and other transactions between residents and non-residents of Indonesia, (ii) the position and changes in the balance of offshore financial assets and/or offshore financial liabilities and/or (iii) any offshore borrowing plan and/or its realisation. Bank Indonesia requires reports to be submitted monthly through an online system by the 15th day of the following month, at the latest. In the event that a correction is required, the correction must be submitted through the online system no later than the 20th day of the reporting month. For offshore borrowings, the report must be submitted at the beginning of each year, no later than 15 March, and any amendment thereto by no later than 1 July.

Failure to submit the foreign exchange report (other than the offshore loan plan report) could result in the imposition of an administrative sanction in the amount of Rp10,000,000.00. Bank Indonesia will issue a warning letter and/or report to the competent authority, should Indonesian residents who engage in foreign exchange traffic activities, whether individual or entities, fail to submit a report. In addition to reporting on foreign exchange activities, for the purpose of implementing prudential principles in relation to offshore borrowings as required by Bank Indonesia Regulation No. 16/21/PBI/2014 dated 29 December 2014 on the Implementation of Prudential Principles in the Management of Non-Bank Corporation Offshore Borrowings as amended by Bank Indonesia Regulation No. 18/4/PBI/2016 dated 22 April 2016 ("**PBI 16/21/2014**"), which is implemented by the Circular Letter of Bank Indonesia No. 17/3/DSta dated 6 March 2015 on the Reporting of Implementation of Prudential Principles in the Management of Non-Bank Corporation Offshore Borrowings as amended by Circular Letter of Bank Indonesia No. 17/24/DSta dated 12 October 2015, Indonesian non-bank corporations are required to provide the following documents:

- the prudential principle implementation activity report ("**KPPK Report**"), to be submitted on a quarterly basis, no later than the end of the third month after the end of the relevant quarter;

- the KPPK Report, attested by a public accountant, to be submitted no later than the end of June after the end of the current financial year;

- information on the fulfilment of credit ratings, to be submitted by the end of the month following the execution or the issuance of the offshore borrowings; and

- the financial statements of the company, consisting of (i) unaudited financial statements, which must be submitted quarterly and no later than the end of the third month, and (ii) annual audited financial statements which must be submitted by no later than the end of June in the following year.

Submissions of and corrections to the documents above must be made online.

Bank Indonesia examines the accuracy of the foreign exchange traffic reports and the prudential principles implementation activity reports and may impose administrative sanctions, such as written warnings. It may also report violations to other authorities due to any delay or failure regarding the submission of such reports.

Indonesian Law on Currency and Obligation to Use Rupiah in Indonesian Territory

On 28 June 2011, the Indonesian House of Representatives passed Law No. 7 of 2011 on the use of Rupiah (the "**Currency Law**") and, on 31 March 2015, Bank Indonesia issued Bank Indonesia Regulation No. 17/3/PBI/2015 on the Obligation to Use Rupiah in the Territory of Indonesia ("**PBI 17/3/2015**") which was implemented by Circular Letter of Bank Indonesia No. 17/11/DKSP on 1 June 2015 ("**SEBI 17/11/2015**"). Under the Currency Law and PBI 17/3/2015, each party is required to use Rupiah for cash and non-cash transactions conducted within Indonesia, including for (i) each transaction with the purpose of payment, (ii) settlement of other obligations which must be satisfied with money and/or (iii) other financial transactions (including deposits of Rupiah in various amounts and types from customers to banks).

Subject to further requirements under PBI 17/3/2015, the obligation to use Rupiah does not apply to:

1. certain transactions relating to the implementation of state revenue and expenditure;

2. the receipt of provision of grants whether from or to an overseas source;

3. international trade transactions, including (a) export or import of goods to or from outside Indonesia, (b) activities relating to cross border trade in services and (c) bank deposits denominated in foreign currencies;

4. international financing transactions; and

5. transactions in a currency other than Rupiah conducted in accordance with applicable laws, including, among others (a) a bank's business activities in a currency other than Rupiah conducted based on applicable laws regarding conventional and Shari'a banks, (b) securities in a currency other than Rupiah issued by the Government in a primary or secondary market based on the applicable laws and (c) other transactions in a currency other than Rupiah based on applicable laws, including the law on Bank Indonesia, the law on investment and the law on Lembaga Pembiayaan Ekspor Indonesia (Indonesia Eximbank).

The Currency Law and PBI 17/3/2015 also prohibit any party from rejecting Rupiah that is used as a means of payment to settle obligations with respect to other financial transactions within Indonesia, unless there is uncertainty regarding the authenticity of the Rupiah that is received in respect to cash transactions, or the parties to the transactions have agreed in writing to the payment or settlement obligations in a foreign currency. Article 10 of PBI 17/3/2015 further provides that the exemption based on such written agreement between the parties is only applicable to an agreement made with respect to one of the exempted transactions described above or transactions related to a strategic infrastructure project.

PBI 17/3/2015 took effect from 31 March 2015 and the requirement to use Rupiah for non-cash transactions was effective from 1 July 2015. Written agreements signed prior to 1 July 2015 that contain provisions for the payment or settlement of obligations in a currency other than Rupiah for non-cash transactions will remain effective until the expiration of such agreements. However, any extension or amendment of such agreements must comply with PBI and prohibitions from undertaking payment activities.

According to SEBI 17/11/2015, a business operator in Indonesia must quote the price of goods and/or services in Rupiah and is prohibited from conducting dual quotations where the price of goods and/or services is listed both in Rupiah and a foreign currency, anywhere including on electronic media. The restriction applies to, among other things, (i) price tags, (ii) service fees, such as agent fees in the sale and purchase of property, tourism services fee or consultancy services fee, (iii) leasing fees, such as apartment leases, housing leases, office leases, building leases, land leases, warehouse leases or vehicle leases, (iv) tariffs, such as loading/unloading tariff for cargo at the seaport or airplane ticket tariff, (v) price lists, such as a restaurant menu price list, (vi) contracts, such as clauses for pricing or fees, (vii) documents of offer, order, invoice, such as the price clause in an invoice, purchase order or delivery order, and/or (viii) payment evidence, such as the price listed on a receipt.

SEBI 17/11/2015 also stipulates that conditional exemptions may apply to certain infrastructure projects, among other things (i) transportation infrastructure, including airport services, seaport procurement and/or services, railway infrastructure and facilities, (ii) road infrastructure, including toll roads and toll bridges, (iii) watering infrastructure, including standard water bearer channel, (iv) drinking water infrastructure, including standard water bearer building, transmission channels, distribution channels, drinking water treatment installation, (v) sanitation infrastructure, including waste water treatment installation, collector channel and main channel, and waste facility which includes transporter and waste storage, (vi) informatics and technology infrastructure, including telecommunication network and e-government infrastructure, (vii) electricity infrastructure, including power plant, which includes power development sourcing from geothermal, transmission or distribution of electricity, and (viii) oil and gas infrastructure, including transmission and/or distribution of natural oil and gas. These exemptions apply if (a) the projects have been declared by the central or regional government as a strategic infrastructure project, as evidenced by a formal confirmation letter from the relevant ministry/institution with regards to the project owner; and (b) an exemption approval has been obtained from Bank Indonesia.

Failure to comply with the obligation to use Rupiah in cash transactions will result in criminal sanctions against the offender which is punishable by up to one year of imprisonment and a fine of up to 200 million Rupiah, and any non-compliance for non-cash transactions will be subject to administrative sanctions in the form of (i) written warning, (ii) a fine up to Rp 1 billion and/or a restriction on undertaking further payment activities. Non-compliance with the Currency Law is punishable by up to one year of imprisonment and a fine of up to Rp 200 million. Bank Indonesia may also recommend the relevant authorities and institutions to conduct certain action such as revoking the business license or stopping the business activities of the party which fails to comply with the obligation to use Rupiah in non-cash transactions.

Purchasing Foreign Currencies Against Rupiah Through Banks

On 5 September 2016, Bank Indonesia issued Bank Indonesia Regulation No. 18/18/PBI/2016 on the Foreign Exchange Transactions Against Rupiah Between Banks and Domestic Parties ("**PBI 18/18/2016**") as implemented by the Circular Letter of Bank Indonesia No. 18/34/DPPK dated 13 December 2016. Under PBI 18/18/2016, the conversion of Rupiah to one or more foreign currencies or the purchase of a currency other than Rupiah in an amount exceeding certain thresholds by an

Indonesian company must be based on an underlying transaction, which is defined as an underlying activity on which the purchase of currencies other than Rupiah are made. The amount of currencies other than Rupiah that will be purchased may not exceed the nominal value of the underlying transaction. For the following purchase of foreign currency, there must be an underlying transaction:

1. the purchase of foreign currency in the form of a spot transaction is in amount exceeding US$25,000 per month (or its equivalent);

2. the purchase of foreign currency in the form of derivative transaction is in the amount exceeding US$100,000 per month (or its equivalent);

3. the sale and purchase of foreign currencies against Rupiah through option transactions exceed US$1 million (or its equivalent); or

4. the sale and purchase of foreign currencies against Rupiah through forward transactions exceed US$5 million (or its equivalent),

per transaction per domestic customer.

The following transactions are deemed as underlying transactions under PBI 18/18/2016: (i) domestic and international trade of goods and services or (ii) investments such as direct investments, portfolio investments, loans, capital and other investments inside and outside Indonesia. Underlying transactions do not include (i) the placement of funds in banks in the form of, among others, saving accounts, demand deposit accounts, time deposits and negotiable certificate deposits or (ii) money transfer activities by remittance companies or (iii) the use of Bank Indonesia commercial paper in foreign currency.

Indonesian parties (i) utilising foreign currency structured products against the Rupiah in the form of a call spread option and (ii) purchasing foreign currencies from banks by way of (a) spot transactions; and (b) standard derivative (plain vanilla) transactions in excess of US$25,000 and US$100,000, respectively, will be required to submit certain supporting documents to the selling bank including, among other things, the relevant underlying transaction document and a duly stamped statement confirming that the underlying agreement is valid and that the currency being purchased will only be used for settlement of the payment obligations under the underlying agreement. For purchases of foreign currency not exceeding the abovementioned thresholds, such company must declare in a duly stamped letter that its aggregate foreign currency purchases do not exceed the stipulated thresholds per month in the Indonesian banking system.

On 5 September 2016, Bank Indonesia issued Bank Indonesia Regulation No. 18/19/PBI/2016 on Foreign Exchange Transactions Against Rupiah Between Banks and Foreign Parties, which came into effect on 7 September 2016 ("**PBI 18/19/2016**") as implemented by Circular Letter of Bank Indonesia No. 18/35/DPPK. While PBI 18/18/2016 and PBI 18/19/2016 collectively govern foreign exchange transactions against Rupiah in Indonesia, PBI 18/18/2016 governs Indonesian bank customers and PBI 18/19/2016 governs foreign exchange transactions by banks and foreign parties.

Similar to PBI 18/18/2016, PBI 18/19/2016 also requires an underlying transaction for a foreign exchange transaction against Rupiah if it exceeds specified thresholds. These thresholds are: (i) a purchase of foreign exchange against Rupiah of more than US$25,000 per month per customer for spot transactions, or its equivalent; (ii) the purchase of foreign exchange against Rupiah of more than US$1 million per month per customer for derivative transactions, or its equivalent; and (iii) the sale of foreign exchange against Rupiah of more than US$5 million per transaction per foreign party for forward transactions, or its equivalent, and (iv) the sale of foreign exchange against Rupiah of more than US$1 million per transaction per foreign party for option transactions.

The following transactions are deemed as underlying transactions under PBI 18/19/2016: (i) domestic and international trade of goods and services; or (ii) investment in the forms of foreign direct investment, portfolio investments, loans, capital and other investments inside and outside Indonesia.

On 14 May 2014, Bank Indonesia issued Bank Indonesia Regulation No. 16/10/PBI/2014 on Receiving and Withdrawing Foreign Currencies from Export Activities and Foreign Loans as amended by Bank Indonesia Regulation No. 17/23/PBI/2015 dated 23 December 2015 ("**PBI 16/10/2014**") implemented by Circular Letter of Bank Indonesia No. 18/5/DSta dated 6 April 2016 on Drawdown of Offshore Borrowing, which revoked and replaced Bank Indonesia Regulation No. 13/22/PBI/2011 and Bank Indonesia Regulation No. 14/25/PBI/2012. Based on PBI 16/10/2014, any borrowings of offshore loans (in a currency other than Rupiah) that originate from (i) non-revolving loan agreements, (ii) a difference between the new loan and the refinanced loan, or (iii) debt securities (e.g. bonds, medium-term notes, floating rate notes, promissory notes and commercial papers) must be withdrawn through foreign exchange banks (including offshore bank branches in Indonesia) and must be reported to Bank Indonesia. The aggregate amount of the offshore loan withdrawals should be equal to the local commitments provided under such loans. In the event that there is any difference in excess of Rp50 million (or its equivalent in foreign currencies) between the offshore loan withdrawals and the local commitments, the borrower must submit an explanation to Bank Indonesia, in writing or by email. Withdrawals of the above foreign loans must be reported to Bank Indonesia on the 15th day of the following month after the withdrawal date. These reports must include supporting documents detailing the respective portions of the foreign loans that were withdrawn from the foreign exchange bank. Administrative sanctions are imposed on companies that fail to comply with such reporting obligations.

CAPITALISATION AND INDEBTEDNESS

The following table shows (i) our actual consolidated cash and cash equivalents, total indebtedness, and total equity as at 30 June 2017 and (ii) such amounts adjusted to give effect to the issuance of the Notes, as if the Notes had been issued on 30 June 2017, after deducting underwriting discounts, commissions and other estimated expenses related to the issuance of the Notes as described in "*Use of Proceeds.*" This table should be read in conjunction with our audited consolidated financial statements, including the respective notes thereto, included elsewhere in this Offering Memorandum. See also "*Use of Proceeds*", "*Summary of Corporate and Financing Structure*" and "*Management's Discussion and Analysis of Financial Condition and Results of Operations*."

	As of 30 June 2017	
	Actual	**As Adjusted**
	(US$ in millions)	
Cash and cash equivalents	212.3	503.4
Indebtedness:		
Current maturities of long-term liabilities		
Bank loans	71.6	71.6
Long-term liabilities — net of current maturities		
Bank loans	264.6	264.6
Bonds payable	36.7	36.7
Notes issued hereunder[1]	—	291.1
Total indebtedness	**372.9**	**664.0**
Equity:		
Total equity	1,196.9	1,196.9
Total capitalisation[2]	**1,569.8**	**1,860.9**

(1) The "As Adjusted" amount is net of estimated transaction costs of US$6.3 million relating to the issuance of the Notes and discount of US$2.6 million

(2) Total capitalisation equals total indebtedness plus total equity

Except as disclosed in this Offering Memorandum, there have been no material adverse changes in our capitalisation since 30 June 2017.

SELECTED FINANCIAL INFORMATION AND OTHER DATA

The selected financial information presented below should be read in conjunction with the financial statements and the notes thereto included elsewhere in this Offering Memorandum. You should also read the section of this Offering Memorandum entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Our Consolidated Financial Information

We have derived the selected consolidated financial information below from our historical consolidated financial statements as of and for the years ended 31 December 2014, 2015 and 2016 and the six-month periods ended 30 June 2016 and 2017, each prepared and presented in accordance with Indonesian FAS and included elsewhere in this Offering Memorandum.

Our consolidated financial statements for the year ended 31 December 2014, 2015 and 2016 and the six-month periods ended 30 June 2016 and 2017 have been audited by Satrio Bing Eny & Rekan (member of Deloitte Touche Tohmatsu Limited).

Our consolidated financial statements have been prepared and presented in accordance with Indonesian FAS, which may differ in certain significant respects to generally accepted accounting principles of other jurisdictions, including U.S. GAAP. See "*Summary of Certain Principal Differences between Indonesian Financial Accounting Standards and U.S. GAAP.*" Results for the interim period are not necessarily indicative of results for the full year.

The table below presents our selected consolidated financial information for the time periods indicated.

Consolidated Statements of Profit or Loss and Other Comprehensive Income

	For the year ended 31 December			For the six months ended 30 June	
	2014	2015	2016	2016	2017
	(US$ millions)				
NET REVENUES	2,460.1	1,377.6	1,930.3	882.1	1,195.3
COST OF REVENUES	2,342.6	1,231.8	1,436.0	664.1	903.1
GROSS PROFIT	**117.5**	**145.7**	**494.3**	**218.0**	**292.2**
Selling expenses	(42.5)	(41.7)	(42.6)	(21.8)	(20.6)
General and administrative expenses	(24.7)	(24.8)	(27.9)	(15.7)	(23.3)
Finance costs	(31.9)	(22.5)	(31.9)	(14.2)	(17.5)
Gain (loss) on derivative financial instruments	(2.6)	(1.5)	0.6	(1.6)	1.0
Share in net loss of an associate	(0.8)	(3.7)	(5.9)	(2.9)	(3.9)
Gain (loss) on foreign exchange — net	(3.5)	(11.5)	(1.3)	3.7	0.5
Other gains and losses — net	13.4	16.0	15.2	12.6	3.2

	For the year ended 31 December			For the six months ended 30 June	
	2014	2015	2016	2016	2017
			(US$ millions)		
PROFIT BEFORE TAX	**24.8**	**55.9**	**400.6**	**178.0**	**231.6**
INCOME TAX EXPENSE — NET	(6.4)	(29.6)	(100.4)	(46.2)	(57.4)
PROFIT FOR THE PERIOD	**18.4**	**26.3**	**300.1**	**131.8**	**174.2**
OTHER COMPREHENSIVE INCOME					
Item that will not be reclassified subsequently to profit or loss:					
Remeasurement of defined benefits obligation, net of tax	(2.0)	0.3	(1.7)	(2.2)	(1.7)
Item that may be reclassified subsequently to profit or loss:					
Foreign currency translation adjustment	(0.1)	(0.6)	0.1	0.2	0.1
Total other comprehensive income for the period, net of tax	(2.1)	(0.3)	(1.6)	(2.0)	(1.6)
TOTAL COMPREHENSIVE INCOME FOR THE PERIOD	**16.4**	**25.9**	**298.5**	**129.8**	**172.6**
PROFIT FOR THE PERIOD ATTRIBUTABLE TO:					
Owners of the Company	18.2	26.3	300.0	131.7	174.0
Non-controlling interests	0.2	(0.1)	0.1	—	0.2
Profit for the period	**18.4**	**26.3**	**300.1**	**131.8**	**174.2**
TOTAL COMPREHENSIVE INCOME FOR THE PERIOD ATTRIBUTABLE TO:					
Owners of the Company	16.3	26.3	298.3	129.6	172.4
Non-controlling interests	0.1	(0.4)	0.2	0.2	0.2
Total Comprehensive Income for the Period	**16.4**	**25.9**	**298.5**	**129.8**	**172.6**
BASIC EARNINGS PER SHARE (In full U.S. Dollar amount)	0.0056	0.0080	0.0913	0.0401	0.0529

Consolidated Statements of Financial Position

	As of 31 December			As of 30 June
	2014	2015	2016	2017
	(US$ millions)			
ASSETS				
CURRENT ASSETS				
Cash and cash equivalents	207.9	96.8	298.8	212.3
Restricted cash in banks	14.3	12.8	10.4	13.4
Trade accounts receivable				
Related party	13.5	—	1.7	7.1
Third parties - net of allowance for impairment losses of US$0.2 million at 30 June 2017 and US$0.1 million at 31 December 2016, 2015 and 2014	86.5	46.5	135.7	163.5
Other accounts receivable	8.3	3.8	3.1	2.6
Inventories - net of allowance for decline in value of US$5.2 million at 30 June 2017, 31 December 2016, 2015 and 2014	218.4	178.4	199.5	212.6
Prepaid taxes	98.0	66.3	23.7	33.2
Advances and prepaid expenses	12.5	12.1	19.7	37.1
Noncurrent assets held for sale	7.0	—	—	—
Total Current Assets	666.4	416.6	692.5	681.7
NONCURRENT ASSETS				
Deferred tax assets	0.5	5.8	3.5	—
Investment in an associate	12.7	38.0	32.2	28.2
Advances for purchase of property, plant and equipment	11.2	13.3	3.1	7.1
Derivative financial assets	1.1	0.7	1.5	2.1
Claims for tax refund	71.4	64.6	64.2	64.8
Restricted cash in banks	11.1	13.0	13.0	22.0
Property, plant and equipment - net of accumulated depreciation of US$1,248.1 million at 30 June 2017, US$1,208.8 million at 31 December 2016, US$1,226.4 million at 31 December 2015, US$1,163.3 million at 31 December 2014	1,143.8	1,308.0	1,316.7	1,342.6
Other noncurrent assets	5.3	2.4	2.6	2.6
Total Noncurrent Assets	1,257.1	1,445.8	1,436.7	1,469.6
TOTAL ASSETS	**1,923.5**	**1,862.4**	**2,129.3**	**2,151.3**

	As of 31 December			As of 30 June
	2014	2015	2016	2017
	(US$ millions)			
LIABILITIES AND EQUITY CURRENT LIABILITIES				
Bank loans	—	50.8	—	—
Trade accounts payable				
Related party	133.9	87.9	25.3	5.9
Third parties	254.7	140.0	318.8	367.3
Other accounts payable	10.2	15.9	0.2	0.1
Taxes payable	1.7	1.8	34.0	22.7
Accrued expenses	5.5	6.1	3.9	4.9
Customer advances	3.4	4.8	8.6	4.7
Current maturities of long-term liabilities:				
Bank loans	68.5	70.5	63.1	71.6
Finance lease obligations	0.1	—	—	—
Total Current Liabilities	477.9	377.8	453.9	477.2
NONCURRENT LIABILITIES				
Deferred tax liabilities — net	132.2	146.1	141.5	141.1
Long-term liabilities - net of current maturities:				
Bank loans	422.0	426.5	325.3	264.6
Bonds payable	—	—	36.6	36.7
Derivative financial liabilities	0.5	0.7	0.0	0.3
Post-employment benefits obligation	23.0	22.4	28.1	32.2
Decommissioning cost	2.1	2.1	2.2	2.3
Total Noncurrent Liabilities	579.7	597.8	533.7	477.2
TOTAL LIABILITIES	**1,057.6**	**975.5**	**987.6**	**954.4**
EQUITY				
Equity attributable to owners of the Company				
Capital stock - Rp 1,000 par value per share				
Authorised - 12,264,785,664 shares				
Issued and fully paid - 3,286,962,558 shares	360.0	360.0	360.0	360.0
Additional paid-in capital	108.7	108.7	108.7	108.7
Other comprehensive income	(1.1)	(1.1)	(2.8)	(4.4)
Retained earnings				
Appropriated	4.7	5.6	7.0	13.0
Unappropriated	385.9	406.9	662.1	713.0
Total equity attributable to owners of the Company	**858.3**	**880.1**	**1,135.0**	**1,190.3**
Non-controlling interests	**7.6**	**6.7**	**6.7**	**6.6**
TOTAL EQUITY	**865.9**	**886.8**	**1,141.7**	**1,196.9**
TOTAL LIABILITIES AND EQUITY	**1,923.5**	**1,862.4**	**2,129.3**	**2,151.3**

Consolidated Statements of Cash Flows

	For the year ended 31 December			For the six months ended 30 June	
	2014	2015	2016	2016	2017
			(US$ millions)		
Net Cash Provided by Operating Activities	116.2	104.7	475.9	197.7	180.0
Net Cash Used in Investing Activities	(239.4)	(238.0)	(69.0)	(26.6)	(80.1)
Net Cash Provided by (Used in) Financing Activities	89.3	22.2	(205.0)	(112.0)	(186.4)
Net Increase (Decrease) in Cash and Cash Equivalents	**(33.9)**	**(111.1)**	**201.9**	**59.1**	**(86.4)**
Cash and Cash Equivalents at Beginning of Period	**241.9**	**207.9**	**96.8**	**96.8**	**298.8**
Cash and Cash Equivalents at End of Period	**207.9**	**96.8**	**298.8**	**155.9**	**212.3**

Our Other Financial Data

	For the year ended 31 December			For the six months ended 30 June	
	2014	2015	2016	2016	2017
			(US$ millions, except where stated)		
Adjusted EBITDA(1)	134.5	154.8	509.5	224.0	294.8
Net debt(2)	282.5	450.9	126.2	307.5	160.6
Gross profit margin (%)(3)	4.8	10.6	25.6	24.7	24.4
Adjusted EBITDA margin (%)(4)	5.5	11.2	26.4	25.4	24.7
Days accounts receivable (days)(5)	20.6	19.1	17.1	19.4	23.2
Days accounts payable (days)(6)	70.1	90.1	71.7	69.5	71.5
Days in inventory (days)(7)	32.8	45.6	36.3	38.0	31.9
Capital expenditures(8)	194.2	223.8	73.4	30.9	69.1
Finance costs	31.9	22.5	31.9	14.2	17.5
Total debt(2)	490.5	547.7	425.0	463.4	372.9
Adjusted EBITDA/Finance costs ratio	4.2	6.9	16.0	15.8	16.8
Total Debt/Adjusted EBITDA ratio	3.6	3.5	0.8	2.1	1.3
Net Debt/Adjusted EBITDA ratio	2.1	2.9	0.2	1.4	0.5

(1) "**Adjusted EBITDA**" is defined as profit for the period before finance costs — net of interest income, income tax expense — net, depreciation and amortisation, unrealised foreign exchange loss/(gain), gain (loss) on derivative financial instruments, share in net loss of an associate and write down of inventories to net realisable values.

	For the year ended 31 December			For the six months ended 30 June	
	2014	**2015**	**2016**	**2016**	**2017**
	(US$ millions, except where stated)				
Profit for the period	18.4	26.3	300.1	131.8	174.2
Add/(Deduct):					
Finance costs — net of interest income	29.2	21.7	30.0	13.8	16.4
Income tax expense — net	6.4	29.6	100.4	46.2	57.4
Depreciation and amortisation	63.5	63.8	74.9	35.1	39.2
Unrealised foreign exchange loss/(gain)	8.9	8.2	(1.1)	(7.4)	4.7
Gain (loss) on derivative financial instruments	2.6	1.5	(0.6)	1.6	(1.0)
Share in net loss of an associate	0.8	3.7	5.9	2.9	3.9
Write down of inventories to net realisable values	4.5	—	—	—	—
Adjusted EBITDA	**134.5**	**154.8**	**509.5**	**224.0**	**294.8**

(2) Net debt is total debt minus cash and cash equivalents. Total debt is short-term and long-term liabilities, which include bank loans, finance lease obligations, and bonds payable.

(3) Gross profit margin is calculated by dividing gross profit by net revenues.

(4) Adjusted EBITDA margin is calculated by dividing Adjusted EBITDA by net revenues.

(5) Days accounts receivable represents the average number of days that we collected payments on products sold. It is calculated based on average account receivables divided by net revenues over 360 days for the years ended 31 December 2014, 2015 and 2016, and 180 days for the six-month periods ended 30 June 2016 and 2017.

(6) Days accounts payable represents the number of days that we took to pay its creditors. It is calculated based on average account payables divided by cost of revenues over 360 days for the years ended 31 December 2014, 2015 and 2016, and 180 days for the six-month periods ended 30 June 2016 and 2017.

(7) Days in inventory is calculated based on average inventory, excluding spare parts inventory, divided by cost of revenues over 360 days for the years ended 31 December 2014, 2015 and 2016, and 180 days for the six-month periods ended 30 June 2016 and 2017.

(8) Capital expenditures represents spending for debottlenecking and expansion, plant improvement, TAM and others.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis should be read in conjunction with our audited consolidated information and the related notes as of and for the years ended 31 December 2014, 2015 and 2016 and for the six-month period ended 30 June 2016 and 2017 included elsewhere in this Offering Memorandum. Our consolidated financial statements have been prepared and presented in accordance with Indonesian FAS, which may differ in certain significant respects to generally accepted accounting principles of other jurisdictions, including U.S. GAAP. See "Summary of Certain Principal Differences between Indonesian Financial Accounting Standards and U.S. GAAP."

This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of many factors, including but not limited to, those described under "Risk Factors" and elsewhere in this Offering Memorandum.

Overview

We are the largest integrated petrochemical producer in Indonesia and operate the country's only naphtha cracker, styrene monomer and butadiene plants. We are also the country's largest polypropylene producer and leading producer of polyethylene.

We produce the following products:

- olefins, comprising ethylene and propylene as well as their by-products, such as pygas and mixed C_4;
- polyolefins, comprising polyethylene and polypropylene;
- styrene monomer as well as its by-products, such as ethyl benzene, toluene and benzene toluene mixture; and
- butadiene as well as its by-products, such as raffinate.

Our products are fundamental to the production of a diverse range of consumer and industrial products, including packaging, containers, construction materials and automotive parts. During the year ended 31 December 2016, we produced 1,672 KT of olefins and its by-products, 757 KT of polyolefins, 282 KT of styrene monomer and its by-products and 208 KT of butadiene and its by-products. For the same period, our sales of olefin and by-products, polyolefin, styrene monomer and its by-products and butadiene and its by-products contributed to 31.6%, 45.8%, 15.0%, and 7.2% of our net revenue, respectively.

Our polypropylene impact copolymer resins are used as raw materials for the manufacturing of car and motorcycle components. We are the only producer of polypropylene impact copolymer resins in Indonesia and are the first company to supply vehicle-oriented resins to the domestic automotive component manufacturing industry in accordance with international standards.

We sell our products to customers in both the domestic and regional markets. We are the only domestic producer of ethylene, styrene monomer and butadiene, one of only two domestic producers of propylene and polyethylene and the largest polypropylene producer in Indonesia. According to Nexant, we accounted for approximately 58% of the total market share of ethylene in 2016 in Indonesia. In addition, we had a market share in Indonesia of approximately 24% for polyethylene and 29% for polypropylene. We are the sole domestic producer of styrene monomer in 2016.

We operate an integrated petrochemical complex located in Banten Province of Indonesia, approximately 120 km from Jakarta. Our integrated petrochemical complex comprises (i) our main petrochemical complex in Ciwandan, Cilegon, located 120 km from Jakarta, which houses one naphtha cracker, two polyethylene plants, three polypropylene trains and one butadiene plant that produce olefins, polyolefins and butadiene and its by-products and (ii) a styrene monomer complex approximately 40 km from our main petrochemical complex, in Bojonegara, Serang, and located 110 km from Jakarta, which houses two styrene monomer plants that produce styrene monomer and its by-products. Our styrene monomer plants are directly connected by pipelines to our main petrochemical complex in Cilegon, Banten Province. The strategic location of our integrated petrochemical complex provides us with convenient access to our key ethylene and propylene customers, which are directly connected to our production facilities in Cilegon by pipelines. Our petrochemical complex has integrated support facilities including pipelines, power generators, boilers, water treatment plants, storage tanks and jetty facilities.

The Company is a surviving entity from a merger between PT Chandra Asri and PT Tri Polyta Indonesia Tbk, which took effect on 1 January 2011. CA was incorporated in 1989 and its naphtha cracker plant commenced operations in 1995. TPI was incorporated in 1984 and its polypropylene plant commenced operations in 1992. As of 30 September 2017, our principal shareholders were Barito Pacific and SCG Chemicals. Barito Pacific directly and indirectly, through its wholly-owned subsidiary Marigold, owned 46.26% of our outstanding shares, SCG Chemicals owned 30.57%, of our outstanding shares and Prajogo Pangestu owned 14.11% of our outstanding shares. Prajogo Pangestu also owned 69.23% of the outstanding shares of Barito Pacific as of 30 September 2017.

During the years ended 31 December 2014, 2015 and 2016 and the six months ended 30 June 2017, we generated net revenues of US$2.5 billion, US$1.4 billion, US$1.9 billion and US$1.2 billion, respectively. During the years ended 31 December 2014, 2015 and 2016 and the six months ended 30 June 2017, our Adjusted EBITDA was US$134.5 million, US$154.8 million, US$509.5 million and US$294.8 million, respectively and our Adjusted EBITDA margin was 5.5%, 11.2%, 26.4% and 24.7%, respectively. As of the date of this Offering Memorandum, our long-term corporate credit ratings were "Ba3" by Moody's, "BB-" by Fitch and "B+" by S&P and our national credit ratings were "AA-" by Fitch and "idAA-" by PEFINDO.

Key Factors Affecting Results of Operations and Financial Condition

Supply and demand dynamics

Our net sales, profit margins and operating performance are sensitive to supply and demand dynamics in both the domestic and international petrochemical markets. Demand for our products is generally linked to the level of economic activity or GDP growth. Supply is affected by production capacity available in the market. As demand for petrochemical products approaches available supply, industry capacity utilisation rates rise, and prices and margins typically increase. Historically, this relationship has been highly cyclical due to fluctuations in supply resulting from the timing of new investments in capacity and general economic conditions affecting the relative strength or weakness of demand. Generally, capacity is more likely to be added in periods when prevailing or expected future demand is strong and margins are, or are expected to be, high. Investments in new capacity can result, and in the past frequently have resulted, in overcapacity, which typically leads to a decrease in industry capacity utilisation rates and a reduction of margins. In response, petrochemical producers typically reduce capacity or limit further capacity additions, eventually causing the market to be relatively undersupplied and leading to a rise in industry capacity utilisation and margin expansion. Although we are the sole domestic producer of some of our products and we believe we have significant advantages over both our domestic and international competitors, the petrochemical industry has historically been characterised by periods of tight supply, leading to high utilisation rates and margins, followed by periods of oversupply primarily resulting from significant capacity additions, leading to reduced utilisation rates and margins. Oversupply results in reduction of the price of our products, which leads to a reduction in our profit margins, whereas during periods of tight supply, we benefit from the increase in product prices which lead to enhanced profit margins. Our historical results reflect these supply and demand dynamics and the volatile nature of the petrochemical industry.

Prices of our products are set by regional benchmark prices. Historically, we have been able to price some of our products at a premium to benchmark prices, mainly as a result of (i) our close proximity to customers, which results in shorter lead-time delivery, (ii) our ability to deliver our products regularly and in smaller quantities, and thus assisting our customers with their working capital efficiencies, as compared to imported products, which typically requires longer delivery time and bulk volume delivery, (iii) the security of product supply compared to imported products and (iv) the technical assistance that we provide. From 2014 to 2016, we experienced a decrease in the average sales price per tonne of our products in tandem with lower crude oil prices. During the years ended 31 December 2014, 2015 and 2016 and the six months ended 30 June 2017, the average sales prices of olefins were US$1,148.0/MT, US$774.6/MT, US$758.6/MT and US$866.3/MT, respectively. During the years ended 31 December 2014, 2015 and 2016 and the six months ended 30 June 2017, the average sales prices per tonne of polyolefins were US$1,659.6/MT, US$1,285.5/MT, US$1,191.1/MT and US$1,224.7/MT, respectively. During the years ended 31 December 2014, 2015 and 2016 and the six months ended 30 June 2017, the average sales prices per tonne of styrene monomer and by-products were US$1,596.0/MT, US$1,086.2/MT, US$1,023.7/MT and US$1,234.2/MT, respectively. During the years ended 31 December 2014, 2015 and 2016 and the six months ended 30 June 2017, the average sales prices per tonne of butadiene and by-products were US$1,171.8/MT, US$737.0/MT, US$690.3/MT and US$1,068.1/MT, respectively.

Cost of feedstock

We use naphtha as our primary feedstock to produce our products and, accordingly, the cost of naphtha, all of which is purchased from independent third parties, represents by far the largest portion of our cost of goods sold. During the years ended 31 December 2014, 2015 and 2016 and the six months ended 30 June 2017, the cost of naphtha accounted for 62.8%, 45.9%, 61.3% and 61.7% of our cost of revenues, respectively.

The price of naphtha generally follows the price trend of crude oil, and varies with the market conditions for crude oil, which in recent times have been highly volatile. Naphtha price movements have not always been of the same magnitude or direction as changes in the prices we historically received for our products. Accordingly, increases or decreases in naphtha prices may have a material effect on our margins. During 2014, 2015, 2016, and the six months ended 30 June 2017, approximately 69.7%, 69.6%, 76.1% and 62.6% of our naphtha was supplied pursuant to one-year contracts at a formula price, respectively.

The industry has seen the price of naphtha decrease since 2014, which tracked the rapid decline in the crude oil prices; in particular, starting from the fourth quarter of 2014 until the end of the first quarter of 2016, the price of Brent crude oil declined by nearly 50%. Meanwhile, the prices for our products have also decreased, although at a slower rate than the decrease in the price of naphtha. As a result, our operating margins have increased during the periods. However, the oil price recovered in the first half of 2017, which led naphtha price to increase, pressuring our operating margins. The average price per tonne of naphtha decreased from US$930.9/MT in 2014 to US$550.6/MT in 2015 and US$409.7/MT in 2016 before increasing to US$486.4/MT in the six months ended 30 June 2017. The average cost per tonne of benzene, which is the primary raw material for styrene monomer, decreased by 14.8% to US$614.5/MT in 2016 from US$721.4/MT in 2015. Gross product margins are calculated by gross profit per product divided by net revenue per product. Our gross product margins for olefins during the years ended 31 December 2014, 2015, 2016 and for the six months ended 30 June 2017 were 2.0%, (0.9)%, 27.2% and 32.2%, respectively. Our gross product margins for polyolefins during the years ended 31 December 2014, 2015, 2016 and for the six months ended 30 June 2017 were 7.0%, 15.8%, 32.0% and 28.2%, respectively. Our gross product margins for styrene monomer and by-products during the years ended 31 December 2014, 2015, 2016 and for the six months ended 30 June 2017 were 1.7%, 5.0%, 8.7% and 7.1%, respectively. Our gross product margins for butadiene and by-products during the years ended 31 December 2014, 2015, 2016 and for the six months ended 30 June 2017 were 2.9%, (5.1)%, 11.1% and 16.9%, respectively.

We use propylene as our feedstock to produce polypropylene. We generally use all of our propylene production as feedstock for our own production of polypropylene. However, our propylene production is not sufficient for all of our polypropylene production and we typically import propylene to use as feedstock. During 2014, 2015, 2016 and the six months ended 30 June 2017, we produced 296 KT, 182 KT, 416 KT and 227 KT, respectively, of propylene and purchased 219 KT, 313 KT, 175 KT and 75 KT of propylene, respectively. During 2014, 2015 and 2016, the cost of propylene accounted for 1.9%, 2.3% and 7.0% of our cost of goods sold, respectively. The price of propylene is generally determined by supply and demand for propylene in the market. Propylene price movements have not always been of the same magnitude or direction as changes in the prices we received for our products. Accordingly, increases or decreases in propylene prices have had a material effect on our margins.

As a result, increases in feedstock prices may have a material adverse effect on our margins and cash flows, to the extent that such increases are not passed through to the selling prices of our products. Significant volatility in feedstock costs may also put pressure on our margins, since sales price increases for our products may lag behind feedstock price increases. There can be no assurance that increases in feedstock prices will not adversely affect our business or results of operations in the future. See "*Risk Factors — Risks Relating to Our Business and Operations — Fluctuations in the cost of feedstock may result in increased operating expenses and adversely affect our results of operations, cash flows and margins.*" See also "*— Supply and demand dynamics.*"

Economic conditions

Global and domestic macroeconomic conditions have historically had a significant impact on our operations and will continue to impact our operations. For example, the European debt crisis and China's economic slowdown in 2012 as well as high naphtha prices which resulted from the high oil prices triggered by heightened tensions in the Middle East stalled the growth of the petrochemical industry we operate in and have therefore resulted in significant decline in our profit margins and profitability in 2012. Moreover, in the second half of 2014, declining commodity prices, including the price of oil, led to a significant drop in the price of naphtha, which closely tracks oil prices, from which our operations benefited due to reduced feedstock cost. The global financial crisis, which commenced during the second half of 2008, had a negative effect on Indonesia and had negatively impacted our results of operations in 2008. According to the IMF, the global downturn adversely affected the economic performance of Indonesia, slowing real GDP growth rate to 5.6%, 5.0%, 4.8% in 2013, 2014 and 2015 respectively, before strengthening to 4.9% in 2016. See "*Risk Factors — Risks Relating to Indonesia — Domestic, regional or global economic changes may adversely affect our business.*"

Maintenance programmes (TAM, SDM) and unplanned outages

Our results of operations are materially influenced by the degree to which we utilise our assets in order to achieve maximum production volumes. We seek to operate our facilities at full capacity to maintain positive margins and cash flows, allowing us to withstand industry downturns more readily than other producers who have higher production costs. We aim to achieve growth in production volume by improving utilisation rates within the defined availability of an asset and improving availability of an asset by minimising planned and unplanned facility downtime. Scheduled maintenance programmes such as TAM and SDM, as well as unplanned shutdowns of our plants, may affect our utilisation rate, which results in fluctuation in our total production. In 2014, 2015 and 2016, and the six months ended 30 June 2017, our aggregate production of olefins, polyolefins, styrene monomer and by-products and butadiene and by-products was 2,440 KT, 1,763 KT, 2,919 KT and 1,597 KT, respectively.

We are required to conduct TAM, which includes certification of safety valves, major repair and maintenance, major scheduled renewals and replacements with respect to our plants, to maximise operating level through plant modernisation. During the TAM, we shut our respective facilities for between 35 up to 45 days, depending on the product, which results in a decline in our production of products during such period.

We are scheduled to conduct TAM every five years at our naphtha cracker plant, which typically lasts for 45 days. In September to December 2015, we conducted a scheduled TAM and expansion tie-in works, which resulted in the shutdown of our cracker facility for 85 days and limited our production capacity for 2015. The shutdown period was longer than the average as the TAM was conducted in conjunction with our naphtha cracker expansion project. After the TAM and naphtha cracker expansion was complete, the nameplate capacity of our naphtha cracker increased to 860 KT/A. The capacity utilisation rate of our naphtha cracker during the year ended 31 December 2015 and the first quarter of 2016 was low at 56.5% and 64.7%, respectively, largely reflecting the impact of the naphtha cracker TAM and expansion tie-in works during 2015 and the ramp-up of our new capacity additions in the first quarter of 2016. The table sets out the utilisation rates of our naphtha cracker during the periods indicated, which illustrates the effect of TAM on our production during the period:

	2014				2015				2016				2017	
Naphtha	**1Q**	**2Q**	**3Q**	**4Q**	**1Q**	**2Q**	**3Q**	**4Q**	**1Q**	**2Q**	**3Q**	**4Q**	**1Q**	**2Q**
Capacity utilisation rate	96.9%	98.2%	97.3%	81.7%	73.8%	66.3%	76.0%	10.5%	64.7%	92.2%	98.8%	103.1%	99.7%	96.8%
Nameplate capacity (KT/A)	600	600	600	600	600	600	600	600	860	860	860	860	860	860

We are scheduled to conduct the next TAM in 2020. After our recent review of our TAM procedures, we expect the TAM will result in a shutdown of our production plants for a maximum of approximately 45 days. See "*Risk Factors — Risks Relating to Our Business and Operations — Our operations require us to schedule regular shutdowns for maintenance, which could adversely affect our ability to make and sell products, which could have a material adverse effect on our business, financial conditions and results of operations.*"

Our two styrene monomer plants each require a once every two year SDM for a period of 26 days to 30 days. In December 2016, we conducted a scheduled SDM, which resulted in the stoppage of our styrene monomer plants for 30 days. We conduct SDM for our butadiene plant at the same time as a TAM for our naphtha cracker plant, during which we shut down our production of butadiene for a period of up to 40 days.

Our operations are also subject to production and other factors beyond our control, which may subject us to unscheduled outages and shutdowns. In the past, we suffered from unplanned outages, including several unplanned shutdowns in 2015, due to us running several of our facilities for a longer time than usual to align them with the scheduled shutdown in relation to the scheduled TAM and expansion tie-in works for our cracker expansion project towards the end of 2015. The unplanned shutdowns, as well as the scheduled TAM and expansion tie-in works resulted in a decrease in the utilisation rate of our naphtha cracker from 93.5% in 2014 to 56.5% in 2015. In addition, there was a fire incident at a naphtha feed line to one of our furnaces at our naphtha cracker on 10 June 2017, which resulted in a decrease in the utilisation rate of our naphtha cracker to approximately 80% for a period of four days following the incident. Our naphtha cracker resumed to its normal operating levels on 20 June 2017. See "*Risk Factors — Risks Relating to Our Business and Operations — Our operations are subject to production and other factors beyond our control which may subject us to unscheduled outages and shutdowns and which could have a material and adverse effect on our results of operations*."

Debottlenecking and expansion plans

Our ability to increase our production and sales will depend on our ability to improve our capacity of assets through our debottlenecking and expansion plans. For example, our cracker expansion project, which we completed in December 2015, resulted in a 43% capacity increase for our products, namely ethylene (from 600 KT/A to 860 KT/A), propylene (from 320 KT/A to 470 KT/A), pygas (from 280 KT/A to 400 KT/A) and mixed C_4 (from 220 KT/A to 315 KT/A). We expect our debottlenecking and expansion plans to increase production capacity through the installation of new equipment and machinery in our existing production facilities.

We are currently undertaking a butadiene expansion project, the construction of a new polyethylene plant, and our naphtha cracker furnace revamp. SRI, our joint venture company between our wholly-owned subsidiary SMI and Michelin, commenced construction of a new synthetic rubber plant to produce synthetic butadiene rubber in Cilegon, Banten Province in November 2015. In addition, we have projects in the pipeline, namely a debottlenecking project for our polypropylene plant and the construction of a new MTBE and Butene-1 plant. We expect that the development and completion of new plants will enable us to produce new additional and higher value-added downstream products. See "*Business — Capacity and Plant Improvements.*" See "*— Capital Expenditures — Planned capital expenditures.*"

Tariffs

Our results of operations have historically been affected in certain respects by tariffs imposed on imports of petrochemical products into Indonesia. Since 1 March 2017, the import of naphtha, ethylene, propylene, styrene monomer and butadiene is not subject to tariffs. The import of polyethylene and polypropylene is subject to a tariff of 5% to 15% of the import price if imported from non-ASEAN countries and is not subject to tariff if imported from ASEAN countries. See "*Risk Factors — Risks Relating to Our Business and Operations — Trade-regulating actions by the Government, such as reducing or eliminating tariffs on imported polyethylene and polypropylene, could adversely affect our profitability.*"

Environmental legislation

Our results of operations are affected by environmental laws and regulations, including those relating to greenhouse gas emissions, and environmental risks and goals generally. We have invested, and will continue to invest, a significant amount of financial and technical resources in order to achieve and maintain compliance with environmental requirements. From time to time, we also incur remediation and decommissioning costs at our current and former production facilities, as well as at other locations. Environmental considerations can also impact the markets in which we operate, including its position with respect to its competitors.

Seasonality

We have historically experienced lower sales during festive seasons, particularly during Hari Raya Idul Fitri or Lebaran holidays in Indonesia, during which only food and passengers are generally allowed to be transported on public roads. We have historically been unable to deliver products to our domestic customers for approximately 14 days during this festive period. While the operating rates of the polyethylene and polypropylene plants are not necessarily reduced, inventory builds up for two weeks during this festive period. Approximately two weeks prior to this festive period, demand for our products builds up, while we experience lower sales for approximately two weeks during the festive period. As Hari Raya Idul Fitri shifts every year, the extent that Lebaran does not fall within the same quarter, our results of operations will show the effects of seasonality.

Critical Accounting Policies

We have identified certain accounting policies that are significant for the preparation of our financial information and reporting. These significant accounting policies normally involve subjective and complex valuations in relation to accounts, requiring management valuation, financial information and data which could change in the future. We set out the following policies which were used in the preparation of our financial statements and which have required require significant management judgment. The accounting policies identified below are not exhaustive; for a full discussion of other significant accounting policies, please refer to the financial statements and accompanying notes included in this Offering Memorandum.

Property, plant and equipment

Property, plant and equipment held for use in the production or supply of goods or services, or for administrative purposes, are stated at cost less accumulated depreciation and any accumulated impairment losses.

In previous periods, we revalued certain property, plant and equipment which was conducted by an independent valuer.

Depreciation is recognised so as to reduce the cost of assets less residual values using the straight-line method based on the estimated useful lives of the assets as follows:

	Years
Buildings and infrastructures	4-30
Machineries	4-43
Motor vehicles	4-8
Furniture and fixtures	4-8

Land is stated at cost and is not depreciated.

Assets held under finance leases are depreciated over their expected useful lives on the same basis as owned assets or where shorter, the term of the relevant lease.

The estimated useful lives, residual values and depreciation method are reviewed at each period end, with the effect of any changes in estimate accounted for on a prospective basis.

The cost of maintenance and repairs is charged to profit or loss as incurred. Other costs incurred subsequently to add to, replace part of or service an item of property, plant and equipment, are recognised as asset if, and only if it is probable that future economic benefits associated with the item will flow to the entity and the cost of the item can be measured reliably.

Capitalised cost of major periodical overhauls of machinery and equipment is amortised using the straight-line method over the period to the next overhaul.

When assets are retired or otherwise disposed of, their carrying amounts are removed from the accounts and any resulting gain or loss is reflected in profit or loss.

Construction in progress is stated at cost which includes borrowing costs during construction on debts incurred to finance the construction. Construction in progress is transferred to the respective property, plant and equipment account when completed and ready for use.

The cost of an asset includes the initial estimate of the cost of dismantling and removing the item and restoring the site on which it is located. Liabilities resulting from such estimation were recorded as "**Decommissioning Cost**".

Impairment of Non-financial Assets

We review the carrying amount of non-financial assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Where it is not possible to estimate the recoverable amount of an individual asset, we estimate the recoverable amount of the cash generating unit to which the asset belongs.

Estimated recoverable amount is the higher of fair value less cost to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of the non-financial asset (cash generating unit) is less than its carrying amount, the carrying amount of the asset (cash generating unit) is reduced to its recoverable amount and an impairment loss is recognised immediately against earnings.

Inventories

Inventories are stated at cost or net realisable value, whichever is lower. Cost is determined using the weighted average method. Net realisable value represents the estimated selling price for inventories less all estimated costs of completion and costs necessary to make the sale.

Description of Key Income Statement Line Items

Net revenue. We derived our net revenue from (i) the sale of olefins (ethylene, propylene, pygas and mixed C_4), polyolefins (polyethylene and polypropylene), styrene monomer and its by-products and butadiene and its by-products and (ii) tanks and jetty rent. Our net revenue consisted of sales revenue net of VAT. We recognised domestic sales when the goods were delivered to customers. Export sales were generally made on an FOB basis and were recognised when the goods were dispatched, except for styrene monomer which was generally made on a CFR basis. In 2014, 2015, 2016, and the six months ended 30 June 2017, our net revenue amounted to US$2,460.1 million, US$1,377.6 million, US$1,930.3 million and US$1,195.3 million, respectively.

The table below shows a breakdown of our net revenue according to each of our products and the average price of each of those products for the periods indicated.

	For the year ended 31 December									For the six months ended 30 June					
	2014			2015			2016			2016			2017		
	(US$ millions)	Average sales price (US$)	Volume (KT)	(US$ millions)	Average sales price (US$)	Volume (KT)	(US$ millions)	Average sales price (US$)	Volume (KT)	(US$ millions)	Average sales price (US$)	Volume (KT)	(US$ millions)	Average sales price (US$)	Volume (KT)
Olefins															
Ethylene	261.4	1,375.8	190.0	84.9	1,030.3	82.4	375.2	985.3	380.8	160.6	991.4	162.0	240.2	1,032.2	232.7
Propylene	43.6	1,362.5	32.0	25.6	805.0	31.8	109.1	712.1	153.2	34.6	706.1	49.0	46.0	778.4	59.1
Pygas	193.9	979.3	198.0	60.6	567.9	106.7	106.4	451.8	235.5	50.3	433.6	116.0	78.9	605.2	130.4
Mixed C_4	15.5	553.6	28.0	—	—	—	19.1	556.9	34.3	4.1	512.5	8.0	5.3	984.7	5.4
Polyolefins															
Polyethylene	516.1	1,643.6	314.0	308.2	1,357.7	227.0	387.1	1,225.8	315.8	178.6	1,240.3	144.0	178.7	1,214.7	147.1
Polypropylene	786.7	1,670.3	471.0	560.7	1,248.8	449.0	497.5	1,165.4	426.9	253.5	1,126.7	225.0	277.2	1,231.2	225.1
Styrene Monomer and By-products															
Styrene monomer	412.7	1,605.2	257.1	251.9	1,094.7	230.1	285.3	1,031.8	276.5	129.4	1,011.7	127.9	213.8	1,245.9	171.6
By-products	6.1	1,150.9	5.3	4.0	740.7	5.4	4.0	666.7	6.0	2.0	666.7	3.0	2.8	717.9	3.9
Butadiene and By-products															
Butadiene	109.0	1,327.6	82.1	43.2	941.2	45.9	86.7	1,015.2	85.4	38.5	887.1	43.4	104.1	1,735.0	60.0
By-products	109.9	1,049.7	104.7	34.7	580.3	59.8	52.6	451.9	116.4	25.5	440.4	57.9	43.3	555.1	78.0
Total net sales/ sales volume	**2,454.9**	**—**	**1,682.2**	**1,373.7**	**—**	**1,238.1**	**1,923.0**	**—**	**2,030.8**	**877.1**	**—**	**936.2**	**1,190.3**	**—**	**1,113.3**
Tank and jetty rent	5.1	—	—	3.8	—	—	7.3	—	—	5.0	—	—	5.0	—	—
Total net revenue	**2,460.1**	**—**	**—**	**1,377.6**	**—**	**—**	**1,930.3**	**—**	**—**	**882.1**	**—**	**—**	**1,195.3**	**—**	**—**

Cost of revenues. Our cost of revenues comprised the cost of goods sold adjusted for the cost of service. The total cost of goods sold comprised total manufacturing costs adjusted for work in process and finished goods. Our total manufacturing cost was primarily composed of the cost of naphtha and benzene, the principal raw materials used in our production operations, as well as direct labour and factory overhead. In 2014, 2015, 2016, and the six months ended 30 June 2017, our cost of revenues was US$2,342.6 million, US$1,231.8 million and US$1,436.0 million, and US$903.1 million, respectively and our cost of goods sold was US$2,340.3 million, US$1,229.8 million, US$1,433.8 million and US$901.7 million, respectively.

The table below shows a breakdown of our total cost of revenues for the periods presented:

	For the year ended 31 December			For the six months ended 30 June	
	2014	**2015**	**2016**	**2016**	**2017**
			(US$ millions)		
Raw materials used[1]	1,725.5	701.4	1,015.0	432.6	680.0
Direct labour	29.9	27.4	34.2	13.0	27.2
Factory overhead	262.7	216.2	272.8	150.5	141.4
Total manufacturing costs	**2,018.0**	**945.0**	**1,321.9**	**596.2**	**848.5**
Work in process					
At beginning of period	10.9	15.3	10.9	10.9	12.6
At end of period	(15.3)	(10.9)	(12.6)	(9.0)	(8.0)
Cost of goods manufactured	**2,013.6**	**949.4**	**1,320.2**	**598.0**	**853.1**
Finished goods					
At beginning of period	116.2	66.7	58.0	58.0	70.2
Purchase of finished goods	277.1	271.7	125.8	56.1	57.1
At end of period	(66.7)	(58.0)	(70.2)	(53.2)	(78.8)
Total cost of goods sold	**2,340.3**	**1,229.8**	**1,433.8**	**658.9**	**901.7**
Cost of service	2.3	2.1	2.3	5.2	1.4
Total cost of revenues	**2,342.6**	**1,231.8**	**1,436.0**	**664.1**	**903.1**

(1) Raw materials used only include costs of those raw materials that are used in our production process. Under our accounting treatment, only naphtha and benzene are designated as "raw materials". Since we also produce ethylene, propylene and C_4, we designate them as "finished goods".

The table below sets forth our cost of goods sold by segment for the periods presented:

	For the year ended 31 December			For the six months ended 30 June	
	2014	2015	2016	2016	2017
			(US$ millions)		
Olefin	788.4	292.6	627.6	260.6	412.4
Polyolefin	1,212.1	732.1	601.8	299.8	328.0
Styrene Monomer	413.4	245.0	265.9	122.3	200.1
Butadiene	212.6	81.9	123.9	58.9	122.6
Total	**2,626.5**	**1,351.6**	**1,619.2**	**741.7**	**1,063.1**
Eliminations	(286.2)	(121.8)	(185.5)	(82.8)	(161.4)
Consolidated	**2,340.3**	**1,229.8**	**1,433.8**	**658.9**	**901.7**

The table below shows a breakdown of our total cost of raw materials consumed for the periods presented:

	For the year ended 31 December									For the six months ended 30 June					
	2014			2015			2016			2016			2017		
	(US$ millions)	%	Volume (KT)	(US$ millions)	%	Volume (KT)	(US$ millions)	%	Volume (KT)	(US$ millions)	%	Volume (KT)	(US$ millions)	%	Volume (KT)
Naphtha	1,472.1	85.3	1,559	564.8	80.5	974	880.6	86.8	2,120	362.4	85.2	954	557.2	81.9	1,159
Benzene	253.4	14.7	197	136.5	19.5	182	134.4	13.2	219	62.9	14.8	107	122.7	18.0	131
Total	**1,725.5**	**100.0**	**1,756**	**701.4**	**100.0**	**1,156**	**1.015.0**	**100.0**	**2,339**	**425.3**	**100.0**	**1,061**	**680.0**	**100.0**	**1,289**

Operating expenses. Our operating expenses primarily include selling expenses, general and administrative expenses, finance costs and other income (expenses). Selling expenses primarily include insurance and freight, salaries and allowances, depreciation and others. General and administrative expenses primarily included salaries and allowances, professional fees, post-employment benefit, depreciation and others. In 2014, 2015, 2016, and the six months ended 30 June 2017, our operating expenses totalled US$92.5 million, US$89.8 million, US$93.8 million and US$60.6 million, respectively. The tables below show a breakdown of selling expenses, general and administrative expenses for the periods presented.

	For the year ended 31 December			For the six months ended 30 June	
	2014	2015	2016	2016	2017
			(US$ millions)		
Selling Expenses					
Freight and insurance	39.9	39.1	38.7	20.0	17.7
Salaries and allowances	1.2	1.3	1.8	1.0	1.9
Depreciation	0.2	0.4	0.6	0.3	0.5
Others	1.2	0.9	1.5	0.6	0.5
Total	**42.5**	**41.7**	**42.6**	**21.8**	**20.6**

	For the year ended 31 December			For the six months ended 30 June	
	2014	2015	2016	2016	2017
			(US$ millions)		
General and Administrative Expenses					
Salaries, allowances and employee benefits	17.4	16.7	18.9	11.1	18.0
Professional fees	1.6	1.1	1.1	0.9	1.0
Depreciation	1.1	1.2	0.7	0.4	0.3
Others	4.6	5.8	7.2	3.4	4.0
Total	**24.7**	**24.8**	**27.9**	**15.7**	**23.3**

Finance costs. Finance costs primarily include interest expenses, bank charges and tax on interest expense. The tables below show a breakdown of finance costs for the periods presented.

	For the year ended 31 December			For the six months ended 30 June	
	2014	2015	2016	2016	2017
			(US$ millions)		
Finance costs					
Interest expenses on:					
Bank loans	23.9	13.8	25.4	9.5	11.9
Bonds payable	—	—	0.1	—	2.2
Others	1.1	1.6	1.0	1.7	0.1
Total interest on financial liabilities not classified as at Fair Value Through Profit or Loss (“**FVTPL**”)	25.0	15.4	26.5	11.2	14.2
Bank charges	5.8	5.5	3.6	1.4	2.7
Tax on interest expense	1.2	1.6	1.7	1.6	0.6
Total	**31.9**	**22.5**	**31.9**	**14.2**	**17.5**

Other income (expenses). Our other income (expenses) primarily includes gain (loss) on derivative financial instruments, share in net loss of an associate, gain (loss) on foreign exchange (net) and other gains and losses (net). The table below shows a breakdown of our other income for the periods indicated.

	For the year ended 31 December			For the six months ended 30 June	
	2014	2015	2016	2016	2017
			(US$ millions)		
Gain (loss) on derivative financial instruments	(2.6)	(1.5)	0.6	(1.6)	1.0
Share in net loss of an associate	(0.8)	(3.7)	(5.9)	(2.9)	(3.9)
Gain (loss) on foreign exchange — net	(3.5)	(11.5)	(1.3)	3.7	0.5
Other gains and losses — net	13.4	16.0	15.2	12.6	3.2
Total	**6.6**	**(0.8)**	**8.6**	**11.8**	**0.8**

Income tax benefit (expense). Our income tax benefit or expense comprised current tax and deferred tax. Current tax was calculated based on the taxable income for the year computed using prevailing tax rates. Deferred tax assets and liabilities were recognised for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax liabilities were recognised for all taxable temporary differences and deferred tax assets are recognised for deductible temporary differences to the extent that it was probable that taxable income would be available in future periods against which the deductible temporary differences could be utilised. Deferred tax was calculated at the tax rates that had been enacted or substantively enacted as of the balance sheet date. The table below shows a breakdown of our income tax expense (benefit) and deferred tax expense (benefit) for the periods presented.

	For the year ended 31 December			For the six months ended 30 June	
	2014	2015	2016	2016	2017
			(US$ millions)		
Total current tax	**(0.2)**	**(21.1)**	**(102.2)**	**(47.4)**	**(53.7)**
Deferred tax benefit (expense)					
Company	(7.3)	(12.9)	2.7	1.1	0.5
SMI	(0.1)	(0.9)	1.4	0.3	0.9
PBI	1.2	5.3	(2.3)	(0.3)	(5.1)
Total deferred tax	**(6.2)**	**(8.5)**	**1.7**	**1.2**	**(3.7)**
Total	**(6.4)**	**(29.6)**	**(100.4)**	**(46.2)**	**(57.4)**

On 14 January 2016, we received the results of a 2014 income tax audit from the Director General of Tax ("**DGT**"), which stated that our taxable income in 2014 of US$44.9 million was modified to be US$60.9 million.

On 29 November 2016, we received a tax facility benefit for an ethylene cracker expansion project from DGT, which allowed for a reduction in net taxable income of up to 30% of the amount invested in property, plant and equipment, amounting to Rp 3.5 trillion (US$260.5 million) per annum at 5% for six years of commercial production.

Results of Operations

Six months ended 30 June 2017 compared to the six months ended 30 June 2016

The following discussion compares certain of our results for six months ended 30 June 2017 compared to the six months period ended 30 June 2016.

Net revenues. Our net revenues increased by 35.5% to US$1,195.3 million for the six months ended 30 June 2017 compared to US$882.1 million for the six months ended 30 June 2016. The increase in net revenues reflected a 18.9% growth in sales volume and an increase in the average sale price for our products during the period. The higher sales volume for the period was primarily due to higher levels of production following the successful completion of our cracker expansion project, which we completed in December 2015, followed by a ramp-up period during the first quarter of 2016. During the six months ended 30 June 2017, our net sales for olefins, polyolefins, styrene monomer and its by-products and butadiene and its by-products amounted to US$370.4 million, US$455.9 million, US$216.6 million and US$147.4 million, respectively. Net sales attributable to each of our main products are set forth below.

- *Olefins (ethylene, propylene, pygas and mixed C_4).* In the six months ended 30 June 2017, our net sales increased by 48.4% to US$370.4 million compared to US$249.6 million in the six months ended 30 June 2016, primarily attributable to the successful completion of our cracker expansion project in December 2015 and lower production in the first quarter of 2016 due to a ramp-up period.

  - *Ethylene.* Our net ethylene sales increased by 49.6% to US$240.2 million in the six months ended 30 June 2017 compared to US$160.6 million in the six months ended 30 June 2016, in line with a 43.6% increase in sales volumes of ethylene to 232.7 KT in the six months ended 30 June 2017 from 162.0 KT in the six months ended 30 June 2016. Sales volumes were low in the six months ended 30 June 2016 because of the ramp-up period following our naphtha cracker expansion project which we completed in December 2015, which subsequently lowered production rates in the six months ended 30 June 2016. The average sales prices per tonne of ethylene was 4.1% higher at US$1,032.2/MT in the six months ended 30 June 2017 compared to US$991.4/MT in the six months ended 30 June 2016.

  - *Propylene.* Our net propylene sales increased by 32.9% to US$46.0 million in the six months ended 30 June 2017 compared to US$34.6 million in the six months ended 30 June 2016, largely due to a 10.2% increase in the average sales prices per tonne of propylene to US$778.4/MT in the six months ended 30 June 2017 compared to US$706.1/MT in the six months ended 30 June 2016.

  - *Pygas.* Our net pygas sales increased by 56.9% to US$78.9 million in the six months ended 30 June 2017 compared to US$50.3 million in the six months ended 30 June 2016. This was partly due to a 12.4% increase in sales volumes of pygas to 130.4 KT in the six months ended 30 June 2017 compared to 116.0 KT in the six months ended 30 June 2016. Sales volumes were low in the six months ended 30 June 2016 because of the ramp-up period following our naphtha cracker expansion project which we completed in December 2015, which subsequently lowered production rates in the six months ended 30 June 2016. The average sales prices per tonne of pygas was 39.6% higher at US$605.2/MT in the six months ended 30 June 2017 compared to US$433.6/MT in the six months ended 30 June 2016.

  - *Mixed C_4.* Our net mixed C_4 sales increased to US$5.3 million in the six months ended 30 June 2017 compared to US$4.1 million in the six months ended 30 June 2016. This increase was primarily due to 92.1% increase in the average sales prices per tonne of mixed C_4 to US$984.7/MT in the six months ended 30 June 2017 compared to US$512.5/MT in the six months ended 30 June 2016, although sales volumes of mixed C_4 decreased to 5.4 KT in the six months ended 30 June 2017 from 8.0 KT in the six months ended 30 June 2016. Sales volumes were low in the six months ended 30 June 2017 as we used most of the mixed C_4 that we produced to produce butadiene. Sales volumes were low in the six months ended 30 June 2016 because of the ramp-up period following our naphtha cracker expansion project which we completed in December 2015, which subsequently lowered production rates in the six months ended 30 June 2016.

- *Polyolefin (polyethylene and polypropylene).* Our net polyolefin sales increased by 5.5% to US$455.9 million in the six months ended 30 June 2017 compared to US$432.1 million in the six months ended 30 June 2016, primarily reflecting an increase in sales price and sales volume.

  - *Polyethylene.* Our net sales of polyethylene was stable at US$178.7 million in the six months ended 30 June 2017 compared to US$178.6 million in the six months ended 30 June 2016.

  - *Polypropylene.* Our net sales of polypropylene increased by 9.3% to US$277.2 million in the six months ended 30 June 2017 compared to US$253.5 million in the six months ended 30 June 2016, largely due to a 9.3% increase in the average sales price per tonne of polypropylene to US$1,231.2/MT in the six months ended 30 June 2017 compared to US$1,126.7/MT in the six months ended 30 June 2016.

- *Styrene monomer and by-products.* Our net sales of styrene monomer and by-products increased by 64.8% to US$216.6 million in the six months ended 30 June 2017 compared to US$131.4 million in the six months ended 30 June 2016. This was largely due to a 34.1% increase in sales volumes of styrene monomer and its by-products to 175.5 KT in the six months ended 30 June 2017 compared to 130.9 KT in the six months ended 30 June 2016 and a 23.0% increase in the average sales price per tonne of styrene monomer to US$1,245.9/MT in the six months ended 30 June 2017 compared to US$1,011.7/MT in the six months ended 30 June 2016.

- *Butadiene and by-products.* Our net sales of butadiene and by-products increased by 130.3% to US$147.4 million in the six months ended 30 June 2017 compared to US$64.0 million in the six months ended 30 June 2016. This was largely due to a 36.2% increase in sales volumes of butadiene and its by-products to 138.0 KT in the six months ended 30 June 2017 from 101.3 KT in the six months ended 30 June 2016 and a 69.1% increase in the average sales price per tonne of butadiene to US$1,735.0/MT in the six months ended 30 June 2017 compared to US$887.1/MT in the six months ended 30 June 2016.

Cost of revenues. For the six months period ended 30 June 2017 and 30 June 2016, our cost of revenues comprised cost goods sold and cost of service. Our cost of goods sold comprised total manufacturing cost adjusted for work in process and finished goods. Our total manufacturing cost primarily comprised the cost of naphtha and benzene, our principal raw materials used, which represent 80.1% and 71.3% of our total manufacturing cost for the six months ended 30 June 2017 and 30 June 2016, respectively, direct labour and factory overhead. Our cost of revenues increased by 36.0% to US$903.1 million for the six months ended 30 June 2017 compared to US$664.14 million for the six months ended 30 June 2016, primarily due to increased consumption of naphtha, which is our primary feedstock, due to higher production levels. The average price per tonne of naphtha, which is linked to the price of Brent crude oil, increased 24.1% to US$486.4/MT in the six months ended 30 June 2017 from US$391.8/MT in the six months ended 30 June 2016. In addition, the average price per tonne of benzene, which is the main raw material for styrene monomer, increased by 47.7% to US$873.1/MT in the six months ended 30 June 2017 from US$591.0/MT in the six months ended 30 June 2016.

- *Olefins (ethylene, propylene, pygas and mixed C_4).* Our cost of revenues of olefins increased by 41.2% to US$251.0 million in the six months ended 30 June 2017 compared to US$177.8 million in the six months ended 30 June 2016, primarily reflecting higher production levels compared to the first half of 2016, with the ramp-up period of our naphtha cracker after completion of our cracker expansion project in December 2015, as well as higher raw material costs, primarily naphtha, and a 27.6% increase in our olefins sales volume to 427.6 KT in the six months ended 30 June 2017 compared to 335.0 KT in the six months ended 30 June 2016.

- *Polyolefins (polyethylene and polypropylene).* Our cost of revenues of polyolefins remained generally stable at US$328.0 million in the six months ended 30 June 2017 compared to US$299.8 million in the six months ended 30 June 2016.

- *Styrene monomer and by-products.* Our cost of revenues of styrene monomer and its by-products increased by 63.6% to US$200.1 million in the six months ended 30 June 2017 compared to US$122.3 million in the six months ended 30 June 2016, primarily reflecting higher production from improving plant performance and market conditions as well as an increase in the price of benzene. Sales volumes increased by 34.1% to 175.5 KT in the six months ended 30 June 2017 compared to 130.9 KT in 2016.

- *Butadiene and by-products.* Our cost of revenues of butadiene and its by-products increased by 108.1% to US$122.6 million in the six months ended 30 June 2017 compared to US$58.9 million in the six months ended 30 June 2016, primarily reflecting higher production, with more feedstock being available for use following the completion of our cracker expansion project. Sales volumes increased by 36.2% to 138.0 KT in the six months ended 30 June 2017 compared to 101.3 KT in the six months ended 30 June 2016.

Gross profit (loss). Our gross profit increased by 34.1% to US$292.2 million for the six months ended 30 June 2017 compared to US$218.0 million for the six months ended 30 June 2016, primarily due to higher volumes from increased production capacity and higher product margins. Our gross profit margins for the six months ended 30 June 2017 and 30 June 2016 were 24.4% and 24.7% respectively. A description of our gross profit by main products is given below.

- *Olefins (ethylene, propylene, pygas and mixed C_4).* In the six months ended 30 June 2017, our gross profit for olefins increased by 66.4% to US$119.3 million compared to US$71.7 million for the six months ended 30 June 2016.

- *Polyolefin (polyethylene and polypropylene).* In the six months ended 30 June 2017, our gross profit for polyolefin decreased by 0.4% to US$128.7 million compared to US$129.2 million for the six months ended 30 June 2016.

- *Styrene monomer and by-products.* In the six months ended 30 June 2017, our gross profit for styrene monomer and by-products increased by 92.5% to US$15.4 million compared to US$8.0 million for the six months ended 30 June 2016.

- *Butadiene and by-products.* In the six months ended 30 June 2017, our gross profit for butadiene and by-products increased by 376.9% to US$24.8 million compared to US$5.2 million for the six months ended 30 June 2016.

Operating expenses. Our operating expenses for the six month periods ended 30 June 2017 and 30 June 2016 primarily included selling expenses, general and administrative expenses, finance costs and other income (expenses). Our selling expenses remained stable at US$20.6 million for the six months ended 30 June 2017 compared to US$21.8 million for the six months ended 30 June 2016. Our general and administrative expenses increased by 48.4% to US$23.3 million for the six months ended 30 June 2017 compared to US$15.7 million for the six months ended 30 June 2016, primarily as a result of an increase in salaries, allowances and employee benefits. Our finance costs increased by 23.2% to US$17.5 million for the six months ended 30 June 2017 compared to US$14.2 million for the six months ended 30 June 2016, primarily as a result of an increase interest expenses on bank loans, bonds and total interest on financial liabilities not classified as at fair value through profit or loss. Our other income decreased by 93.2% to US$0.8 million for the six months ended 30 June 2017 compared to US$11.8 million for the six months ended 30 June 2016, primarily due to lower gains on foreign exchange and other gains and losses.

Income tax expense — net. Our income tax expense — net was US$57.4 million for the six months ended 30 June 2017 compared to US$46.2 million for the six months ended 30 June 2016.

Profit for the period. In view of the foregoing, our profit for the six months ended 30 June 2017 amounted to US$174.2 million compared to US$131.8 million for the six months ended 30 June 2016.

The Year Ended 31 December 2016 Compared to the Year Ended 31 December 2015

The following discussion compares our operating results for the year ended 31 December 2016 to the year ended 31 December 2015.

Net revenues. Our net revenues increased by 40.1% to US$1,930.3 million in 2016 compared to US$1,377.6 million in 2015. The increase in net revenues reflected a 64.0% growth in sales volume, partially offset by a 14.7% decrease in the average sale price for our products in 2016. The higher sales volume for 2016 was principally due to higher levels of production following the successful completion of our cracker expansion project by 43% to 860 KT/A, which we completed in December 2015. In 2016, our net sales for olefins, polyolefins, styrene monomer and butadiene amounted to US$609.8 million, US$884.6 million, US$289.2 million and US$139.3 million, respectively. Net sales attributable to each of our main products are set forth below.

- *Olefins (ethylene, propylene, pygas and mixed C_4).* In 2016, our net sales increased by 256.4% to US$609.8 million compared to US$171.1 million in 2015, primarily attributable to the successful completion of our cracker expansion project in December 2015.

  - *Ethylene.* Our net ethylene sales increased by 341.9% to US$375.2 million in 2016 compared to US$84.9 million in 2015, in line with a 362.1% increase in sales volumes of ethylene to 380.8 KT in 2016 from 82.4 KT in 2015. Sales volumes were low in 2015 because of the 85-day shutdown during our scheduled TAM and expansion tie-in works in the latter part of the year, which also lowered our production levels for the year. Sales volumes increased in 2016 due to our cracker expansion project, which we completed in December 2015. The average sales prices per tonne of ethylene was 4.4% lower at US$985.3/MT in 2016 compared to US$1,030.3/MT in 2015.

  - *Propylene.* Our net propylene sales increased by 326.2% to US$109.1 million in 2016 compared to US$25.6 million in 2015, largely due to a 381.8% increase in sales volumes of propylene to 153.2 KT in 2016 compared to 31.8 KT in 2015. Sales volumes were low in 2015 as a result of our 85-day shutdown during our scheduled TAM and expansion tie-in works in the latter part of the year, which also lowered our production levels for the year. The average sales prices per tonne of propylene was 11.5% lower at US$712.1/MT in 2016 compared to US$805.0/MT in 2015.

  - *Pygas.* Our net pygas sales increased by 75.6% to US$106.4 million in 2016 compared to US$60.6 million in 2015. This was largely due to a 120.7% increase in sales volumes of pygas to 235.5 KT in 2016 compared to 106.7 KT in 2015, as a result of higher production for pygas and by-products and lower average sales prices per tonne of pygas. The average sales prices per tonne of pygas was 20.4% lower at US$451.8/MT in 2016 compared to US$567.9/MT in 2015.

  - *Mixed C_4.* Our net mixed C_4 sales were US$19.1 million in 2016 compared to nil in 2015, as the excess mixed C_4 following our cracker expansion project was sold instead of being consumed as raw materials by our wholly owned subsidiary, PBI, to produce butadiene.

- *Polyolefin (polyethylene and polypropylene).* Our net polyolefin sales increased by 1.8% to US$884.6 million in 2016 compared to US$869.0 million in 2015, primarily reflecting the results of our cracker expansion project, which we completed in December 2015.

  - *Polyethylene.* Our net sales of polyethylene increased by 25.6% to US$387.1 million in 2016 compared to US$308.2 million in 2015. This was largely due to a 39.1% increase in sales volumes of polyethylene to 315.8 KT in 2016 from 227.0 KT in 2015 as a result of higher production after the 85-day shutdown for our scheduled TAM and our cracker expansion project. This increase was partially offset by a 9.7% decrease in average sales price per tonne of polyethylene to US$1,225.8/MT in 2016 from US$1,357.7/MT in 2015, in part reflecting lower feedstock costs.

  - *Polypropylene.* Our net sales of polypropylene decreased by 11.3% to US$497.5 million in 2016 compared to US$560.7 million in 2015. This was largely due to a 4.9% decrease in sales volumes of polypropylene to 426.9 KT in 2016 compared to 449.0 KT in 2015. Average sales price per tonne of polypropylene decreased by 6.7% to US$1,165.4/MT in 2016 compared to US$1,248.8/MT in 2015, in part reflecting lower feedstock costs.

- *Styrene monomer and by-products.* Our net sales of styrene monomer and by-products increased by 13.1% to US$289.2 million in 2016 compared to US$255.8 million in 2015. This was largely due to a 20.0% increase in sales volumes of styrene monomer and by-products to 282.5 KT in 2016 compared to 235.5 KT in 2015 mainly due to improved plant performance and market conditions. The average sales price per tonne of styrene monomer decreased by 5.7% at US$1,031.8/MT in 2016 compared to US$1,094.7/MT in 2015, in part reflecting lower feedstock costs.

- *Butadiene and by-products.* Our net sales of butadiene and by-products increased by 78.8% to US$139.3 million in 2016 compared to US$77.9 million in 2015. This was largely due to a 90.9% increase in sales volumes of butadiene and by-products to 201.8 KT in 2016 from 105.7 KT in 2015 as a result of higher production, which was possible due to more feedstock being available for use as a result of increased capacity after the 85-day shutdown for TAM and our cracker expansion project. The average sales price per tonne of butadiene increased by 7.9% to US$1,015.2/MT in 2016 compared to US$941.2/MT in 2015.

Cost of revenues. Our cost of revenues increased 16.6% in 2016 to US$1,436.0 million as compared to US$1,231.8 million in 2015. The increase in cost of revenues was mainly due to our increased consumption of naphtha, which is our primary raw material, due to higher production as a result of our expanded ethylene capacity after the completion of TAM and expansion tie-in works in December 2015. The average cost of naphtha per ton, which is linked to Brent crude prices, decreased by 25.6% to US$410/MT compared to US$551/MT in 2015. Similarly, the average cost per tonne of benzene, which is the primary raw material for styrene monomer, decreased by 14.8% to US$614/MT compared to US$721/MT in 2015. A description of our cost of revenues by main products is given below.

- *Olefins (ethylene, propylene, pygas and mixed C_4).* In 2016, our cost of revenues of olefins increased by 157.0% to US$443.9 million compared to US$172.7 million in 2015, primarily reflecting higher production as a result of the increased nameplate capacity of our naphtha cracker after the completion of our cracker expansion project, which we completed in December 2015, as well as an increase in our olefins sales volume, which increased by 263.9% to 803.8 KT in 2016 compared to 220.9 KT in 2015.

- *Polyolefin (polyethylene and polypropylene).* Our cost of revenues of polyolefin decreased by 17.8% to US$601.8 million in 2016 compared to US$732.1 million in 2015, primarily reflecting higher production as a result of our cracker expansion project, which we completed in December 2015, as well as an increase in our polyolefin sales volume, which increased by 9.9% at 742.7 KT in 2016 compared to 676.0 KT in 2015.

- *Styrene monomer and by-products.* Our cost of revenues of styrene monomer and by-products increased by 8.6% to US$264.1 million in 2016 compared to US$243.1 million in 2015, primarily reflecting higher production from the improvement of plant performance and market conditions. Sales volumes increased by 20.0% to 282.5 KT in 2016 compared to 235.5 KT in 2015.

- *Butadiene and by-products.* Our cost of revenues of butadiene and by-products increased by 51.3% to US$123.9 million in 2016 compared to US$81.9 million in 2015, primarily reflecting higher production, which was possible with more feedstock being available for use after the 85-day shutdown for TAM and our cracker expansion project. Sales volumes increased by 90.9% to 201.8 KT in 2016 compared to 105.7 KT in 2015.

Gross profit (loss). As a result of the foregoing factors, namely, higher production as made possible with a 43% increase in our increased production capacity, higher product margins reflecting an upward trend in the industry and low crude oil prices, our gross profit increased by 239.3% in 2016 to US$494.3 million compared to US$145.7 million in 2015. A description of our gross profit by main products is given below.

- *Olefins (ethylene, propylene, pygas and mixed C_4).* In 2016, our gross profit for olefins increased to US$165.9 million compared to a gross loss of US$1.6 million in 2015.

- *Polyolefin (polyethylene and polypropylene).* In 2016, our gross profit for polyolefin increased by 106.6% to US$282.8 million compared to a gross profit of US$136.9 million in 2015.

- *Styrene monomer and by-products.* In 2016, our gross profit for styrene monomer and by-products increased by 98.4% to US$25.2 million compared to a gross profit of US$12.7 million in 2015.

- *Butadiene and by-products.* In 2016, our gross profit for butadiene and by-products increased to US$15.4 million compared to a gross loss of US$4.0 million in 2015.

Operating expenses. Our operating income (expenses) increased by 4.5% to US$93.8 million in 2016 compared to US$89.8 million in 2015, primarily due to higher salaries expense, finance costs with the completion of our cracker expansion project and share of net loss of an associate, partially offset by lower foreign exchange loss.

Other income (expenses) — net. Our other income — net amounted to US$8.6 million in 2016 compared to other expenses — net of US$0.8 million in 2015, mainly due to higher salaries expense, finance costs with the completion of our cracker expansion project and share of net loss of an associate, partially offset by lower foreign exchange loss.

Income tax benefit (expense). Our income tax expense as a percentage of profit before tax (effective tax rates) was 25.1% in 2016. Our income tax expense increased by 239.2% to US$100.4 million in 2016 compared to US$29.6 million in 2015, primarily due to higher profit before tax in 2016 as compared to 2015.

Net profit (loss) for the year. In view of the foregoing, our net profit for the year amounted to US$300.1 million in 2016 as compared to US$26.3 million in 2015. Our net profit for the year attributable to owners of the parent entity amounted to US$300 million in 2016, compared to US$26.3 million in 2015. Our net profit for the year attributable to non-controlling interests of PT Redeco Petrolin Utama ("**RPU**"), a subsidiary of SMI, amounted to US$0.1 million, compared to a loss of US$0.1 million in 2015.

The Year Ended 31 December 2015 Compared to the Year Ended 31 December 2014

The following discussion compares our operating results for the year ended 31 December 2015 to the year ended 31 December 2014.

Net revenues. Our net revenues decreased by 44.0% to US$1,377.6 million in 2015 compared to US$2,460.1 million in 2014. The decrease in net revenues was due to a 26.4% decrease in sales volume to 1,238.1 KT in 2015 from 1,682.2 KT in 2014 and a 24.0% decrease in the average sales price for our products. The lower sales volume for 2015 was due to lower production arising from an 85-day shutdown of our naphtha cracker as a result of TAM and expansion tie-in works and lower average sales prices, which mirrored lower crude oil prices. In 2015, our net sales for olefins, polyolefins, styrene monomer and by-products and butadiene and by-products amounted to US$171.1 million, US$869.0 million, US$255.8 million and US$77.9 million, respectively. A breakdown of our net sales by main product is given below.

- *Olefins (ethylene, propylene, pygas and mixed C_4).* In 2015, our net sales of olefins decreased by 66.7% to US$171.1 million compared to US$514.3 million in 2014, primarily reflecting lower production levels caused by our 85-day shutdown during our scheduled TAM and expansion tie-in works in conjunction with our cracker expansion project.

  - *Ethylene.* Our net ethylene sales decreased by 67.5% to US$84.9 million in 2015 compared to US$261.4 million in 2014. This was primarily due to a 56.6% decrease in sales volumes of ethylene to 82.4 KT in 2015 from 190.0 KT in 2014, which was a result of lower production levels caused by our 85-day shutdown during our scheduled TAM and expansion tie-in works in conjunction with our cracker expansion project. In addition, the average sales prices per tonne of ethylene was 25.1% lower at US$1,030.3/MT in 2015 compared to US$1,375.8/MT in 2014.

  - *Propylene.* Our net propylene sales decreased by 41.3% to US$25.6 million in 2015 compared to US$43.6 million in 2014, largely due to a decrease in the average sales prices per tonne of propylene. The average sales prices per tonne of propylene was 40.9% lower at US$805.0/MT in 2015 compared to US$1,362.5/MT in 2014.

  - *Pygas.* Our net pygas sales decreased by 68.7% to US$60.6 million in 2015 compared to US$193.9 million in 2014. This was largely due to a 46.1% decrease in sales volumes of pygas to 106.7 KT in 2015 compared to 198.0 KT in 2014, as a result of lower production of pygas and its by-products and lower average sales prices per tonne of pygas. The average sales prices per tonne of pygas was 42.0% lower at US$567.9/MT in 2015 compared to US$979.3/MT in 2014.

  - *Mixed C_4.* Our net mixed C_4 sales was nil in 2015 compared to 28.0 KT in 2014 as we used all of the mixed C_4 that we produced as raw materials for PBI.

- *Polyolefin (polyethylene and polypropylene).* Our net polyolefin sales decreased by 33.3% to US$869.0 million in 2015 compared to US$1,302.8 million in 2014, primarily reflecting lower production of polyethylene as a result of our scheduled TAM and expansion tie-in works.

  - *Polyethylene.* Our net sales of polyethylene decreased by 40.3% to US$308.2 million in 2015 compared to US$516.1 million in 2014. This was largely due to (i) a 17.4% decrease in average sales price per tonne of polyethylene to US$1,357.7/MT in 2015 from US$1,643.6/MT in 2014 and (ii) a 27.7% decrease in sales volumes of polyethylene to 227.0 KT in 2015 from 314.0 KT in 2014, primarily caused by lower production of polyethylene as a result of our scheduled TAM and expansion tie-in works.

    - *Polypropylene.* Our net sales of polypropylene decreased by 28.7% to US$560.7 million in 2015 compared to US$786.7 million in 2014. This was largely due to a 4.7% decrease in sales volumes of polypropylene to 449.0 KT in 2015 compared to 471.0 KT in 2014. The average sales price per tonne of polypropylene was 25.2% lower at US$1,248.8/MT in 2015 compared to US$1,670.3/MT in 2014.

- *Styrene monomer and by-products.* Our net sales of styrene monomer and by-products decreased by 38.9% to US$255.8 million in 2015 compared to US$418.8 million in 2014. This was largely due to a 10.3% decrease in sales volumes of styrene monomer to 235.5 KT in 2015 compared to 262.4 KT in 2014 mainly due to market conditions. The average sales prices per tonne of styrene monomer was 31.8% lower at US$1,094.7/MT in 2015 compared to US$1,605.2/MT in 2014.

- *Butadiene and by-products.* Our net sales of butadiene and by-products decreased by 64.4% to US$77.9 million in 2015 compared to US$218.9 million in 2014. This was largely due to a 43.4% decrease in sales volumes of butadiene to 105.7 KT in 2015 compared to 186.8 KT in 2014, primarily caused by lower production of butadiene as a result of our scheduled TAM and expansion tie-in works. The average sales prices per tonne of butadiene was 29.1% lower at US$941.2/MT in 2015 compared to US$1,327.6/MT in 2014.

Cost of revenues. Our cost of revenues sold decreased 47.4% in 2015 to US$1,231.8 million as compared to US$2,342.6 million in 2014. The decrease in the cost of revenues was mainly due to the decreased consumption of naphtha due to lower production, mainly resulting from our TAM and expansion tie-in works coupled with lower naphtha cost. The average cost of naphtha per tonne decreased by 40.9% to US$550.6/MT compared to US$930.9/MT in 2014. Similarly, the average cost of benzene per tonne decreased by 43.6% to US$721.4/MT compared to US$1,279.6/MT in 2014. A description of our cost of goods sold by main products is given below.

- *Olefins (ethylene, propylene, pygas and mixed C_4).* In 2015, our cost of goods sold of olefins decreased by 65.7% to US$172.7 million compared to US$504.1 million in 2014, primarily reflecting lower production levels caused by our 85-day shutdown during our scheduled TAM and expansion tie-in works in conjunction with our cracker expansion project, as well as a decrease in our olefins sales volume by 50.7% at 220.9 KT in 2015 compared to 448.0 KT in 2014.

- *Polyolefin (polyethylene and polypropylene).* Our cost of goods sold of polyolefin decreased by 39.6% to US$732.1 million in 2015 compared to US$1,212.1 million in 2014, primarily reflecting lower production of polyethylene as a result of our scheduled TAM and expansion tie-in works, as well as a decrease in our polyolefin sales volume by 13.9% at 676.0 KT in 2015 compared to 785.0 KT in 2014.

- *Styrene monomer and by-products.* Our cost of goods sold of styrene monomer and by-products decreased by 40.9% to US$243.1 million in 2015 compared to US$411.5 million in 2014, primarily reflecting lower production of styrene monomer. Sales volumes were lower by 10.3% at 235.5 KT in 2015 compared to 262.4 KT in 2014.

- *Butadiene and by-products.* Our cost of goods sold of butadiene and by-products decreased by 61.5% to US$81.9 million in 2015 compared to US$212.6 million in 2014, primarily reflecting lower production of butadiene as a result of our scheduled TAM and expansion tie-in works. Sales volumes were lower by 43.4% at 105.7 KT in 2015 compared to 186.8 KT in 2014. Average sale prices per tonne of butadiene were 29.1% lower at US$941.2/MT in 2015 compared to US$1,327.6/MT in 2014.

Gross profit (loss). Despite the foregoing factors, our gross profit increased by 24.1% in 2015 to US$145.7 million compared to US$117.5 million in 2014. A description of our gross profit by main products is given below.

- *Olefins (ethylene, propylene, pygas and mixed C_4).* In 2015, our gross loss for olefins was US$1.6 million, a decreased of 115.5% compared to a gross profit of US$10.3 million in 2014.

- *Polyolefin (polyethylene and polypropylene).* In 2015, our gross profit for polyolefin increased 50.8% to US$136.9 million compared to a gross profit of US$90.8 million in 2014.

- *Styrene monomer and by-products.* In 2015, our gross profit for styrene monomer and by-products increased 74.0% to US$12.7 million compared to a gross profit of US$7.3 million in 2014.

- *Butadiene and by-products.* In 2015, our gross loss for butadiene and by-products was US$4.0 million, a decrease of 164.5% to US$4.0 million compared to a gross profit of US$6.2 million in 2014.

Operating income (expenses). Our operating expenses decreased by 2.9% to US$89.8 million in 2015 compared to US$92.5 million in 2014, primarily due to lower finance costs as a result of principal repayments and capitalised interests to our cracker expansion project, higher other income due to land sales, partially offset by share of net loss of an associate and loss of foreign exchange.

Other income (expenses) — net. Our other expenses — net amounted to US$0.8 million in 2015 compared to other income — net, of US$6.6 million in 2014, mainly due gain from to land sales.

Income tax benefit (expense). Our income tax expense as a percentage of income before tax (effective tax rates) was 53.0% in 2015. Our income tax expense increased by 362.5% to US$29.6 million in 2015 compared to US$6.4 million in 2014, due to adjustments arising from prior years' tax closeout.

Net profit (loss) for the year. In view of the foregoing, our net profit for the year amounted to US$26.3 million in 2015 as compared to US$18.4 million in 2014.

Liquidity and Capital Resources

As our liquidity and capital requirements are affected by many factors, some of which are beyond our control, our funding requirements may change over time. If we require additional funds to support our working capital or capital requirements, we may seek to raise such additional funds through public or private financing or other sources. We maintain our cash and cash equivalents in accounts with certain financial institutions and other temporary cash investments. We also maintain revolving credit facilities for working capital purposes with banks in Indonesia and Singapore with total aggregate principal amount of approximately US$614 million, including a revolving loan facility of US$110 million, comprising both secured and unsecured facilities.

The table below sets forth our cash flows for the time periods indicated.

	For the year ended 31 December			For the six months ended 30 June	
	2014	2015	2016	2016	2017
	(US$ millions)				
Selected Cash Flow Statement Data					
Net cash provided by operating activities	116.2	104.7	475.9	197.7	180.0
Net cash used in investing activities	(239.4)	(238.0)	(69.0)	(26.6)	(80.1)
Net cash provided by/(used in) financing activities	89.3	22.2	(205.0)	(112.0)	(186.4)
Net increase/(decrease) in cash and cash equivalents	(33.9)	(111.1)	201.9	59.1	(86.4)

Net cash provided by operating activities. Cash inflow from operating activities includes cash receipts from customers and tax restitution received. Cash outflows from operating activities include cash paid to suppliers, directors and employees and payment of corporate income taxes.

For the six months ended 30 June 2017, we had net cash provided by operating activities of US$180.0 million attributable to cash receipts from customers of US$1,158.1 million, offset by (i) cash paid to suppliers, directors and employees of US$918.2 million and (ii) payment of corporate income taxes of US$69.2 million.

In 2016, our net cash provided by operating activities increased by 354.5% to US$475.9 million compared to 2015, primarily as a result of significant increase in cash receipts from customers.

In 2015, our net cash provided by operating activities decreased by 9.9% to US$104.7 million compared to 2014, primarily as a result of a decrease in cash receipts from customers, which was largely offset by cash paid to suppliers. The decrease was a result of (i) lower production levels and consequently lower sales volumes, caused by the scheduled TAM and expansion tie-in works which shutdown our naphtha cracker for 85 days and (ii) the decrease in average sales prices of our products following the decrease in prices of crude oil.

In 2014, our net cash provided by operating activities was US$116.2 million, primarily as a result of an increase in cash paid to suppliers due to timing of working capital movements.

Net cash used in investing activities. Cash outflows from investing activities include acquisition of property, plant and equipment. Cash inflows from investing activities include proceeds from sale of property, plant and equipment and interest received.

For the six months ended 30 June 2017, we had net cash used in investing activities of US$80.1 million primarily attributable to (i) acquisition of property, plant and equipment of US$62.0 million, and (ii) advance payment for purchase of property, plant and equipment of US$7.1 million.

In 2016, our net cash used in investing activities decreased by 71.0% to US$69.0 million compared to 2015, primarily as a result of the completion of our cracker expansion project in December 2015.

In 2015, our net cash used in investing activities decreased by 0.6% to US$238.0 million compared to 2014, primarily as a result of the investments made in our cracker expansion project and additional investments made in an associate company.

In 2014, our net cash used in investing activities was US$239.4 million, and was largely attributable to the investments made in our cracker expansion project.

Net cash used in financing activities. Cash outflows from financing activities include payment of long-term and short-term bank loans, payment of interest and financial charges and payment of transaction costs. Cash inflows from financing activities include proceeds from long-term and short-term bank loans and proceeds from bonds payable.

For the six months ended 30 June 2017, our net cash used in financing activities was US$186.4 million, attributable to payment of long-term bank loans of US$55.4 million and interest and financial charges paid of US$13.6 million.

In 2016, our net cash used in financing activities was US$205.0 million, primarily as a result of net payments we made for long-term bank loans and short-term bank loans of US$123.1 million, interest and financial charges of US$27.9 million and dividend payments of US$43.7 million.

In 2015, our net cash provided by financing activities decreased by 75.1% to US$22.2 million compared to 2014, primarily as a result of a net drawdown of our term loans for investment activities of US$59.3 million, partly offset by payment of interest and financial charges of US$25.2 million and dividend payments of US$4.9 million.

In 2014, our net cash used in financing activities was US$89.3 million, primarily attributable to a net drawdown of our term loans for investment activities of US$132.7 million, partly offset by payment of interest and financial charges of US$25.9 million and dividend payments of US$4.3 million.

Capital Expenditures

Historical capital expenditures

For the six months ended 30 June 2017, we spent US$69.1 million in capital expenditures, including for our debottlenecking and expansion projects and plant improvements.

The table below shows our actual capital expenditures for the periods indicated:

	For the year ended 31 December			For the six months ended 30 June	
	2014	2015	2016	2016	2017
			(US$ millions)		
Debottlenecking and expansion	186.1	124.9	22.2	16.3	54.6
Plant improvement and others	8.1	53.0	43.2	6.9	14.5
TAM	—	45.9	7.9	7.6	—
Total capital expenditures	**194.2**	**223.8**	**73.4**	**30.8**	**69.1**

Planned capital expenditures

During 2017, 2018 and 2019, we expect to incur capital expenditures of approximately US$255.0 million, US$410.0 million and US$550.0 million, respectively, as broken down by projects in the table below. Also see "*Business — Capacity and Plant Improvements.*" These amounts are subject to change depending on a number of factors, including the results of our feasibility studies and the completion of projects in a timely manner. See "*Risk Factors — Risks Relating to Our Business and Operations — We may not be able to complete our capacity and product expansion plans for our existing and new products*" and "*Risk Factors — Risks Relating to Our Business and Operations — Our business is dependent upon the availability of financing.*"

	For the year ended 31 December		
	2017	**2018**	**2019**
		(US$ millions)	
Planned CAPEX			
BD expansion	18.6	22.6	—
New PE	63.2	98.5	137.4
Naphtha Cracker furnace revamp	11.5	23.5	10.0
PP debottlenecking project	7.9	16.1	11.5
MTBE and Butene-1 plant	8.7	39.0	30.4
Second petrochem complex (initial spend)	80.5	154.4	303.0
Others (including TAM)	61.7	44.8	42.2
TOTAL	**252.1**	**398.9**	**534.5**

(1) We have three committed projects, namely our butadiene expansion project, the construction of a new polyethylene plant and our naphtha cracker furnace revamp. We have two projects in the pipeline, namely our polypropylene debottlenecking project, and the construction of a new MTBE and Butene-1 plant. We are also planning to conduct a feasibility study to construct and operate a second petrochemical complex.

Trade receivables and credit assessment

The average credit period on our sales of goods is between seven to 30 days. Export sales are usually supported by letter of credit. No interest is charged for receivables not yet due. Allowance for impairment losses is recognised against trade receivables, based on the estimated irrecoverable amounts determined by reference to past default experience of the counterparty and an analysis of the counterparty's current financial position.

Before accepting a new customer, we assess whether the potential customer meets our required conditions. Before approving any credit sales, we check the remaining credit limit for the customer. Customers are required to settle their outstanding receivables before the new credit sales are approved. Approval by the senior management is required for credit sales above the credit limit.

As of 30 June 2017, our net trade accounts receivable was US$170.5 million, out of which US$153.9 million was the trade receivables not yet due, which accounted for 90.3% of our net trade accounts receivable. Trade receivables past due between one and 30 days was US$16.6 million, which accounted for 9.7% of our net trade accounts receivable. We did not have any trade receivables past due between 31 days and 60 days.

Contractual Obligations

The table below summarises our contractual principal and interest payment as of 30 June 2017.

	Payment Due by Period End					
	Total	Less than 1 month	1 month to 3 months	3 months to 1 year	1 year to 5 years	5 years and longer
	(US$ thousands)					
Non-interest bearing						
Trade accounts payable						
Related party	5,930	5,930	—	—	—	—
Third parties	367,296	367,296	—	—	—	—
Other accounts payable	119	119	—	—	—	—
Accrued expenses	4,913	4,913	—	—	—	—
Variable interest rate instruments						
Bank loans	256,165	1,117	10,968	39,223	166.179	38,678
Fixed interest rate instruments						
Bank loans	189,649	465	9,702	26,066	115,301	38,115
Bonds payable	40,899	—	339	1,017	39,543	—
Total	**864,971**	**379,840**	**21,009**	**66,306**	**321,023**	**76,793**

In addition, as of 30 June 2017 we were party to several supply contracts that contained purchase obligations with variable pricing terms. See Note 34 of our audited consolidated financial statements included elsewhere in this Offering Memorandum.

Contingent Liabilities

As of the date of this Offering Memorandum, we did not have any contingent liabilities.

Off-Balance Sheet Items

As of the date of this Offering Memorandum, we did not have any off-balance sheet arrangements.

Risk Management

The following discussion summarises our exposure to various risks and our policies to address these risks. The following discussion contains forward-looking statements that are subject to risks, uncertainties and assumptions about us. These statements are based upon current expectations and projections about future events. There are important factors that could cause our actual results and performance to differ materially from such forward-looking statements, including those risks discussed under "*Risk Factors.*"

Foreign currency risks and interest rate risks

Our underlying revenues, and the majority of our costs and borrowings are denominated in U.S. dollars, which provides a natural economic hedge. In addition, our functional reporting currency is in U.S. dollars. However, operating in Indonesia, there are instances where we are affected by the fluctuations of the Rupiah against the U.S. dollar pertaining mainly to taxes, salaries and purchase of local goods and services which are denominated in Rupiah. We maintain sufficient cash balance denominated in Indonesian Rupiah to cover the expenses denominated in Indonesian Rupiah.

We are also exposed to interest rate risk because we borrow certain funds largely in U.S. dollars at floating interest rates.

We have entered into a range of derivative financial instruments to manage our exposure to foreign currency risk and interest rate risks, such as the following:

- interest rate swaps to hedge against the rising interest rates;

- forward foreign exchange contracts to mitigate exposures to exchange rate fluctuations; and

- cross-currency swaps to mitigate the risk of rising interest rate and U.S. dollar exchange on the bonds payable.

As of 30 June 2017, we had entered into interest rate swaps in respect of three outstanding term loan facilities with aggregate principal amounts of US$46.2 million, US$27.8 million and US$133.1 million, respectively. In addition, we had entered into cross-currency swaps and interest rate swaps in respect of outstanding guaranteed secured notes in two series, with an aggregate principal amount of IDR500 billion (US$37.5 million).

Commodity price risks

Our raw materials and products are commodities whose prices fluctuate as market supply and demand fundamentals vary. As such, our product margins and profitability tend to reflect changes in the business cycle. In particular, our revenue is highly dependent on the naphtha petrochemical process, which in turn is highly influenced by global petrochemical prices, which tend to be cyclical and subject to significant fluctuations.

To mitigate this volatility, our business strategy is to achieve a higher degree of integration in order to maintain a diverse product portfolio to benefit from different product spread cycles. In addition, we are able to benefit from our operational flexibility, enabling us to adjust production outputs for each respective product to take advantage of different product spreads at times to maximise our profitability and commercial flexibility in feedstock procurement and sales contracts.

Credit risks

Our credit risk is primarily attributed to our cash in banks and trade accounts receivable. We place our bank balances with creditworthy financial institutions. Trade accounts receivable are entered with creditworthy third parties and related parties. Our exposure and counterparties are continuously monitored and the aggregate value of transactions concluded is spread among approved counterparties. Credit exposure is controlled by counterparty limits that are reviewed and approved by our management.

Liquidity risks

We manage liquidity risk by maintaining adequate reserves, banking facilities and reserve borrowing facilities, by continuously monitoring forecast and actual cash flows, and by matching the maturity profiles of our financial assets and liabilities. See "— *Contractual Obligations*" for our contractual maturity for our non-derivative financial liabilities with agreed repayment periods.

Overview

We are the largest integrated petrochemical producer in Indonesia and operate the country's only naphtha cracker, styrene monomer and butadiene plants. We are also the country's largest polypropylene producer and leading producer of polyethylene.

We produce the following products:

- olefins, comprising ethylene and propylene as well as their by-products, such as pygas and mixed C_4;
- polyolefins, comprising polyethylene and polypropylene;
- styrene monomer as well as its by-products, such as ethyl benzene, toluene and benzene toluene mixture; and
- butadiene as well as its by-products, such as raffinate.

Our products are fundamental to the production of a diverse range of consumer and industrial products, including packaging, containers, construction materials and automotive parts. During the year ended 31 December 2016, we produced 1,672 KT of olefins and its by-products, 757 KT of polyolefins, 282 KT of styrene monomer and its by-products and 208 KT of butadiene and its by-products. For the same period, our sales of olefin and by-products, polyolefin, styrene monomer and its by-products and butadiene and its by-products contributed to 31.6%, 45.8%, 15.0%, and 7.2% of our net revenue, respectively.

Our polypropylene impact copolymer resins are used as raw materials for the manufacturing of car and motorcycle components. We are the only producer of polypropylene impact copolymer resins in Indonesia and are the first company to supply vehicle-oriented resins to the domestic automotive component manufacturing industry in accordance with international standards.

We sell our products to customers in both the domestic and regional markets. We are the only domestic producer of ethylene, styrene monomer and butadiene, one of only two domestic producers of propylene and polyethylene and the largest polypropylene producer in Indonesia. According to Nexant, we accounted for approximately 58% of the total market share of ethylene in 2016 in Indonesia. In addition, we had a market share in Indonesia of approximately 24% for polyethylene and 29% for polypropylene. We are the sole domestic producer of styrene monomer in 2016.

We operate an integrated petrochemical complex located in Banten Province of Indonesia, approximately 120 km from Jakarta. Our integrated petrochemical complex comprises (i) our main petrochemical complex in Ciwandan, Cilegon, located 120 km from Jakarta, which houses one naphtha cracker, two polyethylene plants, three polypropylene trains and one butadiene plant that produce olefins, polyolefins and butadiene and its by-products and (ii) a styrene monomer complex approximately 40 km from our main petrochemical complex, in Bojonegara, Serang, and located 110 km from Jakarta, which houses two styrene monomer plants that produce styrene monomer and its by-products. Our styrene monomer plants are directly connected by pipelines to our main petrochemical complex in Cilegon, Banten Province. The strategic location of our integrated petrochemical complex provides us with convenient access to our key ethylene and propylene customers, which are directly connected to our production facilities in Cilegon by pipelines. Our petrochemical complex has integrated support facilities including pipelines, power generators, boilers, water treatment plants, storage tanks and jetty facilities.

The Company is a surviving entity from a merger between PT Chandra Asri and PT Tri Polyta Indonesia Tbk, which took effect on 1 January 2011. CA was incorporated in 1989 and its naphtha cracker plant commenced operations in 1995. TPI was incorporated in 1984 and its polypropylene plant commenced operations in 1992. As of 30 September 2017, our principal shareholders were PT Barito Pacific and SCG Chemicals. Barito Pacific directly and indirectly, through its wholly-owned subsidiary Marigold, owned 46.26% of our outstanding shares, SCG Chemicals owned 30.57%, of our outstanding shares and Prajogo Pangestu owned 14.11% of our outstanding shares. Prajogo Pangestu also owned 69.23% of the outstanding shares of Barito Pacific as of 30 September 2017.

During the years ended 31 December 2014, 2015 and 2016 and the six months ended 30 June 2017, we generated net revenues of US$2.5 billion, US$1.4 billion, US$1.9 billion and US$1.2 billion, respectively. During the years ended 31 December 2014, 2015 and 2016 and the six months ended 30 June 2017, our Adjusted EBITDA was US$134.5 million, US$154.8 million, US$509.5 million and US$294.8 million, respectively and our Adjusted EBITDA margin was 5.5%, 11.2%, 26.4% and 24.7%, respectively. As of the date of this Offering Memorandum, our long-term corporate credit ratings were "Ba3" by Moody's, "BB-" by Fitch and "B+" by S&P and our national credit ratings were "AA-" by Fitch and "idAA-" by PEFINDO.

Competitive Strengths

Indonesia's largest petrochemical producer with a diverse product portfolio

We are the largest integrated petrochemical producer in Indonesia by capacity and the only domestic producer of ethylene, styrene monomer and butadiene in Indonesia. Additionally, we are one of only two domestic producers of propylene and polyethylene, and the largest polypropylene producer in Indonesia. We are also the only integrated petrochemical producer in Indonesia with an operational naphtha cracker. As a result, we believe we are well-positioned against our domestic competitors, who must either import or purchase intermediate feedstock from us. According to Nexant, in the year ended 31 December 2016, we had a market share of approximately 43%, 24%, and 29% of the domestic market (including imports) in propylene, polyethylene, and polypropylene, respectively.

We believe that our brands, Asrene, Trilene and Grene, are well-established in the domestic market, and support our reputation in the region for producing products that are differentiated by reliability, on-the-ground technical support to customers, high quality and value. We produce and sell a broad range of olefin and polyolefin products across the entire petrochemical supply chain. In the year ended 31 December 2016, our product sales by value comprised 31.6% olefin, 45.8% polyolefin, 15.0% styrene monomer, and 7.2% butadiene. We believe that our diversified product mix gives us the flexibility to adapt to changes in the market and maximise profit by adjusting our sales mix, depending on the relative economics of each product. For instance, we are able to sell ethylene to external markets if the spread between polyethylene and ethylene is not attractive.

Our diversified product portfolio, combined with operational flexibility from our integrated plant, allows us some flexibility to mitigate the effects of the cyclicality of any single product. Additionally, because we offer a wide range of products to our customers, we are able to cater to our existing customers' needs as well as attract new customers. In the year ended 31 December 2016, 74.0% of our products by revenue were sold domestically. We retain the flexibility to sell more of our product overseas and in the spot market to take advantage of higher spreads when the situation permits.

We have, in the past, made investments to enable us to take advantage of the value chain, including our investment in our butadiene plant in 2013 and increasing our naphtha cracker capacity in 2016. Additionally, we have a clear growth strategy based on the expansion of our current capacity, optimisation of our current processes and development of new products. See "*Business—Capacity and Plant Improvements*."

Well-positioned to take advantage of strong economic fundamentals and growth in the petrochemical industry in Indonesia and Asia

According to the IMF, Indonesia's GDP is projected to grow at a CAGR of 5.4% between 2017 and 2020. This projected economic growth is expected to drive growth in Indonesia's domestic petrochemical consumption. According to Nexant, Indonesia is projected to continue be a major net importer of petrochemicals between 2016 and 2023. Additionally, according to Nexant, Indonesia imported over 1.5 million tonnes of polyolefin products in 2016 and is projected to import between one to two million tonnes per annum between 2016 and 2023. This net import balance is also expected to be underpinned by an absence of domestic capacity additions in the near term.

This growth is due to increased demand for plastics across a variety of different commercial applications, including packaging, construction materials, agricultural products, household products and automotive components, in each case driven by strong domestic consumer consumption. This growth is also driven by a combination of factors, including significant growth in the manufacturing industry, the substitution of basic materials (such as wood, glass, metals and paper), rising income levels and a growing population.

We believe that we are well-positioned to take advantage of this growth opportunity. For instance, polyolefin consumption in Indonesia (at 11 kg per capita) is currently significantly below the average consumption across Southeast Asia (at 17 kg per capita), and developed markets such as the United States (at 60 kg per capita), Central/Western Europe (at 45 kg per capita), and China (at 33 kg per capita) in each case, in 2016.

In addition, we are well positioned to take advantage of ongoing supply gaps in the broader Asian region, which will continue to underpin demand from regional producers. According to CMAI, key Asian markets such as Vietnam, Malaysia and China continue to be net importers of polyolefins. Despite planned capacity additions in the near term, net imports are projected to remain high. According to IMF, GDP is projected to grow at a CAGR of 6.3% between 2017 and 2020 in China, with high growth rates also forecast for key Southeast Asian countries such as Vietnam (6.2%) and Malaysia (4.8%). Such strong levels of GDP growth, combined with positive secular factors, are expected to drive high growth rates in polyolefins consumption per capita in the region. As such favourable demand growth continues to outstrip domestic supply capabilities and we remain well positioned to capitalise on the opportunity to fill these regional supply gaps.

Nexant forecasts the average ethylene spread over naphtha to be approximately US$486/MT between 2017 to 2023 (as based on Brent of US$70/bbl for 2019 to 2023). We believe that the projected supply shortage of olefins and polyolefins in Indonesia according to Nexant will allow some price premium (net import basis) to continue for domestic pricing, from which we will benefit.

Operational integration to optimise production efficiency, flexibility and cost-savings

We benefit from the integration of our production facilities across the value chain, from the intake of feedstock to the production of end-products. This enables us to take advantage of efficiencies in production operation, minimising both logistics costs, product wastage at each step of the production chain, and stabilise our integrated margins. Our integrated production facilities allow us to consume approximately half of the ethylene produced as feedstock for our polyethylene and styrene monomer plant. We also consume the majority of the propylene produced by our naphtha cracker as feedstock for our three polypropylene trains. We primarily sell pygas to export markets, while other by-products are either used by us as fuel to power our co-generation plants and boilers, or sold in the open market. We use the majority of the mixed C_4 we produce as a raw material for butadiene production.

We also use a specialised software system designed to help determine the relative value of specified ranges of feedstock. This software system, which considers variables such as product prices, freight, product yield of naphtha and naphtha price, allows us to determine the most optimal combination of different naphtha grades to deliver the best margins. Additionally, our margins are further enhanced as one of our polyethylene plants is a swing plant that allows us to produce both LLDPE and HDPE, giving us the flexibility to optimise the product mix between these two products. This integrated production system enables us to reap higher feedstock yields and lower unit cost.

Apart from the above benefits, our integrated operation also offers operational flexibility. Our naphtha cracker, polyethylene and butadiene plants source approximately half of their power requirements from PLN and the remaining half from our on-site GTG, with our STG being used as a backup source of electricity in the event of a loss of power from the grid. On the other hand, our polypropylene, styrene monomer and butadiene plant source power primarily from PLN with two emergency generators providing part of the power required for styrene monomer plants in the event of power outage.

Our integrated production plant is enhanced by our extensive infrastructure and auxiliary facilities, including storage tanks and warehouses, power generation utilities, process and utility pipelines, jetties and transport facilities, a water treatment plant, cooling water and seawater systems, air systems and process control rooms. We believe that our extensive infrastructure and auxiliary facilities enhance our competitive position and will minimise our future capital expenditures for debottlenecking and capacity expansion projects. The modular set-up of our plant also enables our various units to operate independently from each other, as well as independently from our naphtha cracker, thereby minimising production disruptions.

We have also engaged in cost savings initiatives focusing on energy optimisation and reduction of losses, through which we are able to improve our product yield.

Diversified client base and strategically located to supply key customers

We have developed a strong marketing and distribution platform, catering to over 300 customers throughout Indonesia. The majority of our top customers have been buying from us for over ten years. We believe that the combination of our marketing platform, strategic location, established pipeline network, and logistical capabilities enables us to deliver products with a short lead time and to command a price premium for sales of our polyethylene and polypropylene products over the corresponding ICIS benchmark price for Southeast Asia. In the year ended 31 December 2016, our top ten customers accounted for only 43.6% of our total net revenues, for which the lowest accounted for 2.5% and the highest accounted for 7.4% of total net revenues. We believe that our broad customer base allows us to mitigate the impact of losing any individual customer, and enhances our pricing power in negotiations with our major international and domestic customers.

Our production facilities are located in the “petrochemical belt” in Banten province, and are integrated with five of our ethylene and propylene customers’ facilities through a dedicated 45 km pipeline network. This enables us to maintain a captive customer base, given that we are the only supplier that is able to deliver ethylene or propylene directly to these customers. Given our locality and proximity to our customers, we believe that our competitors face significant barriers to entry.

As a result, we believe that we are more cost-effective than other competing petrochemical producers, many of which are primarily importers, which gives us a strong competitive advantage. Our ability to supply our customers through dedicated pipelines, and others with smaller-volume deliveries on a more regular basis, also reduces our storage requirements and therefore our working capital and inventory requirements. As a result, we believe that we are well-positioned to cater to increasing demand from our customers. The strategic location of our storage facilities facilitates efficient distribution and transport to our customers, both domestically and internationally. Our production facilities also benefit from ready access to rail, road and marine networks to other major industrial areas of Indonesia and international locations.

We believe that, in the near future, there will be limited competition from domestic producers of polypropylene and polyethylene, and no domestic competition for styrene monomer and butadiene production. Accordingly, we expect to maintain our status as "preferred supplier" to our domestic customer base, while also being well-positioned to take advantage of any positive demand growth for petrochemicals in Indonesia.

Diverse and secure sources of feedstock and raw materials

Our principal raw material is naphtha. Our naphtha cracker can operate with a flexible feedstock slate, with the capacity for LPG to constitute up to 25% of our feedstock. This allows us to take advantage of changes in the relative pricing between naphtha, LPG and condensate, thereby minimising volatility in our revenues and margins. We enjoy stable long-term relationships with a diverse set of international producers and high-quality traders, which supply various grades of naphtha, LPG and condensate from Southeast Asia and the Middle East.

We typically enter into year supply agreements with suppliers to purchase up to 70% of our feedstock requirements, with the remainder of our requirements purchased on a spot basis. Our key suppliers of naphtha are Vitol Asia Pte. Ltd, Shell International Eastern Trading and Marubeni Petroleum Co. Ltd., which accounted for 63.0% of our total supplies in 2016. We believe that this combination of supply agreements and open-market purchases gives us the flexibility to take advantage of varying feedstock price trends. In addition, all of our contracts and spot purchases are subject to a tender process, which increases transparency internally and competition among suppliers, thereby enabling us to purchase the best quality feedstock at competitive prices. We have not faced any material interruptions to our operations due to the deliveries of our feedstock in the five years up to the date of this Offering Memorandum.

In addition to naphtha, we also purchase benzene and propylene for our derivative products from third parties. We typically purchase these raw materials through a mixture of spot and contract purchases, and store them on-site in our storage facilities.

Robust cash flow and balance sheet underpinned by a prudent financial policy

The combination of our market leading position, highly integrated operations and attractive feedstock costs, has allowed us to enjoy strong operating cash flows. Given the cyclical nature of the industry, we have adopted prudent financial and capital management policies in order to effectively monitor our financial position, improve capital allocation and mitigate financial risks. Our financial policies include: (i) a minimum EBITDA/interest cover of 3.0x, (ii) a maximum total debt to capitalisation ratio of 40% on sustained basis (iii) a maximum net debt to EBITDA of 3.0x, and (iv) minimum cash balance of US$100 million at all times.

Resilient polyolefin spreads are also expected to be beneficial from a profitability and overall cash flow standpoint. The depressed oil price (compared to historic levels) has lowered the feedstock costs of naphtha-based producers, with Asian naphtha prices in particular remaining well below the historical average. In addition, tightness in ethylene supply has provided strong support for polyethylene prices. According to Nexant, polyolefin spreads are expected to remain resilient over the near to medium term. In this environment of combined low oil prices and robust polyolefin spreads (which is expected to persist in the near to medium term), we are uniquely positioned to capitalise on the expected earnings growth and cash flow generation benefits which are likely to accrue.

Our sources of funding are diverse and include bank loans, bonds, and equity offering. We have implemented a centralised cash management system to ensure effective allocation of capital. For all new investments, we also have a hurdle internal rate of return on capital that we adhere to when we assess new investments.

The majority of our sales and costs are pegged to the U.S. Dollar, which provides us with a natural hedge against majority of our costs and borrowings, which are mostly U.S. Dollar-denominated. To manage IDR currency risks, we have an active treasury management strategy to hedge sales prices to our customers, and also enter into forward swaps with reputable banks.

Highly experienced management team with strong track record of managing and expanding our operations

We are managed by experienced professionals with the industry, international, and local knowledge to manage our highly complex business. Our senior management team has, on average, over 18 years of industry experience.

Our senior management team has a proven track record of managing and growing our business and delivering strong operational performance. For example, our polyethylene plants and polypropylene trains registered utilisation rates of 98.2% and 89.2%, respectively as of 31 December 2016 and 86.2% and 95.7% as of 30 June 2017. In addition, our senior management team has overseen the execution of projects to expand our production capacity and improve the efficiency of our operations, including a debottlenecking project to increase the capacity of our polypropylene plant by 120 KT per annum in 2011, a debottlenecking project to increase the capacity of our Showa Denko polyethylene plant to 136 KT per annum in 2011, the construction of our butadiene plant which was completed in 2013, costing approximately US$130 million, and the expansion of our naphtha cracker at the end of 2015, costing US$377 million. Our senior management team has also overseen successful growth through mergers and acquisitions, including the successful merger and integration of PT Chandra Asri and PT Tri Polyta Indonesia Tbk in 2011. We believe that with the extensive experience of our senior management team, we are well-positioned to successfully execute our growth strategy and expansion projects.

Strong shareholder support

We benefit from the support of our principal shareholders, Barito Pacific and SCG Chemicals. These shareholders have established a professional and capable management team that has implemented robust corporate governance standards and conservative financial policies.

Barito Pacific is an Indonesia-based diversified resources group listed on the Indonesia Stock Exchange. Barito Pacific demonstrated its support of our business by fully subscribing to our rights issuance in 2013.

SCG Chemicals is Asia's leading chemical producer and a subsidiary of Siam Cement Group ("**SCG**") Thailand's largest industrial conglomerate. We benefit from our relationship with SCG Chemicals by sharing production know-how, market knowledge and best practices, raw material procurement savings, sales and marketing collaborations and access to new financing sources in Thailand. Our close collaboration is reflected by senior management representations from SCG in both our Board of Commissioners and Board of Directors. SCG Chemicals fully subscribed to our rights issuance in 2013.

Business Strategies

Increase our capacity and build on our leading market position to take advantage of growth in the Indonesian petrochemical industry

We intend to regularly review market demand and supply dynamics and carry out new plant construction, capacity expansion and debottlenecking projects, in order to increase our production capacity and improve the operational efficiency of our plants. We also intend to maintain our market-leading position in the Indonesian petrochemical industry through an integrated and cost-efficient capacity expansion programme. We believe this programme will allow us to realise further economies of scale, and is in line with our ongoing efforts to optimise utilisation rates and operational efficiency. Projects currently under construction and in the pipeline include the (i) expansion of our butadiene plant from 100 KT/A to 137 KT/A, (ii) polypropylene debottlenecking project to increase polypropylene production from 480 KT/A to 590 KT/A, (iii) the naphtha cracker revamp to increase ethylene production from 860 KT/A to 900 KT/A and to increase propylene production from 470 KT/A to 490 KT/A, and (iv) construction of a new 400 KT/A polyethylene plant. In addition to our ongoing projects under construction, we also intend to regularly review our business plans to adapt to changing market conditions. See "Business—Capacity and Plant Improvements".

We believe that these initiatives will enable us to increase production of products for which there will be increased market demand. According to Nexant, the domestic production-demand gap for polyethylene and polypropylene is projected to reach 697 KT/A and 1,193 KT/A, respectively, by 2020. We believe that our increased production will enable us to meet some of this excess demand.

Expand our product offerings and further optimise integration along the petrochemical value chain

We intend to further diversify our revenue base and further improve the value of our products by expanding our product offerings through downstream integration. We are actively evaluating a number of projects that would allow us to utilise the by-products of our cracker, and produce products further down the value chain, such as intermediates and differentiated derivative products.

We intend to evaluate opportunities to partner with world-class partners in exploring new business opportunities, in the same manner as our partnership with Michelin. Following the commissioning of our butadiene plant in 2013, we entered into a joint-venture agreement with Michelin to build a synthetic butadiene rubber plant on our existing site, which is scheduled to be commercially operational in 2018. The project will utilise butadiene and styrene monomer produced by our plant to produce higher-value synthetic rubber products. In addition, we have plans to build plants that can produce MTBE and Butene-1. As well as the associated financial benefits, we believe these partnerships will enable us to learn from best practices and continuously improve our operations.

In addition, we also intend to continue to evaluate selective acquisition opportunities to integrate our downstream businesses. We consider each investment opportunity carefully, extensively evaluating any investment decision to ensure that any proposed transaction would be synergistic with our existing operations and beneficial to our business as a whole.

Maintain and further improve our operating standards and cost efficiency.

Cost efficiency is an important factor in the capital-intensive petrochemical industry. We intend to continue to identify and implement cost-saving initiatives to maintain and further improve our competitive position. An example of such initiatives includes our purchase of condensates from local gas fields, which is intended to lower our average cost of naphtha feedstock. We also intend to continue investing in our current facilities to optimise our operational efficiency. For example, we are currently upgrading our natural gas boiler to improve its reliability and increase steam production, which are expected to be completed by 2018.

Support from SCG Chemicals, one of our key shareholders, has enabled us to exchange operational best-practices to improve our efficiency and reduce costs. Our operational improvement programme is an ongoing effort that will continue to identify and implement new improvement initiatives to optimise our business performance and reduce production costs.

We are committed to maintaining the high operational standards of our production plant and processes, and also the quality of our products. We have been accredited by independent agencies in the past, such as SGS and ISO, and will strive to maintain these standards. See "*Business—Quality control*."

We are committed to maintaining health, safety and environmental standards at our plant. Our policies aim to maintain operational excellence through initiatives such as regular training programmes on process safety management and behavioural safety programmes. We aim to achieve and maintain our record of having no major accidents. We are also in compliance with all laws and regulations of Indonesia and the regional government of Cilegon City governing the use, storage, transport and disposal of toxic and hazardous materials. "*Business—Environmental Compliance, and Business—Health and Safety*."

Ensure management continuity, and acquire and retain talented employees

We intend to invest in management continuity by identifying key positions in the Company and developing employees that we believe are able to take on business and technical leadership roles. We will continue to provide identified employees with opportunities to participate in rotation programmes and assignments to gain a wider perspective of the industry. In 2016, we sent six engineers to SCG Chemicals' plant in Rayong, Thailand to enhance their knowledge and skills and develop their technical and non-technical capabilities, with the aim of improving our business processes upon their return. We have also conducted a number of leadership training programmes for our managerial level employees in conjunction with local and overseas universities, including a Management Development Programme, Strategic Leadership Development Programme and a Business Leadership Development Programme.

We also intend to continue programmes to ensure a supply of skilled labour and continuously improve our employees' skills. The Company has entered into an agreement with the Institut Teknologi Bandung (ITB) since 2011 to provide ten scholarships each year to selected final-year students, with the option to recruit them as employees following their graduation. The majority of these engineers are trained in the chemical, mechanical and electrical engineering disciplines. In 2017, our scholarship programme also expanded to Universitas Gadjah Mada (UGM).

Leverage our infrastructure and customer service to maintain long-standing relationships with customers

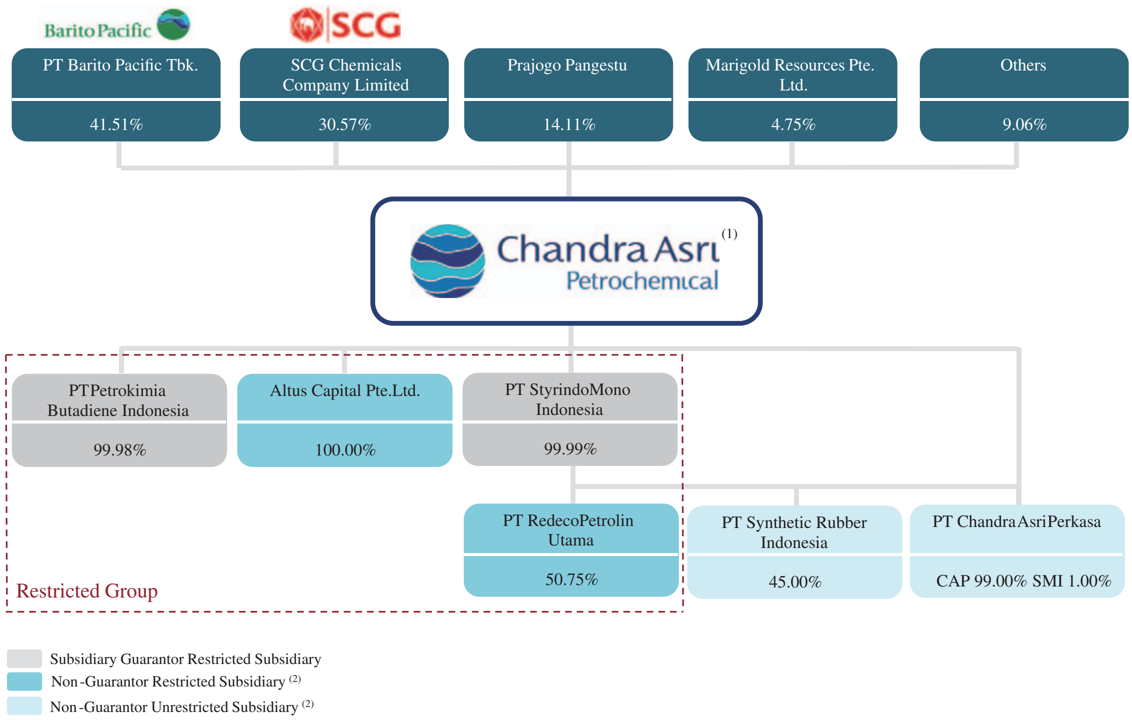
We intend to continue improving our product offering, sales and marketing networks, facilities and services to our customers. We also intend to leverage our pipeline distribution network, our proximity to our key customers and key transport links, and our in-depth understanding of our customers. By consistently and reliably addressing our customers' business needs, including through on-the-ground technical support, reliability of supply, in-time delivery via pipelines, or smaller supply sizes via truck deliveries, we believe that our products and services will continue to represent premium value to our customers.

Corporate History

The table below sets forth our key milestones:

Year	Key Milestone
1984	Incorporation of TPI
1989	Incorporation of CA
1992	TPI commenced operations of its polypropylene plant, comprising two trains with a nameplate capacity of 160 KT/A
1993	TPI completed a de-bottlenecking project for its polypropylene plant to increase its nameplate capacity to 240 KT/A
1995	TPI completed a third train at its polypropylene plant to increase its nameplate capacity to 360 KT/A CA commenced operations of its naphtha cracker with a nameplate capacity of 520 KT/A
1996	Listing of TPI on the Jakarta Stock Exchange
2003	De-listing of TPI on the Jakarta Stock Exchange
2004	CA commenced sales of mixed C_4 products
2006	Apleton Investments Limited, a wholly-owned subsidiary of Temasek Holdings (Private) Limited, acquired an indirect 30.0% ownership of CA
2007	CA added a furnace at its naphtha cracker to increase its ethylene production to 600 KT/A, propylene production to 320 KT/A, pygas production to 280 KT/A and mixed C_4 production to 220 KT/A CA acquired a 100.0% ownership of SMI with existing styrene monomer plants with a capacity of 340 KT/A
2008	Re-listing of TPI on the Indonesia Stock Exchange
2009	TPI increased capacity of its polypropylene plant to 480 KT/A
2010	Issue of senior secured guaranteed notes of US$230 million by CA's wholly-owned subsidiary, Altus Capital Pte. Ltd. CA obtained a corporate credit rating of "B2" by Moody's and "B+" by S&P
2011	Merger of CA and TPI
	Completed a de-bottlenecking project for our polypropylene plant to increase its capacity to 480 KT/A and one of our polyethylene plants to 136 KT/A such that our polyethylene plants have a combined nameplate capacity of 336 KT/A
	SCG Chemicals acquired 23.0% of Company from Apleton Investments Limited, a wholly-owned subsidiary of Temasek Holdings (Private) Limited, and 7.0% from Barito Pacific
2013	Entered into a strategic partnership in the synthetic rubber business with Michelin to establish PT Synthetic Rubber Indonesia
	Commenced operations of our butadiene plant with a nameplate capacity of 100 KT/A
	Limited public offering of our shares with pre-emptive rights of approximately US$127.9 million on the Indonesia Stock Exchange
2015	Completed our cracker expansion project and TAM
2016	Public offering of Chandra Asri Petrochemical Indonesian Rupiah bonds in the amount of IDR 500 billion
	Upgrade of our long-term corporate credit rating from "B2" to "B1" by Moody's, "B+ stable" to "B+ positive" by S&P
	Obtained a corporate rating of "idA+" from PEFINDO
2017	Upgrade of our long-term corporate credit rating from "B1" to "Ba3" by Moody's Completed rights issue of US$377.2 million
	Upgrade of our corporate rating from "idA+" to "idAA-" by PEFINDO
	Obtained a long-term corporate credit rating of "BB- stable" and a national long-term corporate credit rating of "AA-" from Fitch

The chart below sets forth our corporate structure as of the date of this Offering Memorandum:



(1) Latest corporate structure post Rights Issue by PT Chandra AsriPetrochemical Tbkas of 30 September 2017.
(2) The non-guarantor Subsidiaries generated 0.15% of the Company's consolidated revenues in the twelve-month period ended 31 December 2016 and held 1.05% of the Company's consolidated assets as of 31 December 2016.

As of the date of this Offering Memorandum, we have the following subsidiaries and associate companies:

Name of Companies	Ownership (%)	Line of Business	Operational Status	Domicile
PT Styrindo Mono Indonesia ("**SMI**")	99.99%	Styrene Monomer & Ethyl Benzene	Operating	Jakarta
PT Redeco Petrolin Utama ("**RPU**")	50.75%	Tank Lease and Jetty Management Service	Operating	Jakarta
PT Synthetic Rubber Indonesia ("**SRI**") . .	45.00%	Synthetic Rubber	Development	Jakarta
Altus Capital Pte. Ltd. ("**AC**")	100.00%	Finance	Operating	Singapore
PT Petrokimia Butadiene Indonesia ("**PBI**")	99.98%	Petrochemical	Operating	Jakarta
PT Chandra Asri Perkasa ("**CAP2**")	100.00%	Olefin	Development	Jakarta

Products

We produce the following products:

- olefins, comprising ethylene and propylene, and its by-products such as pygas and mixed C_4;

- polyolefins, comprising polyethylene and polypropylene;

- styrene monomer and its by-products, such as ethyl benzene, toluene and benzene toluene mixture; and
- butadiene and its by-products, such as raffinate.

We intend to increase the nameplate capacity of our production plants by approximately 850 KT/A by 2020. In order to do so, we are currently undertaking a butadiene expansion project and a naphtha cracker furnace revamp. We also intend to construct a new polyethylene plant. In November 2015, SRI, our joint venture company between our wholly-owned subsidiary SMI and Michelin, commenced construction of a new synthetic rubber plant in Cilegon, Banten Province to produce synthetic butadiene rubber, the raw material to produce tires.

We also have several projects in the pipeline, namely a polypropylene debottlenecking project and the construction of a new MTBE and butene-1 plant. We are also planning to conduct a feasibility study to construct and operate a second petrochemical complex next to our existing main petrochemical complex in Cilegon, Banten Province. For more information, please see "*—Capacity and Plant Improvements*".

The table below sets forth the nameplate capacity, production volumes, and proportion of such volumes to our total production volume, for our products for the time periods indicated:

		For the year ended 31 December						For the six months ended 30 June	
	Nameplate Capacity[(1)]	**2014**		**2015**		**2016**		**2017**	
	(KT/A)	**KT**	**%**	**KT**	**%**	**KT**	**%**	**KT**	**%**
Olefins and by-products									
Ethylene	860	561	23.0	339	19.2	771	26.4	422	26.5
Propylene	470	296	12.1	182	10.3	416	14.3	227	14.2
Pygas	400	181	7.4	118	6.7	237	8.1	123	7.7
Mixed C_4	315	180	7.4	108	6.1	248	8.5	137	8.6
Polyolefins									
Polyethylene	336	311	12.7	224	12.7	329	11.3	145	9.1
Polypropylene	480	477	19.5	444	25.2	428	14.7	230	14.4
Styrene monomer and by-products									
Styrene monomer	340	250	10.2	234	13.3	276	9.5	176	11.0
By-products		5	0.2	5	0.3	6	4.1	3	0.2
Butadiene and by-products									
Butadiene	100	79	3.2	47	2.7	88	3.0	58	3.6
By-products		100	4.1	61	3.5	120	4.1	76	4.8

(1) As of 30 June 2017

Olefins and by-products

The key products produced by our naphtha cracker are ethylene and propylene, also known as olefins. During the course of our olefin production, our naphtha cracker creates by-products, including pygas and mixed C_4.

We are connected via pipelines to all of our ethylene and propylene customers. A majority of our domestic ethylene and propylene sales during the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, respectively, were delivered by pipeline. Our supply agreements with our key customers are renewable on an annual basis.

For the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, we sold 448 KT, 221 KT, 804 KT and 428 KT of olefins and by-products, respectively. For the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, 59.1%, 48.9%, 58.1% and 60.3%, respectively, of our olefins and olefin by-products sales was derived from sales to customers in Indonesia and the remainder was derived from export sales.

Ethylene

Ethylene is used as a raw material for polyethylene and a number of other chemical intermediaries, such as styrene monomer, ethylene oxide, acetic acid, ethyl benzene and vinyl chloride monomer used for the manufacture of polyvinyl chloride ("**PVC**"). We consume most of our production of ethylene in our two polyethylene plants and a smaller percentage of our ethylene in our styrene monomer plants. In the event of a shutdown of our naphtha cracker and a resulting shortfall in our ethylene production, we have the capability to continue operation of our polyethylene plants through the use of imported ethylene.

The balance of our ethylene production is sold primarily to domestic industrial customers. At times, we also export ethylene products to countries including Singapore, Japan, Korea and Thailand. We have supply agreements for ethylene with key customers, including mostly domestic customers. Our supply agreements with these key customers are renewable on an annual basis. For the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, we sold 83.3%, 64.7%, 73.5% and 75.8% of our ethylene sales pursuant to supply agreements with these key domestic customers. The supply agreements stipulate a pricing formula based on cost plus spot price.

For the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, we sold 190 KT, 82 KT, 381 KT and 233 KT of ethylene, respectively.

Propylene

Propylene is used as a raw material for polypropylene and a number of other chemical intermediaries, such as acrylonitrile, oxo-alcohols, propylene oxide and cymene. We generally use all of our propylene production as feedstock for our own production of polypropylene and may occasionally sell propylene to domestic industrial customers on an opportunistic basis. However, our propylene production is not sufficient for our polypropylene production and we typically import propylene to use as feedstock. Propylene is delivered from our propylene plants to our polypropylene trains via pipelines. In the event of a shutdown of our propylene plant, and a resulting shortfall in our propylene production, we have the capability to continue operation of the polypropylene trains through the use of imported propylene.

Our supply agreements with our key customers are renewable on an annual basis. For the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, we sold 32 KT, 32 KT, 153 KT and 59 KT of propylene, respectively.

Pygas

Pygas can be used for motor gasoline blending or benzene extraction, which is a raw material for styrene and specialty chemical products. We sell the pygas that we produce primarily to SCG Chemicals pursuant to a supply agreement valid for three years and sell the remainder to traders and end-users. For the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, we sold 81.3%, 93.8%, 65.9% and 94.1% of our pygas sales (by volume) to SCG Chemicals. At times, we also export pygas to other countries including Korea, Singapore, Japan and Malaysia. Sales of pygas are generally made on a monthly basis. Prices are benchmarked against the relevant global benchmark, which are quoted in U.S. dollars and are generally adjusted on a monthly basis.

For the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, we sold 198 KT, 107 KT, 236 KT and 130 KT of pygas, respectively.

Mixed C_4

Mixed C_4 is used as a raw material for butadiene, which is used for synthetic rubber and lattices. We use substantially all of our mixed C_4 production as feedstock for our production of butadiene and sell some of the mixed C_4 that we produce to customers in Thailand, Japan and Korea pursuant to supply agreements and also spot sales. Our supply agreements with our key customers are renewable on an annual basis and stipulate a pricing formula linked to butadiene prices and MOPJ (CFR Japan naphtha quoted in Platts) plus alpha or premium.

For the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, we sold 28 KT, 0 KT, 34 KT and 5 KT of mixed C_4, respectively.

Polyolefins

Our polyolefin products consist of polyethylene and polypropylene. For the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, we sold 785 KT, 676 KT, 743 KT and 372 KT of polyolefins, respectively.

Polyethylene

Polyethylene is the world's most widely-consumed thermoplastic. Polyethylene has the simplest chemical structure of all commercial polymers and is a very versatile material. It is used to manufacture a wide variety of products, including a wide variety of packaging films, blow moulding for household and industrial containers, extruded pipes and conduits.

High density polyethylene ("**HDPE**") resins are among the most frequently used polyethylene resins in the world by volume and are characterised by greater toughness and by superior mechanical strength, coupled with higher service temperature limits. Most HDPE resins are converted by blow moulding, injection moulding and variations of the extrusion process. Linear low density polyethylene ("**LLDPE**") resins are easy to process and have good strength and clarity. They are usually converted to plastic products by blown film or cast film extrusion. LLDPE resins offer improved strength, chemical resistance and a higher melting point, making them suitable for high film strength applications such as shrink and stretch wraps.

We offer different grades of polyethylene according to the demands of our customers. Through our sales and technical services group, we maintain regular contact with end-users of our polyethylene products to discuss their needs and respond to customer feedback. As part of its quality control process, our technical department analyses our polyethylene products prior to packaging and distribution with respect to, among other things, their melt index, density, additive content, colour, odour and impurities. We engage third party transporters to deliver all of our domestic sales volume. We tender and agree on trip rate charges with some price adjustments mechanism with PT Richland Logistics Indonesia ("**RLI**") at the commencement of each new calendar year with respect to the portion of labour costs.

We sell substantially all of our polyethylene domestically through direct sales and through local distributors. Our supply agreements with our key customers are renewable on an annual basis. In the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, 95.1%, 98.7%, 90.9% and 98.3%, respectively, of our polyethylene sales were sold in Indonesia. We price polyethylene with regard to the CFR SEA polyethylene prices published by ICIS plus a premium. For the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, we sold 314 KT, 227 KT, 316 KT and 147 KT of polyethylene, respectively, under various grades.

Polypropylene

Polypropylene is used in a wide range of consumer products to manufacture food packaging, housewares, woven sacks, automotive parts, electronics appliances and other applications.

Homopolymers are made by polymerised propylene monomers. This type of polypropylene is characterised by great stiffness, glossiness and translucence. Homopolymers can be used to produce rigid and flexible food packaging, garments, fabric bags, paper laminations, adhesive tapes and house wares.

Random copolymers are produced by polymerised propylene monomers with the insertion of ethylene co-monomers. This type of polypropylene is characterised by high clarity and flexibility and are used to produce mainly clear containers, flip-top caps and other packaging. Random copolymers have lower melting temperatures compared to homopolymers and, thus may also be used as a laminate (extrusion coating) for woven bags.

Impact copolymers (also known as polypropylene block copolymers) are the least breakable among the types of polypropylene and can withstand low temperatures. Its natural colour is milky white. Impact copolymers are used as raw material for plastic pails, pallets, electronics and automotives.

Our polypropylene plant produces homopolymers, random copolymers and impact copolymers and we are the only producer of impact copolymers in Indonesia. We produce a wide variety of polypropylene products, enabling us to reach out to a large variety of customers, including both consumer and industrial segments, resulting in both diversification in products, clientele and polypropylene grades.

We currently sell substantially all of our polypropylene products within Indonesia due to robust domestic demand in Indonesia, which continues to be a net importer of polypropylene. Our supply agreements with our key customers are renewable on an annual basis. For the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, we sold 100.0%, 98.3%, 99.7% and 100.0% respectively, of our polypropylene sales to domestic customers. Pricing is based on CFR SEA polypropylene prices published by ICIS plus a premium. We engage third party transporters to deliver all of our domestic sales volume. We tender and agree on trip rate charges with some price adjustments mechanism with RLI at the commencement of each new calendar year with respect to the portion of labour costs.

For the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, we sold 471 KT, 449 KT, 427 KT and 225 KT of polypropylene, respectively, under various grades.

Styrene monomer and by-products

Styrene monomer is an aromatic hydrocarbon which, under normal conditions, is a clear, colourless, flammable liquid. It can be produced by the alkylation of benzene with ethylene. The derivatives of styrene monomer are styrene-based polymers. They are used in the manufacture of plastics and rubber products, including polystyrene, acrylonitrile butadiene styrene, styrene-acrylonitrile, styrene butadiene rubber, unsaturated polyester resins and styrene butadiene lattices. Common end-uses for these products include disposable cups and containers and high impact plastics such as cassettes and toys.

We sell styrene monomer in both the domestic and export markets with our major customers being domestic end-users. We sell styrene monomer by-products in the domestic market. For the year ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, we sold 65.3%, 74.2%, 68.8% and 50.8%, respectively, of styrene monomer and its by-products sales to domestic customers. Domestic sales are made mainly through contract supply agreements lasting for periods of one year. Pricing is based on the average of the mean for CFR SEA and CFR China spot prices published by ICIS LOR, plus a premium, for the whole month of delivery. Delivery is contracted to RLI.

For our export business, we use a combination of contract and spot transactions. Our export customers include customers located in Thailand, Singapore, Japan, Hong Kong and China. For contract sales, pricing is based on the average of the mean for CFR China spot prices published by ICIS LOR and Platts for the whole month of delivery. For spot sales, pricing is determined through negotiations with the customers. Delivery is arranged by us for certain of our customers, while others are arranged by the buyers. Our supply agreements with our key customers are renewable on an annual basis.

For the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, we sold 262 KT, 236 KT, 283 KT and 176 KT of styrene monomer and by-products, respectively.

Butadiene and by-products

Butadiene is a raw material used in the production of acrylonitrile butadiene styrene ("**ABS**"), styrene butadiene latex ("**SBL**"), styrene butadiene rubber ("**SBR**") and polybutadiene rubber ("**PBR**") which are the main raw materials to produce tires. Some end-product applications include rubber boots, rubber gloves, shoe soles, adhesive and sealants.

We sell butadiene in both the domestic and export markets and sell butadiene by-products in the export market. We export butadiene to customers located in Malaysia, China and Korea. For the year ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, we sold 19.4%, 18.3%, 19.8% and 12.0%, respectively, of our butadiene and butadiene by-products sales to domestic customers and the remaining to export customers. We use a combination of contract and spot transactions, with pricing based on formula prices based on relevant global benchmark of ICIS CFR NEA and ICIS CFR SEA. Our supply agreements with our key customers are renewable on an annual basis.

For the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, we sold 187 KT, 106 KT, 202 KT and 138 KT of butadiene and by-products, respectively.

Feedstock and Raw Materials

The primary feedstock used in our petrochemical production processes are (i) naphtha, used as feedstock in our naphtha cracker; (ii) ethylene, used as feedstock in our two polyethylene plants and our two styrene monomer plants; (iii) propylene, used as feedstock in our three polypropylene trains, (iv) benzene, used as feedstock in our two styrene monomer plants and (v) C_4, used as feedstock in our butadiene plant. We can also use LPG as feedstock for our naphtha cracker for up to 25% of our feedstock requirements, which provides us with the ability to diversify our feedstock supply and reduce our exposure to fluctuations in naphtha prices. We intend to only use LPG as a feedstock at such times when its price makes it a more competitive source of feedstock than naphtha. Since LPG is used extensively as a heating fuel, demand and price for LPG tends to fluctuate and is seasonal as demand increases during the winter months. We regularly review our supplier portfolio to ensure that we are able to secure supply of our principal raw materials at competitive prices. As such, we try to avoid dependence on any single supplier. In 2016, all of the naphtha, condensate and benzene that we used were purchased from third parties, and all of the ethylene and mixed C_4 that we used were sourced internally. During the same period, approximately 40% of the propylene that we used were purchased from third parties, with the remainder sourced internally.

Under our accounting treatment, only naphtha and benzene are designated as "**raw materials**". Since we also produce ethylene, propylene and C_4, we designate them as "**finished goods**".

The table below shows a breakdown of the raw materials consumed for the time periods indicated:

	For the year ended 31 December			For the six months ended 30 June	
	2014	**2015**	**2016**	**2016**	**2017**
			Volume (KT)		
Naphtha	1,559	974	2,120	954	1,159
Benzene	197	182	219	107	131
Total	**1,756**	**1,156**	**2,339**	**1,061**	**1,289**

Naphtha

Naphtha is our principal raw material. To achieve full production capacity, our naphtha cracker will consume approximately 2,450 KT/A of naphtha.

Naphtha is graded according to its composition and density. The relative production quantities of ethylene, propylene, pygas, mixed C_4 and fuel oil by-product streams depend upon both the grade of the naphtha used and process conditions in the cracking furnaces. Naphtha that is heavier requires higher naphtha consumption per unit of ethylene and propylene production, but generates more pygas, mixed C_4 and by-product fuels under equivalent conditions. The mix of naphtha we use is determined primarily by product prices and the relative economic advantages we expect to receive by producing one product over another.

We externally source 100% of the naphtha, condensate and LPG that we use as feedstock in our naphtha cracker. As condensate undergoes a cracking process similar to naphtha, we use condensate as an interchangeable alternative feedstock source to naphtha. During the year ended 31 December 2016 and the six months ended 30 June 2017, we consumed 2,120 KT and 1,159 KT of naphtha as feedstock. We have not used LPG as feedstock in our naphtha cracker for the last three years and the six months ended 30 June 2017.

We import naphtha using a jetty adjacent to our main petrochemical complex. Our jetty can discharge cargos of up to 80,000 DWT. This provides us with significant business advantages in the form of lower freight rates and more flexible shipping schedules. Our naphtha imports may be on a FOB or CFR basis. Delivery from the jetty to the on-site storage facility is via pipeline. Our naphtha storage facility consists of five floating roof storage tanks, four with a working capacity of 46,000 kilo litres and one with a working capacity of 95,000 kilo litres, or approximately 27 days of supply. Our naphtha storage facility is connected to our main petrochemical complex by pipelines.

We use a specialised software system designed to help us determine the relative value of specified ranges of feedstock. This software system, which considers variables such as product prices, freight, product yield of naphtha and naphtha price, allows us to determine the most optimal combination of different naphtha grades to deliver the best margins to us.

Our supply of naphtha is provided through a combination of naphtha purchase agreements and purchases on the spot market. We currently purchase our naphtha from local and international sources, mostly through naphtha purchase agreements with periods that range from six months to one year typically renewable upon agreement of both parties. For the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, we purchased 69.7%, 69.6%, 76.1% and 62.6%, respectively, of our naphtha pursuant to naphtha purchase agreements with major oil trading companies and the remaining requirements on the spot market. For most contract sales, pricing is based on the average of the mean of Platts Japan for five consecutive days. Pricing can also be determined by Mean of Platts Arab Gulf or Mean of Platts Singapore. Pricing for our spot market purchases is determined through negotiations and is typically on a CFR basis.

The table below sets forth our naphtha suppliers and the naphtha we purchased from them for the time periods indicated.

Supplier Name	For the year ended 31 December 2016	
	US$ '000	(%)
Vitol Asia Pte. Ltd	304,163.0	35.6
Marubeni Petroleum Co. Ltd	237,454.5	27.8
SCG Chemicals	81,820.9	9.6
Chevron U.S.A. Inc	78,419.7	9.2
Shell International Eastern Trading	69,445.6	8.1
Shell MDS (Malaysia) Sendirian Berhad	26,243.5	3.1
Konsorsium PT Titis Sampurna	22,003.2	2.6
PT Surya Mandala Sakti	3,180.1	0.4
PT Sadikun Chemical Indonesia	495.8	0.1
Others	31,640.2	3.7
Total	**854,866.6**	**100.0**

Supplier Name	For the six months ended 30 June 2017	
	US$ '000	(%)
Vitol Asia Pte Ltd	174,945.9	31.0
Shell International Eastern Trading	101,223.7	17.9
Marubeni Petroleum Co Ltd	79,449.7	14.1
Total Trading Asia Pte Ltd	63,336.9	11.2
Chevron U.S.A. Inc	61,193.2	10.8
Shell Mds (Malaysia) Sendirian Berhad	20,098.1	3.6
Konsorsium Pt. Titis Sampurna	18,259.8	3.2
PT Surya Mandala Sakti	5,309.9	0.9
Others	40,261.0	7.1
Total	**564,078.2**	**100.0**

Benzene

Benzene, the raw material used in our styrene monomer plants, constitutes the principal raw material in the production of styrene monomer. We purchase all of the benzene that we consume from third parties, and obtain a significant amount from SCG Chemicals. During the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, we consumed 197 KT, 182 KT, 219 KT and 131 KT, respectively, of benzene, out of which we purchased 96 KT, 52 KT, 90 KT and 54 KT, respectively, from SCG Chemicals. We source the remainder of the benzene from other third party suppliers.

Other raw materials, consumable chemicals and supplies

Other raw materials, chemicals and supplies consumed in our production operations include nitrogen, hydrogen, water, water treatment chemicals, butene-1, hexane, polyethylene film for bagging and high activity special catalysts and additives for the polyethylene and polypropylene production process. In addition, as is described below under "— *Support Facilities — Power Utilities,*" our production plants also require the use of significant quantities of electricity.

Our naphtha cracker and two polyethylene plants consume between 40 and 60 million cubic metres of nitrogen per year. We entered into a gaseous nitrogen supply agreement with PT Air Liquide Indonesia, which expires in January 2027. We currently derive sufficient nitrogen under this arrangement to supply all of our nitrogen requirements.

We require fuel to start up our naphtha cracker and, on an ongoing basis, to back up and balance the requirements of our gas and steam turbines. We have storage for diesel and fuel oil (including the requisite license for such storage) and have a year supply agreement with PT Banten Inti Gasindo that will expire in January 2020 and a supply agreement with PT Perusahaan Gas Negara (Persero) Tbk that will expire in March 2018 with respect to the supply of natural gas by pipeline.

We produce enough hydrogen as a by-product of the cracking process to satisfy our olefins production requirements. In addition, we buy a wide range of chemicals, additives and catalyst for the production of ethylene, polyethylene, propylene and styrene monomers from various suppliers.

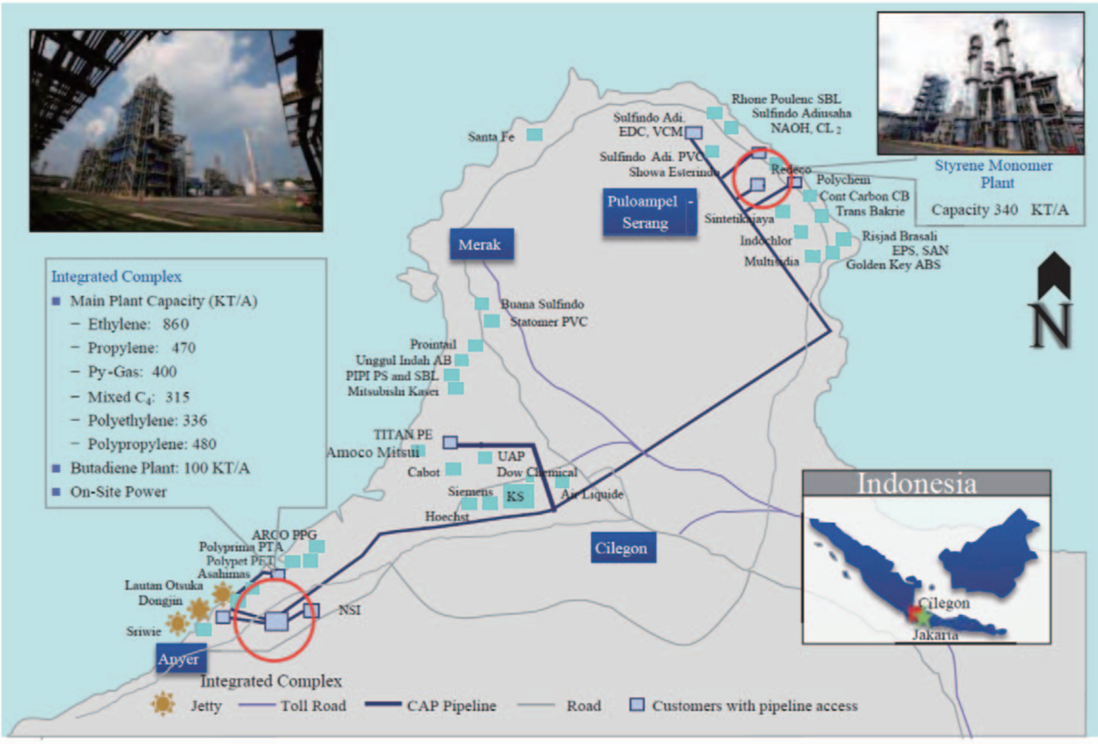
Production Plants and Manufacturing Processes

We operate an integrated petrochemical complex located in Banten Province of Indonesia, which comprises (i) our main petrochemical complex in Ciwandan, Cilegon, which houses one naphtha cracker, two polyethylene plants, three polypropylene trains and one butadiene plant to produce olefins, polyolefins and butadiene and its by-products and (ii) a styrene monomer complex approximately 40 km from the main petrochemical complex, in Bojonegara, Serang, which houses two styrene monomer plants to produce styrene monomer and its by-products. Our petrochemical complex in Ciwandan, Cilegon is approximately 120 km from Jakarta on a site of approximately 135 hectares. Our styrene monomer plants are located approximately 40 km away from our main petrochemical complex on a site of approximately 14 hectares. Our styrene monomer plants are directly connected to our main petrochemical complex in Cilegon by pipelines. We have obtained the right to construct and operate our pipelines on land owned by third parties for specific periods of time, typically for periods of five to twenty years, subject to renewal. We expect to renew these certificates upon their expiration.

Our production facilities are strategically located close to our principal customers for ethylene, which is costly to transport. We deliver ethylene and propylene through our pipelines to customers located in the region and transport all other products for domestic sale by trucks and containers managed by RLI. RLI also manages our warehouse and the logistics for our polyethylene and polypropylene products under an arrangement that expires in December 2017. All of our export sales are shipped from our jetties.

Our plants benefit from a significant degree of operational integration. The integrated nature of our ethylene, polyethylene, polypropylene, styrene monomer and butadiene production enables us to take advantage of operational savings and synergies and provides us with the flexibility to respond to changes in the relative prices of our key products. In addition, our plants are supported by an infrastructure which includes storage tanks and warehouses, power utilities, pipelines, jetties and transport facilities, a waste water treatment facility, cooling water and seawater systems, boiler facility, air systems, laboratories and process control rooms.

The map below shows the location of our production facilities in Banten Province, Indonesia.



Naphtha cracker

We operate a modern naphtha cracker, using technology licensed from Chicago Bridge & Iron Company N.V. ("**CB&I**") with nameplate capacity of 860 KT/A. Our naphtha cracker is the only naphtha cracker in Indonesia and is also able to crack LPG and other feedstock. Our naphtha cracker commenced operations in April 1995. In September 1995, our polyethylene plants became fully integrated with our naphtha cracker allowing our two polyethylene production plants to consume ethylene produced by our naphtha cracker as feedstock. Based on our naphtha cracker's current capacity, our naphtha cracker will consume approximately 2,450 KT/A of naphtha to achieve full production capacity.

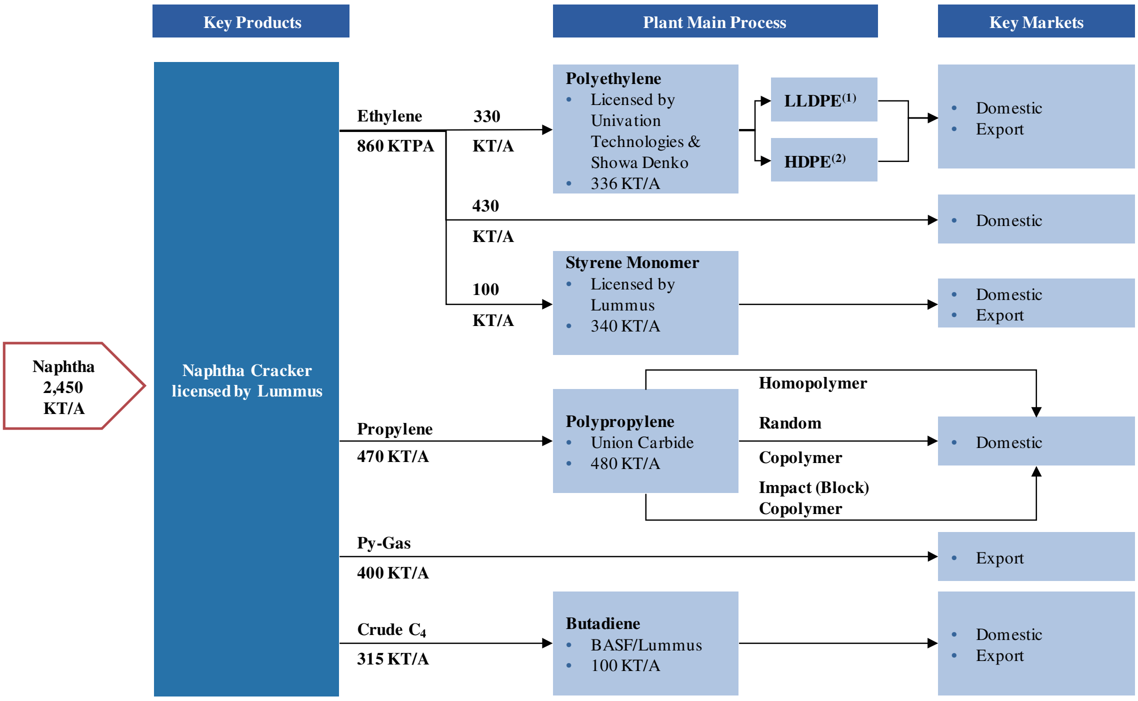
We commenced a cracker expansion project in September 2013, which we completed in December 2015. The project resulted in a 43% nameplate capacity increase for our products. As of 30 June 2017, our naphtha cracker is able to produce 860 KT/A of ethylene (from 600 KT/A), 470 KT/A of propylene (from 320 KT/A), 400 KT/A of pygas (from 280 KT/A) and 315 KT/A of mixed C_4 (from 220 KT/A). We are also planning to conduct a feasibility study to construct and operate a second petrochemical complex next to our existing main petrochemical complex in Cilegon, Banten Province. For more information, see "—*Capacity and Plant Improvements*."

Our naphtha cracker can convert hydrocarbon feedstock, such as light naphtha, heavy naphtha, certain condensate and LPG, into ethylene, propylene and other by-products in a two-stage process.

In the first stage, the feedstock is preheated and pumped through furnaces containing many tubes heated to approximately 800 degrees Celsius (approximately 1,470 degrees Fahrenheit). Under such conditions, the feedstock is "cracked" into ethylene, propylene and various by-products. One of these by-products is carbon, which is deposited on the surface of the tubes as coke and lowers the performance of the furnace. To reduce coke formation in the tubes, steam is injected into the tubes, together with the feedstock. Build-up of coke is removed by burning it off in a controlled mixture of air and steam. The process of removing coke from furnace tubes is called de-coking.

During the second stage, the resultant mixture of products leaving the cracking furnace are subjected to various cooling, compressing and separating processes to achieve the purity required for our products. During this process, impurities are removed and products are cooled to a level suitable for storage in tanks, some of which are maintained at cryogenic temperatures. Some by-products, such as mixed C_4 can be, and are, recycled to the furnace as feedstock if we lack a suitable market for them. Recycled hydrogen is used in both polyethylene and polypropylene production processes. Other by-products, such as methane, hydrogen and heavy oil, are used internally as fuel.

The following chart illustrates the production process and key markets for olefins and by-products used in our naphtha cracker as of 30 June 2017.



(1) LLDPE: Linear Low Density Polyethylene

(2) HDPE: High Density Polyethylene

Polyethylene plant

At our polyethylene plants, we operate an integrated production system, which allows us to improve our feedstock yields and lower our unit cost of production. In addition to utilising the ethylene we produce as feedstock for the production of polyethylene, our plants are supported by infrastructure which includes storage tanks and warehouses, power utilities, process and utility pipelines, jetties and transport facilities, a water treatment plant, cooling water and seawater systems, air systems, a nitrogen system, laboratories and process control rooms. Our two polyethylene plants are situated adjacent to our naphtha cracker. Each plant has its own processing license from Univation Technologies LLC ("**Univation Technologies**") and Showa Denko, respectively.

Our first polyethylene plant, which commenced production in April 1995, has a nameplate capacity of 200 KT/A. Because it is a swing plant, this polyethylene plant allows us to produce both LLDPE and HDPE, allowing us the flexibility to optimise the product mix between these two products with the objective of enhancing our margins. The train uses gas phase technology with a licence from Univation Technologies.

Our second polyethylene plant commenced operation in July 1995 and uses technology licensed from Showa Denko that allows us to produce HDPE. It currently has a capacity of 136 KT/A. The reaction system consists of a loop reactor system, which can be operated in a monomodal or bimodal configuration.

Except for a shared control room and shared raw materials, purification and utility systems, each polyethylene plant operates independently from the other and independently from our naphtha cracker. In the event of a shutdown of our naphtha cracker resulting in a cessation in the delivery of ethylene, as a short-term measure we could import ethylene and operate the two polyethylene plants using power co-generated by STG units or with electricity provided by public utilities.

The raw materials used in polyethylene production are ethylene, butene-1 and hexane. First, the raw materials are treated to remove impurities that affect the function of the catalysts used in the process. The mixture forms long chains of ethylene in the reactor under elevated temperature and in the presence of catalysts. This process is called polymerisation. The polymerisation occurs in the loop reactor in a slurry state and the resulting resin is mixed with product specific additives, palletised and bagged for storage. By varying the operating conditions and catalyst used, we are able to make a variety of grades for our customers. Both of our polyethylene plants share one bagging and warehouse system. The warehouse has a capacity for 55 KT of product, which we believe is more than adequate for handling normal customer requirements.

Polypropylene plant

Our polypropylene plant consists of three trains with a combined capacity of 480 KT/A and uses technology licensed from Union Carbide. Our polypropylene plant produces homopolymers, random copolymers and impact copolymers and we are the only producer of impact copolymers in Indonesia. Our polypropylene plant commenced operations in 1992 and is supported by infrastructure, which includes a jetty, raw material storage facilities, three production reactors that provide flexibility in manufacturing various types of polypropylene grades, and two finished product storage facilities with one facility located in Cilegon and the other facility located in Surabaya.

The main raw material used in polypropylene production is propylene. We use UNIPOL™ gas phase technology, which is a process developed by Union Carbide and Shell Chemical Company, to produce polypropylene. First, the raw materials are fed to the reactor, that is propylene together with catalyst, hydrogen or some other compound is added to determine molecular weight. A series of steps is used to separate the product. The mixture is discharged into a resin degassing system to be split into solid and gas materials. The product in powder solid is sent to the pelleter to make pellets. Gas is sent to a recovery system and then sent back to the reactor. Any small amount of liquid in the recovery system is vaporised and sent to the boiler as gas fuel.

Styrene monomer plants

We operate two styrene monomer plants using technology licensed by CB&I with a combined capacity of 340 KT/A. Our styrene monomer plants are connected by pipelines and are supported by infrastructure which includes storage tanks and warehouses, power utilities, pipelines, jetties and transport facilities, a freshwater facility, boiler facility, air systems, laboratories, a nitrogen system and process control rooms.

The styrene monomer production process consists of two stages. In the alkylation stage, ethylene and benzene are reacted in a fixed bed catalytic reactor to produce ethyl benzene. Ethyl benzene is purified and separated from unreacted benzene and its side product is a series of distillation columns. To improve production efficiency, diethyl benzene, a side product, is converted back into ethyl benzene in a transalkylation reactor. In the dehydrogenation reaction stage, ethyl benzene is dehydrogenated in a fixed bed catalytic reactor to produce styrene monomer. Since the reaction is reversible with a smaller coefficient to reactant, reaction is carried under vacuum conditions and reactor feeds are diluted with steam to improve conversion. The reactor effluent is separated and purified in a series of distillation columns, from which hydrogen is recovered and used as fuel. In the intermediate distillation process, polymer inhibitor is injected to prevent polymerisation of styrene monomer as styrene monomer has a tendency to polymerise in elevated temperatures.

Butadiene plant

We operate one butadiene plant which commenced commercial production in September 2013. Our butadiene plant has a capacity of 100 KT/A and uses BASF technology licensed from Lummus Technology, Inc (now CB&I). Our butadiene plant is connected by a pipeline to a cracker to supply it with mixed C_4 and is supported by three storage tanks with a total capacity of 6 KT, a supply of electricity from PLN, process control rooms and transport facilities. We intend to increase the plant's capacity to 137 KT/A by way of our butadiene expansion project, which commenced construction in the first quarter of 2017 and which we expect to be operational in the second quarter of 2018. See "—*Capacity and Plant Improvements*." Our butadiene plant is the first and only one in Indonesia.

To produce butadiene, mixed C_4 is fed into an extractive distillation column, where butadiene is dissolved in solvent while butane and butene are condensed to become raffinate-1 by-product. The solvent, which is rich in butadiene, is then separated in a conventional distillation column to produce butadiene. The solvent is then recycled and reused in the extraction process.

Plant Performance

We continue to enhance our production and augment our key plant performance. The table below sets forth the capacity utilisation rates of our plants for certain of our products for the time periods indicated.

	For the year ended 31 December			For the six months ended 30 June
	2014	**2015**	**2016**	**2017**
		(%)		
Capacity Utilisation Rates by Plant:				
Naphtha cracker	93.5	56.5	89.7	98.2
Polyethylene	91.5	67.3	98.2	86.1
Polypropylene	99.3	92.4	89.2	95.7
Styrene Monomer	73.5	68.9	81.7	103.4
Butadiene	79.3	47.1	88.3	116.3

(1) In September to December 2015, we conducted a scheduled TAM and expansion tie-in works in conjunction with our cracker expansion project, which resulted in the shutdown of our cracker facility for 85 days and limited our production capacity for 2015. In 2016, our overall capacity utilisation rate was affected by a ramp-up of our new capacity additions in the first quarter of 2016. For more information, see "—*Maintenance*."

There was a fire incident at a naphtha feed line to one of our furnaces at our naphtha cracker on 10 June 2017, which resulted in a decrease in the utilisation rate of our naphtha cracker to approximately 80% for a period of four days following the incident. There were no casualties except for one employee who suffered minor hand burns. As of 15 June 2017, the utilisation rate of our naphtha cracker recovered to above 90% and as of 20 June 2017, our naphtha cracker had resumed to its normal operating levels.

Quality control

We maintain a quality control unit and two laboratories at the production facilities to monitor feedstock and other materials and products for compliance with contract specifications.

We generally rely on the product quality history of our long-term naphtha suppliers and have not had any issues with the product quality that our naphtha suppliers sell to us. Each naphtha shipment is typically accompanied by a certificate of analysis and tested prior to unloading. For long-term suppliers with established records, certain testing requirements may be reduced, such as trace contaminant testing.

All in-process and finished products are tested and graded according to specifications. A product release slip is issued for products stating quality and grade, clearing the product for sale. A non-compliance note is issued for products not meeting specifications.

Our regular maintenance programme ensures high plant availability and our quality controls are guided by International Organisation for Standardisation ("**ISO**") guidelines. The table below shows some of the key accreditations for our products and management systems.

Accreditation	Application
SGS Certification Body	
• ISO 9001:2008 (valid until 31 July 2018)	Quality management system received by SMI with respect to SMI's manufacture of styrene monomer and toluene.
• ISO 14001:2004 (valid until 15 September 2018)	Environmental management systems, received by SMI with respect to SMI's manufacture of styrene monomer and toluene.
SGS Register	
• ISO 9001:2008 (valid until 15 September 2018)	Quality management systems, received by us with respect to our olefin and polyolefin plants.
• ISO 14001:2004 (valid until 15 September 2018)	Environmental management systems, received by us with respect to our olefin and polyolefin plants.
Japan Institute of Plant Maintenance	
• "Category A" Total Productive Maintenance ("**TPM**") excellence award	Plant improvement methodology, received by SMI in January 2017
"Halal" Product Certificate for all plastic products (valid until 6 January 2018)	In January 2016, the Fatwa Majelis Ulama Indonesia ("**MUI**") council, Chairman of MUI and Director of the Foods, Drugs and Cosmetics Research Institute of MUI certified all of our polypropylene products

Maintenance

We shut down our plants periodically for scheduled turnaround maintenance ("**TAM**") and occasionally for unscheduled corrective maintenance. A TAM for our naphtha cracker occurs every five years and typically for 45 days and includes major repair and scheduled maintenance of main machinery, major scheduled renewals and compliance with statutory requirements. We are scheduled to conduct TAM every five years at our naphtha cracker plant. During the period from September to December 2015, we conducted a scheduled TAM and expansion tie-in works in conjunction with our cracker expansion project, which resulted in the shutdown of our cracker facility for 85 days and limited our production capacity for 2015. For more information on the utilisation rates of our production plants, see "*—Plant Performance*." The next scheduled TAM for our naphtha cracker plant is in 2020. See "*— Capacity and Plant Improvements*."

We have two styrene monomer plants. Each requires SDM for a period of 26 to 30 days once every two years, which is the useful life of the catalysts we use. Historically, we intentionally alternated this SDM requirement so that we had to shut down only one plant per year. We also conduct regular inspections, reparation work and catalyst replacement so as to maximise the operating efficiency of our plants, and we expect to continue to do so going forward. In December 2016, we conducted a scheduled SDM which resulted in the stoppage of one of our styrene monomer plants for 30 days and are scheduled to conduct the next SDM at the end of 2018.

We expect to shut down our polyethylene plants for approximately two weeks during the TAM of our cracker and utility facilities, since operation of our polyethylene plants depends on the availability of electricity and steam. We also conduct preventive and corrective maintenance during brief stops in the operation of the polyethylene plants that occur concurrently with grade changes.

No major scheduled downtime is required for our polypropylene trains. Maintenance is done during brief stages in the operation of the plants for grade changes.

We conduct maintenance programmes for our butadiene plant at the same time as a TAM for our naphtha cracker plant, during which we shut down our production of butadiene for a period of up to 40 days.

During the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, we incurred maintenance costs of US$33.7 million, US$31.5 million, US$37.6 million and US$19.9 million, respectively.

Capacity and Plant Improvements

We are focusing on the debottlenecking and expansion of our production plants with the goal of increasing production capacity, reducing our cost of production and enhancing profit margins.

We completed our cracker expansion project in December 2015, which resulted in a 43% increase in the nameplate capacity of our products, namely ethylene (from 600 KT/A to 860 KT/A), propylene (from 320 KT/A to 470 KT/A), pygas (from 280 KT/A to 400 KT/A) and mixed C_4 (from 220 KT/A to 315 KT/A). We completed this project on time and within our budget.

We intend to undertake projects that will allow us to produce additional and higher value-added downstream products. For example, instead of selling the butadiene that we produce to merchant customers, we expect that SRI's synthetic rubber plant will utilise the butadiene to produce synthetic rubber.

We have also undertaken debottlenecking and expansion projects to increase the production capacity of some of our downstream plants to utilise additional volumes of ethylene and propylene produced by our naphtha cracker following the completion of our cracker expansion project.

The table below sets forth certain information on our major debottlenecking and expansion projects as of 30 June 2017.

Project	Total Estimated Cost	Estimated Commencement of Operation[(1)]	Nameplate Capacity	
	(US$ millions)		Current:	After:
			(KT/A)	
Committed				
Butadiene expansion	41.2	Q2 2018	100	137
New polyethylene plant	347.0	Q4 2019	336	736
Naphtha cracker furnace revamp	45.0	Q1 2020	860 Ethylene 470 Propylene	900 Ethylene 490 Propylene
In the pipeline				
Polypropylene debottlenecking project	35.5	Q3 2019	480	590
MTBE and Butene-1 plant	86.8	Q3 2020	—	43 Butene-1 130 MTBE

(1) Refers to estimated commencement of operations for new plants and commencement of full operations for existing plants.

Butadiene Expansion

To add value to incremental C_4 production and to minimise opportunity loss of exporting excess crude C_4, we intend to increase the nameplate capacity of our butadiene plant from 100 KT/A to 137 KT/A. As of 30 June 2017, we have awarded engineering, procurement and construction ("**EPC**") works to Toyo Engineering Korea Limited in January 2017 and commenced construction the same month. We expect to commence full operation of our butadiene plant in the second quarter of 2018.

The total projected cost for our butadiene expansion project is US$41.2 million, which we intend to fund by our internal cash. As of 30 June 2017, we have spent US$10.1 million for this project.

New Polyethylene Plant

As part of our vertical integration strategy and in order to maintain and grow our polymer market position in Indonesia, we intend to build a new polyethylene plant to produce LLDPE, HDPE and metallocene LLDPE. We signed an agreement with Univation Technologies in September 2016 to use the UNIPOL™ polyethylene process for such production. We expect that this new plant will increase our nameplate capacity of polyethylene by 400 KT/A to 736 KT/A from 336 KT/A, and we expect to commence operations of our new polyethylene plant in the fourth quarter of 2019. As of 30 June 2017, we have appointed Toyo Engineering Korea Limited as contractor for this project.

The total projected cost for our new polyethylene plant is US$347.0 million, which we intend to fund through a combination of external debt and internal cash. As of 30 June 2017, we have spent US$12.7 million on this project.

Naphtha Cracker Furnace Revamp

We have plans to further increase the nameplate capacity of our naphtha cracker for ethylene production from 860 KT/A to 900 KT/A, for propylene production from 470 KT/A to 490 KT/A and for by-product production by a proportionate nameplate capacity. We expect to complete the naphtha cracker furnace revamp by first quarter of 2020.

The projected cost for our naphtha cracker furnace revamp project is US$45.0 million, which we expect to fund by our internal cash. As of 30 June 2017, we have spent US$7.8 million for this project.

Polypropylene Debottlenecking Project

We have plans to debottleneck our polypropylene plant to increase its capacity from 480 KT/A to 590 KT/A. We intend to commence the polypropylene debottlenecking project and commence full operation of our polypropylene plant in the third quarter of 2019.

The total projected cost for the polypropylene debottlenecking project is US$35.5 million, which we expect to fund by our internal cash. We have not yet incurred any expenditure for this project.

MTBE and Butene-1 plant

We have plans to build an MTBE and butene-1 plant with a nameplate capacity to produce 130 KT/A of MTBE and 43 KT/A of butene-1 to secure butene-1 supply for our polyethylene plants and to take advantage of MTBE demand in Indonesia. We intend for the plant to commence operations in the third quarter of 2020.

The total projected cost for the project is US$86.8 million, which we intend to fund by our internal cash. We have not yet incurred any expenditure for this project.

SRI Joint Venture

As part of our downstream integration strategy and our efforts to produce higher-value added products, we have entered into a joint venture with Michelin to enter the synthetic rubber industry. SRI, our joint venture company between our wholly-owned subsidiary SMI and Michelin, have commenced construction of a new synthetic rubber plant to produce synthetic butadiene rubber in Cilegon, Banten Province. SRI awarded an EPC contract to Toyo Engineering Corporation in June 2015 and commenced construction of the plant in November 2015. We expect the synthetic rubber plant to have a capacity of 120 KT/A and expect to commence operations in the first quarter of 2018. We do not intend to make further capital contributions to SRI.

The total projected cost for the synthetic rubber project is US$570.0 million, which SRI expects to fund by US$120.0 million in equity and the remaining by debt. As of 30 June 2017, SRI has spent US$313.8 million on this project.

Second Petrochemical Complex

We are also planning to conduct a feasibility study to construct and operate a second petrochemical complex near our existing main petrochemical complex in Cilegon, Banten Province. We intend for the proposed petrochemical complex to comprise a one million tonne per year ethylene cracker and various downstream derivatives products. We have established a new company, CAP2, which is currently undertaking feasibility studies for the second petrochemical complex. The shareholding structure of this new business venture is not yet finalised and we are in currently in discussions with various third parties. There is land available adjacent to our main petrochemical complex which we believe would be available for future acquisition, as necessary. We are taking steps to acquire land for this project in stages. Land acquisition will occur gradually and will depend on the readiness and price of land. See "*Risk Factors — Risks Relating to Our Business and Operations — We may not be able to complete our capacity and product expansion plans for our existing and new products*."

Support Facilities

Storage Tanks and Warehouses

Ethylene. We typically maintain an inventory of 4 KT to 12 KT of ethylene, which is sufficient for approximately 5 days' average production. We have one ethylene storage tank which can store up to 11 KT of low pressure ethylene and three high pressure ethylene tanks of 500 MT each from which our polyethylene plant normally draws its feedstock. Low-pressure liquid is a more economical form to store and transport than ethylene in high-pressure liquid form. We chill part of our ethylene output from our naphtha cracker and deliver the balance of the ethylene in gaseous form to our two polyethylene plants, as well as to our customers who take delivery by pipeline from our naphtha cracker.

Propylene. We have propylene storage facilities that can hold up to 31 KT of propylene, consisting of two low-pressure tanks, each with capacity of 12 KT, and three high-pressure tanks, which includes two tanks with a capacity of 2 KT and another with a capacity of 3 KT, or approximately 25 days of our production of propylene. Our production cycle takes about 60 days, starting from the placement of orders and procurement of raw materials to product delivery and payment by our customers. While we have no specific stocking or inventory policy, we maintain an average of two weeks' worth of raw materials for polypropylene. Our raw material inventory level varies from time to time as we pursue opportunistic spot purchases depending on the price and availability of goods. Stocking of other materials, such as catalysts and additives, is planned based on our production needs.

Polyethylene and polypropylene. We own three finished product storage facilities, two of which are located in Cilegon and one of which is located in Surabaya. The storage facilities have a total storage capacity of 70 KT, representing approximately 28 days of our polymer sales volume. We have a polyethylene warehouse for storing polyethylene on the plant site, which can hold up to 55 KT of polyethylene (which represents approximately 53 days of polyethylene sales volume), a polypropylene warehouse for storing polypropylene on the plant site, which can hold up to 15 KT of polypropylene (which represents up to 10 days' worth of polypropylene sales volume), and a satellite warehouse in Surabaya that can store both polyethylene and polypropylene.

Styrene monomer. We have two tanks for storing styrene monomer. The warehouses can hold up to 22 KT of styrene monomer, which represents approximately 24 days of sales volume.

Feedstock and by-products. We also have storage facilities for feedstock and by-products, fuel oil, diesel, LPG and other raw materials. Naphtha is stored in four tanks, three of which have a capacity of 46,000 kilo litres and one with a capacity of 95,000 kilo litres sufficient for approximately 27 days at full capacity operation. Pygas is stored in three tanks of 25,000 tonnes with a combined capacity for approximately 30 days of production. Miscellaneous tanks provide storage for fuel oils, diesel oil, LPG (used as fuel) and other raw materials and by-products.

Power utilities

As of 30 June 2017, our full production facilities at Cilegon and Serang in Banten Province required 62 MW of power during normal operations. We have on-site co-generation facilities, including a 51.56 MW GTG and a 31.25 MW STG located in our naphtha cracker plant. We obtain gas for our GTG pursuant to contracts with PT Perusahaan Gas Negara (Persero) Tbk and PT Banten Inti Gasindo and steam required for heaters and electricity co-generation at our naphtha cracker plant is generated principally by the naphtha cracking furnaces and two utility boilers fired by by-product methane and fuel oil streams. Our naphtha cracker, polyethylene and butadiene plants are also interconnected to receive electric power from PLN. We installed a 150 kV grid connection comprising a single feeder cable from PLN at our naphtha cracker, polyethylene and butadiene plants in April 2011 and integrated and synergised our GTG and STG facilities with PLN's 150 kV grid connection in June 2013 so that the facilities may serve as backup sources of power for each other in the event of a disruption. Our naphtha cracker, polyethylene and butadiene plants source approximately half of its power input from PLN and the remaining half from the GTG, with the STG used as a backup source of electricity in the event of a loss of power from the grid.

Our polypropylene and styrene monomer plants source their power primarily from PLN. We installed a 150 kV grid connection from PLN in November 2016 to enhance the reliability of power supply from PLN to our polypropylene plant. The styrene monomer plants have two emergency generators, but which are insufficient to maintain production in the event of an outage. The styrene monomer plants also operate four steam boilers, of which two are coal-fired boilers. See "*Risk Factors — Risks Relating to Our Business and Operations — Our operations are subject to production and other factors beyond our control which may subject us to unscheduled outages and shutdowns and which could have a material and adverse effect on our results of operations*" and "*Management's Discussion and Analysis of Financial Condition and Results of Operations — Key Factors Affecting Results of Operations and Financial Condition — Outages.*"

Pipelines

A network of pipelines connects our production plants to our tank farms and jetty facilities. These pipelines deliver certain materials, including naphtha, benzene and co-monomers, to our storage tanks and production plants, as well as certain finished products for sale to storage tanks and to the jetty facilities. We have a 2 km pipeline directly connecting our propylene production plants to our polypropylene trains, and a 45 km ethylene pipeline connecting our production facilities in Cilegon to all of our ethylene customers concentrated in Anyer, Merak and Bojonegara.

We have obtained rights to construct and operate our pipelines on land owned by third parties, among others, PT Krakatau Steel (Persero) Tbk, PT Marga Mandalasakti, PT Kereta Api Indonesia, PT Krakatau Bandar Samudera, PT Krakatau Industrial Estate Cilegon, PT Showa Esterindo Indonesia, PT Banten Java Persada, PT Pertamina Gas and governmental agencies for specific periods of time, typically for periods of five to twenty years, subject to renewal. Some of the rental fees are paid for annually and others are paid for five-year terms. Certain of these agreements have expired and we are in the process of renewing those expired agreements. See "*Risk Factors — Risks Relating to Our Business and Operations — We do not own all of the land on which our existing pipelines and planned pipeline extensions are located. Inability to get the necessary consents to operate on these lands could disrupt our operations.*"

Jetties and transport facilities

We own three jetties that we use for importing naphtha and other feedstock and for exporting ethylene, pygas and, when required, for exporting propylene or other products. Jetties A and B have capacities to berth 80,000 DWT vessels, capable of handling ships with up to 75 KT of cargo, and 6,000 DWT vessels, respectively while Jetty C has a capacity to berth 10,000 DWT vessels. The jetties are connected by pipelines to the storage tanks at our plant sites. At our facilities in Serang, Banten Province, we lease one jetty from one of our subsidiaries, RPU, with two berths capable of importing ethylene and benzene and exporting styrene monomer.

Other support facilities

Water treatment plant. We have a water treatment plant at our ethylene and polyethylene sites with the capacity to treat 5,760 tonnes of water per day, including boiler feed water, highly-purified water for use in circulating cooling systems and general utility water. In addition, our polypropylene and styrene monomer plants have their own demineralisation water unit with capacity of 20 m^3/hour and 53 m^3/hour, respectively.

Cooling water and seawater systems. Our ethylene, polyethylene, propylene and styrene monomer plants have cooling water systems which use seawater to pass through titanium plate heat exchangers on a once-through basis to cool the cooling water. The cooling water system is a closed system so that water losses are small. There are seven cooling water pumps with total capacity of approximately 40,000 m^3/hour in our ethylene and polyethylene plants. The seawater system has a total of five pumps, of which four pumps have a total capacity of 19,600 m^3/hour and one pump with capacity of 13,300 m^3/hour. We have a total of 19 titanium heat exchangers to cool the cooling water at our ethylene and polyethylene plants.

In our polypropylene plant, seawater is siphoned and screened by a motorised travelling screen. Our polypropylene plant is equipped with three pumps with a capacity of 2,300 m^3/hour each and one pump with capacity of 3,000 m^3/hour, circulated through nine titanium plate heat exchangers.

Our styrene monomer plants use two closed loop cooling water systems with titanium plate heat exchangers, one with a capacity of 6,500 m^3/hour and another with a capacity of 2,100 m^3/hour.

Our butadiene plant uses an open system cooling tower with a circulation capacity of 2,600 m^3/hour.

Plant air and instrument air system. We have five air compressors installed at our ethylene plant site and another two air compressors installed at each of our polypropylene and styrene monomer plants. The compressed air is used for the instrument air system, plant air system, and for cracking furnace de-coking. Typically, only three compressors are in use.

Nitrogen system. Nitrogen is supplied to us pursuant to a contract with PT Air Liquide Indonesia, which is due to expire in January 2027. Our naphtha cracker, polyethylene and polypropylene plants consume between 12,000 to 13,000 Nm^3/hr of nitrogen and our styrene monomer plant consumes around 650 Nm^3/hr of nitrogen. We believe PT Air Liquide Indonesia has adequate liquid nitrogen storage and vaporisation capacity to handle any of our emergency requirements. In addition, we also have our own nitrogen generator facility with a capacity of 5,500 Nm^3/hr to serve as back-up.

Laboratory. Our monomer laboratory is fully integrated into our quality control and plant process operations. Each shipment of raw material we receive is analysed upon arrival at the site. In the plant process, our lab performs routine analysis of various streams in addition to our onstream analysers that are part of the process. Products from our plants are continually monitored for quality, including those used in downstream processes. We also verify our liquid products by tank analysis prior to loading or shipping them.

Our polymer laboratory verifies and certifies each lot of polymer product as it enters our product warehouse. Polymer shipments cannot leave the plant site prior to undergoing quality certification by the laboratory. In addition, we also have a full customer service team to assist our customers. The laboratory incorporates film, blow moulding, and other equipment that we use to test our production runs, develop new products, as well as to assist our customers to improve their performance.

Our laboratory has a complete water testing facility. It is used to monitor water at various stages from the incoming raw water to the highest purity water used in our boilers. In addition, the laboratory monitors our facility's effluent water.

We also have a full oil analysis laboratory. It is used to monitor oil quality in our rotating equipment so that we can predict and prevent potential problems. Our oil laboratory is used for maintaining and improving plant reliability.

Process control rooms. We have three main process control rooms for our ethylene, polyethylene and polypropylene plants. In addition, we have a secondary control room for monitoring and controlling the utilities systems. The main process control rooms have fully-integrated computerised distributed control systems by Yokogawa and Honeywell. As a further aid to operations, we have a system of closed-circuit television cameras strategically placed throughout the facility. Our styrene monomer plants have two process control rooms with similar computerised distributed control system.

Land and Properties

Our integrated petrochemical complex comprises our main petrochemical complex in Ciwandan, Cilegon and a styrene monomer complex approximately 40 km from the main petrochemical complex, in Bojonegara, Serang. We own the land underlying our production plants pursuant to certificates of right to build which expiration dates ranging from 2019 to 2046. Some plots of our land used for these production plants are currently encumbered in favour of our creditors. We expect to renew these certificates upon their expiration.

We received certification as a Vital National Object ("**VNO**") of the Industrial Sector from the Ministry of Industry in 2014. This certification entitles our industry and our integrated petrochemical complex to receive security protection from the Indonesian National Police (*Kepolisian Negara Republik Indonesia* or "**Polri**") based on the necessity and estimation of the threats and/or disruptions that might occur in the form of a security protection performance guidance. Pursuant to Decree of the Head of Polri No. SKEP/738/X/2005 concerning Guidelines for Security System for Vital National Object, in the event of a threat and/or a disruption to a VNO involving members of the public who are not part of the VNO, Polri will take over the command and control of the security system for the VNO. Polri may request further security protection from the Indonesian National Army (*Tentara Nasional Indonesia*) if deemed necessary.

Our registered office is located at Wisma Barito Pacific Tower A, 7th floor, Jalan Let. Jend. S. Parman Kav 62-63, Jakarta 11410, Indonesia. Our executive and administrative offices in Jakarta are leased from a related party and occupy approximately 3,012 square metres.

Intellectual Property

Licenses

The table below sets forth certain information in respect of our existing production plants and the licenses in respect of their operations.

Plant	Capacity	Commencement of Operations	Licensor
	(KT/A)		
Naphtha cracker		1995	ABB Lummus Crest Inc.
Ethylene	860		
Propylene	470		
Pygas	400		
Mixed C_4	315		
Polyethylene UNIPOL™[1]			
LL/HDPE	200	1995	Univation Technologies
Polyethylene Showa Denko[1]			
HDPE	136	1995	Showa Denko
Polypropylene[2]	480	1992 — Train1&2 1995 — Train 3	Union Carbide[3]
Styrene monomer	340	1992 — Plant 1 1999 — Plant 2	ABB Lummus Crest Inc.
Butadiene	100	2013	Lummus Technology Inc.

(1) We market our polyethylene products under the name "*Asrene*®," our registered trademark.

(2) We market our polypropylene products under the name "*Trilene*®," our registered trademark.

(3) We had a license agreement with Union Carbide for the use of technical information and patents in relation to the production of polypropylene and retain the paid-up right to operate our current polypropylene trains using Union Carbide technology.

We have entered into a license agreement with ABB Lummus Crest Inc. (now CB&I), pursuant to which ABB Lummus Crest Inc. provides us non-exclusive rights for the use of technical information and patents in connection with olefins processing. We entered into another license and engineering and technology services agreement with Lummus Technology, Inc., now CB&I, in connection with our naphtha cracker expansion project which we completed in 2015. The license fees under these agreements have been paid in full.

We have entered into a patent license agreement with Univation Technologies LLC for the use of technical information and patents in connection with the production of polyethylene. Royalties under this license have been paid in full.

We have entered into a patent license agreement with Showa Denko K.K for the use of technical information and patents in connection with the production of polyethylene. Royalties under this agreement have been fully paid.

SMI entered into a license agreement with ABB Lummus Crest Inc. pursuant to which ABB Lummus Crest Inc. provides non-exclusive rights for SMI for the use of technical information and patents in connection with styrene monomer and ethylbenzene processing. The license fee in relation to the use of licensed technology to operate SMI's styrene monomer plants has been paid in full.

PBI entered into a license agreement with Lummus Technology Inc. for our butadiene extraction plant. Under the agreement, Lummus Technology Inc. provides PBI with non-exclusive rights for the use of technical information and patents in connection with the butadiene production process. PBI entered into another license agreement with Lummus Technology Inc. in relation to our butadiene expansion project and the license fees under these agreements have not yet been paid in full.

Trademarks and Copyrights

We have registered the trademark to our brand names "*Asrene*®" (for polyethylene products), "*Trilene*®" (for our polypropylene products) and "*Grene*®" (for our resin products) in Indonesia and have registered the copyrights to our logos for "PT Chandra Asri", "Asrene" and "Grene".

The table below shows details of the trademarks we have registered with the Directorate General of Intellectual Property Rights of the Indonesian Ministry of Law and Human Rights (previously known as the Ministry of Justice):

No.	Trademark	Registration Number	Registration Date	Renewal Application Date	Validity Period
1.	Trilene................	IDM000159259	24 August 2016	—	24 August 2026
2.	Grene	IDM000389324	10 June 2011	18 August 2016	10 June 2021
3.	Asrene................	IDM000015428	5 October 2004	19 December 2014	5 October 2014[1]

(1) We have submitted renewal applications for our registered trademarks to the Directorate General of Intellectual Property Rights of the Indonesian Ministry of Law and Human Rights.

The table below shows details of the copyrights we have registered with the Directorate General of Intellectual Property Rights of the Indonesian Ministry of Law and Human Rights:

No.	Copyrights	Registration Number	Date of Announcement	Registration Date	Validity
1.	PT Chandra Asri ..	033176	28 November 2005	14 May 2007	28 November 2055
2.	Grene	057444	1 January 2011	14 February 2012	1 January 2061
3.	Asrene	012649	—	4 October 1994[(1)]	4 October 2044

(1) The "Asrene" logo was registered in the Public Registry of Creations at the Directorate General of Copyrights, Patent, and Trademarks.

Sales, Marketing and Customers

Our products are sold as key raw materials for the production of a wide variety of consumer and industrial products. See "— *Products*." We sell olefins and by-products, polyethylene, styrene monomer and butadiene in both the domestic and export markets, and polypropylene in the domestic market. For the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, 77.1%, 83.0%, 74.0% and 67.3% of our total net revenue was derived from domestic sales and the remainder was derived from export sales.

We appointed PT Sarana Kimindo Intiplas ("**SKI**") and PT Akino Wahanamulia ("**AW**") as our sales agents for some of our products to be sold in Indonesia. The agreements are typically valid for a period of one year and are renewable annually.

Major customers

The majority of our customers are located in Indonesia. We sell our products to a wide range of customers. By generating sales from a variety of customers, we believe that our reliance on any single customer is limited.

The table below sets forth the breakdown of our net revenue from our top ten customers, which represented 43.6% of our total net revenues for the year ended 31 December 2016:

Customer	Products	Percentage of Net Revenue (%)	Customer Since	Location
Customer 1	Polyethylene, polypropylene	7.4	1995	Indonesia
Customer 2	Ethylene, propylene and styrene monomer	5.1	2002	Japan
Customer 3	Styrene monomer and butadiene	5.1	2004	Indonesia
Customer 4	Polyethylene, polypropylene	4.6	1995	Indonesia
Customer 5	Ethylene	4.5	1995	Indonesia
Customer 6	Ethylene	4.1	2007	Indonesia
Customer 7	Butadiene, raffinate, styrene monomer, C_4	3.9	2002	Singapore
Customer 8	Pygas	3.7	2011	Thailand
Customer 9	Propylene	2.8	2011	Indonesia
Customer 10	Ethylene	2.5	2006	Indonesia
Top 10 Customers % of Net Revenue..................		43.6		

The table below sets forth the breakdown of our net revenue from our top ten customers, which represented 48.1% of our total net revenues for the six months ended 30 June 2017:

Customer	Products	Percentage of Net Revenue (%)	Customer Since	Location
Customer 1	Polyethylene, polypropylene	7.7	1995	Indonesia
Customer 2	Butadiene, raffinate, styrene monomer	6.4	2002	Japan
Customer 3	Pygas	6.2	2011	Thailand
Customer 4	Ethylene	5.4	1995	Indonesia
Customer 5	Styrene monomer, raffinate	5.1	2004	Indonesia
Customer 6	Ethylene, polyethylene	4.3	2010	Singapore
Customer 7	Polyethylene, polypropylene	3.6	1995	Indonesia
Customer 8	Ethylene	3.6	2007	Indonesia
Customer 9	Raffinate	3.0	2013	Singapore
Customer 10	Styrene monomer, butadiene	3.0	2010	Japan
Top 10 Customers % of Net Revenue..................		48.1		

Competition

We compete with other petrochemical producers on the basis of price, service, product quality, timely deliveries and overall customer service. Our competitors include some of the world's largest chemical companies and major integrated oil companies, many of whom have greater financial resources and also are more vertically integrated with their own raw material resources. We believe that some of the keys to competing in our industry include, among other things, customer relations, market position, the scale of facilities, low cost feedstock, geographical proximity to our customers and differentiated products and process technologies.

Price of petrochemical products are determined by market factors, such as supply/demand balances and feedstock costs that are beyond our control. We generally sell these products at prevailing market price like our competitors but, on occasion, negotiate the price.

We expect competition may come from countries in the Middle East and Southeast Asia. These companies may be Japanese traders such as Marubeni Corporation, Mitsui & Co. and other more integrated oil and petrochemical companies such as ExxonMobil, Petroleum Authority of Thailand and SABIC.

Human Resources

Employees

As of 30 June 2017, we had approximately 1,714 full-time employees. The table below sets forth the number of our employees by job function as of 30 June 2017.

Job Function	Number of Employees
Senior Management	28
General Managers	39
Managers	110
Supervisory	190
Mechanics, technicians, engineers, officers	702
Operators, clerks	645
Total	**1,714**

As of 30 June 2017, approximately 89.1% of our employees are members of the Labour Union. We have signed a collective labour agreement with the Labour Union which regulates our employees' welfare mechanism, work incentives, overtime wages, pension fund, health allowance, annual performance and holiday bonus. We typically negotiate the collective labour agreement every two years and signed the most recent collective labour agreement in 2017. Our relations with our employees have generally been good and there have not been any instances of collective union action, strikes and labour disruptions in the past three years.

Our employees receive compensation packages, which include basic salaries that comply with applicable minimum salary wage regulations, fixed allowance (housing and utility allowances) and other allowance (transportation and meal allowances), and annual bonuses distributed to eligible employees based on factors including individual and company performance. We also provide all of our permanent employees with a contributory pension fund programme which is managed by Dana Pensiun Lembaga Keuangan Manulife Indonesia and a life insurance programme.

Human capital training and development remains a priority for us and we have implemented several initiatives to ensure that our employees are equipped with the right skill-sets and work experience. In 2016, we held over 12,000 man-days of technical and non-technical training programmes attended by over 1,500 participants from managerial and non-managerial levels covering areas such as (i) safety, health, environment and quality control, which includes process safety management, hazard and operability studies, job safety analysis, emergency medical services and quality management systems, (ii) technical and functional competencies, such as project management and competency development programmes and (iii) soft skill and leadership training by way of our Business Leadership Development Programme and New Supervisor Development Programme. Since 2016, we also collaborated with SCG Chemicals to identify and send our engineers for a one-year work assignment to Rayong, Bangkok to further develop their technical capabilities.

Environmental Compliance

We are subject to the laws and regulations of Indonesian and the regional government of Cilegon City, governing the use, storage, transportation and disposal of toxic and hazardous materials, including the discharge of effluents and emissions into the environment and otherwise relating to the protection of the environment. Our operations are supervised by several governmental entities, such as the Department of Industry, the State Ministry of Environmental Affairs, the Environmental Impact Management Agency, the Directorate General of Sea Transportation of the Department of Transportation and the regional government of Cilegon City, who are responsible for implementing and monitoring Indonesia's pollution control regulations and policies in the petrochemical industry.

Indonesian law requires those companies, including manufacturers, whose business activities are expected to have a potentially significant impact on the environment, to prepare an environmental impact assessment, environmental monitoring plan and environmental management plan in connection with certain operations that are considered likely to have an impact on the environment. The environmental impact assessment report must be submitted to a commission consisting of representatives of various national and local government agencies and non-governmental organisations before the construction of a facility. Once the commission approves the environmental impact assessment report, which sets out various compliance standards and other obligations, amendments to the environmental impact assessment report must be provided to a similar commission in connection with the commencement of the subject company's operations. For the original facilities, all appropriate environmental requirements were completed. As we debottleneck our facility, we are proceeding with the necessary environmental applications. We are using a third party contractor to prepare the required documentation for submission to both national and local governments and non-governmental organisations.

We have received certifications and awards for our efforts to ensure product quality and environmental-friendly production processes. See "— *Plant Performance — Quality Control*." We hold an ISO 9001 quality management system certificate and an ISO 14001 environmental compliance certificate from SGS S.A. (formerly Societe Generale de Surveillance), an internationally-recognised auditing body. Our ISO 9001 and ISO 14001 certificates are valid until September 2018. We also hold SMK3 certification, which is valid until August 2018 and OHSAS certification, which is valid until February 2018.

In addition, SMI also received a "Category A" Total Productive Maintenance ("**TPM**") excellence award from the Japan Institute of Plant Maintenance in January 2017, a "Level 5" Green Industry Award from the Ministry of Industry in December 2016. SMI is the first petrochemical company in Indonesia to receive such TPM award and is also preparing to participate in the Excellence in Consistent TPM Commitment Awards in 2019. We also intend for our polymer and monomer plants to be assessed for a TPM excellence award in 2017 and 2018, respectively.

We believe our operations are in compliance in all material respects with applicable environmental laws and regulations currently in effect. We have had no environmental violation/incident that caused damage and/or claims. We have an annual budget for environmental control allocated to waste management, laboratory analysis, permits and environmental equipment, among others. All of our environmental licenses and permits are in full force and effect. In addition, we have entered into agreements for waste management with PT Holcim Indonesia Tbk, which is effective from 1 January 2016 until 31 December 2017, PT Prasadha Pamunah Limbah, which is effective from 1 January 2016 until 31 December 2017 and PT Multi Hanna Kreasindo, which is effective from 1 December 2016 until 1 December 2017.

Our waste water treatment complies with the decree of State Minister of Environmental Affairs, while waste disposal (toxic and hazardous) is disposed with a government body, namely Waste Management Indonesia.

Health and Safety

Our health and safety policies are based on the guiding principle that each employee is responsible not only for his or her own safety, but also for the safety of fellow workers. We have ongoing training programmes for all phases of the safety system from plant site equipment and its usage, to safety permitting and material safety data. All levels of the plant organisation are included in a monthly safety awareness meeting. We also conduct walk-through inspections to verify safety conditions, employee activities and housekeeping. Pursuant to applicable regulation, we submit a monthly plant safety meeting report to the Office of Social and Manpower, a local governing body.

We believe that our health and safety activities instil a strong sense of safety awareness in our employees. In December 2014, we implemented internal guidance to reinforce safety awareness as our priority. As of 30 June 2017, our production facilities have completed 405,939 man-hours without any lost time accidents. We received a zero accident award from the Banten Province Governor in February 2017 in recognition for our accomplishment in health and safety.

We have a fully-equipped fire station along with a core group of firemen. In addition, we have in place an emergency response team that includes firemen. Emergency training is conducted on an ongoing basis and drills are also conducted periodically.

At our plant, we have various qualified inspectors to maintain plant integrity. We do routine inspections of static equipment by various methods. Our static equipment inspectors are responsible for our compliance with local and national regulations regarding pressure vessels and fire equipment. We also have inspectors for all rotating equipment. Our inspection teams help us to ensure that the plant is kept in a safe condition. Results of our pressure vessel inspections are reported and registered with the national agency, the Department of Manpower.

We maintain compliance with health, safety and environmental regulations promulgated by local and national governing bodies. For example, we sample effluent wastewater on a daily basis at our olefin and polyolefin plants, except at our polypropylene where we sample effluent wastewater on a weekly basis. We also check pH, temperature, turbidity, oil content, suspended solids, chemical oxygen demand and biochemical oxygen demand. Typically, our results are within the required specification. We report this data on a monthly basis to the local regulatory office, the Office of Environment, Mine and Energy, and the State Ministry of Environment.

For compliance with stack emissions, heat stress, and noise surveys, we rely on third party analyses. These analyses are conducted on a quarterly basis and reported to the State Ministry of Environment.

Local government regulations require a quarterly check of the seawater outfall from the cooling water system exchangers. We complete the analysis using a third party and locally report this information to the relevant local regulator.

We believe we are in compliance with all relevant Indonesian safety regulations.

Insurance

We carry insurance for our operations against property damage and consequent business interruption through "all risks" policies. Our insurance is underwritten by Indonesian insurance companies and is, in turn, reinsured by major international insurance companies. Our existing "all risks" policies are in force until 20 June 2019.

Our "all risks" coverage has a maximum indemnification limit of approximately US$3.7 billion, representing the combined value at risk for property damages and business interruption. This coverage has a cap on liability of US$1.6 billion per occurrence for combined property damage and business interruption, and a cap of US$1.2 billion per occurrence and in annual aggregate in respect of national catastrophes, including fire.

Our insurance providers have created exclusions from our "all risks" insurance policies for losses resulting from terrorism, war and certain other events. While separate terrorism insurance coverage is available, premiums for such coverage are expensive, especially for chemical facilities, and the policies are subject to high deductibles. Available insurance coverage typically excludes coverage for losses from acts of foreign governments as well as nuclear, biological and chemical attacks. Our management has determined that it is not economically prudent to obtain additional terrorism insurance, especially given the significant risks that are not covered by such insurance.

We also have a third party liability policy, which covers losses caused to third parties as a result of our operations, including sudden environmental pollution, up to a limit of US$100 million per loss or occurrence. In addition to these policies, we maintain other insurance policies for specified risks, including marine cargo and transport insurance and other kinds of coverage that are not included in our "all risks" policies.

We received certification as a Vital National Object ("**VNO**") of the Industrial Sector from the Ministry of Industry in 2014. This certification entitles our industry and our integrated petrochemical complex to receive security protection from the Indonesian National Police based on the necessity and estimation of the threats and/or disruptions that might occur in the form of a security protection performance guidance. We may request for further security protection from the Indonesian National Army if deemed necessary.

We believe our insurance coverage is in accordance with industry standards in Indonesia and Southeast Asia.

Corporate Social Responsibility

We are committed to carrying out sustainable corporate social responsibility ("**CSR**") programmes and have integrated our CSR programmes into our business operations. Our programmes' policies focus on, among other things, environmental responsibility and social and community development.

Our environmental responsibility programmes focus on clean production, energy and natural resource conservation, green-office initiatives, reducing waste through "*reduce, reuse and recycle*", increased use of renewable energy and environmental education. For instance, we have an Alternative Fuel Recovery Programme whereby we collaborate with our partners to process the waste oil that we produce to be used as alternative fuel. We also use a turbine ventilator at all of our warehouses and workshops to help preserve energy, as this is a more energy-efficient alternative to the conventional air circulation system. We also took part in a mangrove planting programme in 2015 to commemorate Environment Day, where we planted 2,500 mangrove trees in Pulo Panjang, Serang. In March 2015, we also worked with the environmental NGO Siklus to launch the Sustainable Mangrove for the Welfare of the People Programme in Indramayu, West Java. The programme deals with the development of the silvofishery system, as well as the distribution of 3,000 milkfish fingerlings around the mangrove area. We participate in the national tree planting movement by distributing trees to community groups and schools which are near to our production facilities throughout the year.

Our social and community development initiatives include our community economic partnership programme and our community development programme.

In 2015, we provided capital and business assistance to small and micro enterprises through our Unsecured Loan Partnership programme where we provide these enterprises with an unsecured revolving loan for their working capital. We assisted 127 partners in Gunung Sugih and Mangunreja villages through this programme and helped provide capital to 10 organisations in Gunung Sugih, Kosambironyok and Anyer. Our community development programme comprises four sectors, namely health, education and social infrastructure. We support the Posyandu Programme, which distributes milk and supplementary foods for babies and toddlers in the Ciwandan, Anyer, Pulo Ampel and Bojonegara districts in Banten and also provides immunisation and family planning services. The programme covers approximately 2,300 children, 2,400 families and 100 pregnant women. Each year, we provide numerous scholarships for the children of our employees and students from the Institut Teknologi Bandung and Universitas Sultan Ageng Tirtayasa. We have also been involved in the provision of free health services, our social programme "CAP Berbagi" and infrastructure development. In collaboration with Obor Berkat Indonesia Foundation, we held five events where we provided free health services for the public in Cilegon and Serang in 2015, which included dental treatment and general health checkups, along with free outpatient medicines. In November 2016, we collaborated with the Village Volunteers Foundation (*Yayasan Relawan Kampung Indonesia*) to rebuild a damaged and abandoned hanging bridge in Sukajaya Village, Sajira District, Lebak, Banten province. After three months of construction, the bridge is now open to the public and Sukajaya Village to two nearby villages to Sukajaya Village. In 2015, we also assisted with the construction of a canteen at a high school in Cilegon.

We have allocated US$800,000 for our CSR programmes for the year ended 31 December 2017.

We received a Gold Award in the CSR Leadership Award category at the 8th Annual Global Corporate Social Responsibility Summit and Awards in Bali in 2016.

Legal Proceedings

We are not a party to any legal proceedings which would, individually or taken as a whole, have a material adverse effect on our business, financial condition or results of operations.

REGULATION

The petrochemical industry in Indonesia is regulated, licensed and monitored by BKPM, the Ministry of Industry, the State Ministry of Environment, the Environmental Impact Management Agency, the Ministry of Communications, and the Ministry of Manpower. Our operations are also subject to the local regulation issued by the regional government of the city of Cilegon, Banten Province where our main petrochemical complex is located.

Investment Regulations

On 26 April 2007, the Government issued Law No. 25 of 2007 on Investments (the "**Investment Law**") which principally regulates direct investments in Indonesia, in the form of foreign direct investments (*Penanaman Modal Asing* or "**PMA**") and domestic investment (*Penanaman Modal Dalam Negeri* or "**PMDN**"). The Investment Law states that all types of business are open to foreign investment without restrictions, except those over which the Government has expressly prohibited or restricted foreign investment, subject to certain conditions. Under the Investment Law and the Presidential Regulation No. 44 of 2016, the Company is open to foreign investment up to a level of 100% of our outstanding shares.

As governed under the Investment Law, in order to encourage investment, the Government provides several incentives to PMA or PMDN companies such as relief or reduction of tax and customs and convenience in obtaining immigration and import services or permits. Another important feature of the Investment Law is the Government's guarantee that it will not nationalise a PMA company, except where declared by law. In the event that the Government nationalises any PMA companies or revokes their foreign investment licenses, it must pay compensation in an amount determined in accordance with the market price of the investment and if the parties fail to reach a mutual agreement in determining such compensation, it shall be settled through arbitration. This guarantee is accompanied by assurance that the foreign investors will have authority to appoint the management of the PMA companies and the right to transfer and repatriate in foreign currency, profit, bank interest, dividends and other means of income.

The principal license required for PMA (foreign investment) or PMDN (domestic investment) companies involved in the petrochemical industry in Indonesia is issued by BKPM.

The merger of CA and TPI received written approval from BKPM on 31 December 2010 (the "**Merger Approval**"). As a result of the merger, each of CA's and TPI's Industrial Business Permit ("**IUI**") were replaced by the Merger Approval, which grants us the license to produce ethylene, propylene, pyrolysis gasoline, polyethylene, crude C_4 and polypropylene.

The IUI is the only operational permit we need to continue our commercial production as it relates to the one roof licensing service policy for a PMA or PMDN companies. We are obligated, in conjunction with our IUI, to submit our capital investment activity report, to BKPM on a semi-annual basis.

On 29 September 2015, BKPM issued a set of important rules on investment licensing and other procedures, covering both PMDN companies and PMA companies. The new rules are set out in the Regulation of the Chairman of BKPM No. 14 of 2015 on Guidelines and Procedures for Principle Licenses which was first amended by Regulation of the Chairman of BKPM No. 6 of 2016 dated 6 June 2016 and thereafter by Regulation of the Chairman of BKPM No. 8 of 2016 dated 28 October 2016, Regulation of the Chairman of BKPM No. 15 of 2015 concerning Guidelines and Procedures for Investment Permit and Non-Permit, and Regulation of the Chairman of BKPM No. 16 of 2015 on Guidelines and Procedures for Investment Facility. These regulations have sorted out four subject matters and revoked the one existing Regulation of the Chairman of BKPM No. 5 of 2013 on Guidelines and Procedures for Investment Permit and Non-Permit as amended by the Chairman of BKPM Regulation No. 12 of 2013. The new regulations were enacted to simplify and to expedite the approval process for of investment licenses and non-investment licenses, among others, simplifying the application forms and providing definite time frames for the completion of applications for licensing and non-licensing facilities, including the introduction to 3-hour license processing by BKPM.

Manpower Regulation

Pursuant to Indonesian manpower regulations, we prepare annual reports or manpower obligatory reports on our manpower conditions and provide such reports to the relevant regional office. We are also required to seek approvals for our utilisation plans for foreign workers.

The recent change in Indonesia's social security programme from "Jamsostek" to "BPJS" in accordance with Law No. 24 of 2011 regarding Social Security Administrator also increased our costs, and any further changes to social security arrangements could have an adverse effect on our business, cash flows, financial condition and prospects.

Tariffs

Tariffs are imposed on certain imports of petrochemical products into Indonesia. According to the Minister of Economics Regulation No. 6/PMK.010/2017 concerning Determination of Goods Classification System and Import Duties and the Minister of Economy Regulation No. 25/PMK.010 2017 concerning Determination of Import Duties pertaining to ASEAN Trade in Goods Agreement, there is no duty imposed on ethylene, naphtha and propylene. See "*Management's Discussion and Analysis of Financial Condition and Results of Operations — Key Factors Affecting Results of Operation and Financial Condition — Tariffs*."

Jetty Management

Since the issuance of Law No. 17/2008, the rules on port management have been amended. According to Law No. 17/2008, the Port Authority has primary responsibility for regulating and overseeing commercially operating ports, and will assist the Government in giving concessions in the form of a port business entity (*Badan Usaha Pelabuhan* or "**BUP**") to conduct business activities in the port. In accordance with the provisions under Law No. 17/2008, since a small portion of our operations involve commercial activities, we are required to form a BUP. In conducting its services as port manager, a BUP is obliged to:

(a) provide and maintain port facilities;

(b) provide services to port users in accordance with service standards determined by the Government;

(c) maintain the security, safety and order of the port facilities under operation;

(d) participate in maintaining the security, safety and order of water transportation at the port;

(e) maintain the environment at the port;

(f) fulfill its obligations in its concession which are stipulated in the agreement with the Port Authority; and

(g) comply with the prevailing international and national laws and regulations.

With respect to our non-commercial port management business activities, we had previously obtained approval from the Minister of Transportation for Jetty T Type and Jetty Dolphin Type in Banten Port. While we are in the process of forming a BUP pursuant to the provisions of Law No. 17/2008, we continue to conduct commercial port management business activities based on our letter to the head of Banten Class I — Port Authority No. PL-CR/16-104 dated 28 October 2016. See "*Risk Factors — Risks Relating to Our Business and Operations — If we are unable to obtain, renew or maintain our permits, approvals and technology licenses required to operate our business this may have a material adverse effect on our business.*"

Government Regulation No. 61 of 2009 regarding Port as amended by Government Regulation No. 64 of 2015 ("**GR No. 61/2009**") provides that a BUP can conduct management activities in one or more terminal located within one port. In order to obtain a business license as a BUP, the following requirements must be fulfilled by the applicant:

(a) provide a tax registration number;

(b) the applicant must be in the form of a state-owned company, regional government owned company or a limited liability company with the purpose of engaging in port business activities;

(c) the applicant must have obtained its articles of association; and

(d) the applicant must provide a domicile letter of the Company or *surat keterangan domisili perusahaan*.

A port operating concession shall be given through an auction mechanism where the time period for a concession can vary depending on the BUP's ability to recompense the investment fund and obtain proper profit.

GR 61/2009 generally provides that a concession agreement must regulate the management scope, management concession time period, preliminary tariff and the formula thereof, rights and obligations of each party, working standard and complaint procedure, sanctions in case of breach, dispute settlement, termination of the concession agreement, force majeure and the possibility of amendments. In addition, GR 61/2009 also stipulate that such concession shall only be granted to Company through auction mechanism.

According to Minister of Transportation Regulation No. 20 of 2017 concerning Specific Terminals and Terminals for Personal Usage ("**Regulation No. 20/2017**") the Company has the following obligations as the holder of personal usage port license:

(a) provide the jetty for docking;

(b) provide the facilities of a lift for passengers and/or vehicles;

(c) provide loading and unloading equipment;

(d) to obtain assurance in the efficient flow of goods; and

(e) to obtain assurance in safety and security of the shipping.

Electricity Supply

On 23 September 2009, a new electricity law, namely Law No. 30 of 2009 on Electricity (the "**2009 Electricity Law**") entered into force, revoking and replacing the provisions of the previous electricity law, namely Law No. 15 of 1985 on Electricity (the "**1985 Electricity Law**"). According to the 2009 Electricity Law, the implementing regulations of the 1985 Electricity Law shall remain in effect, unless replaced by the implementing regulations of the 2009 Electricity Law or otherwise superseded.

The 2009 Electricity Law was designed to encourage greater private sector participation in the electricity supply sector. Under the 2009 Electricity Law, electricity supply is controlled by the state and managed by the central Government and regional Governments (as relevant), through state-owned entities such as PLN, and regional owned entities. The 2009 Electricity Law further provides that, in addition to PLN, private businesses, cooperatives and non-governmental enterprises may participate in the electricity supply business, with state-owned entities having the "first priority" for rights to supply electricity to the public before such rights are awarded to other entities.

The 2009 Electricity Law divides the electricity industry into two main sectors, namely the electricity supply business and the electricity supporting business. The electricity supply business is divided into electricity supply business for public and electricity supply business for self-usage, and covers electricity generation, transmission, distribution and sales. The electricity supporting business is further divided into the electricity supporting services business and the electricity supporting industry business.

Previously, under the 1985 Electricity Law, the electricity supply business license was issued in the form of: (i) an electricity business license for public use (*Izin Usaha Ketenagalistrikan Umum* or "**IUKU**"), (ii) an electricity business license for self-usage (*Izin Usaha Ketenagalistrikan Untuk Kepentingan Sendiri* or "**IUKS**"), or (iii) a holder of authority on electricity business (*Pemegang Kuasa Usaha Ketenagalistrikan* or "**PKUK**"). PLN, under the 1985 Electricity Law is deemed as a PKUK.

Government Regulation No. 10 of 1989 on Electricity Supply and Utilisation as amended by Government Regulation No. 3 of 2005 and Government Regulation No. 26 of 2006 provides that IUKU is given to cooperatives or private entities to conduct business in the supply of electricity for public interest while IUKS is given to cooperatives, private entities or state-owned companies or any other Government institution to conduct business in the supply of electricity for self-usage. IUKS is required only for entities which generate electricity of more than 200 kVA. IUKS is given in accordance with the characteristic of the usage, namely for: (i) main usage, (ii) reserve usage, (iii) emergency usage, and (iv) temporary usage.

Under the 2009 Electricity Law, the IUKU, IUKS and PKUK are no longer recognised, and the electricity supply business license will be issued in the form of: (i) an Electricity Supply Business License (*Izin Usaha Penyediaan Tenaga Listrik*) for the purpose of supplying electricity for public use, or (ii) an Operational License (*Izin Operasional* or "**IO**"), for the purpose of supplying electricity for private use. The 2009 Electricity Law also stipulates that an IO is required for the power generator with certain capacity, which will be further regulated under a Minister of Energy and Mineral Resources Regulation.

In addition, on 25 January 2012, Government Regulation No. 14 of 2012 on Electric Power Supply Business Activities ("**Regulation 14/2012**") as amended by Government Regulation No. 23 of 2014 which was issued on 14 April 2014 ("**Regulation 23/2014**"), which is the implementing regulation of 2009 Electricity Law, came into effect and revoked and replaced Government Regulation No. 10 of 1989 on Electricity Supply and Utilisation, as amended. The implementing regulations of the 1985 Electricity Law are deemed to be valid as long as they do not contravene the provisions of the 2009 Electricity Law, Regulation 14/2012 and Regulation 23/2014.

Environmental Regulations

Environmental protection in Indonesia is governed by various laws, regulations and decrees, including:

- Law No. 32/2009 which revokes the previous law on the same matter, Law No. 23 of 1997 ("**Law No. 32/2009**");

- Government Regulation No. 27 of 2012 regarding Environmental License (*Izin Lingkungan*) ("**GR No. 27/2012**");

- Decree of the Minister of Environmental Affairs No.5 of 2012 regarding the types of business action plans and/or activities for which a company is required to conduct an environmental effects assessment ("**Regulation No. 5/2012**"); and

- Regulation of the State Minister of Environmental Affairs No. 3 of 2013 regarding Environmental Audit ("**Regulation No. 3/2013**").

Material provisions of Law No. 32/2009 include:

- a new mandatory Environmental Permit (*Izin Lingkungan*) for a company which is required to obtain an AMDAL or an UKL/UPL. The Environmental Permit is a prerequisite for a company to obtain the relevant business licenses and if the environmental permit is revoked, the business license would no longer be valid as well. GR No. 27/2012 stipulates that any environmental document which has been approved prior to 23 February 2012, shall be a valid Environmental License in accordance to the prevailing regulations;

- an environmental audit is now required for (i) businesses that should have but have not prepared an AMDAL, (ii) businesses and/or activities which are high-risk for the environmental or (iii) companies that do not appear to comply with environmental laws and their implementing regulations. Although Regulation No. 3/2013 exists, such regulation does not contain any provisions on how the audit shall be performed;

- all holders of Environmental Permits (*Izin Lingkungan*) shall provide an environmental guarantee to be deposited in a designated state owned-bank in order to ensure that the recovery of environmental functions is performed;

- any business which potentially has significant impact to the environment is required to perform environmental risk analysis;

- a company that disposes waste shall obtain a license from and such activities may only be conducted in specified locations determined by the Minister of Environmental Affairs;

- remedial and preventative measures and sanctions (such as the obligation to rehabilitate tailings areas, the imposition of substantial criminal penalties and fines and the cancellation of approvals) are imposed in order to remedy or prevent pollution which is caused by operations; and

- sanctions between one to 15 years of imprisonment will be imposed on any person causing environmental pollution or environmental damage and/or fines in the amount of Rp500 million to Rp15 billion. Imprisonment and the amount of fine imposed will be increased by one-third if the criminal offense is conducted on behalf of a company. A monetary contribution may be required in lieu of performance of the obligation to rehabilitate damaged areas.

The above matters will be further regulated in a number of implementing regulations which have not yet been issued as of the date of this Offering Memorandum. According to Law No. 32/2009, all implementing regulations of Law No. 23/1997 will remain valid to the extent they do not conflict with Law No. 32/2009.

Regulation No. 5/2012 stipulates, among other matters, that petrochemical companies are required to obtain and maintain an AMDAL document, which, according to Government Regulation No. 27/2012 consists of an Environmental Impact Analysis (*Analisis Dampak Lingkungan* or "**ANDAL**"), Guidelines on Environmental Impact Analysis (*Kerangka Acuan Analisis Dampak Lingkungan* or "**Ka ANDAL**"), an Environmental Management Plan (*Rencana Pengelolaan Lingkungan* or "**RKL**") and an Environmental Monitoring Plan (*Rencana Pemantauan Lingkungan* or "**RPL**").

Prior to the merger, CA's operations fell within the definition of a company required to prepare and maintain AMDAL. Based on Letter No. 660/4053-BAPEDAL/2006 dated 6 October 2006 issued by the Banten Governor, CA's ANDAL Environment Feasibility and RKL/RPL Construction Plan for Pine Gas Lane were approved. The RKL/RPL will be inspected once every five years and can be revised in the event of any major business development/business activities which affect environmental support and environmental capacity.

Prior to the merger, TPI was not required to prepare and maintain AMDAL and instead was required to maintain UKL/UPL. TPI submitted its management report and environmental supervisory to the Head of Environmental Affairs of Cilegon for the July to December 2010 period based on Letter No. 004/M-EBV/I/2011 dated 6 January 2011.

Waste water disposal is regulated under Government Regulation No. 82 of 2001 concerning Water Quality Management and Water Pollution Control ("**GR No. 82/2001**"). GR No. 82/2001 requires responsible parties, including petrochemical companies, to submit reports regarding their disposal of waste water elaborating their compliance with the relevant regulations. Such reports shall be submitted on a quarterly basis to the relevant mayor or regent, with a copy provided to the Minister of Environmental Affairs.

The Regulation of the Minister of Environmental Affairs and Forestry of the Republic Indonesia No. P.68/MENLHK/SETJEN/KUM.1/8/2016 of 2016 concerning Domestic Waste Water Quality Standards ("**Regulation No. 68/2016**") regulates petrochemical companies' treatment of waste water. Regulation No. 68/2016 requires petrochemical companies to, among others (i) manage their domestic waste water; (ii) utilise watertight waste water sewer to avoid the leaking of waste water to the environment; (iii) install flow measuring devices of waste water and recorded daily discharge of waste water; (iv) not dilute the waste water discharged; (v) conduct the management of domestic waste water to ensure that the quality of the domestic waste water discharged to the water source not exceeding the quality standards of domestic waste water; (vi) separate the waste water sewer from the rainwater runoff channel; (vii) take note of the daily monitoring on the levels of waste water quality parameters, for pH and COD parameters; (viii) determine compliance point for test sampling; (ix) examine the level of water quality parameters of waste water periodically once a month by an accredited laboratory; and (x) operational procedure on the management of domestic waste water standard and an emergency response system. Under Regulation No. 68/2016, petrochemical companies must comply with requirements stipulated in their respective licenses regarding disposal of waste water and submit an analysis of the waste water quality and daily flow rate on a quarterly basis to the relevant regent or mayor, with copies to the governor and the Minister of Environmental Affairs and other related government institutions.

Petrochemical companies must also comply with other regulations, including Government Regulation No. 101 of 2014 regarding Management of Hazardous and Toxic Waste Materials, and Government Regulation No. 74 of 2001 regarding Management of Hazardous and Toxic Materials (*Bahan Berbahaya dan Beracun*), relating to the management of certain materials and waste. Flammable, toxic, irritant, corrosive, carcinogenic or dangerous to the environment waste from petrochemical operations is subject to these regulations unless we can prove scientifically that they fall outside the categories set forth in such regulations. These regulations require a company that uses such materials or produces waste to obtain a license in order to store, collect, utilise, process and accumulate such waste. This license may be revoked and operations may be required to cease if a company violates the relevant regulations. The Company owns licenses for temporary storage of waste materials. Based on regulations, such licenses are valid for five years. Under the terms of these licenses, we are required to submit quarterly reports to the Minister of Environmental Affairs and the mayors and regents of Cilegon and Serang.

We have submitted our (i) RKL/RPL implementation reports for July to December 2015, January to June 2016, and July to December 2016, (ii) reserve generator emission test; (iii) waste water supervisory reports for the fourth quarter of 2016, the first quarter of 2017 and the second quarter of 2017; (iv) continuous emission monitor reports of our GTG for April, May and June 2017; (v) hazardous and poisonous waste report for the October to December 2016, January to March 2017 and April to June 2017 reporting periods; and (vi) our industrial waste water reports for the October to December 2016, January to March 2017 and April to June 2017 periods.

Stack Emission

Government Regulation No. 41 of 1999 regarding Air Pollution Control divided source of emissions into movable sources, specific movable sources, immovable sources and specific immovable sources. Specific immovable source is further defined as an immovable source specifically from waste or forest fire. Immovable source is also defined as source originating from specific location. Minister of Environmental Affairs Decree No. 13 of 1995 regarding Stack Emission of Immovable Source, which was subsequently amended lastly by Regulation of Minister of Environmental Affairs No. 4 of 2014 ("**Regulation of Minister of Environmental Affairs No. 13 of 1995, as amended**"), provides that any party having immovable source stack emission is obligated to:

- construct gas emission through a smokestack furnished with supporting and safety facilities;
- initiate emission test for a smoke stack that has been operating for at least or more than six months at least twice during the operation period each year;
- initiate emission test for steam kettle that has been operating for at least or more than six months at least once during the operation period each year;
- utilise an accredited laboratory in conducting an emission test; and
- install supervising measurement tools which cover quantity and traffic volume, as well as direction and wind speed on each stack emission.

These regulations apply to us, as well as the requirement to report to the regent of Serang/mayor of Cilegon copying the Governor of Banten and the Minister of Environmental Affairs at least once in a six-month period, as well as report to the regent of Serang/mayor of Cilegon copying the Governor of Banten and the Minister of Environmental Affairs in the event of any unusual event and/or emergency event which may cause over-emission and the details of its control, pursuant to the requirements of Regulation of Minister of Environmental Affairs No. 13 of 1995, as amended.

In accordance with Indonesian law, we have a Board of Commissioners and a Board of Directors. The two boards are separate, and no individual may be a member of both boards.

Board of Commissioners

The duties of the Board of Commissioners are to supervise the policies of the Board of Directors in managing the Company and to advise the Board of Directors. Our Board of Commissioners must consist of a minimum of two members and a maximum of seven members, one of whom is appointed as the President Commissioner and one of whom is appointed as the Vice President Commissioner. Members of the Board of Commissioners are elected and dismissed by shareholders' resolutions at a general meeting of shareholders. The term of office of a commissioner is from his/her appointment at the annual general meeting of shareholders until the third annual general meeting of shareholders as of his/her appointment, without prejudice to the rights of the shareholders to dismiss a commissioner during his/her term of office.

The current members of our Board of Commissioners are as follows:

Name	Age	Title
Djoko Suyanto	66	President Commissioner, Independent Commissioner
Tan Ek Kia	69	Vice President Commissioner, Independent Commissioner
Ho Hon Cheong	62	Commissioner, Independent Commissioner
Agus Salim Pangestu	43	Commissioner
Loeki S. Putra	64	Commissioner
Cholanat Yanaranop	57	Commissioner
Chaovalit Ekabut	58	Commissioner

Set forth below is a short biography of each of our commissioners.

Djoko Suyanto was appointed as our President Commissioner and an Independent Commissioner in March 2015. He graduated from the Indonesian Air Force Academy in 1973, followed by a course of study at the USAF Fighter Weapon Instructor School in Nellis Air Force Base, Nevada, USA in 1983 and Air Force Command and Staff Colleges in 1989. He obtained his Bachelor of Social and Political Science from Indonesia Open University in 1990, and continued his studies at the Australian Joint Services Staff Colleges in 1994 and the National Resilience Institute in 1999. Mr. Suyanto served as President Commissioner of PT Dwi Sura Prima from 2014 to 2015, Minister for the Ministry Coordinator of the Political, Legal and Security of Republic of Indonesia from 2009 to 2014, Commissioner of PT Lestari Asri Jaya and Independent Commissioner of PT Adaro Energy from 2008 to 2009. Previously, he also served as Chief of Indonesian Defence from 2006 to 2008, Chief of the Indonesian Air Force from 2005 to 2006, and Commander of the Indonesian Air Force Operational from 2002 to 2004. Mr. Suyanto has two years of experience in the petrochemical industry and has been with us for two years. He is an Indonesian citizen and was born in 1950.

Tan Ek Kia was appointed as our Vice President Commissioner and an Independent Commissioner in January 2011. He has 44 years of experience in the industry and has been with the Company for six years. His previous positions include Vice President for Ventures and Development for Shell Chemicals Asia Pacific and Middle East region from 2003 to 2006, Chairman of Shell Companies of North East Asia, Beijing, China from 2000 to 2003, Managing Director of Shell Nanhai Ltd, Beijing China from 1997 to 2000 and Managing Director, Operations Manager/Director of Sarawak of Shell/Sabah Shell Miri in Miri, Sarawak, Malaysia from 1990 to 1997. Prior to that, Mr. Tan served as Business Liason of Shell headquarters in the Hague, Netherlands from 1978 to 1997, was appointed as Head Technical Audit and Safety of Sarawak Shell/Sabah Shell Miri, Sarawak, Malaysia in 1984, was appointed as Project Manager of Sabah Gas Utilisation Project, Sabah, Malaysia in 1982, was appointed as Project Engineer, Senior Facilities Engineer of Sarawak Shell/Sabah Shell Miri, Sarawak, Malaysia in 1980 and was assigned as Resident Engineer, Consultant Office, Tulsa, Oklahoma, United States of America of Shell in Miri, Sarawak in 1979. He began his career in 1973 as Design and Construction Engineer of gas supply to Brunei LGN Plant, Brunei, and continued as Gas Facilities Design Engineer of gas supply to Brunei LNG Plant, Brunei in 1978. Since 2010, Mr. Tan has also served as a non-executive director of Keppel Corporation Ltd., SMRT Corporation Ltd. and Transocean Ltd. Mr. Tan earned his Bachelor of Science in Mechanical Engineering from Nottingham University, England in 1973. He is a Malaysian citizen and was born in 1948.

Ho Hon Cheong was appointed as our Commissioner and an Independent Commissioner in June 2015. Mr. Ho has two years of experience in the petrochemical industry and has been with us for two years. He earned his Bachelor of Engineering from the University of Malaya, Kuala Lumpur in 1978, and his Master of Business Administration majoring in Finance and Accounting from McGill University, Montreal, Quebec, Canada in 1980. Mr. Cheong previously served as President Director of PT Bank Danamon Indonesia Tbk from 2010 to 2015, Managing Director of Investments in Temasek Holdings Pte Ltd, Singapore from 2009 to 2010 and as President Director and Chief Executive Officer of PT Bank International Indonesia Tbk from 2004 to 2009. Prior to that, Mr. Cheong served as General Manager and Group Head for Corporate and Investment Bank in Saudi American Bank from 2001 to 2003, President Director of Citibank Bangkok, N.A., Thailand from 1996 to 2001, Pan Asia Corporate Head for Citibank, N.A., Singapore from 1994 to 1995 and Head of Corporate Finance & Country Risk Manager for Citibank, N.A., Kuala Lumpur, Malaysia until 1994. He is also currently serving as Independent Director of AIA Singapore Pte. Ltd, Non-independent Director of Alliance Bank Malaysia Berhad, Corporate Advisor of Temasek International Advisors Pte. Ltd, Chairman and Independent Director of Frasers Logistics & Industrial Trust Pte. Ltd, and non-executive Chairman of Rothschild (Singapore) Ltd. He is a Malaysian citizen and was born in 1954.

Agus Salim Pangestu was a Commissioner of CA from January 2006 until the merger and is currently one of our Commissioners. Mr. Pangestu has also held the position of President Director of Barito Pacific since 2013. He has 11 years of experience in the petrochemical industry and has been with us for 11 years. Mr. Pangestu earned his Bachelor in Economic Science and Business Administration from Boston College, USA, in 1994. He began his career in 1993 at Linkage Human Resources Management in USA and, from 1995 to 1997, was a Financial Analyst for Merrill Lynch, USA. He joined Barito Pacific in July 1997 as a General Manager of the Marketing Division, became a Director of Barito Pacific in 1998, and later became Vice President Director in June 2002 to 2013. Mr. Agus Salim Pangestu is the son of Mr. Prajogo Pangestu, our majority controlling shareholder through his direct ownership of 69.23% of Barito Pacific as of 30 September 2017. See "*Principal Shareholders*." He is an Indonesian citizen and was born in 1973.

Loeki S. Putra was a Commissioner of CA from February 2008 until the merger and is currently one of our Commissioners. She has 15 years of experience in the petrochemical industry and has been with us for 15 years. She served as President Director of CA from August 2002 to December 2007 and President Director of Barito Pacific from 2007 to 2013. From August 1998 to February 2002, Mrs. Putra served as a Director of PT Jabar Utama Wood Industry. Prior to joining the Barito Pacific, she held senior banking and finance positions in Indonesia such as Vice President Director of Bank Tiara Asia Tbk from 1997 to 1998, Director of Bank Tiara Asia Tbk from 1989 to 1997, Head of Treasury of Bank Surya Indonesia and BDNI Head Office Jakarta in 1987. Previous to that, Mrs. Putra served as Supervisor Foreign Exchange Department of Sanwa Australia Ltd., Sydney, Australia in 1986, as Head of Treasury of BDNI Head Office Jakarta in 1981, as Deputy Department Head of the Money Market and Foreign Exchange Department of PT Ficorinvest in 1979, a Senior Dealer of PT Ficorinvest in 1978 and served in the Money and Capital Market Department of PT Ficorinvest in 1977. She began her career in 1976 as an Accountant Assistant in PT Mequip Indonesia. Mrs. Putra earned an economics degree from the University of Indonesia. She is an Indonesian citizen and was born in 1953.

Cholanat Yanaranop was appointed as one of our Commissioners in January 2012. He has 30 years of experience in the petrochemical industry and has been with us for five years. He earned his Bachelor of Environmental Chemical Engineering from Salford University, Manchester, UK in 1982 and a Master of Chemical Engineering from Imperial College, London, UK in 1984. He was appointed as President of SCG Chemicals in January 2006. He also holds various management positions within the SCG group such as Chairman of the Board of Thai MMA Co., Ltd., Director of Thai Plastic and Chemical Public Company Limited, Chairman of Rayong Olefins Co., Ltd., Member of Council of Trustee Petroleum Institute of Thailand, Director of Bangkok Synthetics Co., Ltd. and BST Elastomers Co., Ltd, Chairman of Map Ta Phut Olefins Co., Ltd., Chairman of Thai Plastics and Chemical Public Company Limited, Chairman of Norner Holding AS, Norway and Norner AS, Norway, and Executive Vice President of the Siam Cement Public Company Limited. He began his career in 1985 as Engineer of The Siam Cement Public Company Limited. From 1987 to 2005 he was assigned in various positions at Thai Polyethylene Co., Ltd., from 1995 to 2005 he was assigned as Managing Director of Siam Polyolefins Co., Ltd., in 1999 he served as Director of Pacific Plastics (Thailand) Ltd., Siam Polystyrene Co., Ltd., Siam Styrene Monomer Co., Ltd., Siam Synthetic Latex Co., Ltd., Siam Polyethylene Co., Ltd., and SD Group Service Co., Ltd., from 2002 to 2004 he served as Managing Director of CCC Chemical Commerce Co., Ltd., and CCC Polyolefins Co., Ltd., from 2004 to 2006 he served as Chairman of Thai MMA, Co,. Ltd., Vice President of The Thai Institute of Chemical Engineering and Applied Chemistry, Executive Vice President of Cementhai Chemicals Co. Ltd., the Board of Siam Mitsui PTA. Co., Ltd., Chairman of Siam Mitsui PTA. Co., Ltd., Director of PTT Chemical Public Company Limited, Chairman of CCC Ployolefins Co., Ltd., President of Cementhai Chemicals Co., Ltd., Director of Thai Plastic and Chemical Public Company Limited, and Chairman of Rayong Olefins Co, Ltd. In 2007 he served as Chairman of SCG Polyolefins Co., Ltd., and in 2014 to 2016 he served as Senior Vice President of The Siam Cement Public Company Limited. He is a Thai citizen and was born in 1959.

Chaovalit Ekabut was appointed as one of our Commissioners in January 2012. He has 11 years of experience in the petrochemical industry and has been with us for five years. He earned his Bachelor of Mechanical Engineering from Chulalongkorn University, Thailand in 1980 and his Master of Industrial Engineering and Management from the Asian Institute of Technology in 1982. He is currently serving as SCG President and Vice President of Finance and Investment of Cementhai Holding Co., Ltd since 2011. Previously, Mr. Ekabut was also appointed as President of SCG Paper Public Company Limited in 2005, as Executive Vice President of Siam Pulp and Paper Public Company Ltd. and Managing Director of Siam Cellulose Co., Ltd., in 2004 and was appointed as Managing Director of Thai CRT Co., Ltd., CRT Display Technology Co., Ltd., Thai Paper Co., Ltd., Thai Union Paper Public Co., Ltd., and Siam Cellulose Co., Ltd., in 1999 and 2002. With extensive experience at SCG, his major assignments were in Computer Service Centre, JV companies in electronic business, and SCG business restructuring during 1997 to 2000. Prior to becoming Chief Financial Officer of SCG, he was the President at SCG Paper for eight years. He currently serves on the Board of Directors of SCG's major businesses. He has also served as the Director of SCG Chemicals, SCG Packaging, SCG Investment and its joint ventures business since early 2011. He is a Thai citizen and was born in 1958.

Board of Directors

Our Board of Directors is generally responsible for our overall management and day-to-day operations under the supervision of the Board of Commissioners. The Board of Directors must consist of a minimum of two members and a maximum of seven executive members, including one President Director and a maximum of two Vice President Directors. The President Director has the right, subject to the limitations set forth in our Articles of Association, to represent and act on our behalf. If the President Director is absent or disabled, then a Vice President Director shall have such authority. If the Vice President Director is absent or disabled, then one of the Directors shall have such authority.

Members of the Board of Directors are elected and dismissed by shareholders' resolutions at a general meeting of shareholders. The term of office of a member of the Board of Directors is from his/her appointment at the annual general meeting of shareholders until the third annual general meeting of shareholders as of his/her appointment, without prejudice to the rights of the shareholders to dismiss a director during his/her term of office.

The current members of our Board of Directors are as follows:

Name	Age	Title
Erwin Ciputra	43	President Director
Kulachet Dharachandra	44	Vice President Director
Baritono Prajogo Pangestu	38	Vice President Director
Lim Chong Thian.	58	Director
Piboon Sirinantanakul	45	Director
Fransiskus Ruly Aryawan.	39	Director
Suryandi	55	Director/Independent Director

Set forth below is a short biography of each of our directors.

Erwin Ciputra was the President Director of CA from November 2007 until the merger and is currently our President Director. He has 13 years of experience in the petrochemical industry and has been with us for 13 years. He previously served as CA's Vice President Director from July 2004 to November 2007. Mr. Ciputra gained six years of experience in finance while working for, TIAA-CREF Inc as an Analyst, J.P. Morgan Securities as a Research Associate, Prism Capital Partners L.P. as a Portfolio Manager and UOB Global Treasury and Assets Management. He joined the Corporate Planning Department of Barito Pacific Group in 2003. Mr. Ciputra earned a B.S. in Economics from the Wharton School, University of Pennsylvania in 1996. He is now also serving as the President Director of PT Styrindo Mono Indonesia, PT Petrokimia Butadiene Indonesia and PT Chandra Asri Perkasa and the President Commissioner of PT Synthetic Rubber Indonesia. He is an Indonesian citizen and was born in 1974.

Kulachet Dharachandra has served as one of our Vice President Directors since June 2016. He has 23 years of experience in the petrochemical industry and has been with us for a year. Mr. Dharachandra earned his Bachelor of Chemical Engineering from Chulalongkorn University, Bangkok, Thailand in 1994. He is currently, responsible for the operations of the Company's plants and execution of new investment projects. He began his career at Thai Polyethylene Co. in 1994 as a PE Production Engineer, and continued as a Business Development Analyst at SCG Chemicals Co. in 1995, then he was appointed as Project Coordinator at PT Tuban Petrochemical Industries, Indonesia in 1997. Return to Thailand, he was assigned as Domestic Sales Manager Injection Application at CCC Chemical Commerce Co. in 1999, then rotated to SCG Chemicals Co. as Strategic Planning Manager in 2000, CCC Chemical Commerce Co. as CRM Marketing Manager in 2002 and Co-Project Manager — CRM Software/IT Project in 2004. In 2005 he was assigned back to SCG Chemicals Co. as Coordination Manager for the Iran Project. He was subsequently assigned to Mehr Petrochemical Co., Iran, in 2006 as the Planning & Project Control Manager and Marketing Manager, following which he returned back to Thailand and served as the Business Development Director at SCG Chemicals Co. in 2009, Director-Planning, Finance and Investment at SCG Chemicals Co. in 2012, and Corporate Planning Director at the group's headquarters, The Siam Cement PCL in 2013. He also now serves as the Vice President Director of PT Styrindo Mono Indonesia, PT Petrokimia Butadiene Indonesia and PT Chandra Asri Perkasa, the Commissioner of PT Synthetic Rubber Indonesia and the Vice President Commissioner of PT Redeco Petrolin Utama. He is a Thai citizen and was born in 1973.

Baritono Prajogo Pangestu was CA's Commercial and Marketing Director from November 2007 until the merger. He has served as one of our Vice President Directors since June 2015 and is currently Vice President Director of Polymer Commercial. He has 12 years of experience in the petrochemical industry and has worked with us for 12 years. In the past he has held numerous positions, including Feedstock Section Manager from 2005 to 2007, Polyethylene Sales Manager in 2007 and Director for Feedstock and Olefins from, 2011 to 2015. Mr. Pangestu earned a Bachelor of Business from Central Queensland University, Australia in 2005. He now also serves as a President Commissioner for PT Styrindo Mono Indonesia, PT Petrokimia Butadiene Indonesia, PT Buana Primatama Niaga and PT Chandra Asri Perkasa. He is an Indonesian citizen and born in 1979. Mr. Baritono Prajogo Pangestu is the son of Mr. Prajogo Pangestu, our majority controlling shareholder through his direct ownership of 69.23% of Barito Pacific as of 30 September 2017. See "*Principal Shareholders*."

Lim Chong Thian was CA's Finance Director from January 2006 until the merger and is currently serving as our Finance Director. He has 37 years of experience in the industry and has worked with us for 12 years. In the past, he has held various positions at Shell Companies in Brunei, Malaysia and Australia, where he worked from 1980 to 2004 including, as Regional Finance Manager for Asia Pacific and Middle East and Global Finance Manager for Desktop of Shell Information Technology International, Kuala Lumpur, Malaysia, and General Manager of Finance of Shell Gas & Power — Shell Middle Distillate Synthesis Sendiran Berhad (Smds), Kuala Lumpur, Malaysia. Mr. Lim has extensive experience in financial management, business planning, procurement, governance and internal controls in the oil and gas industry. Mr. Lim earned a Bachelor of Commerce degree from the University of New South Wales, Australia in 1979. He now also serves as the Director of PT Petrokimia Butadiene Indonesia, the Director of PT Chandra Asri Perkasa and the Vice President Commissioner of PT Styrindo Mono Indonesia. He is a Malaysian citizen and was born in 1958.

Piboon Sirinantanakul has served as one of our directors since January 2016. He has 24 years of experience in the petrochemical industry and has been with us for a year. He earned his Bachelor of Chemical Engineering from Chulalongkorn University, Thailand in 1993. He is currently responsible for the Company's manufacturing. Previously, he has worked at Map Ta Phut Olefins Co., Ltd. where he served as Production Division Manager in 2013; as Olefins Production Section Manager in 2008, and also as Manager attached to the MD Office in 2007. In 2005, he served as LDPE Production Department Manager and in 2004, also served as HDPE1 Production Department Manager for Thai Polyethylene Co., Ltd. He worked at Rayong Olefins Co., Ltd. as Olefins Production Section Manager in 2003 and Production Engineer in 1996. Prior to that, he worked as Engineer — LLDPE/LDPE Production at Thai Polyethylene Co., Ltd. in 1993. He is a Thai citizen and was born in 1972.

Fransiskus Ruly Aryawan has served as one of our directors since June 2015. He has 15 years of experience in the petrochemical industry and has been with us for 15 years. He earned his Bachelor of Science in Finance from Boston College, Massachusetts in 1999. He has served as the Director of Monomer Feedstock since June 2015, responsible for the Monomer Commercial Division of the Company. His experience includes Financial Consultant Associate in Citibank Indonesia in 2002, CA's Feedstock Purchasing Supervisor from 2002 to 2005, CA's Operational Section Manager from 2005 to 2007, CA's Monomer Sales Department Manager from 2005 to 2009 and the Company's Monomer Feedstock General Manager until 2015. He is now also assigned as the Director in PT Styrindo Mono Indonesia, PT Petrokimia Butadiene Indonesia and PT Chandra Asri Perkasa. He is an Indonesian citizen and was born in 1978.

Suryandi was a director of TPI from 1998 until the merger. He joined TPI in 1990 as Finance Manager and became Director of Treasury in 1998. Previously, he has worked at Kantor Akuntan Drs. Utomo & Co (affiliated with SGV Philippine) as an auditor in 1984 and at PT Panca Tugas Sejati as an Assistant to Financial Controller in 1987. He is currently our Corporate Secretary and Director of Human Resources and Corporate Administration. He has 27 years of experience in the petrochemical industry and has worked with us for 27 years. He completed his Bachelor of Accounting at YKPN Accounting Academy (Yogyakarta) in 1984 and graduated from the University of Indonesia in 1989 with a Bachelor's degree in Economics. He is an Indonesian citizen and was born in 1962.

Committees of the Board of Commissioners

Audit Committee

In accordance with OJK and IDX regulations, we have formed an Audit Committee, consisting of three persons (a chairperson and two members). It is chaired by one of our Independent Commissioners, Djoko Suyanto. The two members of the Audit Committee are Reynold M. Batubara and Ahmadi Hadibroto. The Audit Committee assists the Board of Commissioners to: (i) review financial information which will be issued by the Company, including financial statements, projection, and other financial information, (ii) review the Company's compliance with prevailing regulations in capital market and other rules and regulations relating with the Company, (iii) report to the Board of Commissioners any risk faced by the Company and implementation of risk management, (iv) review and report to the Board of Commissioners any complaint regarding the Company, and (v) maintain confidentiality of documents, data, and information regarding the Company. Meetings are held on a quarterly basis.

Set forth below is a short biography of each member of our Audit Committee.

Djoko Suyanto. See "*—Board of Commissioners*."

Reynold M. Batubara has served as member of the Audit Committee since 2015. He earned his Bachelor of Science in Accountancy from the Faculty of Economics at the University of Indonesia in 1983. He is a Registered Public Accountant, Certified for Internal Audit and Certified for Quality Assessment from The Institute of Internal Auditor (IIA). Previously, he served as a Senior Auditor at Arthur Young International until 1987, Senior Auditor at Moret, Ernst & Young Netherlands, Amsterdam until 1990, Audit Manager in Ernst & Young International until 1993, Head of Internal Audit at Standard Chartered Bank until 1994, Country Head Group Audit at ABN AMRO Bank NV Indonesia until 2006, Consultant New Frontier Solution until 2008, and Commissioner at PT Paramitra Multi Finance until 2011. Currently, he also serves as a member of the Audit and Risk Management Committee of PT Maybank Syariah Indonesia since 2008, a commissioner of PT Smartfren Telecom Tbk since 2009, a commissioner of PT Paramitra Alfa Sekuritas since 2009, a member of the Audit Committee of PT ATLAS Resources Tbk since 2012, and a member of Audit Committee of PT Elnusa Tbk since 2013. He is an Indonesian citizen and was born in 1956.

Ahmadi Hadibroto has served as member of our Audit Committee since 2015. He earned his Bachelor of Science in Accounting from the University of Indonesia in 1978 and Master of Science in Accounting from the University of Toledo, Ohio, USA in 1988. His professional qualifications are as President of the Indonesian Accountants' Institute from 2002 to 2010, President of the ASEAN Federation of Accountants in 2005 to 2007, member of the Indonesian Public Accountants' Institute, and Board Member of International Federation of Accountants from 2012. Previously, he also served as Manager of Finance Division at IBM — USI until 1986, Managing Partner at KAP Prof. DR. Hadibroto & Partners until 1991, Partner and Director of Tax Consulting at Hans Tuanakota & Mustofa/Deloitte until 1994, Partner & Director of Tax Consulting at KAP Siddharta Siddharta & Harsono/Coopers & Lybrand until 1998, Senior Partner at KAP Siddharta Siddharta & Harsono/KPMG until 2002, Senior Partner at Harsono Hadibroto Consulting until 2007, and Managing Partner at KPMG Hadibroto until 2011. Currently, he is a member of the Indonesian Public Accountants' Institute (IAPI). He is an Indonesian citizen and was born in 1949.

Remuneration Committee

We established our Remuneration Committee through the Circular Resolutions in lieu of the Meeting of the Board of Commissioners No. 003/LGL/BOC RES/III/2016 dated 21 March 2016 to support the implementation of good corporate governance. The Remuneration Committee is directly responsible to the Board of Commissioners and must act professionally for the benefit of the Company and its stakeholders.

The duties and responsibilities of the Remuneration Committee are as follows: (i) to provide the Board of Commissioners with recommendations regarding the Company's remuneration structure; (ii) to determine the remuneration policy and remuneration for the Board of Commissioners and Board of Directors; and (iii) to conduct a review of remuneration based on results of the review of work performance, level of remuneration of similar industries, financial performance and our business objectives and strategies to be proposed at the general meeting of shareholders.

As of the date of this Offering Memorandum, our Remuneration Committee is composed of members of our Board of Commissioners, Ho Hon Cheong (chairman), Agus Salim Pangestu (member), Tan Ek Kia (member) and Cholanat Yanaranop (member).

In addition, the function of the nomination committee is carried out by our Board of Commissioners.

Compensation

Our commissioners and directors receive salaries and/or allowances determined by a general meeting of shareholders and are paid monthly each year. No fees are paid to our commissioners or the directors for their attendance at their respective board meetings. The aggregate amount of salaries and allowances paid by us to our commissioners and directors during the year ended 31 December 2016 was US$4.4 million. The aggregate amount of salaries and allowances we paid to our commissioners and directors during the six months ended 30 June 2017 was US$5.6 million.

We introduced performance-based compensation schemes to provide incentive for improved performance by our staff, including our management.

Corporate Secretary

In compliance with OJK Regulation No. 35/POJK.04/2015 dated 8 December 2014 on Corporate Secretary of Issuers or Public Companies and Decree of the Board of Directors of the Indonesia Stock Exchange No. Kep.00001/BEI/01-2014 dated 20 January 2014, based on the Company's Board of Directors Decree dated 22 January 2008 on Corporate Secretary, the Company has appointed Suryandi, a member of the Board of Directors, as corporate secretary as of 22 January 2008. The functions of corporate secretary are as follows:

1. ensure the Company's compliance with applicable capital market laws;

2. provide service to the public regarding information required by investors relating to the Company;

3. provide advice or input to the Board of Directors to comply with capital market laws and its implementing regulations; and

4. act as a contact person between the Company, shareholders of the Company, OJK, and the other stakeholders.

Internal Audit Unit

As set out in our Internal Audit Charter, the main task of our Internal Audit Unit is to provide our Board of Directors with an independent objective assessment of the adequacy and effectiveness of the internal control systems implemented by the Company. Our internal audit unit also assists our Board of Directors to manage our internal processes. Our Internal Audit Charter was issued on 29 April 2016 by our Board of Directors after obtaining approval from the Board of Commissioners. We believe that our adherence to good corporate governance contributes to our success. As a publicly listed company, implementing good corporate governance is imperative to us.

Our Internal Audit Unit is authorised to (i) access such financial statements, records and facilities as may be reasonably required for it to discharge its responsibilities, (ii) directly communicate and convene meetings periodically with our Board of Directors, Board of Commissioners and/or Audit Committee or any member thereof; and (iii) coordinate with the Company's external auditors.

In order for the Internal Audit Unit to properly carry out its responsibilities, we employ qualified and experienced professional audit or finance personnel. Taufiq Muhammad has served as our Head of Internal Audit Unit since August 2014 when he joined the Company and has a bachelor's degree in accounting from Universitas Indonesia. Mr. Muhammad and his management team meet every month to monitor and evaluate the quality and timely completion of its internal audit activities and report its findings to our Board of Directors and our Audit Committee. To maintain its independence, our Internal Audit Unit is not directly involved in the decision making process of the Company's operational activities.

PRINCIPAL SHAREHOLDERS

The table below sets forth certain information with respect to our shareholders as of 30 September 2017.

Shareholders	Number of Common Shares Beneficially Owned	Ownership of Common Shares (%)
Barito Pacific[1]	1,649,745,706	46.26
SCG Chemicals	1,090,343,061	30.57
Prajogo Pangestu	503,399,869	14.11
Public[2]	323,215,416	9.06
	3,566,704,052	**100.0**

(1) Barito Pacific owns 169,362,186 shares, or 4.75%, of our common stock through its wholly-owned subsidiary, Marigold.

(2) Members of our Board of Directors, Erwin Ciputra and Lim Chong Thian, beneficially own 2,946,800 and 28,755 shares of our common stock, respectively.

Description of Principal Shareholders

Barito Pacific

Barito Pacific is an Indonesia-based diversified resources group established in 1979 and headquartered in Jakarta, Indonesia and listed on IDX. Barito Pacific is our largest shareholder, with a 46.26% ownership stake, 41.51% of which it owns directly and 4.75% indirectly through its wholly-owned subsidiary, Marigold, an investment holding company incorporated in the Republic of Singapore.

SCG Chemicals

SCG Chemicals is a subsidiary of the SCG and is one of SCG's three core businesses. SCG Chemicals manufactures and offers a full range of petrochemical products ranging from upstream production of olefins, intermediate production of styrene monomer, purified terephthalic acid and methyl methacrylate to downstream production of four main plastic resins, polyethylene, polypropylene, polyvinyl chloride, and polystyrene, as well as fabricated products such as film, pipe and fittings and acrylic sheet SCG Chemicals is one of Thailand's largest integrated petrochemical companies and a key industrial producer in the Asia-Pacific region. SCG Chemicals is listed on the Stock Exchange of Thailand.

RELATED PARTY TRANSACTIONS

The following summary describes certain material transactions between us and our principal shareholders and affiliates. We believe that each of these arrangements were entered into on arm's length terms or on terms that we believe were at least as favourable to us, as the case may be, as similar transactions with non-related parties. For a further discussion of related party transactions, see Note 31 to our audited consolidated financial statements as of and for the years ended 31 December 2014, 2015 and 2016 and as of and for the six months ended 30 June 2016 and 2017 included elsewhere in this Offering Memorandum.

A brief description of our material related party transactions (as defined under Rule No. IX.E.1) are as follows:

Ethylene Sale and Purchase Transaction with PT Styrindo Mono Indonesia

The Company sells ethylene to SMI in the amount of 90,000/MT per annum with a variance of 10% more or less, at the Company's option. The Company is entitled to payment as calculated by a formula of (85% x (current month ICIS C2 CFR Sea Average + 25)) + (15% x current month MOPJ Average x 1.55). This agreement is valid until 31 December 2017.

Land Lease Transaction with PT Petrokimia Butadiene Indonesia

The Company owns plots of land with an area of 42,207 m^2 located at Jalan Raya Anyer KM.123, Ciwandan, Gunung Sugih, Cilegon, Banten Province, which it leases to PBI to conduct its business activities. Pursuant to the agreement, the Company is entitled to a land lease fee of Rp30,000/m^2 annually or a land lease fee equivalent to US$ 3.33/m^2 annually with an exchange rate of US$ 1 = Rp9,000. The agreement is valid until 27 December 2021.

Intercompany Loan Transactions with PT Petrokimia Butadiene Indonesia

On 25 January 2012, the Company and PBI entered into an intercompany loan agreement, in which the Company is the lender and PBI is the borrower. The principal amount of the intercompany loan is US$99,899,283.4 having the interest of LIBOR + 4.213% per annum. The agreement was most recently amended on 15 March 2016 and is valid until 28 October 2023.

On 15 March 2016, the Company and PBI entered into an intercompany loan agreement, in which the Company is the lender and PBI is the borrower. The principal amount of the intercompany loan is up to US $25,000,000.0 having the interest of LIBOR + 4.213% per annum. The agreement is valid until 28 October 2023.

Crude C_4 Sale and Purchase Transaction with PT Petrokimia Butadiene Indonesia

The Company sells crude C_4 to PBI in the amount of 210,000 to 250,000/MT per annum with a variance of 10% more or less, at the Company's option. The Company is entitled to payment as calculated by a formula of average of all price quotation (low and high) of daily MOPJ as published on Platt's Oilgram in previous month prior to the delivery plus 40% x (average ICIS BD CFR SEA previous month - average of all price quotation (low and high) of daily MOPJ as published on Platt's Oilgram in previous month prior to the delivery - US$250), with minimum value being US$35 and maximum value being US$500. This agreement is valid until 31 December 2017.

Office Space Lease Transaction with PT Griya Idola

The Company leases office and warehouse space from PT Griya Idola ("**PTGI**"), a wholly owned subsidiary of Barito Pacific, of about 2,531.98 m^2, based on an office space lease agreement dated 1 July 2016 as amended on 12 May 2017. PTGI is entitled to a lease fee in the amount of (i) Rp120,000/m^2 per month for the office space and (ii) Rp112,000/m^2 per month. The agreement is valid until 30 June 2018.

SMI leases office and warehouse space from PTGI of about 618.86 m^2. PTGI is entitled to a lease fee in the amount of Rp120,000/m^2 per month. The agreement is valid until 30 June 2018.

PBI leases office and warehouse space from PTGI of about 204.99 m^2. PTGI is entitled to a lease fee in the amount of Rp120,000/ m^2 per month. The agreement is valid until 30 June 2018.

Shared Utilities and Facilities Services Transaction with PT Petrokimia Butadiene Indonesia and PT Synthetic Rubber Indonesia

The Company, PBI and SRI entered into a Shared Utilities and Facilities Services Agreement which allows SRI to use the Company's high pressure steam, jetty and storage tank, health clinic, ambulance and mosque, kitchen facilities, waste water disposal, and road access. The Company is entitled to (i) a fee for the use of high pressure steam, jetty and storage tank which is calculated by a certain formula; (ii) Rp 7,000,000 per month for the use of the Company's health clinic, ambulance and mosque; (iii) 20% of meal cost per person for the use of the Company's kitchen; (iv) Rp 7,310,792 per month for the use of the Company's waste water disposal facilities; and (v) Rp 2,000,000 per month for the use of road access. The agreement is effective from 1 January 2016 and will continue to be valid until it is terminated by mutual consent of the parties or until it is terminated by the Company and/or PBI upon 30 calendar days prior written notice to SRI, in the event that (a) SRI commits a material breach of the agreement and fails to remedy that breach within 60 calendar days after written notice from the Company and/or PBI, (b) SRI is insolvent or enters into an arrangement with its creditors, (c) an order is made or a resolution of execution upon any assets of SRI, or (d) any invoice(s) remain outstanding after becoming due and full payment is not made to the Company and/or PBI for payment. The parties to the agreement are still performing their rights and obligations thereunder.

Office Space Lease Transaction with PT Synthetic Rubber Indonesia

SRI leases an office space located at Jalan Raya Anyer KM.123, Ciwandan, Cilegon, Banten with a total area of 392.58 m^2 from the Company. The Company is entitled to a lease fee in the amount of Rp 997,218,000. The agreement is valid until 30 December 2017.

Benzene Sale and Purchase Transaction with SCG Chemicals Co., Ltd.

Benzene, the raw material used in our styrene monomer plants, is the principal raw material in the production of styrene monomer. The Company purchases a significant amount of benzene from SCG Chemicals. During the years ended 31 December 2014, 2015, 2016 and the six months ended 30 June 2017, we purchased 96 KT, 52 KT, 90 KT and 54 KT, respectively, from SCG Chemicals. Sale and purchases of benzene between the Company and SCG Chemicals is conducted on a spot basis.

Pyrolisis Gasoline Sale and Purchase Transaction with SCG Chemicals Co., Ltd.

The Company produces and sells pyrolysis gasoline to SCG Chemicals under two agreements, with a quantity of 7,000 MT to 17,500 MT per month and 10,500 MT per month respectively, $\pm$5% at the Company's option. The Company is entitled to a fee for the sale of the pyrolysis gasoline, which is calculated by a certain formula. These agreements are valid until 31 December 2018 and 30 June 2019, respectively.

Jetty and Pipe Lease Transaction between PT Styrindo Mono Indonesia and PT Redeco Petrolin Utama

RPU leases out its terminal and facilities including jetty and pipe for the loading of styrene monomer and ethylene to and from ships at Merak, Banten, to SMI. The price of the lease is US$1.60/MT for styrene monomer and US$2.75/MT for ethylene. The agreement is valid until 31 December 2021.

Tank, Jetty and Pipe Lease Transaction between PT Styrindo Mono Indonesia and PT Redeco Petrolin Utama

RPU leases to SMI a terminal and related facilities, which includes tanks, jetties and pipes for the loading of benzene to and from ships at Merak, Banten. RPU is entitled to a fee of US$2.35/kL/month for SMI's use of tanks and US$1.60/MT for SMI's use of jetties and pipes. The agreement is valid until 31 December 2021.

Facility Placement Transaction between PT Styrindo Mono Indonesia and PT Redeco Petrolin Utama

SMI intends to place certain terminal and jetty facilities necessary for the operations of its plant in RPU's terminal. While RPU does not charge SMI a fee for the placement of these facilities, SMI is responsible for the maintenance and improvement costs of its facilities. The agreement is valid until 31 December 2021 and will be automatically renewed, unless terminated by written notice at least three years prior to the end of the agreement period or prior to the end of the renewal period.

Styrene Monomer Sale and Purchase Transaction between PT Styrindo Mono Indonesia and PT Synthetic Rubber Indonesia

SMI sells styrene monomer to SRI in the volume of up to 17 MT annually. The pricing for the sale and purchase of styrene monomer is calculated using (average of Low ICIS Spot CFR N.E.Asia and High ICIS Spot CFR N.E.Asia + average of Low ICIS Spot CFR S.E.Asia and High ICIS Spot CFR S.E.Asia)/2 for a three month period preceding the month when the consumption is made. This agreement continues to be valid until terminated by the parties. In the event that the joint venture agreement between PBI, SRI, the Company and Michelin is terminated, the agreement will continue for a two-year period before terminating automatically.

Butadiene Sale and Purchase Transaction between PT Petrokimia Butadiene Indonesia and PT Synthetic Rubber Indonesia

PBI sells butadiene to SRI in the volume of up to 106 MT annually. The pricing for the sale and purchase of butadiene is calculated using (average of Low ICIS Spot CFR N.E.Asia and High ICIS Spot CFR N.E.Asia + average of Low ICIS Spot CFR S.E.Asia and High ICIS Spot CFR S.E.Asia)/2 for a three month period preceding the month when the sale is made. This agreement continues to be valid until terminated by the parties. In the event that the joint venture agreement between Michelin, PBI, SRI and the Company is terminated, the agreement will continue for a two-year period before terminating automatically.

Land Sale and Purchase Transaction with PT Pancapuri Indoperkasa ("Pancapuri")

On 2 June 2017, the Company purchased from Pancapuri a plot of land located at Ciwandan District, Cilegon, Banten Province with an area of 4,978 m^2 for a value of Rp.13,239,488,800, excluding taxes. The plot of land has a Right to Build Certificate No. 200/Gunung Sugih dated 19 December 2012 registered under the name of Pancapuri. The Right to Build Certificate will expire on 3 August 2042. The Company purchased this land for its future expansion plans.

Pursuant to the requirements of Rule IX.E.1 the Company has disclosed this information to IDX and OJK in letter No. 069/CAP/IRL-BEI/VI/2017 dated 6 June 2017 and letter No. 068/CAP/IRL-OJK/VI/2017 dated 6 June 2017, respectively.

On 30 August 2017, the Company purchased from Pancapuri four plots of land located at Ciwandan District, Cilegon, Banten Province with an area of 1,703 m^2, 1,076 m^2, 1,520 m^2 and 4,287 m^2 for a value of Rp. 4,542,922,800, Rp. 2,870,337,600, Rp. 4,054,752,600 and Rp. 11,436,001,200 respectively, excluding taxes. The plots of land have (i) Rights to Build Certificate No. 150/Gunung Sugih dated 11 November 2008 which will expire on 14 October 2038, (ii) Right to Build Certificate

No. 222/Gunung Sugih dated 21 July 2014 which will expire on 21 July 2044, (iii) Right to Build Certificate No. 432/Gunung Sugih dated 10 March 2016 which will expire on 10 March 2046, and (iv) Right to Build Certificate No. 437/Gunung Sugih dated 10 March 2016 which will expire on 10 March 2046, respectively, all registered under the name of Pancapuri. The Company purchased these plots of land for its future expansion plans.

Loeki S. Putra, who serves as the Commissioner of the Company, is also the President Commissioner of Pancapuri. Prajogo Pangestu is a controlling shareholder of both the Company and Pancapuri.

DESCRIPTION OF OUR MATERIAL INDEBTEDNESS

To fund our existing business and to finance our working capital requirements, we have entered into financing agreements with various financial institutions. As of 30 June 2017, our total debt amounted to US$372.9 million, all of which was secured. Set forth below is a summary of the material terms and conditions of these loans and other indebtedness. For certain developments after 30 June 2017, see also "Capitalisation and Indebtedness."

	Original Principal Amount	Maturity	Amount Outstanding (As at 30 June 2017)
	(Rp billion or US$ million)		(US$ million)
Debt Securities			
IDR 500 billion Senior Secured Notes:			
Series A	361.4	22 Dec 2019	26.5
Series B	138.6	22 Dec 2021	10.2
Syndicated Facilities			
US$220 million Term Loan	220.0	29 Sept 2019	88.8
US$94.98 million Term Loan	94.98	7 Oct 2022	62.9
US$199.8 million Term Loan	199.8	28 Nov 2023	184.1
Long term bank loan			
IDR 30 billion Investment Credit Facility	30.0	29 Aug 2017	0.3
Total Indebtedness	**1,044.8**		**372.9**

Below are brief descriptions of the indebtedness listed in the table above as well as other facility agreements that we have entered into. We do not intend to refinance any of these facilities.

Debt Securities

IDR 500 billion Senior Secured Notes

On 22 December 2016, we issued senior secured notes in the aggregate principal amount of IDR500 billion ("**IDR Notes**") comprising Series A notes in the amount of IDR361.4 billion and Series B notes in the amount of IDR138.6 billion. The interest rate under each series of IDR Notes is 10.8% and 11.3%, respectively, and is payable quarterly. IDR Notes are secured by our fixed and movable assets.

The IDR Notes include certain maintenance covenants, including that the ratio of our consolidated interest-bearing liabilities to equity shall not exceed 1 to 1 and that the ratio of our consolidated cash flow from operating activities to financial charges shall exceed 1.75 to 1.

We entered into a cross-currency swap and an interest rate swap to fix the amount of interest payable in IDR terms on interest payment dates.

As of 30 June 2017, the total aggregate principal amount outstanding under the IDR Notes was US$36.7 million. Series A and Series B of IDR Notes will mature on 22 December 2019 and 22 December 2021, respectively.

Syndicated Facilities

US$220 million Term Loan

On 29 September 2012, we obtained a term loan in the aggregate principal amount of US$220 million pursuant to a term loan agreement between (i) the Company as borrower, (ii) PT Petrokimia Butadiene Indonesia ("**PBI**"), PT Styrindo Mono Indonesia ("**SMI**") and Altus Capital Pte. Ltd. ("**AC**") as guarantors, (iii) Bangkok Bank Public Company Limited — Jakarta Branch and The Siam Commercial Bank Public Company as arranger and lender, and (iv) Bangkok Bank Public Company Limited as agent ("**Term Loan A**"). This agreement was amended on 16 May 2017.

The interest rate under Term Loan A is LIBOR plus 4.10% p.a. and is payable quarterly. Term Loan A is secured by, among other things, our onshore accounts, insurance claims, shares and fixed and movable assets. Under Term Loan A, we are bound by certain restrictions on our business activities, financing activities and corporate actions, such as pledging assets, disposal of assets, mergers or consolidation, changes in business activities and obtaining loans. In addition, in the event that we amend our articles of association, we must notify the agent at least five working days prior to such amendment. The Company received confirmations from the lenders with regards to the proposed Notes issuance on 19 October 2017.

Term Loan A includes certain maintenance covenants, including for the interest service coverage ratio to exceed 1.75 to 1.0, total debt to capitalisation ratio not to exceed 50%, dividends being limited to the amount of our net income and a requirement to maintain a certain balance in our debt service reserve and debt service accrual accounts.

We utilised Term Loan A to prepay (i) the Company's debt to AC, where AC lent its bonds issuance proceeds to the Company, and (ii) part of the US$150 million term loan facility agreement dated 21 November 2011.

As of 30 June 2017, the total aggregate principal amount outstanding under Term Loan A was US$88.8 million. Term Loan A will mature on 29 September 2019, with an 18 months grace period.

US$94.98 million Term Loan

On 7 October 2015, we obtained a term loan in the aggregate principal amount of US$94.98 million pursuant to a term loan agreement between (i) the Company as borrower, (ii) PBI, SMI, and AC as guarantors, (iii) Bangkok Bank Public Company Limited — Jakarta Branch, The Siam Commercial Bank Public Company, PT Bank DBS Indonesia, DBS Bank Ltd. ("**DBS**") and The Hongkong and Shanghai Banking Corporation Limited — Jakarta Branch as lenders, and (iv) PT Bank DBS Indonesia as agent ("**Term Loan B**"). This agreement was amended on 16 May 2017.

The interest rate under Term Loan B is LIBOR plus a margin, comprising 4.25% p.a. for the Lender A (Bangkok Bank Public Company Limited — Jakarta Branch, PT Bank DBS Indonesia, DBS and The Hongkong and Shanghai Banking Corporation Limited — Jakarta Branch) and 4.15% p.a. for the Lender B (The Siam Commercial Bank Public Company) and is payable quarterly. Term Loan B is secured by, among other things, our onshore accounts, insurance claims, shares and fixed and movable assets.

Term Loan B includes certain maintenance covenants, including for the interest service coverage ratio to exceed 1.75 to 1.0, total debt to capitalisation ratio not to exceed 50%, dividends being limited to the amount of our net income and a requirement to maintain a certain balance in our debt service reserve and debt service accrual accounts. Under Term Loan B, we are bound by certain restrictions on our business activities, financing activities and corporate actions, such as pledging assets, disposal of assets, mergers or consolidation, changes in business activities and obtaining loans. In addition, in the event that we amend our articles of association, we must notify the agent at least five working days prior to such amendment. We utilised Term Loan B to prepay all amounts outstanding under the US$150 million facility agreement dated 21 November 2011, as amended and restated by an amendment and restatement agreement dated 3 October 2012. The Company received confirmations from the lenders with regards to the proposed Notes issuance on 19 October 2017.

As of 30 June 2017, the total aggregate principal amount outstanding under Term Loan B was US$62.9 million. Term Loan B will mature on 7 October 2022, with a six month grace period.

US$199.8 million Term Loan

On 28 November 2016, we obtained a term loan in the aggregate principal amount of US$199.8 million pursuant to a term loan agreement entered into by and between: (i) the Company as borrower, (ii) PBI, SMI and AC as guarantors, (iii) Bangkok Bank Public Company Limited, Jakarta Branch, The Siam Commercial Bank Public Company Limited, PT Bank DBS Indonesia, DBS Bank Ltd. ("**DBS**"), The Hongkong and Shanghai Banking Corporation Limited - Jakarta Branch, PT Bank ICBC Indonesia and PT Bank BNP Paribas Indonesia as lenders, and (iv) PT Bank DBS Indonesia as agent ("**Term Loan C**"). This agreement was amended on 16 May 2017.

The interest rate under Term Loan C is LIBOR plus 3.5% p.a. and is payable quarterly. Term Loan C is secured by, among other things, our onshore accounts, insurance claims, shares and fixed and movable assets.

Term Loan C includes certain maintenance covenants, including for the interest service coverage ratio to exceed 1.75 to 1.0, total debt to capitalisation ratio not to exceed 50%, dividends being limited to the amount of our net income and a requirement to maintain a certain balance in our debt service reserve and debt service accrual accounts. Under Term Loan C, we are bound by certain restrictions on our business activities, financing activities and corporate actions, such as pledging assets, disposal of assets, mergers or consolidation, changes in business activities, and obtaining loans. In addition, in the event that we amend our articles of association, we must notify the agent at the latest five working days prior to such amendment. The Company received confirmations from the lenders with regards to the proposed Notes issuance on 19 October 2017.

We utilised Term Loan C to prepay all amounts outstanding under the US$265 million facility agreement dated 5 December 2013.

As of 30 June 2017, the total aggregate principal amount outstanding under Term Loan C was US$184.1 million. Term Loan C will mature on 28 November 2023, with a six month grace period.

IDR 30 billion Investment Credit Facility

On 29 August 2014, RPU obtained Rp 30 billion Investment Credit Facility from PT Bank Central Asia Tbk. The facility has period time of 3 years with grace period of 12 months. Annual interest rate for this loan is 11.25%.

Proceeds from this facility were utilised to finance the construction of 11 new storage tank units in Jl. Merak, Bojonegara, Serang. The facility is secured by 1 storage terminal unit including land and buildings located in Jl. Merak, Serang.

RPU is required to maintain the following financial ratios: EBITDA/(Interest+Principal) Ratio shall be minimum 1 time. Debt to Equity Ratio shall be maximum 1 time.

Loan repayments are made on a monthly basis for 2 years proportionally. As of 30 June 2017, 31 December 2016, 2015 and 2014, RPU is in compliance with the terms and conditions of the loans set by the bank.

Working Capital Facilities

Facility Agreement with Kasikornbank Public Company Limited ("Kasikornbank")

On 27 June 2016, the Company signed a facility agreement for an uncommitted and unguaranteed facility for working capital in the amount of THB 4,000,000,000 (or equivalent if in another currency) from Kasikornbank. The facility is available until 27 June 2017 and will be automatically extended for a 12 month period.

Facility Agreement with PT Bank Negara Indonesia (Persero) Tbk ("BNI")

On 17 March 2008, the Company signed a facility agreement with BNI which was amended most recently on 12 June 2017. The facility has a combined maximum amount of US$15,000,000 and comes with sight letter of credit, usance letter of credit, usance payable at sight and usance payable at usance. The facility is subject to an interest rate that is calculated based on BNI's interest rate, except for the trust receipt, which is subject to a 3 month US$ LIBOR interest rate + 4% margin per annum.

Under the terms of this facility agreement, the Company is required to notify BNI in writing prior to making any investment with a project cost of more than US$10,000,000, obtaining any credit facility from BNI or any other financial institution prior to the full repayment of this facility, and any changes to the Company's management and majority shareholders. The Company submitted a written notification to BNI with regards to the proposed Notes issuance on 5 October 2017.

This facility is available until 16 March 2018.

Facility Agreement with PT Bank Danamon Indonesia Tbk ("Danamon")

On 28 August 2007, the Company obtained a US$75,000,000 omnibus trade finance facility from Danamon pursuant to a facility agreement most recently amended on 30 June 2017. The facility comes with a domestic sight/usance letter of credit, an import sight/usance letter of credit, a usance payable at usance, trust receipt, open account financing and standby letter of credit.

Under the terms of this facility agreement, the Company is required to notify Danamon prior to, among other things, the dissolution, merger or consolidation of the Company, the sale or assignment of any rights to the Company's assets, the lease or handover of part or all of the Company's assets, the amendment of the Company's articles of association and any changes to the Company's Board of Directors, Board of Commissioners or controlling shareholders.

This facility is available until 30 June 2018.

Facility Agreement with PT Bank DBS Indonesia ("DBSI")

On 28 October 2009, the Company obtained a US$65,000,000 import financing facility from DBSI pursuant to the facility agreement most recently amended and restated on 9 October 2017. The facility comes with an uncommitted import letter of credit facility, a sight letter of credit, a usance payable at sight or usance payable at usance, valid for a maximum 150 calendar days. As of 9 October 2017, the facility agreement included SMI as a borrower along with the Company.

Under the terms of the facility agreement, the Company and SMI must obtain written consent from DBSI prior to, among other things, a change of the Company's and SMI's business activity, an application for bankruptcy or suspension of debt payment, and acting as a guarantor for third party. The Company and SMI are also required to notify DBSI in the event of an amendment to its articles of association. SMI received a written consent from DBSI on 20 October 2017 with regards to the granting of a corporate guarantee by SMI of the Company's obligations under the Notes.

This facility is available until 31 May 2018 or until the termination of the letter of credit issuance period, whichever is later.

Facility Agreement with DBS

On 19 November 2010, the Company, SMI and PBI obtained a working capital facility from DBS pursuant to a facility agreement most recently amended on 6 September 2016. The working capital facility comprises (i) Facility A with a limit of US$120,000,000 and (ii) Facility B with a limit of US$60,000,000.

Under the terms of the facility agreement, advances are subject to interest rates of LIBOR + 1.25% margin per annum for Facility A and 1.85% per annum for Facility B. Loans are subject to interest rates of LIBOR + 1.85% margin per annum for Facility A and 2.25% per annum for Facility B.

The terms of this facility agreement limit the Company's ability to, among others, grant collateral, dispose of assets, conduct restructuring activities and amend its constitutional documents.

Facility A is valid until 14 November 2016 and will be automatically extended for 12 months at a time, while Facility B is valid until 14 November 2019.

Facility Agreement with the Hongkong and Shanghai Banking Corporation Limited ("HSBC")

On 30 June 2010, the Company and SMI signed a facility agreement with HSBC, most recently amended on 5 April 2017. The facility comprises (i) an import facility with a limit of US$100,000,000, (ii) an issuance of bank guarantee with limit of US$5,000,000, (iii) a revolving loan facility with a limit of US$25,000,000 and (iv) a treasury facility with a limit of US$5,000,000.

The facility is subject to an interest rate of 8.5% per annum below the best lending rate from HSBC to be charged daily and paid monthly, except for revolving loan facility, which is subject to an interest rate of 6.72% p.a. below term lending rate (11.4861% at the time and may fluctuate in accordance with HSBC's policy) charged at the daily drawdown.

Under the terms of this agreement, the Company is required to notify HSBC in writing prior to, among others, any guarantee, pledge, mortgage, or granting of any warranty rights to the Company and/or SMI's property, assets or income, any extension of any debt or any other obligation (including a lease obligation or warranty) except for (a) debt incurred based on an agreement and (b) debt of trading incurred in the ordinary course of business, the provision of loans to other third parties (except for its subsidiaries) except for credit provided independently and in the ordinary course of business, and any amendment to its articles of association. The Company submitted a written notification to HSBC with regards to the proposed Notes issuance on 5 October 2017.

This facility is available until 30 June 2018.

Facility Agreement with PT Bank Central Asia Tbk ("BCA")

On December 2004, the Company and SMI obtained a facility of US$50,000,000 pursuant to a facility agreement with BCA, most recently amended on 26 October 2017. The facility is a multi-trade lines facility and comes with sight letter of credit, usance letter of credit, usance payable at sight, usance payable at usance and domestic letter of credit.

Under the terms of this facility agreement, the Company and/or SMI is required to provide written notice to BCA in the event of, among others: (i) changes to the composition of Company and/or SMI's board of directors and board of commissioners, (ii) obtaining new loan/credit loans and/or bind as guarantor in the form and in whatever name and/or encumbered assets of the Company and/or SMI to other parties. The Company and/or SMI is required to obtain written consent from BCA prior to amending its articles of association. The Company submitted a written notification to BCA with regards to the proposed Notes issuance on 5 October 2017.

This facility is available until 27 January 2018.

Facility Agreement with Lembaga Pembiayaan Ekspor Indonesia ("Eximbank")

On 10 July 2014, the Company obtained a facility of US$35,000,000 pursuant to a facility agreement with Eximbank, most recently amended on 7 July 2017. This facility comes with, among other things, export working capital facility, a bookkeeping facility letter of credit, a domestic letter of credit and usance payable at sight.

Under the terms of this agreement, the Company is required to obtain written consent from Eximbank in the event that the Company, among other things, acts as guarantor or encumbers its assets, or delivers all or part of its rights and/or obligations to third parties.

This facility is available until 10 July 2018.

Facility Agreement with Deutsche Bank AG, Jakarta ("Deutsche Bank")

On 25 June 2014, the Company, SMI and PBI signed a facility agreement with Deutsche Bank which was most recently amended on 12 January 2017. The facility has a combined maximum amount of US$55,000,000 and comes with letters of credit, local letters of credit as well as invoice financing. The invoice financing facility is subject to an interest rate of LIBOR + 2.5% per annum calculated on a 360-day year basis or at an agreed rate.

The facility was automatically extended on 31 August 2017 for 12 months.

Facility Agreement with the Siam Commercial Bank Public Limited ("Siam Commercial Bank")

On 12 November 2014, the Company obtained a revolving credit facility of US$30,000,000 pursuant to a facility agreement with Siam Commercial Bank, most recently amended on 11 November 2016.

Under the terms of the facility agreement, the Company must obtain written consent from Siam Commercial Bank prior to amending its constitutional documents and is also limited in its ability to issue any shares or grant any person any right to call for the issue or allotment of any shares in the capital of the Company or such other group member (including an option or a right of pre-emption or conversion) or enter into any agreement or resolve to do any of the foregoing.

The facility is available until 11 November 2017.

Facility Agreement with Bangkok Bank Public Company Limited ("Bangkok Bank")

On 12 November 2014, the Company entered into a facility agreement with Bangkok Bank for a combined line facility with a maximum principal amount of US$30,000,000, which was most recently amended on 3 July 2017. The facility consists of a sight letter of credit, a usance letter of credit, an advance against promissory note for import bills under a sight letter of credit ("**T/R**"), an advance against promissory note for working capital for a maximum of 180 calendar days ("**P/N**") and letters of guarantee. The T/R and P/N facilities are subject to interest rates equal to LIBOR (1 month, 3 months or 6 months) + 3.5% per annum, denominated in U.S. dollars.

Under the terms of this agreement, the Company is required to notify Bangkok Bank in writing in the event of, among others, any resolutions pursuant to the Company's general meeting of the shareholders and/or Board of Commissioners meeting and/or Board of Directors meeting which may affect the provisions and requirements as set out in the agreement, any change in the Company's authorised signatory and/or any amendment to the articles of association, Board of Directors or Board of Commissioners, and the occurrence of a negligent event which may be deemed as an event of default.

The facility is available until 30 November 2017.

Facility Agreement with PT Bank BNP Paribas Indonesia ("BNP Paribas")

On 16 October 2017, the Company entered into a facility agreement with BNP Paribas for trade finance facilities with a maximum aggregate principal amount of US$50,000,000. The facility comprises letters of credit and trust receipts. The letter of credit facility is subject to an interest rate of LIBOR + 1.1% per annum and the trust receipt facility is subject to an interest rate of LIBOR + 1.35% per annum, calculated on a 360-day basis.

The facility is available until 30 September 2018.

We may, from time to time, enter into additional uncommitted working capital facilities to finance the working capital requirements of our business.

DESCRIPTION OF THE NOTES

You can find the definitions of certain terms used in this description under the subheading "Certain Definitions." In this description, the word "*Company*" refers only to PT Chandra Asri Petrochemical Tbk and not to any of its Subsidiaries.

The Company will issue the Notes under an indenture (the "*Indenture*") among itself, the Subsidiary Guarantors and Deutsche Bank Trust Company Americas, as trustee (in such capacity, the "*Trustee*"), paying agent, transfer agent and registrar, in a private transaction that is not subject to the registration requirements of the Securities Act. Holders of Notes will not be entitled to any registration rights. See "Transfer Restrictions." The terms of the Notes will include those stated in the Indenture. The Indenture will not be qualified under the U.S. Trust Indenture Act of 1939, as amended.

The following description is a summary of the material provisions of the Indenture. It does not restate that agreement in its entirety. We urge you to read the Indenture because it, and not this description, defines your rights as holders of the Notes. Copies of the Indenture are available as set forth below under "—Additional Information." Certain defined terms used in this description but not defined below under "—Certain Definitions" have the meanings assigned to them in the Indenture.

The registered holder of a Note will be treated as the owner of it for all purposes. Only registered holders will have rights under the Indenture.

Brief Description of the Notes and the Note Guarantees

The Notes

The Notes will:

- be general unsecured obligations of the Company;
- rank at least *pari passu* in right of payment with all existing and future unsecured, unsubordinated Indebtedness of the Company (subject to any priority rights of such unsecured, unsubordinated Indebtedness pursuant to applicable law);
- be senior in right of payment to any future subordinated Indebtedness of the Company; and
- be unconditionally guaranteed by the Subsidiary Guarantors;
- be structurally subordinated to all existing and future obligations of any of the Company's Subsidiaries that do not guarantee the Notes; and
- be effectively subordinated to all existing and future secured Indebtedness of the Company to the extent of the value of the assets serving as security therefor. As of June 30, 2017, the Company had US$372.9 million of secured Indebtedness that would be effectively senior to the Notes.

The Note Guarantees

The Notes will be guaranteed (i) initially by PT Petrokimia Butadiene Indonesia and PT Styrindo Mono Indonesia and (ii) by any other Restricted Subsidiary of the Company that executes a Note Guarantee (including pursuant to the covenant described below under the caption "—Additional Note Guarantees"). These Note Guarantees will be joint and several obligations of the Subsidiary Guarantors. The obligations of each Subsidiary Guarantor under its Note Guarantee will be limited as necessary to prevent that Note Guarantee from constituting a fraudulent conveyance under applicable law.

Each guarantee of the Notes will:

- be a general unsecured obligation of that Subsidiary Guarantor;
- rank at least *pari passu* in right of payment with all existing and future unsecured unsubordinated Indebtedness of that Subsidiary Guarantor (subject to any priority rights of such unsecured, unsubordinated Indebtedness pursuant to applicable law);
- be senior in right of payment to any future subordinated Indebtedness of that Subsidiary Guarantor; and
- be effectively subordinated to all existing and future secured Indebtedness of that Subsidiary Guarantor to the extent of the value of the assets serving as security therefor.

Not all of the Company's Subsidiaries will guarantee the Notes. In the event of a bankruptcy, liquidation or reorganization of any of these non-guarantor Subsidiaries, the non-guarantor Subsidiaries will pay the holders of their debt and their trade creditors before they will be able to distribute any of their assets to their shareholders (including the Company). The non-guarantor Subsidiaries generated 0.15% of the Company's consolidated revenues in the twelve-month period ended December 31, 2016 and held 1.05% of the Company's consolidated assets as of December 31, 2016.

Concurrently with the execution of the Note Guarantee under the laws of New York, each Subsidiary Guarantor established under the laws of Indonesia will also execute a Deed of Corporate Guarantee and Indemnity Agreement governed by the laws of Indonesia (the "*Indonesian Law Note Guarantees*"), which will provide for such Subsidiary Guarantor's guarantee of the due and punctual payment of the principal of, premium (if any) and interest on, and all other amounts payable under, the Notes and the Indenture under the laws of Indonesia. A guarantee by a Subsidiary Guarantor under an Indonesian Law Note Guarantee may be released if its Note Guarantee is released in compliance with the terms of the Indenture.

Under the Indenture, and any supplemental indenture to the Indenture, as applicable, each of the Subsidiary Guarantors will jointly and severally guarantee the due and punctual payment of the principal of, premium (if any) and interest on, and all other amounts payable under, the Notes and the Indenture, subject to the limitations set forth herein. The Subsidiary Guarantors will (1) agree that their obligations under the Note Guarantee will be enforceable irrespective of any invalidity, irregularity or unenforceability of the Notes or the Indenture and (2) waive their right to require the Trustee to pursue or exhaust its legal or equitable remedies against the Company prior to exercising its rights under the Note Guarantees. Moreover, if at any time any amount paid under a Note or the Indenture is rescinded or must otherwise be repaid, the rights of the holders under the Note Guarantees will be reinstated with respect to such payments as though such payment had not been made. All payments under the Note Guarantees are required to be made in U.S. dollars.

As of the date of the Indenture, not all of the Company's Subsidiaries will be "Restricted Subsidiaries." Furthermore, under the circumstances described below under the caption "—Certain Covenants—Designation of Restricted and Unrestricted Subsidiaries," we will be permitted to designate certain of the Company's Subsidiaries as "Unrestricted Subsidiaries." The Unrestricted Subsidiaries will not be subject to many of the restrictive covenants in the Indenture. The Unrestricted Subsidiaries will not guarantee the Notes.

Principal, Maturity and Interest

The Company will issue US$300,000,000 in aggregate principal amount of Notes in this offering. The Company may issue additional Notes under the Indenture from time to time after this offering. Any issuance of additional Notes is subject to all of the covenants in the Indenture, including the covenant described below under the caption "—Certain Covenants—Incurrence of Indebtedness and

Issuance of Preferred Stock." The Notes and any additional Notes subsequently issued under the Indenture will be treated as a single class for all purposes under the Indenture, including, without limitation, waivers, amendments, redemptions and offers to purchase. Notwithstanding the foregoing, any additional Notes that are not fungible with the Notes offered hereunder for U.S. federal income tax purposes shall have a separate CUSIP, ISIN or other identifying number from such Notes. The Company will issue Notes in denominations of US$200,000 and integral multiples of US$1,000 in excess thereof. The Notes will mature on 8 November 2024.

Interest on the Notes will accrue at the rate of 4.95% per annum and will be payable semi-annually in arrears on 8 May and 8 November, commencing on 8 May 2018. Interest on overdue principal and interest, if any, will accrue at a rate that is 1% higher than the then applicable interest rate on the Notes. The Company will make each interest payment to the holders of record on the immediately preceding 24 April and 24 October. So long as the Notes are held in global form, each payment in respect of the Global Notes will be made to the person shown as the holder of the Notes in the register of holders at the close of business (of the relevant clearing system) on the Clearing System Business Day before the due date for such payments, where "Clearing System Business Day" means a weekday (Monday to Friday, inclusive) except 25 December and 1 January. In any case in which the date of the payment of principal, of premium (if any) or interest on the Notes is not a Business Day in the relevant place of payment, then payment of principal or premium (if any) or interest need not be made in such place on such date but may be made on the next succeeding Business Day in such place. Any payment made on such Business Day shall have the same force and effect as if made on the date on which such payment is due, and no default interest on the Notes shall accrue on such payment amount for the period from the date on which such payment is due to the next succeeding Business Day when such payment was made.

Interest on the Notes will accrue from the date of original issuance or, if interest has already been paid, from the date it was most recently paid. Interest will be computed on the basis of a 360-day year comprised of twelve 30-day months.

Additional Amounts

All payments made by or on behalf of the Company under or with respect to the Notes or any of the Subsidiary Guarantors on its Note Guarantee will be made free and clear of and without withholding or deduction for, or on account of, any present or future Taxes, unless the withholding or deduction of such Taxes is then required by law. If any deduction or withholding for, or on account of, any Taxes imposed or levied by or on behalf of Indonesia, or any other jurisdiction in which the Company or any Subsidiary Guarantor (including any successor entity) is then incorporated, engaged in business or resident for tax purposes, or any political subdivision thereof or therein or any jurisdiction from or through which payment is made (each, a "*Tax Jurisdiction*") from any payments made by or on behalf of the Company under or with respect to the Notes or any of the Subsidiary Guarantors with respect to any Note Guarantee, including payments of principal, redemption price, purchase price, interest or premium, the Company or the relevant Subsidiary Guarantor, as applicable, will pay such additional amounts (the "*Additional Amounts*") as may be necessary in order that the net amounts received in respect of such payments by each holder (including Additional Amounts) after such withholding, deduction or imposition will equal the respective amounts that would have been received by such holder in respect of such payments in the absence of such withholding, deduction or imposition; *provided, however*, that no Additional Amounts will be payable with respect to:

(1) any Taxes that would not have been imposed but for the existence of any present or former connection between the relevant holder or beneficial owner of the Notes, as applicable (or between a fiduciary, settlor, beneficiary, member, partner or shareholder of, or possessor of power over the relevant holder or beneficial owner, if the relevant holder or beneficial owner is an estate, nominee, trust, partnership, limited liability company or corporation), and the Tax Jurisdiction, including, without limitation, being a citizen, resident or national of, incorporated

in or carrying on a business or maintaining a permanent establishment in, the relevant Tax Jurisdiction in which such Taxes are imposed, other than by the mere holding of such Note, enforcement of rights thereunder, the receipt of payments in respect thereof or any other connection with respect to the Notes;

(2) any Taxes imposed or withheld as a result of the failure of the holder or beneficial owner of the Notes (to the extent it is legally entitled to do so) to comply with any written request, made to the relevant holder in writing at least 60 days before any such withholding or deduction would be payable, by the Company or any of the Subsidiary Guarantors to provide timely or accurate certification, information, documents or other evidence concerning the nationality, residence or identity of such holder or beneficial owner or to make any valid or timely declaration or similar claim or satisfy any certification information or other reporting requirement applicable to such holder or beneficial owner, which is required or imposed by a statute, regulation or administrative practice of the relevant Tax Jurisdiction as a precondition to exemption from all or part of such Taxes; *provided that* the provision of any certification, information, documents or other evidence described in this paragraph (2) would not be materially more onerous, in form, in procedure, or in the substance of information disclosed, to a holder or beneficial owner of a Note that comparable information or other reporting requirements imposed under U.S. tax law, regulations and administrative practice (such as U.S. Internal Revenue Service Forms W-8BEN and W-9, or any successor forms); *provided further* that no holder or beneficial owner of a Note shall have any obligation to establish eligibility for a reduced withholding tax rate under any income tax treaty;

(3) any Note presented for payment (where Notes are in the form of definitive Notes and presentation is required) more than 30 days after the relevant payment is first made available for payment to the holder (except to the extent that the holder would have been entitled to Additional Amounts had the Note been presented on the last day of such 30 day period);

(4) any estate, inheritance, gift, sale, transfer, personal property or similar tax or assessment;

(5) any Taxes payable otherwise than by deduction or withholding from payments on the Note or Note Guarantee; or

(6) any combination of items (1) through (5) above.

In addition, no Additional Amounts shall be paid with respect to a holder who is a fiduciary or a partnership or any person other than the beneficial owner of the Notes, to the extent that the beneficiary or settler with respect to such fiduciary, the member of such partnership or the beneficial owner would not have been entitled to Additional Amounts had such beneficiary, settler, member or beneficial owner held such Notes directly.

Notwithstanding anything to the contrary herein, the Company and the Subsidiary Guarantors shall be permitted to withhold or deduct any amounts required by Sections 1471 to 1474 ("**FATCA**") of the U.S. Internal Revenue Code of 1986, any treaty, law, regulation or other official guidance implementing FATCA, or any agreement (or related guidance) between the Company, the Subsidiary Guarantors, a paying agent or any other person and the United States, any other jurisdiction, or any authority of any of the foregoing, in each case, implementing FATCA and none of the Company, the Subsidiary Guarantors, the Trustee, any paying agent or any other person shall be required to pay any additional amounts with respect to any FATCA withholding or deduction imposed on or with respect to any Note or Note Guarantee.

In addition to the foregoing, the Company and the Subsidiary Guarantors will pay and indemnify the Trustee, the Agents and the holders for any present or future stamp, issue, registration, transfer, court or documentary Taxes, or any other excise or property Taxes, charges or similar levies or Taxes levied by any Tax Jurisdiction (or in the case of enforcement, any jurisdiction) on the execution, delivery, registration or enforcement of any Note, the Indenture, any Note Guarantee or any other document or instrument referred to therein, or the receipt of any payments with respect to the Notes or the Note Guarantees (other than, in each case, in connection with a transfer after the initial sale of the Notes).

If the Company or any Subsidiary Guarantor becomes aware that it will be obligated to pay Additional Amounts with respect to any payment under or with respect to the Notes or any Note Guarantee, the Company or the relevant Subsidiary Guarantor, as the case may be, will deliver to the Trustee and the paying agent on a date at least 30 days prior to the date of payment (unless the obligation to pay Additional Amounts arises after the 30th day prior to that payment date, in which case the Company or the relevant Subsidiary Guarantor will notify the Trustee and the paying agent promptly thereafter) an Officers' Certificate stating the fact that Additional Amounts will be payable and the amount estimated to be so payable. The Officers' Certificate must also set forth any other information reasonably necessary to enable the paying agent to pay Additional Amounts to holders on the relevant payment date. The Company or the relevant Subsidiary Guarantor will provide the Trustee with documentation reasonably satisfactory to the Trustee and the paying agent evidencing the payment of Additional Amounts.

The Company or the relevant Subsidiary Guarantor will make all withholdings and deductions required by law and will remit the full amount deducted or withheld to the relevant Tax authority in accordance with applicable law. The Company or the relevant Subsidiary Guarantor will use its reasonable efforts to obtain Tax receipts from each Tax authority evidencing the payment of any Taxes so deducted or withheld. The Company or the relevant Subsidiary Guarantor will furnish to the Trustee, within 60 days after the date the payment of any Taxes so deducted or withheld is made, certified copies of Tax receipts evidencing payment by the Company or a Subsidiary Guarantor, as the case may be, or if, notwithstanding such entity's efforts to obtain receipts, receipts are not obtained, other evidence of payments by such entity.

Whenever the Indenture or this "Description of Notes" mentions the payment of amounts based on the principal amount, interest or any other amount payable under, or with respect to, any Note, such mention shall be deemed to include the payment of Additional Amounts to the extent that, in such context, Additional Amounts are, were or would be payable in respect thereof.

The above obligations will survive any termination, defeasance or discharge of the Indenture and any transfer by a holder or beneficial owner of its Notes, and will apply, *mutatis mutandis*, to any jurisdiction (or any political subdivision or taxing authority thereof or therein) in which any successor Person to the Company or any Subsidiary Guarantor is organized or resident (or deemed resident) or doing business or through which payment is made or deemed made for tax purposes.

Methods of Receiving Payments on the Notes

If a holder of Notes has given wire transfer instructions to the Company, the Company will pay all principal of, premium on, if any, interest, if any, on, that holder's Notes in accordance with those instructions. All other payments on the Notes will be made at the office or agency of the paying agent and registrar within the City and State of New York unless the Company elects to make interest payments by check mailed to the Noteholders at their address set forth in the register of holders.

Paying Agent, Transfer Agent and Registrar for the Notes

Deutsche Bank Trust Company Americas will initially act as paying agent, transfer agent and registrar. The Company may change the paying agent, transfer agent or registrar without prior notice to the holders of the Notes, and the Company or any of its Subsidiaries may act as paying agent, transfer agent or registrar.

Transfer and Exchange

A holder may transfer or exchange Notes in accordance with the provisions of the Indenture. The registrar and the Trustee may require a holder, among other things, to furnish appropriate endorsements and transfer documents in connection with a transfer of Notes. Holders will be required to pay all taxes due on transfer. The Company will not be required to transfer or exchange any Note selected for redemption. Also, the Company will not be required to transfer or exchange any Note for a period of 15 days before a selection of Notes to be redeemed.

Note Guarantees

The Notes will be guaranteed (i) initially by PT Petrokimia Butadiene Indonesia and PT Styrindo Mono Indonesia and (ii) by any other Restricted Subsidiary of the Company that executes a Note Guarantee. These Note Guarantees will be joint and several obligations of the Subsidiary Guarantors. The obligations of each Subsidiary Guarantor under its Note Guarantee will be limited as necessary to prevent that Note Guarantee from constituting a fraudulent conveyance under applicable law. PT Petrokimia Butadiene Indonesia, PT Styrindo Mono Indonesia and any other Subsidiary Guarantor established under the laws of Indonesia will, in addition to its Note Guarantee governed under the laws of New York set forth in the Indenture and endorsed on the Notes, also execute the Indonesian Law Note Guarantees.

A Subsidiary Guarantor may not, directly or indirectly: (1) consolidate or merge with or into another Person (whether or not such Subsidiary Guarantor is the surviving Person), or (2) sell, assign, transfer, convey or otherwise dispose of all or substantially all of the properties or assets of such Subsidiary Guarantor in one or more related transactions, to another Person, other than the Company or another Subsidiary Guarantor, unless:

(1) immediately after giving effect to such transaction, no Default or Event of Default exists; and

(2) either:

 (a) the Person acquiring the property in any such sale, assignment, transfer, conveyance, or disposition or the Person formed by or surviving any such consolidation or merger becomes a Subsidiary Guarantor under the Indenture, and pursuant to a supplemental indenture satisfactory to the Trustee; or

 (b) the Net Proceeds of such sale or other disposition are applied in accordance with the applicable provisions of the Indenture.

The Note Guarantee of a Subsidiary Guarantor will automatically be released:

(1) upon repayment in full of the Notes;

(2) in connection with any sale or other disposition of Capital Stock of that Subsidiary Guarantor by way of merger, consolidation or otherwise to a Person that is not (either before or after giving effect to such transaction) the Company or a Restricted Subsidiary of the Company, in compliance with the terms of the Indenture (including the covenants described under the captions "—Certain Covenants—Limitation on Sales and Issuances of Capital Stock in Restricted Subsidiaries", "—Certain Covenants—Limitation on Asset Sales" and "—Consolidation, Merger and Sale of Assets") and the Subsidiary Guarantor ceases to be a Restricted Subsidiary of the Company as a result of the sale or other disposition;

(3) if the Company designates any Restricted Subsidiary that is a Subsidiary Guarantor to be an Unrestricted Subsidiary in accordance with the applicable provisions of the Indenture;

(4) upon legal defeasance, covenant defeasance or satisfaction and discharge of the Indenture as provided below under the captions "—Legal Defeasance and Covenant Defeasance" and "—Satisfaction and Discharge";

(5) as otherwise permitted in accordance with the Indenture; or

(6) the first day on which the Notes are rated Investment Grade; *provided* that such Note Guarantee shall be reinstated upon the Reinstatement Date.

Optional Redemption

At any time prior to 8 November 2021, the Company may on any one or more occasions redeem up to 35% of the aggregate principal amount of Notes issued under the Indenture at a redemption price equal to 104.95% of the principal amount of the Notes redeemed, plus accrued and unpaid interest, if any, to (but not including) the date of redemption (subject to the rights of holders of Notes on the relevant record date to receive interest due on the relevant interest payment date), in an amount not to exceed the net proceeds from an Equity Offering by the Company; *provided* that:

(1) at least 65% of the aggregate principal amount of Notes originally issued under the Indenture (excluding Notes held by the Company and its Subsidiaries) remains outstanding after each such redemption; and

(2) the redemption occurs within 60 days of the date of the closing of such Equity Offering.

At any time prior to 8 November 2021, the Company may on any one or more occasions redeem all or a part of the Notes, at a redemption price equal to 100% of the principal amount of the Notes redeemed, plus the Applicable Premium as of, and accrued and unpaid interest, if any, to (but not including) the date of redemption, subject to the rights of holders of Notes on the relevant record date to receive interest due on the relevant interest payment date. Neither the Trustee nor the paying agent shall be responsible for verifying or calculating the Applicable Premium.

Except pursuant to the preceding paragraphs and as set forth below under the caption "—Redemption for Changes in Taxes," the Notes will not be redeemable at the Company's option prior to 8 November 2021.

On or after 8 November 2021, the Company may on any one or more occasions redeem all or a part of the Notes, at the redemption prices (expressed as percentages of principal amount) set forth below, plus accrued and unpaid interest, if any, on the Notes redeemed, to the applicable date of redemption, if redeemed during the twelve-month period beginning on 8 November of the years indicated below, subject to the rights of holders of Notes on the relevant record date to receive interest on the relevant interest payment date:

Year	Percentage
2021	102.475%
2022	101.238%
2023 and thereafter	100.000%

The Company will give not less than 30 days' nor more than 60 days' notice of any redemption. If less than all of the Notes are to be redeemed, the Notes for redemption will be selected as follows:

(1) if the Notes are listed on any securities exchange, in compliance with the requirements of the principal securities exchange on which the Notes are then traded or if the Notes are held through the clearing systems, in compliance with the requirements of the applicable clearing systems; or

(2) if the Notes are not listed on any securities exchange, on a *pro rata* basis, by lot or by such other method as the Trustee in its sole and absolute discretion deems fair and appropriate unless otherwise required by law.

However, no Note of US$200,000 in principal amount or less will be redeemed in part. If any Note is to be redeemed in part only, the notice of redemption relating to such Note will state the portion of the principal amount to be redeemed. A new Note in principal amount equal to the unredeemed portion will be issued upon cancellation of the original Note. On and after the redemption date, interest will cease to accrue on Notes or portions of them called for redemption.

In connection with any redemption of Notes, notice thereof may, at the Company's discretion, be subject to one or more conditions precedent. In addition, if such redemption or notice is subject to satisfaction of one or more conditions precedent, such notice shall state that, at the Company's discretion, the redemption date may be delayed until such time as any or all such conditions shall be satisfied (or waived by the Company in its sole discretion), or such redemption may not occur and such notice may be rescinded in the event that any or all such conditions shall not have been satisfied (or waived by the Company in its sole discretion) by the redemption date, or by the redemption date so delayed.

If the redemption date is on or after a record date and on or before the related Interest Payment Date, the accrued and unpaid interest will be paid to the Person in whose name the Note is registered at the close of business on such record date, and no additional interest will be payable to holders whose Notes will be subject to redemption by the Company.

Unless the Company defaults in the payment of the redemption price, interest will cease to accrue on the Notes or portions thereof called for redemption on the applicable redemption date.

Mandatory Redemption

The Company is not required to make mandatory redemption or sinking fund payments with respect to the Notes.

Redemption for Changes in Taxes

The Company may redeem the Notes, in whole but not in part, at any time upon giving not less than 30 nor more than 60 days' prior notice to the holders (which notice will be irrevocable and given in accordance with the procedures described in "—Selection and Notice"), at a redemption price equal to 100% of the principal amount thereof, plus accrued and unpaid interest, if any, to the date of redemption (a "*Tax Redemption Date*") and all Additional Amounts (if any) then due and that will become due on the Tax Redemption Date as a result of the redemption or otherwise (subject to the rights of holders of Notes on the relevant record date to receive interest due on the relevant interest payment date and Additional Amounts (if any) in respect thereof), if on the next date on which any amount would be payable in respect of the Notes, the Company or any Subsidiary Guarantor has paid or would be required to pay Additional Amounts, and the Company or such Subsidiary Guarantor cannot avoid any such payment obligation taking reasonable measures available to it (including, in the case of a Subsidiary Guarantor, reasonable efforts to cause the Company to make the required payment), as a result of:

(1) any change in, or amendment to, the laws (or any regulations or rulings promulgated thereunder) of the relevant Tax Jurisdiction affecting taxation which change has not been officially announced before and which becomes effective on or after the date of the Indenture (or, if later, the date on which the relevant jurisdiction became a Tax Jurisdiction); or

(2) any change in, or amendment to, the existing official position or the introduction of an official position regarding the application, administration or interpretation of such laws, regulations or

rulings (including a holding, judgment or order by a court of competent jurisdiction or a change in published practice), which change or amendment has not been officially announced before and becomes effective on or after the date of the Indenture (or, if later, the date on which the relevant jurisdiction became a Tax Jurisdiction),

provided, that where any such requirements to pay Additional Amounts are in consequence of the laws and treaties of Indonesia (or any political subdivision or taxing authority thereof or therein), the Company will be permitted to redeem the Notes in accordance with the provisions above only if the rate of withholding or deduction in respect of which the Additional Amounts are required is in excess of 20.0%.

Prior to the publication or, where relevant, mailing of any notice of redemption of the Notes pursuant to the foregoing, the Company will deliver to the Trustee (i) an Opinion of Counsel reasonably acceptable to the Trustee to the effect that there has been such change and (ii) an Officers' Certificate stating that the Company is entitled to effect the redemption and setting forth a statement of facts showing the conditions precedent to the right to redeem have occurred and stating that the Company or the Subsidiary Guarantor cannot avoid any obligation to pay Additional Amounts by taking reasonable measures available to it.

Open Market Purchases

The Company and any Subsidiary Guarantor may purchase Notes by means other than a redemption, whether by tender offer, open market purchases, negotiated transactions or otherwise, in accordance with applicable securities laws and regulations, so long as such acquisition does not otherwise violate the terms of the Indenture. Any Notes acquired by the Company or any Subsidiary Guarantor will be cancelled.

Repurchase at the Option of Holders

Change of Control

If a Change of Control occurs, each holder of Notes will have the right to require the Company to repurchase all or any part (equal to US$200,000 or an integral multiple of US$1,000 in excess thereof) of that holder's Notes pursuant to a Change of Control Offer on the terms set forth in the Indenture. In the Change of Control Offer, the Company will offer a Change of Control Payment in cash equal to 101% of the aggregate principal amount of Notes repurchased, plus accrued and unpaid interest, if any, on the Notes repurchased to the date of purchase, subject to the rights of holders of Notes on the relevant record date to receive interest due on the relevant interest payment date. Within 10 days following any Change of Control, the Company will mail a notice to each holder describing the transaction or transactions that constitute the Change of Control and offering to repurchase Notes on the Change of Control Payment Date specified in the notice, which date will be no earlier than 30 days and no later than 60 days from the date such notice is mailed, pursuant to the procedures required by the Indenture and described in such notice. The Company will comply with the requirements of Rule 14e-1 under the Exchange Act and any other securities laws and regulations thereunder to the extent those laws and regulations are applicable in connection with the repurchase of the Notes as a result of a Change of Control. To the extent that the provisions of any securities laws or regulations conflict with the Change of Control provisions of the Indenture, the Company will comply with the applicable securities laws and regulations and will not be deemed to have breached its obligations under the Change of Control provisions of the Indenture by virtue of such compliance.

On the Change of Control Payment Date, the Company will, to the extent lawful:

(1) accept for payment all Notes or portions of Notes properly tendered pursuant to the Change of Control Offer; and

(2) deliver or cause to be delivered to the paying agent the Notes properly accepted together with an Officers' Certificate stating the aggregate principal amount of Notes or portions of Notes being purchased by the Company.

On one Business Day prior to the Change of Control Payment Date, the Company will deposit with paying agent an amount equal to the Change of Control Payment in respect of all Notes or portions of Notes properly tendered.

The paying agent will promptly mail to each holder of Notes properly tendered the Change of Control Payment for such Notes, and the registrar will promptly authenticate and mail (or cause to be transferred by book entry) to each holder a new Note equal in principal amount to any unpurchased portion of the Notes surrendered, if any. The Company will publicly announce the results of the Change of Control Offer on or as soon as practicable after the Change of Control Payment Date.

The provisions described above that require the Company to make a Change of Control Offer following a Change of Control will be applicable whether or not any other provisions of the Indenture are applicable. Except as described above with respect to a Change of Control, the Indenture does not contain provisions that permit the holders of the Notes to require that the Company repurchase or redeem the Notes in the event of a takeover, recapitalization or similar transaction.

The Company will not be required to make a Change of Control Offer upon a Change of Control if (1) a third party makes the Change of Control Offer in the manner, at the times and otherwise in compliance with the requirements set forth in the Indenture applicable to a Change of Control Offer made by the Company and purchases all Notes properly tendered and not withdrawn under the Change of Control Offer, or (2) notice of redemption has been given pursuant to the Indenture as described above under the caption "—Optional Redemption," unless and until there is a default in payment of the applicable redemption price. Notwithstanding anything to the contrary contained herein, a Change of Control Offer may be made in advance of a Change of Control, conditioned upon the consummation of such Change of Control, if a definitive agreement is in place for the Change of Control at the time the Change of Control Offer is made. The closing date of any such Change of Control Offer made in advance of a Change of Control may be changed to conform to the actual closing date of the Change of Control, *provided* that such closing date is not earlier than 30 days nor later than 60 days from the date the Change of Control Offer notice is mailed as described in the first paragraph of this section.

Neither the Trustee nor any of the Agents shall be required to take any steps to ascertain whether a Change of Control or any event which could lead to an occurrence of a Change of Control has occurred and shall not be liable to any person for any failure to do so.

The definition of Change of Control includes a phrase relating to the direct or indirect sale, lease, transfer, conveyance or other disposition of "all or substantially all" of the properties or assets of the Company and its Subsidiaries taken as a whole. Although there is a limited body of case law interpreting the phrase "substantially all," there is no precise established definition of the phrase under applicable law. Accordingly, the ability of a holder of Notes to require the Company to repurchase its Notes as a result of a sale, lease, transfer, conveyance or other disposition of less than all of the assets of the Company and its Subsidiaries taken as a whole to another Person or group may be uncertain.

Asset Sales

The Company will not, and will not permit any of its Restricted Subsidiaries to, consummate an Asset Sale unless:

(1) the Company or any of its Restricted Subsidiaries receives consideration at the time of the Asset Sale at least equal to the Fair Market Value (measured as of the date of the definitive agreement with respect to such Asset Sale) of the assets or Equity Interests issued or sold or otherwise disposed of; and

(2) at least 75% of the consideration received in the Asset Sale by the Company or such Restricted Subsidiaries is in the form of cash or Cash Equivalents. For purposes of this provision, each of the following will be deemed to be cash:

(a) any liabilities, as shown on the Company's most recent consolidated balance sheet, of the Company or any Restricted Subsidiary (other than contingent liabilities and liabilities that are by their terms subordinated to the Notes or any Note Guarantee) that are assumed by the transferee of any such assets pursuant to a customary novation or indemnity agreement that releases the Company or such Restricted Subsidiary from or indemnifies against further liability;

(b) any securities, notes or other obligations received by the Company or any such Restricted Subsidiary from such transferee that are contemporaneously, subject to ordinary settlement periods, converted by the Company or such Restricted Subsidiary into cash, to the extent of the cash received in that conversion; and

(c) any stock or assets of the kind referred to in clauses (2) or (4) of the next paragraph of this covenant.

Within 365 days after the receipt of any Net Proceeds from an Asset Sale, the Company or one or more of its Restricted Subsidiaries may apply an amount equal to the amount of such Net Proceeds:

(1) to repay Senior Debt and, if the Senior Debt repaid is revolving credit Indebtedness, to correspondingly reduce commitments with respect thereto;

(2) to acquire all or substantially all of the assets of, or any Capital Stock of, another Permitted Business, if, after giving effect to any such acquisition of Capital Stock, the Permitted Business is or becomes a Restricted Subsidiary of the Company;

(3) to make a capital expenditure relating to assets that are used in a Permitted Business or to enter into a binding agreement to make a capital expenditure; provided that such binding agreement shall be treated as a permitted application of the Net Proceeds from the date of such commitment until the earlier of (x) the date on which such capital expenditure is made in accordance with the provisions of such binding agreement and (y) the 90th day following the end of the 365-day time period;

(4) to acquire other assets that are not classified as current assets under GAAP and that are used or useful in a Permitted Business; or

(5) in any combination of applications specified in clauses (1) through (4) above.

Pending the final application of any Net Proceeds, the Company or any of its Restricted Subsidiaries may temporarily reduce revolving credit borrowings or otherwise invest the Net Proceeds in any manner that is not prohibited by the Indenture.

If the Net Proceeds exceed the aggregate amount within the applicable time period, such excess amount applied or invested as provided in the second paragraph of this covenant will constitute "*Excess Proceeds*." When the aggregate amount of Excess Proceeds exceeds US$20 million (or the Dollar Equivalent thereof), within 10 days thereof, the Company will make an offer (an "*Asset Sale Offer*") to all holders of Notes and all holders of other Indebtedness that is *pari passu* with the Notes containing provisions similar to those set forth in the Indenture with respect to offers to purchase, prepay or redeem with the proceeds of sales of assets to purchase, prepay or redeem the maximum principal amount of Notes and such other *pari passu* Indebtedness (plus all accrued interest on the Indebtedness and the amount of all fees and expenses, including premiums, incurred in connection therewith) that may be purchased, prepaid or redeemed out of the Excess Proceeds. The offer price in any Asset Sale Offer will be equal to 100% of the principal amount, plus accrued and unpaid interest, if any, to the date of purchase, prepayment or redemption, subject to the rights of holders of Notes on the relevant record date to receive interest due on the relevant interest payment date, and will be payable in cash. If any Excess Proceeds remain after consummation of an Asset Sale Offer, the Company may use those Excess Proceeds for any purpose not otherwise prohibited by the Indenture. If the aggregate principal amount of Notes and other *pari passu* Indebtedness tendered in (or required to be prepaid or redeemed in connection with) such Asset Sale Offer exceeds the amount of Excess Proceeds, the Trustee will select the Notes and such other *pari passu* Indebtedness to be purchased on a *pro rata* basis, based on the amounts tendered or required to be prepaid or redeemed (with such adjustments as may be deemed appropriate by the Company so that only Notes in denominations of US$200,000, or an integral multiple of US$1,000 in excess thereof, will be purchased). Upon completion of each Asset Sale Offer, the amount of Excess Proceeds will be reset at zero.

The Company will comply with the requirements of Rule 14e-1 under the Exchange Act and any other securities laws and regulations thereunder to the extent those laws and regulations are applicable in connection with each repurchase of Notes pursuant to a Change of Control Offer or an Asset Sale Offer. To the extent that the provisions of any securities laws or regulations conflict with the Change of Control or Asset Sale provisions of the Indenture, the Company will comply with the applicable securities laws and regulations and will not be deemed to have breached its obligations under the Change of Control or Asset Sale provisions of the Indenture by virtue of such compliance.

The agreements governing other Indebtedness of the Company and its Restricted Subsidiaries contain, and future agreements may contain, prohibitions of certain events, including events that would constitute a Change of Control or an Asset Sale and including repurchases of or other prepayments in respect of the Notes. The exercise by the holders of Notes of their right to require the Company to repurchase the Notes upon a Change of Control or an Asset Sale could cause a default under these other agreements, even if the Change of Control or Asset Sale itself does not, due to the financial effect of such repurchases on the Company. In the event a Change of Control or Asset Sale occurs at a time when the Company is prohibited from purchasing Notes, the Company could seek the consent of its senior lenders to the purchase of Notes or could attempt to refinance the borrowings that contain such prohibition. If the Company does not obtain a consent or repay those borrowings, the Company will remain prohibited from purchasing Notes. In that case, the Company's failure to purchase tendered Notes would constitute an Event of Default under the Indenture which could, in turn, constitute a default under the other indebtedness. Finally, the Company's ability to pay cash to the holders of Notes upon a repurchase may be limited by the Company's then existing financial resources.

Selection and Notice

If less than all of the Notes are to be redeemed at any time, the Notes for redemption will be selected as follows:

(1) if the Notes are listed on a recognised securities exchange and/or are held through the clearing systems, in accordance with the procedures, as notified to it in writing by the Company, of the principal recognised securities exchange on which the Notes are listed or in accordance with the procedures of the clearing systems through which the Notes are held; or

(2) if the Notes are not listed on any recognised securities exchange and are not held through the clearing systems on a pro rata basis, by lot or by such method as the Trustee deems fair and appropriate in its sole and absolute discretion, unless otherwise required by law.

No Notes of US$200,000 or less can be redeemed in part. Notices of redemption will be mailed by first class mail at least 30 but not more than 60 days before the redemption date to each holder of Notes to be redeemed at its registered address, except that redemption notices may be mailed more than 60 days prior to a redemption date if the notice is issued in connection with a defeasance of the Notes or a satisfaction and discharge of the Indenture.

Any such redemption may, at the Company's discretion, be subject to one or more conditions precedent, including any related Equity Offering or a Change of Control. In addition, if such redemption is subject to the satisfaction of one or more conditions precedent, the related notice shall describe each such condition, and if applicable, shall state that, in the Company's discretion, the date of redemption may be delayed until such time as any or all such conditions shall be satisfied or waived (provided that in no event shall such date of redemption be delayed to a date later than 60 days after the date on which such notice was mailed), or such redemption may not occur and such notice may be rescinded in the event that any or all such conditions shall not have been satisfied or waived by the date of redemption, or by the date of redemption as so delayed.

If any Note is to be redeemed in part only, the notice of redemption that relates to that Note will state the portion of the principal amount of that Note that is to be redeemed. A new Note in principal amount equal to the unredeemed portion of the original Note will be issued in the name of the holder of Notes upon cancellation of the original Note. Subject to the provisions of the preceding paragraph, Notes called for redemption become due on the date fixed for redemption. On and after the redemption date, interest ceases to accrue on Notes or portions of Notes called for redemption.

Certain Covenants

Changes in Covenants When Notes Rated Investment Grade

If on any date following the date of the Indenture:

(1) the Notes are rated Investment Grade by at least two of Moody's, S&P and Fitch (or, if any such entity ceases to rate the Notes for reasons outside of the control of the Company, the equivalent investment grade credit rating from any other "nationally recognized statistical rating organization" registered under Section 15E of the Exchange Act selected by the Company as a replacement agency); and

(2) no Default or Event of Default shall have occurred and be continuing,

then, beginning on that day and subject to the provisions of the following paragraph, the covenants specifically listed under the following captions in this Offering Memorandum will be suspended:

(1) "—Repurchase at the Option of Holders—Asset Sales;"

(2) "—Restricted Payments;"

(3) "—Incurrence of Indebtedness and Issuance of Preferred Stock;"

(4) "—Dividend and Other Payment Restrictions Affecting Restricted Subsidiaries;"

(5) "—Designation of Restricted and Unrestricted Subsidiaries;"

(6) "—Transactions with Affiliates;" and

(7) clause (4)(b) of the covenant described below under the caption "—Merger, Consolidation or Sale of Assets."

(8) clauses (1)(a) and (3) of the covenant described below under the caption "—Limitation on Sale and Leaseback Transactions."

During any period that the foregoing covenants have been suspended, the Company's Board of Directors may not designate any of its Subsidiaries as Unrestricted Subsidiaries pursuant to the covenant described below under the caption "—Designation of Restricted and Unrestricted Subsidiaries" or the second paragraph of the definition of "Unrestricted Subsidiary."

Notwithstanding the foregoing, if on any subsequent date (the "*Reinstatement Date*"), the Notes cease to maintain Investment Grade ratings from at least two of Moody's, S&P and Fitch, the foregoing covenants will be reinstituted as of and from the date of such rating decline. Calculations under the reinstated "Restricted Payments" covenant will be made as if the "Restricted Payments" covenant had been in effect since the date of the indenture except that no default will be deemed to have occurred solely by reason of a Restricted Payment made while that covenant was suspended.

There can be no assurance that the Notes will ever achieve or maintain an Investment Grade rating.

Restricted Payments

The Company will not, and will not permit any of its Restricted Subsidiaries to, directly or indirectly:

(1) declare or pay any dividend or make any other payment or distribution on account of the Company's or any of its Restricted Subsidiaries' Equity Interests (including, without limitation, any payment in connection with any merger or consolidation involving the Company or any of its Restricted Subsidiaries) or to the direct or indirect holders of the Company's or any of its Restricted Subsidiaries' Equity Interests in their capacity as such (other than dividends or distributions payable in Equity Interests (other than Disqualified Stock) of the Company and other than dividends or distributions payable to the Company or a Restricted Subsidiary of the Company);

(2) purchase, redeem or otherwise acquire or retire for value (including, without limitation, in connection with any merger or consolidation involving the Company) any Equity Interests of the Company or any direct or indirect parent of the Company;

(3) make any payment on or with respect to, or purchase, redeem, defease or otherwise acquire or retire for value any Indebtedness of the Company or any Subsidiary Guarantor that is contractually subordinated to the Notes or to any Note Guarantee (excluding any intercompany Indebtedness between or among the Company and any of its Restricted Subsidiaries), except a payment of interest or principal at the Stated Maturity thereof; or

(4) make any Restricted Investment

(all such payments and other actions set forth in these clauses (1) through (4) above being collectively referred to as "*Restricted Payments*"), unless, at the time of and after giving effect to such Restricted Payment:

(a) no Default or Event of Default has occurred and is continuing or would occur as a consequence of such Restricted Payment;

(b) the Company would, at the time of such Restricted Payment and after giving pro forma effect thereto as if such Restricted Payment had been made at the beginning of the applicable four-quarter period, have been permitted to incur at least US$1.00 of additional Indebtedness pursuant to the Fixed Charge Coverage Ratio test set forth in the first paragraph of the covenant described below under the caption "—Incurrence of Indebtedness and Issuance of Preferred Stock;" and

(c) such Restricted Payment, together with the aggregate amount of all other Restricted Payments made by the Company and its Restricted Subsidiaries since the date of the Indenture (excluding Restricted Payments permitted by clauses (2) through (10) of the next succeeding paragraph), is less than the sum, without duplication, of:

(1) 50% of the aggregate amount of Consolidated Net Income of the Company for the period (taken as one accounting period) from July 1, 2017 to the end of the Company's most recently ended fiscal quarter for which internal financial statements are available at the time of such Restricted Payment (or, if such Consolidated Net Income for such period is a deficit, less 100% of such deficit); *plus*

(2) 100% of the aggregate net cash proceeds received by the Company since July 1, 2017 as a contribution to its common equity capital or from the issue or sale of Qualifying Equity Interests of the Company or from the issue or sale of convertible or exchangeable Disqualified Stock of the Company or convertible or exchangeable debt securities of the Company, in each case that have been converted into or exchanged for Qualifying Equity Interests of the Company (other than Qualifying Equity Interests and convertible or exchangeable Disqualified Stock or debt securities sold to a Subsidiary of the Company); *plus*

(3) to the extent that any Restricted Investment that was made after the date of the Indenture is (a) sold for cash or otherwise cancelled, liquidated or repaid for cash, or (b) made in an entity that subsequently becomes a Restricted Subsidiary of the Company that is a Subsidiary Guarantor, the initial amount of such Restricted Investment (or, if less, the amount of cash received upon repayment or sale); *plus*

(4) to the extent that any Unrestricted Subsidiary of the Company designated as such after the date of the Indenture is redesignated as a Restricted Subsidiary after the date of the Indenture, the lesser of (i) the Fair Market Value of the Company's Restricted Investment in such Subsidiary as of the date of such redesignation or (ii) such Fair Market Value as of the date on which such Subsidiary was originally designated as an Unrestricted Subsidiary on or after the date of the Indenture; *plus*

(5) 50% of any dividends received in cash by the Company or a Subsidiary Guarantor after the date of the Indenture from an Unrestricted Subsidiary of the Company, to the extent that such dividends were not otherwise included in the Consolidated Net Income of the Company for such period.

The preceding provisions will not prohibit:

(1) the payment of any dividend or the consummation of any irrevocable redemption within 90 days after the date of declaration of the dividend or giving of the redemption notice, as the case may be, if at the date of declaration or notice, the dividend or redemption payment would have complied with the provisions of the Indenture;

(2) the making of any Restricted Payment in exchange for, or out of or with the net cash proceeds of the substantially concurrent sale (other than to a Subsidiary of the Company) of, Equity Interests of the Company (other than Disqualified Stock) or from the substantially concurrent contribution of common equity capital to the Company; *provided* that the amount of any such net cash proceeds that are utilized for any such Restricted Payment will not be considered to be net proceeds of Qualifying Equity Interests for purposes of clause (c)(2) of the preceding paragraph and will not be considered to be net cash proceeds from an Equity Offering for purposes of the "Optional Redemption" provisions of the Indenture;

(3) (x) the payment of any dividend (or, in the case of any partnership or limited liability company, any similar distribution) by a Restricted Subsidiary of the Company to; or (y) the redemption, repurchase, defeasance or other acquisition by a Restricted Subsidiary of any Equity Interests from, the holders of its Equity Interests on a *pro rata* basis; and

(4) the repurchase, redemption, defeasance or other acquisition or retirement for value of Indebtedness of the Company or any Subsidiary Guarantor that is contractually subordinated to the Notes or to any Note Guarantee with the net cash proceeds from a substantially concurrent incurrence of Permitted Refinancing Indebtedness.

(5) so long as no Default or Event of Default has occurred and is continuing, the repurchase, redemption or other acquisition or retirement for value of any Equity Interests of the Company or any Restricted Subsidiary of the Company held by any current or former officer, director, commissioner or employee of the Company or any of its Restricted Subsidiaries pursuant to any equity subscription agreement, stock option agreement, shareholders' agreement or similar agreement, including agreements entered into subsequent to the date of the Indenture; provided that the aggregate price paid for all such repurchased, redeemed, acquired or retired Equity Interests since the date of the Indenture may not exceed US$2.5 million;

(6) the repurchase of Equity Interests deemed to occur upon the exercise of stock options to the extent such Equity Interests represent a portion of the exercise price of those stock options;

(7) so long as no Default or Event of Default has occurred and is continuing, the declaration and payment of regularly scheduled or accrued dividends to holders of any class or series of Disqualified Stock of the Company or any preferred stock of any Restricted Subsidiary of the Company issued on or after the date of the Indenture in accordance with the Fixed Charge Coverage Ratio test described below under the caption "— Incurrence of Indebtedness and Issuance of Preferred Stock;"

(8) payments of cash, dividends, distributions, advances or other Restricted Payments by the Company or any of its Restricted Subsidiaries to allow the payment of cash in lieu of the issuance of fractional shares upon (i) the exercise of options or warrants or (ii) the conversion or exchange of Capital Stock of any such Person;

(9) so long as no Default or Event of Default has occurred and is continuing, the payment, on or prior to December 31, 2017, by the Company to its public shareholders of dividends which were declared prior to the Original Issue Date; and

(10) so long as no Default or Event of Default has occurred and is continuing, other Restricted Payments in an aggregate amount not to exceed US$10 million since the date of the Indenture.

The amount of all Restricted Payments (other than cash) will be the Fair Market Value on the date of the Restricted Payment of the asset(s) or securities proposed to be transferred or issued by the Company or such Restricted Subsidiary, as the case may be, pursuant to the Restricted Payment. The Fair Market Value of any assets or securities that are required to be valued by this covenant will be determined by the Board of Directors of the Company whose resolution with respect thereto will be delivered to the Trustee. The Board of Directors' determination must be based upon an opinion or appraisal issued by an accounting, appraisal or investment banking firm of international standing if the Fair Market Value exceeds US$10 million (or the Dollar Equivalent thereof).

Incurrence of Indebtedness and Issuance of Preferred Stock

The Company will not, and will not permit any of its Restricted Subsidiaries to, directly or indirectly, create, incur, issue, assume, guarantee or otherwise become directly or indirectly liable, contingently or otherwise, with respect to (collectively, "*incur*") any Indebtedness (including Acquired Debt), and the Company will not issue any Disqualified Stock and will not permit any of its Restricted Subsidiaries to issue any shares of preferred stock; *provided, however*, that the Company may incur Indebtedness (including Acquired Debt) or issue Disqualified Stock, and the Subsidiary Guarantors may incur Indebtedness (including Acquired Debt) or issue preferred stock, if the Fixed Charge Coverage Ratio for the Company's most recently ended four full fiscal quarters for which internal financial statements are available immediately preceding the date on which such additional

Indebtedness is incurred or such Disqualified Stock or such preferred stock is issued, as the case may be, would have been at least 2.5 to 1.0, determined on a pro forma basis (including a pro forma application of the net proceeds therefrom), as if the additional Indebtedness had been incurred or the Disqualified Stock or the preferred stock had been issued, as the case may be, at the beginning of such four-quarter period.

The first paragraph of this covenant will not prohibit the incurrence of any of the following items of Indebtedness (collectively, "*Permitted Debt*"):

(1) the incurrence by the Company and the Restricted Subsidiaries of the Indebtedness outstanding under the Senior Secured Facilities as at the Original Issue Date,

(2) the incurrence by the Company and the Subsidiary Guarantors of Indebtedness represented by the Notes and the related Note Guarantees to be issued on the date of the Indenture;

(3) the incurrence by the Company and the Subsidiary Guarantors of Indebtedness incurred under Credit Facilities; *provided that* the aggregate principal amount outstanding at any time does not exceed 10% of Total Assets;

(4) the incurrence by the Company or any of the Restricted Subsidiaries of Indebtedness represented by Capital Lease Obligations, mortgage financings or purchase money obligations, in each case, incurred for the purpose of financing all or any part of the purchase price or cost of design, construction, installation or improvement of property (real or personal) (including the lease purchase price of land use rights), plant or equipment (including through the acquisition of Equity Interests of any Person that owns property, plant or equipment which will, upon such acquisition, become a Restricted Subsidiary) used in the business of the Company or any of the Restricted Subsidiaries; *provided*, that the aggregate principal amount of such Indebtedness, including all Permitted Refinancing Indebtedness incurred to renew, refund, refinance, replace, defease or discharge any Indebtedness incurred pursuant to this clause (4), shall not exceed 5% of Total Assets;

(5) the incurrence by the Company or any of its Restricted Subsidiaries of:

(a) Permitted Refinancing Indebtedness in exchange for, or the net proceeds of which are used to renew, refund, refinance, replace, defease or discharge any Indebtedness (other than intercompany Indebtedness) that was permitted by the Indenture to be incurred under the first paragraph of this covenant or clauses (1), (2), (4), (5) or (15) of this paragraph; or

(b) Indebtedness incurred to renew, refund, refinance, replace, defease or discharge the Senior Secured Facilities, provided that (i) such new Indebtedness meets all of the requirements set out in paragraphs (2) through (5) of the definition of "Permitted Refinancing Indebtedness," (ii) the aggregate principal amount of all Indebtedness incurred under this subclause does not exceed the Dollar Equivalent (calculated as at the Original Issue Date) of (x) the original principal amount of the Senior Secured Facilities less (y) any Permitted Refinancing Indebtedness incurred in respect of the Senior Secured Facilities pursuant to clause (a) above and (iii) if the principal amount of such Indebtedness exceeds the principal amount of the Indebtedness renewed, refunded, refinanced, replaced, defeased or discharged, the Company or its Restricted Subsidiaries is able to incur such additional Indebtedness pursuant to the Fixed Charge Coverage Ratio test set forth in the first paragraph of this covenant;

(6) the incurrence by the Company or any of its Restricted Subsidiaries of intercompany Indebtedness between or among the Company and any of its Restricted Subsidiaries; *provided, however*, that:

(a) if the Company or any Subsidiary Guarantor is the obligor on such Indebtedness and the payee is not the Company or a Subsidiary Guarantor, such Indebtedness must (i) be unsecured, (ii) be expressly subordinated to the prior payment in full in cash of all Obligations then due with respect to the Notes; and

(b) (i) any subsequent issuance or transfer of Equity Interests that results in any such Indebtedness being held by a Person other than the Company or a Restricted Subsidiary of the Company and (ii) any sale or other transfer of any such Indebtedness to a Person that is not either the Company or a Restricted Subsidiary of the Company,

will be deemed, in each case, to constitute an incurrence of such Indebtedness by the Company or such Restricted Subsidiary, as the case may be, that was not permitted by this clause (6);

(7) the issuance by any of the Company's Restricted Subsidiaries to the Company or to any of its Restricted Subsidiaries of shares of preferred stock; *provided, however,* that:

(a) any subsequent issuance or transfer of Equity Interests that results in any such preferred stock being held by a Person other than the Company or a Restricted Subsidiary of the Company; and

(b) any sale or other transfer of any such preferred stock to a Person that is not either the Company or a Restricted Subsidiary of the Company,

will be deemed, in each case, to constitute an issuance of such preferred stock by such Restricted Subsidiary that was not permitted by this clause (7);

(8) the incurrence by the Company or any of its Restricted Subsidiaries of Hedging Obligations in the ordinary course of business and not for speculative purposes and designed solely to protect the Company or any Restricted Subsidiary against fluctuations in commodity prices, interest rates or foreign currency exchange rates;

(9) the guarantee by the Company or any of the Subsidiary Guarantors of Indebtedness of the Company or a Restricted Subsidiary to the extent that the guaranteed Indebtedness was permitted to be incurred by another provision of this covenant; *provided* that if the Indebtedness being guaranteed is subordinated to or *pari passu* with the Notes, then the Guarantee must be subordinated or *pari passu*, as applicable, to the same extent as the Indebtedness guaranteed;

(10) the incurrence by the Company or any of its Restricted Subsidiaries of Indebtedness in respect of workers' compensation claims, self-insurance obligations, bankers' acceptances, bid, performance and surety bonds in the ordinary course of business;

(11) the incurrence by the Company or any of its Restricted Subsidiaries of Indebtedness arising from the honoring by a bank or other financial institution of a check, draft or similar instrument inadvertently drawn against insufficient funds, so long as such Indebtedness is covered within five Business Days;

(12) the incurrence by the Company or any of its Restricted Subsidiaries of Indebtedness arising from agreements providing for indemnification, adjustment of purchase price, earnouts or similar obligations of the Company or any of its Restricted Subsidiaries incurred in connection with the disposition of any business, assets or Subsidiary of the Company; provided that such Indebtedness is not reflected on the balance sheet of the Company or any Restricted Subsidiary and that the maximum liability in respect of all such Indebtedness shall not exceed the gross proceeds actually received by the Company or any Restricted Subsidiary in connection with such disposition;

(13) the incurrence by the Company or any of its Restricted Subsidiaries of Indebtedness constituting reimbursement obligations with respect to letters of credit, trade guarantees or similar instruments issued in the ordinary course of business to the extent that such letters of credit or trade guarantees are not drawn upon or, if drawn upon, to the extent such drawing is reimbursed no later than 90 days following receipt by the Company or such Restricted Subsidiary of a demand for reimbursement;

(14) the incurrence by the Company or any of its Restricted Subsidiaries of Indebtedness used for working capital purposes with a maturity of one year or less;

(15) the incurrence by the Company or the Subsidiary Guarantors of additional Indebtedness in an aggregate principal amount (or accreted value, as applicable) at any one time outstanding, including all Permitted Refinancing Indebtedness incurred to renew, refund, refinance, replace, defease or discharge any Indebtedness incurred pursuant to this clause (15), not to exceed US$50 million (or the Dollar Equivalent thereof); and

(16) Indebtedness incurred by the Company or the Subsidiary Guarantors constituting a guarantee of Indebtedness of CAP2 or any other Person engaged in the development, construction or operation of the New Petrochemical Complex (the "*CAP2 Guarantee*"), provided that (a) such Indebtedness is incurred on or after the date of the Final Investment Decision, (b) the principal amount of such Indebtedness does not exceed 65% of the aggregate project costs of the New Petrochemical Complex detailed in the Final Investment Decision, (c) the Company or such Subsidiary Guarantor would have been able to incur such Indebtedness under the first paragraph of this covenant as at the date of the Officer's Certificate delivered by the Company in respect of the Final Investment Decision and (d) the aggregate principal amount and interest rate applicable to such Indebtedness (when incurred) does not exceed the principal amount and interest rate contemplated for such Indebtedness in the Final Investment Decision.

If the Company intends to incur the CAP2 Guarantee, it shall deliver to the Trustee an Officer's Certificate notifying the Trustee that it intends to incur the CAP2 Guarantee. Such Officer's Certificate shall include the corresponding pro forma calculations of the Fixed Charge Coverage Ratio in reasonable detail, using the principal amount and maximum interest rate which have been contemplated for such Indebtedness in the Final Investment Decision. The Company shall give pro forma effect to such proposed incurrence in calculating the Fixed Charge Coverage Ratio from the date of the Final Investment Decision until (a) the actual incurrence of the CAP2 Guarantee (at which point the Company may adjust any subsequent calculations of the Fixed Charge Coverage Ratio to reflect the actual aggregate maximum principal amount and Fixed Charges associated with the CAP2 Guarantee) or (b) the Company shall have delivered to Trustee a notification that it no longer intends to incur the CAP2 Guarantee (whereupon it shall no longer be required to take into account the underlying Indebtedness for the CAP2 Guarantee in calculating the Fixed Charge Coverage Ratio). In the event of (b), the Company will not be permitted to incur the CAP2 Guarantee pursuant to Section (16).

The Company will not incur, and will not permit any Subsidiary Guarantor to incur, any Indebtedness (including Permitted Debt) that is contractually subordinated in right of payment to any other Indebtedness of the Company or such Subsidiary Guarantor unless such Indebtedness is also contractually subordinated in right of payment to the Notes and the applicable Note Guarantee on substantially identical terms; *provided, however*, that no Indebtedness will be deemed to be contractually subordinated in right of payment to any other Indebtedness of the Company solely by virtue of being unsecured or by virtue of being secured on a junior priority basis.

For purposes of determining compliance with this "Incurrence of Indebtedness and Issuance of Preferred Stock" covenant, in the event that an item of Indebtedness meets the criteria of more than one of the categories of Permitted Debt described in clauses (1) through (15) above, or is entitled to be incurred pursuant to the first paragraph of this covenant, the Company will be permitted to classify such item of Indebtedness on the date of its incurrence, or later reclassify all or a portion of such item of Indebtedness, in any manner that complies with this covenant. The accrual of interest or preferred stock dividends, the accretion or amortization of original issue discount, the payment of interest on any Indebtedness in the form of additional Indebtedness with the same terms, the reclassification of preferred stock as Indebtedness due to a change in accounting principles, and the payment of dividends on preferred stock or Disqualified Stock in the form of additional shares of the same class of preferred stock or Disqualified Stock will not be deemed to be an incurrence of Indebtedness or an issuance of preferred stock or Disqualified Stock for purposes of this covenant; *provided*, in each such case, that the amount thereof is included in Fixed Charges of the Company as accrued. For purposes of determining compliance with any U.S. dollar-denominated restriction on the incurrence of Indebtedness, the Dollar Equivalent principal amount of Indebtedness denominated in a foreign currency shall be utilized, calculated based on the relevant currency exchange rate in effect on the date such Indebtedness was incurred. Notwithstanding any other provision of this covenant, the maximum amount of Indebtedness that the Company or any Restricted Subsidiary may incur pursuant to this covenant shall not be deemed to be exceeded solely as a result of fluctuations in exchange rates or currency values.

The amount of any Indebtedness outstanding as of any date will be:

(1) the accreted value of the Indebtedness, in the case of any Indebtedness issued with original issue discount;

(2) the principal amount of the Indebtedness, in the case of any other Indebtedness; and

(3) in respect of Indebtedness of another Person secured by a Lien on the assets of the specified Person, the lesser of:

    (a) the Fair Market Value of such assets at the date of determination; and

    (b) the amount of the Indebtedness of the other Person.

Liens

The Company will not, and will not permit any of its Restricted Subsidiaries to create, incur or assume or otherwise cause or suffer to exist or become effective any Lien of any kind (other than Permitted Liens) securing Indebtedness, Attributable Debt or trade payables upon any of their property or assets now owned or hereafter acquired unless all payments due under the Notes or any Note Guarantee, as applicable, are secured on an equal and ratable basis with (or on a senior basis to, in the case of obligations subordinated in right of payment to the Notes or such Note Guarantee, as the case may be) the obligations so secured until such time as such obligations are no longer secured by a Lien.

Limitation on Sale and Leaseback Transactions

The Company will not, and will not permit any of its Restricted Subsidiaries to enter into any sale and leaseback transaction; *provided* that the Company or any Subsidiary Guarantor may enter into a sale and leaseback transaction if:

(1) the Company or that Subsidiary Guarantor, as applicable, could have (a) incurred Indebtedness in an amount equal to the Attributable Debt relating to such sale and leaseback transaction under the Fixed Charge Coverage Ratio test in the first paragraph of the covenant described above under the caption "—Incurrence of Indebtedness and Issuance of Preferred Stock" and (b) incurred a Lien to secure such Indebtedness pursuant to the covenant described above under the caption "—Liens;"

(2) the gross cash proceeds of that sale and leaseback transaction are at least equal to the Fair Market Value, as determined in good faith by the Board of Directors of the Company and set forth in an Officers' Certificate delivered to the Trustee, of the property that is the subject of that sale and leaseback transaction; and

(3) the transfer of assets in that sale and leaseback transaction is permitted by, and the Company applies the proceeds of such transaction in compliance with, the covenant described above under the caption "—Repurchase at the Option of Holders—Asset Sales."

Dividend and Other Payment Restrictions Affecting Restricted Subsidiaries

The Company will not, and will not permit any of its Restricted Subsidiaries to, directly or indirectly, create or permit to exist or become effective any consensual encumbrance or restriction on the ability of any Restricted Subsidiary to:

(1) pay dividends or make any other distributions on its Capital Stock to the Company or any of its Restricted Subsidiaries, or with respect to any other interest or participation in, or measured by, its profits, or pay any indebtedness owed to the Company or any of its Restricted Subsidiaries;

(2) make loans or advances to the Company or any of its Restricted Subsidiaries; or

(3) sell, lease or transfer any of its properties or assets to the Company or any of its Restricted Subsidiaries.

However, the preceding restrictions will not apply to encumbrances or restrictions existing under or by reason of:

(1) agreements as in effect on the date of the Indenture and any amendments, restatements, modifications, renewals, supplements, refundings, replacements or refinancings of those agreements permitted under the Indenture; *provided* that the amendments, restatements, modifications, renewals, supplements, refundings, replacements or refinancings are not materially more restrictive, taken as a whole, with respect to such dividend and other payment restrictions than those contained in those agreements on the date of the Indenture;

(2) the Indenture, the Notes and the Note Guarantees;

(3) agreements governing other Indebtedness permitted to be incurred under the provisions of the covenant described above under the caption "—Incurrence of Indebtedness and Issuance of Preferred Stock" and any amendments, restatements, modifications, renewals, supplements, refundings, replacements or refinancings of those agreements; *provided* that the restrictions therein are not materially more restrictive, taken as a whole, than those contained in the Indenture, the Notes and the Note Guarantees;

(4) applicable law, rule, regulation or order;

(5) any instrument governing Indebtedness or Capital Stock of a Person acquired by the Company or any of its Restricted Subsidiaries as in effect at the time of such acquisition (except to the extent such Indebtedness or Capital Stock was incurred in connection with or in contemplation of such acquisition), which encumbrance or restriction is not applicable to any Person, or the properties or assets of any Person, other than the Person, or the property or assets of the Person, so acquired; *provided* that, in the case of Indebtedness, such Indebtedness was permitted by the terms of the Indenture to be incurred;

(6) customary non-assignment provisions in contracts and licenses entered into in the ordinary course of business;

(7) purchase money obligations for property acquired in the ordinary course of business and Capital Lease Obligations that impose restrictions on the property purchased or leased of the nature described in clause (3) of the preceding paragraph;

(8) any agreement for the sale or other disposition of a Restricted Subsidiary that restricts distributions by that Restricted Subsidiary pending its sale or other disposition;

(9) Permitted Refinancing Indebtedness; *provided*, that the restrictions contained in the agreements governing such Permitted Refinancing Indebtedness are not materially more restrictive, taken as a whole, than those contained in the agreements governing the Indebtedness being refinanced;

(10) Liens permitted to be incurred under the provisions of the covenant described above under the caption "—Liens" that limit the right of the debtor to dispose of the assets subject to such Liens;

(11) provisions limiting the disposition or distribution of assets or property in joint venture agreements, asset sale agreements, sale-leaseback agreements, stock sale agreements and other similar agreements (including agreements entered into in connection with a Restricted Investment) entered into with the approval of the Company's Board of Directors, which limitation is applicable only to the assets that are the subject of such agreements; and

(12) restrictions on cash or other deposits or net worth imposed by customers under contracts entered into in the ordinary course of business.

Merger, Consolidation or Sale of Assets

The Company will not, directly or indirectly: (1) consolidate or merge with or into another Person (whether or not the Company is the surviving corporation), or (2) sell, assign, transfer, convey or otherwise dispose of all or substantially all of the properties or assets of the Company and its Restricted Subsidiaries taken as a whole, in one or more related transactions, to another Person, unless:

(1) either: (a) the Company is the surviving corporation; or (b) the Person formed by or surviving any such consolidation or merger (if other than the Company) or to which such sale, assignment, transfer, conveyance or other disposition has been made is an entity organized and existing under the laws of Indonesia;

(2) the Person formed by or surviving any such consolidation or merger (if other than the Company) or the Person to which such sale, assignment, transfer, conveyance or other disposition has been made expressly assumes all the obligations of the Company under the Notes and the Indenture;

(3) immediately after giving effect to such transaction, no Default or Event of Default exists; and

(4) the Company or the Person formed by or surviving any such consolidation or merger (if other than the Company), or to which such sale, assignment, transfer, conveyance or other disposition has been made:

(a) would have Consolidated Net Worth immediately after the transaction equal to or greater than the Consolidated Net Worth of the Company immediately preceding the transaction; and

(b) would, on the date of such transaction after giving pro forma effect thereto and any related financing transactions as if the same had occurred at the beginning of the applicable four-quarter period (i) be permitted to incur at least US$1.00 of additional Indebtedness pursuant to the Fixed Charge Coverage Ratio test set forth in the first paragraph of the covenant described above under the caption "—Incurrence of Indebtedness and Issuance of Preferred Stock" or (ii) have had a Fixed Charge Coverage Ratio greater than the actual Fixed Charge Coverage Ratio for the Company for such four-quarter period.

In addition, the Company will not, directly or indirectly, lease all or substantially all of the properties and assets of it and its Restricted Subsidiaries taken as a whole, in one or more related transactions, to any other Person.

This "Merger, Consolidation or Sale of Assets" covenant will not apply to any sale, assignment, transfer, conveyance, lease or other disposition of assets between or among the Company and its Restricted Subsidiaries. Clauses (3) and (4) of the first paragraph of this covenant will not apply to any merger or consolidation of the Company with or into one of its Restricted Subsidiaries for any purpose.

Transactions with Affiliates

The Company will not, and will not permit any of its Restricted Subsidiaries to make any payment to or sell, lease, transfer or otherwise dispose of any of its properties or assets to, or purchase any property or assets from, or enter into or make or amend any transaction, contract, agreement, understanding, loan, advance or guarantee with, or for the benefit of, any Affiliate of the Company (each, an "*Affiliate Transaction*") involving aggregate payments or consideration in excess of US$1 million, unless:

(1) the Affiliate Transaction is on terms that are no less favorable to the Company or the relevant Restricted Subsidiary than those that would have been obtained in a comparable transaction by the Company or such Restricted Subsidiary with an unrelated Person; and

(2) the Company delivers to the Trustee:

(a) with respect to any Affiliate Transaction or series of related Affiliate Transactions involving aggregate consideration in excess of US$10 million (or the Dollar Equivalent thereof), a resolution of the Board of Commissioners of the Company and a resolution of the Board of Directors of the Company set forth in an Officers' Certificate certifying that such Affiliate Transaction complies with this covenant and that such Affiliate Transaction has been approved by (i) a majority of the disinterested members of the Board of Commissioners of the Company and (ii) a majority of the disinterested members of the Board of Directors of the Company; and

(b) with respect to any Affiliate Transaction or series of related Affiliate Transactions involving aggregate consideration in excess of US$15 million (or the Dollar Equivalent thereof), an opinion as to the fairness to the Company or such Subsidiary of such Affiliate Transaction from a financial point of view issued by an accounting, appraisal or investment banking firm of international standing with experience in the Indonesian market.

The following items will not be deemed to be Affiliate Transactions and, therefore, will not be subject to the provisions of the prior paragraph:

(1) any employment agreement, employee benefit plan, commissioner, director or officer indemnification agreement or any similar arrangement entered into by the Company or any of its Restricted Subsidiaries in the ordinary course of business and payments pursuant thereto;

(2) transactions between or among the Company and/or its Restricted Subsidiaries;

(3) transactions in the ordinary course of business with a Person (other than an Unrestricted Subsidiary of the Company) that is an Affiliate of the Company solely because the Company owns, directly or through a Restricted Subsidiary, an Equity Interest in, or controls, such Person;

(4) payment of reasonable and customary fees and reimbursements of expenses (pursuant to indemnity arrangements or otherwise) of commissioners, directors, officers, employees or consultants of the Company or any of its Restricted Subsidiaries; *provided*, that the aggregate amount of all such payments and reimbursements may not exceed US$2.5 million (or the Dollar Equivalent thereof) in any twelve-month period;

(5) any issuance of Equity Interests (other than Disqualified Stock) of the Company to Affiliates of the Company;

(6) Restricted Payments that do not violate the provisions of the Indenture described above under the caption "—Restricted Payments;"

(7) transactions pursuant to any agreement or arrangement of the Company or any Restricted Subsidiary which is in effect as of the date of the Indenture and disclosed in this Offering Memorandum, or any amendment thereto or any replacement thereof, so long as any such amendment or replacement agreement or arrangement, taken as a whole, is not less favorable to the Company or such Restricted Subsidiary than the original agreement or arrangement as in effect on the date of the Indenture; and

(8) payments to an Affiliate in respect of the Notes or any other Indebtedness of the Company or any Restricted Subsidiary on the same basis as concurrent payments made or offered to be made in respect thereof to non-Affiliates; and

(9) any agreement between any Person (other than a Person that is an Affiliate of the Company or acquired from an Affiliate of the Company) that is acquired by or merged with the Company or any of its Restricted Subsidiaries and an Affiliate of the Company existing at the time of such acquisition or merger; *provided* such agreement was not entered into in contemplation of such acquisition or merger.

Limitation on Sales and Issuances of Capital Stock in Restricted Subsidiaries

The Company will not sell, and will not permit any Restricted Subsidiary, directly or indirectly, to issue or sell, any shares of Capital Stock of a Restricted Subsidiary (including options, warrants or other rights to purchase shares of such Capital Stock) except:

(1) to the Company or a Restricted Subsidiary;

(2) to the extent such Capital Stock represents director's qualifying shares or is required by applicable law to be held by a Person other than the Company or a Restricted Subsidiary;

(3) the issuance or sale of Capital Stock of a Restricted Subsidiary if, immediately after giving effect to such issuance or sale, such Restricted Subsidiary would no longer constitute a Restricted Subsidiary and any remaining Investment in such Person would have been permitted to be made under the caption "—Restricted Payments" if made on the date of such issuance or sale; or

(4) the issuance or sale of Capital Stock of a Restricted Subsidiary (which remains a Restricted Subsidiary after any such issuance or sale); provided that the Company or such Restricted Subsidiary applies the net cash proceeds in compliance with the covenant described above under the caption "—Repurchase at the Option of Holders—Asset Sales".

Business Activities

The Company will not, and will not permit any of its Restricted Subsidiaries to, directly or indirectly, engage in any business other than Permitted Businesses.

Additional Note Guarantees

If the Company or any of its Restricted Subsidiaries acquires or creates another Restricted Subsidiary after the date of the Indenture, then that newly acquired or created Restricted Subsidiary will become a Subsidiary Guarantor and execute a supplemental Indenture and (in the case of a Restricted Subsidiary established under the laws of Indonesia) an Indonesian Law Note Guarantee, and deliver an Opinion of Counsel satisfactory to the Trustee within 10 Business Days of the date on which it was acquired or created; *provided* that any such newly acquired or created Restricted Subsidiary that constitutes an Immaterial Subsidiary need not become a Subsidiary Guarantor until such time as it ceases to be an Immaterial Subsidiary.

Designation of Restricted and Unrestricted Subsidiaries

The Board of Directors of the Company may designate any Restricted Subsidiary to be an Unrestricted Subsidiary if that designation would not cause a Default; *provided*, that in no event will the businesses currently operated by the Company and the Restricted Subsidiaries on the date of the Indenture be transferred to or held by an Unrestricted Subsidiary. If a Restricted Subsidiary is designated as an Unrestricted Subsidiary, the aggregate Fair Market Value of all outstanding Investments owned by the Company and its Restricted Subsidiaries in the Subsidiary designated as an Unrestricted Subsidiary will be deemed to be an Investment made as of the time of the designation and will reduce the amount available for Restricted Payments under the covenant described above under the caption "—Restricted Payments" or under one or more clauses of the definition of Permitted Investments, as determined by the Company. That designation will only be permitted if the Investment would be permitted at that time and if the Restricted Subsidiary otherwise meets the definition of an Unrestricted Subsidiary. The Board of Directors of the Company may redesignate any Unrestricted Subsidiary to be a Restricted Subsidiary if that redesignation would not cause a Default.

Any designation of a Subsidiary of the Company as an Unrestricted Subsidiary will be evidenced to the Trustee by filing with the Trustee a certified copy of a resolution of the Board of Directors giving effect to such designation and an Officers' Certificate certifying that such designation complied with the preceding conditions and was permitted by the covenant described above under the caption "—Restricted Payments." If, at any time, any Unrestricted Subsidiary would fail to meet the preceding requirements as an Unrestricted Subsidiary, it will thereafter cease to be an Unrestricted Subsidiary for purposes of the Indenture and any Indebtedness of such Subsidiary will be deemed to be incurred by a Restricted Subsidiary of the Company as of such date and, if such Indebtedness is not permitted to be incurred as of such date under the covenant described under the caption "—Incurrence of Indebtedness and Issuance of Preferred Stock," the Company will be in default of such covenant. The Board of Directors of the Company may at any time designate any Unrestricted Subsidiary to be a Restricted Subsidiary of the Company; *provided* that such designation will be deemed to be an incurrence of Indebtedness by a Restricted Subsidiary of the Company of any outstanding Indebtedness of such Unrestricted Subsidiary, and such designation will only be permitted if (1) such Indebtedness is permitted under the covenant described under the caption "—Incurrence of Indebtedness and Issuance of Preferred Stock," calculated on a pro forma basis as if such designation had occurred at the beginning of the applicable reference period; and (2) no Default or Event of Default would be in existence following such designation.

Government Approvals and Licenses; Compliance with Law

The Company will, and will cause each of its Restricted Subsidiaries to (1) obtain and maintain in full force and effect all governmental approvals, authorizations, consents, permits, concessions and licenses as are necessary to engage in the Permitted Businesses, (2) preserve and maintain good and valid title to its properties and assets free and clear of any Liens other than Permitted Liens, and (3) comply with all laws, regulations, orders, judgments and decrees of any governmental body, except to the extent that failure so to obtain, maintain, preserve and comply would not reasonably be expected to have a material adverse effect on (a) the business, results of operations or prospects of the Company and its Restricted Subsidiaries, taken as a whole, or (b) the ability of the Company and the Subsidiary Guarantors to perform their respective obligations under the Notes, the Note Guarantees or the Indenture.

Use of Proceeds

The Company will not, and will cause its Restricted Subsidiaries not to, use the net proceeds from the sale of the Notes originally issued and sold on the date of the Indenture in any amount or for any purpose other than (a) in the approximate amounts and for the purposes specified under the caption "Use of Proceeds" in this Offering Memorandum and (b) pending application of all of such net proceeds in such manner, to invest the portion of such net proceeds not yet so applied in Temporary Cash Investments.

Payments for Consent

The Company will not, and will not permit any of its Restricted Subsidiaries to, directly or indirectly, pay or cause to be paid any consideration to or for the benefit of any holder of Notes for or as an inducement to any consent, waiver or amendment of any of the terms or provisions of the Indenture or the Notes unless such consideration is offered to be paid and is paid to all holders of the Notes that consent, waive or agree to amend in the time frame set forth in the solicitation documents relating to such consent, waiver or agreement. Notwithstanding the foregoing, any payment of consideration for, or as an inducement to, any such consent, waiver or amendment in connection with an exchange offer may exclude (i) holders or beneficial owners of the Notes that are not "qualified institutional buyers" as defined in Rule 144A under the Securities Act and (ii) holders or beneficial owners of the Notes in any jurisdiction (other than the United States) where (a) the inclusion of such holders or beneficial owners would require the Company or any such Restricted Subsidiary to comply with the registration requirements or other similar requirements under any securities laws of such jurisdiction, (b) subject the Company to taxation in any such jurisdiction if it is not otherwise so subject or (c) the solicitation of such consent, waiver or amendment from, or the granting of such consent or waiver, or the approval of such amendment by, holders or beneficial owners in such jurisdiction would be unlawful, in each case as determined by the Company in its sole discretion.

Listing of the Notes

Approval in-principle has been received for the listing and quotation of the Notes on the Official List of the SGX-ST. The Notes will trade on the SGX-ST in a minimum board lot size of not less than US$200,000 as long as the Notes are listed on the SGX-ST and the rules of the SGX-ST so require. The SGX-ST assumes no responsibility for the correctness of any of the statements made or opinions or information contained in this Offering Memorandum. Admission of the Notes to and quotation of the Notes on the Official List of the SGX-ST are not to be taken as an indication of the merits of the offering, the Company, its Subsidiaries or associated companies (if any) or the Notes.

As long as the Notes are listed on the SGX-ST and the rules of the SGX-ST so require, the Company will appoint and maintain a paying agent in Singapore, where holders may present the Notes for payment or redemption if any Global Note is exchanged for Notes in definitive form. If any Global Note is exchanged for Notes in definitive form, the SGX-ST will announce the exchange on behalf of the Company. The announcement will include all material information with respect to the delivery of the Notes in definitive form, including details of the paying agent in Singapore, as long as the Notes are listed on the SGX-ST and the rules of the SGX-ST so require.

The Company will use its commercially reasonable efforts to maintain the listing of the Notes on the Official List of the SGX-ST as long as the Notes are outstanding. If at any time the Company determine that it will not maintain such listing, it will obtain prior to the delisting of the Notes from the Official List of the SGX-ST, and thereafter use its best efforts to maintain, a listing of the Notes on another internationally recognized stock exchange.

Reports

So long as any Notes are outstanding, the Company will furnish to the Trustee and, upon their request, Noteholders, as soon as they are available but in any event not more than five business days after they are filed with the Indonesian Financial Services Authority or the Indonesian Stock Exchange (or any other recognized exchange on which the Company's shares are at any time listed for trading), true and correct copies (in the English language) of any financial or other report or document filed with such agency or exchange and, if necessary; provided that if at any time the shares of the Company cease to be listed for trading on a recognized stock exchange, the Company will furnish to the Trustee and the Noteholders:

(1) as soon as they are available, but in any event within 120 days after the end of each fiscal year of the Company, a copy of the Company's consolidated financial statements in respect of such fiscal year (including an income statement, balance sheet and cash flow statement and complete footnotes to such financial statements in the English language) prepared in accordance with GAAP and audited by a member firm of an internationally recognized firm of independent accountants and including the audit report prepared by such firm in relation to such audited financial statements;

(2) as soon as they are available, but in any event within 45 days after the end of the first, second and third fiscal quarter of each fiscal year of the Company, a copy of the Company's consolidated financial statements (including an income statement, balance sheet and cash flow statement and complete footnotes to such financial statements in the English language) prepared on a basis consistent with the audited consolidated financial statements of the Company, together with an Officers' Certificate to the effect that such financial statements present fairly in all material respects the financial results of the Company for such fiscal quarter;

At any time that any of the Company's Subsidiaries are Unrestricted Subsidiaries, then the quarterly and annual reports required by the preceding paragraph will include a reasonably detailed presentation, either on the face of the financial statements or in the footnotes thereto, and in the "Management's Discussion and Analysis of Financial Condition and Results of Operations" or another comparable section, of the financial condition and results of operations of the Company and its Restricted Subsidiaries separate from the financial condition and results of operations of the Unrestricted Subsidiaries of the Company.

In addition, so long as any of the Notes remain outstanding, the Company will provide to the Trustee:

(1) within 120 days after the end of each fiscal year, an Officers' Certificate stating (A) the Fixed Charge Coverage Ratio with respect to the four most recent fiscal quarters and showing in reasonable detail the calculation of the Fixed Charge Coverage Ratio, including the arithmetic computations of each component of the Fixed Charge Coverage Ratio, with a certificate from the Company's external auditors verifying the accuracy and correctness of the calculation, and (B) that a review has been conducted of the activities of the Company and its Restricted Subsidiaries and their performance under the Indenture, the Notes and the Note Guarantees, and that the Company and the Subsidiary Guarantors have fulfilled all obligations thereunder or, if there has been a default in the fulfillment of any such obligation, specifying each such default and the nature and status thereof; and

(2) as soon as possible and in any event within 30 days after the Company becomes aware or should reasonably become aware of the occurrence of a Default (and also within 14 days of any request in writing by the Trustee), an officer's certificate setting forth the details of the Default, and the action which the Company proposes to take with respect thereto.

In addition, the Company has agreed that, during any period in which the Company is neither subject to Section 13 or 15(d) of the Exchange Act nor exempt from reporting pursuant to Rule 12g3-2(b) thereunder, the Company will supply to (i) any holder or beneficial owner of a Note or (ii) a prospective purchaser of a Note or a beneficial interest therein designated by such holder or beneficial owner, the information specified in, and meeting the requirements of Rule 144A(d)(4) under the Securities Act upon the request of any holder or beneficial owner of a Note.

No Registration Rights

The Company does not intend to file a registration statement for the public resale of the Notes or for a registered exchange offer with respect to the Notes. Accordingly, holders of Notes may only resell their Notes pursuant to an exemption from the registration requirements of the Securities Act. See "Transfer Restrictions."

Events of Default and Remedies

Each of the following is an "*Event of Default*":

(1) default for 30 days in the payment when due of interest, if any, on the Notes;

(2) default in the payment when due (at maturity, upon redemption or otherwise) of the principal of, or premium, if any, on, the Notes;

(3) failure by the Company or any of its Restricted Subsidiaries to comply with the provisions described under the captions "—Repurchase at the Option of Holders—Change of Control," "—Repurchase at the Option of Holders—Asset Sales," "—Certain Covenants—Restricted Payments," "—Certain Covenants—Incurrence of Indebtedness and Issuance of Preferred Stock" or "—Certain Covenants—Merger, Consolidation or Sale of Assets;"

(4) failure by the Company or any of its Restricted Subsidiaries for 60 days after notice to the Company by the Trustee or the holders of at least 25% in aggregate principal amount of the Notes then outstanding voting as a single class to comply with any of the other agreements in the Indenture;

(5) default under any mortgage, indenture or instrument under which there may be issued or by which there may be secured or evidenced any Indebtedness for money borrowed by, or Hedging Obligations of, the Company or any of its Restricted Subsidiaries (or the payment of which is guaranteed by the Company or any of its Restricted Subsidiaries), whether such Indebtedness or Guarantee now exists, or is created after the date of the Indenture, if that default:

(a) is caused by a failure to pay principal of, premium on, if any, or interest, if any, on, such Indebtedness or, in the case of Hedging Obligations, any payment under the Hedging Obligations, prior to the expiration of the grace period provided in such Indebtedness on the date of such default (a "*Payment Default*"); or

(b) results in the acceleration of such Indebtedness prior to its Stated Maturity,

and, in each case, the principal amount of any such Indebtedness, together with the principal amount of any other such Indebtedness under which there has been a Payment Default or the maturity of which has been so accelerated, aggregates US$15 million (or the Dollar Equivalent thereof) or more;

(6) failure by the Company or any of its Restricted Subsidiaries to pay final judgments entered by a court or courts of competent jurisdiction aggregating in excess of US$15 million (or the Dollar Equivalent thereof), which judgments are not paid, discharged or stayed, for a period of 60 days;

(7) except as permitted by the Indenture, any Note Guarantee is held in any judicial proceeding to be unenforceable or invalid or ceases for any reason to be in full force and effect, or any Subsidiary Guarantor, or any Person acting on behalf of any Subsidiary Guarantor, denies or disaffirms its obligations under its Note Guarantee;

(8) certain events of bankruptcy or insolvency described in the Indenture with respect to the Company or any of its Restricted Subsidiaries that is a Significant Subsidiary or any group of its Restricted Subsidiaries that, taken together, would constitute a Significant Subsidiary; and

(9) a moratorium is agreed or declared in respect of any Indebtedness of any the Company or any of its Restricted Subsidiaries or any governmental authority shall take any action to condemn, seize, nationalize or appropriate all or a substantial part of the assets of the Company or any of its Restricted Subsidiaries or all or a substantial part of the Capital Stock of the Company or any of its Restricted Subsidiaries, or the Notes, or the Company or any of its Restricted Subsidiaries shall be prevented from exercising normal control over all or a substantial part of its property.

In the case of an Event of Default arising from certain events of bankruptcy or insolvency, with respect to the Company, any Restricted Subsidiary of the Company that is a Significant Subsidiary or any group of Restricted Subsidiaries of the Company that, taken together, would constitute a Significant Subsidiary, all outstanding Notes will become due and payable immediately without further action or notice. If any other Event of Default occurs and is continuing, the Trustee or the holders of at least 25% in aggregate principal amount of the then outstanding Notes may, and the Trustee at the request of such Holders shall (subject to receiving indemnity and/or security to its satisfaction), declare all the Notes to be due and payable immediately.

Subject to certain limitations, holders of a majority in aggregate principal amount of the then outstanding Notes may direct the Trustee in its exercise of any trust or power.

Subject to the provisions of the Indenture relating to the duties of the Trustee, in case an Event of Default occurs and is continuing, the Trustee will be under no obligation to exercise any of the rights or powers under the Indenture at the request or direction of any holders of Notes unless such holders have offered to the Trustee indemnity and/or security satisfactory to it against any loss, liability or expense. Except to enforce the right to receive payment of principal, premium, if any, or interest, if any, when due, no holder of a Note may pursue any remedy with respect to the Indenture or the Notes unless:

(1) such holder has previously given the Trustee written notice that an Event of Default is continuing;

(2) holders of at least 25% in aggregate principal amount of the then outstanding Notes make a written request to the Trustee to pursue the remedy;

(3) such holder or holders offer and, if requested, provide to the Trustee security and/or indemnity satisfactory to the Trustee against any loss, liability or expense;

(4) the Trustee does not comply with such request within 60 days after receipt of the request and the offer of security and/or indemnity; and

(5) during such 60-day period, holders of a majority in aggregate principal amount of the then outstanding Notes do not give the Trustee a written direction inconsistent with such request.

The holders of a majority in aggregate principal amount of the then outstanding Notes by written notice to the Trustee may, on behalf of the holders of all of the Notes, rescind an acceleration or waive any existing Default or Event of Default and its consequences under the Indenture, if the rescission would not conflict with any judgment or decree, except a continuing Default or Event of Default in the payment of principal of, premium on, if any, or interest, if any, on, the Notes.

No Personal Liability of Commissioners, Directors, Officers, Employees and Stockholders

No commissioner, director, officer, employee, incorporator or stockholder of the Company or any Subsidiary Guarantor, as such, will have any liability for any obligations of the Company or the Subsidiary Guarantors under the Notes, the Indenture, the Note Guarantees or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each holder of Notes by accepting a Note waives and releases all such liability. The waiver and release are part of the consideration for issuance of the Notes. The waiver may not be effective to waive liabilities under the securities laws in certain jurisdictions.

Legal Defeasance and Covenant Defeasance

The Company may at any time, at the option of its Board of Directors evidenced by a resolution set forth in an Officers' Certificate, elect to have all of its obligations discharged with respect to the outstanding Notes and all obligations of the Subsidiary Guarantors discharged with respect to their Note Guarantees ("*Legal Defeasance*") except for:

(1) the rights of holders of outstanding Notes to receive payments in respect of the principal of, premium on, if any, or interest, if any, on, such Notes when such payments are due from the trust referred to below;

(2) the Company's obligations with respect to the Notes concerning issuing temporary Notes, registration of Notes, mutilated, destroyed, lost or stolen Notes and the maintenance of an office or agency for payment and money for security payments held in trust;

(3) the rights, powers, trusts, duties and immunities of the Trustee under the Indenture, and the Company's and the Subsidiary Guarantors' obligations in connection therewith; and

(4) the Legal Defeasance and Covenant Defeasance provisions of the Indenture.

In addition, the Company may, at its option and at any time, elect to have the obligations of the Company and the Subsidiary Guarantors released with respect to certain covenants (including its obligation to make Change of Control Offers and Asset Sale Offers) that are described in the Indenture ("*Covenant Defeasance*") and thereafter any omission to comply with those covenants will not constitute a Default or Event of Default with respect to the Notes. In the event Covenant Defeasance occurs, all Events of Default described under " Events of Default and Remedies" (except those relating to payments on the Notes or bankruptcy, receivership, rehabilitation or insolvency events) will no longer constitute an Event of Default with respect to the Notes.

In order to exercise either Legal Defeasance or Covenant Defeasance:

(1) the Company must irrevocably deposit with the Trustee, in trust, for the benefit of the holders of the Notes, cash in U.S. dollars, non-callable Government Securities, or a combination thereof, in amounts as will be sufficient, in the opinion of an internationally recognized investment bank, appraisal firm or firm of independent public accountants, to pay the principal of, premium on, if any, and interest, if any, on, the outstanding Notes on the stated date for payment thereof or on the applicable redemption date, as the case may be, and the Company must specify whether the Notes are being defeased to such stated date for payment or to a particular redemption date;

(2) in the case of Legal Defeasance, the Company must deliver to the Trustee:

(a) an opinion of U.S. counsel reasonably acceptable to the Trustee confirming that:

(i) the Company has received from, or there has been published by, the U.S. Internal Revenue Service a ruling, or

(ii) since the date of the Indenture, there has been a change in the applicable U.S. federal income tax law, in either case to the effect that, and based thereon such opinion of U.S. counsel will confirm that, the holders and the beneficial owners of the outstanding Notes will not recognize income, gain or loss for U.S. federal income tax purposes as a result of such Legal Defeasance and will be subject to U.S. federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Legal Defeasance had not occurred; and

(b) an opinion of Indonesian tax counsel reasonably acceptable to the Trustee to the effect that the holders of the outstanding Notes will not recognize income, gain or loss for Indonesian tax purposes as a result of such Legal Defeasance and will be subject to Indonesian tax on the same amounts, in the same manner and at the same times as would have been the case if Legal Defeasance had not occurred;

(3) in the case of Covenant Defeasance, the Company must deliver to the Trustee:

(a) an opinion of U.S. counsel reasonably acceptable to the Trustee confirming that the holders and the beneficial owners of the outstanding Notes will not recognize income, gain or loss for U.S. federal income tax purposes as a result of such Covenant Defeasance and will be subject to U.S. federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Covenant Defeasance had not occurred; and

(b) an opinion of Indonesian counsel reasonably acceptable to the Trustee to the effect that the holders of the outstanding Notes will not recognize income, gain or loss for Indonesian tax purposes as a result of such Covenant Defeasance and will be subject to Indonesian tax on the same amounts, in the same manner and at the same times as would have been the case if such Covenant Defeasance had not occurred;

(4) no Default or Event of Default has occurred and is continuing on the date of such deposit (other than a Default or Event of Default resulting from the borrowing of funds to be applied to such deposit (and any similar concurrent deposit relating to other Indebtedness), and the granting of Liens to secure such borrowings);

(5) such Legal Defeasance or Covenant Defeasance will not result in a breach or violation of, or constitute a default under, any material agreement or instrument (other than the Indenture and the agreements governing any other Indebtedness being defeased, discharged or replaced) to which the Company or any of the Subsidiary Guarantors is a party or by which the Company or any of the Subsidiary Guarantors is bound;

(6) the Company must deliver to the Trustee an Officers' Certificate stating that the deposit was not made by the Company with the intent of preferring the holders of Notes over the other creditors of the Company with the intent of defeating, hindering, delaying or defrauding any creditors of the Company or others; and

(7) the Company must deliver to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent relating to the Legal Defeasance or the Covenant Defeasance have been complied with.

Amendment, Supplement and Waiver

Except as provided in the next three succeeding paragraphs, the Indenture or the Notes or the Note Guarantees may be amended or supplemented with the consent of the holders of at least a majority in aggregate principal amount of the then outstanding Notes (including, without limitation, additional Notes, if any) voting as a single class (including, without limitation, consents obtained in connection with a tender offer or exchange offer for, or purchase of, the Notes), and any existing Default or Event of Default (other than a Default or Event of Default in the payment of the principal of, premium on, if any, or interest, if any, on, the Notes, except a payment default resulting from an acceleration that has been rescinded) or compliance with any provision of the Indenture or the Notes or the Note Guarantees may be waived with the consent of the holders of a majority in aggregate principal amount of the then outstanding Notes (including, without limitation, additional Notes, if any) voting as a single class (including, without limitation, consents obtained in connection with a purchase of, or tender offer or exchange offer for, Notes).

Without the consent of each holder of Notes affected, an amendment, supplement or waiver may not (with respect to any Notes held by a non-consenting holder):

(1) reduce the principal amount of Notes whose holders must consent to an amendment, supplement or waiver;

(2) reduce the principal of or change the fixed maturity of any Note or alter or waive any of the provisions with respect to the redemption of the Notes (except those provisions relating to notice periods in connection with a redemption of Notes or those provisions relating to the covenant described above under the caption "—Repurchase at the Option of Holders");

(3) reduce the rate of or change the time for payment of interest, including default interest, on any Note;

(4) waive a Default or Event of Default in the payment of principal of, premium on, if any, or interest, if any, on, the Notes (except a rescission of acceleration of the Notes by the holders of at least a majority in aggregate principal amount of the then outstanding Notes and a waiver of the payment default that resulted from such acceleration);

(5) make any Note payable in money other than that stated in the Notes;

(6) make any change in the provisions of the Indenture relating to waivers of past Defaults or impair the rights of holders of Notes expressly set forth in the Indenture to receive payments of principal of, premium on, if any, or interest, if any, on, the Notes;

(7) make any change in the obligations of the Company to pay Additional Amounts;

(8) waive a redemption payment with respect to any Note (other than a payment required by one of the covenants described above under the caption "—Repurchase at the Option of Holders");

(9) release any Subsidiary Guarantor from any of its obligations under its Note Guarantee or the Indenture, except in accordance with the terms of the Indenture;

(10) modify the obligation of the Company or any Subsidiary Guarantor to pay Additional Amounts; or

(11) make any change in the preceding amendment and waiver provisions.

For the avoidance of doubt, no amendment to, or deletion of any of the covenants described under "—Certain Covenants," or action taken in compliance with the covenants in effect at the time of such action, shall be deemed to impair or affect any rights of any holder of Notes to receive payment of principal of, or premium, if any, or interest on, the Notes or to institute suit for the enforcement of any payment on or with respect to such holder's Notes.

Notwithstanding the preceding, without the consent of any holder of Notes, the Company, the Subsidiary Guarantors and the Trustee may amend or supplement the Indenture, the Notes or the Note Guarantees:

(1) to cure any ambiguity, defect or inconsistency in any of them in a manner that does not have a material adverse effect on holders;

(2) to provide for uncertificated Notes in addition to or in place of certificated Notes (provided, that the uncertificated Notes are issued in registered form for purposes of Section 163(f) of the US Internal Revenue Code);

(3) to provide for the assumption of the Company's or a Subsidiary Guarantor's obligations to holders of Notes and Note Guarantees in the case of a merger or consolidation or sale of all or substantially all of the Company's or such Subsidiary Guarantor's assets, as applicable;

(4) to make any change that would provide any additional rights or benefits to the holders of Notes or that does not adversely affect the legal rights under the Indenture of any holder;

(5) to conform the text of the Indenture, the Notes, the Note Guarantees to any provision of this Description of Notes to the extent that such provision in this Description of Notes was intended to be a verbatim recitation of a provision of the Indenture, the Notes, the Note Guarantees, which intent may be evidenced by an Officers' Certificate to that effect;

(6) to provide for the issuance of additional Notes in accordance with the limitations set forth in the Indenture as of the date of the Indenture; or

(7) to allow any Subsidiary Guarantor to execute a supplemental indenture and/or a Note Guarantee with respect to the Notes.

Satisfaction and Discharge

The Indenture will be discharged and will cease to be of further effect as to all Notes issued thereunder, when:

(1) either:

(a) all Notes that have been authenticated, except lost, stolen or destroyed Notes that have been replaced or paid and Notes for whose payment money has been deposited in trust and thereafter repaid to the Company, have been delivered to the registrar for cancellation; or

(b) all Notes that have not been delivered to the registrar for cancellation have become due and payable by reason of the mailing of a notice of redemption or otherwise or will become due and payable within one year and the Company or any Subsidiary Guarantor has irrevocably deposited or caused to be deposited with the Trustee as trust funds in trust solely for the benefit of the holders, cash in U.S. dollars, non-callable Government Securities, or a combination thereof, in amounts as will be sufficient, without consideration of any reinvestment of interest, to pay and discharge the entire Indebtedness on the Notes not delivered to the registrar for cancellation for principal of, premium on, if any, and interest, if any, on, the Notes to the date of maturity or redemption;

(2) in respect of clause 1(b), no Default or Event of Default has occurred and is continuing on the date of the deposit (other than a Default or Event of Default resulting from the borrowing of funds to be applied to such deposit and any similar deposit relating to other Indebtedness and, in each case, the granting of Liens to secure such borrowings) and the deposit will not result in a breach or violation of, or constitute a default under, any other instrument to which the Company or any Subsidiary Guarantor is a party or by which the Company or any Subsidiary Guarantor is bound (other than with respect to the borrowing of funds to be applied concurrently to make the deposit required to effect such satisfaction and discharge and any similar concurrent deposit relating to other Indebtedness, and in each case the granting of Liens to secure such borrowings);

(3) the Company or any Subsidiary Guarantor has paid or caused to be paid all sums payable by it under the Indenture; and

(4) the Company has delivered irrevocable instructions to the Trustee under the Indenture to apply the deposited money toward the payment of the Notes at maturity or on the redemption date, as the case may be.

In addition, the Company must deliver an Officers' Certificate and an Opinion of Counsel to the Trustee stating that all conditions precedent to satisfaction and discharge have been satisfied.

Indemnification for Judgment Currency

The obligations of the Company or any Subsidiary Guarantor to any holder of the Notes or the Trustee under the Indenture, the Notes or any Note Guarantee will, notwithstanding any judgment in a currency (the "*Judgment Currency*") other than U.S. dollars, be discharged only to the extent that on the day following receipt by such party of any amount in the Judgment Currency, such party may in accordance with normal banking procedures purchase U.S. dollars with the Judgment Currency.

If the amount of U.S. dollars so purchased is less than the amount originally to be paid to such party in U.S. dollars, the Company and each Subsidiary Guarantor, jointly and severally, agrees as a separate obligation and notwithstanding such judgment, to the extent permitted by applicable law, to pay the difference, and, if the amount of U.S. dollars so purchased exceeds the amount originally to be paid to such party, such party agrees to pay to or for the account of such payor such excess; *provided*, *however*, that such party shall not have any obligation to pay any such excess as long as an Event of Default has occurred and is continuing, in which case such excess may be applied by such party to such obligations.

Concerning the Trustee

If the Trustee becomes a creditor of the Company or any Subsidiary Guarantor, the Indenture limits the right of the Trustee to obtain payment of claims in certain cases, or to realize on certain property received in respect of any such claim as security or otherwise. The Trustee will be permitted to engage in other transactions; however, if it acquires any conflicting interest it must eliminate such conflict or resign.

The holders of a majority in aggregate principal amount of the then outstanding Notes will have the right to direct the time, method and place of conducting any proceeding for exercising any remedy available to the Trustee, subject to certain exceptions. The Indenture provides that in case an Event of Default has occurred and is continuing, the Trustee will be required, in the exercise of its power, to use the degree of care of a prudent man in the conduct of his own affairs. Subject to such provisions, the Trustee will be under no obligation to exercise any of its rights or powers under the Indenture at the request of any holder of Notes, unless such holder has offered to the Trustee indemnity and/or security satisfactory to it against any loss, liability or expense.

Governing Law, Consent to Jurisdiction and Service of Process

The Notes, the Note Guarantees (other than the Indonesian Law Note Guarantees) and the Indenture provide that they will be governed by, and construed in accordance with, the laws of the State of New York. The Indonesian Law Note Guarantees provide that they will be governed by, and construed in accordance with, the laws of Indonesia.

The Company and each Subsidiary Guarantor will irrevocably submit to the jurisdiction of any New York state or U.S. federal court located in The Borough of Manhattan, City of New York, State of New York in relation to any legal action or proceeding (i) arising out of, related to or in connection with the Indenture and the Notes and (ii) arising under any U.S. federal or U.S. state securities laws. The Company and each Subsidiary Guarantor will appoint Law Debenture Corporate Services Inc. as its agent for service of process in any such action or proceeding.

Additional Information

Anyone who receives this Offering Memorandum may obtain a copy of the Indenture without charge by writing to PT Chandra Asri Petrochemical Tbk, Wisma Barito Pacific Tower A, 7th Floor, JI. Let. Jend S. Parman Kav. 62-63, Jakarta 11410, Indonesia, Attention: Investor Relation.

Book-Entry, Delivery and Form

The Notes are being offered and sold to qualified institutional buyers in reliance on Rule 144A ("*Rule 144A Notes*"). The Notes also may be offered and sold in offshore transactions in reliance on Regulation S ("*Regulation S Notes*"). Except as set forth below, the Notes will be issued in registered, global form in minimum denominations of US$200,000 and integral multiples of US$1,000 in excess thereof. Notes will be issued at the closing of this offering only against payment in immediately available funds.

Rule 144A Notes initially will be represented by one or more Notes in registered, global form without interest coupons (collectively, the "*Rule 144A Global Notes*"). Regulation S Notes initially will be represented by one or more Notes in registered, global form without interest coupons (collectively, the "*Regulation S Global Notes*" and, together with the Rule 144A Global Notes, the "*Global Notes*"). The Global Notes will be deposited upon issuance with the Deutsche Bank Trust Company Americas as custodian for The Depository Trust Company ("*DTC*"), in New York, New York, and registered in the name of DTC or its nominee, in each case, for credit to an account of a direct or indirect participant in DTC as described below. Beneficial interests in the Rule 144A Global Notes may not be exchanged for beneficial interests in the Regulation S Global Notes at any time except in the limited circumstances described below. See "—Exchanges between Regulation S Notes and Rule 144A Notes."

Except as set forth below, the Global Notes may be transferred, in whole and not in part, only to another nominee of DTC or to a successor of DTC or its nominee. Beneficial interests in the Global Notes may not be exchanged for definitive Notes in registered certificated form ("*Certificated Notes*") except in the limited circumstances described below. See "—Exchange of Global Notes for Certificated Notes." Except in the limited circumstances described below, owners of beneficial interests in the Global Notes will not be entitled to receive physical delivery of Notes in certificated form.

Rule 144A Notes (including beneficial interests in the Rule 144A Global Notes) will be subject to certain restrictions on transfer and will bear a restrictive legend as described under "Transfer Restrictions." Regulation S Notes will also bear the legend as described under "Transfer Restrictions." In addition, transfers of beneficial interests in the Global Notes will be subject to the applicable rules and procedures of DTC and its direct or indirect participants (including, if applicable, those of Euroclear and Clearstream), which may change from time to time.

Depository Procedures

The following description of the operations and procedures of DTC, Euroclear and Clearstream are provided solely as a matter of convenience. These operations and procedures are solely within the control of the respective settlement systems and are subject to changes by them. The Company takes no responsibility for these operations and procedures and urges investors to contact the system or their participants directly to discuss these matters.

DTC has advised the Company that DTC is a limited-purpose trust company created to hold securities for its participating organizations (collectively, the "*Participants*") and to facilitate the clearance and settlement of transactions in those securities between the Participants through electronic book-entry changes in accounts of its Participants. The Participants include securities brokers and dealers (including the initial purchasers), banks, trust companies, clearing corporations and certain other organizations. Access to DTC's system is also available to other entities such as banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a Participant, either directly or indirectly (collectively, the "*Indirect Participants*"). Persons who are not Participants may beneficially own securities held by or on behalf of DTC only through the Participants or the Indirect Participants. The ownership interests in, and transfers of ownership interests in, each security held by or on behalf of DTC are recorded on the records of the Participants and Indirect Participants.

DTC has also advised the Company that, pursuant to procedures established by it:

(1) upon deposit of the Global Notes, DTC will credit the accounts of the Participants designated by the initial purchasers with portions of the principal amount of the Global Notes; and

(2) ownership of these interests in the Global Notes will be shown on, and the transfer of ownership of these interests will be effected only through, records maintained by DTC (with respect to the Participants) or by the Participants and the Indirect Participants (with respect to other owners of beneficial interest in the Global Notes).

Investors in the Rule 144A Global Notes who are Participants may hold their interests therein directly through DTC. Investors in the Rule 144A Global Notes who are not Participants may hold their interests therein indirectly through organizations (including Euroclear and Clearstream) which are Participants. Investors in the Regulation S Global Notes must initially hold their interests therein through Euroclear or Clearstream, if they are participants in such systems, or indirectly through organizations that are participants. Euroclear and Clearstream will hold interests in the Regulation S Global Notes on behalf of their participants through customers' securities accounts in their respective names on the books of their respective depositories, which are Euroclear Bank SA/NV, as operator of Euroclear, and Clearstream Banking S.A., as operator of Clearstream. All interests in a Global Note, including those held through Euroclear or Clearstream, may be subject to the procedures and requirements of DTC. Those interests held through Euroclear or Clearstream may also be subject to the procedures and requirements of such systems. The laws of some states require that certain Persons take physical delivery in definitive form of securities that they own. Consequently, the ability to transfer beneficial interests in a Global Note to such Persons will be limited to that extent. Because DTC can act only on behalf of the Participants, which in turn act on behalf of the Indirect Participants, the ability of a Person having beneficial interests in a Global Note to pledge such interests to Persons that do not participate in the DTC system, or otherwise take actions in respect of such interests, may be affected by the lack of a physical certificate evidencing such interests.

Except as described below, owners of interests in the Global Notes will not have Notes registered in their names, will not receive physical delivery of Notes in certificated form and will not be considered the registered owners or "holders" thereof under the Indenture for any purpose.

Payments in respect of the principal of, premium on, if any, and interest, if any, on, a Global Note registered in the name of DTC or its nominee will be payable to DTC in its capacity as the registered holder under the Indenture. Under the terms of the Indenture, the Company, the Trustee and the Agents will treat the Persons in whose names the Notes, including the Global Notes, are registered as the owners of the Notes for the purpose of receiving payments and for all other purposes. Consequently, neither the Company, the Trustee nor any agent of the Company or the Trustee has or will have any responsibility or liability for:

(1) any aspect of DTC's records or any Participant's or Indirect Participant's records relating to or payments made on account of beneficial ownership interest in the Global Notes or for maintaining, supervising or reviewing any of DTC's records or any Participant's or Indirect Participant's records relating to the beneficial ownership interests in the Global Notes; or

(2) any other matter relating to the actions and practices of DTC or any of its Participants or Indirect Participants.

DTC has advised the Company that its current practice, upon receipt of any payment in respect of securities such as the Notes (including principal and interest), is to credit the accounts of the relevant Participants with the payment on the payment date unless DTC has reason to believe that it will not receive payment on such payment date. Each relevant Participant is credited with an amount proportionate to its beneficial ownership of an interest in the principal amount of the relevant security as shown on the records of DTC. Payments by the Participants and the Indirect Participants to the beneficial owners of Notes will be governed by standing instructions and customary practices and will be the responsibility of the Participants or the Indirect Participants and will not be the responsibility of DTC, the Trustee, the Agents or the Company. Neither the Company nor the Trustee will be liable for any delay by DTC or any of the Participants or the Indirect Participants in identifying the beneficial owners of the Notes, and the Company, the Agents and the Trustee may conclusively rely on and will be protected in relying on instructions from DTC or its nominee for all purposes.

Subject to the transfer restrictions set forth under "Transfer Restrictions," transfers between the Participants will be effected in accordance with DTC's procedures, and will be settled in same-day funds, and transfers between participants in Euroclear and Clearstream will be effected in accordance with their respective rules and operating procedures.

Subject to compliance with the transfer restrictions applicable to the Notes described herein, cross-market transfers between the Participants, on the one hand, and Euroclear or Clearstream participants, on the other hand, will be effected through DTC in accordance with DTC's rules on behalf of Euroclear or Clearstream, as the case may be, by their respective depositaries; however, such cross-market transactions will require delivery of instructions to Euroclear or Clearstream, as the case may be, by the counterparty in such system in accordance with the rules and procedures and within the established deadlines (Brussels time) of such system. Euroclear or Clearstream, as the case may be, will, if the transaction meets its settlement requirements, deliver instructions to its respective depositary to take action to effect final settlement on its behalf by delivering or receiving interests in the relevant Global Note in DTC, and making or receiving payment in accordance with normal procedures for same-day funds settlement applicable to DTC. Euroclear participants and Clearstream participants may not deliver instructions directly to the depositories for Euroclear or Clearstream.

DTC has advised the Company that it will take any action permitted to be taken by a holder of Notes only at the direction of one or more Participants to whose account DTC has credited the interests in the Global Notes and only in respect of such portion of the aggregate principal amount of the Notes as to which such Participant or Participants has or have given such direction. However, if there is an Event of Default under the Notes, DTC reserves the right to exchange the Global Notes for legended Notes in certificated form, and to distribute such Notes to its Participants.

Although DTC, Euroclear and Clearstream have agreed to the foregoing procedures to facilitate transfers of interests in the Rule 144A Global Notes and the Regulation S Global Notes among participants in DTC, Euroclear and Clearstream, they are under no obligation to perform or to continue to perform such procedures, and may discontinue such procedures at any time. None of the Company, the Trustee and any of their respective agents will have any responsibility for the performance by DTC, Euroclear or Clearstream or their respective participants or indirect participants of their respective obligations under the rules and procedures governing their operations.

Exchange of Global Notes for Certificated Notes

A Global Note is exchangeable for Certificated Notes if:

(1) DTC (a) notifies the Company that it is unwilling or unable to continue as depositary for the Global Notes or (b) has ceased to be a clearing agency registered under the Exchange Act and, in either case, the Company fails to appoint a successor depositary;

(2) the Company, at its option, notifies the Trustee in writing that it elects to cause the issuance of the Certificated Notes; or

(3) there has occurred and is continuing a Default or Event of Default with respect to the Notes and the Company has received a written request from a holder.

In addition, beneficial interests in a Global Note may be exchanged for Certificated Notes upon prior written notice given to the Trustee by or on behalf of DTC in accordance with the Indenture. In all cases, Certificated Notes delivered in exchange for any Global Note or beneficial interests in Global Notes will be registered in the names, and issued in any approved denominations, requested by or on behalf of the depositary (in accordance with its customary procedures) and will bear the applicable restrictive legend referred to in "Transfer Restrictions,"unless that legend is not required by applicable law.

Exchange of Certificated Notes for Global Notes

Certificated Notes may not be exchanged for beneficial interests in any Global Note unless the transferor first delivers to the Trustee a written certificate (in the form provided in the Indenture) to the effect that such transfer will comply with the appropriate transfer restrictions applicable to such Notes. See "Transfer Restrictions."

Exchanges Between Regulation S Notes and Rule 144A Notes

Beneficial interests in a Rule 144A Global Note may be transferred to a Person who takes delivery in the form of an interest in the Regulation S Global Note, only if the transferor first delivers to the Trustee a written certificate (in the form provided in the Indenture) to the effect that such transfer is being made in accordance with Rule 903 or 904 of Regulation S or Rule 144 (if available).

Transfers involving exchanges of beneficial interests between the Regulation S Global Notes and the Rule 144A Global Notes will be effected by DTC by means of an instruction originated by the Trustee through the DTC Fast Automated Securities Transfer Program. Accordingly, in connection with any such transfer, appropriate adjustments will be made to reflect a decrease in the principal amount of the Regulation S Global Note and a corresponding increase in the principal amount of the Rule 144A Global Note or vice versa, as applicable. Any beneficial interest in one of the Global Notes that is transferred to a Person who takes delivery in the form of an interest in the other Global Note will, upon transfer, cease to be an interest in such Global Note and will become an interest in the other Global Note and, accordingly, will thereafter be subject to all transfer restrictions and other procedures applicable to beneficial interests in such other Global Note for so long as it remains such an interest.

Same Day Settlement and Payment

The Company will make payments in respect of the Notes represented by the Global Notes, including principal, premium, if any, and interest, if any, by wire transfer of immediately available funds to the accounts specified by DTC or its nominee. The Company will make all payments of principal, premium, if any, and interest, if any, with respect to Certificated Notes by wire transfer of immediately available funds to the accounts specified by the holders of the Certificated Notes or, if no such account is specified, by mailing a check to each such holder's registered address. The Notes represented by the Global Notes are expected to be eligible to trade in DTC's Same-Day Funds Settlement System, and any permitted secondary market trading activity in such Notes will, therefore, be required by DTC to be settled in immediately available funds. The Company expects that secondary trading in any Certificated Notes will also be settled in immediately available funds.

Because of time zone differences, the securities account of a Euroclear or Clearstream participant purchasing an interest in a Global Note from a Participant will be credited, and any such crediting will be reported to the relevant Euroclear or Clearstream participant, during the securities settlement processing day (which must be a Business Day for Euroclear and Clearstream) immediately following the settlement date of DTC. DTC has advised the Company that cash received in Euroclear or Clearstream as a result of sales of interests in a Global Note by or through a Euroclear or Clearstream participant to a Participant will be received with value on the settlement date of DTC but will be available in the relevant Euroclear or Clearstream cash account only as of the Business Day for Euroclear or Clearstream following DTC's settlement date.

Certain Definitions

Set forth below are certain defined terms used in the Indenture. Reference is made to the Indenture for a full disclosure of all defined terms used therein, as well as any other capitalized terms used herein for which no definition is provided.

"*Acquired Debt*" means, with respect to any specified Person:

(1) Indebtedness of any other Person existing at the time such other Person is merged with or into or became a Subsidiary of such specified Person, whether or not such Indebtedness is incurred in connection with, or in contemplation of, such other Person merging with or into, or becoming a Restricted Subsidiary of, such specified Person; and

(2) Indebtedness secured by a Lien encumbering any asset acquired by such specified Person.

"*Agents*" means, collectively, the paying agent, the transfer agent and the registrar.

"*Affiliate*" of any specified Person means any other Person (1) directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person, (2) who is a commissioner, director or officer of such specified Person or any Subsidiary of such specified Person or of any Person referred to in clause (1), or (3) who is a spouse, child, parent, sibling, grandchild, grandparent, uncle, aunt, nephew or niece of a Person described in clause (1) or (2). For purposes of this definition, "*control*," as used with respect to any Person, means the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of such Person, whether through the ownership of voting securities, by agreement or otherwise; *provided* that beneficial ownership of 10% or more of the Voting Stock of a Person will be deemed to be control. For purposes of this definition, the terms "*controlling*," "*controlled by*" and "*under common control with*" have correlative meanings.

"*Applicable Premium*" means, with respect to any Note on any redemption date, the greater of:

(1) 1.0% of the principal amount of the Note; or

(2) the excess of:

  (a) the present value at such redemption date of (i) the redemption price of the Note at 8 November 2021 (such redemption price being set forth in the table appearing above under the caption "—Optional Redemption") plus (ii) all required interest payments due on the Note through 8 November 2021 (excluding accrued but unpaid interest to the redemption date), computed using a discount rate equal to the Treasury Rate as of such redemption date plus 50 basis points; over

  (b) the principal amount of the Note.

"*Asset Sale*" means:

(1) the sale, lease, conveyance or other disposition of any assets or rights by the Company or any of the Company's Restricted Subsidiaries; *provided* that the sale, lease, conveyance or other disposition of all or substantially all of the assets of the Company and its Restricted Subsidiaries taken as a whole will be governed by the provisions of the Indenture described above under the caption "—Repurchase at the Option of Holders—Change of Control" and/or the provisions described above under the caption "—Certain Covenants—Merger, Consolidation or Sale of Assets" and not by the provisions of the Asset Sale covenant; and

(2) the issuance of Equity Interests by any of the Company's Restricted Subsidiaries or the sale by the Company or any of the Company's Restricted Subsidiaries of Equity Interests in any of the Company's Subsidiaries.

Notwithstanding the preceding, none of the following items will be deemed to be an Asset Sale:

(1) any single transaction or series of related transactions that involves assets having a Fair Market Value of less than US$5 million (or the Dollar Equivalent thereof);

(2) a transfer of assets between or among the Company and its Restricted Subsidiaries;

(3) an issuance of Equity Interests by a Restricted Subsidiary of the Company to the Company or to a Restricted Subsidiary of the Company;

(4) the sale, lease or other transfer of products, services or accounts receivable in the ordinary course of business and any sale or other disposition of damaged, worn-out or obsolete assets in the ordinary course of business (including the abandonment or other disposition of intellectual property that is, in the reasonable judgment of the Company, no longer economically practicable to maintain or useful in the conduct of the business of the Company and its Restricted Subsidiaries taken as whole);

(5) licenses and sublicenses by the Company or any of its Restricted Subsidiaries of software or intellectual property in the ordinary course of business;

(6) any surrender or waiver of contract rights or settlement, release, recovery on or surrender of contract, tort or other claims in the ordinary course of business;

(7) the granting of Liens not prohibited by the covenant described above under the caption "Certain Covenants—Liens;"

(8) the sale or other disposition of cash or Cash Equivalents; and

(9) a Restricted Payment that does not violate the covenant described above under the caption "—Certain Covenants—Restricted Payments" or a Permitted Investment.

"*Asset Sale Offer*" has the meaning assigned to that term in the Indenture.

"*Attributable Debt*" in respect of a sale and leaseback transaction means, at the time of determination, the present value of the obligation of the lessee for net rental payments during the remaining term of the lease included in such sale and leaseback transaction including any period for which such lease has been extended or may, at the option of the lessor, be extended. Such present value shall be calculated using a discount rate equal to the rate of interest implicit in such transaction, determined in accordance with GAAP; *provided, however*, that if such sale and leaseback transaction results in a Capital Lease Obligation, the amount of Indebtedness represented thereby will be determined in accordance with the definition of "Capital Lease Obligation."

"*Barito Shareholders*" means each of:

(1) PT Barito Pacific Tbk., a limited liability company established under the laws of Indonesia with its registered office at Wisma Barito Pacific Tower B, 8th Floor, Jl. Let. Jend. S. Parman Kav. 62-63, Jakarta 11410, Indonesia,

(2) Prajogo Pangestu and any immediate family members of Mr. Pangestu or any one or more trusts settled by such Persons, provided that such Persons at all time has or have the power to direct or cause the direction of the management and policies of such trust;

(3) Marigold Resources Pte Ltd,

(4) any Affiliate (other than an Affiliate defined in clause (2) or (3) of the definition of Affiliate) of the Persons specified in clauses (1) through (3) above, or any Person both the Capital Stock and the Voting Stock of which (or in the case of a trust, the beneficial interest in which) are more than 80% owned by the Persons specified in clauses (1) through (3) above.

"*Beneficial Owner*" has the meaning assigned to such term in Rule 13d-3 and Rule 13d-5 under the Exchange Act, except that in calculating the beneficial ownership of any particular "person" (as that term is used in Section 13(d)(3) of the Exchange Act), such "person" will be deemed to have beneficial ownership of all securities that such "person" has the right to acquire by conversion or exercise of other securities, whether such right is currently exercisable or is exercisable only after the passage of time. The terms "*Beneficially Owns*" and "*Beneficially Owned*" have a corresponding meaning.

"*Board of Directors*" means:

(1) with respect to a corporation, the board of directors of the corporation or any committee thereof duly authorized to act on behalf of such board;

(2) with respect to a partnership, the board of directors of the general partner of the partnership;

(3) with respect to a limited liability company, the managing member or members or any controlling committee of managing members thereof and, to the extent a limited liability company under Indonesian law, the members of the board of directors; and

(4) with respect to any other Person, the board or committee of such Person serving a similar function.

"*Business Day*" means any day which is not a Saturday, Sunday, legal holiday or other day on which banking institutions in New York City or Indonesia (or in any other place in which payments on the Notes are to be made) are authorized by law or governmental regulation to close.

"*CAP2*" means PT Chandra Asri Perkasa.

"*Capital Lease Obligation*" means, at the time any determination is to be made, the amount of the liability in respect of a capital lease that would at that time be required to be capitalized on a balance sheet prepared in accordance with GAAP, and the Stated Maturity thereof shall be the date of the last payment of rent or any other amount due under such lease prior to the first date upon which such lease may be prepaid by the lessee without payment of a penalty.

"*Capital Stock*" means:

(1) in the case of a corporation, corporate stock;

(2) in the case of an association or business entity, any and all shares, interests, participations, rights or other equivalents (however designated) of corporate stock;

(3) in the case of a partnership or limited liability company, partnership interests (whether general or limited) or membership interests; and

(4) any other interest or participation that confers on a Person the right to receive a share of the profits and losses of, or distributions of assets of, the issuing Person, but excluding from all of the foregoing any debt securities convertible into Capital Stock, whether or not such debt securities include any right of participation with Capital Stock.

"*Cash Equivalents*" means:

(1) securities issued or directly and fully guaranteed or insured by the United States government or any agency or instrumentality of the United States government (*provided* that the full faith and credit of the United States is pledged in support of those securities) having maturities of not more than six months from the date of acquisition;

(2) certificates of deposit and eurodollar time deposits with maturities of six months or less from the date of acquisition, bankers' acceptances with maturities not exceeding six months and overnight bank deposits, in each case, with any commercial bank organized under the laws of the United States, any State thereof, the United Kingdom, Hong Kong or Singapore, having capital and surplus in excess of US$500.0 million (or the Dollar Equivalent thereof) and a long-term debt rating of "A-2" or better by Moody's and "A" or better by S&P;

(3) repurchase obligations with a term of not more than seven days for underlying securities of the types described in clauses (2) and (3) above entered into with any financial institution meeting the qualifications specified in clause (3) above;

(4) commercial paper having one of the two highest ratings obtainable from Moody's or S&P and, in each case, maturing within six months after the date of acquisition;

(5) money market funds at least 95% of the assets of which constitute Cash Equivalents of the kinds described in clauses (1) through (4) of this definition; and

(6) demand deposits, overnight and call deposits and certificates of deposit, time deposits and money market deposits with maturities of 180 days or less with PT Bank QNB Indonesia Tbk, PT Bank Danamon Indonesia Tbk, Bangkok Bank Public Company Limited, PT Bank DBS Indonesia, PT Bank BNP Paribas Indonesia, PT Bank Central Asia Tbk, PT Bank Danamon Indonesia Tbk, PT Bank Mandiri (Persero) Tbk and PT Bank Negara Indonesia (Persero) Tbk, PT Bank CIMB Niaga Tbk, PT Bank Internasional Indonesia Tbk, PT Bank OCBC NISP Tbk, PT Bank Permata Tbk and PT Bank HSBC Indonesia or any other bank, trust company or other financial institution organized under the laws of Indonesia whose long-term debt is rated as high or higher than any of those banks; provided that the maximum amount of deposits held with any single bank in Indonesia at any time shall not exceed 30% of the total cash balances of the Company and its Restricted Subsidiaries at that time.

"*Change of Control*" means the occurrence of any of the following:

(1) the direct or indirect sale, lease, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or a series of related transactions, of all or substantially all of the properties or assets of the Company and its Subsidiaries taken as a whole to any Person (including any "person" (as that term in used in Section 13(d)(3) of the Exchange Act);

(2) the adoption of a plan relating to the liquidation or dissolution of the Company; or

(3) the Majority Shareholders collectively ceasing to:

(a) have the power (whether by way of ownership of shares, proxy, contract, agency or otherwise) to:

(i) cast, or control the casting of, at least 51% of the maximum number of votes that might be cast at a general meeting of the shareholders of the Company;

(ii) appoint or remove all, or the majority, of the commissioners, directors or other equivalent officers of the Company;

(iii) give directions with respect to the operating and financial policies of the Company with which the directors or other equivalent officers of the Company are obliged to comply; or

(iv) direct the management and policy decisions of the Company; or

(b) hold beneficially at least 51% of the issued share capital of the Company (excluding any part of that issued share capital that carries no right to participate beyond a specified amount in a distribution of either profits or capital).

"*Change of Control Offer*" has the meaning assigned to that term in the Indenture.

"*Clearstream*" means Clearstream Banking S.A..

"*Consolidated EBITDA*" means, with respect to any specified Person for any period, the Consolidated Net Income of such Person for such period *plus*, without duplication:

(1) an amount equal to any extraordinary loss plus any net loss realized by such Person or any of its Restricted Subsidiaries in connection with an Asset Sale, to the extent such losses were deducted in computing such Consolidated Net Income; *plus*

(2) provision for taxes based on income or profits of such Person and its Restricted Subsidiaries for such period, to the extent that such provision for taxes was deducted in computing such Consolidated Net Income; *plus*

(3) the Fixed Charges of such Person and its Restricted Subsidiaries for such period, to the extent that such Fixed Charges were deducted in computing such Consolidated Net Income; *plus*

(4) any foreign currency translation losses (including losses related to currency remeasurements of Indebtedness) of such Person and its Restricted Subsidiaries for such period, to the extent that such losses were taken into account in computing such Consolidated Net Income; *plus*

(5) depreciation, amortization (including amortization of intangibles but excluding amortization of prepaid cash expenses that were paid in a prior period) and other non-cash charges and expenses (excluding any such non-cash charge or expense to the extent that it represents an accrual of or reserve for cash charges or expenses in any future period or amortization of a prepaid cash charge or expense that was paid in a prior period) of such Person and its Restricted Subsidiaries for such period to the extent that such depreciation, amortization and other non-cash charges or expenses were deducted in computing such Consolidated Net Income; *minus*

(6) any foreign currency translation gains (including gains related to currency remeasurements of Indebtedness) of such Person and its Restricted Subsidiaries for such period, to the extent that such gains were taken into account in computing such Consolidated Net Income; *minus*

(7) non-cash items increasing such Consolidated Net Income for such period, other than the accrual of revenue in the ordinary course of business,

in each case, on a consolidated basis and determined in accordance with GAAP.

Notwithstanding the preceding, the provision for taxes based on the income or profits of, and the depreciation and amortization and other non-cash expenses of, a Restricted Subsidiary of the Company will be added to Consolidated Net Income to compute Consolidated EBITDA of the Company only to the extent that a corresponding amount would be permitted at the date of determination to be dividended to the Company by such Restricted Subsidiary without prior governmental approval (that has not been obtained), and without direct or indirect restriction pursuant to the terms of its charter and all agreements, instruments, judgments, decrees, orders, statutes, rules and governmental regulations applicable to that Restricted Subsidiary or its stockholders.

"*Consolidated Net Income*" means, with respect to any specified Person for any period, the aggregate of the net income (loss) of such Person and its Restricted Subsidiaries for such period, on a consolidated basis (excluding the net income (loss) of any Unrestricted Subsidiary of such Person), determined in accordance with GAAP and without any reduction in respect of preferred stock dividends; *provided* that:

(1) all extraordinary gains (but not losses) and all gains (but not losses) realized in connection with any Asset Sale or the disposition of securities or the early extinguishment of Indebtedness, together with any related provision for taxes on any such gain, will be excluded;

(2) the net income (but not loss) of any Person that is not a Restricted Subsidiary or that is accounted for by the equity method of accounting will be included only to the extent of the amount of dividends or similar distributions paid in cash to the specified Person or a Restricted Subsidiary of the Person;

(3) the net income (but not loss) of any Restricted Subsidiary will be excluded to the extent that the declaration or payment of dividends or similar distributions by that Restricted Subsidiary of that net income is not at the date of determination permitted without any prior governmental approval (that has not been obtained) or, directly or indirectly, by operation of the terms of its charter or any agreement, instrument, judgment, decree, order, statute, rule or governmental regulation applicable to that Restricted Subsidiary or its stockholders;

(4) the cumulative effect of a change in accounting principles will be excluded; and

(5) non-cash gains and losses attributable to movement in the mark-to-market valuation of Hedging Obligations pursuant to GAAP will be excluded.

"*Consolidated Net Worth*" means, with respect to any specified Person as of any date, the sum of:

(1) the consolidated equity of the common stockholders of such Person and its consolidated Subsidiaries as of such date; *plus*

(2) the respective amounts reported on such Person's balance sheet as of such date with respect to any series of preferred stock (other than Disqualified Stock) that by its terms is not entitled to the payment of dividends unless such dividends may be declared and paid only out of net earnings in respect of the year of such declaration and payment, but only to the extent of any cash received by such Person upon issuance of such preferred stock.

"*continuing*" means, with respect to any Default or Event of Default, that such Default or Event of Default has not been cured or waived.

"*Credit Facilities*" means, with respect to the Company or any of its Restricted Subsidiaries, one or more debt facilities (including without limitation commercial paper facilities), credit facilities, note purchase agreements, indentures or trust deeds or other financing arrangements providing for revolving credit loans, term loans, letters of credit, bank guarantees, notes, debt securities or other indebtedness for borrowed money, and any amendments, supplements, modifications, extension, renewals, restatements or refunding thereof, in whole or in part, and any other such financing arrangements that replace, refund, supplement or refinance any part of the loans, notes, credit facilities, commitments or other indebtedness thereunder, including any of the foregoing that increases the amount permitted to be borrowed or issued thereunder or alters the maturity thereof or adds Restricted Subsidiaries as additional borrowers or guarantors thereunder and whether by the same or any other agent, trustee, lender or group of lenders, purchaser or other holders, initial purchasers or underwriters. in each case, with banks or other institutional lenders or other lenders (including any direct or indirect shareholder of any of the Company or any Subsidiary Guarantor Incurring Indebtedness under such Credit Facility).

"*Default*" means any event that is, or with the passage of time or the giving of notice or both would be, an Event of Default.

"*Disqualified Stock*" means any Capital Stock that, by its terms (or by the terms of any security into which it is convertible, or for which it is exchangeable, in each case, at the option of the holder of the Capital Stock), or upon the happening of any event, matures or is mandatorily redeemable, pursuant to a sinking fund obligation or otherwise, or redeemable at the option of the holder of the Capital Stock, in whole or in part, on or prior to the date that is 366 days after the date on which the Notes mature. Notwithstanding the preceding sentence, any Capital Stock that would constitute Disqualified Stock solely because the holders of the Capital Stock have the right to require the Company to repurchase such Capital Stock upon the occurrence of a change of control or an asset sale will not constitute Disqualified Stock if the terms of such Capital Stock provide that the Company may not repurchase or redeem any such Capital Stock pursuant to such provisions unless such repurchase or redemption complies with the covenant described above under the caption "—Certain Covenants—Restricted Payments." The amount of Disqualified Stock deemed to be outstanding at any time for purposes of the Indenture will be the maximum amount that the Company and its Restricted Subsidiaries may become obligated to pay upon the maturity of, or pursuant to any mandatory redemption provisions of, such Disqualified Stock, exclusive of accrued dividends.

"*Dollar Equivalent*" means, at any time of determination, (1) with respect to any amount in Indonesian Rupiah, the amount of U.S. dollars obtained by converting Indonesian Rupiah into U.S. dollars at the base rate for the purchase of U.S. dollars with Indonesian Rupiah as quoted by Bank Indonesia for the date of determination and (2) with respect to any amount in a currency other than U.S. dollars and Indonesian Rupiah, the amount of U.S. dollars obtained by converting such foreign currency into U.S. dollars at the base rate for the purchase of U.S. dollars with the applicable foreign currency as quoted by the Federal Reserve Bank of New York for the date of determination.

"*Equity Interests*" means Capital Stock and all warrants, options or other rights to acquire Capital Stock (but excluding any debt security that is convertible into, or exchangeable for, Capital Stock).

"*Equity Offering*" means a public or private sale either (1) of Equity Interests of the Company by the Company (other than Disqualified Stock and other than to a Subsidiary of the Company) or (2) of Equity Interests of a direct or indirect parent entity of the Company (other than to the Company or a Subsidiary of the Company) to the extent that the net proceeds therefrom are contributed to the common equity capital of the Company.

"*Euroclear*" means the Euroclear System SA/NV.

"*Exchange Act*" means the U.S. Securities Exchange Act of 1934, as amended.

"*Existing Indebtedness*" means all Indebtedness of the Company and its Subsidiaries in existence on the date of the Indenture, until such amounts are repaid.

"*Fair Market Value*" means the value that would be paid by a willing buyer to an unaffiliated willing seller in a transaction not involving distress or necessity of either party, determined in good faith by the Board of Directors of the Company (unless otherwise provided in the Indenture).

"*Final Investment Decision*" means, with respect to the New Petrochemical Complex, the determination by the Company (and the passing of all necessary corporate approvals in connection therewith) to proceed with the construction and development of such New Petrochemical Complex, which determination shall set out the total projected construction cost of the New Petrochemical Complex, the amount of the Indebtedness which is projected to be incurred in respect of such project costs and the maximum permissible interest rate which will be applicable to such Indebtedness. Such determination shall be certified by the Company to the Trustee pursuant to an Officers Certificate which shall be issued no later than 30 days after the first date on which the Company receives all necessary corporate approvals in respect of such determination.

"*Fitch*" means Fitch, Inc. and its successors and affiliates.

"*Fixed Charge Coverage Ratio*" means with respect to any specified Person for any period, the ratio of the Consolidated EBITDA of such Person for such period to the Fixed Charges of such Person for such period. In the event that the specified Person or any of its Restricted Subsidiaries incurs, assumes, guarantees, repays, repurchases, redeems, defeases or otherwise discharges any Indebtedness (other than ordinary working capital borrowings) or issues, repurchases or redeems preferred stock subsequent to the commencement of the period for which the Fixed Charge Coverage Ratio is being calculated and on or prior to the date on which the event for which the calculation of the Fixed Charge Coverage Ratio is made (the "*Calculation Date*"), then the Fixed Charge Coverage Ratio will be calculated giving pro forma effect (in accordance with Regulation S-X under the Securities Act) to such incurrence, assumption, Guarantee, repayment, repurchase, redemption, defeasance or other discharge of Indebtedness, or such issuance, repurchase or redemption of preferred stock, and the use of the proceeds therefrom, as if the same had occurred at the beginning of the applicable four-quarter reference period.

In addition, for purposes of calculating the Fixed Charge Coverage Ratio:

(1) acquisitions that have been made by the specified Person or any of its Restricted Subsidiaries, including through mergers or consolidations, or any Person or any of its Restricted Subsidiaries acquired by the specified Person or any of its Restricted Subsidiaries, and including all related financing transactions and including increases in ownership of Restricted Subsidiaries, during the four-quarter reference period or subsequent to such reference period and on or prior to the Calculation Date, or that are to be made on the Calculation Date, will be given pro forma effect (in accordance with Regulation S-X under the Securities Act) as if they had occurred on the first day of the four-quarter reference period;

(2) the Consolidated EBITDA attributable to discontinued operations, as determined in accordance with GAAP, and operations or businesses (and ownership interests therein) disposed of prior to the Calculation Date, will be excluded;

(3) the Fixed Charges attributable to discontinued operations, as determined in accordance with GAAP, and operations or businesses (and ownership interests therein) disposed of prior to the Calculation Date, will be excluded, but only to the extent that the obligations giving rise to such Fixed Charges will not be obligations of the specified Person or any of its Restricted Subsidiaries following the Calculation Date;

(4) any Person that is a Restricted Subsidiary on the Calculation Date will be deemed to have been a Restricted Subsidiary at all times during such four-quarter period;

(5) any Person that is not a Restricted Subsidiary on the Calculation Date will be deemed not to have been a Restricted Subsidiary at any time during such four-quarter period; and

(6) if any Indebtedness bears a floating rate of interest, the interest expense on such Indebtedness will be calculated as if the rate in effect on the Calculation Date had been the applicable rate for the entire period (taking into account any Hedging Obligation applicable to such Indebtedness if such Hedging Obligation has a remaining term as at the Calculation Date in excess of 12 months).

"*Fixed Charges*" means, with respect to any specified Person for any period, the sum, without duplication, of:

(1) the consolidated interest expense of such Person and its Restricted Subsidiaries for such period, whether paid or accrued, including, without limitation, Additional Amounts paid in respect of the Notes or the Note Guarantees and similar amounts paid in respect of other Indebtedness, amortization of debt issuance costs and original issue discount, non-cash interest payments, the interest component of any deferred payment obligations, the interest component of all payments associated with Capital Lease Obligations, imputed interest with respect to Attributable Debt, commissions, discounts and other fees and charges incurred in respect of letter of credit or bankers' acceptance financings, and net of the effect of all payments made or received pursuant to Hedging Obligations in respect of interest rates; *plus*

(2) the consolidated interest expense of such Person and its Restricted Subsidiaries that was capitalized during such period; *plus*

(3) any interest on Indebtedness of another Person that is guaranteed by such Person or one of its Restricted Subsidiaries or secured by a Lien on assets of such Person or one of its Restricted Subsidiaries, whether or not such Guarantee or Lien is called upon; *plus*

(4) the product of (a) all dividends, whether paid or accrued and whether or not in cash, on any series of preferred stock of such Person or any of its Restricted Subsidiaries, other than dividends on Equity Interests payable solely in Equity Interests of the Company (other than Disqualified Stock) or to the Company or a Restricted Subsidiary of the Company, *times* (b) a fraction, the numerator of which is one and the denominator of which is one minus the then current combined national, provincial and local statutory tax rate of such Person, expressed as a decimal, in each case, determined on a consolidated basis in accordance with GAAP.

"*GAAP*" means Indonesian Financial Accounting Standards set forth in the opinions and pronouncements of the Indonesian Financial Accounting Standards Board as in effect from time to time.

"*Guarantee*" means a guarantee other than by endorsement of negotiable instruments for collection in the ordinary course of business, direct or indirect, in any manner including, without limitation, by way of a pledge of assets or through letters of credit or reimbursement agreements in respect thereof, of all or any part of any Indebtedness (whether arising by virtue of partnership arrangements, or by agreements to keep-well, to purchase assets, goods, securities or services, to take or pay or to maintain financial statement conditions or otherwise).

"*Hedging Obligations*" means, with respect to any specified Person, the obligations of such Person under:

(1) interest rate swap agreements (whether from fixed to floating or from floating to fixed), interest rate cap agreements and interest rate collar agreements;

(2) other agreements or arrangements designed to manage interest rates or interest rate risk; and

(3) other agreements or arrangements designed to protect such Person against fluctuations in currency exchange rates or commodity prices.

"*Immaterial Subsidiary*" means, as of any date, any Restricted Subsidiary whose total assets, as of that date, are less than US$15 million and whose total revenues for the most recent 12-month period do not exceed US$15 million; *provided* that a Restricted Subsidiary will not be considered to be an Immaterial Subsidiary if it, directly or indirectly, guarantees or otherwise provides direct credit support for any Indebtedness of the Company.

"*Indebtedness*" means, with respect to any specified Person, any indebtedness of such Person (excluding accrued expenses and trade payables), whether or not contingent:

(1) in respect of borrowed money;

(2) evidenced by or issued in exchange for bonds, notes, debentures or similar instruments or letters of credit (or reimbursement agreements in respect thereof);

(3) in respect of banker's acceptances;

(4) representing Capital Lease Obligations or Attributable Debt in respect of sale and leaseback transactions;

(5) representing the balance deferred and unpaid of the purchase price of any property or services due more than six months after such property is acquired or such services are completed; or

(6) representing any Hedging Obligations,

if and to the extent any of the preceding items (other than letters of credit, Attributable Debt and Hedging Obligations) would appear as a liability upon a balance sheet of the specified Person prepared in accordance with GAAP. In addition, the term "Indebtedness" includes all Indebtedness of others secured by a Lien on any asset of the specified Person (whether or not such Indebtedness is assumed by the specified Person) and, to the extent not otherwise included, the Guarantee by the specified Person of any Indebtedness of any other Person.

"*Indonesia*" means the Republic of Indonesia.

"*Indonesian Law Note Guarantees*" means the Note Guarantees by each Subsidiary Guarantor established under the laws of Indonesia of the Company's obligations under the Indenture and the Notes executed pursuant to the provisions of the Indenture and governed by the laws of Indonesia.

"*Investment Grade*" means a rating of Baa3 or higher by Moody's (or its equivalent under any successor rating category of Moody's); a rating of BBB-or higher by S&P (or its equivalent under any successor rating category of S&P); or a rating of BBB-or higher by Fitch (or its equivalent under any successor rating category of Fitch).

"*Investments*" means, with respect to any Person, all direct or indirect investments by such Person in other Persons (including Affiliates) in the forms of loans (including Guarantees or other obligations), advances or capital contributions (excluding commission, travel and similar advances to officers and employees made in the ordinary course of business), purchases or other acquisitions for consideration of Indebtedness, Equity Interests or other securities, together with all items that are or would be classified as investments on a balance sheet prepared in accordance with GAAP. If the Company or any Restricted Subsidiary of the Company sells or otherwise disposes of any Equity Interests of any direct or indirect Restricted Subsidiary of the Company such that, after giving effect to any such sale or disposition, such Person is no longer a Restricted Subsidiary of the Company, the Company will be deemed to have made an Investment on the date of any such sale or disposition equal to the Fair Market Value of the Company's Investments in such Subsidiary that were not sold or disposed of in an amount determined as provided in the final paragraph of the covenant described above under the caption "—Certain Covenants—Restricted Payments." The acquisition by the Company or any Restricted Subsidiary of the Company of a Person that holds an Investment in a third Person will be deemed to be an Investment by the Company or such Restricted Subsidiary in such third Person in an amount equal to the Fair Market Value of the Investments held by the acquired Person in such third Person in an amount determined as provided in the final paragraph of the covenant described above under the caption "—Certain Covenants—Restricted Payments." Except as otherwise provided in the Indenture, the amount of an Investment will be determined at the time the Investment is made and without giving effect to subsequent changes in value.

"*Lien*" means, with respect to any asset, any mortgage, lien, pledge, charge, security interest or encumbrance of any kind in respect of such asset, whether or not filed, recorded or otherwise perfected under applicable law, including any conditional sale or other title retention agreement, any lease in the nature thereof, any option or other agreement to sell or give a security interest in such asset and any filing of or agreement to give any financing statement under the laws of any jurisdiction.

"*Majority Shareholders*" means (1) the Barito Shareholders and (2) SCG Chemicals.

"*Moody's*" means Moody's Investors Service, Inc. and its successors and affiliates.

"*Net Proceeds*" means the aggregate amount of cash proceeds and Cash Equivalents received by the Company or any of its Restricted Subsidiaries in respect of any Asset Sale (including, without limitation, any cash or Cash Equivalents received upon the sale or other disposition of any non-cash consideration received in any Asset Sale), net of the direct costs relating to such Asset Sale, including, without limitation, legal, accounting and investment banking fees, sales commissions, any relocation expenses incurred as a result of the Asset Sale and taxes paid or payable as a result of the Asset Sale, in each case, after taking into account any available tax credits or deductions and any tax sharing arrangements and any reserve for adjustment or indemnification obligations in respect of the sale price of such asset or assets established in accordance with GAAP.

"*New Petrochemical Complex*" means the proposed new petrochemical complex to be developed by CAP2, which is currently envisaged to comprise a one million tonne per year ethylene cracker and various downstream derivatives products.

"*Non-Recourse Debt*" means Indebtedness:

(1) as to which neither the Company nor any of its Restricted Subsidiaries (a) provides credit support of any kind (including any undertaking, agreement or instrument that would constitute Indebtedness) or (b) is directly or indirectly liable as a guarantor or otherwise; and

(2) as to which the lenders have been notified in writing that they will not have any recourse to the stock or assets of the Company or any of its Restricted Subsidiaries (other than the Equity Interests of an Unrestricted Subsidiary).

"*Note Guarantee*" means the guarantee by each Subsidiary Guarantor of the Company's obligations under the Indenture and the Notes, executed pursuant to the provisions of the Indenture (including, in the case of a Subsidiary Guarantor incorporated under the laws of Indonesia, its Indonesian Law Note Guarantee).

"*Obligations*" means any principal, interest, penalties, fees, indemnifications, reimbursements, damages and other liabilities payable under the documentation governing any Indebtedness.

"*Officers' Certificate*" means a certificate signed on behalf of the Company by two Officers of the Company, one of whom must be the principal executive officer, the principal financial officer, the treasurer or the principal accounting officer of the Company, that is reasonably satisfactory in form and substance to the Trustee and meets the requirements of the Indenture.

"*Opinion of Counsel*" means a written opinion, from legal counsel of internationally recognized standing who is reasonably acceptable to the Trustee that meets the requirements of the Indenture.

"*Permitted Business*" means any business that is the same as, or reasonably related, ancillary or complementary to, any of the businesses in which the Company and its Restricted Subsidiaries are engaged on the date of the Indenture, as described in this Offering Memorandum.

"*Permitted Investments*" means:

(1) any Investment in the Company or a Subsidiary Guarantor;

(2) any Investment in Cash Equivalents;

(3) any Investment by the Company or any Restricted Subsidiary of the Company in a Person, if as a result of such Investment:

   (a) such Person becomes a Restricted Subsidiary of the Company and a Subsidiary Guarantor; or

   (b) such Person is merged, consolidated or amalgamated with or into, or transfers or conveys substantially all of its assets to, or is liquidated into, the Company or a Subsidiary Guarantor;

(4) any Investment made as a result of the receipt of non-cash consideration from an Asset Sale that was made pursuant to and in compliance with the covenant described above under the caption "—Repurchase at the Option of Holders—Asset Sales;"

(5) any acquisition of assets or Capital Stock solely in exchange for the issuance of Equity Interests (other than Disqualified Stock) of the Company;

(6) any Investments received in compromise or resolution of (A) obligations of trade creditors or customers that were incurred in the ordinary course of business of the Company or any of its Restricted Subsidiaries, including pursuant to any plan of reorganization or similar arrangement upon the bankruptcy or insolvency of any trade creditor or customer; or (B) litigation, arbitration or other disputes;

(7) Investments represented by Hedging Obligations in the ordinary course of business and not for speculative purposes and designed solely to protect the Company or any Restricted Subsidiary against fluctuations in commodity prices, interest rates or foreign currency exchange rates;

(8) loans or advances to employees made in the ordinary course of business of the Company or any Restricted Subsidiary of the Company in an aggregate principal amount not to exceed US$10 million (or the Dollar Equivalent thereof) at any one time outstanding;

(9) repurchases of the Notes;

(10) any guarantee of Indebtedness permitted to be incurred by the covenant entitled "—Certain Covenants—Incurrence of Indebtedness and Issuance of Preferred Stock" other than a guarantee of Indebtedness of an Affiliate of the Company that is not a Restricted Subsidiary of the Company;

(11) any Investment existing on, or made pursuant to binding commitments existing on, the date of the Indenture and any Investment consisting of an extension, modification or renewal of any Investment existing on, or made pursuant to a binding commitment existing on, the date of the Indenture; *provided* that the amount of any such Investment may be increased (a) as required by the terms of such Investment as in existence on the date of the Indenture or (b) as otherwise permitted under the Indenture;

(12) Investments acquired after the date of the Indenture as a result of the acquisition by the Company or any Restricted Subsidiary of the Company of another Person, including by way of a merger,

amalgamation or consolidation with or into the Company or any of its Restricted Subsidiaries, or all or substantially all of the assets of another Person, in each case, in a transaction that is not prohibited by the covenant described above under the caption "—Merger, Consolidation or Sale of Assets" after the date of the Indenture to the extent that such Investments were not made in contemplation of such acquisition, merger, amalgamation or consolidation and were in existence on the date of such acquisition, merger, amalgamation or consolidation;

(13) pledges or deposits (x) with respect to leases or utilities provided to third parties in the ordinary course of business or (y) otherwise described in the definition of Permitted Liens or Liens permitted to be incurred under the provisions of the covenant described above under the caption "—Liens";

(14) receivables owing to the Company or any Restricted Subsidiary, if created or acquired in the ordinary course of business and payable or dischargeable in accordance with customary trade terms;

(15) advances to contractors or suppliers for the acquisition of assets or consumables or services in the ordinary course of business that are recorded as deposits or prepaid expenses on the Company's consolidated balance sheet;

(16) other Investments by the Company or any Restricted Subsidiary in CAP2 for the purpose of funding the New Petrochemical Complex, provided that (a) such Investments are made on or after the occurrence of the Final Investment Decision, (b) the Company and its Restricted Subsidiaries shall have previously or contemporaneously therewith made Investments in CAP2 in an aggregate amount of not less than US$500 million under clause (c) of the first paragraph of the covenant described above under the caption "Certain Covenants—Restricted Payments" and (c) the aggregate Fair Market Value of all such Investments (measured on the date each such Investment was made and without giving effect to subsequent changes in value), when taken together with all other Investments made pursuant to this clause (16) that are at the time outstanding, shall not exceed 10% of Total Assets; and

(17) Investments by the Company or any Subsidiary Guarantor in CAP2 or any other Person engaged in the development, construction or operation of the New Petrochemical Complex arising solely from any Indebtedness incurred by the Company pursuant to clause (16) of the definition of Permitted Debt.

"*Permitted Liens*" means:

(1) Liens on assets of the Company or any of its Restricted Subsidiaries securing Indebtedness that was permitted by the terms of the Indenture to be incurred pursuant to clauses (1), (3), (4), (14) and (15) of the definition of Permitted Debt;

(2) Liens to secure Hedging Obligations permitted to be incurred under clause (7) of the definition of Permitted Debt;

(3) Liens on property of a Person existing at the time such Person becomes a Restricted Subsidiary of the Company or is merged with or into or consolidated with the Company or any Restricted Subsidiary of the Company; *provided* that such Liens were in existence prior to the contemplation of such Person becoming a Restricted Subsidiary of the Company or such merger or consolidation and do not extend to any assets other than those of the Person that becomes a Restricted Subsidiary of the Company or is merged with or into or consolidated with the Company or any Restricted Subsidiary of the Company;

(4) Liens on property (including Capital Stock) existing at the time of acquisition of the property by the Company or any Subsidiary of the Company; *provided* that such Liens were in existence prior to such acquisition and not incurred in contemplation of, such acquisition;

(5) Liens to secure the performance of statutory obligations, insurance, surety or appeal bonds, workers compensation obligations, performance bonds or other obligations of a like nature incurred in the ordinary course of business (including Liens to secure letters of credit issued to assure payment of such obligations);

(6) Liens to secure Indebtedness of Restricted Subsidiaries that are not Subsidiary Guarantors permitted under the covenant entitled "—Certain Covenants—Incurrence of Indebtedness and Issuance of Preferred Stock; *provided* that such Liens may not extend to any property or assets of the Company or any Subsidiary Guarantor other than the Capital Stock of such non-guarantor Restricted Subsidiaries;

(7) Liens on the Capital Stock of any Unrestricted Subsidiary to secure Indebtedness of such Unrestricted Subsidiary;

(8) Liens existing on the date of the Indenture, other than Liens securing Indebtedness and other obligations incurred pursuant to clause (1) of the definition of Permitted Debt;

(9) Liens for taxes, assessments or governmental charges or claims that are not yet delinquent or that are being contested in good faith by appropriate proceedings promptly instituted and diligently concluded; *provided* that any reserve or other appropriate provision as is required in conformity with GAAP has been made therefor;

(10) Liens imposed by law, such as carriers', warehousemen's, landlord's and mechanics' Liens, in each case, incurred in the ordinary course of business;

(11) survey exceptions, easements or reservations of, or rights of others for, licenses, rights-of-way, sewers, electric lines, telegraph and telephone lines and other similar purposes, or zoning or other restrictions as to the use of real property that were not incurred in connection with Indebtedness and that do not in the aggregate materially adversely affect the value of said properties or materially impair their use in the operation of the business of such Person;

(12) Liens created for the benefit of (or to secure) the Notes or the Note Guarantees;

(13) Liens to secure any Indebtedness that is permitted by the terms of the Indenture to be incurred pursuant to clause (5) of the definition of "Permitted Debt"; *provided, however,* that:

    (a) the new Lien is limited to all or part of the same property and assets that secured or, under the written agreements pursuant to which the original Lien arose, could secure the original Lien (plus improvements and accessions to, such property or proceeds or distributions thereof); and

    (b) the amount of the Indebtedness secured by the new Lien does not exceed the maximum amounts permitted to be incurred under subclauses (a) and (b) (as applicable) of clause (5) of the definition of "Permitted Debt";

(14) Liens on insurance policies and proceeds thereof, or other deposits, to secure insurance premium financings;

(15) filing of financing statements as a precautionary measure in connection with operating leases;

(17) bankers' Liens, rights of setoff, Liens arising out of judgments or awards not constituting an Event of Default and notices of *lis pendens* and associated rights related to litigation being contested in good faith by appropriate proceedings and for which adequate reserves have been made;

(18) Liens on cash, Cash Equivalents or other property arising in connection with the defeasance, discharge or redemption of Indebtedness;

(19) Liens on specific items of inventory or other goods (and the proceeds thereof) of any Person securing such Person's obligations in respect of bankers' acceptances issued or created in the ordinary course of business for the account of such Person to facilitate the purchase, shipment or storage of such inventory or other goods;

(20) grants of software and other technology licenses in the ordinary course of business;

(21) Liens arising out of conditional sale, title retention, consignment or similar arrangements for the sale of goods entered into in the ordinary course of business; and

(22) Liens in favor of the Company or any of the Subsidiary Guarantors.

"*Permitted Refinancing Indebtedness*" means any Indebtedness of the Company or any of its Restricted Subsidiaries issued in exchange for, or the net proceeds of which are used to renew, refund, refinance, replace, defease or discharge other Indebtedness of the Company or any of its Restricted Subsidiaries (other than intercompany Indebtedness); *provided* that:

(1) the principal amount (or accreted value, if applicable) of such Permitted Refinancing Indebtedness does not exceed the principal amount (or accreted value, if applicable) of the Indebtedness renewed, refunded, refinanced, replaced, defeased or discharged (plus all accrued interest on the Indebtedness and the amount of all fees and expenses, including premiums, incurred in connection therewith);

(2) such Permitted Refinancing Indebtedness has a final maturity date no earlier than either (a) the final maturity date of the Indebtedness being renewed, refunded, refinanced, replaced, defeased or discharged or (b) 366 days after the final maturity date of the Notes;

(3) such Permitted Refinancing Indebtedness has a Weighted Average Life to Maturity at the time such Permitted Refinancing Indebtedness is incurred that is no shorter than the Weighted Average Life to Maturity of the portion of the Indebtedness being renewed, refunded, refinanced, replaced, defeased or discharged;

(4) if the Indebtedness being renewed, refunded, refinanced, replaced, defeased or discharged is subordinated in right of payment to the Notes, such Permitted Refinancing Indebtedness is subordinated in right of payment to the Notes on terms at least as favorable to the holders of Notes as those contained in the documentation governing the Indebtedness being renewed, refunded, refinanced, replaced, defeased or discharged; and

(5) such Indebtedness is incurred either by the Company or by the Restricted Subsidiary of the Company that was the obligor on the Indebtedness being renewed, refunded, refinanced, replaced, defeased or discharged and is guaranteed only by Persons who were obligors on the Indebtedness being renewed, refunded, refinanced, replaced, defeased or discharged.

"*Person*" means any individual, corporation, partnership, joint venture, association, joint-stock company, trust, unincorporated organization, limited liability company or government or other entity.

"*Qualifying Equity Interests*" means Equity Interests of the Company other than (1) Disqualified Stock; and (2) Equity Interests sold in an Equity Offering prior to the third anniversary of the date of the Indenture that are eligible to be used to support an optional redemption of Notes pursuant to the "Optional Redemption" provisions of the Indenture.

"*Restricted Investment*" means an Investment other than a Permitted Investment.

"*Restricted Subsidiary*" of a Person means any Subsidiary of the referent Person that is not an Unrestricted Subsidiary.

"*S&P*" means Standard & Poor's Ratings Group and its successors and affiliates.

"*SCG Chemicals*" means SCG Chemicals Co., Ltd, a limited liability company established under the laws of the Kingdom of Thailand with its registered office at 1 Siam Cement Road, Bangsue, Bangkok 10800, Thailand.

"*Securities Act*" means the U.S. Securities Act of 1933, as amended.

"*Senior Secured Facilities*" means each of (1) the Company's IDR-denominated Series A Senior Secured Notes due 2019, (2) the Company's IDR-denominated Series B Senior Secured Notes due 2021, (3) the term loan facility incurred by the Company pursuant to that certain facility agreement dated September 29, 2012 between, amongst others, the Company, Bangkok Bank Public Company Limited, Jakarta Branch and The Siam Commercial Bank Public Company Limited, as arrangers, and the Bangkok Bank Public Company Limited, Jakarta Branch, as facility agent, (4) the term loan facility incurred by the Company pursuant to that certain facility agreement dated October 7, 2015, between, amongst others, the Company and PT Bank DBS Indonesia, as facility agent and (5) the term loan facility incurred by the Company pursuant to that certain the facility agreement dated November 28, 2016, between, amongst others, the Company and PT Bank DBS Indonesia, as facility agent.

"*Senior Debt*" means:

(1) all Indebtedness of the Company or any Subsidiary Guarantor outstanding under the Senior Secured Facilities, all Hedging Obligations and all Obligations with respect to any of the foregoing;

(2) any other Indebtedness of the Company or any Subsidiary Guarantor permitted to be incurred under the terms of the Indenture, unless the instrument under which such Indebtedness is incurred expressly provides that it is on a parity with or subordinated in right of payment to the Notes or any Note Guarantee; and

(3) all Obligations with respect to the items listed in the preceding clauses (1) and (2).

Notwithstanding anything to the contrary in the preceding, Senior Debt will not include:

(a) any liability for federal, state, local or other taxes owed or owing by the Company or any of its Subsidiaries;

(b) any intercompany Indebtedness of the Company or any of its Subsidiaries to the Company or any of its Affiliates;

(c) any trade payables;

(d) the portion of any Indebtedness that is incurred in violation of the Indenture; or

(e) Indebtedness which is classified as non-recourse in accordance with GAAP or any unsecured claim arising in respect thereof.

"*Siam Cement*" means Siam Cement Public Company Limited, a public company established under the laws of the Kingdom of Thailand with its registered office at 1 Siam Cement Road, Bangsue, Bangkok 10800, Thailand.

"*SGX-ST*" means Singapore Exchange Securities Trading Limited.

"*Significant Subsidiary*" means any Restricted Subsidiary that would be a "significant subsidiary" as defined in Article 1, Rule 1-02 of Regulation S-X, promulgated pursuant to the Securities Act, as such Regulation is in effect on the date of the Indenture.

"*Stated Maturity*" means, with respect to any installment of interest or principal on any series of Indebtedness, the date on which the payment of interest or principal was scheduled to be paid in the documentation governing such Indebtedness as of the first date it was incurred in compliance with the terms of the Indenture, and will not include any contingent obligations to repay, redeem or repurchase any such interest or principal prior to the date originally scheduled for the payment thereof.

"*Subsidiary*" means, with respect to any specified Person:

(1) any corporation, association or other business entity of which more than 50% of the total voting power of shares of Capital Stock entitled (without regard to the occurrence of any contingency and after giving effect to any voting agreement or stockholders' agreement that effectively transfers voting power) to vote in the election of commissioners, directors, managers or trustees of the corporation, association or other business entity is at the time owned or controlled, directly or indirectly, by that Person or one or more of the other Subsidiaries of that Person (or a combination thereof); and

(2) any partnership or limited liability company of which (a) more than 50% of the capital accounts, distribution rights, total equity and voting interests or general and limited partnership interests, as applicable, are owned or controlled, directly or indirectly, by such Person or one or more of the other Subsidiaries of that Person or a combination thereof, whether in the form of membership, general, special or limited partnership interests or otherwise, and (b) such Person or any Subsidiary of such Person is a controlling general partner or otherwise controls such entity.

"*Subsidiary Guarantor*" means any Subsidiary of the Company that executes a Note Guarantee in accordance with the provisions of the Indenture, and their respective successors and assigns, in each case, until the Note Guarantee of such Person has been released in accordance with the provisions of the Indenture.

"*Tax*" means any tax, duty, levy, impost, assessment or other governmental charge (including penalties and interest related thereto).

"*Total Assets*" means, as of any date, the total consolidated assets of the Company and its Restricted Subsidiaries measured in accordance with GAAP as of the last date of the most recent fiscal quarter for which consolidated financial statements of the Company are available (which may be internal consolidated financial statements).

"*Treasury Rate*" means, as of any redemption date, the yield to maturity as of the earlier of (a) such redemption date or (b) the date on which such Notes are defeased or satisfied and discharged, of the most recently issued United States Treasury securities with a constant maturity (as compiled and published in the most recent Federal Reserve Statistical Release H.15 (519) that has become publicly available at least two Business Days prior to such date (or, if such Statistical Release is no longer published, any publicly available source of similar market data)) most nearly equal to the period from the redemption date to 8 November 2021; *provided, however*, that if the period from the redemption date to 8 November 2021, is less than one year, the weekly average yield on actually traded United States Treasury securities adjusted to a constant maturity of one year will be used. Any such Treasury Rate shall be obtained by the Company.

"*Unrestricted Subsidiary*" means CAP2 and any Subsidiary of the Company (other than the Subsidiaries that are Restricted Subsidiaries on the date of the Indenture or any successor to any of them) that is designated by the Board of Directors of the Company as an Unrestricted Subsidiary pursuant to a resolution of the Board of Directors, but only to the extent that such Subsidiary:

(1) has no Indebtedness other than Non-Recourse Debt;

(2) except as permitted by the covenant described above under the caption "—Certain Covenants—Transactions with Affiliates," is not party to any agreement, contract, arrangement or understanding with the Company or any Restricted Subsidiary of the Company unless the terms of any such agreement, contract, arrangement or understanding are no less favorable to the Company or such Restricted Subsidiary than those that might be obtained at the time from Persons who are not Affiliates of the Company;

(3) is a Person with respect to which neither the Company nor any of its Restricted Subsidiaries has any direct or indirect obligation (a) to subscribe for additional Equity Interests or (b) to maintain or preserve such Person's financial condition or to cause such Person to achieve any specified levels of operating results; and

(4) has not guaranteed or otherwise directly or indirectly provided credit support for any Indebtedness of the Company or any of its Restricted Subsidiaries.

"*Voting Stock*" of any specified Person as of any date means the Capital Stock of such Person that is at the time entitled to vote in the election of the Board of such Person.

"*Weighted Average Life to Maturity*" means, when applied to any Indebtedness at any date, the number of years obtained by dividing:

(1) the sum of the products obtained by multiplying (a) the amount of each then remaining installment, sinking fund, serial maturity or other required payments of principal, including payment at final maturity, in respect of the Indebtedness, by (b) the number of years (calculated to the nearest one-twelfth) that will elapse between such date and the making of such payment; *by*

(2) the then outstanding principal amount of such Indebtedness.

TAXATION

The following discussion is a summary of certain Indonesian income tax and stamp duty consequences under present law of the purchase, ownership and disposition of the Notes. It addresses only purchasers who will hold the Notes as capital assets. It does not address the tax treatment of investors subject to special rules including banks, dealers, insurance companies and tax-exempt entities. It does not address state, local and foreign tax consequences of ownership and disposition of the Notes.

The summary is not intended to constitute a complete analysis of all tax consequences relating to the purchase, ownership and disposition of the Notes. This description is based on current laws, regulations and interpretations. These laws, regulations and interpretations, however, may change at any time, and any change could be retroactive to the date of issuance of the Notes. These laws and regulations are also subject to various interpretations and the relevant tax authorities or the courts could later disagree with the explanations or conclusions set out below.

The summary represents a general guide only. The summary does not constitute tax advice and should not be relied upon.

Prospective purchasers of the Notes should consult their own tax advisors concerning the tax consequences of their particular situations.

Indonesian Taxation

The following is a summary of the principal Indonesian tax consequences relevant to prospective holder of the Notes that are not tax residents in Indonesia and that have no permanent establishment in Indonesia. This summary only covers taxes imposed by Indonesia under Indonesian tax laws and their implementing regulations. The summary does not address any laws other than the tax laws of Indonesia in force and as they are applied in practice as at the date of this Offering Memorandum.

The summary represents a general guide only and should not be relied upon by individual or corporate holder of the Notes. It is recommended that holder of the Notes seek independent tax advice relevant to their facts and circumstances.

General

Resident taxpayers, individual or company, are subject to income tax in Indonesia. Generally, an individual is considered to be a non-resident of Indonesia if the individual does not reside in Indonesia or does not stay in Indonesia for more than 183 days within a twelve month period. A company will be considered to be a non-resident of Indonesia if the company is not established or domiciled in Indonesia. A non-resident may also be subject to Indonesia taxation if the non-resident earns or received income by conducting business or activities through a permanent establishment in Indonesia or the non-resident earns or received income sourced from Indonesia.

In determining the tax residency and allocation of taxing rights on income between two countries, of an individual or company, consideration will also be given to the provisions of any applicable tax treaty which Indonesia has concluded with other countries. In this section, both a non-resident individual and a non-resident company will be referred to as "**non-resident taxpayers**" unless the context requires otherwise.

Subject to the provisions of any applicable agreement for the avoidance of double taxation (a "**tax treaty**"), non-resident taxpayers which derive income sourced in Indonesia from (among other things):

(i) the sale of certain assets situated in Indonesia; and

(ii) interest, or payments in the nature of interest, such as premiums, are generally subject to a withholding tax on that income at the rate of 20.0%. The sale by non-resident taxpayers of certain Indonesian asset will be subject to 20.0% withholding on an estimated net income basis.

Taxation on Interest and Premium

Payments of principal under the Notes by the Company or the Subsidiary Guarantors are not subject to withholding tax in Indonesia. However, interest accrued or paid and sourced from Indonesia are subject to withholding tax. The amount of any payment (or accrual) by the Subsidiary Guarantors that are Indonesian tax residents ("**Resident Guarantors**"), under the Guarantees, attributable to interest payable on the Notes to a non-resident taxpayer will be subject to withholding tax in Indonesia at the rate of 20.0% or the relevant reduced rate under an applicable tax treaty.

Payments (or accruals) of interest made by the Company or the Subsidiary Guarantors to a non-resident taxpayer in whatever name or form under the Guarantees are subject to withholding tax at the rate of 20.0% on the gross amount, and this withholding tax is a final tax. However, the effective rate of tax may be reduced by virtue of a tax treaty, subject to satisfying the eligibility and reporting requirements for the relevant tax treaty and the domestic tax regulations. Please refer to the section "*Application of Tax Treaties under Indonesian Tax Regulations*".

Double Taxation Avoidance Agreements

Indonesia has signed tax treaties with a number of countries including Australia, Belgium, Canada, France, Germany, Japan, the Netherlands, Singapore, Sweden, Switzerland, the United Kingdom and the United States of America.

Where a tax treaty exists, the eligibility requirements of that treaty are satisfied if there is no abuse of the tax treaty, and the administrative requirements under Indonesian tax regulations are met. A reduced rate of withholding tax based on the tax treaty may then be applicable in the case of interest (or payments in the nature of interest such as premium). In this regard, the term "interest" may be defined differently in the various tax treaties to which Indonesia is a party.

To obtain the benefit of an applicable tax treaty, the non-resident taxpayer must be the actual owner of the economic benefits of the income (referred to as beneficial owner of the income) and comply with the eligibility requirements for application of the treaty in Indonesia. Please refer to "— *Application of Tax Treaties under Indonesian Tax Regulations*", "— *Certificate of Domicile (COD)*" and "— *Beneficial Owner"*. However, as discussed in the "*Description of the Notes — Additional Amounts*," and subject to the limitations therein, holder of the Notes will generally be entitled to Additional Amounts with respect to withholding tax irrespective of whether such holder of the Notes qualify for and establish eligibility for a reduced rate of withholding under any tax treaty.

Beneficial Owner

Based on Indonesian Director General of Taxation Regulation No. PER-10/PJ/2017 dated 19 June 2017 ("**PER 10/2017**") concerning Procedures for Application of a Tax Treaty, the actual owner of the economic benefits of the income (beneficial owner) is defined as the income recipient who is not acting as:

- an Agent, which refers to an individual or company that acts as an intermediary and carries out activities for and/or on behalf of another party;

- a Nominee, which refers to an individual or company that is the legal owner of an asset and/or income, for the benefit of, or acting under the instruction of, the actual asset owner and/or the party that actually enjoys the benefit of the income; and

- a conduit company, which refers to a company that enjoys benefits from the tax treaty in relation to income arising in Indonesia, whilst the economic benefits from that income are owned by an individual or a body in another country that would not be able to enjoy tax treaty benefits if the income were to be received directly,

and must meet the following requirements:

- the individual or entity has controlling rights or disposal rights on the income or the assets or rights that generate the income;

- No more than 50 per cent of the individual or entity's income is used to satisfy claims by other persons;

- The individual or entity bears the risks of its own assets, capital, and/or liabilities; and

- the entity does not have contracts obliging it to transfer the income received to a resident of a third country.

These concepts are implemented in the regulations by requiring non-residents to satisfy certain tests in order to be viewed as the "beneficial owner" and not engaged in treaty abuse.

Application of Tax Treaties under Indonesian Tax Regulations

According to PER 10/2017, the Indonesian tax withholder (i.e. the Indonesian party making a payment to a non-resident taxpayer) is allowed to withhold tax at the reduced rate in accordance with the provisions of a tax treaty provided, among other things, that:

(a) the foreign tax resident submits its Certificate of Residence that meets administrative requirements and other certain requirements; and

(b) abuse of a tax treaty does not take place; and

(c) the recipient of the income is the beneficial owner in the case of this being required by the tax treaty.

In the event of any of the above requirements not being met, the Indonesian tax withholder should withhold the tax in accordance with Indonesian tax regulations, i.e. at the rate of 20.0%.

Under PER 10/2017, a non-resident taxpayer is not considered to be participating in tax treaty abuse if:

(a) The principal purpose of the arrangements or transactions is not to obtain benefit from the convention in a manner that is contrary to the object and purpose of the Double Tax Convention (DTC);

(b) There are relevant economic motives or other valid reasons for the establishment of the foreign entity;

(c) The entity has its own management to conduct the business and such management enjoys independent discretion;

(d) The entity has sufficient assets to conduct business other than the assets generating income from Indonesia;

(e) The entity has sufficient and qualified personnel to conduct the business;

(f) The entity has business activity other than receiving dividend, interest, and/or royalty sources from Indonesia.

In cases where tax treaty abuse arises, the Indonesian tax withholder is not allowed to apply the tax treaty benefits and must withhold tax in accordance with Indonesian tax regulations, i.e. withholding tax at the rate of 20.0%.

If there is a difference between the legal form of a structure/scheme and the economic substance, the tax regulations will be applied in accordance with the economic substance (principle of substance over form).

Certificate of Domicile (COD)

Under PER 10/2017, a Certificate of Domicile ("**COD**") of a non-resident taxpayers is considered to have satisfied the administrative criteria if the following conditions are met:

(a) It is in the form prescribed by the DGT (i.e. Form DGT-1 or Form DGT-2, whichever is applicable);

(b) It is filled in correctly, completely and clearly;

(c) It is signed by the non-resident taxpayers;

(d) It is certified by the competent tax authority of the treaty country of the non-resident taxpayers;

(e) It is used for the period specified in the COD; and

(f) It is submitted by the tax withholder/collector together with submission of the monthly tax return, at the latest on the deadline of submission of the monthly tax return for the month the withholding tax is due.

In Form DGT-1, there are many requirements that have to be satisfied by the non-resident taxpayer including what is known as the eleven questions ("**Eleven Questions**"):

(a) The principal purpose of the arrangements or transactions is not to obtain benefit from the convention in a manner that is contrary to the object and purpose of the DTC.

(b) There are relevant economic motives or other valid reasons for the establishment of the foreign entity.

(c) The entity has its own management to conduct the business and such management enjoys independent discretion.

(d) The entity has sufficient assets to conduct business other than the assets generating income from Indonesia.

(e) The entity has sufficient and qualified personnel to conduct the business.

(f) The entity has business activity other than receiving dividend, interest, and/or royalty sources from Indonesia.

(g) The entity is not acting as an agent, nominee or conduit.

(h) The entity has controlling rights or disposal rights on the income or the assets or rights that generate the Income.

(i) No more than 50 per cent of the entity's income is used to satisfy claims by other persons.

(j) The entity bears the risks of its own assets, capital, and/or liabilities.

(k) The entity does not have contracts obliging it to transfer the income received to a resident of a third country.

In cases where income is received or earned by a non-resident taxpayer but no tax is withheld in Indonesia in accordance with the tax treaty, the Indonesian tax withholder is still obliged to arrange reporting of the COD.

Taxation on Capital Gains

Income derived by non-resident taxpayers, without a permanent establishment in Indonesia, from the disposal of Notes to other non-resident taxpayers, without a permanent establishment in Indonesia should not be subject to Indonesian income tax. However, if the seller of the Notes is an Indonesian resident taxpayer or an Indonesian permanent establishment, any capital gain from disposal of the Notes is subject to income tax in Indonesia up to a maximum rate of 30.0% for individuals, or 25.0% for companies.

Under Government Regulation No. 16/2009 as subsequently amended by Government Regulation No 100/2013, which took effect on 31 December 2013 ("**Tax Regulation No. 16**"), however, non-resident individuals and corporations without a permanent establishment in Indonesia may be subject to Indonesian withholding tax on any gain derived from the sale or other disposal of Notes to an Indonesian resident individual or corporation, including any purchase of the Notes by the Guarantor. Under Tax Regulation No. 16, gain on such sales would be subject to Indonesian withholding tax because it would be deemed to be Indonesian-sourced interest. Therefore, any gain from the sale of Notes to an Indonesian tax resident by an investor that is not an Indonesian tax resident where the transaction is conducted through a securities company, dealer or bank in Indonesia (either as intermediary or buyer), will be subject to the 20% Indonesian withholding tax normally applicable to Indonesian-sourced interest. However, if the non-resident investor is a tax resident of a country that has signed a tax treaty with Indonesia, relief from the imposition of such withholding tax may be available to the extent that the relevant treaty treats the gain as taxable only by the country in which the investor is resident for tax purposes, rather than treating the gain as interest. Please note that for the tax treaty to apply, the non- resident individuals and corporations need to provide the Indonesian resident individual or corporation with a valid Certificate of Domicile.

Other Indonesian Taxes

There are no Indonesian estates, inheritance, succession, or gift taxes generally applicable to the acquisition, ownership or disposition of the notes. There are no Indonesian issues, registration or similar taxes payable by holder of the Notes.

Stamp duty

According to Government Regulation No. 24 of 2000, a document that effects a sale of Notes is subject to stamp duty. Currently, the nominal amount of Indonesian stamp duty is Rp6,000 for transactions having a value greater than Rpl,000,000 and Rp3,000 for transactions having a value of up to Rpl,000,000. Generally, stamp duty is due at the time the document is executed. Stamp duty is payable by the party that benefits from the executed document unless both parties agree otherwise.

Certain United States Federal Income Tax Considerations

The following discussion is a summary of certain United States federal income tax considerations relevant to a US Holder (defined below) of the purchase, ownership and disposition of the Notes. The discussion is not a complete description of all the tax considerations that may be relevant to a particular holder. This summary is based on the Internal Revenue Code of 1986, as amended, administrative pronouncements, judicial decisions and final, temporary and proposed Treasury Regulations, all as of the date hereof, all of which are subject to change (including changes in effective dates and retroactive changes) or possible differing interpretations which may affect the tax consequences described herein. No ruling will be sought from the US Internal Revenue Service (the "**IRS**") with respect to any statement or conclusion in this discussion, and there can be no assurance that the IRS will not challenge such statement or conclusion in the following discussion or, if challenged, a court will uphold such statement or conclusion.

The discussion addresses only initial purchaser of the Notes that are US Holders (as defined below), that hold the Notes as capital assets, that purchase the Notes at their "issue price," which will be the first price at which a substantial amount of the Notes is sold to the public (not including bond houses, brokers or similar persons or organisations acting in the capacity of underwriters, placement agents or wholesalers) for money, that have the U.S. dollar as their functional currency, and that are not resident, and do not have a permanent establishment, in Indonesia. It does not address the tax consequences that may be relevant to the tax treatment of investors subject to special rules, such as banks, insurance companies, investors liable for the alternative minimum tax, beneficial owners of individual retirement accounts and other tax-deferred accounts, tax-exempt organisations, dealers in securities or currencies, traders that elect mark-to-market treatment, or investors that will hold the Notes as part of straddles, hedging transactions or conversion transactions for US federal tax purposes. In addition, this summary does not address any state, local or non-US tax consequences of the purchase, ownership or disposition of the Notes, the Medicare tax on net investment income or any US federal tax consequences other than income tax (such as estate and gift tax consequences).

PROSPECTIVE PURCHASERS OF THE NOTES SHOULD CONSULT THEIR OWN TAX ADVISORS AS TO THE US FEDERAL, STATE, LOCAL AND NON-US TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF THE NOTES.

US Holders

As used here, "**US Holder**" means a beneficial owner of Notes that is, for US federal income tax purposes:

(i) an individual who is a citizen or resident of the United States;

(ii) a corporation (or other business entity classified as a corporation) created or organised under the laws of the United States, any State thereof or the District of Columbia;

(iii) an estate the income of which is subject to US federal income tax without regard to its source; or

(iv) a trust if a court within the United States is able to exercise primary supervision over the administration of the trust and one or more US persons have the authority to control all substantial decisions of the trust.

If a partnership or other entity or arrangement treated as a partnership for US federal income tax purposes purchases, holds or disposes of the Notes, the tax treatment of a partner in the partnership will generally depend upon the status of the partner and the activities of the partnership. A US Holder that is a partnership or a partner in a partnership holding the Notes is urged to consult its own tax advisor.

Taxation of interest

The gross amount of stated interest payments received by a US Holder (including any foreign tax withheld and any Additional Amounts paid with respect thereto) with respect to the Notes will generally be includible in taxable income as ordinary interest income at the time it accrues or is received in accordance with the US Holder's method of tax accounting for US federal income tax purposes.

Interest payments on the Notes will generally be from foreign sources for US federal income tax purposes and will generally be treated as "passive category income" for US foreign tax credit purposes.

As described in "*Taxation — Indonesian Taxation*", interest payments will generally be subject to a 20.0% Indonesian withholding tax, which may be subject to reduction pursuant to the US-Indonesia tax treaty. The Company is required to pay Additional Amounts with respect to such tax as described in "*Description of the Notes — Additional Amounts*". Subject to applicable limitations, any Indonesian taxes withheld from interest payments and Additional Amounts paid in respect thereof may be creditable (in an amount not in excess of the applicable rate under the US-Indonesia tax treaty in the case of a US Holder that qualifies for benefits under such treaty) against, or available as a deduction in computing, the US Holder's US federal income tax liability. The US foreign tax credit rules are extremely complex. US Holders should consult their own tax advisors regarding the availability of US foreign tax credits and the application of the US foreign tax credit rules to their particular situation.

Taxation of the sale, exchange, redemption or retirement of a Note

Upon the sale, exchange, redemption or retirement of a Note, a US Holder generally will recognise capital gain or loss in an amount equal to the difference between the amount realised on the sale, exchange, redemption or retirement (less any accrued but unpaid interest, which will be taxable as interest income to the extent not previously included in income) and the US Holder's tax basis in such Note. A US Holder's adjusted tax basis in a Note will generally equal the amount the US Holder paid to acquire the Note. Gain or loss recognised by a US Holder generally will be long-term capital gain or loss if the US Holder has held the Note for more than one year at the time of disposition. Certain non-corporate US Holders (including individuals) may qualify for reduced rates of US federal income taxation in respect of long-term capital gains. The deductibility of capital losses is subject to certain limitations. Gain or loss realised by a US Holder on the sale, exchange, redemption or retirement of a Note generally will be treated for foreign tax credit purposes as gain or loss arising from sources within the United States.

As described in "*Taxation — Indonesian Taxation*," in certain circumstances gain from the sale of Notes may be subject to Indonesian tax. US Holders will likely not be able to credit such Indonesian tax against its US federal income tax liability with respect to any gain realised by the US Holder upon the disposition of Notes unless it has other foreign-source income in the applicable taxable year. US Holders should consult their tax advisors regarding the creditability of any such tax and their eligibility for the US-Indonesia tax treaty.

Information reporting and backup withholding

Payments of interest, principal, Additional Amounts (if any) or proceeds from the disposition of a Note may be subject to information reporting or to backup withholding of US federal income tax if a recipient who is a US Holder fails to furnish with respect to the Notes an IRS Form W-9 containing such US Holder's taxpayer identification number or to otherwise fails to establish an exemption from backup withholding. Backup withholding is not an additional tax and any amounts deducted and withheld may be allowed as a credit against the recipient's US federal income tax liability, if any. If backup withholding results in an overpayment of taxes, a refund may be obtained provided that the required information is timely furnished to the US IRS.

US Holders should consult their own tax advisors regarding any additional tax reporting or filing requirements they may have as a result of acquiring, owning or disposing of Notes, including requirements related to the holding of certain foreign financial assets and accounts. Failure to comply with applicable reporting obligations could result in the imposition of substantial penalties.

Singapore Taxation

The statements below are general in nature and are based on certain aspects of current tax laws in Singapore and administrative guidelines and circulars issued by the Inland Revenue Authority of Singapore ("**IRAS**"), the Monetary Authority of Singapore ("**MAS**") and other relevant authorities in force as at the date of this Offering Memorandum and are subject to any changes in such laws, administrative guidelines or circulars, or the interpretation of those laws, administrative guidelines or circulars occurring after such date, which changes could be made on a retroactive basis. These laws, administrative guidelines and circulars are also subject to various interpretations and the relevant tax authorities or the courts could later disagree with the explanations or conclusions set out below. Neither these statements nor any other statements in this Offering Memorandum are intended or are to be regarded as advice on the tax position of any holder of the Notes or of any person acquiring, selling or otherwise dealing with the Notes or on any tax implications arising from the acquisition, sale or other dealings in respect of the Notes. The statements made herein do not purport to be a comprehensive or exhaustive description of all the tax considerations that may be relevant to a decision to subscribe for, purchase, own or dispose of the Notes and do not purport to deal with the tax consequences applicable to all categories of investors, some of which (such as dealers in securities or financial institutions in Singapore which have been granted the relevant Financial Sector Incentive(s)) may be subject to special rules or tax rates. The statements should not be regarded as advice on the tax position of any person and should be treated with appropriate caution. Prospective holders and holders of the Notes are advised to consult their own professional tax advisers as to the Singapore or other tax consequences of the acquisition, ownership of or disposal of the Notes, including, in particular, the effect of any foreign, state or local tax laws to which they are subject. It is emphasised that none of the Company, Subsidiary Guarantors, Initial Purchasers and any other persons involved in the issuance of the Notes accepts responsibility for any tax effects or liabilities resulting from the subscription for, purchase, holding or disposal of the Notes.

Interest and Other Payments

As the issue of the Notes is jointly lead-managed by Citigroup Global Markets Singapore Pte. Ltd., DBS Bank Ltd., The Hongkong and Shanghai Banking Corporation Limited, Singapore Branch, Deutsche Bank AG, Hong Kong Branch and Mandiri Securities Pte. Ltd., and more than half of which are Financial Sector Incentive (Bond Market) Companies, Financial Sector Incentive (Capital Market) Companies and/or Financial Sector Incentive (Standard Tier) Companies (each as defined in the ITA) at such time, and the Notes are issued as debt securities prior to 31 December 2018, the Notes would be "qualifying debt securities" ("**QDS**") for the purposes of the ITA, to which the following treatments shall apply.

Subject to certain conditions having been fulfilled (including the furnishing by the Company, or such other person as the relevant authorities may direct, of a return on debt securities for the Notes in the prescribed format within such period as the relevant authorities may specify and such other particulars in connection with the Notes as the relevant authorities may require to MAS and such other relevant authorities as may be prescribed), interest, discount income (not including discount income arising from secondary trading), prepayment fee, redemption premium and break cost (collectively, the "**Qualifying Income**") from the Notes paid by the Company and derived by any company or body of persons (as defined in the ITA) in Singapore is subject to tax at a concessionary rate of 10 per cent. (except for holders of the relevant Financial Sector Incentive(s) who may be taxed at different rates).

Notwithstanding the foregoing:

(a) if during the primary launch of the Notes, the Notes are issued to fewer than four persons and 50 per cent. or more of the issue of the Notes are beneficially held or funded, directly or indirectly, by related parties of the Company, the Notes would not qualify as QDS; and

(b) even though the Notes are QDS, if 50 per cent. or more of the issue of the Notes which are outstanding at any time during the life of their issue is beneficially held or funded, directly or indirectly, by any related party(ies) of the Company, Qualifying Income derived from the Notes held by:

  i. any related party(ies) of the Company; or

  ii. any other person where the funds used by such person to acquire the Notes are obtained, directly or indirectly, from any related party(ies) of the Company,

  shall not be eligible for the tax exemption or concessionary rate of tax as described above.

The term "**related party**", in relation to a person, means any other person who, directly or indirectly, controls that person, or is controlled, directly or indirectly, by that person, or where he and that other person, directly or indirectly, are under the control of a common person.

The terms "**prepayment fee**", "**redemption premium**" and "**break cost**" are defined in the ITA as follows:

"**prepayment fee**", in relation to debt securities and qualifying debt securities, means any fee payable by the issuer of the securities on the early redemption of the securities, the amount of which is determined by the terms of the issuance of the securities;

"**redemption premium**", in relation to debt securities and qualifying debt securities, means any premium payable by the issuer of the securities on the redemption of the securities upon their maturity; and

"**break cost**", in relation to debt securities and qualifying debt securities, means any fee payable by the issuer of the securities on the early redemption of the securities, the amount of which is determined by any loss or liability incurred by the holder of the securities in connection with such redemption.

References to "prepayment fee", "redemption premium" and "break cost" in this Singapore tax disclosure have the same meaning as defined in the ITA.

All foreign-sourced income received in Singapore on or after 1 January 2004 by Singapore tax-resident individuals will be exempt from income tax, provided such foreign-sourced income is not received through a partnership in Singapore.

Where interest, discount income, prepayment fee, redemption premium or break cost (i.e. the Qualifying Income) is derived from the Notes by any person who is not resident in Singapore and who carries on any operations in Singapore through a permanent establishment in Singapore, the tax exemption available for QDS under the ITA shall not apply if such person acquires such Notes using the funds and profits of such person's operations through a permanent establishment in Singapore. Any person whose interest, discount income, prepayment fee, redemption premium or break cost (i.e. the Qualifying Income) derived from the Notes is not exempt from tax is required to include such income in a return of income made under the ITA.

Under the Qualifying Debt Securities Plus Scheme ("**QDS Plus Scheme**"), subject to certain conditions having been fulfilled (including the furnishing by the Company, or such other person as the relevant authorities may direct, of a return on debt securities in respect of the QDS in the prescribed format within such period as the relevant authorities may specify and such other particulars in connection with the QDS as the relevant authorities may require to MAS and such other relevant authorities as may be prescribed), income tax exemption is granted on Qualifying Income derived by any investor from QDS (excluding Singapore Government Securities) which:

(a) are issued during the period from 16 February 2008 to 31 December 2018 (both dates inclusive);

(b) have an original maturity of not less than ten years;

(c) are issued on or after 28 June 2013, cannot have their tenure shortened to less than 10 years from the date of their issue, except where:

  (i) the shortening of the tenure is a result of any early termination pursuant to certain specified early termination clauses prescribed in the regulations which the issuer included in any offering document for such QDS; and

  (ii) the QDS do not contain any call, put, conversion, exchange or similar option that can be triggered at specified dates or at specified prices which have been priced into the value of the QDS at the time of their issue; and

(d) cannot be re-opened with a resulting tenure of less than ten years to the original maturity date.

However, even if the Notes are QDS which qualify under the QDS Plus Scheme, if, 50 per cent. or more of the issue of the Notes which are outstanding at any time during the life of their issue is beneficially held or funded, directly or indirectly, by any related party(ies) of the Company, Qualifying Income from such Notes derived by:

(aa) any related party(ies) of the Company; or

(bb) any other person where the funds used by such person to acquire such Notes are obtained, directly or indirectly, from any related party(ies) of the Company,

shall not be eligible for the tax exemption under the QDS Plus Scheme as described above.

Capital Gains

Any gains considered to be in the nature of capital made from the sale of the Notes will not be taxable in Singapore. However, any gains derived by any person from the sale of the Notes which are gains from any trade, business, profession or vocation carried on by that person, if accruing in or derived from Singapore, may be taxable as such gains are considered revenue in nature.

Holders of the Notes who apply or are required to apply Singapore Financial Reporting Standard 39 — Financial Instruments: Recognition and Measurement ("**FRS 39**") may, for Singapore income tax purposes, be required to recognise gains or losses (not being gains or losses in the nature of capital) on the Notes, irrespective of disposal. Please see the section below entitled "*Adoption of FRS 39 Treatment for Singapore Income Tax Purposes*".

Adoption of FRS 39 Treatment for Singapore Income Tax Purposes

The IRAS has issued a circular entitled "Income Tax Implications Arising from the Adoption of FRS 39-Financial Instruments: Recognition and Measurement" (the "**FRS 39 Circular**"). Legislative amendments to give effect to the FRS 39 Circular have been enacted in Section 34A of the ITA.

The FRS 39 Circular and Section 34A of the ITA generally apply, subject to certain "opt-out" provisions, to taxpayers who are required to comply with FRS 39 for financial reporting purposes.

Holders of the Notes and prospective holders of the Notes who may be subject to the tax treatment under the FRS 39 Circular and Section 34A of the ITA should consult their own accounting and tax advisers regarding the Singapore income tax consequences of their acquisition, holding or disposal of the Notes.

The Accounting Standards Council has issued a new financial reporting standard for financial instruments, FRS 109 — Financial Instruments which will become mandatorily effective for annual periods beginning on or after 1 January 2018. It is at present unclear whether, and to what extent, the replacement of FRS 39 by FRS 109 will affect the tax treatment of financial instruments which currently follows FRS 39. Holders of the Notes and prospective holders of the Notes should consult their own accounting and tax advisers on the proposed tax treatment to understand the implications and consequences that may be applicable to them.

Estate Duty

Singapore estate duty has been abolished with respect to all deaths occurring on or after 15 February 2008.

PLAN OF DISTRIBUTION

Citigroup Global Markets Singapore Pte. Ltd., DBS Bank Ltd., The Hongkong and Shanghai Banking Corporation Limited, Singapore Branch, Deutsche Bank AG, Hong Kong Branch and Mandiri Securities Pte Ltd, or the Initial Purchasers, are acting as the joint bookrunners of the offering of Notes. Subject to the terms and conditions stated in the purchase agreement dated the date of this Offering Memorandum (the "**Purchase Agreement**"), each Initial Purchaser named below has severally agreed to purchase, and the Company has agreed to sell to each such Initial Purchaser, the principal amount of the Notes set forth opposite the name of such Initial Purchaser.

Initial Purchaser	Principal Amount
Citigroup Global Markets Singapore Pte. Ltd.	US$80,000,000
DBS Bank Ltd.	US$80,000,000
The Hongkong and Shanghai Banking Corporation Limited, Singapore Branch.	US$80,000,000
Deutsche Bank AG, Hong Kong Branch	US$30,000,000
Mandiri Securities Pte Ltd	US$30,000,000

The Purchase Agreement provides that the obligation of the Initial Purchasers to take and pay for the Notes is subject to the approval of certain legal matters by its counsel and certain other conditions. The Initial Purchasers have agreed to take and pay for all of the Notes if any are taken. The Initial Purchasers propose to offer the Notes initially at the price indicated on the cover page of this Offering Memorandum. After the offering, the offering price and other selling terms may be varied from time to time by the Initial Purchasers. The Initial Purchasers may offer and sell the Notes through certain of their affiliates and may provide to such affiliates an opportunity to purchase some of the Notes in the initial offering.

The Notes are a new issue of securities with no established trading market. Approval-in-principle has been received for the listing and quotation of the Notes on the SGX-ST. We have been advised that the Initial Purchasers presently intend to make a market in the Notes, as permitted by applicable laws and regulations. The Initial Purchasers are not obligated, however, to make a market in the Notes, and any such market-making may be discontinued at any time without prior notice at the sole discretion of the Initial Purchasers. Accordingly, no assurance can be given as to the liquidity of, or trading markets for, the Notes.

The Initial Purchasers may engage in over-allotment, stabilising transactions, covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Over-allotment involves sales in excess of the offering size, which creates a short position for the Initial Purchasers. Stabilising transactions permit bidders to purchase the underlying security so long as the stabilising bids do not exceed a specified maximum. Covering transactions involve purchase of the Notes in the open market after the distribution has been completed in order to cover short positions. Penalty bids permit the Initial Purchasers to reclaim a selling concession from a broker or dealer when the Notes originally sold by that broker or dealer are purchased in a stabilising or covering transaction to cover short positions.

We have been advised by the Initial Purchasers that, in connection with the offering of the Notes, Citigroup Global Markets Singapore Pte. Ltd., as stabilising manager (the "**Stabilising Manager**"), or any person or entity acting on its behalf, may engage in transactions that stabilise, maintain or otherwise affect the price of the Notes. Specifically, the Stabilising Manager, or any person or entity acting on its behalf, may overallot the offering, creating a syndicate short position. In addition, the Stabilising Manager, or any person or entity acting on its behalf, may bid for, and purchase, the Notes in the open market to cover syndicate shorts or to stabilise the price of the Notes. The Stabilising Manager, or any person or entity acting on its behalf, may bid for and purchase Notes in market-making transactions as permitted by applicable laws and regulations and impose penalty bids. Any of these activities may stabilise or maintain the market price of the Notes above independent market levels. The Stabilising Manager, or any person or entity acting on its behalf, is not required to engage in these activities, and may end any of these activities at any time. No assurance can be given as to the liquidity of, or the trading market for, the Notes. See "*Risk Factors—Risks relating to the Notes and the Guarantees*."

The Initial Purchasers and certain of their affiliates have in the past and may in the future have performed certain investment banking, commercial/corporate banking and advisory services for the Company and/or its affiliates from time to time for which they have received customary fees and expenses and may, from time to time, engage in transactions with and perform banking and advisory services for the Company and/or its affiliates in the ordinary course of business. Certain affiliates of the Initial Purchasers are the Joint Global Coordinators and Joint Bookrunners in respect of our Note issuance. In addition, certain affiliates of the Initial Purchasers have provided certain financing commitments to the Company. We may enter into hedging or other derivative transactions as part of our risk management strategy with the Initial Purchasers, which may include transactions relating to our obligations under the Notes. Our obligations under these transactions may be secured by cash or other collateral.

In connection with the offering of the Notes, the Initial Purchasers or their affiliates may purchase the Notes and/or other securities of the Company for its or their own account and enter into transactions, including credit derivatives, such as asset swaps, repackaging and credit default swaps relating to the Notes and/or other securities of the Company or their respective subsidiaries or associates at the same time as the offer and sale of the Notes or in secondary market transactions. Such transactions would be carried out as bilateral trades with selected counterparties and separately from any existing sale or resale of the Notes to which this Offering Memorandum relates (notwithstanding that such selected counterparties may also be purchasers of the Notes).

We have agreed to provide to the Initial Purchasers certain customary fees or discounts for its services in connection with the offering of the Notes and to reimburse the Initial Purchasers for certain out-of-pocket expenses.

Persons who purchase Notes from the Initial Purchasers may be required to pay stamp duty, taxes and other charges in accordance with the laws and practice of the country of purchase in addition to the offering price set forth on the cover page of this Offering Memorandum.

The Purchase Agreement provides that we will indemnify and hold harmless the Initial Purchasers against certain liabilities, including liabilities under the Securities Act, and will contribute to payments that the Initial Purchasers may be required to make in respect thereof. We have agreed not to offer, sell, contract to sell or otherwise dispose of, or announce the offering of, except as provided under the Purchase Agreement, any international debt securities (including any guarantee) of the Company or its subsidiaries having a tenor of one year or more during the period from the date of the Purchase Agreement through and including the date 30 days after the issue date, without the prior written consent of the Initial Purchasers.

The Initial Purchasers or certain of their affiliates may purchase the Notes and be allocated Notes for asset management and/or proprietary purposes and not with a view to distribution.

We expect that delivery of the Notes will be made against payment therefore on or about the closing date specified on the cover page of this Offering Memorandum, which will be on or about the seventh business day following the pricing date of the Notes (this settlement cycle is referred to as "T+7"). Under Rule 15c6-l of the Exchange Act, trades in the secondary market generally are required to settle in two business days, unless the parties to any such trade expressly agree otherwise. Accordingly, purchasers who wish to trade Notes on the date of pricing or the next succeeding business day will be required, by virtue of the fact that the Notes initially will settle in T+7, to specify an alternate settlement cycle at the time of any such trade to prevent a failed settlement. Purchasers of the Notes who wish to trade the Notes on the date of pricing or succeeding business day should consult their own legal advisor.

Selling Restrictions

General

No action has been taken or will be taken in any jurisdiction by the Company or the Initial Purchasers that would permit a public offering of Notes, or the possession, circulation or distribution of this Offering Memorandum or any other material relating to the Notes or this offering, in any jurisdiction where action for that purpose is required. Accordingly, the Notes may not be offered or sold, directly or indirectly, and neither this Offering Memorandum nor such other material may be distributed or published, in or from any country or jurisdiction except in compliance with any applicable rules and regulations of such country or jurisdiction.

Cayman Islands

The Notes have not been offered or sold, and will not be offered or sold, to the public in the Cayman Islands.

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "**Relevant Member State**"), each Joint Bookrunner represents, warrants and agrees that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the "**Relevant Implementation Date**") it has not made and will not make an offer of Notes which are the subject of the offering contemplated by this Offering Memorandum to the public in that Relevant Member State except that it may, with effect from and including the Relevant Implementation Date, make an offer of such Notes to the public in that Relevant Member State:

(a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;

(b) to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive) as permitted under the Prospectus Directive subject to obtaining the prior consent of the relevant Manager or Managers nominated by the Company for any such offer; or

(c) in any other circumstances falling within Article 3(2) of the Prospectus Directive,

provided that no such offer of Notes shall require the Company or any Manager to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive.

For the purposes of this provision, the expression an "**offer of Notes to the public**" in relation to any Notes in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the Notes to be offered so as to enable an investor to decide to purchase or subscribe the Notes, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression "**Prospectus Directive**" means Directive 2003/71/EC (as amended by Directive 2010/73/EU) and includes any relevant implementing measure in the Relevant Member State.

Hong Kong

The Initial Purchasers have represented and agreed that:

(1) it has not offered or sold and will not offer or sell in Hong Kong, by means of any document, any Notes other than (a) to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong (the "**SFO**") and any rules made under the SFO; or (b) in

other circumstances which do not result in the document being a "prospectus" as defined in the Companies (Winding Up and Miscellaneous Provisions Ordinance (Cap. 32) of Hong Kong (the "**C(WUMP)O**") or which do not constitute an offer to the public within the meaning of the C(WUMP)O; and

(2) it has not issued or had in its possession for the purposes of issue, and will not issue or have in its possession for the purposes of issue, whether in Hong Kong or elsewhere, any advertisement, invitation or document relating to the Notes, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to Notes which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the SFO and any rules made under the SFO.

Indonesia

The Offering Memorandum may not be delivered or provided to more than 100 persons who are citizens of Indonesia (wherever they are domiciled or located) or entities of or residents in Indonesia. The Notes may not be sold to more than 50 persons who are citizens of Indonesia (wherever they are domiciled or located) or entities of or residents in Indonesia.

Japan

The Notes have not been and will not be registered under the Securities and Exchange Law of Japan, or the Securities and Exchange Law, and they have not, directly or indirectly, been offered or sold and will not, directly or indirectly, be offered or sold in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organised under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Securities and Exchange Law and any other applicable laws and regulations of Japan.

Korea

The Company is not making any representation with respect to the eligibility of any recipients of this document to acquire the Notes therein under the laws of Korea, including, but without limitation, the Foreign Exchange Transaction Law and Regulations thereunder.

The Notes have not been and will not be registered under the Financial Investment Services and Capital Markets Act of Korea (the "**FSCMA**"). Accordingly, the Notes may not be offered, sold or delivered, or offered or sold to any person for re-offering or resale, directly or indirectly, in Korea or to, or for the account or benefit of, any resident of Korea (as such term is defined under the Foreign Exchange Transaction Law of Korea and its Enforcement Decree), for a period of one year from the date of issuance of the Notes, except (i) where relevant requirements are satisfied, the Notes may be offered, sold or delivered to or for the account or benefit of a Korean resident which falls within certain categories of qualified professional investors as specified in the FSCMA, its Enforcement Decree and the Regulation on Securities Issuance and Disclosure promulgated thereunder, or (ii) as otherwise permitted under applicable Korean laws and regulations.

Furthermore, the Notes may not be re-sold to Korea residents unless the purchaser of the Notes complies with all applicable regulatory requirements (including, but not limited to, governmental approval requirements under the Foreign Exchange Transaction Law and its subordinate decrees and regulations) in connection with purchase of the Notes.

The People's Republic of China

This Offering Memorandum does not constitute a public offer of the Notes, whether by way of sale or subscription, in the PRC. No Notes may be offered or sold, directly or indirectly, and neither the Offering Memorandum nor any advertisement or other offering material may be distributed or published in the PRC, except in compliance with applicable laws and regulations of the PRC.

Singapore

The Initial Purchasers have acknowledged that this Offering Memorandum has not been registered as a prospectus with the Monetary Authority of Singapore (the "**MAS**"). Accordingly, the Initial Purchasers have represented, warranted and agreed that it has not offered or sold any Notes or caused the Notes to be made the subject of an invitation for subscription or purchase and will not offer or sell any Notes or cause the Notes to be made the subject of an invitation for subscription or purchase, and has not circulated or distributed, nor will it circulate or distribute, this Offering Memorandum or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the Notes, whether directly or indirectly, to any person in Singapore other than (i) to an institutional investor (as defined in Section 4A of the Securities and Futures Act (Chapter 289 of Singapore) (the "**SFA**")) pursuant to Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the Notes are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

(a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the Notes pursuant to an offer made under Section 275 of the SFA except:

(i) to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;

(ii) where no consideration is or will be given for the transfer;

(iii) where the transfer is by operation of law;

(iv) as specified in Section 276(7) of the SFA; or

(v) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

United Kingdom

The Initial Purchasers have represented, warranted and undertaken to the Company that:

(a) Financial promotion: it has only communicated or caused to be communicated, and will only communicate or cause to be communicated, any invitation or inducement to engage in investment activity (within the meaning of section 21 of the FSMA) received by it in connection with the issue or sale of any Notes in circumstances in which section 21(1) of the FSMA does not apply; and

(b) General compliance: it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the Notes in, from or otherwise involving the United Kingdom.

United States of America

The Notes and the Guarantees have not been and will not be registered under the Securities Act and may not be offered, sold or delivered except (i) within the United States to qualified institutional buyers in reliance on Rule 144A, and (ii) outside the United States in offshore transactions in reliance on Regulation S under the Securities Act. Resales of the Notes are restricted as described under "*Transfer Restrictions*."

TRANSFER RESTRICTIONS

You are advised to consult legal counsel prior to making any offer, resale, pledge or other transfer of any of the Notes offered hereby.

General

The Notes and the Guarantees have not been and will not be registered under the Securities Act or any state securities laws and may not be offered, sold or delivered within the United States (as defined in Regulation S under the Securities Act) except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act and applicable state securities laws. Accordingly, the Notes are being offered and sold only to (i) "qualified institutional buyers" (as defined in Rule 144A under the Securities Act) ("**QIBs**") in compliance with Rule 144A and (ii) outside the United States in offshore transactions in reliance on Regulation S under the Securities Act. We use the terms "offshore transaction" and "United States" with the meanings given to them in Regulation S.

Important information about the offering

By its purchase of the Notes, each purchaser of the Notes will be deemed to:

(i) represent that it is not an "affiliate" of the Company (as defined in Rule 144 under the Securities Act) or acting on the Company's behalf, and is purchasing the Notes for its own account or an account with respect to which it exercises sole investment discretion and that it and any such account is: (a) a QIB, and is aware that the sale to it is being made in reliance on Rule 144A; or (b) a purchaser that is outside the United States and is purchasing the Notes in an offshore transaction in accordance with Regulation S;

(ii) acknowledge that the Notes and the Guarantees are being offered in a transaction not involving a public offering in the United States within the meaning of the Securities Act and have not been and will not be registered under the Securities Act and may not be offered or sold within the United States except as set forth below;

(iii) agree on its own behalf and on behalf of any investor account for which it is purchasing the Notes, and each subsequent holder of the Notes by its acceptance thereof will be deemed to agree, that if it is a purchaser other than a purchaser outside the United States which has acquired the Notes in an offshore transaction under Regulation S, and if it should resell or otherwise transfer the Notes within the time period referred to in Rule 144(d) under the Securities Act with respect to such transfer, it will do so only: (a) (1) to the Company or any subsidiary thereof; (2) inside the United States to a QIB in compliance with Rule 144A; (3) outside the United States in an offshore transaction in compliance with Rule 904 under the Securities Act; (4) pursuant to the exemption from registration provided by Rule 144 under the Securities Act (if available), in each case in accordance with any applicable securities laws of any state of the United States and subject to the Trustee's rights prior to any such offer, sale or transfer to require that a certificate of transfer in the form appearing in the indenture is completed and delivered by the transferor to the Trustee; or (b) pursuant to an effective registration statement under the Securities Act;

(iv) agree that it will inform each person to whom it transfers the Notes of any restrictions on transfer of such Notes;

(v) understand that if it is a purchaser outside the United States, the Notes will be represented by the Regulation S Global Note and that transfers thereto are restricted as described in this section. If it is a QIB, it understands that the Notes offered in reliance on Rule 144A will be represented by the Restricted Global Note. Before any interest in the Restricted Global Note may be offered, sold, charged or otherwise transferred to a person who is not a QIB, the transferee will be required to provide the Trustee with a written certification (the form of which certification can be obtained from the Trustee) as to compliance with the transfer restriction referred to above;

(vi) understand that each Note will bear a legend substantially to the following effect:

THIS NOTE AND THE GUARANTEES RELATED TO THIS NOTE HAVE NOT BEEN REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE "**SECURITIES ACT**"), OR THE SECURITIES LAWS OF ANY STATE OR OTHER JURISDICTION AND ACCORDINGLY, NEITHER THIS NOTE NOR ANY INTEREST OR PARTICIPATION HEREIN MAY BE OFFERED, SOLD ASSIGNED, TRANSFERRED, PLEDGED, ENCUMBERED OR OTHERWISE DISPOSED OF IN THE ABSENCE OF SUCH REGISTRATION OR UNLESS SUCH TRANSACTION IS EXEMPT FROM, OR NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT. BY ITS ACQUISITION HEREOF, THE HOLDER (1) REPRESENTS THAT (A) IT IS A "**QUALIFIED INSTITUTIONAL BUYER**" (AS DEFINED IN RULE 144A UNDER THE SECURITIES ACT) OR (B) IS ACQUIRING THIS NOTE IN AN OFFSHORE TRANSACTION IN COMPLIANCE WITH REGULATION S UNDER THE SECURITIES ACT, (2) AGREES ON ITS OWN BEHALF AND ON BEHALF OF ANY INVESTOR FOR WHICH IT HAS PURCHASED SECURITIES THAT IT WILL NOT WITHIN THE TIME PERIOD REFERRED TO IN RULE 144(d) UNDER THE SECURITIES ACT AS IN EFFECT WITH RESPECT TO SUCH TRANSFER, RESELL OR OTHERWISE TRANSFER THIS NOTE EXCEPT (A) (I) TO THE COMPANY OR ANY SUBSIDIARY THEREOF; (II) INSIDE THE UNITED STATES TO A QUALIFIED INSTITUTIONAL BUYER IN COMPLIANCE WITH RULE 144A UNDER THE SECURITIES ACT; (III) OUTSIDE THE UNITED STATES IN AN OFFSHORE TRANSACTION IN COMPLIANCE WITH RULE 904 UNDER THE SECURITIES ACT; (IV) PURSUANT TO THE EXEMPTION FROM REGISTRATION PROVIDED BY RULE 144 UNDER THE SECURITIES ACT (IF AVAILABLE); OR (B) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT AND (3) AGREES THAT IT WILL DELIVER TO EACH PERSON TO WHOM THIS NOTE IS TRANSFERRED A NOTICE SUBSTANTIALLY TO THE EFFECT OF THIS LEGEND. IN CONNECTION WITH ANY TRANSFER OF THIS NOTE WITHIN THE TIME PERIOD REFERRED TO ABOVE, THE HOLDER MUST CHECK THE APPROPRIATE BOX SET FORTH ON THE REVERSE HEREOF RELATING TO THE MANNER OF SUCH TRANSFER AND SUBMIT THIS CERTIFICATE TO THE TRANSFER AGENT, AND IF REQUESTED BY THE TRANSFER AGENT, AN OPINION OF COUNSEL, CERTIFICATE AND/OR OTHER INFORMATION SATISFACTORY TO THE TRUSTEE AND THE TRANSFER AGENT. AS USED HEREIN, THE TERMS "**OFFSHORE TRANSACTION**," AND "**UNITED STATES**" HAVE THE MEANINGS GIVEN TO THEM BY REGULATION S UNDER THE SECURITIES ACT. THE INDENTURE CONTAINS A PROVISION REQUIRING THE REGISTRAR AND TRANSFER AGENT TO REFUSE TO REGISTER ANY TRANSFER OF THIS NOTE IN VIOLATION OF THE FOREGOING RESTRICTIONS;

(vii) represent that either (i) it is not using the assets of, and shall not at any time hold this Note (or any interest therein) for or on behalf of, an "employee benefit plan" as defined in Section 3(3) of ERISA, that is subject to Title I of ERISA, a "plan" as defined in and subject to Section 4975, an entity whose underlying assets include or are deemed for purposes of ERISA or the Code to include "plan assets" by reason of an employee benefit plan or plan's investment in such entity, or a governmental, church or non-US plan subject to federal, state, local or non-US laws substantially similar to Section 406 of ERISA or Section 4975 of the Code ("**Similar Law**"); or (ii) the acquisition, holding and subsequent disposition of such Notes or an interest therein by such person will not constitute or result in a non-exempt prohibited transaction under ERISA or the Code or violation of a Similar Law. Any purported purchase or transfer of such an interest that does not comply with the foregoing shall be null and void;

(viii) acknowledge that the Company, the Transfer Agent (as defined herein), the Trustee and the Initial Purchasers will rely upon the truth and accuracy of the foregoing acknowledgements, representations and agreements, and agree that if any of the acknowledgements, representations or agreements deemed to have been made by its purchase of the Notes are no longer accurate, it shall promptly notify the Company, the Transfer Agent (as defined herein), the Trustee and the Initial Purchasers. If it is acquiring any Notes as a fiduciary or agent for one or more investor accounts, it represents that it has sole investment discretion with respect to each such account and it has full power to make the foregoing acknowledgements, representations and agreements on behalf of each such account;

(ix) acknowledge that none of the Company or the Initial Purchasers, nor any person representing any of them, has made any representation with respect to us or the Company or the offer or sale of any of the Notes, other than the information contained in this Offering Memorandum, which Offering Memorandum has been delivered to it and upon which it is relying in making your investment decision with respect to the Notes. It acknowledges that neither the Initial Purchasers nor any person representing the Initial Purchasers makes any representation or warranty as to the accuracy or completeness of this Offering Memorandum. It has had access to such financial and other information concerning the Company and the Notes as it has deemed necessary in connection with its decision to purchase any of the Notes, including an opportunity to ask questions of, and request information from, us and the Initial Purchasers;

(x) agree that it is purchasing the Notes for its own account, or for one or more investor accounts for which it is acting as a fiduciary or agent, in each case for investment, and not with a view to, or for offer or sale in connection with, any distribution thereof in violation of the Securities Act or any state securities laws, subject to any requirement of law that the disposition of its property or the property of such investor account or accounts be at all times within its or their control and subject to its or their ability to resell such Notes pursuant to Rule 144A or Regulation S;

(xi) acknowledge that the foregoing restrictions apply to holders of beneficial interests in these Notes as well as to holders of the Notes;

(xii) acknowledge that the Transfer Agent and the Registrar will not be required to accept for registration or transfer any Notes except upon presentation of evidence satisfactory to the Transfer Agent and the Registrar that the restrictions set forth therein have been complied with; and

(xiii) understand that no action has been taken in any jurisdiction (including the United States) by the Company or the Initial Purchasers that would result in a public offering of the Notes or the possession, circulation or distribution of this Offering Memorandum or any other material relating to the Company or the Notes in any jurisdiction where action for such purpose is required.

RATINGS

We expect the Notes to be assigned a provisional rating of "Ba3" by Moody's, "BB-" by Fitch and "B+" by S&P. The ratings reflect the rating agencies' assessment of the likelihood of timely payment of the principal of and interest on the Notes. The ratings do not address the payment of any Additional Amounts and do not constitute recommendations to purchase, hold or sell the Notes inasmuch as such ratings do not comment as to market price or suitability for a particular investor. We cannot assure you that the ratings will remain in effect for any given period or that the ratings will not be revised by such rating agencies in the future if in their judgment, circumstances so warrant. Additionally, other statistical ratings organisations may issue an unsolicited rating. If any such unsolicited ratings are issued, we cannot assure you that they will not be different from those ratings assigned by Moody's, Fitch or S&P. Each such rating should be evaluated independently of any other rating on the Notes, on other of our securities, or on us.

LEGAL MATTERS

Certain legal matters in connection with the offering of the Notes will be passed upon for us by Clifford Chance with respect to matters of United States federal securities laws and New York laws and by Assegaf Hamzah & Partners as to matters of Indonesian law. Certain legal matters in connection with the offering of the Notes will be passed upon for the Joint Global Coordinators and Joint Bookrunners by Latham & Watkins LLP with respect to United States federal securities laws and New York laws and Hadiputranto, Hadinoto & Partners as to matters of Indonesian law. Certain Indonesian tax matters in connection with the offering of the Notes will be passed upon for us by PSS Consult (a member of the Ernst & Young network of firms). Certain Singapore tax matters in connection with the offering of the Notes will be passed upon for us by Rajah & Tann Singapore LLP.

INDEPENDENT PUBLIC ACCOUNTANTS

Our audited consolidated financial statements as of and for the years ended 31 December 2014, 2015 and 2016 and the six month periods ended 30 June 2016 and 2017 included herein have been audited by Satrio Bing Eny & Rekan (member of Deloitte Touche Tohmatsu Limited) in accordance with the auditing standards established by the IICPA.

INDUSTRY EXPERT

Nexant has given and not withdrawn its written consent to the issue of this Offering Memorandum with the inclusion herein of their name and all references thereto and to the inclusion of the industry report prepared by Nexant as Annex A to this Offering Memorandum, in the form and context in which it appears in this Offering Memorandum and to act in such capacity in relation to this Offering Memorandum.

LISTING AND GENERAL INFORMATION

Listing of the Notes

Approval-in-principle has been received for the listing and quotation of the Notes on the SGX-ST. The SGX-ST assumes no responsibility for the correctness of any of the statements made or opinions or reports contained in this Offering Memorandum. Admission of the Notes to the Official List of the SGX-ST is not to be taken as an indication of the merits of the Notes or us. The Notes will be traded on the SGX-ST in a minimum board lot size of US$200,000 for so long as the Notes are listed on the SGX-ST.

For so long as the Notes are listed on the SGX-ST and the rules of the SGX-ST so require, we will appoint and maintain a paying agent in Singapore, where the Notes may be presented or surrendered for payment or redemption, in the event that a Global Note is exchanged for definitive Notes. In addition, in the event that a Global Note is exchanged for definitive Notes, an announcement of such exchange shall be made by or on behalf of us through the SGX-ST and such announcement will include all material information with respect to the delivery of the definitive Notes, including details of the paying agent in Singapore.

Clearing system and settlement

The Notes have been accepted for clearance through the facilities of DTC, for the accounts of its participants, including Euroclear and Clearstream. Certain trading information with respect to the Notes is set forth below:

	CUSIP	ISIN	Common Code
144A Notes	69371G AA8	US69371GAA85	171131294
Regulation S Notes	Y7141G AA0	USY7141GAA05	171131308

Only Notes evidenced by a Global Note have been accepted for clearance through DTC, for the accounts of its participants, including Euroclear and Clearstream.

Documents available

For so long as any of the Notes are outstanding, copies of the Indenture governing the Notes may be inspected free of charge during normal business hours on any weekday (except public holidays) at the corporate trust office of the Trustee.

SUMMARY OF CERTAIN PRINCIPAL DIFFERENCES BETWEEN INDONESIAN FINANCIAL ACCOUNTING STANDARDS AND U.S. GAAP

The financial statements included in this Offering Memorandum have been prepared in conformity with Indonesian FAS, which differs in certain significant respects from U.S. GAAP. This summary should not be taken as an exhaustive list of all the differences between Indonesian FAS and U.S. GAAP. No attempt has been made to identify all disclosure, presentation or classification differences that would affect the manner in which transactions or events are presented in the consolidated financial statements (or the notes thereto). Those differences that may have a material effect on the consolidated financial statements are summarised below. We have not quantified the effects of the differences discussed below. Accordingly, no assurance can be provided to investors that the respective financial statements would not be materially different if prepared in accordance with U.S. GAAP. In making an investment decision, investors must rely upon their own examination of us, the terms of the Offering and the financial information. Potential investors should consult their own professional advisers for an understanding of the differences between Indonesian FAS and U.S. GAAP, and how those differences might affect the financial information disclosed in this Offering Memorandum.

Inventories

Under Indonesian FAS, inventories are stated at the lower of acquisition cost or net realisable value. The net realisable value is the estimated selling price at the reporting date reduced by the estimated expense incurred in connection with selling the product.

Under U.S. GAAP, inventories are measured at the lower of cost or market. Market is defined as the current replacement cost, which cannot exceed net realisable value or fall below net realisable value reduced by an approximately normal profit margin.

Under Indonesian FAS, write-downs taken to reduce inventories to the lower of cost or net realisable value are reversed for subsequent increases in value.

Under U.S. GAAP, write-downs taken to reduce inventories to the lower of cost or net realisable value are not reversed for subsequent increases in value. As a result, under U.S. GAAP, write-downs of inventory can only be recovered through a sale or a disposition.

For fiscal years beginning after 15 December 2016, Indonesian FAS and U.S. GAAP have the same treatment.

Deferred Taxes

Under Indonesian FAS, deferred tax assets relating to future tax benefits and the carry forward of unused tax losses are recognised to the extent that it is probable that future taxable profit will be available against which the future tax benefits and unused tax losses can be utilised. No deferred tax liabilities are recorded on excess book over tax basis if the entity can control the reversal and it is probable that the difference will not reverse in the foreseeable future.

Under U.S. GAAP, deferred tax assets are recognised in the statements of financial position at full value, but are reduced by a valuation allowance if based on the weight of available evidence it is "more likely than not" that some portion, or all, of the deferred tax assets will not be realised. In determining whether a valuation allowance is necessary, an entity may generally consider future anticipated income in measuring the valuation allowance if that entity has a history of losses.

For fiscal years beginning before 15 December 2016, the classification of deferred tax assets and deferred tax liabilities follows the classification of the related, non-tax asset or liability for financial reporting (as either current or non-current). If a deferred tax asset is not associated with an underlying asset or liability, it is classified based on the anticipated reversal periods. Any valuation allowances are allocated between current and non-current deferred tax assets for a tax jurisdiction on a pro-rata basis. For fiscal years beginning after 15 December 2016, U.S. GAAP requires deferred tax liabilities and assets be classified as non-current in the statement of financial position.

Uncertain Tax Positions

Accounting for uncertain tax positions is not specifically addressed within Indonesian FAS. The tax consequences of events should follow the manner in which an entity expects the tax position to be resolved (through either payment or receipt of cash) with the taxation authorities as of the end of reporting date. Practice has developed to measure the amount of provision required due to an uncertain tax position, including the expected value/ probability-weighted-average approach and the single-best outcome/ most-likely-outcome method. Use of the cumulative probability model required by U.S. GAAP is generally not supported by Indonesian FAS. In addition, the additional tax and penalties due in a tax assessment is charged to expense unless an objection or appeal is submitted, in which case the amounts paid are deferred and recognised as an asset **provided that** asset recognition criteria are met. Asset recognition is met only if the entity can demonstrate that it has reasonable ground to expect a recovery of the amount being appealed. That is, it is probable (i.e., more likely than not) that the entity will win the appeal; otherwise the amount paid as a result of a tax assessment should be expensed.

U.S. GAAP prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a position taken or expected to be taken in a tax return. Uncertain tax positions are recognised and measured using a two-step process, first determining whether a benefit may be recognised and subsequently measuring the amount of the benefit. Tax benefits from uncertain tax positions can be recognised only if it is more likely than not that the tax position is sustainable based on its technical merits. Uncertain tax positions are evaluated at the individual tax position level. The tax position is measured by using a cumulative probability model: the largest amount of tax benefit that is greater than 50.0% likely of being realised upon ultimate settlement. The classification of interest and penalties related to uncertain tax positions (either in income tax expense or as a pretax item) represents an accounting policy decision that is to be consistently applied and disclosed.

Land Use Rights

In Indonesia, except for ownership rights (*Hak Milik*), granted to individuals, the title of land rests with the Government under the Basic Agrarian Law No. 5 of 1960. Land use is accomplished through land rights whereby the holder of the right enjoys the full use of the land for a stated period of time, subject to extensions. Land rights generally are freely tradable and may be pledged as security under borrowing agreements. Under Indonesian FAS, the initial legal costs paid to obtain the land use rights are considered to be part of the cost of land and therefore such costs are not depreciated. Subsequent costs incurred to renew land use rights are capitalised as part of intangible assets and are depreciated over the shorter of the legal life of the land rights or the economic life of the land.

Under U.S. GAAP, land use rights are usually considered leases. Any premium paid for such rights represents prepaid lease payments which should be amortised over the period the holder is expected to retain the land rights.

GLOSSARY OF TECHNICAL TERMS

benzene	An aromatic hydrocarbon in the form of a colourless, flammable liquid
butadiene	Also called 1,3-butadiene, a flammable gaseous olefin used in making synthetic rubbers
butadiene rubber	A material commonly used in the automotive industry, particularly tire production
butene-1	An organic chemical base, derived from cracking of petroleum or distillate, and used mainly to produce butadiene and butanol
C_4	Hydrocarbons consisting of four carbon atoms, a by-product of the cracking process and a feedstock in the production of butadiene among other petrochemicals
capacity utilisation	The total production (including off-specifications products) expressed as a percentage of nameplate capacity, adjusted for plant debottlenecking, scheduled turnaround and scheduled maintenance during the year or period
CFR	Cost and freight, the delivery of goods to the named port of destination (discharge) at the seller's expense, where the buyer is responsible for the cargo insurance and other costs and risks
condensate	Heavy hydrocarbon liquids recovered from natural gas, which may be stored at normal atmospheric pressure and temperature
cracking	A refining process which breaks down large molecules of oil into smaller molecules. When the process is achieved by applying heat only, it is known as thermal cracking. If a catalyst is used as well, it is known as catalytic cracking. Cracking uses molecular decomposition and recombination to produce a range of more useful base chemicals suitable for motor oils or petrochemicals
cubic metre	A cubic metre of gas at a temperature of 0 Centigrade and an ambient pressure of one atmosphere
debottlenecking	Increasing production capacity of existing facilities through the modification of existing equipment to remove throughput restrictions
DWT	Dead weight tonnes, as a measurement of the bulk freight capacity of a ship
ethane	A gaseous hydrocarbon and a major constituent of natural gas and a major raw material for the ethylene petrochemical industry
ethyl benzene	An aromatic hydrocarbon used in the production of styrene, which in turn is used for making polystyrene, a common plastic material
ethylene	An essential organic chemical base derived from the thermal cracking of ethane and naphtha or from the dehydration of ethanol It is used to make polyester and many organic chemical intermediates, such as polyethylene, ethylene oxide, ethylene glycol, vinyl chloride, styrene, acetaldehyde and ethanol

feedstock	Raw materials used in a processing plant, of which naphtha and ethane are the most important for the olefins industry
FOB	Free on board, the delivery of goods on board the vessel at the named port of origin (loading), at seller's expense, where the buyer is responsible for the main carriage/freight, cargo insurance and other costs and risks
GTG	Gas turbine generator
HDPE	High density polyethylene, used for tubes, pipes, household containers, toys, grocery bags, water coolers, milk bottles and other products
hectare	Metric unit of area equal to 10,000 square metres, or 2,471 acres
hydrocarbons	Substances composed of carbon and hydrogen
ICIS	International Chemical Information Services, an information provider for the chemical and energy industries
KT	Thousands of metric tonnes
KT/A	Thousands of metric tonnes per annum
LLDPE	Linear low density polyethylene, a strong, clear film used for packaging and other products
LPG	Liquefied petroleum gas, primarily propane and butene produced at refineries or natural gas processing plants
monomers	Small molecules that may become chemically bonded to other monomers to form a polymer
MOPJ	Means of Platts CFR Japan, which shows daily price assessment of CFR Japan open specification naphtha market
MT or tonne	One metric tonne, is equal to 1,000 kilograms, or 2,204.6 pounds.
MW	Megawatt (one million Watts), a measure of electrical power
nameplate capacity	The capacity of a production plant based on technology licenses and/or production rates guaranteed by the construction contractor
naphtha	A general term used for low boiling hydrocarbon fractions that are a product of crude oil or condensate refining Naphtha is used as feedstock for ethylene and propylene production
natural gas	A colourless, highly-flammable gaseous hydrocarbon consisting primarily of methane, ethane, and small amounts of heavier gaseous hydrocarbon compounds such as propane
olefins	A straight or branched-chain hydrocarbon with at least one unsaturated carbon-carbon bond. Produced by cracking feedstock from raw materials such as natural gas and crude oil. The main olefins are ethylene and propylene and also include butadiene and C_4 derivatives

operating rate	Total production expressed as a percentage of nameplate capacity
petrochemicals	Chemicals derived from petroleum or natural gas
Platts	A published price index for petrochemicals and feedstock
polyethylene	A polymer, derived from polymerisation of ethylene, and used to make various plastics such as film and sheet, piping and containers
polymer	When certain individual molecules (monomers) come together and link up in a chain-like fashion they form a polymer. The chemical reaction that forms a polymer is called polymerisation
polyolefins	Hydrocarbons resulting from the chemical combination of olefins or olefins and other polyolefins
polypropylene	A polymer derived from the polymerisation of propylene It is used to make packaging materials, toys, mechanical parts, housewares, synthetic fibres and other products
propylene	An organic chemical base, which is a colourless, flammable, gaseous hydrocarbon obtained from the thermal cracking of hydrocarbons, ranging from natural gas liquids (ethane, propane and butene) to petroleum liquids (naphtha and gas oils). It is used to make polypropylene, acrylonitrile, propanoic acid ester, phenol, acetone, synthetic petroleum, synthetic resins, synthetic rubber and synthetic fibres
pygas	Pyrolysis gasoline, a naphtha-range product with a high aromatics content, used in the production of benzene, toluene and mixed xylenes and as a motor vehicle gas blending stock
resin	Any natural or synthetic organic compound consisting of a noncrystalline or viscous liquid substance. Natural resins are organic substances that are transparent or translucent, formed in plant secretions Synthetic resins comprise a large class of synthetic products that have some of the physical properties of natural resins but are different chemically Most synthetic resins are polymers
SDM	Shutdown maintenance
SEA CFR	A standard price for various olefins and petrochemical products which includes the cost of the product and of shipment Southeast Asia-based price cost and freight
STG	Steam turbine generator
TAM	Turnaround maintenance
thermal cracking	A petroleum refining process used to break up heavy oil molecules into lighter, more valuable fractions (e g, gasoline or kerosene) by the use of high temperature without the aid of catalysts It is used to convert gas oils into naphtha

toluene	A clear, water-insoluble liquid with the typical smell of paint thinners
xylene	Xylene is an aromatic hydrocarbon that is a base for many petrochemicals and is used to derive orthoxylene and paraxylene. Orthoxylene is used in the production of plasticisers, vitamins, drugs and dyes and paraxylene is used in the production of polyester and PTA

INDEX TO THE CONSOLIDATED FINANCIAL STATEMENTS

PT Chandra Asri Petrochemical Tbk and its Subsidiaries: Consolidated Financial Statements and Supplementary Information for the six month periods ended 30 June 2017 and 2016 and the years ended 31 December 2016, 2015 and 2014

Chandra Asri
Petrochemical

PT. CHANDRA ASRI PETROCHEMICAL Tbk
DAN ENTITAS ANAK/*AND ITS SUBSIDIARIES*

LAPORAN KEUANGAN KONSOLIDASIAN
DAN INFORMASI TAMBAHAN/
CONSOLIDATED FINANCIAL STATEMENTS
AND SUPPLEMENTARY INFORMATION

UNTUK PERIODE ENAM BULAN YANG BERAKHIR
30 JUNI 2017 DAN 2016 DAN TAHUN-TAHUN
YANG BERAKHIR 31 DESEMBER 2016, 2015 DAN 2014/
FOR THE SIX-MONTH PERIODS ENDED JUNE 30, 2017 AND 2016
AND THE YEARS ENDED DECEMBER 31, 2016, 2015 AND 2014

DAN LAPORAN AUDITOR INDEPENDEN/
AND INDEPENDENT AUDITORS' REPORT

PT Chandra Asri Petrochemical Tbk

SURAT PERNYATAAN DIREKSI
TENTANG TANGGUNG JAWAB ATAS LAPORAN KEUANGAN KONSOLIDASIAN
DAN INFORMASI TAMBAHAN
PERIODE ENAM BULAN YANG BERAKHIR 30 JUNE 2017 DAN 2016
DAN TAHUN-TAHUN YANG BERAKHIR 31 DESEMBER 2016, 2015 DAN 2014
PT. CHANDRA ASRI PETROCHEMICAL Tbk DAN ENTITAS ANAK
DIRECTORS' STATEMENT LETTER
RELATING TO THE RESPONSIBILITY ON THE CONSOLIDATED FINANCIAL STATEMENTS
AND SUPPLEMENTARY INFORMATION
FOR THE SIX-MONTH PERIODS ENDED JUNE 30, 2017 AND 2016
AND THE YEARS ENDED DECEMBER 31, 2016, 2015 AND 2014
PT. CHANDRA ASRI PETROCHEMICAL Tbk *AND ITS SUBSIDIARIES*

Kami yang bertanda tangan dibawah ini: / We, the undersigned:

1. Nama/*Name* : Erwin Ciputra
   Alamat kantor/*Office address* : Wisma Barito Pacific Tower A, Lantai 7, Jl. Let. Jend. S. Parman Kav 62-63, Jakarta 11410
   Alamat domisili sesuai KTP atau kartu identitas lain/ *Domicile as stated in ID Card* : Jl. Prof. M. Yamin No. 34 RT. 004 RW. 005, Menteng - Jakarta Pusat
   Nomor Telepon/*Phone Number* : + 62 21 5307950
   Jabatan/*Position* : Presiden Direktur/*President Director*

2. Nama/*Name* : Terry Lim Chong Thian
   Alamat kantor/*Office address* : Wisma Barito Pacific Tower A, Lantai 7, Jl. Let. Jend. S. Parman Kav 62-63, Jakarta 11410
   Alamat domisili sesuai KTP atau kartu identitas lain/ *Domicile as stated in ID Card* : The Capital Residence Tower I, Lantai 27D, Jl. Jend. Sudirman Kav 52-53, Jakarta Selatan
   Nomor Telepon/*Phone Number* : + 62 21 5307950
   Jabatan/*Position* : Direktur/*Director*

menyatakan bahwa:	state that:
1. Bertanggung jawab atas penyusunan dan penyajian laporan keuangan konsolidasian dan informasi tambahan;	1. We are responsible for the preparation and presentation of the consolidated financial statements and supplementary information;
2. Laporan keuangan konsolidasian dan informasi tambahan telah disusun dan disajikan sesuai dengan Standar Akuntansi Keuangan di Indonesia;	2. The consolidated financial statements and supplementary information have been prepared and presented in accordance with Indonesian Financial Accounting Standards;
3. a. Semua informasi dalam laporan keuangan konsolidasian dan informasi tambahan telah dimuat secara lengkap dan benar;	3. a. All information contained in the consolidated financial statements and supplementary information is complete and correct;
b. Laporan keuangan konsolidasian dan informasi tambahan tidak mengandung informasi atau fakta material yang tidak benar, dan tidak menghilangkan informasi atau fakta material.	b. The consolidated financial statements and supplementary information do not contain misleading material information or facts, and do not omit material information and facts.
4. Bertanggung jawab atas sistem pengendalian intern dalam Perusahaan dan entitas anak.	4. We are responsible for the Company and its subsidiaries' internal control system.
Demikian pernyataan ini dibuat dengan sebenarnya.	This statement letter is made truthfully.

Jakarta, 18 September /*September 18*, 2017

Direktur Utama/ *President Director*	Direktur/ *Director*
(Erwin Ciputra)	(Terry Lim Chong Thian)

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Laporan Auditor Independen

No. GA117 0974 CAP IBH

Pemegang Saham, Dewan Komisaris dan Direksi
PT. Chandra Asri Petrochemical Tbk

Kami telah mengaudit laporan keuangan konsolidasian PT. Chandra Asri Petrochemical Tbk ("Perusahaan) dan entitas anak terlampir, yang terdiri dari laporan posisi keuangan konsolidasian tanggal 30 Juni 2017, 31 Desember 2016, 2015 dan 2014 serta laporan laba rugi dan penghasilan komprehensif lain konsolidasian, laporan perubahan ekuitas konsolidasian, dan laporan arus kas konsolidasian untuk periode enam bulan yang berakhir 30 Juni 2017 dan 2016 dan tahun-tahun yang berakhir 31 Desember 2016, 2015 dan 2014, dan suatu ikhtisar kebijakan akuntansi signifikan dan informasi penjelasan lainnya.

Tanggung Jawab Manajemen atas Laporan Keuangan Konsolidasian

Manajemen bertanggung jawab atas penyusunan dan penyajian wajar laporan keuangan konsolidasian tersebut sesuai dengan Standar Akuntansi Keuangan di Indonesia, dan atas pengendalian internal yang dianggap perlu oleh manajemen untuk memungkinkan penyusunan laporan keuangan konsolidasian yang bebas dari kesalahan penyajian material, baik yang disebabkan oleh kecurangan maupun kesalahan.

Tanggung Jawab Auditor

Tanggung jawab kami adalah untuk menyatakan suatu opini atas laporan keuangan konsolidasian tersebut berdasarkan audit kami. Kami melaksanakan audit kami berdasarkan Standar Audit yang ditetapkan oleh Institut Akuntan Publik Indonesia. Standar tersebut mengharuskan kami untuk mematuhi ketentuan etika serta merencanakan dan melaksanakan audit untuk memperoleh keyakinan memadai tentang apakah laporan keuangan konsolidasian bebas dari kesalahan penyajian material.

Suatu audit melibatkan pelaksanaan prosedur untuk memperoleh bukti audit tentang angka-angka dan pengungkapan dalam laporan keuangan konsolidasian. Prosedur yang dipilih bergantung pada pertimbangan auditor, termasuk penilaian atas risiko kesalahan penyajian material dalam laporan keuangan konsolidasian, baik yang disebabkan oleh kecurangan maupun kesalahan. Dalam melakukan penilaian risiko tersebut, auditor mempertimbangkan pengendalian internal yang relevan dengan penyusunan dan penyajian wajar laporan keuangan konsolidasian entitas untuk merancang prosedur audit yang tepat sesuai dengan kondisinya, tetapi bukan untuk tujuan menyatakan opini atas keefektivitasan pengendalian internal entitas. Suatu audit juga mencakup pengevaluasian atas ketepatan kebijakan akuntansi yang digunakan dan kewajaran estimasi akuntansi yang dibuat oleh manajemen, serta pengevaluasian atas penyajian laporan keuangan konsolidasian secara keseluruhan.

Independent Auditors' Report

No. GA117 0974 CAP IBH

The Stockholders, Board of Commissioners and Directors
PT. Chandra Asri Petrochemical Tbk

We have audited the accompanying consolidated financial statements of PT. Chandra Asri Petrochemical Tbk (the "Company") and its subsidiaries, which comprise the consolidated statements of financial position as of June 30, 2017, December 31, 2016, 2015 and 2014, and the consolidated statements of profit or loss and other comprehensive income, consolidated statements of changes in equity, and consolidated statements of cash flows for the six-month periods ended June 30, 2017 and 2016 and for the years ended December 31, 2016, 2015 and 2014, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with Indonesian Financial Accounting Standards and for such internal control as management determines is necessary to enable the preparation of the consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on such consolidated financial statements based on our audit. We conducted our audit in accordance with Standards on Auditing established by the Indonesian Institute of Certified Public Accountants. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor consider internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

Kami yakin bahwa bukti audit yang telah kami peroleh adalah cukup dan tepat untuk menyediakan suatu basis bagi opini audit kami.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opini

Menurut opini kami, laporan keuangan konsolidasian terlampir menyajikan secara wajar, dalam semua hal yang material, posisi keuangan PT. Chandra Asri Petrochemical Tbk dan entitas anak tanggal 30 Juni 2017, 31 Desember 2016, 2015 dan 2014 serta kinerja keuangan dan arus kas untuk periode enam bulan yang berakhir 30 Juni 2017 dan 2016 dan tahun-tahun yang berakhir 31 Desember 2016, 2015 dan 2014, sesuai dengan Standar Akuntansi Keuangan di Indonesia.

Opinion

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the financial position of PT. Chandra Asri Petrochemical Tbk and its subsidiaries as of June 30, 2017, December 31, 2016, 2015 and 2014 and their financial performance and cash flows for the six-month periods ended June 30, 2017 and 2016 and for the years ended December 31, 2016, 2015 and 2014, in accordance with Indonesian Financial Accounting Standards.

Hal Lain

Audit kami atas laporan keuangan konsolidasian PT Chandra Asri Petrochemical Tbk ("Entitas Induk") dan entitas anak tanggal 30 Juni 2017 , 31 Desember 2016, 2015 dan 2014 dan untuk periode enam bulan yang berakhir 30 Juni 2017 dan 2016 dan tahun-tahun yang berakhir 31 Desember 2016, 2015 dan 2014 dilaksanakan dengan tujuan untuk merumuskan suatu opini atas laporan keuangan konsolidasian tersebut secara keseluruhan. Informasi keuangan Entitas Induk terlampir, yang terdiri dari laporan posisi keuangan tanggal 30 Juni 2017, 31 Desember 2016, 2015 dan 2014 serta laporan laba rugi dan penghasilan komprehensif lain, laporan perubahan ekuitas, dan laporan arus kas untuk periode enam bulan yang berakhir 30 Juni 2017 dan 2016 dan tahun-tahun yang berakhir 31 Desember 2016, 2015 dan 2014, dan catatan atas investasi pada entitas anak dan entitas asosiasi (secara kolektif disebut sebagai "Informasi Keuangan Entitas Induk"), yang disajikan sebagai informasi tambahan terhadap laporan keuangan konsolidasian terlampir, disajikan untuk tujuan analisis tambahan dan bukan merupakan bagian dari laporan keuangan konsolidasian terlampir yang diharuskan menurut Standar Akuntansi Keuangan di Indonesia. Informasi Keuangan Entitas Induk merupakan tanggung jawab manajemen serta dihasilkan dari dan berkaitan secara langsung dengan catatan akuntansi dan catatan lainnya yang mendasarinya yang digunakan untuk menyusun laporan keuangan konsolidasian terlampir. Informasi Keuangan Entitas Induk telah menjadi objek prosedur audit yang diterapkan dalam audit atas laporan keuangan konsolidasian terlampir berdasarkan Standar Audit yang ditetapkan oleh Institut Akuntan Publik Indonesia. Menurut opini kami, Informasi Keuangan Entitas Induk disajikan secara wajar, dalam semua hal yang material, berkaitan dengan laporan keuangan konsolidasian terlampir secara keseluruhan.

Other Matters

Our audit of the consolidated financial statements of PT Chandra Asri Petrochemical Tbk ("Parent Entity") and its subsidiaries as of June 30, 2017, December 31, 2016, 2015 and 2014 and for the six-month periods ended June 30, 2017 and 2016 and for the years ended December 31, 2016, 2015 and 2014 was performed for the purpose of forming an opinion on such consolidated financial statements taken as a whole. The accompanying financial information of the Parent Entity, which comprises the statements of financial position as of June 30, 2017, December 31, 2016, 2015 and 2014 and the statements of profit or loss and other comprehensive income, statements of changes in equity, and statements of cash flows for the six-month periods ended June 30, 2017 and 2016 and for the years ended December 31, 2016, 2015 and 2014, and notes on investment in subsidiaries and associate (collectively referred to as the "Parent Entity Financial Information"), which is presented as a supplementary information to the accompanying consolidated financial statements, is presented for the purposes of additional analysis and is not a required part of the accompanying consolidated financial statements under Indonesian Financial Accounting Standards. The Parent Entity Financial Information is the responsibility of the management and was derived from and relates directly to the underlying accounting and other records used to prepare the accompanying consolidated financial statements. The Parent Entity Financial Information has been subjected to the auditing procedures applied in our audit of the accompanying consolidated financial statements in accordance with Standards on Auditing established by the Indonesian Institute of Certified Public Accountants. In our opinion, the Parent Entity Financial Information is fairly stated in all material respects, in relation to the accompanying consolidated financial statements taken as a whole.

Kami sebelumnya telah mengeluarkan laporan auditor dengan opini wajar tanpa modifikasian dan paragraf hal lain mengenai penyajian Informasi Keuangan Entitas Induk dan tujuan laporan, atas laporan keuangan konsolidasian Perusahaan dan entitas anak pada 31 Desember 2016, 2015 dan 2014 yang diterbitkan pada tanggal 15 Juni 2017.

We have previously issued our auditors' reports, with unmodified opinion and other matters paragraph regarding the presentation of Parent Entity Financial Information and purpose of such reports, on the Company and its subsidiaries' December 31, 2016, 2015 and 2014 consolidated financial statements dated June 15, 2017.

Kami sebelumnya telah mengeluarkan laporan auditor dengan opini wajar tanpa modifikasian, paragraf penekanan suatu hal mengenai penyajian kembali laporan keuangan konsolidasian tahun 2013 atas penerapan PSAK 24 (revisi 2013), Imbalan Pasca Kerja dan paragraf hal lain mengenai penyajian Informasi Keuangan Entitas Induk dan penerbitan kembali laporan tersebut sehubungan dengan Penawaran Umum Obligasi, atas laporan keuangan konsolidasian Perusahaan dan entitas anak pada 30 Juni 2016 yang diterbitkan pada tanggal 27 Oktober 2016.

We have previously issued our auditors' reports, with unmodified opinion, emphasis of matter paragraph regarding restatement of 2013 consolidated financial statement for the adoption of PSAK 24 (revised 2013), Employee Benefits, and other matter paragraph regarding the presentation of Parent Entity Financial Information and the reissuance of such reports due to Bonds Public Offering, on the Company and its subsidiaries' June 30, 2016 consolidated financial statements dated October 27, 2016.

Satrio Bing Eny & Rekan

Laporan ini diterbitkan sehubungan dengan Penawaran Pinjaman PT Chandra Asri Petrochemical Tbk.

This report has been prepared for inclusion of Debt Offering PT Chandra Asri Petrochemical Tbk.

SATRIO BING ENY & REKAN

Bing Harianto, SE.
Izin Akuntan Publik/*Public Accountant License* No. AP.0558

18 September/*September 18,* 2017

	Catatan/ *Notes*	30 Juni/ *June 30,* 2017 US$ '000	31 Desember/ *December 31,* 2016 US$ '000	31 Desember/ *December 31,* 2015 US$ '000	31 Desember/ *December 31,* 2014 US$ '000	
ASET						**ASSETS**
ASET LANCAR						**CURRENT ASSETS**
Kas dan setara kas	3g,3j,5	212.322	298.763	96.835	207.939	Cash and cash equivalents
Rekening bank yang dibatasi penggunaannya	3g,11	13.422	10.398	12.764	14.250	Restricted cash in banks
Piutang usaha	3g,6					Trade accounts receivable
Pihak berelasi	3f,31	7.064	1.663	-	13.472	Related party
Pihak ketiga - setelah dikurangi cadangan kerugian penurunan nilai sebesar US$ 243 ribu pada 30 Juni 2017, dan US$ 118 ribu pada 31 Desember 2016, 2015 dan 2014		163.452	135.685	46.496	86.537	Third parties - net of allowance for impairment losses of US$ 243 thousand at June 30, 2017, and US$ 118 thousand at December 31, 2016, 2015 and 2014
Piutang lain-lain	3g	2.619	3.141	3.783	8.319	Other accounts receivable
Persediaan - setelah dikurangi cadangan penurunan nilai sebesar US$ 5.198 ribu pada 30 Juni 2017, 31 Desember 2016, 2015 dan 2014	3l,7	212.643	199.508	178.400	218.387	Inventories - net of allowance for decline in value of US$ 5,198 thousand at June 30, 2017, December 31, 2016, 2015 and 2014
Pajak dibayar dimuka	3u,8	33.150	23.676	66.302	98.002	Prepaid taxes
Uang muka dan biaya dibayar dimuka	3m	37.071	19.692	12.054	12.530	Advances and prepaid expenses
Aset tidak lancar yang tersedia untuk dijual	3n,12	-	-	-	6.998	Noncurrent assets held for sale
Jumlah Aset Lancar		681.743	692.526	416.634	666.434	Total Current Assets
ASET TIDAK LANCAR						**NONCURRENT ASSETS**
Aset pajak tangguhan	3u,28	-	3.504	5.813	516	Deferred tax assets
Investasi pada entitas asosiasi	3k,9	28.245	32.156	38.017	12.677	Investment in an associate
Uang muka pembelian aset tetap		7.141	3.101	13.278	11.195	Advances for purchase of property, plant and equipment
Aset keuangan derivatif	3g,3w	2.116	1.500	659	1.118	Derivative financial assets
Tagihan restitusi pajak	10	64.800	64.235	64.550	71.397	Claims for tax refund
Rekening bank yang dibatasi penggunaannya	3g,11	22.021	12.953	12.953	11.095	Restricted cash in banks
Aset tetap - setelah dikurangi akumulasi penyusutan sebesar US$ 1.248.105 ribu pada 30 Juni 2017, US$ 1.208.820 ribu pada 31 Desember 2016, US$ 1.226.401 ribu pada 31 Desember 2015 dan US$ 1.163.267 ribu pada 31 Desember 2014	3o,12	1.342.616	1.316.744	1.308.048	1.143.755	Property, plant and equipment - net of accumulated depreciation of US$ 1,248,105 thousand at June 30, 2017, US$ 1,208,820 thousand at December 31, 2016, US$ 1,226,401 thousand at December 31, 2015 and US$ 1,163,267 thousand at December 31, 2014
Aset tidak lancar lainnya		2.632	2.550	2.434	5.324	Other noncurrent assets
Jumlah Aset Tidak Lancar		1.469.571	1.436.743	1.445.752	1.257.077	Total Noncurrent Assets
JUMLAH ASET		2.151.314	2.129.269	1.862.386	1.923.511	**TOTAL ASSETS**

Lihat catatan atas laporan keuangan konsolidasian yang merupakan bagian yang tidak terpisahkan dari laporan keuangan konsolidasian.

See accompanying notes to consolidated financial statements which are an integral part of the consolidated financial statements.

	Catatan/ *Notes*	30 Juni/ *June 30,* 2017 US$ '000	31 Desember/ *December 31,* 2016 US$ '000	31 Desember/ *December 31,* 2015 US$ '000	31 Desember/ *December 31,* 2014 US$ '000	
LIABILITAS DAN EKUITAS						**LIABILITIES AND EQUITY**
LIABILITAS JANGKA PENDEK						**CURRENT LIABILITIES**
Utang bank	3h,13	-	-	50.800	-	Bank loans
Utang usaha	3h,14					Trade accounts payable
Pihak berelasi	3f,31	5.930	25.293	87.869	133.861	Related party
Pihak ketiga		367.296	318.812	139.955	254.698	Third parties
Utang lain-lain	3h	119	157	15.931	10.159	Other accounts payable
Utang pajak	3u,15	22.690	34.036	1.839	1.749	Taxes payable
Biaya yang masih harus dibayar	3h,3q	4.913	3.880	6.089	5.513	Accrued expenses
Uang muka pelanggan		4.686	8.631	4.800	3.401	Customer advances
Liabilitas jangka panjang yang jatuh tempo dalam satu tahun:	3h					Current maturities of long-term liabilities:
Utang bank	16	71.605	63.113	70.470	68.477	Bank loans
Sewa pembiayaan		-	-	-	54	Finance lease obligation
Jumlah Liabilitas Jangka Pendek		477.239	453.922	377.753	477.912	Total Current Liabilities
LIABILITAS JANGKA PANJANG						**NONCURRENT LIABILITIES**
Liabilitas pajak tangguhan - bersih	3u,28	141.090	141.467	146.098	132.191	Deferred tax liabilities - net
Liabilitas jangka panjang - setelah dikurangi bagian yang jatuh tempo dalam satu tahun:	3h					Long-term liabilities - net of current maturities:
Utang bank	16	264.605	325.276	426.459	421.957	Bank loans
Utang obligasi	17	36.708	36.594	-	-	Bonds payable
Liabilitas keuangan derivatif	3h,3w	318	40	677	491	Derivative financial liabilities
Liabilitas imbalan pasca kerja	3t,18	32.197	28.139	22.426	23.001	Post-employment benefits obligation
Estimasi biaya pembongkaran aset tetap	3q	2.254	2.163	2.127	2.097	Decommissioning cost
Jumlah Liabilitas Jangka Panjang		477.172	533.679	597.787	579.737	Total Noncurrent Liabilities
JUMLAH LIABILITAS		954.411	987.601	975.540	1.057.649	**TOTAL LIABILITIES**
EKUITAS						**EQUITY**
Ekuitas yang diatribusikan kepada pemilik Entitas Induk						**Equity attributable to owners of the Company**
Modal saham - nilai nominal Rp 1.000 per saham						Capital stock - Rp 1,000 par value per share
Modal dasar - 12.264.785.664 saham						Authorized - 12,264,785,664 shares
Modal ditempatkan dan disetor penuh - 3.286.962.558 saham	19	359.989	359.989	359.989	359.989	Issued and fully paid - 3,286,962,558 shares
Tambahan modal disetor	20	108.675	108.675	108.675	108.675	Additional paid-in capital
Penghasilan komprehensif lain	21	(4.418)	(2.771)	(1.083)	(1.062)	Other comprehensive income
Saldo laba						Retained earnings
Ditentukan penggunaannya		13.039	7.039	5.639	4.739	Appropriated
Tidak ditentukan penggunaannya		713.018	662.066	406.884	385.947	Unappropriated
Jumlah ekuitas yang diatribusikan kepada pemilik entitas induk		1.190.303	1.134.998	880.104	858.288	**Total equity attributable to owners of the Company**
Kepentingan nonpengendali	22	6.600	6.670	6.742	7.574	**Non-controlling interests**
JUMLAH EKUITAS		1.196.903	1.141.668	886.846	865.862	**TOTAL EQUITY**
JUMLAH LIABILITAS DAN EKUITAS		2.151.314	2.129.269	1.862.386	1.923.511	**TOTAL LIABILITIES AND EQUITY**

Lihat catatan atas laporan keuangan konsolidasian yang merupakan bagian yang tidak terpisahkan dari laporan keuangan konsolidasian.

See accompanying notes to consolidated financial statements which are an integral part of the consolidated financial statements.

	Catatan/ *Notes*	2017 (Enam bulan/ *Six months*) US$ '000	2016 (Enam bulan/ *Six months*) US$ '000	2016 (Satu tahun/ *One year*) US$ '000	2015 (Satu tahun/ *One year*) US$ '000	2014 (Satu tahun/ *One year*) US$ '000	
PENDAPATAN BERSIH	3s,23,31	1.195.300	882.109	1.930.336	1.377.573	2.460.051	**NET REVENUES**
BEBAN POKOK PENDAPATAN	3s,24,31	903.067	664.144	1.436.018	1.231.844	2.342.587	**COST OF REVENUES**
LABA KOTOR		292.233	217.965	494.318	145.729	117.464	**GROSS PROFIT**
Beban penjualan	3s,25	(20.640)	(21.842)	(42.624)	(41.675)	(42.539)	Selling expenses
Beban umum dan administrasi	3s,26	(23.327)	(15.736)	(27.904)	(24.832)	(24.738)	General and administrative expenses
Beban keuangan	3s,27	(17.483)	(14.216)	(31.887)	(22.537)	(31.942)	Finance costs
Keuntungan (kerugian) atas instrumen keuangan derivatif	3w	1.037	(1.588)	606	(1.524)	(2.596)	Gain (loss) on derivative financial instruments
Bagian rugi bersih entitas asosiasi	3k,9	(3.911)	(2.896)	(5.861)	(3.720)	(825)	Share in net loss of an associate
Keuntungan (kerugian) kurs mata uang asing - bersih	3e	479	3.717	(1.320)	(11.505)	(3.460)	Gain (loss) on foreign exchange - net
Keuntungan dan kerugian lain-lain - bersih	3s	3.186	12.586	15.225	15.963	13.437	Other gains and losses - net
LABA SEBELUM PAJAK		231.574	177.990	400.553	55.899	24.801	**PROFIT BEFORE TAX**
BEBAN PAJAK PENGHASILAN - BERSIH	3u,28	(57.390)	(46.236)	(100.428)	(29.643)	(6.362)	**INCOME TAX EXPENSE - NET**
LABA PERIODE BERJALAN		174.184	131.754	300.125	26.256	18.439	**PROFIT FOR THE PERIOD**
PENGHASILAN KOMPREHENSIF LAIN	21						**OTHER COMPREHENSIVE INCOME**
Pos yang tidak akan direklasifikasi ke laba rugi:							Items that will not be reclassified subsequently to profit or loss:
Pengukuran kembali atas program imbalan pasti, setelah pajak	18	(1.677)	(2.184)	(1.748)	295	(1.999)	Remeasurement of defined benefits obligation, net off tax
Pos yang akan direklasifikasi ke laba rugi:							Items that may be reclassified subsequently to profit or loss:
Selisih kurs karena penjabaran laporan keuangan		53	225	123	(623)	(56)	Foreign currency translation adjustment
Jumlah penghasilan komprehensif lain periode berjalan, setelah pajak		(1.624)	(1.959)	(1.625)	(328)	(2.055)	Total other comprehensive income for the period, net of tax
JUMLAH LABA KOMPREHENSIF PERIODE BERJALAN		172.560	129.795	298.500	25.928	16.384	**TOTAL COMPREHENSIVE INCOME FOR THE PERIOD**
LABA PERIODE BERJALAN YANG DIATRIBUSIKAN KEPADA:							**PROFIT FOR THE PERIOD ATTRIBUTABLE TO:**
Pemilik Entitas Induk		174.018	131.738	300.016	26.337	18.244	Owners of the Company
Kepentingan nonpengendali	22	166	16	109	(81)	195	Non-controlling interests
Laba periode berjalan		174.184	131.754	300.125	26.256	18.439	**Profit for the period**
JUMLAH LABA KOMPREHENSIF PERIODE BERJALAN DIATRIBUSIKAN KEPADA:							**TOTAL COMPREHENSIVE INCOME FOR THE PERIOD ATTRIBUTABLE TO:**
Pemilik Entitas Induk		172.371	129.633	298.328	26.316	16.297	Owners of the Company
Kepentingan nonpengendali		189	162	172	(388)	87	Non-controlling interests
Jumlah Laba Komprehensif Periode Berjalan		172.560	129.795	298.500	25.928	16.384	**Total Comprehensive Income For the Period**
LABA PER SAHAM DASAR (Dalam Dolar Amerika Serikat penuh)	3v,29	0,0529	0,0401	0,0913	0,0080	0,0056	**BASIC EARNINGS PER SHARE** (In full U.S. Dollar amount)

Lihat catatan atas laporan keuangan konsolidasian yang merupakan bagian yang tidak terpisahkan dari laporan keuangan konsolidasian.

See accompanying notes to consolidated financial statements which are an integral part of the consolidated financial statements.

				Penghasilan komprehensif lain/ *Other comprehensive income*		Saldo Laba/ *Retained earnings*					
	Catatan/ *Notes*	Modal ditempatkan dan disetor penuh/ *Issued and fully paid capital stock*	Tambahan modal disetor/ *Additional paid-in capital*	Pengukuran kembali atas program imbalan pasti/ *Remeasurement of defined benefits obligation*	Selisih kurs karena penjabaran laporan keuangan/ *Foreign currency translation adjustment*	Ditentukan penggunaannya/ *Appropriated*	Tidak ditentukan penggunaannya/ *Unappropriated*	Jumlah ekuitas yang diatribusikan kepada pemilik entitas induk/ *Total equity attributable to owners of the Company*	Kepentingan nonpengendali/ *Non-controlling interests*	Jumlah ekuitas/ *Total equity*	
		US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	
Saldo per 1 Januari 2014		359.989	108.675	2.309	(1.424)	3.939	371.103	844.591	9.143	853.734	Balances as of January 1, 2014
Laba tahun berjalan		-	-	-	-	-	18.244	18.244	195	18.439	Profit for the year
Penghasilan komprehensif lain	21	-	-	(1.918)	(29)	-	-	(1.947)	(108)	(2.055)	Other comprehensive income
Jumlah laba komprehensif		-	-	(1.918)	(29)	-	18.244	16.297	87	16.384	Total comprehensive income
Cadangan umum	19	-	-	-	-	800	(800)	-	-	-	General reserve
Dividen tunai	19	-	-	-	-	-	(2.600)	(2.600)	-	(2.600)	Cash dividends
Pembagian dividen entitas anak kepada kepentingan nonpengendali		-	-	-	-	-	-	-	(1.656)	(1.656)	Dividends distributed by subsidiary to non-controlling interests
Saldo per 31 Desember 2014		359.989	108.675	391	(1.453)	4.739	385.947	858.288	7.574	865.862	Balance as of December 31, 2014
Laba tahun berjalan		-	-	-	-	-	26.337	26.337	(81)	26.256	Profit for the year
Penghasilan komprehensif lain	21	-	-	295	(316)	-	-	(21)	(307)	(328)	Other comprehensive income
Jumlah laba komprehensif		-	-	295	(316)	-	26.337	26.316	(388)	25.928	Total comprehensive income
Cadangan umum	19	-	-	-	-	900	(900)	-	-	-	General reserve
Dividen tunai	19	-	-	-	-	-	(4.500)	(4.500)	-	(4.500)	Cash dividends
Pembagian dividen entitas anak kepada kepentingan nonpengendali		-	-	-	-	-	-	-	(444)	(444)	Dividends distributed by subsidiary to non-controlling interests
Saldo per 31 Desember 2015		359.989	108.675	686	(1.769)	5.639	406.884	880.104	6.742	886.846	Balances as of December 31, 2015
Laba periode berjalan		-	-	-	-	-	131.738	131.738	16	131.754	Profit for the period
Penghasilan komprehensif lain	21	-	-	(2.219)	114	-	-	(2.105)	146	(1.959)	Other comprehensive income
Jumlah laba komprehensif		-	-	(2.219)	114	-	131.738	129.633	162	129.795	Total comprehensive income
Cadangan umum	19	-	-	-	-	1.400	(1.400)	-	-	-	General reserve
Dividen tunai	19	-	-	-	-	-	(10.500)	(10.500)	-	(10.500)	Cash dividends
Pembagian dividen entitas anak kepada kepentingan nonpengendali		-	-	-	-	-	-	-	(244)	(244)	Dividends distributed by subsidiary to non-controlling interests
Saldo per 30 Juni 2016		359.989	108.675	(1.533)	(1.655)	7.039	526.722	999.237	6.660	1.005.897	Balances as of June 30, 2016
Saldo per 31 Desember 2015		359.989	108.675	686	(1.769)	5.639	406.884	880.104	6.742	886.846	Balances as of December 31, 2015
Laba tahun berjalan		-	-	-	-	-	300.016	300.016	109	300.125	Profit for the year
Penghasilan komprehensif lain	21	-	-	(1.750)	62	-	-	(1.688)	63	(1.625)	Other comprehensive income
Jumlah laba komprehensif		-	-	(1.750)	62	-	300.016	298.328	172	298.500	Total comprehensive income
Cadangan umum	19	-	-	-	-	1.400	(1.400)	-	-	-	General reserve
Dividen tunai	19	-	-	-	-	-	(43.434)	(43.434)	-	(43.434)	Cash dividends
Pembagian dividen entitas anak kepada kepentingan nonpengendali		-	-	-	-	-	-	-	(244)	(244)	Dividends distributed by subsidiary to non-controlling interests
Saldo per 31 Desember 2016		359.989	108.675	(1.064)	(1.707)	7.039	662.066	1.134.998	6.670	1.141.668	Balances as of December 31, 2016
Laba periode berjalan		-	-	-	-	-	174.018	174.018	166	174.184	Profit for the period
Penghasilan komprehensif lain	21	-	-	(1.677)	30	-	-	(1.647)	23	(1.624)	Other comprehensive income
Jumlah laba komprehensif		-	-	(1.677)	30	-	174.018	172.371	189	172.560	Total comprehensive income
Cadangan umum	19	-	-	-	-	6.000	(6.000)	-	-	-	General reserve
Dividen tunai	19	-	-	-	-	-	(117.066)	(117.066)	-	(117.066)	Cash dividends
Pembagian dividen entitas anak kepada kepentingan nonpengendali		-	-	-	-	-	-	-	(259)	(259)	Dividends distributed by subsidiary to non-controlling interests
Saldo per 30 Juni 2017		359.989	108.675	(2.741)	(1.677)	13.039	713.018	1.190.303	6.600	1.196.903	Balances as of June 30, 2017

Lihat catatan atas laporan keuangan konsolidasian yang merupakan bagian yang tidak terpisahkan dari laporan keuangan konsolidasian.

See accompanying notes to consolidated financial statements which are an integral part of the consolidated financial statements.

	Catatan/ *Notes*	2017 (Enam bulan/ *Six months*) US$ '000	2016 (Enam bulan/ *Six months*) US$ '000	2016 (Satu tahun/ *One year*) US$ '000	2015 (Satu tahun/ *One year*) US$ '000	2014 (Satu tahun/ *One year*) US$ '000	
ARUS KAS DARI AKTIVITAS OPERASI							**CASH FLOWS FROM OPERATING ACTIVITIES**
Penerimaan kas dari pelanggan	3g,3s,6,23	1.158.062	789.101	1.843.295	1.435.887	2.532.884	Cash receipts from customers
Pembayaran kas kepada:	3h,3l,3m,3q 3s,3t,7,14 15,18,24, 25,26						Cash paid to:
Pemasok		(872.560)	(589.923)	(1.300.404)	(1.301.429)	(2.396.636)	Suppliers
Direksi dan karyawan		(45.616)	(37.154)	(51.997)	(47.267)	(46.160)	Directors and employees
Kas dihasilkan dari operasi		239.886	162.024	490.894	87.191	90.088	Cash generated from operations
Penerimaan dari restitusi pajak	10	9.234	50.552	54.192	44.854	61.404	Tax restitution received
Pembayaran pajak penghasilan	3u,8,15,28	(69.118)	(14.838)	(69.193)	(27.331)	(35.295)	Payment of income taxes
Kas Bersih Diperoleh dari Aktivitas Operasi		180.002	197.738	475.893	104.714	116.197	Net Cash Provided by Operating Activities
ARUS KAS DARI AKTIVITAS INVESTASI							**CASH FLOWS FROM INVESTING ACTIVITIES**
Perolehan aset tetap	3o,12	(61.951)	(18.907)	(65.439)	(205.149)	(180.301)	Acquisitions of property, plant and equipment
Pembayaran beban bunga yang dikapitalisasi ke aset tetap	3r,12	-	(7.124)	(4.830)	(14.821)	(3.890)	Payment of interest expenses capitalized to property, plant and equipment
Pembayaran uang muka pembelian aset tetap		(7.141)	(4.830)	(3.101)	(3.837)	(10.051)	Payment of advance for purchase of property, plant and equipment
Penarikan (penempatan) pada rekening bank yang dibatasi penggunaannya	3g,11	(12.092)	2.801	2.366	(372)	(12.364)	Withdrawal (placement) of restricted cash in banks
Penerimaan bunga	3s	1.114	1.323	1.906	810	2.694	Interest received
Penerimaan dari penjualan aset tetap	3o,12	-	105	116	34	31	Proceeds from sale of property, plant and equipment
Penambahan investasi pada entitas asosiasi	3k,9	-	-	-	(40.500)	(8.100)	Addition to investment in an associate
Penerimaan dari penjualan aset tidak lancar yang tersedia untuk dijual	3n	-	-	-	25.789	-	Proceeds from sale of noncurrent assets held for sale
Pembayaran tagihan atas restitusi pajak	10	-	-	-	-	(27.444)	Payment of claims for tax refund
Kas Bersih Digunakan untuk Aktivitas Investasi		(80.070)	(26.632)	(68.982)	(238.046)	(239.425)	Net Cash Used in Investing Activities
ARUS KAS DARI AKTIVITAS PENDANAAN							**CASH FLOWS FROM FINANCING ACTIVITIES**
Penerimaan utang bank jangka pendek	3h,13	-	220.135	220.135	238.800	72.003	Proceeds from short-term bank loans
Penerimaan utang bank jangka panjang	3h,16	-	681	199.800	160.864	200.928	Proceeds from long-term bank loans
Penerimaan utang obligasi	3h,17	-	-	37.510	-	-	Proceeds from bonds payable
Pembayaran utang bank jangka pendek	3h,13	-	(270.935)	(270.935)	(188.000)	(93.779)	Payment of short-term bank loans
Pembayaran utang bank jangka panjang	3h,16	(55.447)	(35.782)	(309.600)	(152.357)	(46.410)	Payment of long-term bank loans
Pembayaran dividen:							Dividend payment:
Perusahaan		(117.066)	(10.500)	(43.434)	(4.500)	(2.600)	The Company
Entitas anak		(259)	(244)	(244)	(444)	(1.656)	Subsidiary
Pembayaran bunga dan beban keuangan	3h,3s,16, 17, 27	(13.601)	(15.352)	(27.873)	(25.157)	(25.927)	Interest and financial charges paid
Pembayaran utang pembelian aset tetap	3h	-	-	(6.879)	(4.330)	(9.667)	Payment of payable for property, plant and equipment
Pembayaran biaya perolehan pinjaman	3h,16,17	-	-	(3.463)	(2.594)	(3.531)	Payment of transaction costs
Pembayaran liabilitas sewa pembiayaan	3h	-	-	-	(54)	(67)	Payment of finance lease obligation
Kas Bersih Diperoleh dari (Digunakan untuk) Aktivitas Pendanaan		(186.373)	(111.997)	(204.983)	22.228	89.294	Net Cash Provided by (Used in) Financing Activities
KENAIKAN (PENURUNAN) BERSIH KAS DAN SETARA KAS		(86.441)	59.109	201.928	(111.104)	(33.934)	**NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS**
KAS DAN SETARA KAS AWAL PERIODE		298.763	96.835	96.835	207.939	241.873	**CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD**
KAS DAN SETARA KAS AKHIR PERIODE		212.322	155.944	298.763	96.835	207.939	**CASH AND CASH EQUIVALENTS AT END OF PERIOD**

Informasi atas aktivitas investasi dan pendanaan yang tidak mempengaruhi arus kas diungkapkan dalam Catatan 30

Information of non-cash investing and financing activities are disclosed in Note 30

Lihat catatan atas laporan keuangan konsolidasian yang merupakan bagian yang tidak terpisahkan dari laporan keuangan konsolidasian.

See accompanying notes to consolidated financial statements which are an integral part of the consolidated financial statements.

1. UMUM

a. Pendirian dan Informasi Umum

PT. Chandra Asri Petrochemical Tbk (Perusahaan) didirikan dalam rangka Undang-Undang Penanaman Modal Dalam Negeri No. 6 Tahun 1968 dan Undang-Undang No. 12 Tahun 1970 berdasarkan Akta No. 40 tanggal 2 Nopember 1984, dari Ridwan Suselo, S.H., Notaris di Jakarta, yang diubah dengan Akta No. 117 tanggal 7 Nopember 1987 dari John Leonard Waworuntu, S.H., Notaris di Jakarta dengan nama PT. Tri Polyta Indonesia. Akta tersebut telah disahkan oleh Menteri Kehakiman melalui Surat Keputusan No. C2.1786.HT.01.01-TH.88, tanggal 29 Pebruari 1988.

Berdasarkan Rapat Umum Pemegang Saham Luar Biasa Perusahaan, yang diaktakan dalam Akta Notaris No. 20 tanggal 27 Oktober 2010 dari Dr. Amrul Partomuan Pohan, S.H., L.L.M., Notaris di Jakarta, para pemegang saham Perusahaan menyetujui antara lain transaksi penggabungan usaha Perusahaan dengan PT. Chandra Asri (CA) dan merubah nama Perusahaan menjadi PT. Chandra Asri Petrochemical Tbk.

Penggabungan usaha tersebut telah mendapat pernyataan efektif dari Bapepam-LK pada tanggal 21 Oktober 2010. Tanggal efektif penggabungan usaha adalah 1 Januari 2011.

Anggaran Dasar Perusahaan telah mengalami beberapa kali perubahan dan terakhir melalui akta No. 14 tanggal 6 Juni 2016 dari Fathiah Helmi, S.H., Notaris di Jakarta, mengenai perubahan komposisi anggota dewan direksi Perusahaan. Perubahan tersebut telah diberitahukan kepada Menteri Hukum dan Hak Asasi Manusia, sebagaimana dinyatakan dalam surat Penerimaan Pemberitahuan Perubahan Anggaran Dasar No.AHU-0071712.AH.01.11. Tahun 2016, tanggal 10 Juni 2016.

Perusahaan berdomisili di Jakarta dengan pabrik berlokasi di Desa Gunung Sugih, Kecamatan Ciwandan, Kodya Cilegon, Banten. Kantor pusat Perusahaan beralamat di Wisma Barito Pacific Tower A, Lantai 7, Jl. Let. Jend. S. Parman Kav. 62-63, Jakarta.

Sesuai dengan Pasal 3 Anggaran Dasar Perusahaan, Perusahaan bergerak dalam bidang usaha industri petrokimia, perdagangan, angkutan dan jasa. Perusahaan mulai beroperasi secara komersial pada tahun 1993.

1. GENERAL

a. Establishment and General Information

PT. Chandra Asri Petrochemical Tbk (the Company) was established under the Domestic Capital Investment Law No. 6 Year 1968 and Law No. 12 Year 1970, by Notarial Deed No. 40, dated November 2, 1984 of Ridwan Suselo, S.H., Notary Public in Jakarta, amended by Notarial Deed No. 117 dated November 7, 1987 of John Leonard Waworuntu, S.H., Notary Public in Jakarta under the name of PT. Tri Polyta Indonesia. These deeds were approved by the Minister of Justice under Decision Letter No. C2.1786.HT.01.01-TH.88, dated February 29, 1988.

Based on the Extraordinary General Meeting of Shareholders of the Company, as stated in Notarial Deed No. 20 of Dr. Amrul Partomuan Pohan, S.H., L.L.M., dated October 27, 2010, Notary Public in Jakarta, the Company's shareholders approved, among others, the merger transaction between the Company and PT. Chandra Asri (CA) and the change of the Company's name to PT. Chandra Asri Petrochemical Tbk.

Notice of effectivity for this merger was obtained from the Capital Market and Financial Institution Supervisory Board (Bapepam-LK) on October 21, 2010. The effective date of the merger is January 1, 2011.

The Articles of Association has been amended several times, most recently by Notarial Deed No. 14 of Fathiah Helmi, S.H., Notary Public in Jakarta, dated June 6, 2016, with regards to the change in composition of the Company's board of directors. The change has been notified to the Minister of Justice and Human Rights as stated in acceptance letter of Notification of Changes in Articles of Association No. AHU-0071712.AH-01.11. Year 2016, dated June 10, 2016.

The Company is domiciled in Jakarta and its manufacturing plants are located in Desa Gunung Sugih, Kecamatan Ciwandan, Kodya Cilegon, Banten. The Company's head office is located in Wisma Barito Pacific Tower A, 7th Floor, Jl. Let. Jend. S. Parman Kav. 62-63, Jakarta.

In accordance with article 3 of the Company's articles of association, the scope of its activities is mainly to engage in petrochemical, trading, freight and service industries. The Company started its commercial operations in 1993.

Jumlah karyawan Perusahaan dan entitas anak (Grup) sebanyak 1.803, 1.769, 1.793 dan 1.710 karyawan masing-masing pada tanggal 30 Juni 2017, 31 Desember 2016, 2015 dan 2014.

The Company and its subsidiaries (the Group) had total number of employees of 1,803, 1,769, 1,793 and 1,710 at June 30, 2017, December 31, 2016, 2015 and 2014, respectively.

Perusahaan tergabung dalam kelompok usaha Barito Pacific. Susunan pengurus Perusahaan pada tanggal 30 Juni 2017, 31 Desember 2016, 2015 dan 2014 adalah sebagai berikut:

The Company belongs to a group of companies owned by Barito Pacific. The Company's management as of June 30, 2017, December 31, 2016, 2015 and 2014 consists of the following:

	30 Juni 2017 dan 31 Desember 2016/ *June 30, 2017 and December 31, 2016*	31 Desember/ *December 31, 2015*	31 Desember/ *December 31, 2014*	
Dewan Komisaris				Board of Commissioners
Presiden Komisaris *)	Djoko Suyanto	Djoko Suyanto	George Allister Lefroy	President Commissioner *)
Wakil Presiden Komisaris *)	Tan Ek Kia	Tan Ek Kia	Tan Ek Kia	Vice President Commissioner *)
Komisaris *)	Ho Hon Cheong	Ho Hon Cheong	Hanadi Rahardja	Commissioner *)
Komisaris	Loeki Sundjaja Putera	Loeki Sundjaja Putera	Loeki Sundjaja Putera	Commissioners
	Agus Salim Pangestu	Agus Salim Pangestu	Agus Salim Pangestu	
	Chaovalit Ekabut	Chaovalit Ekabut	Chaovalit Ekabut	
	Cholanat Yanaranop	Cholanat Yanaranop	Cholanat Yanaranop	
Direksi				Board of Directors
Presiden Direktur	Erwin Ciputra	Erwin Ciputra	Erwin Ciputra	President Director
Wakil Presiden Direktur	Kulachet Dharachandra	Paramate Nisagornsen	Paramate Nisagornsen	Vice President Directors
	Baritono Prajogo Pangestu	Baritono Prajogo Pangestu	Raymond Budhin	
Direktur	Terry Lim Chong Thian	Terry Lim Chong Thian	Terry Lim Chong Thian	Director
Direktur	Piboon Sirinantanakul	Paisan Lekskulchai	Paisan Lekskulchai	Director
Direktur	Fransiskus Ruly Aryawan	Fransiskus Ruly Aryawan	Baritono Prajogo Pangestu	Director
Direktur	Suryandi **)	Suryandi **)	Suryandi **)	Director
Komite Audit				Audit Committee
Ketua	Djoko Suyanto	Djoko Suyanto	Hanadi Rahardja	Chairman
Anggota	Reynold M Batubara	Reynold M Batubara	Rifqi Musharnanto	Members
	Ahmadi Hadibroto	Ahmadi Hadibroto	Serena Karlita Ferdinandus	
Komite Remunerasi				Remuneration Committee
Ketua	Ho Hon Cheong	Ho Hon Cheong	-	Chairman
Anggota	Agus Salim Pangestu	Agus Salim Pangestu	-	Members
	Tan Ek Kia	Tan Ek Kia	-	
	Cholanat Yanaranop	Cholanat Yanaranop	-	
	-	Erwin Ciputra	-	

*) merangkap komisaris independen
**) merangkap direktur independen

*) also serves as independent commissioner
**) also serves as independent director

b. Penawaran Umum Saham Perusahaan

Perusahaan memperoleh pernyataan efektif dari Ketua Bapepam (sekarang Otoritas Jasa Keuangan/OJK) dengan surat No. S-977/PM/1996 tanggal 14 Juni 1996 sebagai perusahaan publik. Perusahaan melakukan pencatatan pada Bursa Efek Jakarta (sekarang Bursa Efek Indonesia) atas seluruh sahamnya, yang telah ditempatkan dan disetor penuh, sejumlah 257.500.000 saham dengan nilai nominal Rp 1.000 per saham. Perdagangan saham di Bursa Efek Jakarta (sekarang Bursa Efek Indonesia) ini dihentikan mulai tanggal 3 Pebruari 2003. Pada tanggal 22 Mei 2008 Perusahaan melakukan pencatatan kembali (*relisting*) atas seluruh sahamnya yang telah ditempatkan dan disetor penuh sejumlah 728.401.000 saham dengan nilai nominal Rp 1.000 per saham di Bursa Efek Indonesia.

b. The Company's Public Offering

By virtue of Bapepam (currently Financial Services Authority/OJK) letter No. S-977/PM/1996 dated June 14, 1996, the Company's registration statement as a public company was declared effective. The Company listed its entire capital stock issued and fully paid comprising 257,500,000 shares with nominal value of Rp 1,000 per share on Jakarta Stock Exchange (currently Indonesia Stock Exchange). Trading of the Company's shares on Jakarta Stock Exchange (currently Indonesia Stock Exchange) was delisted on February 3, 2003. On May 22, 2008, the Company relisted its entire issued and fully paid capital stock comprising 728,401,000 shares, with nominal value of Rp 1,000 in Indonesia Stock Exchange.

Efektif pada tanggal 1 Januari 2011, jumlah saham Perusahaan yang tercatat pada Bursa Efek Indonesia sebesar 3.066.196.416 saham. Perubahan ini disebabkan oleh masuknya pemegang saham CA ke dalam Perusahaan (Catatan 1a).

Effective January 1, 2011, the Company's listed capital stock recorded in Indonesia Stock Exchange consists of 3,066,196,416 shares. This change was caused by the inclusion of CA's shareholders into the Company's (Note 1a).

Pada tanggal 31 Oktober 2013, Perusahaan memperoleh pernyataan efektif dari OJK berdasarkan surat No. S-346/D.04/2013 untuk mengadakan Penawaran Umum Terbatas I (PUT I) dengan Hak Memesan Efek Terlebih Dahulu dimana Perusahaan menerbitkan sebanyak 220.766.142 saham. Jumlah saham yang dicatat pada Bursa Efek Indonesia pada tanggal 22, 26 dan 29 Nopember 2013 masing-masing sebanyak 66.488.061, 1.680 dan 154.276.401 saham.

On October 31, 2013, the Company obtained notice of effectivity from OJK based on Letter No. S-346/D.04/2013 for the Limited Public Offering I (LPO I) to the Shareholders with Preemptive Rights totaling 220,766,142 shares. The number of shares recorded in Indonesia Stock Exchange on November 22, 26 and 29, 2013 were 66,488,061, 1,680 and 154,276,401 shares, respectively.

Pada tanggal 30 Juni 2017, 31 Desember 2016, 2015 dan 2014, seluruh saham Perusahaan sebanyak 3.286.962.558 saham telah tercatat pada Bursa Efek Indonesia.

As of June 30, 2017, December 31, 2016, 2015 and 2014, all of the Company's outstanding shares totalling to 3,286,962,558 shares have been listed in the Indonesia Stock Exchange.

Pada tanggal 25 Juli 1994, Perusahaan melakukan penawaran umum atas American Depository Shares (ADS), yang mewakili saham Perusahaan. ADS tersebut tercatat di National Association of Securities Dealer Automated Quotation (NASDAQ). Pada tanggal 14 Maret 1996, pencatatan ADS Perusahaan dipindahkan dari NASDAQ ke New York Stock Exchange (NYSE).

On July 25, 1994, the Company made a public offering of American Depository Shares (ADS), representing shares of common stock of the Company. The ADS were listed on the National Association of Securities Dealer Automated Quotation (NASDAQ). On March 14, 1996, the ADS's listing was transferred from NASDAQ to the New York Stock Exchange (NYSE).

Perdagangan saham Perusahaan di NYSE telah dihentikan sejak tanggal 23 Maret 2000.

Trading of the Company's common stock on the NYSE was delisted effective on March 23, 2000.

c. Penawaran Umum Obligasi Perusahaan

c. The Company's Bonds Offering

Pada tanggal 15 Desember 2016, Perusahaan memperoleh pernyataan efektif dari OJK berdasarkan surat No. 5-752/D.04/2016 untuk melakukan Penawaran Umum Obligasi Chandra Asri Petrochemical I Tahun 2016 dengan jumlah pokok sebanyak-banyaknya sebesar Rp 500.000 juta.

On December 15, 2016, the Company obtained notice of effectivity from OJK based on letter No. 5-752/D.04/2016 for Initial Public Offering of First Chandra Asri Petrochemical Bonds Year 2016 with maximum amount of Rp 500,000 million.

Obligasi terdiri atas Seri A sejumlah Rp 361.400 juta (setara dengan US$ 27.079 ribu) yang jatuh tempo pada 22 Desember 2019 dan Seri B sejumlah Rp 138.600 juta (setara dengan US$ 10.385 ribu) yang jatuh tempo pada 22 Desember 2021. Obligasi tersebut dicatat pada Bursa Efek Indonesia pada 23 Desember 2016.

The Bonds comprise of Series A amounting to Rp 361,400 million (equivalent to US$ 27,079 thousand) with maturity date on December 22, 2019 and Series B amounting to Rp 138,600 million (equivalent to US$ 10,385 thousand) with maturity date on December 22, 2021. The Bonds were listed on the Indonesia Stock Exchange on December 23, 2016.

d. Entitas anak

Perusahaan memiliki, baik secara langsung maupun tidak langsung, lebih dari 50% saham entitas anak sebagai berikut:

d. Consolidated Subsidiaries

The Company has ownership interest of more than 50% directly or indirectly in the following subsidiaries:

Entitas Anak/ *Subsidiaries*	Domisili/ *Domicile*	Persentase Pemilikan/ *Percentage of Ownership* 30 Juni/ *June 30,* 2017	31 Desember/*December 31,* 2016	2015	2014	Jenis Usaha/ *Nature of Business*	Tahun Operasi Komersil/ *Start of Commercial Operations*	Jumlah Aset/*Total Assets* Sebelum eliminasi/*Before eliminations* 30 Juni/ *June 30* , 2017	31 Desember/*December 31,* 2016	2015	2014
								US$ '000	US$ '000	US$ '000	US$ '000
PT Styrindo Mono Indonesia ("SMI")	Jakarta	99,99%	99,99%	99,99%	99,99%	Petrokimia/ *Petrochemical*	1993	287.246	278.929	266.271	267.067
PT Redeco Petrolin Utama ("RPU") *)	Jakarta	50,75%	50,75%	50,75%	50,75%	Sewa tanki/ *Tanks lease*	1986	8.970	9.231	9.915	10.300
Altus Capital Pte., Ltd. ("AC")	Singapura/ *Singapore*	100,00%	100,00%	100,00%	100,00%	Keuangan/ *Finance*	2009	13.059	13.062	15.934	8.323
PT Petrokimia Butadiene Indonesia ("PBI") **)	Jakarta	99,98%	99,98%	99,97%	99,97%	Petrokimia/ *Petrochemical*	2013	208.086	190.343	147.049	160.166
PT Chandra Asri Perkasa ("CAP2") ****)	Jakarta	100,00%	-	-	-	Petrokimia/ *Petrochemical*	Tahap Pengembangan/ *Development stage*	30.006	-	-	-
PT Banten Aromatic Indonesia ("BAI") ***)	Jakarta	-	-	100,00%	100,00%	Petrokimia/ *Petrochemical*	-	-	-	-	-

*) Kepemilikan tidak langsung melalui SMI, entitas anak.

**) Pada tanggal 15 September 2016 Perusahaan melakukan tambahan setoran modal ke PBI sebesar US$ 30.000 ribu.

***) Pada tahun 2016, berdasarkan Akta No. 32 dari Jose Dima Satria, S.H., M.Kn, Notaris di Jakarta, SMI & PBI, entitas anak, menyetujui untuk melikuidasi BAI.

****) Berdasarkan Akta No 1 Tanggal 3 April 2017, dari Mina Ng, SH., Spn. M.Kn., Perusahaan dan SMI mendirikan suatu perusahaan bernama PT Chandra Asri Perkasa dengan modal dasar sebesar US$ 100.000 ribu atau ekuivalen dengan Rp 1.332.100 juta yang terdiri atas 1.000 lembar saham. Akta tersebut telah disahkan oleh Menteri Hukum Dan Hak Asasi Manusia Republik Indonesia melalui Surat Keputusan No. AHU-0015544.AH.01.01.Tahun 2017.

*) Indirect ownership through SMI, a subsidiary.

**) On September 15, 2016, the Company increased its paid-up capital to PBI amounting to US$ 30,000 thousand.

***) In 2016, based on Notarial Deed No. 32 from Jose Dima Satria, S.H., M.Kn, Notary in Jakarta, SMI & PBI subsidiaries, agreed to liquidate BAI.

****) Based on Notarial Deed No. 1, dated April 3, 2017 of Mina Ng, S.H., Spn. M.Kn., the Company and SMI established a new company named PT Chandra Asri Perkasa, with authorized capital stock amounting to US$ 100,000 thousand or equivalent to Rp 1,332,100 million for 1,000 shares. This deed was approved by Minister of Law and Human Rights of Republic of Indonesia under Decision Letter No. AHU-0015544.AH.01.01. Tahun 2017.

2. PENERAPAN STANDAR AKUNTANSI KEUANGAN BARU DAN REVISI (PSAK) DAN INTERPRETASI STANDAR AKUNTANSI KEUANGAN (ISAK)

a. Standar dan interpretasi yang berlaku efektif pada periode berjalan

Dalam periode berjalan, Grup telah menerapkan semua standar baru dan revisi serta interpretasi yang dikeluarkan oleh Dewan Standar Akuntansi Keuangan dari Ikatan Akuntan Indonesia yang relevan dengan operasinya dan efektif untuk periode akuntansi yang dimulai pada tanggal 1 Januari 2017.

2. ADOPTION OF NEW AND REVISED STATEMENTS OF FINANCIAL ACCOUNTING STANDARDS ("PSAK") AND INTERPRETATIONS OF PSAK ("ISAK")

a. Standard and interpretation effective in the current period

In the current period, the Group adopted the following new and revised standards and interpretations issued by the Financial Accounting Standard Board of the Indonesian Institute of Accountants that are relevant to their operations and effective for accounting period beginning on January 1, 2017.

Penerapan standar baru, amandemen standar dan interpretasi berikut tidak memiliki pengaruh signifikan atas pengungkapan atau jumlah yang dicatat di dalam laporan keuangan konsolidasi pada tahun berjalan dan tahun sebelumnya:

- PSAK 1: Penyajian Laporan Keuangan tentang Prakarsa Pengungkapan
- PSAK 24 (Penyesuaian 2016): Imbalan Kerja
- PSAK 60 (Penyesuaian 2016): Instrumen Keuangan: Pengungkapan

Adoption of new standards, standard amendments and intrepretations below does not have any significant effect on disclosures or balances that recorded in consolidated financial statements in current year and previous years:

- PSAK 1: Presentation of Financial Statements about Disclosure Initiative
- PSAK 24 (Improvement 2016): Employee Benefit
- PSAK 60 (Improvement 2016): Financial Instrument: Disclosures

b. Standar dan interpretasi telah diterbitkan tapi belum diterapkan

Standar dan amandemen standar berikut efektif untuk periode yang dimulai pada atau setelah tanggal 1 Januari 2018, dengan penerapan dini diperkenankan yaitu:

- Amandemen PSAK 2: Laporan Arus Kas tentang Prakarsa Pengungkapan
- Amandemen PSAK 46: Pajak Penghasilan tentang Pengakuan Aset Pajak Tangguhan untuk Rugi yang Belum direalisasi
- PSAK 69: Agrikultur
- Amandemen PSAK 16: Aset Tetap

Sampai dengan tanggal penerbitan laporan keuangan konsolidasian, dampak dari standar, amandemen dan interpretasi tersebut terhadap laporan keuangan konsolidasian tidak dapat diketahui atau diestimasi oleh manajemen.

b. Standards and interpretations issued not yet adopted

Standard and amendment to standard effective for periods beginning on or after January 1, 2018, with early application permitted are:

- Amendments to PSAK 2: Statement of Cash Flows about Disclosure Initiative
- Amendments to PSAK 46: Income Tax: Recognition on Deferred Tax Assets for Unrealized Losses
- PSAK 69: Agriculture
- Amendments to PSAK 16: Property, Plant and Equipment

As of the issuance date of the consolidated financial statements, the effect of adoption of these standards, amendments and interpretations on the consolidated financial statements is not known nor reasonably estimable by management.

3. RINGKASAN KEBIJAKAN AKUNTANSI SIGNIFIKAN

a. Pernyataan Kepatuhan

Laporan keuangan konsolidasian Grup disusun sesuai dengan Standar Akuntansi Keuangan di Indonesia.

b. Dasar Penyusunan

Dasar penyusunan laporan keuangan konsolidasian adalah biaya historis, kecuali instrumen keuangan tertentu yang diukur pada jumlah nilai wajar pada setiap akhir periode pelaporan, yang dijelaskan dalam kebijakan akuntansi di bawah ini. Mata uang penyajian yang digunakan untuk penyusunan laporan keuangan konsolidasian adalah mata uang Dolar Amerika Serikat (US$).

Biaya historis umumnya didasarkan pada nilai wajar dari imbalan yang diberikan dalam pertukaran barang dan jasa.

Nilai wajar adalah harga yang akan diterima untuk menjual suatu aset atau harga yang akan dibayar untuk mengalihkan suatu liabilitas dalam suatu transaksi teratur antara pelaku pasar pada tanggal pengukuran.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

a. Statement of Compliance

The consolidated financial statements of the Group have been prepared in accordance with Indonesian Financial Accounting Standards.

b. Basis of Preparation

The consolidated financial statements have been prepared on the historical cost basis except for certain financial instruments that are measured at fair values at the end of each reporting period, as explained in the accounting policies below. The presentation currency used in the preparation of the consolidated financial statements is the United States Dollar (US$).

Historical cost is generally based on the fair value of the consideration given in exchange for goods and services.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

Laporan arus kas konsolidasian disusun dengan menggunakan metode langsung dengan mengelompokkan arus kas dalam aktivitas operasi, investasi dan pendanaan.

The consolidated statements of cash flows are prepared using the direct method with classifications of cash flows into operating, investing and financing activities.

c. Dasar Konsolidasian

c. Basis of Consolidation

Laporan keuangan konsolidasian menggabungkan laporan keuangan Perusahaan dan entitas yang dikendalikan oleh Perusahaan dan entitas anak (termasuk entitas terstruktur). Pengendalian tercapai dimana Perusahaan memiliki kekuasaan atas *investee;* eksposur atau hak atas imbal hasil variabel dari keterlibatannya dengan *investee*; dan kemampuan untuk menggunakan kekuasaannya atas *investee* untuk mempengaruhi jumlah imbal hasil investor.

The consolidated financial statements incorporate the financial statements of the Company and entities (including structured entities) controlled by the Company and its subsidiaries. Control is achieved where the Company has the power over the investee; is exposed, or has rights, to variable returns from its involvement with the investee; and has the ability to use its power to affect its returns.

Perusahaan menilai kembali apakah entitas tersebut adalah *investee* jika fakta dan keadaan yang mengindikasikan adanya perubahan terhadap satu atau lebih dari tiga elemen pengendalian yang disebutkan di atas.

The Company reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control listed above.

Ketika Perusahaan memiliki hak suara kurang dari mayoritas di-*investee*, ia memiliki kekuasaan atas *investee* ketika hak suara investor cukup untuk memberinya kemampuan praktis untuk mengarahkan aktivitas relevan secara sepihak. Perusahaan mempertimbangkan seluruh fakta dan keadaan yang relevan dalam menilai apakah hak suara Perusahaan cukup untuk memberikan Perusahaan kekuasaan, termasuk (i) ukuran kepemilikan hak suara Perusahaan relatif terhadap ukuran dan penyebaran kepemilikan pemilik hak suara lain; (ii) hak suara potensial yang dimiliki oleh Perusahaan, pemegang suara lain atau pihak lain; (iii) hak yang timbul dari pengaturan kontraktual lain; dan (iv) setiap fakta dan keadaan tambahan apapun mengindikasikan bahwa Perusahaan memiliki, atau tidak memiliki, kemampuan kini untuk mengarahkan aktivitas yang relevan pada saat keputusan perlu dibuat, termasuk pola suara pemilikan dalam RUPS sebelumnya.

When the Company has less than a majority of the voting rights of an investee, it has power over the investee when the voting rights are sufficient to give it the practical ability to direct the relevant activities of the investee unilaterally. The Company considers all relevant facts and circumstances in assessing whether or not the Company's voting rights in an investee are sufficient to give it power, including (i) the size of the Company's holding of voting rights relative to the size and dispersion of holding of the other vote holders; (ii) potential voting rights held by the Company, other vote holders or other parties; (iii) rights arising from other contractual arrangements; and (iv) any additional facts and circumstances that indicate that the Company has, or does not have, the current ability to direct the relevant activities at the time that decisions need to be made, including voting patterns at previous shareholders' meetings.

Konsolidasi entitas anak dimulai ketika Perusahaan memperoleh pengendalian atas entitas anak dan akan dihentikan ketika Perusahaan kehilangan pengendalian pada entitas anak. Secara khusus, pendapatan dan beban entitas anak diakuisisi atau dijual selama periode berjalan termasuk dalam laporan laba rugi konsolidasian dan penghasilan komprehensif lain dari tanggal diperolehnya pengendalian Perusahaan sampai tanggal ketika Perusahaan berhenti untuk mengendalikan entitas anak.

Consolidation of a subsidiary begins when the Company obtains control over the subsidiary and ceases when the Company loses control of the subsidiary. Specifically, income and expense of a subsidiary acquired or disposed of during the period are included in the consolidated statements of profit or loss and other comprehensive income from the date the Company gains control until the date when the Company ceases to control the subsidiary.

Laba rugi dan setiap komponen penghasilan komprehensif lain diatribusikan kepada pemilik entitas induk dan untuk kepentingan nonpengendali. Perusahaan juga mengatribusikan total laba komprehensif entitas anak kepada pemilik entitas induk dan kepentingan nonpengendali meskipun hal tersebut mengakibatkan kepentingan nonpengendali memiliki saldo defisit.

Jika diperlukan, penyesuaian dapat dilakukan terhadap laporan keuangan entitas anak agar kebijakan akuntansi sesuai dengan kebijakan akuntansi Perusahaan.

Seluruh aset dan liabilitas dalam intra kelompok usaha, ekuitas, pendapatan, biaya dan arus kas yang berkaitan dengan transaksi dalam kelompok usaha dieliminasi secara penuh pada saat konsolidasian.

Perubahan kepemilikan Perusahaan pada entitas anak yang tidak mengakibatkan kehilangan pengendalian Perusahaan atas entitas anak dicatat sebagai transaksi ekuitas. Jumlah tercatat dari kepemilikan Perusahaan dan kepentingan nonpengendali disesuaikan untuk mencerminkan perubahan kepentingan relatifnya dalam entitas anak. Selisih antara jumlah tercatat kepentingan nonpengendali yang disesuaikan dan nilai wajar imbalan yang dibayar atau diterima diakui secara langsung dalam ekuitas dan diatribusikan dengan pemilik entitas induk.

Ketika Perusahaan kehilangan pengendalian pada entitas anak, keuntungan atau kerugian diakui dalam laba rugi dan dihitung sebagai perbedaan antara (i) agregat nilai wajar pembayaran yang diterima dan nilai wajar sisa kepemilikan (*retained interest*) dan (ii) jumlah tercatat sebelumnya dari aset (termasuk goodwill), dan liabilitas dari entitas anak dan setiap kepentingan nonpengendali. Seluruh jumlah yang diakui sebelumnya dalam penghasilan komprehensif lain yang terkait dengan entitas anak yang dicatat seolah-olah Perusahaan telah melepaskan secara langsung aset atau liabilitas terkait entitas anak (yaitu direklasifikasi ke laba rugi atau ditransfer ke kategori lain dari ekuitas sebagaimana ditentukan/diizinkan oleh standar akuntansi yang berlaku). Nilai wajar setiap sisa investasi pada entitas anak terdahulu pada tanggal hilangnya pengendalian dianggap sebagai nilai wajar pada saat pengakuan awal untuk akuntansi berikutnya dalam PSAK 55, Instrumen Keuangan: Pengakuan dan Pengukuran atau, ketika berlaku, biaya perolehan pada saat pengakuan awal dari investasi pada entitas asosiasi.

Profit or loss and each component of other comprehensive income are attributed to the owners of the Company and to the non-controlling interest. Total comprehensive income of subsidiaries is attributed to the owners of the Company and the non-controlling interest even if this results in the non-controlling interest having a deficit balance.

When necessary, adjustment are made to the financial statements of subsidiaries to bring their accounting policies in line with the Company's accounting policies.

All intragroup assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

Changes in the Company's ownership interest in subsidiaries that do not result in the Company losing control over the subsidiaries are accounted for as equity transactions. The carrying amounts of the Company's interest and the non-controlling interest are adjusted to reflect the changes in their relative interest in the subsidiaries. Any difference between the amount by which the non-controlling interest are adjusted and the fair value of the consideration paid or received is recognized directly in equity and attributed to owners of the Company.

When the Company loses control of a subsidiary, a gain or loss is recognized in profit or loss and is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the previous carrying amount of the assets (including goodwill), and liabilities of the subsidiary and any non-controlling interest. All amounts previously recognized in other comprehensive income in relation to that subsidiary are accounted for as if the Company had directly disposed of the related assets or liabilities of the subsidiary (i.e. reclassified to profit or loss or transferred to another category of equity as specified/permitted by applicable accounting standards). The fair value of any investment retained in the former subsidiary at the date when control is lost is regarded as the fair value on initial recognition for subsequent accounting under PSAK 55, Financial Instruments: Recognition and Measurement or, when applicable, the cost on initial recognition of an investment in an associate.

d. Kombinasi Bisnis

Akuisisi bisnis dicatat dengan menggunakan metode akuisisi. Imbalan yang dialihkan dalam suatu kombinasi bisnis diukur pada nilai wajar, yang dihitung sebagai hasil penjumlahan dari nilai wajar tanggal akuisisi atas seluruh aset yang dialihkan oleh Grup, liabilitas yang diakui oleh Grup kepada pemilik sebelumnya dari pihak yang diakuisisi dan kepentingan ekuitas yang diterbitkan oleh Grup dalam pertukaran pengendalian dari pihak yang diakuisisi. Biaya-biaya terkait akuisisi diakui di dalam laba rugi pada saat terjadinya.

Pada tanggal akuisisi, aset teridentifikasi yang diperoleh dan liabilitas yang diambilalih diakui pada nilai wajar kecuali untuk aset dan liabilitas tertentu yang diukur sesuai dengan standar yang relevan.

Goodwill diukur sebagai selisih lebih dari nilai gabungan dari imbalan yang dialihkan, jumlah setiap kepentingan nonpengendali pada pihak diakuisisi dan nilai wajar pada tanggal akuisisi kepentingan ekuitas yang sebelumnya dimiliki oleh pihak pengakuisisi pada pihak diakuisisi (jika ada) atas jumlah neto dari aset teridentifikasi yang diperoleh dan liabilitas yang diambilalih pada tanggal akuisisi. Jika, setelah penilaian kembali, jumlah neto dari aset teridentifikasi yang diperoleh dan liabilitas yang diambilalih pada tanggal akuisisi melebihi jumlah imbalan yang dialihkan, jumlah dari setiap kepentingan nonpengendali pada pihak diakuisisi dan nilai wajar pada tanggal akuisisi kepentingan ekuitas yang sebelumnya dimiliki oleh pihak pengakuisisi pada pihak diakuisisi (jika ada), selisih lebih diakui segera dalam laba rugi sebagai pembelian dengan diskon.

Kepentingan nonpengendali yang menyajikan bagian kepemilikan dan memberikan mereka hak atas bagian proposional dari aset neto entitas dalam hal terjadi likuidasi pada awalnya diukur baik pada nilai wajar ataupun pada bagian proporsional kepemilikan kepentingan nonpengendali atas aset neto teridentifikasi dari pihak yang diakuisisi. Pilihan dasar pengukuran dilakukan atas dasar transaksi. Kepentingan nonpengendali jenis lain diukur pada nilai wajar atau, jika berlaku, pada dasar pengukuran lain yang ditentukan oleh standar akuntansi lain.

Bila imbalan yang dialihkan oleh Grup dalam suatu kombinasi bisnis termasuk aset atau liabilitas yang berasal dari pengaturan imbalan kontinjen (*contingent consideration arrangement*), imbalan kontinjen tersebut diukur pada nilai wajar pada tanggal akuisisi dan termasuk sebagai bagian dari imbalan yang dialihkan dalam suatu kombinasi bisnis.

d. Business Combinations

Acquisitions of businesses are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of the assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquiree, and the equity interests issued by the Group in exchange for control of the acquiree. Acquisition-related costs are recognized in profit or loss as incurred.

At the acquisition date, the identifiable assets acquired and the liabilities assumed are recognized at their fair value except for certain assets and liabilities that are measured in accordance with the relevant standards.

Goodwill is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree, and the fair value of the acquirer's previously held equity interest in the acquire (if any) over the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed. If, after the reassessment, the net of the acquisition-date amounts of the identifiable assets acquired and liabilities assumed exceeds the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree and the fair value of the acquirer's previously held interest in the acquiree (if any), the excess is recognized immediately in profit or loss as a bargain purchase option.

Non-controlling interests that are present ownership interests and entitles their holders to a proportionate share of the entity's net assets in the event of liquidation may be initially measured either at fair value or at the non-controlling interests' proportionate share of the acquiree's identifiable net assets. The choice of measurement basis is made on a transaction-by-transaction basis. Other types of non-controlling interests are measured at fair value or, when applicable, on the basis specified in another accounting standard.

When the consideration transferred by the Group in a business combination includes assets or liabilities resulting from a contingent consideration arrangement, the contingent consideration is measured at its acquisition-date fair value and included as part of the consideration transferred in a business combination.

Perubahan dalam nilai wajar atas imbalan kontinjen yang memenuhi syarat sebagai penyesuaian periode pengukuran disesuaikan secara retrospektif, dengan penyesuaian terkait terhadap goodwill. Penyesuaian periode pengukuran adalah penyesuaian yang berasal dari informasi tambahan yang diperoleh selama periode pengukuran (yang tidak melebihi satu tahun sejak tanggal akuisisi) tentang fakta-fakta dan kondisi yang ada pada tanggal akuisisi.

Changes in the fair value of the contingent consideration that qualify as measurement period adjustments are adjusted retrospectively, with corresponding adjustments against goodwill. Measurement period adjustments are adjustments that arise from additional information obtained during the measurement period (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date.

Akuntansi berikutnya untuk perubahan nilai wajar dari imbalan kontinjensi yang tidak memenuhi syarat sebagai penyesuaian periode pengukuran tergantung pada bagaimana imbalan kontinjensi diklasifikasikan. Imbalan kontinjensi yang diklasifikasikan sebagai ekuitas tidak diukur kembali pada setiap tanggal pelaporan dan penyelesaian selanjutnya diperhitungkan dalam ekuitas. Imbalan kontinjensi yang diklasifikasikan sebagai aset atau liabilitas diukur kembali pada nilai wajar pada setiap tanggal pelaporan, dengan perubahan nilai wajar diakui dalam laba rugi.

The subsequent accounting for changes in the fair value of the contingent consideration that do not qualify as measurement period adjustments depends on how the contingent consideration is classified. Contingent consideration that is classified as equity is not remeasured at subsequent reporting dates and its subsequent settlement is accounted for within equity. Contingent consideration that is classified as an asset or liability is remeasured subsequent to reporting dates at fair value, with changes in fair value recognised in profit or loss.

Bila suatu kombinasi bisnis dilakukan secara bertahap, kepemilikan terdahulu Grup atas pihak terakuisisi diukur kembali ke nilai wajar pada tanggal akuisisi dan keuntungan atau kerugian dihasilkan, jika ada, diakui dalam laba rugi. Jumlah yang berasal dari kepemilikan sebelum tanggal akuisisi yang sebelumnya telah diakui dalam penghasilan komprehensif lain direklasifikasi ke laba rugi dimana perlakuan tersebut akan sesuai jika kepemilikan tersebut dilepas/dijual.

When a business combination is achieved in stages, the Group's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date and the resulting gain or loss, if any, is recognized in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognized in other comprehensive income are reclassified to profit or loss where such treatment would be appropriate if that interests were disposed of.

Jika akuntansi awal untuk kombinasi bisnis belum selesai pada akhir periode pelaporan saat kombinasi terjadi, Grup melaporkan jumlah sementara untuk pos-pos yang proses akuntansinya belum selesai dalam laporan keuangannya. Selama periode pengukuran, pihak pengakuisisi menyesuaikan, aset atau liabilitas tambahan yang diakui, untuk mencerminkan informasi baru yang diperoleh tentang fakta dan keadaan yang ada pada tanggal akuisisi dan, jika diketahui, akan berdampak pada jumlah yang diakui pada tanggal tersebut.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period, or additional assets or liabilities are recognized, to reflect new information obtained about facts and circumstances that existed as of the acquisition date that, if known, would have affected the amount recognized as of that date.

e. Transaksi dan Penjabaran Laporan Keuangan Dalam Mata Uang Asing

e. Foreign Currency Transactions and Translation

Laporan keuangan individu masing-masing entitas diukur dan disajikan dalam mata uang dari lingkungan ekonomi utama dimana entitas beroperasi (mata uang fungsional). Laporan keuangan konsolidasian dari Grup disajikan dalam mata uang Dolar Amerika Serikat (US$) yang merupakan mata uang fungsional Perusahaan dan mata uang penyajian untuk laporan keuangan konsolidasian.

The individual financial statements of each entity are measured and presented in the currency of the primary economic environment in which the entity operates (its functional currency). The consolidated financial statements of the Group are presented in United States Dollar (US$), which is the functional currency of the Company and the presentation currency for the consolidated financial statements.

Dalam penyusunan laporan keuangan setiap entitas individual grup, transaksi dalam mata uang asing selain mata uang fungsional entitas (mata uang asing) diakui pada kurs yang berlaku pada tanggal transaksi. Pada setiap akhir perode pelaporan, pos moneter dalam valuta asing dijabarkan kembali pada kurs yang berlaku pada tanggal tersebut. Pos-pos nonmoneter yang diukur pada nilai wajar dalam valuta asing dijabarkan kembali pada kurs yang berlaku pada tanggal ketika nilai wajar ditentukan. Pos nonmoneter yang diukur dalam biaya historis dalam valuta asing tidak dijabarkan kembali.

Selisih kurs atas pos moneter diakui dalam laba rugi pada periode saat terjadinya kecuali untuk:

- Selisih kurs atas pinjaman valuta asing yang berkaitan dengan aset dalam konstruksi untuk penggunaan yang produktif di masa depan, termasuk dalam biaya perolehan aset tersebut ketika dianggap sebagai penyesuaian atas biaya bunga atas pinjaman valuta asing.
- Selisih kurs atas transaksi yang ditetapkan untuk tujuan lindung nilai risiko valuta asing tertentu.
- Selisih kurs atas pos moneter piutang atau utang dari kegiatan operasi dalam valuta asing yang penyelesaiannya tidak direncanakan atau tidak mungkin terjadi (membentuk bagian dari investasi bersih dalam kegiatan usaha luar negeri), yang pada awalnya diakui pada penghasilan komprehensif lain dan direklasifikasi dari ekuitas ke laba rugi pada pembayaran kembali pos moneter.

Pembukuan RPU dan CAP2 diselenggarakan dalam Rupiah, mata uang fungsionalnya. Untuk tujuan penyajian laporan keuangan konsolidasian, aset dan liabilitas RPU dan CAP2 dijabarkan ke dalam Dolar Amerika Serikat dengan menggunakan kurs yang berlaku pada akhir periode pelaporan. Pos penghasilan dan beban dijabarkan menggunakan kurs rata-rata untuk periode tersebut, kecuali kurs berfluktuasi secara signifikan selama periode tersebut, dalam hal ini kurs yang berlaku pada tanggal transaksi yang digunakan. Selisih kurs yang timbul diakui dalam penghasilan komprehensif lain dan diakumulasi dalam ekuitas (dan diatribusikan pada kepentingan nonpengendali).

In preparing the financial statements of each individual group entity, transactions in currencies other than the entity's functional currency (foreign currencies) are recognized at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items carried at fair value that are denominated in foreign currencies are retranslated at the rates prevailing at the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

Exchange differences on monetary items are recognized in profit or loss in the period in which they arise except for:

- Exchange differences on foreign currency borrowing relating to assets under construction for future productive use, which are included in the cost of those assets when they are regarded as an adjustment to interest costs on those foreign currency borrowing.
- Exchange differences on transaction entered into in order to hedge certain foreign currency risks.
- Exchange differences on monetary items receivable from or payable to a foreign currency operation for which settlement is neither planned nor likely to occur (therefore forming part of the net investment in the foreign operation), which are recognized initially in other comprehensive income and reclassified from equity to profit or loss on repayment of the monetary items.

The books of accounts of RPU and CAP2 are maintained in Indonesian Rupiah, their functional currency. For the purposes of presenting these consolidated financial statements, the assets and liabilities of RPU and CAP2 are translated into United States Dollar using exchange rates prevailing at the end of each reporting period. Income and expense items are translated at the average exchange rates for the period, unless exchange rates fluctuate significantly during that period, in which case the exchange rates at the dates of the transactions are used. Exchange differences arising, if any, are recognized in other comprehensive income and accumulated in equity (and attributed to non-controlling interests as appropriate).

f. Transaksi Pihak-Pihak Berelasi

Pihak-pihak berelasi adalah orang atau entitas yang terkait dengan Grup (entitas pelapor):

a. Orang atau anggota keluarga terdekat mempunyai relasi dengan entitas pelapor jika orang tersebut:

   i. memiliki pengendalian atau pengendalian bersama atas entitas pelapor;

   ii. memiliki pengaruh signifikan atas entitas pelapor; atau

   iii. merupakan personil manajemen kunci entitas pelapor atau entitas induk dari entitas pelapor.

b. Suatu entitas berelasi dengan entitas pelapor jika memenuhi salah satu hal berikut:

   i. Entitas dan entitas pelapor adalah anggota dari kelompok usaha yang sama (artinya entitas induk, entitas anak, dan entitas anak berikutnya saling berelasi dengan entitas lainnya).

   ii. Satu entitas adalah entitas asosiasi dari entitas lain (atau entitas asosiasi yang merupakan anggota suatu kelompok usaha, yang mana entitas lain tersebut adalah anggotanya).

   iii. Kedua entitas tersebut adalah ventura bersama dari pihak ketiga yang sama.

   iv. Satu entitas adalah ventura bersama dari entitas ketiga dan entitas yang lain adalah entitas asosiasi dari entitas ketiga.

   v. Entitas tersebut adalah suatu program imbalan pasca kerja untuk imbalan kerja dari salah satu entitas pelapor atau entitas yang terkait dengan entitas pelapor. Jika entitas pelapor adalah entitas yang menyelenggarakan program tersebut, maka entitas sponsor juga berelasi dengan entitas pelapor.

   vi. Entitas yang dikendalikan atau dikendalikan bersama oleh orang yang diidentifikasi dalam huruf (a).

   vii. Orang yang diidentifikasi dalam huruf (a) (i) memiliki pengaruh signifikan atas entitas atau merupakan personil manajemen kunci entitas (atau entitas induk dari entitas).

f. Transactions with Related Parties

A related party is a person or entity that is related to the Group (the reporting entity):

a. A person or a close member of that person's family is related to the reporting entity if that person:

   i. has control or joint control over the reporting entity;

   ii. has significant influence over the reporting entity; or

   iii. is a member of the key management personnel of the reporting entity or of a parent of the reporting entity.

b. An entity is related to the reporting entity if any of the following conditions applies:

   i. The entity, and the reporting entity are members of the same group (which means that each parent, subsidiary and fellow subsidiary is related to the others).

   ii. One entity is an associate of the other entity (or an associate of a member of a group of which the other entity is a member).

   iii. Both entities are joint ventures of the same third party.

   iv. One entity is a joint venture of a third entity and the other entity is an associate of the third entity.

   v. The entity is a post-employment benefit plan for the benefit of employees of either the reporting entity, or an entity related to the reporting entity. If the reporting entity is itself such a plan, the sponsoring employers are also related to the reporting entity.

   vi. The entity is controlled or jointly controlled by a person identified in (a).

   vii. A person identified in (a) (i) has significant influence over the entity or is a member of the key management personnel of the entity (or a parent of the entity).

viii. Entitas, atau anggota dari kelompok yang mana entitas merupakan bagian dari kelompok tersebut, menyediakan jasa personil manajemen kunci kepada entitas pelapor atau kepada entitas induk dari entitas pelapor.

Seluruh transaksi signifikan yang dilakukan dengan pihak-pihak berelasi, baik dilakukan dengan kondisi dan persyaratan yang sama dengan pihak ketiga maupun tidak, diungkapkan pada laporan keuangan konsolidasian.

g. Aset Keuangan

Seluruh aset keuangan diakui dan dihentikan pengakuannya pada tanggal diperdagangkan dimana pembelian atau penjualan aset keuangan berdasarkan kontrak yang mensyaratkan penyerahan aset keuangan dalam kurun waktu yang ditetapkan oleh kebiasaan pasar yang berlaku, dan awalnya diukur sebesar nilai wajar ditambah biaya transaksi, kecuali untuk aset keuangan yang diukur pada nilai wajar melalui laba rugi, yang awalnya diukur sebesar nilai wajar.

Aset keuangan Grup diklasifikasikan sebagai berikut:

- Nilai wajar melalui laba rugi
- Pinjaman yang diberikan dan piutang

Nilai wajar melalui laba rugi (FVTPL)

Aset keuangan diklasifikasi dalam FVTPL, jika aset keuangan sebagai kelompok diperdagangkan atau pada saat pengakuan awal ditetapkan untuk diukur pada FVTPL.

Aset keuangan diklasifikasi sebagai kelompok diperdagangkan, jika:

- diperoleh atau dimiliki terutama untuk tujuan dijual kembali dalam waktu dekat; atau
- pada pengakuan awal merupakan bagian dari portofolio instrumen keuangan tertentu yang dikelola bersama dan terdapat bukti mengenai pola ambil untung dalam jangka pendek aktual terkini; atau
- merupakan derivatif yang tidak ditetapkan dan tidak efektif sebagai instrumen lindung nilai.

Aset keuangan FVTPL disajikan sebesar nilai wajar, keuntungan atau kerugian yang timbul diakui dalam laba rugi. Keuntungan atau kerugian bersih yang diakui dalam laba rugi mencakup dividen atau bunga yang diperoleh dari aset keuangan. Nilai wajar ditentukan dengan cara seperti dijelaskan pada Catatan 34.

viii. The entity, or any member of a group of which it is a part, provides key management personnel services to the reporting entity or to the parent of the reporting entity.

All significant transactions with related parties, whether or not made at similar terms and conditions as those done with third parties, are disclosed in the consolidated financial statements.

g. Financial Assets

All financial assets are recognised and derecognised on trade date where the purchase or sale of a financial asset is under a contract whose terms require delivery of the financial asset within the timeframe established by the market concerned, and are initially measured at fair value plus transaction costs, except for those financial assets classified as at fair value through profit or loss, which are initially measured at fair value.

The Group's financial assets are classified as follows:

- Fair Value Through Profit or Loss (FVTPL)
- Loans and Receivables

Fair Value Through Profit or Loss (FVTPL)

Financial assets are classified as at FVTPL when the financial asset is either held for trading or it is designated as at FVTPL.

A financial asset is classified as held for trading if:

- it has been acquired principally for the purpose of selling in the near term; or
- on initial recognition it is part of an identified portfolio of financial instruments that the entity manages together and has a recent actual pattern of short-term profit-taking; or
- it is a derivative that is not designated and effective as a hedging instrument.

Financial assets at FVTPL are stated at fair value, with any resultant gain or loss recognised in profit or loss. The net gain or loss recognised in profit or loss incorporates any dividend or interest earned on the financial asset. Fair value is determined in the manner described in Note 34.

Pinjaman yang diberikan dan piutang

Kas dan setara kas, kecuali kas, rekening bank yang dibatasi penggunaannya, piutang pelanggan dan piutang lain-lain dengan pembayaran tetap atau telah ditentukan dan tidak mempunyai kuotasi di pasar aktif diklasifikasi sebagai "pinjaman yang diberikan dan piutang", yang diukur pada biaya perolehan diamortisasi dengan menggunakan metode suku bunga efektif dikurangi penurunan nilai.

Bunga diakui dengan menggunakan metode suku bunga efektif, kecuali piutang jangka pendek dimana pengakuan bunga tidak material.

Metode suku bunga efektif

Metode suku bunga efektif adalah metode yang digunakan untuk menghitung biaya perolehan diamortisasi dari instrumen keuangan dan metode untuk mengalokasikan pendapatan bunga atau biaya selama periode yang relevan. Suku bunga efektif adalah suku bunga yang secara tepat mendiskontokan estimasi penerimaan atau pembayaran kas masa depan (mencakup seluruh komisi dan bentuk lain yang dibayarkan dan diterima oleh para pihak dalam kontrak yang merupakan bagian yang tak terpisahkan dari suku bunga efektif, biaya transaksi dan premium dan diskonto lainnya) selama perkiraan umur instrumen keuangan, atau, jika lebih tepat, digunakan periode yang lebih singkat untuk memperoleh nilai tercatat bersih dari aset keuangan pada saat pengakuan awal.

Pendapatan diakui berdasarkan suku bunga efektif untuk instrumen keuangan selain dari instrumen keuangan FVTPL.

Penurunan nilai aset keuangan

Aset keuangan, selain aset keuangan FVTPL, dinilai terhadap indikator penurunan nilai pada setiap tanggal pelaporan. Aset keuangan diturunkan nilainya bila terdapat bukti objektif, sebagai akibat dari satu atau lebih peristiwa yang terjadi setelah pengakuan awal aset keuangan, dan peristiwa yang merugikan tersebut berdampak pada estimasi arus kas masa depan atas aset keuangan yang dapat diestimasi secara andal.

Untuk aset keuangan lainnya, bukti obyektif penurunan nilai termasuk sebagai berikut:

- kesulitan keuangan signifikan yang dialami penerbit atau pihak peminjam; atau
- pelanggaran kontrak, seperti terjadinya wanprestasi atau tunggakan pembayaran pokok atau bunga; atau

Loans and receivables

Cash and cash equivalents, except cash on hand, restricted cash in banks, receivable from customers and other receivables that have fixed or determinable payments that are not quoted in an active market are classified as "loans and receivables". Loans and receivables are measured at amortised cost using the effective interest method less impairment.

Interest is recognised by applying the effective interest method, except for short-term receivables when the recognition of interest would be immaterial.

Effective interest method

The effective interest method is a method of calculating the amortised cost of a financial instrument and of allocating interest income or expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts or payments (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial instrument, or where appropriate, a shorter period to the net carrying amount on initial recognition.

Income is recognized on an effective interest basis for financial instruments other than those financial instruments at FVTPL.

Impairment of financial assets

Financial assets, other than those at FVTPL, are assessed for indicators of impairment at each reporting date. Financial assets are impaired when there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows of the investment have been affected.

For all other financial assets, objective evidence of impairment could include:

- significant financial difficulty of the issuer or counterparty; or
- default or delinquency in interest or principal payments; or

- terdapat kemungkinan bahwa pihak peminjam akan dinyatakan pailit atau melakukan reorganisasi keuangan.

Piutang yang dinilai tidak akan diturunkan secara individual, akan dinilai penurunannya secara kolektif. Bukti objektif dari penurunan nilai portofolio piutang dapat termasuk pengalaman Grup atas tertagihnya piutang di masa lalu, peningkatan keterlambatan penerimaan pembayaran piutang dari rata-rata periode kredit, dan juga pengamatan atas perubahan kondisi ekonomi nasional atau lokal yang berkorelasi dengan gagal bayar atas piutang.

Untuk aset keuangan yang diukur pada biaya perolehan diamortisasi, jumlah kerugian penurunan nilai merupakan selisih antara jumlah tercatat aset keuangan dengan nilai kini estimasi arus kas masa depan yang didiskontokan menggunakan tingkat suku bunga efektif awal dari aset keuangan.

Jumlah tercatat piutang dikurangi kerugian penurunan nilai melalui penggunaan akun cadangan piutang. Jika piutang tidak tertagih, piutang tersebut dihapuskan melalui akun cadangan piutang. Pemulihan kemudian dari jumlah yang sebelumnya telah dihapuskan dikreditkan terhadap akun cadangan. Perubahan jumlah tercatat atas akun cadangan piutang diakui dalam laba rugi.

Penghentian pengakuan aset keuangan

Grup menghentikan pengakuan aset keuangan jika dan hanya jika hak kontraktual atas arus kas yang berasal dari aset keuangan berakhir, atau Grup mentransfer aset keuangan dan secara substansial mentransfer seluruh risiko dan manfaat atas kepemilikan aset kepada entitas lain. Jika Grup tidak mentransfer serta tidak memiliki secara substansial atas seluruh risiko dan manfaat kepemilikan serta masih mengendalikan aset yang ditransfer, maka Grup mengakui keterlibatan berkelanjutan atas aset yang ditransfer dan liabilitas terkait sebesar jumlah yang mungkin harus dibayar. Jika Grup memiliki secara substansial seluruh risiko dan manfaat kepemilikan aset keuangan yang ditransfer, Grup masih mengakui aset keuangan dan juga mengakui pinjaman yang dijamin sebesar pinjaman yang diterima.

Penghentian pengakuan aset keuangan secara keseluruhan, selisih antara jumlah tercatat aset dan jumlah pembayaran dan piutang yang diterima dan keuntungan atau kerugian kumulatif yang telah diakui dalam penghasilan komprehensif lain dan terakumulasi dalam ekuitas diakui dalam laba rugi.

- it becoming probable that the borrower will enter bankruptcy or financial re-organisation.

Receivables that are assessed not to be impaired individually are, in addition, assessed for impairment on a collective basis. Objective evidence of impairment for a portfolio of receivables could include the Group's past experiences of collecting payments, an increase in the number of delayed payments in the portfolio past the average credit period, as well as observable changes in national or local economic conditions that correlate with default on receivables.

For financial assets carried at amortised cost, the amount of the impairment is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the financial asset's original effective interest rate.

The carrying amount of receivables is reduced by the impairment loss through the use of an allowance account. When a receivable is considered uncollectible, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited against the allowance account. Changes in the carrying amount of the allowance account are recognised in profit or loss.

Derecognition of financial assets

The Group derecognizes a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity. If the Group neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Group recognizes its retained interest in the asset and an associated liability for amounts it may have to pay. If the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, the Group continues to recognize the financial asset and also recognizes a collateralised borrowing for the proceeds received.

On derecognition of financial asset in its entirety, the difference between the asset's carrying amount and the sum of the consideration received and receivable and the cumulative gain or loss that had been recognized in other comprehensive income and accumulated in equity is recognized in profit or loss.

Penghentian pengakuan aset keuangan terhadap satu bagian saja (misalnya ketika Grup masih memiliki hak untuk membeli kembali bagian aset yang ditransfer), Grup mengalokasikan jumlah tercatat sebelumnya dari aset keuangan tersebut pada bagian yang tetap diakui berdasarkan keterlibatan berkelanjutan, dan bagian yang tidak lagi diakui berdasarkan nilai wajar relatif dari kedua bagian tersebut pada tanggal transfer. Selisih antara jumlah tercatat yang dialokasikan pada bagian yang tidak lagi diakui dan jumlah dari pembayaran yang diterima untuk bagian yang yang tidak lagi diakui dan setiap keuntungan atau kerugian kumulatif yang dialokasikan pada bagian yang tidak lagi diakui tersebut yang sebelumnya telah diakui dalam penghasilan komprehensif lain diakui pada laba rugi. Keuntungan dan kerugian kumulatif yang sebelumnya diakui dalam penghasilan komprehensif lain dialokasikan pada bagian yang tetap diakui dan bagian yang dihentikan pengakuannya, berdasarkan nilai wajar relatif kedua bagian tersebut.

On derecognition of financial asset other than its entirety (e.g., when the Group retains an option to repurchase part of a transferred asset), the Group allocates the previous carrying amount of the financial asset between the part it continues to recognize under continuing involvement, and the part it no longer recognizes on the basis of the relative fair values of those parts on the date of the transfer. The difference between the carrying amount allocated to the part that is no longer recognized and the sum of the consideration received for the part no longer recognized and any cumulative gain or loss allocated to it that had been recognized in other comprehensive income is recognized in profit or loss. A cumulative gain or loss that had been recognized in other comprehensive income is allocated between the part that continues to be recognized and the part that is no longer recognized on the basis of the relative fair values of those parts.

h. Liabilitas Keuangan dan Instrumen Ekuitas

h. Financial Liabilities and Equity Instruments

Klasifikasi sebagai liabilitias atau ekuitas

Liabilitas keuangan dan instrumen ekuitas yang diterbitkan oleh Grup diklasifikasi sesuai dengan substansi perjanjian kontraktual dan definisi liabilitas keuangan dan instrumen ekuitas.

Classification as debt or equity

Financial liabilities and equity instruments issued by the Group are classified according to the substance of the contractual arrangements entered into and the definitions of a financial liability and an equity instrument.

Instrumen ekuitas

Instrumen ekuitas adalah setiap kontrak yang memberikan hak residual atas aset Grup setelah dikurangi dengan seluruh liabilitasnya. Instrumen ekuitas yang diterbitkan oleh Grup dicatat sebesar hasil penerimaan bersih setelah dikurangi biaya penerbitan langsung.

Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by the Group are recorded at the proceeds received, net of direct issue costs.

Liabilitas Keuangan

Liabilitas keuangan diklasifikasikan sebagai FVTPL atau pada biaya perolehan diamortisasi.

Financial Liabilities

Financial liabilities are classified as either "at FVTPL" or "at amortized cost".

Liabilitas Keuangan yang Diukur pada Nilai Wajar melalui Laba Rugi (FVTPL)

Liabilitas keuangan diklasifikasikan sebagai FVTPL, jika dimiliki untuk diperdagangkan atau ditetapkan pada FVTPL.

Derivatif keuangan diklasifikasikan sebagai dimiliki untuk diperdagangkan jika:

- diperoleh terutama untuk tujuan dibeli kembali dalam waktu dekat; atau

Financial Liabilities at FVTPL

Financial liabilities are classified as at FVTPL when the financial liabilities are either held for trading or it is designated at FVTPL.

Financial derivatives is classified as held for trading if:

- it has been acquired principally for the purpose of repurchasing in the near term; or

- pada pengakuan awal merupakan bagian dari portofolio instrumen keuangan tertentu yang dikelola bersama dan terdapat bukti mengenai pola ambil untung dalam jangka pendek aktual terkini; atau
- merupakan derivatif yang tidak ditetapkan dan tidak efektif sebagai instrumen lindung nilai.

Grup tidak memiliki liabilitas keuangan yang ditetapkan pada FVTPL pada pengukuran awal.

Liabilitas keuangan yang diukur pada nilai wajar, keuntungan atau kerugian yang timbul diakui dalam laba rugi. Keuntungan atau kerugian bersih yang diakui dalam laba rugi mencakup setiap bunga yang dibayar dari liabilitas keuangan. Nilai wajar ditentukan dengan cara yang dijelaskan dalam Catatan 34.

Liabilitas keuangan pada biaya perolehan diamortisasi

Liabilitas keuangan meliputi utang usaha dan lainnya dan obligasi, bank dan pinjaman lainnya, pada awalnya diukur pada nilai wajar, setelah dikurangi biaya transaksi, dan selanjutnya diukur pada biaya perolehan yang diamortisasi menggunakan metode suku bunga efektif.

Penghentian pengakuan liabilitas keuangan

Grup menghentikan pengakuan liabilitas keuangan, jika dan hanya jika, liabilitas Grup telah dilepaskan, dibatalkan atau kadaluarsa. Selisih antara jumlah tercatat liabilitas keuangan yang dihentikan pengakuannya dan imbalan yang dibayarkan dan utang diakui dalam laba rugi.

i. Saling hapus antar Aset Keuangan dan Liabilitas Keuangan

Aset dan liabilitas keuangan Grup saling hapus dan nilai bersihnya disajikan dalam laporan posisi keuangan jika dan hanya jika:

- saat ini memiliki hak yang berkekuatan hukum untuk melakukan saling hapus atas jumlah yang telah diakui tersebut; dan
- berniat untuk menyelesaikan secara neto atau untuk merealisasikan aset dan menyelesaikan liabilitasnya secara simultan.

- on initial recognition it is part of an identified portfolio of financial instruments that the entity manages together and has a recent actual pattern of short-term profit-taking; or
- it is a derivative that is not designated and effective as a hedging instrument.

The Group does not have financial liabilities designated as at FVTPL on initial recognition.

Financial liabilities at FVTPL are stated at fair value, with any resultant gain or loss recognized in profit or loss. The net gain or loss recognized in profit or loss incorporates any interest paid on the financial liability. Fair value is determined in the manner described in Note 34.

Financial liabilities at amortized cost

Financial liabilities, which include trade and other payables and bonds, bank and other borrowings, are initially measured at fair value, net of transaction costs, and subsequently measured at amortized cost using the effective interest method.

Derecognition of financial liabilities

The Group derecognizes financial liabilities when, and only when, the Group's obligations are discharged, cancelled or they expire. The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable is recognized in profit or loss.

i. Netting of Financial Assets and Financial Liabilities

The Group only offsets financial assets and liabilities and presents the net amount in the statements of financial position where it:

- currently has a legal enforceable right to set off the recognized amount; and
- intends either to settle on a net basis, or to realize the asset and settle the liability simultaneously.

j. Kas dan Setara Kas

Untuk tujuan penyajian arus kas, kas dan setara kas terdiri dari kas, bank dan semua investasi yang jatuh tempo dalam waktu enam bulan atau kurang dari tanggal perolehannya dan yang tidak dijaminkan serta tidak dibatasi penggunaannya.

j. Cash and Cash Equivalents

For cash flow presentation purposes, cash and cash equivalents consist of cash on hand and in banks and all unrestricted investments with maturities of six months or less from the date of placement.

k. Investasi pada Entitas Asosiasi

Entitas asosiasi adalah suatu entitas dimana Grup mempunyai pengaruh yang signifikan. Pengaruh signifikan adalah kekuasaan untuk berpartipasi dalam keputusan kebijakan keuangan dan operasional *investee* tetapi tidak mengendalikan atau mengendalikan bersama atas kebijakan tersebut.

Penghasilan dan aset dan liabilitas dari entitas asosiasi digabungkan dalam laporan keuangan konsolidasian dicatat dengan menggunakan metode ekuitas, kecuali ketika investasi diklasifikasikan sebagai dimiliki untuk dijual, sesuai dengan PSAK 58, Aset Tidak Lancar yang Dimiliki untuk Dijual dan Operasi yang Dihentikan. Dengan metode ekuitas, investasi pada entitas asosiasi diakui di laporan posisi keuangan konsolidasian sebesar biaya perolehan dan selanjutnya disesuaikan untuk perubahan dalam bagian kepemilikan Grup atas laba rugi dan penghasilan komprehensif lain dari entitas asosiasi yang terjadi setelah perolehan. Ketika bagian Grup atas kerugian entitas asosiasi melebihi kepentingan Grup pada entitas asosiasi (yang mencakup semua kepentingan jangka panjang, yang secara substansi, membentuk bagian dari investasi bersih Grup dalam entitas asosiasi). Grup menghentikan pengakuan bagiannya atas kerugian selanjutnya. Kerugian selanjutnya diakui hanya apabila Grup mempunyai kewajiban bersifat hukum atau konstruktif atau melakukan pembayaran atas nama entitas asosiasi.

Investasi pada entitas asosiasi dicatat dengan menggunakan metode ekuitas dari tanggal pada saat *investee* menjadi entitas asosiasi. Setiap kelebihan biaya perolehan investasi atas bagian Grup atas nilai wajar bersih dari aset yang teridentifikasi, liabilitas kontinjen dan liabilitas dari entitas asosiasi yang diakui pada tanggal akuisisi, diakui sebagai goodwill. Goodwill termasuk dalam jumlah tercatat investasi, dan diuji penurunan nilai sebagai bagian dari investasi. Setiap kelebihan dari kepemilikan Grup dari nilai wajar bersih dari aset yang teridentifikasi, liabilitas dan liabilitas kontinjen atas biaya perolehan investasi, sesudah pengujian kembali segera diakui di dalam laba rugi pada periode dimana investasinya diperoleh.

k. Investments in Associates

An associate is an entity over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

The results of operations and assets and liabilities of associates are incorporated in these consolidated financial statements using the equity method of accounting, except when the investment is classified as held for sale, in which case, it is accounted for in accordance with PSAK 58, Non-current Assets Held for Sale and Discontinued Operations. Under the equity method, an investment in an associate is initially recognized in the consolidated statements of financial position at cost and adjusted thereafter to recognize the Group's share of the profit or loss and other comprehensive income of the associate. When the Group's share of losses of an associate exceeds the Group's interest in that associate (which includes any long-term interests that, in substance, form part of the Group's net investment in the associate) the Group discontinues recognizing it's share of further losses. Additional losses are recognized only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate.

An investment in an associate is accounted for using the equity method from the date on which the investee becomes an associate. Any excess of the cost of acquisition over the Group's share of the net fair value of identifiable assets, liabilities and contingent liabilities of the associate recognized at the date of acquisition, is recognized as goodwill, which is included within the carrying amount of the investment. Any excess of the Group's share of the net fair value of the identifiable assets, liabilities and contingent liabilities over the cost of acquisition, after reassessment, is recognized immediately in profit or loss in the period in which the investment is acquired.

Persyaratan dalam PSAK 55, Instrumen Keuangan: Pengakuan dan Pengukuran, diterapkan untuk menentukan apakah perlu untuk mengakui setiap penurunan nilai sehubungan dengan investasi pada entitas asosiasi. Jumlah tercatat investasi yang tersisa (termasuk goodwill) diuji penurunan nilai sesuai dengan PSAK 48, Penurunan Nilai Aset, sebagai suatu aset tunggal dengan membandingkan antara jumlah terpulihkan (mana yang lebih tinggi antara nilai pakai dan nilai wajar dikurangi biaya pelepasan) dengan jumlah tercatatnya. Rugi penurunan nilai yang diakui pada keadaan tersebut tidak dialokasikan pada setiap aset yang membentuk bagian dari nilai tercatat investasi pada entitas asosiasi. Setiap pembalikan dari penurunan nilai diakui sesuai dengan PSAK 48 sepanjang jumlah terpulihkan dari investasi tersebut kemudian meningkat.

Grup menghentikan penggunaan metode ekuitas sejak tanggal saat investasinya berhenti menjadi investasi pada entitas asosiasi atau ketika investasi diklasifikasi sebagai dimiliki untuk dijual. Ketika Grup mempertahankan kepemilikan dalam entitas yang sebelumnya merupakan entitas asosiasi dan sisa investasi tersebut merupakan aset keuangan, Grup mengukur setiap sisa investasi pada nilai wajar pada tanggal tersebut dan nilai wajar tersebut dianggap sebagai nilai wajar pada saat pengakuan awal sesuai dengan PSAK 55. Group mengakui keuntungan dan kerugian atas pelepasan investasi asosiasi dalam laba rugi dengan turut memperhitungkan nilai wajar dari investasi yang tersisa. Selanjutnya, Grup mencatat seluruh jumlah yang sebelumnya telah diakui dalam penghasilan komprehensif lain yang terkait dengan entitas asosiasi tersebut dengan menggunakan dasar perlakuan yang sama dengan yang disyaratkan jika entitas asosiasi telah melepaskan secara langsung aset dan liabilitas yang terkait. Seluruh jumlah yang diakui dalam penghasilan komprehensif lain yang terkait dengan entitas asosiasi direklasifikasi ke laba rugi (sebagai penyesuaian reklasifikasi) pada saat penghentian metode ekuitas.

Jika Grup mengurangi bagian kepemilikan pada entitas asosiasi atau ventura bersama tetapi Grup tetap menerapkan metode ekuitas, Grup mereklasifikasi ke laba rugi proporsi keuntungan yang telah diakui sebelumnya dalam penghasilan komprehensif lain yang terkait dengan pengurangan bagian kepemilikan (jika keuntungan atau kerugian tersebut akan direklasifikasi ke laba rugi atas pelepasan aset atau liabilitas yang terkait).

Ketika Grup melakukan transaksi dengan entitas asosiasi dari Grup, keuntungan dan kerugian yang timbul dari transaksi dengan entitas asosiasi diakui dalam laporan keuangan konsolidasian Grup hanya sepanjang kepemilikan dalam entitas asosiasi yang tidak terkait dengan Grup.

The requirements of PSAK 55, Financial Instruments: Recognition and Measurement, are applied to determine whether it is necessary to recognize any impairment loss with respect to the Group's investment in an associate. The entire carrying amount of the investment (including goodwill) is tested for impairment in accordance with PSAK 48, Impairment of Assets, as a single asset by comparing its recoverable amount (higher of value in use and fair value less costs to sell) with its carrying amount. Any impairment loss recognized forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognized in accordance with PSAK 48 to the extent that the recoverable amount of the investment subsequently increases.

The Group discontinues the use of the equity method from the date when the investment ceases to be an associate, or when the investment is classified as held for sale. When the Group retains an interest in the former associate and the retained interest is a financial asset, the Group measures any retained investment at fair value at that date and the fair value is regarded as its fair value on initial recognition in accordance with PSAK 55. The difference between the carrying amount of the associate at the date the equity method was discontinued, and the fair value of any retained interest and any proceeds from disposing of a part interest in the associate is included in the determination of the gain or loss on disposal of the associate. In addition, the Group accounts for all amounts previously recognized in other comprehensive income in relation to that associate on the same basis as would be required if that associate had directly disposed of the related assets or liabilities. Therefore, if a gain or loss previously recognized in other comprehensive income by that associate would be reclassified to profit or loss on the disposal of the related assets or liabilities, the Group reclassifies the gain or loss from equity to profit or loss (as a reclassification adjustment) when the equity method is discontinued.

When the Group reduces its ownership interest in an associate or a joint venture but the Group continues to use the equity method, the Group reclassifies to profit or loss the proportion of the gain that had previously been recognized in other comprehensive income relating to that reduction in ownership interest (if that gain or loss would be reclassified to profit or loss on the disposal of the related assets or liabilities).

When a Group entity transacts with an associate of the Group, profits and losses resulting from the transactions with the associate are recognized in the Group's consolidated financial statements only to the extent of its interest in the associate that are not related to the Group.

l. Persediaan

Persediaan dinyatakan berdasarkan biaya perolehan atau nilai realisasi bersih, mana yang lebih rendah. Biaya perolehan ditentukan dengan metode rata-rata tertimbang. Nilai realisasi bersih merupakan estimasi harga jual dari persediaan dikurangi seluruh biaya penyelesaian dan estimasi biaya yang diperlukan untuk penjualan.

m. Biaya Dibayar Dimuka

Biaya dibayar dimuka diamortisasi selama manfaat masing-masing biaya dengan menggunakan metode garis lurus.

n. Aset Tidak Lancar yang Tersedia Untuk Dijual

Aset tidak lancar yang tersedia untuk dijual (atau kelompok lepasan) diklasifikasi sebagai dimiliki untuk dijual jika jumlah tercatatnya akan dipulihkan terutama melalui transaksi penjualan dari pada melalui pemakaian berlanjut. Kondisi ini dianggap memenuhi hanya ketika aset (atau kelompok lepasan) adalah berada dalam keadaan segera dapat dijual dengan syarat-syarat yang biasa dan umum diperlukan dalam penjualan aset (atau kelompok lepasan) tersebut dan penjualannya harus sangat mungkin terjadi dan aset tidak lancar yang dimiliki untuk dijual (atau kelompok lepasan) harus tersedia untuk segera dijual.

Aset tidak lancar (atau kelompok lepasan) diklasifikasi sebagai yang dimiliki untuk dijual diukur pada nilai yang lebih rendah antara jumlah tercatat dan nilai wajar setelah dikurangi biaya untuk menjual.

o. Aset Tetap

Aset tetap yang dimiliki untuk digunakan dalam produksi atau penyediaan barang atau jasa atau untuk tujuan administratif dicatat berdasarkan biaya perolehan setelah dikurangi akumulasi penyusutan dan akumulasi kerugian penurunan nilai.

Grup telah menilai kembali aset tetap tertentu pada periode sebelumnya berdasarkan hasil penilaian yang dilakukan oleh penilai independen dalam rangka kuasi-reorganisasi. Nilai aset tertentu yang direvaluasi tersebut dianggap sebagai biaya perolehan (*deemed cost*).

l. Inventories

Inventories are stated at cost or net realizable value, whichever is lower. Cost is determined using the weighted average method. Net realizable value represents the estimated selling price for inventories less all estimated costs of completion and costs necessary to make the sale.

m. Prepaid Expenses

Prepaid expenses are amortized over their beneficial periods using the straight-line method.

n. Non-current Assets Held for Sale

Non-current assets available for sale (or disposal groups) are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when the asset (or disposal group) is available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such asset (or disposal group) and its sale is highly probable. Management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification.

Non-current assets (or disposal groups) classified as held for sale are measured at the lower of their previous carrying amount and fair value less cost to sell.

o. Property, Plant and Equipment

Property, plant and equipment held for use in the production or supply of goods or services, or for administrative purposes, are stated at cost, less accumulated depreciation and any accumulated impairment losses.

In previous periods, the Group revalued certain property, plant and equipment which was done by independent valuer in connection with quasi-reorganization. The revalued amount of those assets is considered as deemed cost.

Penyusutan diakui sebagai penghapusan biaya perolehan aset dikurangi nilai residu dengan menggunakan metode garis lurus berdasarkan taksiran masa manfaat ekonomis aset tetap sebagai berikut:

Depreciation is recognized so as to write-off the cost of assets less residual values using the straight-line method based on the estimated useful lives of the assets as follows:

	Tahun/*Years*	
Bangunan dan prasarana	4-30	Buildings and infrastructures
Mesin	4-43	Machineries
Kendaraan bermotor	4-8	Motor vehicles
Peralatan dan perlengkapan	4-8	Furniture and fixtures

Tanah dinyatakan berdasarkan biaya perolehan dan tidak disusutkan.

Land is stated at cost and is not depreciated.

Aset sewa pembiayaan disusutkan berdasarkan taksiran masa manfaat ekonomis yang sama dengan aset yang dimiliki sendiri atau disusutkan selama jangka waktu yang lebih pendek antara periode masa sewa dan umur manfaatnya.

Assets held under finance leases are depreciated over their expected useful lives on the same basis as owned assets or where shorter, the term of the relevant lease.

Masa manfaat ekonomis, nilai residu dan metode penyusutan direviu setiap akhir periode dan pengaruh dari setiap perubahan estimasi tersebut berlaku prospektif.

The estimated useful lives, residual values and depreciation method are reviewed at each period end, with the effect of any changes in estimate accounted for on a prospective basis.

Beban pemeliharaan dan perbaikan dibebankan pada laba rugi pada saat terjadinya. Biaya-biaya lain yang terjadi selanjutnya yang timbul untuk menambah, mengganti atau memperbaiki aset tetap dicatat sebagai biaya perolehan aset jika dan hanya jika besar kemungkinan manfaat ekonomis di masa depan berkenaan dengan aset tersebut akan mengalir ke entitas dan biaya perolehan aset dapat diukur secara andal.

The cost of maintenance and repairs is charged to profit or loss as incurred. Other costs incurred subsequently to add to, replace part of, or service an item of property, plant and equipment, are recognized as asset if, and only if it is probable that future economic benefits associated with the item will flow to the entity and the cost of the item can be measured reliably.

Biaya berkala untuk *overhaul* mesin yang dikapitalisasi diamortisasi dengan menggunakan garis lurus selama periode berlaku sampai *overhaul* berikutnya.

Capitalized cost of major periodical overhauls of machinery is amortized using the straight line method over the period to the next overhaul.

Aset tetap yang dihentikan pengakuannya atau yang dijual nilai tercatatnya dikeluarkan dari kelompok aset tetap. Keuntungan atau kerugian dari penjualan aset tetap tersebut dibukukan dalam laba rugi.

When assets are retired or otherwise disposed of, their carrying amounts are removed from the accounts and any resulting gain or loss is reflected in profit or loss.

Aset dalam pembangunan dinyatakan sebesar biaya perolehan. Biaya perolehan tersebut termasuk biaya pinjaman yang terjadi selama masa pembangunan yang timbul dari utang yang digunakan untuk pembangunan aset tersebut. Akumulasi biaya perolehan akan dipindahkan ke masing-masing aset tetap yang bersangkutan pada saat selesai dan siap digunakan.

Construction in progress is stated at cost which includes borrowing costs during construction on debts incurred to finance the construction. Construction in progress is transferred to the respective property, plant and equipment account when completed and ready for use.

Nilai sebuah aset termasuk estimasi awal biaya pembongkaran, pemindahan aset tetap dan restorasi lokasi aset. Liabilitas yang timbul atas estimasi tersebut dicatat sebagai “Estimasi biaya pembongkaran aset tetap”. Kewajiban untuk biaya yang diperhitungkan diakui dan diukur sesuai dengan Catatan 3q.

The cost of an asset includes the initial estimate of the cost of dismantling and removing the item and restoring the site on which it is located. Liabilities resulting from such estimation were recorded as “Decommissioning Cost”. The obligation for costs to be accounted for are recognized and measured in accordance with Note 3q.

p. Penurunan Nilai Aset Non-Keuangan

Pada setiap akhir periode pelaporan, Grup menelaah nilai tercatat aset non-keuangan untuk menentukan apakah terdapat indikasi bahwa aset tersebut telah mengalami penurunan nilai. Jika terdapat indikasi tersebut, jumlah terpulihkan dari aset diestimasi untuk menentukan tingkat kerugian penurunan nilai (jika ada). Bila tidak memungkinkan untuk mengestimasi jumlah terpulihkan atas suatu aset individual, Grup mengestimasi jumlah terpulihkan dari unit penghasil kas atas aset.

Estimasi jumlah terpulihkan adalah nilai tertinggi antara nilai wajar dikurangi biaya pelepasan dan nilai pakai. Dalam menilai nilai pakainya, estimasi arus kas masa depan didiskontokan ke nilai kini menggunakan tingkat diskonto sebelum pajak yang menggambarkan penilaian pasar kini dari nilai waktu uang dan risiko spesifik atas aset yang mana estimasi arus kas masa depan belum disesuaikan.

Jika jumlah terpulihkan dari aset non-keuangan (unit penghasil kas) lebih kecil dari nilai tercatatnya, nilai tercatat aset (unit penghasil kas) diturunkan menjadi sebesar jumlah terpulihkan dan rugi penurunan nilai segera diakui dalam laba rugi.

Kebijakan akuntansi untuk penurunan nilai aset keuangan dijelaskan dalam Catatan 3g.

q. Provisi

Provisi diakui ketika Grup memiliki kewajiban kini (baik bersifat hukum maupun bersifat konstruktif) sebagai akibat peristiwa masa lalu, kemungkinan besar Grup diharuskan menyelesaikan kewajiban dan estimasi yang andal mengenai jumlah kewajiban tersebut dapat dibuat.

Jumlah yang diakui sebagai provisi adalah hasil estimasi terbaik pengeluaran yang diperlukan untuk menyelesaikan kewajiban kini pada akhir periode pelaporan, dengan mempertimbangkan risiko dan ketidakpastian yang meliputi kewajibannya. Apabila suatu provisi diukur menggunakan arus kas yang diperkirakan untuk menyelesaikan kewajiban kini, maka nilai tercatatnya adalah nilai kini dari arus kas.

Ketika beberapa atau seluruh manfaat ekonomi untuk penyelesaian provisi yang diharapkan dapat dipulihkan dari pihak ketiga, piutang diakui sebagai aset apabila terdapat kepastian bahwa penggantian akan diterima dan jumlah piutang dapat diukur secara andal.

p. Impairment of Non-Financial Assets

At the end of each reporting period, the Group reviews the carrying amount of non-financial assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Where it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the cash generating unit to which the asset belongs.

Estimated recoverable amount is the higher of fair value less cost to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of the non-financial asset (cash generating unit) is less than its carrying amount, the carrying amount of the asset (cash generating unit) is reduced to its recoverable amount and an impairment loss is recognized immediately against earnings.

Accounting policy for impairment of financial assets is discussed in Note 3g.

q. Provisions

Provisions are recognized when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that the Group will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. Where a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows.

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, a receivable is recognized as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

r. Biaya pinjaman

Biaya pinjaman yang dapat diatribusikan secara langsung dengan perolehan, konstruksi atau pembuatan aset kualifikasian, merupakan aset yang membutuhkan waktu yang cukup lama agar siap untuk digunakan atau dijual, ditambahkan pada biaya perolehan aset tersebut, sampai dengan saat selesainya aset secara substansial siap untuk digunakan atau dijual.

Penghasilan investasi diperoleh atas investasi sementara dari pinjaman yang secara spesifik belum digunakan untuk pengeluaran aset kualifikasian dikurangi dari biaya pinjaman yang dikapitalisasi.

Semua biaya pinjaman lainnya diakui dalam laba rugi pada periode terjadinya.

r. Borrowing Costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization.

All other borrowing costs are recognized in profit or loss in the period in which they are incurred.

s. Pengakuan Pendapatan dan Beban

Pendapatan diukur dengan nilai wajar imbalan yang diterima atau dapat diterima. Pendapatan dikurangi dengan estimasi retur pelanggan, rabat dan cadangan lain yang serupa.

Penjualan barang

Pendapatan dari penjualan barang harus diakui bila seluruh kondisi berikut dipenuhi:

- Grup telah memindahkan risiko dan manfaat secara signifikan kepemilikan barang kepada pembeli;
- Grup tidak lagi melanjutkan pengelolaan yang biasanya terkait dengan kepemilikan atas barang ataupun melakukan pengendalian efektif atas barang yang dijual;
- Jumlah pendapatan dapat diukur dengan andal;
- Kemungkinan besar manfaat ekonomi yang terkait dengan transaksi akan mengalir kepada Grup tersebut; dan
- Biaya yang terjadi atau akan terjadi sehubungan transaksi penjualan tersebut dapat diukur dengan andal.

Pendapatan sewa tangki dan dermaga

Pendapatan sewa tangki dan dermaga diakui ketika sebagai pendapatan dengan dasar garis lurus selama masa sewa.

Pendapatan dividen

Pendapatan dividen dari investasi diakui ketika hak pemegang saham untuk menerima pembayaran ditetapkan.

s. Revenue and Expense Recognition

Revenue is measured at the fair value of the consideration received or receivable. Revenue is reduced for estimated customer returns, rebates and other similar allowances.

Sale of goods

Revenue from sale of goods is recognized when all of the following conditions are satisfied:

- The Group has transferred to the buyer the significant risks and rewards of ownership of the goods;
- The Group retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold;
- The amount of revenue can be measured reliably;
- It is probable that the economic benefits associated with the transaction will flow to the Group; and
- The cost incurred or to be incurred in respect of the transaction can be measured reliably.

Tank and jetty lease revenue

Tank and jetty lease revenue is recognized on a straight-line basis over the term of relevant lease.

Dividend revenue

Dividend revenue from investments is recognized when the shareholders' rights to receive payment has been established.

Pendapatan bunga

Pendapatan bunga diakru berdasarkan waktu terjadinya dengan acuan jumlah pokok terhutang dan tingkat bunga yang berlaku.

Interest revenue

Interest revenue is accrued on time basis, by reference to the principal outstanding and at the applicable interest rate.

Beban

Beban diakui pada saat terjadinya.

Expenses

Expenses are recognized when incurred.

t. Imbalan Pasca Kerja

Program pensiun iuran pasti

Grup menyelenggarakan program pensiun iuran pasti untuk seluruh karyawan tetapnya. Iuran yang ditanggung Grup diakui sebagai beban pada laba rugi.

Imbalan pasca kerja imbalan pasti

Grup menyelenggarakan program pensiun imbalan pasti untuk semua karyawan tetapnya. Grup juga membukukan imbalan pasca kerja imbalan pasti untuk karyawan sesuai dengan Undang Undang Ketenagakerjaan No. 13/2003. Grup menghitung selisih antara imbalan yang diterima karyawan berdasarkan undang-undang yang berlaku dengan manfaat yang diterima dari program pensiun untuk pensiun normal.

Perusahaan membuat pendanaan untuk imbalan ini yang dikelola oleh sebuah perusahaan asuransi. Pendanaan tersebut tidak memenuhi syarat sebagai aset program dan diperlakukan sebagai hak penggantian.

Biaya penyediaan imbalan ditentukan dengan menggunakan metode *projected unit credit* dengan penilaian aktuaria yang dilakukan pada setiap akhir periode pelaporan tahunan. Pengukuran kembali, terdiri dari keuntungan dan kerugian aktuarial, perubahan dampak batas atas aset (jika ada) dan dari imbal hasil atas aset program (tidak termasuk bunga), yang tercermin langsung dalam laporan posisi keuangan konsolidasian yang dibebankan atau dikreditkan dalam penghasilan komprehensif lain periode terjadinya. Pengukuran kembali diakui dalam penghasilan komprehensif lain tercermin sebagai pos terpisah pada penghasilan komprehensif lain di ekuitas dan tidak akan direklas ke laba rugi. Biaya jasa lalu diakui dalam laba rugi pada periode amandemen program. Bunga neto dihitung dengan mengalikan tingkat diskonto pada awal periode imbalan pasti dengan liabilitas atau aset imbalan pasti neto. Biaya imbalan pasti dikategorikan sebagai berikut:

- Biaya jasa (termasuk biaya jasa kini, biaya jasa lalu serta keuntungan dan kerugian kurtailmen dan penyelesaian).
- Beban atau pendapatan bunga neto.
- Pengukuran kembali.

t. Employee Benefits

Defined contribution pension plan

The Group established a defined contribution pension plan covering all of their permanent employees. Contribution funded by the Group were charged to profit or loss.

Defined post-employment benefits

The Group established defined benefit pension plan covering all the local permanent employees. In addition, the Group also provides post-employment benefits as required under Labor Law No. 13/2003 (the "Labor Law"). For normal pension scheme, the Group calculates and recognizes the higher of the benefits under the Labor Law and those under such pension plan.

The Company made funding of this benefit through an investment fund being managed by an insurance company. Such funding does not qualify as a plan asset however accounted for as a reimbursement right.

The cost of providing benefits is determined using the projected unit credit method, with actuarial valuations being carried out at the end of each annual reporting period. Remeasurement, comprising actuarial gains and losses, the effect of the changes to the asset ceiling (if applicable) and the return on plan assets (excluding interest), is reflected immediately in the consolidated statements of financial position with a charge or credit recognized in other comprehensive income in the period in which they occur. Remeasurement recognized in other comprehensive income is reflected as a separate item under other comprehensive income in equity and will not be reclassified to profit or loss. Past service cost is recognized in profit or loss in the period of a plan amendment. Net interest is calculated by applying the discount rate at the beginning of the period to the net defined benefit liability or asset. Defined benefit costs are categorised as follows:

- Service cost (including current service cost, past service cost, as well as gains and losses on curtailments and settlements).
- Net interest expense or income.
- Remeasurement.

Grup menyajikan dua komponen pertama dari biaya imbalan pasti di laba rugi, Keuntungan dan kerugian kurtailmen dicatat sebagai biaya jasa lalu.

Liabilitas imbalan pensiun yang diakui pada laporan posisi keuangan konsolidasian merupakan defisit atau surplus aktual dalam program imbalan pasti Grup. Surplus yang dihasilkan dari perhitungan ini terbatas pada nilai kini manfaat ekonomik yang tersedia dalam bentuk pengembalian dana program dan pengurangan iuran masa depan ke program.

Grup mengakui haknya dalam penggantian berdasarkan polis asuransi sebagai aset terpisah, yang diukur sebesar nilai wajarnya. Dalam laporan laba rugi dan penghasilan komprehensif lain konsolidasian, beban terkait dengan program imbalan pasti dapat disajikan secara neto setelah dikurangkan dengan jumlah yang diakui dalam penggantian.

u. Pajak Penghasilan

Pajak saat terutang berdasarkan laba kena pajak untuk suatu periode. Laba kena pajak berbeda dari laba sebelum pajak seperti yang dilaporkan dalam laporan laba rugi dan penghasilan komprehensif lain karena pos pendapatan atau beban yang dikenakan pajak atau dikurangkan pada tahun berbeda dan pos-pos yang tidak pernah dikenakan pajak atau tidak dapat dikurangkan.

Beban pajak kini ditentukan berdasarkan laba kena pajak dalam periode yang bersangkutan yang dihitung berdasarkan tarif pajak yang berlaku.

Pajak tangguhan diakui atas perbedaan temporer antara jumlah tercatat aset dan liabilitas dalam laporan keuangan konsolidasian dengan dasar pengenaan pajak yang digunakan dalam perhitungan laba kena pajak. Liabilitas pajak tangguhan umumnya diakui untuk seluruh perbedaan temporer kena pajak. Aset pajak tangguhan umumnya diakui untuk seluruh perbedaan temporer yang dapat dikurangkan sepanjang kemungkinan besar bahwa laba kena pajak akan tersedia sehingga perbedaan temporer dapat dimanfaatkan. Aset dan liabilitas pajak tangguhan tidak diakui jika perbedaan temporer timbul dari pengakuan awal (selain kombinasi bisnis) dari aset dan liabilitas suatu transaksi yang tidak mempengaruhi laba kena pajak atau laba akuntansi. Selain itu, liabilitas pajak tangguhan tidak diakui jika perbedaan temporer timbul dari pengakuan awal goodwill.

The Group presents the first two components of defined benefit costs in profit or loss. Curtailment gains and losses are accounted for as past service costs.

The retirement benefit obligation recognized in the consolidated statements of financial position represents the actual deficit or surplus in the Group's defined benefit plans. Any surplus resulting from this calculation is limited to the present value of any economic benefits available in the form of refunds from the plans or reductions in future contributions to the plans.

The Group recognizes its right to reimbursement under the insurance policy as a separate assets, which is measured at fair value. In the consolidated statements of profit or loss and other comprehensive income, the expense relating to a defined benefit plan is presented net of the amount recognized for a reimbursement.

u. Income Tax

The tax currently payable is based on taxable profit to the period. Taxable profit differs from profit before tax as reported in the consolidated statements of profit or loss and other comprehensive income because of items of income or expense that are taxable or deductible in other years and items that are never taxable or deductible.

Current tax expense is determined based on the taxable income for the period computed using prevailing tax rates.

Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities in the consolidated financial statements and the corresponding tax bases used in the computation of taxable profit. Deferred tax liabilities are generally recognized for all taxable temporary differences. Deferred tax assets are generally recognized for all deductible temporary differences to the extent that is probable that taxable profits will be available against which those deductible temporary differences can be utilized. Such deferred tax assets and liabilities are not recognized if the temporary differences arises from the initial recognition (other than in a business combination) of assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit. In addition, deferred tax liabilities are not recognized if the temporary differences arises from the initial recognition of goodwill.

Aset dan liabilitas pajak tangguhan diukur dengan menggunakan tarif pajak yang diharapkan berlaku dalam periode ketika liabilitas diselesaikan atau aset dipulihkan berdasarkan tarif pajak (dan peraturan pajak) yang telah berlaku atau secara substantif telah berlaku pada akhir periode pelaporan.

Pengukuran aset dan liabilitas pajak tangguhan mencerminkan konsekuensi pajak yang sesuai dengan cara Grup memperkirakan, pada akhir periode pelaporan, untuk memulihkan atau menyelesaikan jumlah tercatat aset dan liabilitasnya.

Jumlah tercatat aset pajak tangguhan ditelaah ulang pada akhir periode pelaporan dan dikurangi jumlah tercatatnya jika kemungkinan besar laba kena pajak tidak lagi tersedia dalam jumlah yang memadai untuk mengkompensasikan sebagian atau seluruh aset pajak tangguhan tersebut.

Pajak kini dan pajak tangguhan diakui sebagai beban atau penghasilan dalam laba rugi periode, kecuali sepanjang pajak penghasilan yang timbul dari transaksi atau peristiwa yang diakui, di luar laba rugi (baik dalam penghasilan komprehensif lain maupun secara langsung di ekuitas), dalam hal tersebut pajak juga diakui di luar laba rugi atau yang timbul dari akuntansi awal kombinasi bisnis. Dalam kombinasi bisnis, pengaruh pajak termasuk dalam akuntansi kombinasi bisnis.

Aset dan liabilitas pajak tangguhan saling hapus ketika entitas memiliki hak yang dapat dipaksakan secara hukum untuk melakukan saling hapus aset pajak kini terhadap liabilitas pajak kini dan ketika aset pajak tangguhan dan liabilitas pajak tangguhan terkait dengan pajak penghasilan yang oleh otoritas perpajakan yang sama atas entitas kena pajak yang sama atau entitas kena pajak yang berbeda yang memiliki intensi untuk memulihkan aset dan liabilitas pajak kini dengan dasar netto, atau merealisasikan aset dan menyelesaikan liabilitas secara bersamaan, pada setiap periode masa depan dimana jumlah signifikan atas aset atau liabilitas pajak tangguhan diharapkan untuk deselesaikan atau dipulihkan.

v. Laba per Saham

Laba per saham dasar dihitung dengan membagi laba bersih yang diatribusikan kepada pemilik entitas induk dengan jumlah rata-rata tertimbang saham yang beredar pada periode yang bersangkutan.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset realized, based on the tax rates (and tax laws) that have been enacted, or substantively enacted, by the end of the reporting period.

The measurement of deferred tax assets and liabilities reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of their assets and liabilities.

The carrying amount of deferred tax asset is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Current and deferred tax are recognized as an expense or income in profit or loss, except when they relate to items that are recognized outside of profit or loss (whether in other comprehensive income or directly in equity), in which case the tax is also recognized outside of profit or loss, or where they arise from the initial accounting for a business combination. In the case of a business combination, the tax effect is included in the accounting for the business combination.

Deferred tax assets and liabilities are offset when there is legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income tax levied by the same taxation authority on either the same taxable entity or different taxable entities when there is an intention to settle its current tax assets and current tax liabilities on a net basis, or to realize the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered.

v. Earnings per Share

Basic earnings per share is computed by dividing net profit attributable to the owners of the Company by the weighted average number of shares outstanding during the period.

w. Instrumen Derivatif

Grup menggunakan bervariasi instrumen keuangan derivatif untuk mengelola eksposur atas risiko suku bunga dan tingkat perubahan nilai tukar mata uang asing termasuk kontrak valuta berjangka, *swap* suku bunga dan *swap cross currency*.

Derivatif awalnya diakui pada nilai wajar pada tanggal kontrak dilakukan dan selanjutnya diukur pada nilai wajarnya pada setiap tanggal pelaporan.

Walaupun dilakukan sebagai lindung nilai ekonomi dari eksposur terhadap risiko suku bunga dan nilai tukar mata uang asing, derivatif ini tidak ditetapkan dan tidak memenuhi persyaratan sebagai akuntansi lindung nilai dan oleh karena itu perubahan nilai wajarnya langsung diakui dalam laba rugi.

Derivatif yang melekat pada instrumen keuangan lainnya atau kontrak utama (*host contract*) lainnya diperlakukan sebagai derivatif tersendiri jika risiko dan karakteristiknya tidak terikat pada kontrak utama dan kontrak utama tersebut tidak diukur pada nilai wajar dengan perubahan nilai wajar yang diakui dalam laba rugi.

Suatu derivatif disajikan sebagai aset tidak lancar atau liabilitas jangka panjang jika sisa jatuh tempo dari instrumen lebih dari 12 bulan dan tidak diharapkan akan direalisasi atau diselesaikan dalam jangka waktu 12 bulan. Derivatif lainnya disajikan sebagai aset lancar atau liabilitas jangka pendek.

x. Informasi Segmen

Segmen operasi diidentifikasi berdasarkan laporan internal mengenai komponen dari Grup yang secara regular direviu oleh "pengambil keputusan operasional" dalam rangka mengalokasikan sumber daya dan menilai kinerja segmen operasi.

Segmen operasi adalah suatu komponen dari entitas:

a. yang terlibat dalam aktivitas bisnis yang mana memperoleh pendapatan dan menimbulkan beban (termasuk pendapatan dan beban terkait dengan transaksi dengan komponen lain dari entitas yang sama);

b. yang hasil operasinya dikaji ulang secara regular oleh pengambil keputusan operasional untuk membuat keputusan tentang sumber daya yang dialokasikan pada segmen tersebut dan menilai kinerjanya; dan

c. dimana tersedia informasi keuangan yang dapat dipisahkan.

w. Derivative Financial Instruments

The Group enters into a variety of derivative financial instruments to manage its exposure to interest rate and foreign exchange rate risk including foreign exchange forward contracts, interest rate swaps and cross currency swaps.

Derivatives are initially recognized at fair value at the date the derivative contract is entered into and are subsequently measured to their fair value at each reporting date.

Although entered into as economic hedge of exposure against interest rate and foreign exchange rate, these derivatives are not designated and do not qualify as accounting hedge and therefore changes in fair values are recognized immediately in profit or loss.

Derivatives embedded in other financial instruments or other host contracts are treated as separate derivatives when their risks and characteristics are not closely related to those of the host contracts and the host contracts are not measured at fair value with changes in fair value recognized in earnings.

A derivative is presented as non-current asset or non-current liability if the remaining maturity of the instrument is more than 12 months and is not expected to be realized or settled within 12 months. Other derivatives are presented as current assets or current liabilities.

x. Segment Information

Operating segments are identified on the basis of internal reports about components of the Group that are regularly reviewed by the chief operating decision maker in order to allocate resources to the segments and to assess their performances.

An operating segment is a component of an entity:

a. that engages in business activities from which it may earn revenues and incurred expenses (including revenues and expenses relating to the transactions with other components of the same entity);

b. whose operating results are reviewed regularly by the entity's chief operating decision maker to make decision about resources to be allocated to the segments and assess its performance; and

c. for which discrete financial information is available.

Informasi yang digunakan oleh pengambil keputusan operasional dalam rangka alokasi sumber daya dan penillaian kinerja mereka terfokus pada kategori dari setiap produk.

Information reported to the chief operating decision maker for the purpose of resource allocation and assessment of performance is more specifically focused on the category of each product.

4. PERTIMBANGAN KRITIS AKUNTANSI DAN ESTIMASI AKUNTANSI YANG SIGNIFIKAN

Dalam penerapan kebijakan akuntansi Grup, yang dijelaskan dalam Catatan 3, direksi diwajibkan untuk membuat pertimbangan, estimasi dan asumsi tentang jumlah tercatat aset dan liabilitas yang tidak tersedia dari sumber lain. Estimasi dan asumsi yang terkait didasarkan pada pengalaman historis dan faktor-faktor lain yang dianggap relevan. Hasil aktualnya mungkin berbeda dari estimasi tersebut.

Estimasi dan asumsi yang mendasari ditelaah secara berkelanjutan. Revisi estimasi akuntansi diakui dalam periode dimana estimasi tersebut direvisi jika revisi hanya mempengaruhi periode tersebut, atau pada periode revisi dan periode masa depan jika revisi mempengaruhi periode saat ini dan masa depan.

Pertimbangan Kritis dalam Penerapan Kebijakan Akuntansi

Dalam proses penerapan kebijakan akuntansi yang dijelaskan dalam Catatan 3, tidak terdapat pertimbangan kritis yang memiliki dampak signifikan pada jumlah yang diakui dalam laporan keuangan konsolidasian, selain dari penyajian perkiraan yang diatur di bawah ini.

Sumber Estimasi Ketidakpastian

Asumsi utama mengenai masa depan dan sumber estimasi ketidakpastian utama lainnya pada akhir periode pelaporan, yang memiliki risiko signifikan yang mengakibatkan penyesuaian material terhadap jumlah tercatat aset dan liabilitas dalam periode pelaporan berikutnya dijelaskan di bawah ini:

Rugi Penurunan Nilai Pinjaman yang Diberikan dan Piutang

Grup menilai penurunan nilai pinjaman yang diberikan dan piutang pada setiap tanggal pelaporan. Dalam menentukan apakah rugi penurunan nilai harus dicatat dalam laba rugi, manajemen membuat penilaian, apakah terdapat bukti objektif bahwa kerugian telah terjadi. Manajemen juga membuat penilaian atas metodologi dan asumsi untuk memperkirakan jumlah dan waktu arus kas masa depan yang direviu secara berkala untuk mengurangi perbedaan antara estimasi kerugian dan kerugian aktualnya. Nilai tercatat pinjaman yang diberikan dan piutang diungkapkan dalam Catatan 5 dan 6.

4. CRITICAL ACCOUNTING JUDGMENTS AND ESTIMATES

In the application of the Group accounting policies, which are described in Note 3, the directors are required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

Critical Judgments in Applying Accounting Policies

In the process of applying the accounting policies described in Note 3, management has not made any critical judgment that has significant impact on the amounts recognized in the consolidated financial statements, apart from those involving estimates, which are dealt with below.

Key Sources of Estimation Uncertainty

The key assumptions concerning future and other key sources of estimation uncertainty at the end of the reporting period, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial period are discussed below:

Impairment Loss on Loans and Receivables

The Group assesses its loans and receivables for impairment at each reporting date. In determining whether an impairment loss should be recorded in profit or loss, management makes judgment as to whether there is an objective evidence that loss event has occurred. Management also makes judgment as to the methodology and assumptions for estimating the amount and timing of future cash flows which are reviewed regularly to reduce any difference between loss estimate and actual loss. The carrying amounts of the Group's loans and receivables are disclosed in Notes 5 and 6.

Penyisihan Penurunan Nilai Persediaan

Grup membuat penyisihan penurunan nilai persediaan berdasarkan estimasi persediaan yang digunakan pada masa mendatang. Walaupun asumsi yang digunakan dalam mengestimasi penyisihan penurunan nilai persediaan telah sesuai dan wajar, namun perubahan signifikan atas asumsi ini akan berdampak material terhadap penyisihan penurunan nilai persediaan, yang pada akhirnya akan mempengaruhi hasil usaha Grup. Nilai tercatat persediaan diungkapkan dalam Catatan 7.

Taksiran Masa Manfaat Ekonomis Aset Tetap

Masa manfaat setiap aset tetap Grup ditentukan berdasarkan kegunaan yang diharapkan dari penggunaan aset tersebut. Estimasi ini ditentukan berdasarkan evaluasi teknis internal dan pengalaman atas aset sejenis. Masa manfaat setiap aset direviu secara periodik dan disesuaikan apabila prakiraan berbeda dengan estimasi sebelumnya karena keausan, keusangan teknis dan komersial, hukum atau keterbatasan lainnya atas pemakaian aset. Namun terdapat kemungkinan bahwa hasil operasi di masa mendatang dapat dipengaruhi secara signifikan oleh perubahan atas jumlah serta periode pencatatan biaya yang diakibatkan karena perubahan faktor yang disebutkan di atas.

Perubahan masa manfaat aset tetap dapat mempengaruhi jumlah biaya penyusutan yang diakui dan nilai tercatat aset tersebut.

Nilai tercatat aset tetap diungkapkan dalam Catatan 12.

Liabilitas Imbalan Pasca Kerja

Penentuan liabilitas imbalan pasca kerja tergantung pada pemilihan asumsi tertentu yang digunakan oleh aktuaris dalam menghitung jumlah liabilitas tersebut. Asumsi tersebut termasuk antara lain tingkat diskonto dan tingkat kenaikan gaji. Realisasi yang berbeda dari asumsi Grup akan diakui sebagai penghasilan komprehensif lain dan akan berpengaruh terhadap jumlah biaya serta liabilitas. Walaupun asumsi Grup dianggap tepat dan wajar, namun perubahan signifikan dalam asumsi yang digunakan dapat berpengaruh secara signifikan terhadap liabilitas imbalan pasca kerja Grup.

Nilai tercatat dari liabilitas imbalan pasca kerja dan asumsi dari aktuaris diungkapkan dalam Catatan 18.

Allowance for Decline in Value of Inventories

The Group provides allowance for decline in value of inventories based on estimated future usage of such inventories. While it is believed that the assumptions used in the estimation of the allowance for decline in value of inventories are appropriate and reasonable, significant changes in these assumptions may materially affect the assessment of the allowance for decline in value of inventories, which ultimately will impact the result of the Group's operations. The carrying amount of inventories is disclosed in Note 7.

The Estimated Economic Benefits of Property, Plant and Equipment

The useful life of each item of the Group's property, plant and equipment are estimated based on the period over which the asset is expected to be available for use. Such estimation is based on internal technical evaluation and experience with similar assets. The estimated useful life of each asset is reviewed periodically and updated if expectations differ from previous estimates due to physical wear and tear, technical or commercial obsolescence and legal or other limits on the use of the asset. It is possible, however, that future results of operations could be materially affected by changes in the amounts and timing of recorded expenses brought about by changes in the factors mentioned above.

A change in the estimated useful life of any item of property, plant and equipment would affect the recorded depreciation expense and the carrying amounts of these assets.

The carrying amounts of property, plant and equipment are disclosed in Note 12.

Post-Employment Benefits Obligation

The determination of provision for post-employment benefits obligation is dependent on selection of certain assumptions used by actuaries in calculating such amounts. Those assumptions include among others, discount rate and rate of salary increase. Actual results that differ from the Group's assumptions recognized as other comprehensive income and affect the recognized expense and recorded provision. While it is believed that the Group's assumptions are reasonable and appropriate, significant differences in actual results or significant changes in assumptions may materially affect the Group's provision for post-employment benefits obligation.

The carrying amount of post-employment benefits obligation and the actuarial assumptions are disclosed in Note 18.

5. KAS DAN SETARA KAS / 5. CASH AND CASH EQUIVALENTS

	30 Juni/ *June 30,* 2017	31 Desember/*December 31,* 2016	2015	2014	
	US$ '000	US$ '000	US$ '000	US$ '000	
Kas	30	34	18	24	Cash on hand
Bank - Pihak ketiga					Cash in banks - Third parties
Rupiah					Rupiah
PT Bank DBS Indonesia	18.491	12.390	2.152	4.293	PT Bank DBS Indonesia
PT Bank Central Asia Tbk	12.520	5.476	1.784	1.825	PT Bank Central Asia Tbk
PT Bank Danamon Indonesia Tbk	6.062	1.588	154	222	PT Bank Danamon Indonesia Tbk
PT Bank Mandiri (Persero) Tbk	5.641	1.966	1.624	728	PT Bank Mandiri (Persero) Tbk
Lainnya (masing-masing dibawah 5%)	5.015	962	1.258	1.657	Others (each below 5%)
Dolar Amerika Serikat					U.S. Dollar
PT Bank DBS Indonesia	87.780	96.059	22.324	50.522	PT Bank DBS Indonesia
PT Bank Central Asia Tbk	15.929	30.813	1.430	26.508	PT Bank Central Asia Tbk
PT Bank Danamon Indonesia Tbk	5.260	19.428	5.070	9.070	PT Bank Danamon Indonesia Tbk
The Hongkong and Shanghai Banking Corporation Limited (HSBC)	4.295	38.312	9.738	18.874	The Hongkong and Shanghai Banking Corporation Limited (HSBC)
Bank DBS Ltd, Singapura	1.474	1.269	662	22.881	Bank DBS Ltd, Singapore
Deutsche Bank AG, Singapura	1.294	446	890	10.309	Deutsche Bank AG, Singapore
PT Indonesia Exim Bank	688	569	12.951	200	PT Indonesia Exim Bank
Lainnya (masing-masing dibawah 5%)	5.543	5.152	5.439	6.869	Others (each below 5%)
Mata uang lainnya	55	52	53	55	Other currencies
Jumlah	170.047	214.482	65.529	154.013	Total
Deposito berjangka - Pihak ketiga					Time deposits - Third parties
Rupiah					Rupiah
PT Bank Danamon Indonesia Tbk	-	1.489	-	-	PT Bank Danamon Indonesia Tbk
PT QNB Indonesia Tbk	-	-	3.870	4.264	PT QNB Indonesia Tbk
Lainnya (masing-masing dibawah 5%)	307	520	145	2.348	Others (each below 5%)
Dolar Amerika Serikat					U.S. Dollar
PT QNB Indonesia Tbk	21.438	21.438	25.436	25.436	PT QNB Indonesia Tbk
PT Bank DBS Indonesia	20.000	-	-	20.059	PT Bank DBS Indonesia
PT Bank Negara Indonesia	-	50.000	-	-	PT Bank Negara Indonesia
PT Bank Danamon Indonesia Tbk	-	10.000	-	-	PT Bank Danamon Indonesia Tbk
Lainnya (masing-masing dibawah 5%)	500	800	1.837	1.795	Others (each below 5%)
Jumlah	42.245	84.247	31.288	53.902	Total
Jumlah	212.322	298.763	96.835	207.939	Total
Tingkat bunga deposito berjangka per tahun					Annual interest rates on time deposits
Rupiah	7,00%	7,00% - 9,00%	8,75% - 9,75%	9,25% - 10,00%	Rupiah
Dolar Amerika Serikat	0,25% - 1,50%	0,75% - 1,75%	1,00% - 3,00%	2,50% - 2,85%	U.S. Dollar

6. PIUTANG USAHA

6. TRADE ACCOUNTS RECEIVABLE

	30 Juni/ *June 30,* 2017	31 Desember/*December 31,* 2016	2015	2014	
	US$ '000	US$ '000	US$ '000	US$ '000	
a. Berdasarkan Pelanggan					a. By Debtor
Pihak Berelasi					Related Party
SCG Chemicals Co., Ltd.	7.064	1.663	-	13.472	SCG Chemicals Co., Ltd.
Pihak Ketiga					Third Parties
Pelanggan dalam negeri	125.712	96.007	36.419	82.077	Local customers
Pelanggan luar negeri	37.983	39.796	10.195	4.578	Foreign customers
Jumlah	163.695	135.803	46.614	86.655	Total
Cadangan kerugian penurunan nilai	(243)	(118)	(118)	(118)	Allowance for impairment losses
Bersih	163.452	135.685	46.496	86.537	Net
Jumlah Piutang Usaha - Bersih	170.516	137.348	46.496	100.009	Net Trade Accounts Receivable
b. Piutang usaha yang tidak diturunkan nilainya					b. Aging of trade receivables not impaired
Belum jatuh tempo	153.876	126.574	44.135	94.843	Not yet due
Sudah jatuh tempo					Past due
1 - 30 hari	16.640	10.559	2.308	5.166	1 - 30 days
31 - 60 hari	-	215	53	-	31 - 60 days
Jumlah Piutang Usaha - Bersih	170.516	137.348	46.496	100.009	Net Trade Accounts Receivable
c. Berdasarkan Mata Uang					c. By Currency
Rupiah	125.023	93.572	22.731	7.812	Rupiah
Dolar Amerika Serikat	45.736	43.894	23.883	92.315	U.S. Dollar
Jumlah	170.759	137.466	46.614	100.127	Total
Cadangan kerugian penurunan nilai	(243)	(118)	(118)	(118)	Allowance for impairment losses
Jumlah Piutang Usaha - Bersih	170.516	137.348	46.496	100.009	Net Trade Accounts Receivable

Jangka waktu rata-rata kredit penjualan barang berkisar antara 7 hingga 30 hari. Penjualan ekspor biasanya dilakukan dengan menggunakan fasilitas *Letter of Credit*. Tidak ada bunga yang dibebankan untuk piutang yang belum jatuh tempo.

The average credit period on sale of goods is between 7 to 30 days. Export sales are usually supported by Letter of Credit. No interest is charged for receivables not yet due.

Cadangan kerugian penurunan nilai piutang diakui terhadap piutang usaha, berdasarkan jumlah estimasi yang tidak terpulihkan yang ditentukan dengan mengacu pada pengalaman masa lalu pihak lawan dan analisis posisi keuangan kini pihak lawan.

Allowance for impairment losses is recognized against trade receivables, based on the estimated irrecoverable amounts determined by reference to past default experience of the counterparty and an analysis of the counterparty's current financial position.

Sebelum menerima pelanggan baru, Grup akan menelaah apakah calon pelanggan memenuhi persyaratan yang ditetapkan.

Before accepting a new customer, the Group will assess whether the potential customer meets the required conditions.

Sebelum menyetujui penjualan kredit, Grup memeriksa sisa batas kredit yang dapat diberikan kepada pelanggan tersebut. Pelanggan diharuskan untuk melunasi piutang sebelumnya, sebelum penjualan kredit yang baru disetujui. Diperlukan otorisasi manajemen tingkat atas untuk menyetujui penjualan kredit yang telah melewati batas kredit.

Before approving any credit sales, the Group checks the remaining credit limit for the respective customer. Customers are required to settle their outstanding receivables before the new credit sales are approved. Approval by top level management is required for credit sales above the credit limit.

Piutang usaha yang diungkapkan di atas termasuk jumlah yang telah lewat jatuh tempo pada akhir periode pelaporan dimana Grup belum mengakui cadangan kerugian penurunan nilai piutang karena belum ada perubahan yang signifikan dalam kualitas kredit dan jumlah piutang masih dapat dipulihkan. Grup tidak memiliki jaminan atau peningkatan kredit lainnya atas piutang dan juga tidak memiliki hak hukum yang saling hapus dengan setiap jumlah yang terhutang oleh Grup kepada pihak lawan.

Trade receivables disclosed above include amounts that are past due at the end of the reporting period for which the Group has not recognized allowance for impairment losses because there has not been a significant change in credit quality and the amounts are still considered recoverable. The Group does not hold any collateral or other credit enhancements over these balances nor does it have a legal right of offset against any amounts owed by the Group to the counterparty.

Dalam menentukan pemulihan dari piutang usaha, Grup mempertimbangkan setiap perubahan dalam kualitas kredit piutang usaha dari tanggal awal kredit diberikan sampai dengan akhir periode pelaporan. Konsentrasi risiko kredit terbatas karena basis pelanggan yang besar dan tidak saling berhubungan.

In determining the recoverability of a trade receivable, the Group considers any change in the credit quality of the trade receivable from the date credit was initially granted up to the end of the reporting period. The concentration of credit risk is limited as the customer base is large and unrelated.

Manajemen berpendapat bahwa cadangan kerugian penurunan nilai adalah cukup.

Management believes that the allowance for impairment losses is adequate.

Piutang usaha digunakan sebagai jaminan secara *pari passu* atas fasilitas perbankan (Catatan 33).

Trade receivables are pledged as pari passu collateral for banking facilities (Note 33).

7. PERSEDIAAN

7. INVENTORIES

	30 Juni/ *June 30,* 2017	31 Desember/*December 31,* 2016	2015	2014	
	US$ '000	US$ '000	US$ '000	US$ '000	
Barang jadi	78.770	70.234	57.959	66.655	Finished goods
Barang dalam proses	8.004	12.566	10.854	15.312	Work in process
Bahan baku	84.097	72.900	69.408	97.322	Raw materials
Suku cadang dan perlengkapan	46.970	49.006	45.377	44.296	Spareparts and supplies
Jumlah	217.841	204.706	183.598	223.585	Total
Cadangan penurunan nilai persediaan	(5.198)	(5.198)	(5.198)	(5.198)	Allowance for decline in value in inventories
Jumlah Persediaan - Bersih	212.643	199.508	178.400	218.387	Total Inventories - Net

Manajemen berkeyakinan bahwa cadangan penurunan nilai persediaan tersebut cukup.

Management believes that the allowance for decline in value in inventories is adequate.

Pada tanggal 30 Juni 2017, 31 Desember 2016, 2015 dan 2014, seluruh persediaan diasuransikan kepada pihak ketiga terhadap risiko kerugian atas risiko kebakaran, bencana alam dan risiko lainnya dengan jumlah pertanggungan masing-masing sebesar US$ 338.500 ribu, US$ 327.200 ribu, US$ 375.600 ribu dan US$ 410.000 ribu. Manajemen berpendapat bahwa nilai pertanggungan tersebut cukup untuk menutupi kemungkinan kerugian yang timbul pada Grup.

As of June 30, 2017, December 31, 2016, 2015 and 2014, all inventories were insured with third parties to cover possible risks against fire, disasters and other risks for US$ 338,500 thousand, US$ 327,200 thousand, US$ 375,600 thousand and US$ 410,000 thousand, respectively. Management believes that the insurance coverage is adequate to cover possible losses to the Group.

Persediaan digunakan sebagai jaminan secara *pari passu* atas fasilitas perbankan (Catatan 33).

Inventories are pledged as pari passu collateral for banking facilities (Note 33).

8. PAJAK DIBAYAR DIMUKA

8. PREPAID TAXES

	30 Juni/ *June 30,* 2017	31 Desember/*December 31,* 2016	2015	2014	
	US$ '000	US$ '000	US$ '000	US$ '000	
Pajak penghasilan - pasal 28A					Income tax - article 28A
Tahun 2017 (Catatan 28)	61	-	-	-	Year 2017 (Note 28)
Tahun 2016 (Catatan 28)	72	72	-	-	Year 2016 (Note 28)
Tahun 2015 (Catatan 28)	-	5.914	5.914	-	Year 2015 (Note 28)
Tahun 2014 (Catatan 28)	-	-	34.882	34.882	Year 2014 (Note 28)
Tahun 2013	-	-	-	20.725	Year 2013
Pajak pertambahan nilai - bersih	33.017	17.690	25.506	42.395	Value added tax - net
Jumlah	33.150	23.676	66.302	98.002	Total

Pada tahun 2017, Perusahaan, SMI, dan PBI menerima SKPLB atas pajak penghasilan badan tahun 2015 sebesar Rp 31.497 juta, Rp 34.858 juta, dan Rp 1.589 juta (atau setara dengan US$ 2.362 ribu, US$ 2.614 ribu, dan US$ 119 ribu) dan selisih diakui sebagai keuntungan dan kerugian lain-lain.

In 2017, the Company, SMI, and PBI received Overpayment Tax Assessment Letter (SKPLB) for 2015 corporate income tax amounting to Rp 31,497 million, Rp 34,858 million, and Rp 1,589 million (or equivalent to US$ 2,362 thousand, US$ 2,614 thousand, and US$ 119 thousand) and the differences were recognized as other gains and losses.

Pada tahun 2016, Perusahaan, SMI dan PBI menerima SKPLB atas pajak penghasilan badan tahun 2014 masing-masing sebesar Rp 356.984 juta, Rp 97.633 juta dan Rp 1.823 juta (atau setara dengan US$ 26.484 ribu, US$ 7.418 ribu dan US$ 138 ribu) dan selisih diakui sebagai keuntungan dan kerugian lain-lain.

In 2016, the Company, SMI and PBI received SKPLB for 2014 corporate income tax amounting to Rp 356,984 million, Rp 97,633 million and Rp 1,823 million (or equivalent to US$ 26,484 thousand, US$ 7,418 thousand and US$ 138 thousand), respectively and the differences were recognized as other gains and losses.

Pada tahun 2015, Perusahaan dan PBI menerima SKPLB atas pajak penghasilan badan tahun 2013 masing-masing sebesar Rp 268.683 juta dan Rp 822 juta (atau setara dengan US$ 21.336 ribu dan US$ 63 ribu). SMI menerima Surat Ketetapan Pajak Kurang Bayar (SKPKB) atas pajak penghasilan badan tahun 2013 sebesar Rp 22.234 juta (atau setara dengan US$ 1.665 ribu). SMI mencatat SKPKB ini sebagai tambahan beban pajak penghasilan untuk tahun 2015 (Catatan 28).

In 2015, the Company and PBI received SKPLB for 2013 corporate income tax amounting to Rp 268,683 million and Rp 822 million (or equivalent to US$ 21,336 thousand and US$ 63 thousand), respectively. SMI also received Underpayment Tax Assessment Letter (SKPKB) for 2013 corporate income tax amounting to Rp 22,234 million (or equivalent to US$ 1,665 thousand). SMI recorded such SKPKB as an additional current income tax in 2015 (Note 28).

Pada tahun 2014, Perusahaan, SMI dan PBI menerima SKPLB atas pajak penghasilan badan tahun 2012 masing-masing sebesar Rp 385.222 juta, Rp 53.623 juta dan Rp 726 juta. Penerimaan bersih pengembalian pajak setelah dikurangi kompensasi dengan kurang bayar PPN tahun 2008 sebesar Rp 100.698 juta (atau setara dengan US$ 8.673 ribu) untuk Perusahaan dan Rp 53.184 juta (atau setara dengan US$ 4.355 ribu) untuk SMI. Perusahaan juga mencatat penambahan atas tagihan restitusi pajak PPN tahun 2008 dari SKPLB ini sebesar Rp 282.113 juta (atau setara dengan US$ 24.297 ribu) (Catatan 10) dan beban atas surat tagihan pajak sebesar Rp 2.411 juta (atau setara dengan US$ 208 ribu). SMI juga mencatat beban atas surat tagihan pajak sebesar Rp 439 juta (atau setara dengan US$ 37 ribu). PBI juga mencatat beban atas surat tagihan pajak sebesar Rp 726 juta (atau setara dengan US$ 64 ribu).

In 2014, the Company, SMI and PBI received SKPLB for 2012 corporate income tax amounting to Rp 385,222 million, Rp 53,623 million and Rp 726 million, respectively. Net tax refund received after compensating with underpayment of VAT 2008 from this SKPLB amounted to Rp 100,698 million (or equivalent to US$ 8,673 thousand) for the Company and Rp 53,184 million (or equivalent to US$ 4,355 thousand) for SMI. The Company also recorded additional claims for tax refund for VAT 2008 amounting to Rp 282,113 million (or equivalent to US$ 24,297 thousand) (Note 10) and expense for tax bill letter amounting to Rp 2,411 million (or equivalent to US$ 208 thousand). SMI also recorded expenses for tax bill letter amounting to Rp 439 million (or equivalent to US$ 37 thousand). PBI also recorded expenses for tax bill letter amounting to Rp 726 million (or equivalent to US$ 64 thousand).

9. INVESTASI PADA ENTITAS ASOSIASI

Merupakan investasi SMI pada PT Synthetic Rubber Indonesia (SRI) dengan persentase kepemilikan sebesar 45%.

SRI merupakan Perusahaan patungan antara Grup dengan Compagnie Financiere Du Groupe Michelin (Michelin), dimana Michelin memiliki 55% dan SMI memiliki 45%.

SRI memiliki tempat kedudukan di Jakarta dan bergerak di bidang industri karet buatan.

9. INVESTMENT IN AN ASSOCIATE

Represents investment of SMI in PT Synthetic Rubber Indonesia (SRI), with total percentage ownership of 45%.

SRI is a joint venture company between the Group and Compagnie Financiere Du Groupe Michelin (Michelin), whereas Michelin have 55% ownership and SMI have 45% ownership.

SRI is domiciled in Jakarta and engaged in synthetic rubber industries.

Rincian mutasi investasi pada entitas asosiasi adalah sebagai berikut:

Details of change in investment in an associate are as follow:

	30 Juni/ *June 30,* 2017	31 Desember/*December 31,* 2016	2015	2014	
	US$ '000	US$ '000	US$ '000	US$ '000	
Saldo awal	32.156	38.017	12.677	5.402	Beginning balance
Setoran modal pada entitas asosiasi	-	-	40.500	8.100	Issuance of shares by an associate
Bagian rugi bersih entitas asosiasi	(3.911)	(5.861)	(3.720)	(825)	Equity in net loss of associate
Eliminasi laba penjualan tanah antara Perusahaan dan SRI	-	-	(11.440)	-	Elimination of gain on sale of land between the Company and SRI
Saldo akhir	28.245	32.156	38.017	12.677	Ending balance

Ringkasan informasi keuangan SRI di bawah ini diambil dari laporan keuangan SRI yang disusun sesuai dengan Standar Akuntansi Keuangan Indonesia.

The summarized SRI's financial information below represents its financial statements prepared in accordance with Indonesian Financial Accounting Standards.

	30 Juni/ *June 30,* 2017	31 Desember/*December 31,* 2016	2015	2014	
	US$ '000	US$ '000	US$ '000	US$ '000	
Aset lancar	36.621	32.035	12.238	7.519	Current Assets
Aset tidak lancar	367.147	330.819	148.949	23.482	Non-current assets
Jumlah aset	403.768	362.854	161.187	31.001	Total assets
Liabilitas jangka pendek	55.078	60.036	30.671	2.829	Current liabilities
Liabilitas jangka panjang	260.500	205.937	20.610	-	Non-current liabilities
Ekuitas	88.190	96.881	109.906	28.172	Equity
Jumlah liabilitas dan ekuitas	403.768	362.854	161.187	31.001	Total liabilities and equity
Rugi periode berjalan	8.691	13.025	8.266	1.815	Loss for the period

Rekonsiliasi jumlah tercatat dari bagian entitas asosiasi yang diakui dalam laporan keuangan konsolidasian:

Reconciliation to the carrying amount of the interest in the associate recognized in the consolidated financial statements:

	2017 (Enam bulan/ *Six months*)	2016 (Satu tahun/ *One year*)	2015 (Satu tahun/ *One year*)	2014 (Satu tahun/ *One year*)	
	US$ '000	US$ '000	US$ '000	US$ '000	
Aset bersih entitas asosiasi	88.190	96.881	109.906	28.172	Net assets of the associate
Proporsi bagian kepemilikan SMI	39.685	43.596	49.457	12.677	Proportion of SMI's ownership interest
Eliminasi laba penjualan tanah antara Perusahaan dan SRI	(11.440)	(11.440)	(11.440)	-	Elimination of gain on sale of land between the Company and SRI
Nilai tercatat bagian SMI	28.245	32.156	38.017	12.677	Carrying amount of the SMI's interest

10. TAGIHAN RESTITUSI PAJAK

10. CLAIMS FOR TAX REFUND

Akun ini merupakan ketetapan pajak atas pajak penghasilan badan, pajak pertambahan nilai dan pajak penghasilan lainnya yang sedang dalam proses keberatan, banding dan peninjauan kembali, dengan rincian sebagai berikut:

This account consists of tax assessments for corporate income tax, value added tax, and other income taxes that are still in objection, appeal and judicial review process, with details as follow:

	30 Juni/ *June 30,* 2017	31 Desember/*December 31,* 2016	2015	2014	
	US$ '000	US$ '000	US$ '000	US$ '000	
Perusahaan					The Company
Tahun 2009	7.073	7.011	6.829	7.572	Year 2009
Tahun 2008	56.715	56.221	54.758	60.723	Year 2008
Tahun 2007	1.012	1.003	977	1.083	Year 2007
SMI					SMI
Tahun 2011	-	-	1.921	1.947	Year 2011
Tahun 2008	-	-	65	72	Year 2008
Jumlah	64.800	64.235	64.550	71.397	Total

Perusahaan

Tahun 2009

Perusahaan telah mengajukan banding atas kelebihan pajak penghasilan badan tahun 2009 yang tidak dikembalikan sebesar Rp 55.774 juta (atau setara dengan US$ 4.188 ribu).

Pada bulan September dan Oktober 2014, Perusahaan menerima keputusan dari Pengadilan Pajak mengenai beberapa jenis pajak tahun 2009. Perusahaan telah melakukan pembayaran pada bulan Oktober 2014 sebesar Rp 38.426 juta (atau setara dengan US$ 2.885 ribu) melalui kompensasi restitusi PPN Agustus 2013. Perusahaan telah mengajukan Peninjauan Kembali atas sebagian keputusan tersebut dan sebagian lagi sedang dalam proses pengajuan peninjauan kembali.

Tahun 2008

Pada bulan September dan Oktober 2013, Perusahaan menerima beberapa Keputusan Pengadilan Pajak mengenai kurang bayar Pajak Pertambahan Nilai (PPN) bulan Mei sampai Desember 2008 sejumlah Rp 347.337 juta ditambah sanksi kenaikan 100%. Sebelumnya Perusahaan telah mengajukan banding atas SKPKB PPN untuk periode yang sama yang diterima di tahun 2010, sebesar Rp 62.327 juta (atau setara dengan US$ 4.680 ribu).

Perusahaan telah melakukan pembayaran pada bulan Nopember dan Desember 2013 sebesar Rp 347.285 juta (atau setara dengan US$ 26.074 ribu) dan mengajukan Peninjauan Kembali (PK) kepada Mahkamah Agung atas Putusan Pengadilan Pajak tersebut.

Pada tahun 2014, Perusahaan melakukan pembayaran sanksi atas kurang bayar PPN tahun 2008 melalui kompensasi restitusi PPN Januari 2013 sebesar Rp 63.664 juta (atau setara dengan US$ 4.780 ribu) dan kompensasi sebagian dari SKPLB pajak penghasilan badan tahun 2012 sebesar Rp 282.113 juta (atau setara dengan US$ 21.181 ribu) (Catatan 8). Perusahaan mengajukan peninjauan kembali seiring dengan pembayaran kurang bayar PPN 2008 pada periode sebelumnya.

Tahun 2007

Perusahaan mengajukan peninjauan kembali atas beberapa denda dan sanksi administrasi atas PPN berbagai bulan di tahun 2007 sebesar Rp 13.478 juta (atau setara dengan US$ 1.012 ribu).

SMI

Tahun 2011

Pada bulan April 2013, SMI menerima Surat Tagihan Pajak (STP) atas Pajak Pertambahan Nilai bulan Desember 2011 sebesar Rp 3.282 juta (atau setara dengan US$ 238 ribu). SMI mengajukan keberatan atas STP tersebut.

The Company

Year 2009

The Company has submitted an appeal for overpayment of corporate income tax not refunded amounting to Rp 55,774 million (or equivalent to US$ 4,188 thousand).

In September and October 2014, the Company received verdicts from Tax Court related to several 2009 taxes. In October 2014, the Company made payment amounting to Rp 38,426 million (or equivalent to US$ 2,885 thousand) through compensation with August 2013 VAT. The Company has already submitted for judicial review some of such verdicts, while some are still in the process of submission for judicial review.

Year 2008

In September and October 2013, the Company received several verdicts from Tax Court for underpayment of Value Added Tax (VAT) for May until December 2008 amounting to Rp 347,337 million plus sanction of 100%. The Company has previously submitted an appeal for SKPKB of VAT for the same period, received in 2010, amounting to Rp 62,327 million (or equivalent to US$ 4,680 thousand).

The Company has made payments in November and December 2013 amounting to Rp 347,285 million (or equivalent to US$ 26,074 thousand) and the Company filed for judicial review (PK) to the Supreme Court for these Tax Court Decision Letters.

In 2014, the Company paid the sanction for the underpayment of 2008 VAT through compensation with VAT restitution for the period January 2013 amounting to Rp 63,664 million (or equivalent to US$ 4,780 thousand) and partial compensation with SKPLB of 2012 corporate income tax amounting to Rp 282,113 million (or equivalent to US$ 21,181 thousand) (Note 8). The Company filed for judicial review for the underpayment of VAT 2008 in prior period.

Year 2007

The Company has submitted for judicial review several tax penalties and administration sanction for VAT in various months of 2007 amounting to Rp 13,478 million (equivalent to US$ 1,012 thousand).

SMI

Year 2011

In April 2013, SMI received Tax Bills Letter (STP) for December 2011 VAT amounting to Rp 3,282 million (or equivalent to US$ 238 thousand). SMI filed an objection for this STP.

SMI juga mengajukan keberatan atas pajak penghasilan badan tahun 2011 yang tidak direstitusi sebesar US$ 1.683 ribu.

In addition, SMI also filed an objection for 2011 corporate income tax, which was not refunded amounting to US$ 1,683 thousand.

Pada Juli 2014, Direktur Jendral Pajak telah menolak keberatan atas SKPKB PPN tahun 2011 dan SKPLB Pajak Penghasilan Badan tahun 2011. Pada Oktober 2014, SMI mengajukan banding atas keputusan tersebut.

In July 2014, Director General of Taxes has rejected the objection of SKPKB on 2011 VAT and SKPLB of 2011 corporate income tax. In October 2014, SMI submitted an appeal against its verdicts.

Berdasarkan Surat Ketetapan Pajak yang diterima SMI di tahun 2016, SMI memperoleh restitusi sebesar US$ 1.779 ribu atas pajak penghasilan badan tahun 2011 dan US$ 1.073 ribu atas pajak pertambahan nilai tahun 2011 dan selisihnya diakui sebagai keuntungan lain-lain.

Based on the tax assessment letter received by SMI in 2016, SMI received tax refund amounting to US$ 1,779 thousand related to income tax for fiscal year 2011 and US$ 1,073 thousand related to value added tax for fiscal year 2011, and the differences were recognized as other gains.

Tahun 2008

Year 2008

SMI telah mengajukan keberatan atas STP PPN Nopember – Desember 2008 sebesar Rp 895 juta (atau setara dengan US$ 65 ribu).

SMI submitted objection for STP VAT November – December 2008 amounting to Rp 895 million (or equivalent to US$ 65 thousand).

Berdasarkan Surat Ketetapan Pajak yang diterima SMI di tahun 2016, proses keberatan dan banding atas pajak-pajak tersebut ditolak dan diakui sebagai beban lain-lain.

Based on the tax assessment letter received by SMI in 2016, the objections and appeal were rejected and recognized as other loss.

11. REKENING BANK YANG DIBATASI PENGGUNAANNYA

11. RESTRICTED CASH IN BANKS

	30 Juni/ *June 30,* 2017	31 Desember/*December 31,* 2016	2015	2014	
	US$ '000	US$ '000	US$ '000	US$ '000	
PT Bank DBS Indonesia, Jakarta	13.688	1.596	368	7.609	PT Bank DBS Indonesia, Jakarta
Deutsche Bank AG, Singapura	12.953	12.953	12.953	8.233	Deutsche Bank AG, Singapore
Bangkok Bank Public Company Limited, Jakarta	8.802	8.802	12.396	9.503	Bangkok Bank Public Company Limited, Jakarta
Jumlah	35.443	23.351	25.717	25.345	Total
Bagian lancar	13.422	10.398	12.764	14.250	Current portion
Bagian tidak lancar	22.021	12.953	12.953	11.095	Non-current portion

Merupakan *Debt Service Reserve Account* dan *Debt Service Accrual Account* atas perjanjian kredit yang diterima dari masing-masing bank seperti yang dijelaskan pada Catatan 16.

Represents Debt Service Reserve Account and Debt Service Accrual Account for the loan agreements obtained from each bank as discussed in Note 16.

Bagian lancar merupakan *escrow account* yang digunakan untuk membayar bunga pinjaman.

The current portion represent the escrow account used for interest payment of the loans.

12. ASET TETAP

12. PROPERTY, PLANT AND EQUIPMENT

	1 Januari/ *January 1,* 2017	Selisih kurs penjabaran/ *Translation Adjustment*	Penambahan/ *Additions*	Pengurangan/ *Deductions*	Reklasifikasi/ *Reclassifications*	30 Juni/ *June 30,* 2017	
	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	
Biaya perolehan:							Cost:
Pemilikan langsung:							Direct acquisition:
Tanah	92.140	3	29.260	-	-	121.403	Land
Bangunan dan prasarana	175.165	90	271	-	394	175.920	Buildings and infrastructures
Mesin	2.201.226	6	1.689	-	-	2.202.921	Machineries
Kendaraan bermotor	3.156	5	2.153	-	-	5.314	Motor vehicles
Peralatan dan perlengkapan	19.418	1	400	-	-	19.819	Furniture and fixtures
Aset dalam pembangunan							Construction in progress
Bangunan dan prasarana	1.412	-	-	-	-	1.412	Buildings and infrastructures
Mesin	32.653	-	31.279	-	-	63.932	Machineries
Aset sewa pembiayaan:							Assets under finance lease:
Prasarana	394	-	-	-	(394)	-	Infrastructures
Jumlah biaya perolehan	2.525.564	105	65.052	-	-	2.590.721	Total cost
Akumulasi penyusutan:							Accumulated depreciation:
Pemilikan langsung:							Direct acquisition:
Bangunan dan prasarana	113.893	56	3.313	-	394	117.656	Buildings and infrastructures
Mesin	1.075.234	7	35.128	-	-	1.110.369	Machineries
Kendaraan bermotor	2.388	3	221	-	-	2.612	Motor vehicles
Peralatan dan perlengkapan	16.911	2	555	-	-	17.468	Furniture and fixtures
Aset sewa pembiayaan:							Assets under finance lease:
Prasarana	394	-	-	-	(394)	-	Infrastructures
Jumlah akumulasi penyusutan	1.208.820	68	39.217	-	-	1.248.105	Total accumulated depreciation
Jumlah Tercatat	1.316.744					1.342.616	Net Carrying Amount

	1 Januari/ *January 1,* 2016	Selisih kurs penjabaran/ *Translation Adjustment*	Penambahan/ *Additions*	Pengurangan/ *Deductions*	Reklasifikasi/ *Reclassifications*	31 Desember/ *December 31,* 2016	
	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	
Biaya perolehan:							Cost:
Pemilikan langsung:							Direct acquisition:
Tanah	69.044	8	23.088	-	-	92.140	Land
Bangunan dan prasarana	171.497	264	230	79	3.253	175.165	Buildings and infrastructures
Mesin	1.882.351	15	17.168	92.281	393.973	2.201.226	Machineries
Kendaraan bermotor	3.168	7	349	368	-	3.156	Motor vehicles
Peralatan dan perlengkapan	19.157	2	259	-	-	19.418	Furniture and fixtures
Aset dalam pembangunan							Construction in progress
Bangunan dan prasarana	4.604	-	61	-	(3.253)	1.412	Buildings and infrastructures
Mesin	384.234	-	42.392	-	(393.973)	32.653	Machineries
Aset sewa pembiayaan:							Assets under finance lease:
Prasarana	394	-	-	-	-	394	Infrastructures
Jumlah biaya perolehan	2.534.449	296	83.547	92.728	-	2.525.564	Total cost
Akumulasi penyusutan:							Accumulated depreciation:
Pemilikan langsung:							Direct acquisition:
Bangunan dan prasarana	107.387	166	6.344	4	-	113.893	Buildings and infrastructures
Mesin	1.100.458	12	67.045	92.281	-	1.075.234	Machineries
Kendaraan bermotor	2.506	1	224	343	-	2.388	Motor vehicles
Peralatan dan perlengkapan	15.662	3	1.246	-	-	16.911	Furniture and fixtures
Aset sewa pembiayaan:							Assets under finance lease:
Prasarana	388	-	6	-	-	394	Infrastructures
Jumlah akumulasi penyusutan	1.226.401	182	74.865	92.628	-	1.208.820	Total accumulated depreciation
Jumlah Tercatat	1.308.048					1.316.744	Net Carrying Amount

	1 Januari/ *January 1,* 2015 US$ '000	Selisih kurs penjabaran/ *Translation Adjustment* US$ '000	Penambahan/ *Additions* US$ '000	Pengurangan/ *Deductions* US$ '000	Reklasifikasi/ *Reclassifications* US$ '000	31 Desember/ *December 31,* 2015 US$ '000	
Biaya perolehan:							Cost:
Pemilikan langsung:							Direct acquisition:
Tanah	61.440	(34)	7.638	-	-	69.044	Land
Bangunan dan prasarana	169.706	(922)	1.267	-	1.446	171.497	Buildings and infrastructures
Mesin	1.820.246	(56)	62.161	-	-	1.882.351	Machineries
Kendaraan bermotor	2.976	(23)	282	67	-	3.168	Motor vehicles
Peralatan dan perlengkapan	17.819	(7)	1.251	-	94	19.157	Furniture and fixtures
Aset dalam pembangunan							Construction in progress
Bangunan dan prasarana	6.117	(67)	-	-	(1.446)	4.604	Buildings and infrastructures
Mesin	228.230	-	156.004	-	-	384.234	Machineries
Peralatan dan perlengkapan	94	-	-	-	(94)	-	Furniture and fixtures
Aset sewa pembiayaan:							Assets under finance lease:
Prasarana	394	-	-	-	-	394	Infrastructures
Jumlah biaya perolehan	2.307.022	(1.109)	228.603	67	-	2.534.449	Total cost
Akumulasi penyusutan:							Accumulated depreciation:
Pemilikan langsung:							Direct acquisition:
Bangunan dan prasarana	101.438	(544)	6.493	-	-	107.387	Buildings and infrastructures
Mesin	1.045.249	(38)	55.247	-	-	1.100.458	Machineries
Kendaraan bermotor	2.401	(8)	153	40	-	2.506	Motor vehicles
Peralatan dan perlengkapan	13.870	(7)	1.799	-	-	15.662	Furniture and fixtures
Aset sewa pembiayaan:							Assets under finance lease:
Prasarana	309	-	79	-	-	388	Infrastructures
Jumlah akumulasi penyusutan	1.163.267	(597)	63.771	40	-	1.226.401	Total accumulated depreciation
Jumlah Tercatat	1.143.755					1.308.048	Net Carrying Amount

	1 Januari/ *January 1,* 2014 US$ '000	Selisih kurs penjabaran/ *Translation Adjustment* US$ '000	Penambahan/ *Additions* US$ '000	Pengurangan/ *Deductions* US$ '000	Reklasifikasi/ *Reclassifications* US$ '000	31 Desember/ *December 31,* 2014 US$ '000	
Biaya perolehan:							Cost:
Pemilikan langsung:							Direct acquisition:
Tanah	64.490	(7)	3.955	-	(6.998)	61.440	Land
Bangunan dan prasarana	158.570	(182)	985	-	10.333	169.706	Buildings and infrastructures
Mesin	1.814.458	(13)	5.225	-	576	1.820.246	Machineries
Kendaraan bermotor	2.540	(7)	517	74	-	2.976	Motor vehicles
Peralatan dan perlengkapan	15.742	-	1.626	55	506	17.819	Furniture and fixtures
Aset dalam pembangunan							Construction in progress
Bangunan dan prasarana	15.560	(45)	935	-	(10.333)	6.117	Buildings and infrastructures
Mesin	15.456	-	213.350	-	(576)	228.230	Machineries
Peralatan dan perlengkapan	343	-	257	-	(506)	94	Furniture and fixtures
Aset sewa pembiayaan:							Assets under finance lease:
Prasarana	394	-	-	-	-	394	Infrastructures
Jumlah biaya perolehan	2.087.553	(254)	226.850	129	(6.998)	2.307.022	Total cost
Akumulasi penyusutan:							Accumulated depreciation:
Pemilikan langsung:							Direct acquisition:
Bangunan dan prasarana	95.163	(138)	6.413	-	-	101.438	Buildings and infrastructures
Mesin	989.700	(13)	55.562	-	-	1.045.249	Machineries
Kendaraan bermotor	2.323	(2)	140	60	-	2.401	Motor vehicles
Peralatan dan perlengkapan	12.577	-	1.348	55	-	13.870	Furniture and fixtures
Aset sewa pembiayaan:							Assets under finance lease:
Prasarana	230	-	79	-	-	309	Infrastructures
Jumlah akumulasi penyusutan	1.099.993	(153)	63.542	115	-	1.163.267	Total accumulated depreciation
Jumlah Tercatat	987.560					1.143.755	Net Carrying Amount

Beban penyusutan dialokasikan sebagai berikut:

Depreciation expense was allocated to the following:

	2017 (Enam bulan/ *Six months*) US$ '000	2016 (Satu tahun/ *One year*) US$ '000	2015 (Satu tahun/ *One year*) US$ '000	2014 (Satu tahun/ *One year*) US$ '000	
Beban pokok pendapatan	38.426	73.510	62.217	62.218	Cost of revenues
Beban penjualan (Catatan 25)	454	639	369	239	Selling expenses (Note 25)
Beban umum dan administrasi (Catatan 26)	337	716	1.185	1.085	General and administrative expenses (Note 26)
Jumlah	39.217	74.865	63.771	63.542	Total

Jumlah biaya perolehan aset tetap yang telah disusutkan penuh dan masih digunakan masing-masing sebesar US$ 58.455 ribu, US$ 43.150 ribu, US$ 38.297 ribu dan US$ 38.250 ribu pada tanggal 30 Juni 2017, 31 Desember 2016, 2015 dan 2014.

Total acquisition costs of property, plant, and equipment which were fully depreciated but still used by the Group as of June 30, 2017, December 31, 2016, 2015 and 2014 amounted to US$ 58,455 thousand, US$ 43,150 thousand, US$ 38,297 thousand and US$ 38,250 thousand, respectively.

Pada tahun 2016, Perusahaan menghapuskan aset mesin sebesar US$ 92.281 ribu yang merupakan *turn around maintenance* (TAM) tahun sebelumnya.

In 2016, the Company has written - off certain machineries amounting to US$ 92,281 thousand, which was prior years turn around maintenance machinery (TAM).

Aset dalam pembangunan tahun 2015 dan 2014 terutama proyek peningkatan kapasitas pabrik Ethylene yang selesai sepenuhnya pada April 2016, yang ditandai dengan penerbitan *Plant Acceptance Certificate* oleh lisensor, Lummus Technology Inc.

Construction in progress in 2015 and 2014 mainly consist of Ethylene plant capacity expansion project which was fully completed in April 2016, following with the issuance of Plant Acceptance Certificate by the licensor, Lummus Technology Inc.

Aset dalam pembangunan pada tanggal 30 Juni 2017 terutama proyek ekspansi pabrik polyolefin dan Butadiene yang diperkirakan akan selesai pada tahun 2018.

Construction in progress as of June 30, 2017 were mainly expansion projects of polyolefin plant and butadiene plant which are estimated to be completed in 2018.

Pada tahun 2014, Perusahaan dan SRI, entitas asosiasi, telah menandatangani perjanjian transfer tanah yang diharapkan akan dieksekusi dalam satu tahun. Sehingga Perusahaan menyajikan tanah dengan nilai tercatat sebesar US $ 6.998 ribu sebagai aset tidak lancar yang tersedia untuk dijual pada tanggal 31 Desember 2014. Pada tahun 2015, aset tidak lancar yang tersedia untuk dijual telah terjual.

In 2014, the Company and SRI, an associate, entered into a conditional transfer of land agreement which was expected to be executed within one year. As a result, the Company presented the land with carrying amount of US$ 6,998 thousand as noncurrent assets held for sale as of December 31, 2014. In 2015, the noncurrent assets held for sale has been sold.

Biaya pinjaman yang dikapitalisasi pada proyek ekspansi kapasitas pabrik Ethylene masing-masing sejumlah US$ 4.830 ribu, US$ 14.821 ribu dan US$ 3.890 ribu pada tahun-tahun yang berakhir 31 Desember 2016, 2015 dan 2014. Tingkat bunga kapitalisasi rata-rata tahun 2016, 2015 dan 2014 masing-masing adalah 5,47%, 5,87% dan 5,75%.

Borrowing costs capitalized to Ethylene plant capacity expansion project amounted to US$ 4,830 thousand, US$ 14,821 thousand and US$ 3,890 thousand for the years ended December 31, 2016, 2015 and 2014 respectively. The average capitalization rate was 5.47%, 5.87% and 5.75% in 2016, 2015 and 2014, respectively.

Grup memiliki beberapa bidang tanah yang berlokasi di Serang dan Cilegon dengan hak legal berupa Hak Guna Bangunan (HGB). HGB tersebut berlaku antara 10 - 30 tahun yang jatuh tempo antara tahun 2019 sampai dengan tahun 2046. Manajemen Grup berkeyakinan bahwa tidak ada kesulitan dalam perpanjangan hak atas tanah tersebut karena semua tanah telah dimiliki secara legal dan didukung sepenuhnya oleh bukti kepemilikan yang sah.

The Group owns several pieces of land, located in Serang and Cilegon with Building Use Rights (HGB). The HGB's are effective for a period of 10 to 30 years until 2019 to 2046. The Group's management believes that there will be no difficulty in the extension of the landrights since all the land were acquired legally and supported by sufficient evidence of ownership.

Aset tetap, kecuali tanah, diasuransikan kepada PT Asuransi Astra Buana, PT Asuransi AXA Indonesia, PT Tugu Pratama Indonesia, PT Asuransi Central Asia, PT Asuransi Bina Dana Artha Tbk dan PT Asuransi Adira Dinamika, sebagai berikut:

Property, plant and equipment, except land, are insured with PT Asuransi Astra Buana, PT Asuransi AXA Indonesia, PT Tugu Pratama Indonesia, PT Asuransi Central Asia and PT Asuransi Bina Dana Artha Tbk and PT Asuransi Adira Dinamika, as follow:

	30 Juni/ *June 30,* 2017	31 Desember/*December 31,* 2016	2015	2014	
Jumlah tercatat aset (US$'000)	1.221.213	1.224.604	1.239.004	1.082.315	Carrying amount of the assets (US$'000)
Nilai pertanggungan aset					Insurance coverage
• Proyek peningkatan kapasitas					• Ethylene plant capacity expansion
pabrik Ethylene US$'000	-	-	380.000	380.000	project US$'000
• Lainnya					• Others
US$'000	2.545.000	2.508.740	2.359.480	2.285.915	US$'000
Rp juta	4.031	4.405	-	2.991	Rp million

Manajemen berpendapat nilai pertanggungan tersebut cukup untuk menutupi kemungkinan kerugian atas risiko kebakaran, bencana alam dan risiko lainnya yang mungkin atas aset yang dipertanggungkan, termasuk gangguan usaha.

Management believes that the insurance coverage is adequate to cover possible risks against fire, disasters and other risks on the assets insured, including business interruption.

Aset tetap digunakan sebagai jaminan secara *pari passu* atas utang bank jangka panjang (Catatan 16) pada tanggal 30 Juni 2017, 31 Desember 2016, 2015 dan 2014 dan utang obligasi pada tanggal 30 Juni 2017 dan 31 Desember 2016 (Catatan 17).

Property, plant and equipment are pledged as pari passu collateral for long-term bank loans (Note 16) as of June 30, 2017, December 31, 2016, 2015 and 2014 and bonds payable as of June 30, 2017 and December 31, 2016 (Note 17).

Manajemen berpendapat bahwa pada tanggal 30 Juni 2017, 31 Desember 2016, 2015 dan 2014 tidak terdapat keadaan yang menunjukkan indikasi terjadinya penurunan nilai aset tetap.

Management believes that there is no indication for impairment of property, plant and equipment as of June 30, 2017, December 31, 2016, 2015 and 2014.

13. UTANG BANK

13. BANK LOANS

	31 Desember/ *December 31,* 2015 US$ '000	
Bank DBS Ltd, Singapura	25.000	Bank DBS Ltd, Singapore
The Hongkong and Shanghai Banking Corporation Limited (HSBC)	15.000	The Hongkong and Shanghai Banking Corporation (HSBC)
The Siam Commercial Bank Public Company Ltd	10.800	The Siam Commercial Bank Public Company Ltd
Jumlah	50.800	Total

Bank DBS Ltd, Singapura

Pada tanggal 10 Nopember 2014, Perusahaan mendapatkan Fasilitas Modal Kerja (*Working Capital Facility*) dengan jumlah maksimal sebesar US$ 40.000 ribu dari Bank DBS Ltd, Singapura. Jangka waktu 1 tahun. Tingkat bunga per tahun LIBOR + persentase tertentu. Fasilitas ini dicairkan tanggal 29 Desember 2015 sebesar US$ 25.000 ribu dan telah dilunasi pada bulan Maret 2016.

Bank DBS Ltd, Singapore

On November 10, 2014, the Company obtained Working Capital Facility with a maximum amount of US$ 40,000 thousand from DBS Bank Ltd, Singapore. The facility has a term of 1 year and has an annual interest rate of LIBOR plus certain percentage. This facility was drawndown on December 29, 2015 amounting to US$ 25,000 thousand and it was fully repaid in March 2016.

The Hongkong and Shanghai Banking Corporation Limited (HSBC)

Pada 30 September 2015, Perusahaan melakukan amandemen atas Fasilitas Perbankan dengan The Hongkong and Shanghai Banking Corporation Limited untuk mendanai kebutuhan modal kerja jangka pendek Perusahaan. Fasilitas ini terdiri atas Pinjaman Berulang maksimal sebesar US$ 50.000 ribu, jangka waktu 1 tahun dan tingkat bunga per tahun sebesar persentase tertentu. Pada tanggal 28 Desember 2015, Perusahaan mencairkan sebesar US$ 15.000 ribu dan telah dilunasi pada bulan Januari 2016.

The Hongkong and Shanghai Banking Corporation Limited (HSBC)

On September 30, 2015, the Company amended the Banking Facility with The Hongkong and Shanghai Banking Corporation Limited to finance its short term working capital requirements. The Facility consists of Revolving Loan with maximum amount of US$ 50,000 thousand, term of 1 year and an annual interest rate of certain percentage. On December 28, 2015, the Company made a drawdown of US$ 15,000 thousand and it was fully repaid in January 2016.

The Siam Commercial Bank Public Company Ltd

Pada 12 November 2014, Perusahaan memperoleh Fasilitas Kredit Berulang sebesar US$ 30.000 ribu dari The Siam Commercial Bank Public Company Ltd untuk mendanai kebutuhan modal kerja Perusahaan dan beban pemeliharaan terkait pemeliharaan rutin berjangka. Tingkat bunga per tahun adalah LIBOR + persentase tertentu, dengan periode pembayaran bunga setiap 3 bulan. Fasilitas ini dicairkan tanggal 14 Agustus 2015 sebesar US$ 10.800 ribu dan telah dilunasi pada bulan Februari 2016.

The Siam Commercial Bank Public Company Ltd

On November 12, 2014, the Company obtained Revolving Credit Facility amounting to US$ 30,000 thousand from The Siam Commercial Bank Public Company Ltd, to finance its working capital requirements and maintenance expenses in regards of turnaround maintenance. The facility has an annual interest rate of LIBOR plus certain percentage, with interest installment made every 3 months. This facility was drawndown on August 14, 2015 amounting to US$ 10,800 thousand and it was fully repaid in February 2016.

14. UTANG USAHA / 14. TRADE ACCOUNTS PAYABLE

	30 Juni/ *June 30,* 2017	31 Desember/*December 31,* 2016	2015	2014	
	US$ '000	US$ '000	US$ '000	US$ '000	
a. Berdasarkan pemasok					a. By Supplier
Pihak berelasi					Related party
SCG Chemicals Co., Ltd.	5.930	25.293	87.869	133.861	SCG Chemicals Co., Ltd.
Pihak ketiga					Third parties
Pemasok luar negeri	293.586	260.069	68.747	214.493	Foreign suppliers
Pemasok dalam negeri	73.710	58.743	71.208	40.205	Local suppliers
Subjumlah	367.296	318.812	139.955	254.698	Subtotal
Jumlah	373.226	344.105	227.824	388.559	Total
b. Berdasarkan mata uang					b. By Currency
Dolar Amerika Serikat	313.702	324.268	209.467	375.294	U.S. Dollar
Rupiah	59.312	19.631	17.115	12.349	Rupiah
Lain-lain	212	206	1.242	916	Others
Jumlah	373.226	344.105	227.824	388.559	Total

Jangka waktu kredit yang timbul dari pembelian bahan baku utama dan pembantu, dan jasa baik dari pemasok dalam maupun luar negeri berkisar 30 sampai dengan 120 hari.

Purchases of raw and indirect materials, and services, both from local and foreign suppliers, have credit terms of 30 to 120 days.

Tidak terdapat jaminan yang diberikan atas utang usaha.

There are no guarantees provided for trade accounts payable.

15. UTANG PAJAK / 15. TAXES PAYABLE

	30 Juni/ *June 30,* 2017	31 Desember/*December 31,* 2016	2015	2014	
	US$ '000	US$ '000	US$ '000	US$ '000	
Pajak penghasilan badan					Corporate income tax
Perusahaan (Catatan 28)					The Company (Note 28)
Tahun 2017	9.146	-	-	-	Year 2017
Tahun 2016	-	30.227	-	-	Year 2016
Entitas anak (Catatan 28)	-	2.821	3	3	Subsidiaries (Note 28)
Pajak penghasilan					Income taxes
Pasal 4(2)	211	104	103	102	Article 4(2)
Pasal 15	12	6	6	4	Article 15
Pasal 21	3.716	701	756	658	Article 21
Pasal 23	146	95	867	628	Article 23
Pasal 25	8.550	-	-	285	Article 25
Pasal 26	125	54	82	69	Article 26
Pajak pertambahan nilai	784	28	22	-	Value added tax
Jumlah	22.690	34.036	1.839	1.749	Total

16. UTANG BANK JANGKA PANJANG / 16. LONG-TERM BANK LOANS

	30 Juni/ *June 30,* 2017	31 Desember/*December 31,* 2016	2015	2014	
	US$ '000	US$ '000	US$ '000	US$ '000	
Pinjaman Berjangka					Term Loans
US$ 199,8 juta	184.117	193.401	-	-	US$ 199.8 million
US$ 220 juta	88.835	105.335	159.900	186.476	US$ 220 million
US$ 94,98 juta	62.931	88.844	91.023	-	US$ 94.98 million
US$ 265 juta	-	-	244.271	195.464	US$ 265 million
US$ 150 juta	-	-	-	107.566	US$ 150 million
PT Bank Central Asia Tbk (BCA)	327	809	1.735	928	PT Bank Central Asia Tbk (BCA)
Jumlah utang jangka panjang	336.210	388.389	496.929	490.434	Total long-term loans
Bagian yang jatuh tempo dalam satu tahun	(71.605)	(63.113)	(70.470)	(68.477)	Current maturities
Utang jangka panjang - setelah dikurangi bagian yang jatuh tempo dalam satu tahun	264.605	325.276	426.459	421.957	Long-term loans - net of current maturities

Pada tanggal 30 Juni 2017, jadwal pelunasan pokok pinjaman adalah sebagai berikut:

As of June 30, 2017, loan principal repayment schedule are as follows:

	Pinjaman berjangka/*Term loans* US$ 199,8 Juta/*Million*	US$ 220 Juta/*Million*	US$ 94,98 Juta/*Million*	BCA	Jumlah/ *Total*	
	US$'000	US$'000	US$'000	US$'000	US$'000	
Tahun						Year
2017	9.990	17.600	4.749	327	32.666	2017
2018	19.980	48.400	9.498	-	77.878	2018
2019	19.980	26.400	9.498	-	55.878	2019
2020	29.970	-	9.498	-	39.468	2020
2021	29.970	-	28.494	-	58.464	2021
2022	39.960	-	3.494	-	43.454	2022
2023	39.960	-	-	-	39.960	2023
Jumlah pokok	189.810	92.400	65.231	327	347.768	Total principal
Biaya perolehan pinjaman yang belum diamortisasi	(5.693)	(3.565)	(2.300)	-	(11.558)	Unamortized transaction costs
Jumlah pinjaman - bersih	184.117	88.835	62.931	327	336.210	Total loan - net

Biaya perolehan diamortisasi atas utang bank jangka panjang adalah sebagai berikut:

The amortized cost of the long-term bank loans are as follow:

	30 Juni/ *June 30,* 2017	31 Desember/*December 31,* 2016	2015	2014	
	US$ '000	US$ '000	US$ '000	US$ '000	
Utang bank jangka panjang	336.210	388.389	496.929	490.434	Long-term bank loans
Biaya bunga yang masih harus dibayar	1.463	973	766	2.507	Accrued interests
Jumlah	337.673	389.362	497.695	492.941	Total

Biaya bunga pinjaman yang masih harus dibayar dicatat dalam akun biaya yang masih harus dibayar.

The above accrued interests are presented as accrued expenses.

Pinjaman Berjangka US$ 199,8 Juta

US$ 199.8 Million Term Loan

Pada tanggal 28 November 2016, Perusahaan memperoleh fasilitas pinjaman berjangka sebesar US$ 199.800 ribu dari beberapa kreditur yaitu Bangkok Bank Public Company Limited, cabang Jakarta; The Siam Commercial Bank Public Company Limited; PT Bank DBS Indonesia, DBS Bank Ltd; The Hongkong and Shanghai Banking Corporation Limited, cabang Jakarta; PT Bank ICBC Indonesia; dan PT Bank BNP Paribas Indonesia. PT Bank DBS Indonesia bertindak sebagai agen fasilitas. PT Styrindo Mono Indonesia, PT Petrokimia Butadiene Indonesia dan Altus Capital Pte., Ltd bertindak sebagai penjamin.

On November 28, 2016, the Company obtained Term Facility Credit amounting to US$ 199,800 thousand from the following lenders: Bangkok Bank Public Company Limited, Jakarta Branch; The Siam Commercial Bank Public Company Limited; PT Bank DBS Indonesia; DBS Bank Ltd.; The Hongkong and Shanghai Banking Corporation Limited, Jakarta Branch; PT Bank ICBC Indonesia; and PT Bank BNP Paribas Indonesia. PT Bank DBS Indonesia acts as facility agent. PT Styrindo Mono Indonesia, PT Petrokimia Butadiene Indonesia and Altus Capital Pte., Ltd act as guarantors.

Dana dari fasilitas pinjaman ini digunakan untuk melakukan pelunasan seluruh pinjaman berjangka US$ 265.000 ribu yang belum lunas.

Proceeds from this facility were utilized to pay all outstanding amounts of US$ 265,000 thousand Term Loan.

Fasilitas pinjaman ini dijamin antara lain dengan rekening dalam negeri Perusahaan, jaminan fidusia atas asuransi, jaminan fidusia atas aset bergerak, rekening *Debt Service Reserve Account*, saham Altus Capital Pte., Ltd, saham PT Petrokimia Butadiene Indonesia, hipotik atas tanah peringkat ketiga, hipotik atas tanah peringkat keenam, aset bergerak PT Styrindo Mono Indonesia, dan jaminan fidusia atas klaim asuransi PT Styrindo Mono Indonesia.

The facility is secured by, among others, the Company’s onshore accounts, Fiducia Security on Insurances, Fiducia Security on Movable Assets, Debt Service Reserve Account, pledged over shares of Altus Capital Pte., Ltd, pledged over shares of PT Petrokimia Butadiene Indonesia, Third Rank Land Mortgages, Sixth Rank Land Mortgages, Movable Assets of PT Styrindo Mono Indonesia, and Fiducia Security of PT Styrindo Mono Indonesia’s insurances claim.

Saldo pinjaman tersebut adalah sebagai berikut:

The balances of the loans are as follow:

Bank	30 Juni/ *June 30,* 2017	31 Desember/ *December 31,* 2016	Bank
	US$ '000	US$ '000	
The Siam Commercial Bank Public Company Limited	57.000	60.000	The Siam Commercial Bank Public Company Limited
Bangkok Bank Public Company Limited (Jakarta)	57.000	60.000	Bangkok Bank Public Company Limited (Jakarta)
The Hongkong and Shanghai Banking Corporation Limited (Jakarta)	23.750	25.000	The Hongkong and Shanghai Banking Corporation Limited (Jakarta)
PT Bank ICBC Indonesia	23.750	25.000	PT Bank ICBC Indonesia
PT Bank DBS Indonesia	9.500	10.000	PT Bank DBS Indonesia
DBS Bank Ltd	9.500	10.000	DBS Bank Ltd
PT Bank BNP Paribas Indonesia	9.310	9.800	PT Bank BNP Paribas Indonesia
Jumlah	189.810	199.800	Total
Biaya perolehan pinjaman yang belum diamortisasi	(5.693)	(6.399)	Unamortized transaction costs
Bersih	184.117	193.401	Net
Dikurangi bagian yang jatuh tempo dalam satu tahun	(19.980)	(19.980)	Less current maturity
Bagian jangka panjang	164.137	173.421	Long-term portion

Perusahaan diwajibkan untuk memelihara rasio keuangan sebagai berikut:

- Rasio *Interest Service Coverage* di atas 1,75: 1.
- Rasio jumlah pinjaman terhadap kapitalisasi tidak melebihi 50%.
- Terkait pembayaran dividen :
  a. Jika *Debt Service Charge Ratio* melebihi 1,25, maka pembayaran dividen tidak boleh melebihi laba bersih.
  b. Jika *Debt Service Charge Ratio* tidak melebihi 1,25, maka pembayaran dividen tidak boleh melebihi 50% dari laba bersih.

The Company is required to maintain the following financial ratios:

- Interest Service Coverage Ratio shall be greater than 1.75: 1.
- Total Debt to Capitalization Ratio shall not exceed 50%.
- In relation to payment of dividends :
  a. If Debt Service Charge Ratio is greater than or equal to 1.25, payment of dividends shall not exceed net income.
  b. If Debt Servicce Charge Ratio is lower than 1.25, payment of dividends shall not exceed 50% of net income.

Perusahaan juga diwajibkan untuk menjaga saldo tertentu pada *Debt Service Accrual Account* yang ditempatkan pada PT Bank DBS Indonesia dan *Debt Service Reserve Account* yang ditempatkan pada Deutsche Bank AG, Singapura (Catatan 11).

The Company is also required to maintain certain balance of Debt Service Accrual Account placed in PT Bank DBS Indonesia, and Debt Service Reserve Account placed in Deutsche Bank AG, Singapore (Note 11).

Dengan pinjaman ini, Perusahaan terikat dengan beberapa pembatasan dalam aktivitas bisnis, aktivitas pendanaan dan tindakan korporasi, seperti aset penjaminan, pelepasan aset, merger atau konsolidasi, perubahan dalam kegiatan usaha dan peminjaman. Selain itu, jika Perusahaan mengubah anggaran dasar, Perusahaan harus memberitahukan agen paling lambat lima hari kerja sebelum perubahan, modifikasi atau penggantian tersebut.

Under this term loan, the Company are bound by certain restrictions on our business activities, financing activities and corporate actions, such as pledging assets, disposal of assets, mergers or consolidation, changes in business activities and obtaining loans. In addition, in the event that the Company amend the articles of association, the Company must notify the agent at the latest five working days prior to such amendment, modification or replacement.

Pada tanggal 30 Juni 2017 dan 31 Desember 2016, Grup telah memenuhi syarat dan kondisi pinjaman yang ditetapkan bank.

As of June 30, 2017 and December 31, 2016, the Group is in compliance with the terms and conditions of the loans set by the bank.

Pelunasan pinjaman dilakukan dalam 14 kali cicilan, dengan jadwal sebagai berikut:

Loan repayments are made on 14 installments, with the following schedule:

Bulan setelah tanggal perjanjian/ *Months after date of agreement*	Pelunasan pokok pinjaman/ *Repayment of principal*
	%
6	5
12	5
18	5
24	5
30	5
36	5
42	7,5
48	7,5
54	7,5
60	7,5
66	10
72	10
78	10
84	10
Jumlah/*Total*	100

Tingkat bunga per tahun LIBOR + 3,5%. Pembayaran bunga dilakukan secara 3 bulanan.

Annual interest rate LIBOR + 3.5%. Interest is payable every 3 months.

Perusahaan telah melakukan pembayaran cicilan pertama pada bulan Mei 2017 sebesar US$ 9.990 ribu.

The Company paid the first principal installment in May 2017 totalling to US$ 9,990 thousand.

Pinjaman Berjangka US$ 220 Juta

Pada tanggal 29 September 2012, Perusahaan menandatangani Fasilitas Pinjaman Berjangka sampai dengan nilai US$ 220.000 ribu dengan The Siam Commercial Bank Public Company Limited dan Bangkok Bank Public Company Limited (Jakarta). Saldo pinjaman tersebut adalah sebagai berikut:

US$ 220 Million Term Loan

On September 29, 2012, the Company signed a Term Facility Credit Agreement up to US$ 220,000 thousand with The Siam Commercial Bank Public Company Limited and Bangkok Bank Public Company Limited (Jakarta). The balances of the loans are as follow:

Bank	30 Juni/ *June 30,* 2017	31 Desember/*December 31,* 2016	2015	2014	Bank
	US$ '000	US$ '000	US$ '000	US$ '000	
The Siam Commercial Bank Public Company Limited	50.400	60.000	91.200	105.600	The Siam Commercial Bank Public Company Limited
Bangkok Bank Public Company Limited, Cabang Jakarta	42.000	50.000	76.000	88.000	Bangkok Bank Public Company Limited, Jakarta Branch
Jumlah	92.400	110.000	167.200	193.600	Total
Biaya perolehan pinjaman yang belum diamortisasi	(3.565)	(4.665)	(7.300)	(7.124)	Unamortized transaction costs
Bersih	88.835	105.335	159.900	186.476	Net
Dikurangi bagian yang jatuh tempo dalam satu tahun	(41.800)	(35.200)	(35.200)	(26.400)	Less current maturity
Bagian jangka panjang	47.035	70.135	124.700	160.076	Long-term portion

Bangkok Bank Public Company Limited, Cabang Jakarta bertindak sebagai agen fasilitas dan DB Trustees (Hongkong) Limited bertindak sebagai agen jaminan. PT Petrokimia Butadiene Indonesia, PT Styrindo Mono Indonesia dan Altus Capital Pte., Ltd bertindak sebagai penjamin.

Bangkok Bank Public Company Limited, Jakarta Branch acts as facility agent and DB Trustees (Hongkong) Limited act as the security agent. PT Petrokimia Butadiene Indonesia, PT Styrindo Mono Indonesia and Altus Capital Pte., Ltd act as guarantors.

Dana yang diperoleh dari pinjaman digunakan sebagai berikut:

- Pembelian kembali seluruh sisa 12,875% *Senior Secured Guaranteed Notes*.
- Pembayaran sebagian fasilitas pinjaman berjangka yang telah ada dan biaya-biaya terkait.

Proceeds from the loan were utilized as follow:

- Buyback all outstanding 12.875% Senior Secured Guaranteed Notes.
- Partial payment of the existing term loan facility and related costs.

Pinjaman ini dijamin antara lain dengan asuransi jaminan fidusia atas aset bergerak, hipotik atas tanah dan hipotik atas tanah peringkat pertama, rekening Perusahaan yang ditempatkan pada pemberi pinjaman dan saham Altus Capital Pte Ltd.

The facility is secured by, among others, Insurances Fiducia Security on Movable Assets Fiducia Security on Land Mortgages and First Rank Land Mortgages, Pledge Over Onshore and Offshore Accounts placed on the Lenders, and pledged over shares of Altus Capital Pte Ltd.

Perusahaan diwajibkan untuk memelihara rasio keuangan sebagai berikut:

- Rasio *Interest Service Coverage* di atas 1,75: 1.
- Rasio jumlah pinjaman terhadap kapitalisasi tidak melebihi 50%.

The Company is required to maintain the following financial ratios:

- Interest Service Coverage Ratio shall be greater than 1.75: 1.
- Total Debt to Capitalization Ratio shall not exceed 50%.

Perusahaan juga diwajibkan untuk menjaga saldo tertentu pada *Debt Service Accrual Account* yang ditempatkan pada Bangkok Bank Public Company Limited Cabang Jakarta dan *Debt Service Reserve Account* yang ditempatkan pada Deutsche Bank AG, Singapura (Catatan 11).

The Company is also required to maintain certain balance of Debt Service Accrual Account placed in Bangkok Bank Public Company Limited, Jakarta branch and Debt Service Reserve Account placed in Deutsche Bank AG, Singapore (Note 11).

Dengan pinjaman ini, Perusahaan terikat dengan beberapa pembatasan dalam aktivitas bisnis, aktivitas pendanaan dan tindakan korporasi, seperti aset penjaminan, pelepasan aset, merger atau konsolidasi, perubahan dalam kegiatan usaha dan peminjaman. Selain itu, jika Perusahaan mengubah anggaran dasar, Perusahaan harus memberitahukan agen paling lambat lima hari kerja sebelum perubahan, modifikasi atau penggantian tersebut.

Under this term loan, the Company are bound by certain restrictions on our business activities, financing activities and corporate actions, such as pledging assets, disposal of assets, mergers or consolidation, changes in business activities and obtaining loans. In addition, in the event that the Company amend the articles of association, the Company must notify the agent at the latest five working days prior to such amendment, modification or replacement.

Pada tanggal 30 Juni 2017, 31 Desember 2016, 2015 dan 2014, Grup telah memenuhi syarat dan kondisi pinjaman yang ditetapkan bank.

As of June 30, 2017, December 31, 2016, 2015 and 2014, the Group is in compliance with the terms and conditions of the loans set by the bank.

Pelunasan pinjaman dilakukan dalam 12 kali cicilan, dengan jadwal sebagai berikut:

Loan repayments are made on 12 installments, with the following schedule:

Bulan setelah tanggal perjanjian/ *Months after date of agreement*	Pelunasan pokok pinjaman/ *Repayment of principal*
	%
18	6
24	6
30	6
36	6
42	8
48	8
54	8
60	8
66	11
72	11
78	11
84	11
Jumlah/*Total*	100

Tingkat bunga per tahun LIBOR + 4,1%. Pembayaran bunga dilakukan secara 3 bulanan.

Annual interest rate LIBOR + 4.1%. Interest is payable every 3 months.

Perusahaan telah melakukan pembayaran cicilan pertama sampai keempat masing-masing pada bulan Maret 2014 dan 2015 serta September 2014 dan 2015 sebesar US$ 52.800 ribu.

The Company paid the first up to the fourth principal installment in March 2014 and 2015 and September 2014 and 2015 totalling to US$ 52,800 thousand.

Perusahaan telah melakukan pembayaran cicilan kelima sampai ketujuh pada bulan Maret 2017 dan 2016 dan September 2016 sebesar US$ 52.800 ribu.

The Company paid the fifth up to the seventh principal installment in March 2017 and 2016 and September 2016 totalling to US$ 52,800 thousand.

Perusahaan telah melakukan percepatan pembayaran pada Desember 2016 sebesar US$ 22.000 ribu.

The Company made voluntary prepayment in December 2016 totalling to US$ 22,000 thousand.

Pinjaman Berjangka US$ 94,98 Juta

US$ 94.98 Million Term Loan

Pada tanggal 7 Oktober 2015, Perusahaan memperoleh fasilitas pinjaman berjangka dengan nilai US$ 94.980 ribu dari beberapa bank dalam dan luar negeri.

On October 7, 2015, the Company obtained term loan credit facility up to US$ 94,980 thousand from several onshore and offshore banks.

Dana dari fasilitas pinjaman ini digunakan untuk melakukan pelunasan seluruh pinjaman berjangka US$ 150.000 ribu yang belum lunas.

Proceeds from this facility were utilized to pay all outstanding amounts of US$ 150,000 thousand Term Loan.

Saldo pinjaman tersebut adalah sebagai berikut:

The loan balances are as follow:

Bank	30 Juni/ *June 30,* 2017	31 Desember/*December 31,* 2016	2015	Bank
	US$ '000	US$ '000	US$ '000	
Bangkok Bank Public Company Limited	24.037	34.125	35.000	Bangkok Bank Public Company Limited
The Siam Commercial Bank Public Company Limited	24.038	34.125	35.000	The Siam Commercial Bank Public Company Limited
The Hongkong and Shanghai Banking Corporation Limited (HSBC), Jakarta	6.854	9.730	9.980	The Hongkong and Shanghai Banking Corporation Limited (HSBC), Jakarta
PT Bank DBS Indonesia	5.151	7.313	7.500	PT Bank DBS Indonesia
DBS Bank Ltd, Singapura	5.151	7.313	7.500	DBS Bank Ltd, Singapore
Jumlah	65.231	92.606	94.980	Total
Biaya perolehan pinjaman yang belum diamortisasi	(2.300)	(3.762)	(3.957)	Unamortized transaction costs
Bersih	62.931	88.844	91.023	Net
Dikurangi bagian yang jatuh tempo dalam satu tahun	(9.498)	(7.124)	(2.375)	Less current maturity
Bagian jangka panjang	53.433	81.720	88.648	Long-term portion

PT Bank DBS Indonesia bertindak sebagai agen fasilitas. PT Petrokimia Butadiene Indonesia, PT Styrindo Mono Indonesia dan Altus Capital Pte., Ltd bertindak sebagai penjamin.

PT Bank DBS Indonesia acts as the facility agent. PT Petrokimia Butadiene Indonesia, PT Styrindo Mono Indonesia and Altus Capital Pte., Ltd act as guarantors.

Fasilitas pinjaman ini dijamin antara lain dengan asuransi jaminan fidusia atas aset bergerak, hipotik atas tanah peringkat kedua dan hipotik atas tanah peringkat kelima, rekening Perusahaan yang ditempatkan pada pemberi pinjaman dan saham Altus Capital Pte., Ltd.

The facility is secured by, among others, Insurances Fiducia Security on Movable Assets, Second Rank Land Mortgages, Fifth Rank Land Mortgages, Pledge Over Onshore and Offshore Accounts placed on the Lenders, and pledged over shares of Altus Capital Pte., Ltd.

Dengan pinjaman ini, Perusahaan terikat dengan beberapa pembatasan dalam aktivitas bisnis, aktivitas pendanaan dan tindakan korporasi, seperti aset penjaminan, pelepasan aset, merger atau konsolidasi, perubahan dalam kegiatan usaha dan peminjaman. Selain itu, jika Perusahaan mengubah anggaran dasar, Perusahaan harus memberitahukan agen paling lambat lima hari kerja sebelum perubahan, modifikasi atau penggantian tersebut.

Under this term loan, the Company are bound by certain restrictions on our business activities, financing activities and corporate actions, such as pledging assets, disposal of assets, mergers or consolidation, changes in business activities and obtaining loans. In addition, in the event that the Company amend the articles of association, the Company must notify the agent at the latest five working days prior to such amendment, modification or replacement.

Pelunasan pinjaman dilakukan dalam 14 kali cicilan, dengan jadwal sebagai berikut:

Loan repayments are made on 14 installments, with the following schedule:

Bulan setelah tanggal perjanjian/ *Months after date of agreement*	Pelunasan pokok pinjaman/ *Repayment of principal*
	%
6	1,25
12	1,25
18	2,5
24	5
30	5
36	5
42	5
48	5
54	5
60	5
66	15
72	15
78	15
84	15
Jumlah/*Total*	100

Tingkat bunga per tahun LIBOR + (*Tranche* A: 4,25%; *Tranche* B: 4,15%). Pembayaran bunga dilakukan secara 3 bulanan.

Perusahaan diwajibkan untuk memelihara rasio sebagai berikut:

- Rasio *Interest Service Coverage* di atas 1,75: 1.
- Rasio jumlah pinjaman terhadap kapitalisasi tidak melebihi 50%.
- Terkait pembayaran dividen:
  a. Jika *Debt Service Charge Ratio* melebihi 1,25, maka pembayaran dividen tidak boleh melebihi laba bersih.
  b. Jika *Debt Service Charge Ratio* tidak melebihi 1,25, maka pembayaran dividen tidak boleh melebihi 50% dari laba bersih.

Perusahaan diwajibkan untuk menjaga saldo *Debt Service Reserve Account* dan *Debt Service Accrual Account* pada PT Bank DBS Indonesia (Catatan 11).

Perusahaan telah melakukan pembayaran cicilan pertama, kedua, dan ketiga masing-masing pada bulan April 2016, Oktober 2016, dan April 2017 sebesar US$ 4.749 ribu.

Perusahaan telah melakukan percepatan pembayaran pada Januari 2017 sebesar US$ 25.000 ribu.

Pada tanggal 30 Juni 2017, 31 Desember 2016 dan 2015, Grup telah memenuhi syarat dan kondisi pinjaman yang ditetapkan bank.

Pinjaman Berjangka US$ 265 Juta

Pada tanggal 5 Desember 2013, Perusahaan memperoleh fasilitas pinjaman berjangka sebesar US$ 265.000 ribu dari beberapa kreditur yaitu Bangkok Bank Public Company Limited, cabang Jakarta; The Siam Commercial Bank Public Company Limited; PT Indonesia Eximbank; DBS Bank Ltd; dan Deutsche Bank AG, cabang Singapura. PT Bank DBS Indonesia bertindak sebagai agen fasilitas. PT Styrindo Mono Indonesia, PT Petrokimia Butadiene Indonesia dan Altus Capital Pte., Ltd bertindak sebagai penjamin.

Fasilitas ini termasuk opsi untuk menerbitkan *Letter of Credit* dengan sub-limit sebesar US$ 170.000 ribu.

Dana dari fasilitas pinjaman digunakan untuk membiayai Proyek Ekspansi Kapasitas Pabrik Ethylene dan pembayaran biaya terkait.

Fasilitas pinjaman dijamin antara lain dengan asuransi jaminan fidusia atas aset bergerak, hipotik atas tanah peringkat pertama, hipotik atas tanah peringkat keempat, rekening Perusahaan yang ditempatkan pada pemberi pinjaman dan saham Altus Capital Pte., Ltd.

Annual interest rate LIBOR + (Tranche A: 4.25%; Tranche B: 4.15%). Interest is payable every 3 months.

The Company is required to maintain the following financial ratios:

- Interest Service Coverage Ratio shall be greater than 1.75: 1.
- Total Debt to Capitalization Ratio shall not exceed 50%.
- In relation to payment of dividends:
  a. If Debt Service Charge Ratio is greater than or equal to 1.25, payment of dividends shall not exceed net income.
  b. If Debt Servicce Charge Ratio is lower than 1.25, payment of dividendss shall not exeed 50% of net income.

The Company is required to maintain the balance of Debt Service Reserve Account and Debt Service Accrual Account placed on PT Bank DBS Indonesia (Note 11).

The Company paid the first, the second, and the third principal installment in April 2016, October 2016, and April 2017 totalling US$ 4,749 thousand.

The Company made voluntary prepayment in January 2017 totalling to US$ 25,000 thousand.

As of June 30, 2017, December 31, 2016 and 2015, the Group is in compliance with the terms and conditions of the loans set by the bank.

US$ 265 Million Term Loan

On December 5, 2013, the Company obtained Term Facility Credit amounting to US$ 265,000 thousand from the following lenders: Bangkok Bank Public Company Limited, Jakarta Branch; The Siam Commercial Bank Public Company Limited; PT Indonesia Eximbank; DBS Bank Ltd; and Deutsche Bank AG, Singapore branch. PT Bank DBS Indonesia acts as facility agent. PT Styrindo Mono Indonesia, PT Petrokimia Butadiene Indonesia and Altus Capital Pte., Ltd act as guarantors.

The facility includes an option to issue Letters of Credit with a sub-limit amounting to US$ 170,000 thousand.

Proceeds from this facility were utilized to finance the Ethylene Plant Expansion Project and payment of related costs and expenses.

The facility is secured by, among others, Insurances Fiducia Security on Movable Assets, First Rank Land Mortgages, Fourth Rank Land Mortgages, Pledge Over Onshore and Offshore Accounts placed on the Lenders, and pledged over shares of Altus Capital Pte., Ltd.

Saldo pinjaman tersebut adalah sebagai berikut:

The balances of the loans are as follow:

Bank	31 Desember/*December 31,* 2015	2014	Bank
	US$ '000	US$ '000	
The Siam Commercial Bank Public Company Limited	94.000	75.472	The Siam Commercial Bank Public Company Limited
Bangkok Bank Public Company Limited (Jakarta)	94.000	75.472	Bangkok Bank Public Company Limited (Jakarta)
Indonesia EXIM Bank	32.900	26.415	Indonesia EXIM Bank
DBS Bank Ltd	18.800	15.094	DBS Bank Ltd
Deutsche Bank AG, Cabang Singapura	9.400	7.547	Deutsche Bank AG, Singapore Branch
Jumlah	249.100	200.000	Total
Biaya perolehan pinjaman yang belum diamortisasi	(4.829)	(4.536)	Unamortized transaction costs
Bersih	244.271	195.464	Net
Dikurangi bagian yang jatuh tempo dalam satu tahun	(31.800)	(12.000)	Less current maturity
Bagian jangka panjang	212.471	183.464	Long-term portion

Perusahaan diwajibkan untuk memelihara rasio keuangan sebagai berikut:

- Rasio *Interest Service Coverage* di atas 1,75: 1.
- Rasio jumlah pinjaman terhadap kapitalisasi tidak melebihi 50%.

The Company is required to maintain the following financial ratios:

- Interest Service Coverage Ratio shall be greater than 1.75: 1.
- Total Debt to Capitalization Ratio shall not exceed 50%.

Perusahaan juga diwajibkan untuk menjaga saldo tertentu pada *Debt Service Accrual Account* yang ditempatkan pada PT Bank DBS Indonesia Cabang Jakarta dan *Debt Service Reserve Account* yang ditempatkan pada Deutsche Bank AG, Singapura (Catatan 11).

The Company is also required to maintain certain balance of Debt Service Accrual Account placed in PT Bank DBS Indonesia, Jakarta branch and Debt Service Reserve Account placed in Deutsche Bank AG, Singapore (Note 11).

Dengan pinjaman ini, Perusahaan terikat dengan beberapa pembatasan dalam aktivitas bisnis, aktivitas pendanaan dan tindakan korporasi, seperti aset penjaminan, pelepasan aset, merger atau konsolidasi, perubahan dalam kegiatan usaha dan peminjaman. Selain itu, jika Perusahaan mengubah anggaran dasar, Perusahaan harus memberitahukan agen paling lambat lima hari kerja sebelum perubahan, modifikasi atau penggantian tersebut.

Under this term loan, the Company are bound by certain restrictions on our business activities, financing activities and corporate actions, such as pledging assets, disposal of assets, mergers or consolidation, changes in business activities and obtaining loans. In addition, in the event that the Company amend the articles of association, the Company must notify the agent at the latest five working days prior to such amendment, modification or replacement.

Tingkat bunga per tahun LIBOR + (*Onshore*: 5,00%; *Offshore*: 4,65%). Pembayaran bunga dilakukan secara 3 bulanan.

Annual interest rate LIBOR + (Onshore: 5.00%; Offshore: 4.65%). Interest is payable every 3 months.

Pada tanggal 31 Desember 2015 dan 2014, Grup telah memenuhi syarat dan kondisi pinjaman yang ditetapkan bank.

As of December 31, 2015 and 2014, the Group is in compliance with the terms and conditions of the loans set by the bank.

Pelunasan pinjaman dilakukan dalam 11 kali cicilan, dengan jadwal sebagai berikut:

Loan repayments are made on 11 installments, with the following schedule:

Bulan setelah tanggal perjanjian/ *Months after date of agreement*	Pelunasan pokok pinjaman/ *Repayment of principal*
	%
24	6
30	6
36	6
42	6
48	6
54	10
60	10
66	10
72	10
78	15
84	15
Jumlah/*Total*	100

Pada bulan Desember 2015, Perusahaan telah melakukan pembayaran cicilan pertama sebesar US$ 15.900 ribu.

In December 2015, the Company paid the first principal installment totalling of US$ 15,900 thousand.

Pada bulan Juni 2016, Perusahaan telah melakukan pembayaran cicilan kedua sebesar US$ 15.900 ribu.

In June 2016, the Company paid the second principal installment totalling of US$ 15,900 thousand.

Pada Juli dan Desember 2016, Perusahaan telah melakukan percepatan pembayaran sebesar US$ 4.400 ribu dan US$ 29.000 ribu.

In July and December 2016, the Company made voluntary prepayment totalling of US$ 4,400 thousand and US$ 29,000 thousand.

Pada bulan Desember 2016, Perusahaan telah melunasi semua pokok pinjaman sebesar US$ 199.800 ribu dari penerimaan berjangka baru.

In December 2016, the Company fully paid the principal term loan amounting to US$ 199,800 thousand from the proceeds of a new term loan.

Pinjaman Berjangka US$ 150 Juta

US$ 150 Million Term Loan

Pada tanggal 21 Nopember 2011, Perusahaan memperoleh fasilitas pinjaman berjangka dengan nilai US$ 150.000 ribu dari beberapa bank dalam dan luar negeri. Saldo pinjaman tersebut adalah sebagai berikut:

On November 21, 2011, the Company obtained term loan credit facility up to US$ 150,000 thousand from several onshore and offshore banks. The loan balances are as follow:

Bank	31 Desember/ *December 31,* 2014	Bank
	US$ '000	
Standard Chartered Bank, Singapura	22.118	Standard Chartered Bank, Singapore
The Hongkong and Shanghai Banking Corporation Limited (HSBC)	18.330	The Hongkong and Shanghai Banking Corporation Limited (HSBC)
PT Indonesia EXIM Bank	14.664	PT Indonesia EXIM Bank
PT Bank Danamon Indonesia Tbk	14.298	PT Bank Danamon Indonesia Tbk
PT Bank Ekonomi Raharja Tbk	13.564	PT Bank Ekonomi Raharja Tbk
Bank DBS Ltd, Cabang Singapura	13.503	Bank DBS Ltd, Singapore Branch
PT Bank DBS Indonesia	13.503	PT Bank DBS Indonesia
Jumlah	109.980	Total
Biaya perolehan pinjaman yang belum diamortisasi	(2.414)	Unamortized transaction cost
Bersih	107.566	Net
Dikurangi bagian yang jatuh tempo dalam satu tahun	(30.000)	Less current maturity
Bagian jangka panjang	77.566	Long-term portion

PT Bank DBS Indonesia bertindak sebagai agen fasilitas dan DB Trustees (Hongkong) Limited bertindak sebagai agen jaminan. PT Petrokimia Butadiene Indonesia, PT Styrindo Mono Indonesia dan Altus Capital Pte., Ltd bertindak sebagai penjamin.

PT Bank DBS Indonesia acts as facility agent and DB Trustee (Hongkong) acts as the security agent. PT Petrokimia Butadiene Indonesia, PT Styrindo Mono Indonesia and Altus Capital Pte., Ltd act as guarantors.

Dana yang diperoleh dari pinjaman digunakan mendanai pengeluaran modal untuk proyek turunan C4.

Proceeds from the loan were utilized to pay for capital expenditures in relation with C4 Derivative.

Pinjaman ini dijamin antara lain dengan asuransi jaminan fidusia atas aset bergerak, hipotik atas tanah dan hipotik atas tanah peringkat pertama, rekening Perusahaan yang ditempatkan pada pemberi pinjaman dan saham Altus Capital Pte., Ltd.

The facility is secured by, among others, Insurances Fiducia Security on Movable Assets Fiducia Security on Land Mortgages and First Rank Land Mortgages, Pledge Over Onshore and Offshore Accounts placed on the Lenders, and pledged over shares of Altus Capital Pte., Ltd.

Klaim dari bank-bank diatas terhadap jaminan berperingkat minimal *pari passu* dengan klaim dari semua kreditur lain tanpa jaminan dan kreditur *unsubordinated* milik Perusahaan kecuali kreditur yang piutangnya wajib diutamakan oleh hukum yang berlaku umum untuk perusahaan.

The claims of the above banks over the security are pari passu with the claims of all the Company's other unsecured and unsubordinated creditors except those creditors whose claims are mandatorily preferred by laws of general application to companies.

Dengan pinjaman ini, Perusahaan terikat dengan beberapa pembatasan dalam aktivitas bisnis, aktivitas pendanaan dan tindakan korporasi, seperti aset penjaminan, pelepasan aset, merger atau konsolidasi, perubahan dalam kegiatan usaha dan peminjaman. Selain itu, jika Perusahaan mengubah anggaran dasar, Perusahaan harus memberitahukan agen paling lambat lima hari kerja sebelum perubahan, modifikasi atau penggantian tersebut.

Under this term loan, the Company are bound by certain restrictions on our business activities, financing activities and corporate actions, such as pledging assets, disposal of assets, mergers or consolidation, changes in business activities and obtaining loans. In addition, in the event that the Company amend the articles of association, the Company must notify the agent at the latest five working days prior to such amendment, modification or replacement.

Pelunasan pinjaman dilakukan dalam 12 kali cicilan, dengan jadwal sebagai berikut:

Loan repayments are made on 12 installments, with the following schedule:

Bulan setelah tanggal perjanjian/ *Months after date of agreement*	Pelunasan pokok pinjaman/ *Repayment of principal*
	%
18	6,67
24	6,67
30	6,67
36	6,67
42	10,00
48	10,00
54	10,00
60	10,00
66	8,33
72	8,33
78	8,33
84	8,33
Jumlah/*Total*	100,00

Tingkat bunga per tahun LIBOR + (*Onshore*: 4,80%; *Offshore*: 4,65%). Pembayaran bunga dilakukan secara 3 bulanan.

Annual interest rate is LIBOR + (Onshore: 4.80%; Offshore: 4.65%). Interest is payable every 3 months.

Pada tanggal 3 Oktober 2012, telah dilakukan amandemen atas perjanjian fasilitas pinjaman ini. Berdasarkan amandemen tersebut, Perusahaan diwajibkan untuk memelihara rasio sebagai berikut:

a. Rasio *Interest Service Coverage* diatas 1,75: 1.

b. Rasio jumlah pinjaman terhadap kapitalisasi tidak melebihi:

   i. 40% setiap waktu hingga tanggal keputusan investasi pertama atas proyek ekspansi.

   ii. 50% untuk periode dari dan setelah tanggal keputusan investasi final pertama atas proyek ekspansi hingga 31 Desember 2015.

   iii. 45% untuk periode setelah 31 Desember 2015.

Amandemen tersebut juga mengubah persentase tertentu atas tingkat bunga pinjaman per tahun dimulai sejak 10 Oktober 2012.

Pada bulan November 2015, Perusahaan telah melunasi semua pokok pinjaman sebesar US$ 94.980 ribu dari penerimaan pinjaman berjangka baru.

PT Bank Central Asia Tbk

Pada tanggal 29 Agustus 2014, RPU memperoleh fasilitas kredit investasi sebesar Rp 30 Miliar dari PT Bank Central Asia Tbk. Fasilitas ini mempunyai jangka waktu 3 tahun dengan *grace period* 12 bulan. Tingkat bunga untuk pinjaman ini adalah 11,25% per tahun.

Dana dari fasilitas pinjaman ini digunakan untuk membiayai proyek pembangunan 11 unit *storage tank* baru di Jl. Merak, Bojonegara, Serang.

Fasilitas pinjaman ini dijamin dengan 1 unit *storage terminal* termasuk tanah dan bangunan yang berada di Jl. Merak, Serang.

RPU diwajibkan untuk memelihara rasio keuangan sebagai berikut:

- Rasio *EBITDA/(Interest+Principal)* harus minimal sebesar 1x.
- Rasio hutang dengan ekuitas maksimal sebesar 1x.

Pelunasan pinjaman dibayar setiap bulan secara proposional selama 2 tahun.

Pada tanggal 30 Juni 2017, 31 Desember 2016, 2015 dan 2014, RPU telah memenuhi syarat dan kondisi pinjaman yang ditetapkan bank.

On October 3, 2012, this term facility has been amended. Based on the amendment, the Company is required to maintain the following financial ratios:

a. Interest Service Coverage Ratio shall be greater than 1.75: 1.

b. Total Debt to Capitalization Ratio shall not exceed:

   i. 40% at any time prior to the first final investment decision date in relation to expansion project.

   ii. 50% for the period from and after the final investment decision date in relation to expansion project until December 31, 2015.

   iii. 45% for the period after December 31, 2015.

The Amendment also changed certain percentage on annual interest rate, commencing from October 10, 2012.

In November 2015, the Company fully paid the principal term loan amounting to US$ 94,980 thousand from the proceeds of a new term loan.

PT Bank Central Asia Tbk

On August 29, 2014, RPU obtained Rp 30 billion Investment Credit Facility from PT Bank Central Asia Tbk. The facility has period time of 3 years with grace period of 12 months. Annual interest rate for this loan is 11.25%.

Proceeds from this facility were utilized to finance the construction of 11 units new storage tank in Jl. Merak, Bojonegara, Serang.

The facility is secured by 1 unit storage terminal including land and building located in Jl. Merak, Serang.

RPU is required to maintain the following financial ratios:

- EBITDA/(Interest+Principal) Ratio shall be minimum 1 time.
- Debt to Equity Ratio shall be maximum 1 time.

Loan repayments are made on a monthly basis for 2 years proportionally.

As of June 30, 2017, December 31, 2016, 2015 and 2014, RPU is in compliance with the terms and conditions of the loans set by the bank.

17. UTANG OBLIGASI

17. BONDS PAYABLE

Pada tanggal 22 Desember 2016, Perusahaan melakukan penawaran umum atas obligasi dengan menerbitkan Obligasi Seri A dengan jumlah pokok sebesar Rp 361.400 juta dan Obligasi Seri B dengan jumlah pokok sebesar Rp 138.600 juta.

On December 22, 2016, the Company made a bonds public offering with issuance of Series A Bonds with total principal amounting to Rp 361,400 million and Series B Bonds with total principal amounting to Rp 138,600 million.

	30 Juni/ *June 30,* 2017 US$ '000	31 Desember/ *December 31,* 2016 US$ '000	
Seri A	27.112	27.112	Series A
Seri B	10.398	10.398	Series B
Jumlah	37.510	37.510	Total
Biaya perolehan pinjaman yang belum diamortisasi	(802)	(916)	Unamortized transaction costs
Bersih	36.708	36.594	Net

Biaya perolehan diamortisasi utang obligasi masing-masing adalah US$ 36.821 ribu dan US$ 36.697 ribu masing-masing pada 30 Juni 2017 dan 31 Desember 2016.

The amortized cost of the bonds payable are US$ 36,821 thousand and US$ 36,697 thousand at June 30, 2017 and December 31, 2016, respectively.

PT Kustodian Sentral Efek Indonesia sebagai agen pembayaran, PT Bank Tabungan Negara (Persero) Tbk sebagai wali amanat, PT DBS Vickers Securities Indonesia, PT Mandiri Sekuritas dan PT BCA Sekuritas sebagai Penjamin Emisi dan Pelaksana Efek.

PT Kustodian Sentral Efek Indonesia acts as payment agent facility, PT Bank Tabungan Negara (Persero) Tbk acts as trustee agent, PT DBS Vickers Securities Indonesia, PT Mandiri Sekuritas and PT BCA Sekuritas act as underwriters and arrangers.

Dana yang diperoleh dari pinjaman digunakan untuk melakukan pelunasan pinjaman jangka panjang.

Proceeeds from bonds were utilized to partially refinance the outstanding long-term loan.

Pinjaman ini dijamin antara lain dengan 11 bidang tanah di Desa Gunung Sugih dan seluruh mesin yang dimiliki oleh PT Petrokimia Butadiene Indonesia.

The facility is secured by, among others, 11 Land Mortgages at Desa Gunung Sugih and all machines owned by PT Petrokimia Butadiene Indonesia.

Perjanjian ini mencakup persyaratan tertentu yang membatasi Perusahaan dan entitas anak untuk tidak melakukan hal-hal tertentu yang tercantum dalam perjanjian.

The agreement contains certain covenants that restrict the Company and its subsidiaries in performing certain acts as stated in the agreement.

Secara bersamaan, Perusahaan juga telah melakukan perjanjian swap suku bunga dan mata uang atas obligasi tersebut dari Rupiah menjadi Dolar Amerika Serikat setiap tanggal pembayaran bunga dan pokok.

Simultaneously the Company has entered into cross currency-interest swap to fix the interest rate and currency of the obligation from Rupiah to United States Dollar on every interest and principal payment date.

Pelunasan pinjaman Obligasi Seri A dan Obligasi Seri B masing-masing akan dilakukan pada 22 Desember 2019 dan 22 Desember 2021.

Bonds obligation repayments of Series A and Series B are due on December 22, 2019 and December 22, 2021, respectively.

Tingkat bunga per tahun untuk Obligasi Seri A dan Obligasi Seri B masing-masing sebesar 10,8% dan 11,3% yang dibayarkan setiap triwulan.

Annual interest rates of Series A and Series B Bonds obligation are 10.8% and 11.3%, respectively that are paid on a quarterly basis.

Perusahaan diwajibkan untuk memelihara rasio sebagai berikut:

- Rasio total utang konsolidasian yang dikenakan bunga dan Ekuitas tidak lebih dari 1:1.
- Rasio Arus Kas dari Operasi dan beban keuangan harus melebihi dari 1,75:1.

The Company is required to maintain the following financial ratios:

- Ratio of consolidated bearing liabilities and Equity shall not exceed 1:1.
- Ratio of cash flow from operating activities and financial charges shall exceed 1.75:1.

Pada tanggal 30 Juni 2017 dan 31 Desember 2016, Grup telah memenuhi syarat dan kondisi yang ditetapkan obligasi tersebut.

Obligasi ini telah memperoleh hasil pemeringkatan "A+" dari PT Pemeringkat Efek Indonesia (PEFINDO) pada tanggal 31 Desember 2016.

18. IMBALAN PASCA KERJA

a. Program Pensiun Iuran Pasti

Perusahaan dan SMI menyelenggarakan Program Pensiun Iuran Pasti untuk seluruh karyawan tetap yang dikelola oleh PT Asuransi Jiwa Manulife Indonesia, Dana Pensiun Lembaga Keuangan. Iuran ini berasal dari 4% gaji pokok yang dibayarkan karyawan, sedangkan sisanya sebesar 7,5% dibayarkan oleh Perusahaan dan SMI untuk gaji pokok maksimum Rp 5.000 ribu per bulan.

Akumulasi iuran pensiun Grup yang timbul dari Program Pensiun Iuran Pasti adalah sebesar US$ 2.435 ribu, US$ 2.337 ribu, US$ 2.030 ribu dan US$ 2.048 ribu pada 30 Juni 2017, 31 Desember 2016, 2015 dan 2014.

b. Program Pensiun Imbalan Pasti

Grup menghitung dan membukukan imbalan pasca kerja imbalan pasti untuk karyawan yang berhak sesuai dengan Undang-Undang Ketenagakerjaan No. 13/2003 tanggal 25 Maret 2003. Jumlah karyawan yang berhak atas imbalan pasca kerja tersebut masing-masing 1.693, 1.681, 1.600 dan 1.558 karyawan pada tanggal 30 Juni 2017, 31 Desember 2016, 2015 dan 2014.

Sejak tahun 2005, Perusahaan mengikuti Program Pesangon Plus, yang dikelola oleh PT Asuransi Jiwa Manulife Indonesia sebagai asuransi jiwa bagi karyawannya. Tidak terdapat kontribusi yang dibayarkan oleh Perusahaan kepada dana pensiun pada 30 Juni 2017, 31 Desember 2016, 2015 dan 2014.

Program pensiun imbalan pasti memberikan eksposur Grup terhadap risiko aktuarial seperti risiko tingkat bunga, risiko harapan hidup dan risiko gaji.

Risiko Tingkat Bunga

Penurunan suku bunga obligasi akan meningkatkan liabilitas program; namun, sebagian akan dioffset (saling hapus) oleh peningkatan imbal hasil atas investasi instrumen utang.

As of June 30, 2017 and December 31, 2016, the Group is in compliance with the terms and conditions of the bonds payable.

The bonds obtained a bond rating of "A+" from PT Pemeringkat Efek Indonesia (PEFINDO) as of December 31, 2016.

18. POST-EMPLOYMENT BENEFITS

a. Contributory Pension Plan

The Company and SMI provide contributory pension plan for all of their permanent employees, which is managed by PT Asuransi Jiwa Manulife Indonesia, Trustee-Administrated Fund. Contribution to the pension plan consists of a payment of 4% of basic salary paid by the employee, and 7.5% contributed by the Company and SMI for the maximum basic salary of Rp 5,000 thousand per month.

The Group's accumulated pension expense arising from the Contributory Pension Plan amounted to US$ 2,435 thousand, US$ 2,337 thousand, US$ 2,030 thousand and US$ 2,048 thousand of June 30, 2017, December 31, 2016, 2015 and 2014, respectively.

b. Defined Benefit Pension Plan

The Group calculates and records estimated defined post-employment benefits for its qualifying employees in accordance with Labor Law No. 13/2003 dated March 25, 2003. The number of employees entitled to the benefits is 1,693, 1,681, 1,600 and 1,558 employees as of June 30, 2017, December 31, 2016, 2015 and 2014, respectively.

Since 2005, the Company entered into *Program Pesangon Plus,* managed by PT Asuransi Jiwa Manulife Indonesia, as the life insurance for its employees. No contribution was paid by the Company to pension fund as of June 30, 2017, December 31, 2016, 2015 and 2014.

The defined benefit pension plan typically expose the Group to actuarial risks such as: interest rate risk, longevity risk and salary risk.

Interest Risk

A decrease in the bond interest rate will increase the plan liability; however, this will be partially offset by an increase in the return on the plan's debt investments.

Risiko Harapan Hidup

Nilai kini kewajiban imbalan pasti dihitung dengan mengacu pada estimasi terbaik dari mortalitas peserta program baik selama dan setelah kontrak kerja. Peningkatan harapan hidup peserta program akan meningkatkan liabilitas program.

Longevity Risk

The present value of the defined benefit plan liability is calculated by reference to the best estimate of the mortality of plan participants both during and after their employment. An increase in the life expectancy of the plan participants will increase the plan's liability.

Risiko Gaji

Nilai kini kewajiban imbalan pasti dihitung dengan mengacu pada gaji masa depan peserta program. Dengan demikian, kenaikan gaji peserta program akan meningkatkan liabilitas program itu.

Salary Risk

The present value of the defined benefit plan liability is calculated by reference to the future salaries of plan participants. As such, an increase in the salary of the plan participants will increase the plan's liability.

Beban imbalan pasca kerja yang diakui di laba rugi komprehensif adalah sebagai berikut:

Amounts recognized in comprehensive income in respect of the defined benefit plan are as follows:

	2017 (Enam bulan/ *Six months*)	2016 (Enam bulan/ *Six months*)	2016 (Satu tahun/ *One year*)	2015 (Satu tahun/ *One year*)	2014 (Satu tahun/ *One year*)	
	US$'000	US$'000	US$'000	US$'000	US$'000	
Biaya jasa:						Service cost:
Biaya jasa kini	1.083	758	1.526	1.472	1.503	Current service costs
Biaya bunga - bersih	1.078	930	1.880	1.442	1.566	Interest costs - net
Komponen dari biaya imbalan pasti yang diakui dalam laba rugi	2.161	1.688	3.406	2.914	3.069	Components of defined benefit costs recognised in profit or loss
Pengukuran kembali liabilitas imbalan pasti - neto:						Remeasurement on the net defined benefit liability:
Keuntungan dan kerugian aktuarial yang timbul dari perubahan asumsi keuangan	2.235	2.935	2.326	(393)	2.610	Actuarial gains and losses arising from changes in financial assumptions
Komponen beban imbalan pasti yang diakui dalam penghasilan komprehensif lain	2.235	2.935	2.326	(393)	2.610	Components of defined benefit costs recognised in other comprehensive income
Jumlah	4.396	4.623	5.732	2.521	5.679	Total

Beban dicatat sebagai bagian dari beban gaji, tunjangan dan kesejahteraan karyawan, pada beban umum dan administrasi.

Expense are included in salaries, allowances, and employee benefits expenses, under the general and administrative expenses.

Mutasi nilai kini kewajiban imbalan pasti adalah sebagai berikut:

Movements in the present value of the defined benefits obligation are as follows:

	30 Juni/ *June 30,* 2017	31 Desember/*December 31,* 2016	2015	2014	
	US$ '000	US$ '000	US$ '000	US$ '000	
Kewajiban imbalan pasti - awal	28.139	22.426	23.001	18.790	Opening defined benefit obligation
Biaya jasa kini	1.083	1.526	1.472	1.503	Current service costs
Biaya bunga	1.120	1.966	1.518	1.643	Interest costs
Pengukuran kembali (keuntungan/kerugian):					Remeasurement (gains/losses):
Keuntungan dan kerugian aktuarial yang timbul dari perubahan asumsi keuangan	2.293	2.419	(393)	2.610	Actuarial gains and losses arising from changes in financial assumptions
Hak penggantian bersih	-	-	-	105	Reimbursement rights
Pembayaran manfaat	(537)	(653)	(905)	(946)	Benefits paid
Selisih kurs atas program dalam valuta asing	99	455	(2.267)	(704)	Exchange differences on foreign plans
Kewajiban imbalan pasti - akhir	32.197	28.139	22.426	23.001	Closing defined benefits obligation

Mutasi nilai wajar hak penggantian adalah sebagai berikut:

Movement in fair value of reimbursement right were as follow:

	2017 (Enam bulan/ *Six months*) US$'000	2016 (Satu tahun/ *One year*) US$'000	2015 (Satu tahun/ *One year*) US$'000	2014 (Satu tahun/ *One year*) US$'000	
Saldo awal	1.035	918	1.018	937	Beginning balance
Pendapatan dari hak penggantian	42	86	76	77	Interest income on reimbursement right
Pengembalian atas hak penggantian	16	7	(76)	28	Return on reimbursement right
Pengaruh perubahan kurs mata uang asing	9	24	(100)	(24)	Effect of foreign exchange
Saldo akhir	1.102	1.035	918	1.018	Ending balance

Hak penggantian terdiri atas investasi yang 40% ditempatkan pada pasar uang, 20% ditempatkan pada efek ekuitas dan 40% ditempatkan pada pendapatan tetap. Hak penggantian disajikan sebagai bagian dari aset tidak lancar lainnya.

The reimbursement right consists of investment which 40% are placed on money market, 20% on equity securities and 40% on fixed income. The reimbursement right presented as part of other noncurrent assets.

Perhitungan imbalan pasca kerja dihitung oleh aktuaris independen, PT Milliman Indonesia dan PT Dian Artha Tama pada tanggal 30 Juni 2017, 31 Desember 2016, 2015 dan 2014. Penilaian aktuaria dilakukan dengan mengunakan asumsi utama sebagai berikut:

The post-employment benefits are calculated by independent actuaries, PT Milliman Indonesia and PT Dian Artha Tama as of June 30, 2017, December 31, 2016, 2015 and 2014. The actuarial valuation was carried out using the following key assumptions:

	30 Juni/ *June 30,* 2017	31 Desember/*December 31,* 2016	2015	2014	
Tingkat diskonto per tahun	7,0%	8,0%	9,0%	8,0%	Discount rate per annum
Tingkat kenaikan gaji per tahun	7,0%	7,0%	7,0%	7% - 10%	Salary increment rate per annum
Tingkat kematian	TMI III & CSO 1980	TMI III & CSO 1980	TMI III & CSO 1980	TMI III & CSO 1980	Mortality rate
Tingkat cacat	10%	10%	10%	10%	Disability rate
Tingkat pengunduran diri	10%	10%	10%	10%	Resignation rate
Usia pensiun normal	56 tahun/*years*	56 tahun/*years*	56 tahun/*years*	55 tahun/*years*	Normal retirement age

Asumsi aktuarial yang signifikan untuk penentuan kewajiban imbalan pasti adalah tingkat diskonto, kenaikan gaji yang diharapkan dan mortalitas. Sensitivitas analisis di bawah ini ditentukan berdasarkan masing-masing perubahan asumsi yang mungkin terjadi pada akhir periode pelaporan, dengan semua asumsi lain konstan:

- Jika tingkat diskonto lebih tinggi (lebih rendah) 1%, kewajiban imbalan pasti akan berkurang sebesar US$ 2.506 ribu (meningkat sebesar US$ 2.780 ribu).
- Jika pertumbuhan gaji yang diharapkan naik (turun) sebesar 1%, kewajiban imbalan pasti akan naik sebesar US$ 3.253 ribu (turun sebesar US$ 2.959 ribu).
- Jika harapan hidup meningkat (turun) sebesar 1% dalam satu tahun untuk pria dan wanita, kewajiban imbalan pasti akan turun sebesar US$ 64 ribu (meningkat sebesar US$ 13 ribu).

Significant actuarial assumptions for the determination of the defined obligation are discount rate, expected salary increase and mortality. The sensitivity analyses below have been determined based on reasonably possible changes of the respective assumptions occurring at the end of the reporting period, while holding all other assumptions constant:

- If the discount rate is 1% basis points higher (lower), the defined benefit obligation would decrease by US$ 2,506 thousand (increase by US$ 2,780 thousand).
- If the expected salary growth increases (decreases) by 1%, the defined benefit obligation would increase by US$ 3,253 thousand (decrease by US$ 2,959 thousand).
- If the life expectancy increases (decreases) by 1% in one year for both men and women, the defined benefit obligation would decrease by US$ 64 thousand (increase by US$ 13 thousand).

Analisis sensitivitas yang disajikan di atas mungkin tidak mewakili perubahan yang sebenarnya dalam kewajiban imbalan pasti mengingat bahwa perubahan asumsi terjadinya tidak terisolasi satu sama lain karena beberapa asumsi tersebut mungkin berkorelasi.

The sensitivity analysis presented above may not be representative of the actual change in the defined benefit obligation as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

Selanjutnya, dalam menyajikan analisis sensitivitas di atas, nilai kini kewajiban imbalan pasti dihitung dengan menggunakan metode *projected unit credit* pada akhir periode pelaporan, yang sama dengan yang diterapkan dalam menghitung liabilitas manfaat pasti yang diakui dalam laporan posisi keuangan konsolidasian.

Furthermore, in presenting the above sensitivity analysis, the present value of the defined benefit obligation has been calculated using the projected unit credit method at the end of the reporting period, which is the same as that applied in calculating the defined benefit obligation recognised in the consolidated statements of financial position.

Tidak ada perubahan dalam metode dan asumsi yang digunakan dalam penyusunan analisis sensitivitas dari periode sebelumnya.

There was no change in the methods and assumptions used in preparing the sensitivity analysis from prior periods.

Durasi rata-rata dari kewajiban imbalan pada tanggal 30 Juni 2017 adalah 9,1 tahun, yang sepenuhnya terdiri dari anggota aktif.

The average duration of the defined benefits obligation at June 30, 2017 is 9.1 years, that consists of active members.

19. MODAL SAHAM

19. CAPITAL STOCK

Sesuai dengan daftar pemegang saham yang dikeluarkan oleh Biro Administrasi Efek (PT Raya Saham Registra), susunan pemegang saham Perusahaan adalah sebagai berikut:

Based on the stockholders list issued by the Share Registrar (PT Raya Saham Registra), the stockholders of the Company are as follows:

	30 Juni/*June 30,* 2017		
Nama Pemegang Saham/ *Name of Stockholders*	Jumlah Saham/ *Number of Shares*	Persentase Kepemilikan/ *Percentage of Ownership*	Jumlah Modal Ditempatkan dan Disetor Penuh/ *Total Issued and Fully Paid Capital*
		%	US$ '000
PT Barito Pacific Tbk	1.480.383.520	45,04%	162.132
SCG Chemicals Co., Ltd	1.004.825.959	30,57%	110.049
Prajogo Pangestu	503.339.869	15,31%	55.132
Marigold Resources Pte Ltd.	169.362.186	5,15%	18.549
Henry Halim	1.824.500	0,06%	200
Erwin Ciputra	1.801.000	0,05%	197
Lim Chong Thian	26.500	0,00%	3
Masyarakat (masing-masing dibawah 5%)/ *Public (each below 5%)*	125.399.024	3,82%	13.727
Jumlah/*Total*	3.286.962.558	100,00%	359.989

	31 Desember/*December 31,* 2016		
Nama Pemegang Saham/ *Name of Stockholders*	Jumlah Saham/ *Number of Shares*	Persentase Kepemilikan/ *Percentage of Ownership*	Jumlah Modal Ditempatkan dan Disetor Penuh/ *Total Issued and Fully Paid Capital*
		%	US$ '000
PT Barito Pacific Tbk	1.480.383.520	45,04%	162.132
SCG Chemicals Co., Ltd	1.004.825.959	30,57%	110.049
Magna Resources Pte Ltd	493.662.636	15,02%	54.066
Marigold Resources Pte Ltd.	169.362.186	5,15%	18.549
Prajogo Pangestu	30.258.550	0,92%	3.314
Erwin Ciputra	1.880.700	0,06%	206
Henry Halim	1.824.500	0,06%	200
Lim Chong Thian	26.500	0,00%	3
Masyarakat (masing-masing dibawah 5%)/ *Public (each below 5%)*	104.738.007	3,18%	11.470
Jumlah/*Total*	3.286.962.558	100,00%	359.989

	31 Desember/*December 31,* 2015		
Nama Pemegang Saham/ *Name of Stockholders*	Jumlah Saham/ *Number of Shares*	Persentase Kepemilikan/ *Percentage of Ownership*	Jumlah Modal Ditempatkan dan Disetor Penuh/ *Total Issued and Fully Paid Capital*
		%	US$ '000
PT Barito Pacific Tbk	1.480.383.520	45,04%	162.132
SCG Chemicals Co., Ltd	1.004.825.959	30,57%	110.049
Magna Resources Pte Ltd	493.662.636	15,02%	54.066
Marigold Resources Pte Ltd.	169.362.186	5,15%	18.549
Prajogo Pangestu	30.258.550	0,92%	3.314
Erwin Ciputra	1.885.400	0,06%	206
Henry Halim	1.824.500	0,06%	200
Paramate Nisagornsen	30.000	0,00%	3
Lim Chong Thian	26.500	0,00%	3
Masyarakat (masing-masing dibawah 5%)/ *Public (each below 5%)*	104.703.307	3,18%	11.467
Jumlah/*Total*	3.286.962.558	100,00%	359.989

	31 Desember/*December 31,* 2014		
Nama Pemegang Saham/ *Name of Stockholders*	Jumlah Saham/ *Number of Shares*	Persentase Kepemilikan/ *Percentage of Ownership*	Jumlah Modal Ditempatkan dan Disetor Penuh/ *Total Issued and Fully Paid Capital*
		%	US$ '000
PT Barito Pacific Tbk	1.819.769.755	55,36%	199.302
SCG Chemicals Co., Ltd	1.003.486.969	30,53%	109.902
Marigold Resources Pte Ltd.	169.362.186	5,15%	18.549
Magna Resources Pte Ltd	154.276.401	4,69%	16.896
Prajogo Pangestu	30.258.550	0,92%	3.314
Henry Halim	1.824.500	0,06%	200
Erwin Ciputra	1.648.100	0,05%	181
Raymond Budhin	175.200	0,01%	19
Paramate Nisagornsen	30.000	0,00%	3
Lim Chong Thian	26.500	0,00%	3
Masyarakat (masing-masing dibawah 5%)/ *Public (each below 5%)*	106.104.397	3,23%	11.620
Jumlah/*Total*	3.286.962.558	100,00%	359.989

Pada Rapat Umum Pemegang Saham Tahunan Perusahaan (RUPST) yang diadakan pada tanggal 2 Mei 2017, disetujui pembentukan cadangan umum sebesar US$ 6.000 ribu dan pembagian dividen tunai untuk tahun 2016 sebesar US$ 150.000 ribu atau US$ 0,03562 per lembar saham dimana sebesar US$ 32.934 ribu telah dibagikan sebagai dividen interim tunai berdasarkan Keputusan Dewan Komisaris No. 005/LGL/BOC RES/VIII/2016 tanggal 26 Agustus 2016, serta persetujuan untuk menerbitkan dan menawarkan saham baru dengan Hak Memesan Efek Terlebih Dahulu.

At the Annual General Meeting of Stockholders of the Company held the May 2, 2017, the stockholders approved the appropriation of general reserve amounting to US$ 6,000 thousand and the distribution of cash dividends for 2016 amounting to US$ 150,000 thousand or US$ 0.03562 per share, of which US$ 32,934 thousand was distributed as interim cash dividends based on Board of Commissioner Circular Resolution No. 005/LGL/BOC RES/VIII/2016 dated August 26, 2016, and approved to issue and offer new shares with Preemptive Rights.

Pada Rapat Umum Pemegang Saham Tahunan Perusahaan (RUPST) yang diadakan pada tanggal 6 Juni 2016, disetujui pembagian dividen tunai untuk tahun 2015 sebesar US$ 10.500 ribu atau US$ 0,00319 per lembar saham dan pembentukan cadangan umum sebesar US$ 1.400 ribu.

At the Annual General Meeting of Stockholders of the Company held on June 6, 2016, the stockholders approved the distribution of cash dividends for year 2015 amounting to US$ 10,500 thousand or US$ 0.00319 per share and appropriation of general reserve amounting to US$ 1,400 thousand.

Pada Rapat Umum Pemegang Saham Tahunan Perusahaan (RUPST) yang diadakan pada tanggal 8 Juni 2015, disetujui pembagian dividen tunai untuk tahun 2014 sebesar US$ 4.500 ribu atau US$ 0,00137 per lembar saham dan pembentukan cadangan umum sebesar US$ 900 ribu.

At the Annual General Meeting of Stockholders of the Company held on June 8, 2015, the stockholders approved the distribution of cash dividends for year 2014 amounting to US$ 4,500 thousand or US$ 0.00137 per share and appropriation of general reserve amounting to US$ 900 thousand.

Rapat Umum Pemegang Saham Tahunan Perusahaan (RUPST) yang diadakan pada tanggal 2 Juni 2014, disetujui pembagian dividen tunai untuk tahun 2013 sebesar US$ 2.600 ribu atau US$ 0,00079 per lembar saham dan pembentukan cadangan umum sebesar US$ 800 ribu.

The Annual General Meeting of Stockholders of the Company held on June 2, 2014, the stockholders approved the distribution of cash dividends for year 2013 amounting to US$ 2,600 thousand or US$ 0.00079 per share and appropriation of general reserve amounting to US$ 800 thousand.

20. TAMBAHAN MODAL DISETOR

20. ADDITIONAL PAID-IN CAPITAL

Saldo tambahan modal disetor terdiri atas:

The balance of additional paid-in capital consist of the following:

	US$ '000	
Agio saham dari penawaran umum terbatas I dengan HMETD sebesar 220.766.142 saham biasa dengan nilai nominal Rp 1.000 per saham dan harga penawaran Rp 6.750 per saham	109.018	Additional paid-in capital from Limited Public Offering I of 220,766,142 shares through Rights Issue with preemptive rights with par value of Rp 1,000 per share, at an offering price of Rp 6,750 per share
Dikurangi biaya emisi saham	(343)	Less stock issuance costs
Bersih	108.675	Net

21. PENGHASILAN KOMPREHENSIF LAIN

21. OTHER COMPREHENSIVE INCOME

Akun ini merupakan penjabaran mata uang asing akibat selisih kurs yang timbul atas penjabaran aset bersih RPU dan pengukuran kembali liabilitas imbalan pasti beserta pajak tangguhan atas liabilitas imbalan pasti tersebut.

This account pertains to foreign currency translation due to the exchange difference arising from translating the net assets of RPU and measurement of defined benefits obligation with deferred tax of such defined benefits obligation.

22. KEPENTINGAN NONPENGENDALI

22. NON-CONTROLLING INTERESTS

	30 Juni/ *June 30,* 2017	31 Desember/*December 31,* 2016	2015	2014	
	US$'000	US$'000	US$'000	US$'000	
Kepentingan nonpengendali pada aset bersih entitas anak PT Redeco Petrolin Utama	6.600	6.670	6.742	7.574	Non-controlling interest on net assets of subsidiary, PT Redeco Petrolin Utama

	2017 (Enam bulan/ *Six months*)	2016 (Enam bulan/ *Six months*)	2016 (Satu tahun/ *One year*)	2015 (Satu tahun/ *One year*)	2014 (Satu tahun/ *One year*)	
	US$'000	US$'000	US$'000	US$'000	US$'000	
Kepentingan nonpengendali laba atau rugi entitas anak, PT Redeco Petrolin Utama	166	16	109	(81)	195	Non-controlling interest on profit or loss of subsidiary, PT Redeco Petrolin Utama

23. PENDAPATAN BERSIH / 23. NET REVENUES

	2017 (Enam bulan/ *Six months*) US$'000	2016 (Enam bulan/ *Six months*) US$'000	2016 (Satu tahun/ *One year*) US$'000	2015 (Satu tahun/ *One year*) US$'000	2014 (Satu tahun/ *One year*) US$'000	
Penjualan						Sales
Penjualan lokal						Local sales
Polyolefin	452.933	431.553	848.084	855.517	1.277.628	Polyolefin
Olefin	223.267	145.473	354.415	83.706	303.804	Olefin
Styrene monomer	110.135	98.735	199.115	189.652	273.402	Styrene monomer
Butadiene	17.659	11.365	27.603	14.249	42.402	Butadiene
Jumlah penjualan lokal	803.994	687.126	1.429.217	1.143.124	1.897.236	Total local sales
Penjualan luar negeri						Export sales
Olefin	147.097	104.197	255.384	87.383	210.533	Olefin
Butadiene	129.745	52.673	111.743	63.685	176.483	Butadiene
Styrene monomer	106.498	32.663	90.125	66.109	145.447	Styrene monomer
Polyolefin	2.992	499	36.566	13.446	25.218	Polyolefin
Jumlah penjualan luar negeri	386.332	190.032	493.818	230.623	557.681	Total export sales
Jumlah Penjualan	1.190.326	877.158	1.923.035	1.373.747	2.454.917	Total Sales
Sewa tangki dan dermaga	4.974	4.951	7.301	3.826	5.134	Tanks and jetty rent
Jumlah Pendapatan Bersih	1.195.300	882.109	1.930.336	1.377.573	2.460.051	Net Revenues

6,22%, 3,80%, 3,74%, 4,09% dan 6,46% dari pendapatan bersih untuk periode enam bulan yang berakhir 30 Juni 2017 dan 2016 dan tahun-tahun yang berakhir 31 Desember 2016, 2015 dan 2014 dilakukan dengan pihak berelasi (Catatan 31).

6.22%, 3.80%, 3.74%, 4.09% and 6.46% of net revenues for the six-month periods ended June 30, 2017 and 2016 and for the years ended December 31, 2016, 2015 and 2014, respectively, were made with related parties (Note 31).

Tidak terdapat pendapatan kepada satu pelanggan yang melebihi 10% dari pendapatan bersih.

No sales were made to any customers exceeding 10% of net revenues.

24. BEBAN POKOK PENDAPATAN / 24. COST OF REVENUES

	2017 (Enam bulan/ *Six months*) US$'000	2016 (Enam bulan/ *Six months*) US$'000	2016 (Satu tahun/ *One year*) US$'000	2015 (Satu tahun/ *One year*) US$'000	2014 (Satu tahun/ *One year*) US$'000	
Bahan baku						Raw materials
Awal periode	72.900	69.408	69.408	97.322	121.670	At beginning period
Pembelian bahan baku	691.161	450.505	1.018.467	673.450	1.701.124	Purchasess of raw materials
Akhir periode	(84.097)	(87.267)	(72.900)	(69.408)	(97.322)	At end of period
Bahan baku yang digunakan	679.964	432.646	1.014.975	701.364	1.725.472	Raw materials used
Tenaga kerja langsung	27.194	13.021	34.154	27.435	29.874	Direct labour
Biaya pabrikasi	141.368	150.528	272.799	216.175	262.694	Factory overhead
Jumlah Biaya Produksi	848.526	596.195	1.321.928	944.974	2.018.040	Total Manufacturing Costs
Barang dalam proses						Work in process
Awal periode	12.566	10.854	10.854	15.312	10.897	At beginning period
Akhir periode	(8.004)	(9.044)	(12.566)	(10.854)	(15.312)	At end of period
Biaya Pokok Produksi	853.088	598.005	1.320.216	949.432	2.013.625	Cost of Goods Manufactured
Barang jadi						Finished goods
Awal periode	70.234	57.959	57.959	66.655	116.217	At beginning period
Pembelian barang jadi	57.137	56.143	125.817	271.656	277.126	Purchases of finished goods
Akhir periode	(78.770)	(53.207)	(70.234)	(57.959)	(66.655)	At end of period
Jumlah Beban Pokok Penjualan	901.689	658.900	1.433.758	1.229.784	2.340.313	Total Cost of Goods Sold
Beban Jasa	1.378	5.244	2.260	2.060	2.274	Cost of Service
Jumlah Beban Pokok Pendapatan	903.067	664.144	1.436.018	1.231.844	2.342.587	Total Cost of Revenues

6,65% dari jumlah pembelian bahan baku untuk periode enam bulan yang berakhir 30 Juni 2017 dilakukan dengan pihak berelasi (Catatan 31).

6.65% of the total purchases of raw materials, for the six-month period ended June 30, 2017 were made with related parties (Note 31).

13,94% dan 1,08% dari jumlah pembelian bahan baku dan barang jadi untuk periode enam bulan yang berakhir 30 Juni 2016 dilakukan dengan pihak berelasi (Catatan 31).

13.94% and 1.08% of the total purchases of raw materials and finished goods, respectively, for the six-month period ended June 30, 2016 were made with related parties (Note 31).

13,34% dan 3,23% dari jumlah pembelian bahan baku dan barang jadi untuk tahun yang berakhir 31 Desember 2016 dilakukan dengan pihak berelasi (Catatan 31).

13.34% and 3.23% of the total purchases of raw materials and finished goods, respectively, for the year ended December 31, 2016 were made with related parties (Note 31).

29,58% dan 9,25% dari jumlah pembelian bahan baku dan barang jadi untuk tahun yang berakhir 31 Desember 2015 dilakukan dengan pihak berelasi (Catatan 31).

29.58% and 9.25% of the total purchases of raw materials and finished goods, respectively, for the year ended December 31, 2015 were made with related parties (Note 31).

40,19% dan 2,26% dari jumlah pembelian bahan baku dan barang jadi untuk tahun yang berakhir 31 Desember 2014 dilakukan dengan pihak berelasi (Catatan 31).

40.19% and 2.26% of the total purchases of raw materials and finished goods, respectively, for the year ended December 31, 2014 were made with related parties (Note 31).

Rincian pembelian bahan baku dan barang jadi yang melebihi 10% dari pendapatan bersih untuk periode enam bulan yang berakhir 30 Juni 2017 dan 2016 dan tahun yang berakhir 31 Desember 2016, 2015 dan 2014 adalah sebagai berikut:

Purchases of raw materials and finished goods from suppliers which represent more than 10% of the net revenues for the six-month periods ended June 30, 2017 and 2016 and the year ended December 31, 2016, 2015 and 2014 are as follow:

	2017 (Enam bulan/ *Six months)* US$ '000	
Vitol Asia Pte., Ltd.	174.946	Vitol Asia Pte., Ltd.

	2016 (Enam bulan/ *Six months)* US$ '000	2016 (Satu tahun/ *One year)* US$ '000	
Vitol Asia Pte., Ltd.	151.101	304.163	Vitol Asia Pte., Ltd.
Marubeni Petroleum Co., Ltd.	124.698	237.455	Marubeni Petroleum Co., Ltd.
Jumlah	275.799	541.618	Total

	2015 (Satu tahun/ *One year)* US$ '000	
SCG Chemicals Co., Ltd.	224.359	SCG Chemicals Co., Ltd.
Marubeni Petroleum Co., Ltd.	183.635	Marubeni Petroleum Co., Ltd.
Jumlah	407.994	Total

	2014 (Satu tahun/ *One year*) US$ '000	
SCG Chemicals Co., Ltd.	690.016	SCG Chemicals Co., Ltd.
Marubeni Petroleum Co., Ltd.	381.402	Marubeni Petroleum Co., Ltd.
Pertamina	284.135	Pertamina
Jumlah	1.355.553	Total

25. BEBAN PENJUALAN / 25. SELLING EXPENSES

	2017 (Enam bulan/ *Six months*) US$'000	2016 (Enam bulan/ *Six months*) US$'000	2016 (Satu tahun/ *One year*) US$'000	2015 (Satu tahun/ *One year*) US$'000	2014 (Satu tahun/ *One year*) US$'000	
Pengangkutan dan asuransi	17.743	19.964	38.740	39.111	39.919	Freight and insurance
Gaji dan tunjangan	1.916	967	1.759	1.296	1.158	Salaries and allowances
Penyusutan (Catatan 12)	454	320	639	369	239	Depreciation (Note 12)
Lain-lain	527	591	1.486	899	1.223	Others
Jumlah	20.640	21.842	42.624	41.675	42.539	Total

26. BEBAN UMUM DAN ADMINISTRASI / 26. GENERAL AND ADMINISTRATIVE EXPENSES

	2017 (Enam bulan/ *Six months*) US$'000	2016 (Enam bulan/ *Six months*) US$'000	2016 (Satu tahun/ *One year*) US$'000	2015 (Satu tahun/ *One year*) US$'000	2014 (Satu tahun/ *One year*) US$'000	
Gaji, tunjangan dan kesejahteraan karyawan	17.967	11.098	18.918	16.720	17.398	Salaries, allowances and employee benefits
Jasa profesional	987	850	1.064	1.134	1.646	Professional fees
Penyusutan (Catatan 12)	337	393	716	1.185	1.085	Depreciation (Note 12)
Lain-lain	4.036	3.395	7.206	5.793	4.609	Others
Jumlah	23.327	15.736	27.904	24.832	24.738	Total

27. BEBAN KEUANGAN / 27. FINANCE COSTS

	2017 (Enam bulan/ *Six months*) US$'000	2016 (Enam bulan/ *Six months*) US$'000	2016 (Satu tahun/ *One year*) US$'000	2015 (Satu tahun/ *One year*) US$'000	2014 (Satu tahun/ *One year*) US$'000	
Beban bunga dari:						Interest expense on:
Utang bank	11.929	9.536	25.433	13.837	23.875	Bank loans
Utang obligasi	2.178	-	108	-	-	Bonds payable
Lain-lain	94	1.696	1.006	1.579	1.109	Others
Jumlah bunga atas liabilitas keuangan yang tidak diklasifikasikan sebagai FVTPL	14.201	11.232	26.547	15.416	24.984	Total interest on financial liabilities not classified as at FVTPL
Provisi bank	2.719	1.408	3.604	5.545	5.756	Bank charges
Pajak atas beban bunga	563	1.576	1.736	1.576	1.202	Tax on interest expense
Jumlah	17.483	14.216	31.887	22.537	31.942	Total

Penyelesaian neto atas bunga liabilitas keuangan FVTPL disajikan sebagai bagian dari "keuntungan (kerugian) atas instrumen keuangan derivatif".

Net settlement of interest on financial liabilities classified as at FVTPL is presented as part of "gain (loss) on derivative financial instruments".

28. MANFAAT (BEBAN) PAJAK PENGHASILAN

28. INCOME TAX BENEFIT (EXPENSE)

Manfaat (beban) pajak penghasilan terdiri dari:

Income tax benefit (expense) consists of the following:

	2017 (Enam bulan/ *Six months*) US$'000	2016 (Enam bulan/ *Six months*) US$'000	2016 (Satu tahun/ *One year*) US$'000	2015 (Satu tahun/ *One year*) US$'000	2014 (Satu tahun/ *One year*) US$'000	
Pajak kini						Current tax
Perusahaan	(49.927)	(44.449)	(94.562)	(19.069)	-	Company
SMI	(3.778)	(2.966)	(7.604)	(398)	-	SMI
Penyesuaian atas pajak penghasilan badan tahun sebelumnya						Adjustment of prior year corporate income tax
SMI	-	-	-	(1.665)	(151)	SMI
Jumlah pajak kini	(53.705)	(47.415)	(102.166)	(21.132)	(151)	Total current tax
Manfaat (beban) pajak tangguhan						Deferred tax benefit (expense)
Perusahaan	546	1.127	2.654	(12.917)	(7.293)	The Company
SMI	891	311	1.395	(893)	(82)	SMI
PBI	(5.122)	(259)	(2.311)	5.299	1.164	PBI
Jumlah pajak tangguhan	(3.685)	1.179	1.738	(8.511)	(6.211)	Total deferred tax
Jumlah beban pajak - bersih	(57.390)	(46.236)	(100.428)	(29.643)	(6.362)	Total tax expense - net

Pajak Kini

Current tax

Rekonsiliasi antara laba sebelum pajak menurut laporan laba rugi dan penghasilan komprehensif lain konsolidasian dengan laba fiskal adalah sebagai berikut:

The reconciliation between profit before tax per consolidated statements of profit or loss and other comprehensive income and taxable income is as follows:

	2017 (Enam bulan/ *Six months*) US$'000	2016 (Enam bulan/ *Six months*) US$'000	2016 (Satu tahun/ *One year*) US$'000	2015 (Satu tahun/ *One year*) US$'000	2014 (Satu tahun/ *One year*) US$'000	
Laba sebelum pajak menurut laporan laba rugi dan penghasilan komprehensif lain konsolidasian	231.574	177.990	400.553	55.899	24.801	Profit before tax per consolidated statements of profit or loss and other comprehensive income
Rugi (laba) sebelum pajak entitas anak setelah dilakukan penyesuaian pada level konsolidasian	(29.256)	(6.302)	(24.956)	30.691	407	Loss (profit) before tax of subsidiaries after adjustment in consolidated level
Laba sebelum pajak Perusahaan	202.318	171.688	375.597	86.590	25.208	Profit before tax of the Company
Perbedaan temporer:						Temporary differences:
Perbedaan penyusutan komersial dan fiskal	375	6.008	7.547	10.432	8.939	Difference between commercial and fiscal depreciation
Imbalan pasca kerja	1.407	1.980	2.701	(283)	1.130	Post-employment benefits
Kerugian (pemulihan) penurunan nilai persediaan	288	-	-	(367)	3.839	Allowance (reversal of allowance) for decline in value of inventories
Lain-lain	110	(139)	22	15	294	Others
Jumlah	2.180	7.849	10.270	9.797	14.202	Total
Perbedaan yang tidak dapat diperhitungkan menurut fiskal:						Nondeductible expenses (nontaxable income):
Manfaat fasilitas pajak	(6.511)	-	(13.024)	-	-	Tax facility benefit
Penghasilan bunga	(908)	(1.246)	(1.725)	(454)	(6.647)	Interest income
Keuntungan atas penjualan tanah yang telah dikenakan pajak penghasilan final	-	-	-	(23.791)	-	Gain on sale of land, subjected to final income tax
Lain-lain	2.627	(496)	7.129	9.855	12.123	Others
Jumlah	(4.792)	(1.742)	(7.620)	(14.390)	5.476	Total
Laba kena pajak	199.706	177.795	378.247	81.997	44.886	Taxable income
Rugi fiskal tahun sebelumnya yang belum kadaluarsa	-	-	-	(61.378)	(106.264)	Unexpired prior year's fiscal losses
Penyesuaian rugi fiskal tahun sebelumnya atas hasil pemeriksaan pajak	-	-	-	55.656	-	Adjustment of prior year's fiscal loss arising from tax audit results
Laba fiskal (akumulasi rugi fiskal) Perusahaan	199.706	177.795	378.247	76.275	(61.378)	Taxable profit (accumulated tax losses) of the Company
Beban pajak kini Perusahaan	49.927	44.449	94.562	19.069	-	Company's current tax expense

Laba kena pajak hasil rekonsiliasi di atas menjadi dasar dalam pengisian SPT Tahunan PPh Badan Perusahaan.

Reconciliaton of taxable income above is the basis for the Company to fulfill Yearly SPT Company's Income Tax.

Perhitungan pajak kini, pajak dibayar dimuka dan utang pajak adalah sebagai berikut:

Current tax expense, prepaid tax and tax payable are computed as follow:

	2017 (Enam bulan/ *Six months*)	2016 (Satu tahun/ *One year*)	2015 (Satu tahun/ *One year*)	2014 (Satu tahun/ *One year*)	
	US$'000	US$'000	US$'000	US$'000	
Beban pajak kini - Perusahaan	49.927	94.562	19.069	-	Current tax expense - The Company
Dikurangi pajak penghasilan dibayar dimuka:					Deducted with prepaid income tax:
Pasal 22	13.783	23.430	20.683	25.984	Art 22
Pasal 23	609	1.933	162	1.468	Art 23
Pasal 25	26.389	38.972	-	-	Art 25
Utang pajak (pajak dibayar dimuka) Perusahaan	9.146	30.227	(1.776)	(27.452)	Tax payable (prepaid tax) - The Company

	2017 (Enam bulan/ *Six months*)	2016 (Satu tahun/ *One year*)	2015 (Satu tahun/ *One year*)	2014 (Satu tahun/ *One year*)	
	US$'000	US$'000	US$'000	US$'000	
Pajak dibayar dimuka					Prepaid tax
Perusahaan	-	-	1.776	27.452	The Company
SMI	46	-	4.008	7.279	SMI
PBI	15	72	130	151	PBI
Jumlah pajak dibayar dimuka	61	72	5.914	34.882	Total prepaid tax
Utang pajak					Tax payable
Perusahaan					The Company
Tahun 2017	9.146	-	-	-	Year 2017
Tahun 2016	-	30.227	-	-	Year 2016
SMI	-	2.817	-	-	SMI
RPU	-	4	3	3	RPU
Jumlah utang pajak	9.146	33.048	3	3	Total tax payable

Perusahaan telah mendapat persetujuan dari Direktorat Jenderal Pajak untuk melakukan pelaporan perpajakan dalam mata uang Dolar Amerika Serikat (mata uang fungsional), efektif 1 Januari 2011, dalam Keputusan Menteri Keuangan Republik Indonesia No. KEP-83/WPJ.19/2010 tanggal 21 Oktober 2010, sehubungan dengan perubahan status Perusahaan dari Penanaman Modal Dalam Negeri menjadi Penanaman Modal Asing berdasarkan Izin Prinsip Penanaman Modal dari Badan Koordinasi Penanaman Modal (BKPM) No. 197/1/IP/PMA/2010.

The Company has obtained the approval from the Directorate General of Taxes to report its taxation reporting in US Dollar (functional currency), effective January 1, 2011, through Decision Letter No. KEP-83/WPJ.19/2010, of Ministry of Finance of the Republic of Indonesia dated October 21, 2010. This is related to the change of the Company's status from Domestic Capital Investment to Foreign Capital Investment based on Permit of Capital Investment Principle from Capital Market Coordination Board No. 197/1/IP/PMA/2010.

Pada tahun 2015, Perusahaan telah mendapat hasil pemeriksaan atas pajak penghasilan tahun 2012 dan 2013 dari Direktur Jenderal Pajak dimana rugi fiskal Perusahaan tahun 2012 sebesar US$ 86.364 ribu menjadi sebesar US$ 69.514 ribu dan rugi fiskal Perusahaan tahun 2013 sebesar US$ 19.900 ribu menjadi laba fiskal sebesar US$ 2.896 ribu.

In 2015, the Company has received the results of 2012 and 2013 income tax audit from Director General of Tax, which stated that the Company's fiscal loss in 2012 of US$ 86,364 thousand was modified to be US$ 69,514 thousand and the Company's fiscal loss in 2013 of US$ 19,900 thousand was modified to be taxable income of US$ 2,896 thousand.

Pada tanggal 14 Januari 2016, Perusahaan telah mendapat hasil pemeriksaan dari Direktur Jenderal Pajak, yang menyatakan bahwa laba fiskal Perusahaan tahun 2014 sebesar US$ 44.886 ribu menjadi sebesar US$ 60.896 ribu.

On January 14, 2016, the Company has received the results of 2014 income tax audit from Director General of Tax, which stated that the Company's taxable income in 2014 of US$ 44,886 thousand was modified to be US$ 60,896 thousand.

Pada tanggal 29 November 2016, Perusahaan telah mendapat pemanfaatan fasilitas pajak penghasilan atas Proyek Ekspansi Ethylene Cracker dari Direktur Jenderal Pajak, yang diperhitungkan sebagai pengurang penghasilan kena pajak sebanyak 30% dari jumlah yang diinvestasikan dalam aset tetap dengan total Rp 3.499.944 juta (ekuivalen dengan US$ 260.490 ribu), yang diprorata 5% selama 6 tahun produksi komersial.

On November 29, 2016, the Company has received tax facility benefit for the Ethylene Cracker Expansion Project from Director General of Tax, which allows reduction in net taxable income up to 30% of the amount invested in property, plant and equipment totaling to Rp 3,499,944 million (equivalent to US$ 260,490 thousand), prorated at 5% for 6 years of the commercial production.

Pajak Tangguhan

Deferred Tax

Rincian dari aset (liabilitas) pajak tangguhan adalah sebagai berikut:

The details of the deferred tax assets (liabilities) are as follows:

	1 Januari/ *January 1,* 2017 US$ '000	Dikreditkan (dibebankan) pada tahun berjalan/ *Credited (charged) to profit or loss for the year* US$ '000	Dikreditkan ke penghasilan komprehensif lain/ *Credited to other comprehensive income* US$ '000	30 Juni/ *June 30,* 2017 US$ '000	
Aset (liabilitas) pajak tangguhan					Deferred tax assets (liabilities)
Perusahaan					The Company
Penyusutan aset tetap	(127.527)	94	-	(127.433)	Depreciation of property, plant and equipment
Cadangan penurunan nilai persediaan	868	72	-	940	Allowance for decline in value of inventory
Imbalan pasca kerja	5.373	352	475	6.200	Post-employment benefits
Lain-lain	580	28	-	608	Others
Liabilitas pajak tangguhan - bersih	(120.706)	546	475	(119.685)	Deferred tax liabilities - net
Entitas anak					Subsidiary
SMI	(20.761)	891	83	(19.787)	SMI
PBI	3.504	(5.122)	-	(1.618)	PBI
Jumlah liabilitas pajak tangguhan - bersih	(137.963)	(3.685)	558	(141.090)	Total deferred tax liabilities - net

	1 Januari/ *January 1,* 2016 US$ '000	Dikreditkan (dibebankan) pada tahun berjalan/ *Credited (charged) to profit or loss for the year* US$ '000	Dikreditkan ke penghasilan komprehensif lain/ *Credited to other comprehensive income* US$ '000	31 Desember/ *December 31,* 2016 US$ '000	
Aset pajak tangguhan					Deferred tax assets
Entitas anak					Subsidiary
PBI	5.813	(2.311)	2	3.504	PBI
Liabilitas pajak tangguhan					Deferred tax liabilities
Perusahaan					The Company
Penyusutan aset tetap	(129.453)	1.926	-	(127.527)	Depreciation of property, plant and equipment
Cadangan penurunan nilai persediaan	868	-	-	868	Allowance for decline in value of inventory
Imbalan pasca kerja	4.162	723	488	5.373	Post-employment benefits
Lain-lain	575	5	-	580	Others
Liabilitas pajak tangguhan - bersih	(123.848)	2.654	488	(120.706)	Deferred tax liabilities - net
Entitas anak					Subsidiary
SMI	(22.250)	1.395	94	(20.761)	SMI
Jumlah liabilitas pajak tangguhan - bersih	(146.098)	4.049	582	(141.467)	Total deferred tax liabilities - net

	1 Januari/ *January 1,* 2015 US$ '000	Dikreditkan (dibebankan) pada tahun berjalan/ *Credited (charged) to profit or loss for the year* US$ '000	Dibebankan ke penghasilan komprehensif lain/ *Charged to other comprehensive income* US$ '000	31 Desember/ *December 31,* 2015 US$ '000	
Aset pajak tangguhan					Deferred tax assets
Entitas anak					Subsidiary
PBI	516	5.299	(2)	5.813	PBI
Liabilitas pajak tangguhan					Deferred tax liabilities
Perusahaan					The Company
Rugi fiskal	15.344	(15.344)	-	-	Fiscal loss
Penyusutan aset tetap	(132.039)	2.586	-	(129.453)	Depreciation of property, plant and equipment
Cadangan penurunan nilai persediaan	960	(92)	-	868	Allowance for decline in value of inventory
Imbalan pasca kerja	4.315	(71)	(82)	4.162	Post-employment benefits
Lain-lain	571	4	-	575	Others
Liabilitas pajak tangguhan - bersih	(110.849)	(12.917)	(82)	(123.848)	Deferred tax liabilities - net
Entitas anak					Subsidiary
SMI	(21.342)	(893)	(15)	(22.250)	SMI
Jumlah liabilitas pajak tangguhan - bersih	(132.191)	(13.810)	(97)	(146.098)	Total deferred tax liabilities - net

	1 Januari/ *January 1,* 2014 US$ '000	Dikreditkan (dibebankan) pada tahun berjalan/ *Credited (charged) to profit or loss for the year* US$ '000	Dikreditkan ke penghasilan komprehensif lain/ *Credited to other comprehensive income* US$ '000	31 Desember/ *December 31,* 2014 US$ '000	
Aset pajak tangguhan					Deferred tax assets
Entitas anak					Subsidiary
PBI	(651)	1.164	3	516	PBI
Liabilitas pajak tangguhan					Deferred tax liabilities
Perusahaan					The Company
Rugi fiskal	26.566	(11.222)	-	15.344	Fiscal loss
Penyusutan aset tetap	(134.652)	2.613	-	(132.039)	Depreciation of property, plant and equipment
Cadangan penurunan nilai persediaan	-	960	-	960	Allowance for decline in value of inventory
Imbalan pasca kerja	3.538	283	494	4.315	Post-employment benefits
Lain-lain	498	73	-	571	Others
Liabilitas pajak tangguhan - bersih	(104.050)	(7.293)	494	(110.849)	Deferred tax liabilities - net
Entitas anak					Subsidiary
SMI	(21.375)	(82)	115	(21.342)	SMI
Jumlah liabilitas pajak tangguhan - bersih	(125.425)	(7.375)	609	(132.191)	Total deferred tax liabilities - net

Rekonsiliasi antara beban pajak dan hasil perkalian laba akuntansi sebelum pajak dengan tarif pajak yang berlaku adalah sebagai berikut:

The reconciliation between the total tax expense and the amounts computed by applying the effective tax rate to profit before tax is as follows:

	2017 (Enam bulan/ *Six months*)	2016 (Enam bulan/ *Six months*)	2016 (Satu tahun/ *One year*)	2015 (Satu tahun/ *One year*)	2014 (Satu tahun/ *One year*)	
	US$'000	US$'000	US$'000	US$'000	US$'000	
Laba sebelum pajak menurut laporan laba rugi dan penghasilan komprehensif lain konsolidasian	231.574	177.990	400.553	55.899	24.801	Profit before tax per consolidated statement of profit or loss and other comprehensive income
Beban pajak sesuai tarif yang berlaku	57.894	44.498	100.138	13.975	6.201	Tax expense at effective tax rate
Pengaruh pajak atas perbedaan yang tidak dapat diperhitungkan menurut fiskal	(1.433)	198	(1.731)	95	1.253	Tax effect of non-deductible expenses (non-taxable income)
Perbedaan pajak entitas anak yang dikenakan pajak penghasilan luar negeri	(45)	2	11	9	10	Tax difference on subsidiaries which is subjected to foreign income tax
Perbedaan pajak entitas anak yang dikenakan pajak penghasilan final	962	(8)	1.473	(37)	(192)	Tax difference on subsidiaries which is subjected to final income tax
Jumlah	57.378	44.690	99.891	14.042	7.272	Total
Penyesuaian rugi fiskal tahun sebelumnya atas hasil pemeriksaan pajak	-	-	-	13.914	-	Adjustment of prior year's fiscal loss arising from tax audit results
Penyesuaian atas pajak penghasilan badan tahun sebelumnya	-	12	-	1.665	151	Adjustment of prior year's corporate income tax
Penyesuaian rugi fiskal entitas anak	-	-	-	-	(682)	Adjusment fiscal loss subsidiary
Koreksi dasar pengenaan pajak aset tetap	12	1.534	537	22	(379)	Adjustment for tax basis fixed assets
Jumlah beban pajak konsolidasian	57.390	46.236	100.428	29.643	6.362	Total consolidated tax expense

29. LABA PER SAHAM DASAR

29. BASIC EARNINGS PER SHARE

Berikut ini adalah data yang digunakan untuk perhitungan laba per saham dasar:

The computation of basic earnings per share is based on the following data:

Laba Bersih

Earnings

	2017 (Enam bulan/ *Six months*)	2016 (Enam bulan/ *Six months*)	2016 (Satu tahun/ *One year*)	2015 (Satu tahun/ *One year*)	2014 (Satu tahun/ *One year*)	
	US$'000	US$'000	US$'000	US$'000	US$'000	
Laba untuk perhitungan laba per saham dasar	174.018	131.738	300.016	26.337	18.244	Earnings for computation of basic earnings per share

Lembar Saham

Number of Shares

Jumlah rata-rata terhitung saham beredar untuk tujuan perhitungan laba per saham dasar adalah sebagai berikut:

The weighted average number of shares outstanding for the computation of basic earnings per shares were as follows:

	Jumlah saham/*Total number of shares*					
	2017 (Enam bulan/ *Six months*)	2016 (Enam bulan/ *Six months*)	2016 (Satu tahun/ *One year*)	2015 (Satu tahun/ *One year*)	2014 (Satu tahun/ *One year*)	
Jumlah rata-rata tertimbang saham	3.286.962.558	3.286.962.558	3.286.962.558	3.286.962.558	3.286.962.558	Total weighted average number of shares

Untuk periode enam bulan yang berakhir 30 Juni 2017 dan 2016 dan tahun-tahun yang berakhir 31 Desember 2016, 2015 dan 2014, Perusahaan tidak memiliki saham biasa yang berpotensi dilutif.

For the six-month periods ended June 30, 2017 and 2016 and the years ended December 31, 2016, 2015 and 2014, the Company does not have dilutive potential ordinary shares.

30. PENGUNGKAPAN TAMBAHAN ATAS AKTIVITAS INVESTASI DAN PENDANAAN NONKAS

30. SUPPLEMENTAL DISCLOSURES ON NONCASH INVESTING AND FINANCING ACTIVITIES

	2017 (Enam bulan/ *Six months*)	2016 (Enam bulan/ *Six months*)	2016 (Satu tahun/ *One year*)	2015 (Satu tahun/ *One year*)	2014 (Satu tahun/ *One year*)	
	US$'000	US$'000	US$'000	US$'000	US$'000	
Penambahan aset tetap melalui:						Additions of property, plant and equipment through:
Realisasi uang muka pembelian aset tetap	3.101	13.278	13.278	1.754	38.329	Realization of advances for purchase of property, plant and equipment
Utang lain-lain	-	39	-	6.879	4.330	Other accounts payable
Penambahan aset tidak lancar yang tersedia untuk dijual melalui reklasifikasi aset tetap	-	-	-	-	6.998	Additions of noncurrent asset held for sale through reclassification of property, plant and equipment

31. SIFAT DAN TRANSAKSI PIHAK BERELASI

31. NATURE OF RELATIONSHIP AND TRANSACTIONS WITH RELATED PARTIES

Sifat Pihak Berelasi

a. PT Barito Pacific Tbk adalah pemegang saham utama Perusahaan.

b. PT Griya Idola (GI) tergabung dalam kelompok usaha yang sama dengan Perusahaan dan entitas anak.

c. SCG Chemicals Co., Ltd. (SCG) adalah pemegang saham dengan pengaruh signifikan atas Perusahaan.

d. SCG Plastics Co., Ltd dan Rayong Olefin Co., Ltd tergabung dalam kelompok usaha SCG.

e. PT Synthetic Rubber Indonesia (SRI) adalah entitas asosiasi dari SMI.

Nature of Relationship

a. PT Barito Pacific Tbk is the ultimate controlling party of the Company.

b. PT Griya Idola (GI) is within the same Group as the Company and its subsidiaries.

c. SCG Chemicals Co., Ltd. (SCG) is a shareholder with significant influence to the Company.

d. SCG Plastics Co., Ltd and Rayong Olefin., Ltd is within the same group as SCG.

e. PT Synthetic Rubber Indonesia (SRI) is an associate of SMI.

Transaksi-transaksi Pihak Berelasi

Dalam kegiatan usahanya, Grup melakukan transaksi tertentu dengan pihak-pihak berelasi yang dilakukan dengan ketentuan yang setara dengan yang berlaku dalam transaksi yang wajar, yang meliputi antara lain:

a. Grup menyediakan manfaat untuk anggota Dewan Komisaris dan Direksi sebagai berikut:

Transactions with Related Parties

In the normal course of business, the Group entered into certain transactions with related parties conducted under conditions equivalent to those applicable in a fair transaction, including the following:

a. The Group provides benefits to its Board of Commissioners and Directors as follows:

	2017 (Enam bulan/ *Six months*)	2016 (Enam bulan/ *Six months*)	2016 (Satu tahun/ *One year*)	2015 (Satu tahun/ *One year*)	2014 (Satu tahun/ *One year*)	
	US$'000	US$'000	US$'000	US$'000	US$'000	
Dewan Komisaris						Board of Commissioners
Imbalan kerja jangka pendek						Short-term employee benefits
Gaji dan bonus	746	346	642	667	641	Salaries and bonus

	2017 (Enam bulan/ *Six months*) US$'000	2016 (Enam bulan/ *Six months*) US$'000	2016 (Satu tahun/ *One year*) US$'000	2015 (Satu tahun/ *One year*) US$'000	2014 (Satu tahun/ *One year*) US$'000	
Direksi						Board of Directors
Imbalan kerja jangka pendek						Short-term employee benefits
Gaji dan bonus	4.740	2.398	3.570	2.875	3.656	Salaries and bonus
Tunjangan lain-lain	108	109	216	181	182	Other allowances
Jumlah	4.848	2.507	3.786	3.056	3.838	Total
Jumlah	5.594	2.853	4.428	3.723	4.479	Total

b. Grup menyewa ruangan kantor dan lahan parkir kepada GI seperti yang dijelaskan pada Catatan 33b.

b. The Group leases office space and parking area from GI as discussed in Note 33b.

c. Penjualan kepada pihak berelasi, sebesar 6,22%, 3,80%, 3,74%, 4,09% dan 6,46% dari jumlah pendapatan bersih masing-masing untuk periode enam bulan yang berakhir 30 Juni 2017 dan 2016 dan tahun-tahun yang berakhir 31 Desember 2016, 2015 dan 2014 (Catatan 23). Pada tanggal pelaporan, piutang atas penjualan tersebut dicatat sebagai bagian dari piutang usaha (Catatan 6), yang meliputi 0,33%, 0,08%, nihil dan 0,70% dari jumlah aset masing-masing pada tanggal 30 Juni 2017, 31 Desember 2016, 2015 dan 2014.

Rincian pendapatan dari pihak berelasi untuk periode enam bulan yang berakhir 30 Juni 2017 dan 2016 dan tahun-tahun yang berakhir 31 Desember 2016, 2015 dan 2014 adalah sebagai berikut:

c. Revenues earned from related parties, represent 6.22%, 3.80%, 3.74%, 4.09% and 6.46% of the total net revenues for the six-month periods ended June 30, 2017 and 2016 and the years ended December 31, 2016, 2015, and 2014 respectively (Note 23). At reporting dates, the receivables from these sales were presented as trade accounts receivable (Note 6), which constituted 0.33%, 0.08%, nil and 0.70% of the total assets as of June 30, 2017, December 31, 2016, 2015 and 2014 respectively.

The details of sales to related parties for the six-month periods ended June 30, 2017 and 2016 and the years ended December 31, 2016, 2015 and 2014 are as follows:

	2017 (Enam bulan/ *Six months*) US$'000	2016 (Enam bulan/ *Six months*) US$'000	2016 (Satu tahun/ *One year*) US$'000	2015 (Satu tahun/ *One year*) US$'000	2014 (Satu tahun/ *One year*) US$'000	
SCG Chemicals Co., Ltd.	74.345	33.472	71.516	56.144	158.278	SCG Chemicals Co., Ltd.
SCG Plastics Co., Ltd.	20	45	770	146	677	SCG Plastics Co., Ltd.
Jumlah	74.365	33.517	72.286	56.290	158.955	Total

d. Pembelian bahan baku dari pihak berelasi masing-masing sebesar 6,65% dari jumlah pembelian bahan baku untuk periode enam bulan yang berakhir 30 Juni 2017 dan 13,94% dan 1,08% untuk periode enam bulan yang berakhir 30 Juni 2016 dan 13,34% dan 3,23% untuk tahun yang berakhir 31 Desember 2016 dan 29,58% dan 9,25% untuk tahun yang berakhir 31 Desember 2015 dan 40,19% dan 2,26% untuk tahun yang berakhir 31 Desember 2014 dari jumlah pembelian bahan baku dan barang jadi. Utang atas pembelian tersebut dicatat sebagai bagian dari utang usaha (Catatan 14) sebesar 0,62%, 2,56%, 9,01% dan 12,66% dari jumlah liabilitas masing-masing pada tanggal 30 Juni 2017, 31 Desember 2016, 2015 dan 2014.

d. Purchases of raw materials from related parties represents 6.65% of the total raw materials purchases for the six-month period ended June 30, 2017 and 13.94% and 1.08% for the six-month period ended June 30, 2016 and 13.34% and 3.23% for the year ended December 31, 2016 and 29.58% and 9.25% for the year ended December 31, 2015 and 40.19% and 2.26% for the year ended December 31, 2014 of the total raw materials and finished goods purchased, respectively. The payables for these purchases were presented as part of trade accounts payable (Note 14), which represents 0.62%, 2.56%, 9.01% and 12.66% of the total liabilities as of June 30, 2017, December 31, 2016, 2015 and 2014 respectively.

Rincian pembelian dari pihak berelasi untuk periode enam bulan yang berakhir 30 Juni 2017 dan 2016 dan tahun-tahun yang berakhir 31 Desember 2016, 2015 dan 2014 adalah sebagai berikut:

The details of purchases from related parties for the six-month periods ended June 30, 2017 and 2016 and the years ended December 31, 2016, 2015, and 2014 are as follows:

	2017 (Enam bulan/ *Six months*) US$'000	2016 (Enam bulan/ *Six months)* US$'000	2016 (Satu tahun/ *One year)* US$'000	2015 (Satu tahun/ *One year)* US$'000	2014 (Satu tahun/ *One year)* US$'000	
Bahan baku						Raw materials
SCG Chemicals Co., Ltd.	45.984	60.985	134.095	199.219	683.756	SCG Chemicals Co., Ltd.
Rayong Olefins Co., Ltd	-	1.793	1.793	-	-	Rayong Olefins Co., Ltd
Barang jadi						Finished goods
SCG Chemicals Co., Ltd.	-	604	4.064	25.141	6.260	SCG Chemicals Co., Ltd.
Jumlah	45.984	63.382	139.952	224.360	690.016	Total

e. Pada tahun 2015, Grup menjual tanah seluas 161.830 m^2 ke SRI yang nilainya berjumlah US$ 30.789 ribu.

e. In 2015, the Group sold land in total area of 161,830 square meter to SRI, which amounted to US$ 30,789 thousand.

32. INFORMASI SEGMEN

Segmen Usaha

Grup melaporkan segmen berdasarkan divisi-divisi operasi berikut:

- *Olefin* (*ethylene, propylene, pyrolysis gasoline, mixed C4*)
- *Polyolefin* (*polyethylene* dan *polypropylene*)
- *Styrene monomer*
- *Butadiene*
- Sewa tangki dan dermaga

Berikut ini adalah informasi segmen berdasarkan divisi-divisi operasi.

32. SEGMENT INFORMATION

Business Segments

The Group's reportable segments are based on the following operating divisions:

- Olefin (ethylene, propylene, pyrolysis gasoline, mixed C4)
- Polyolefin (polyethylene and polypropylene)
- Styrene monomer
- Butadiene
- Tanks and jetty rental

The following is segment information based on the operating divisions.

	2017 (Enam bulan/*Six months*)								
	Olefin US$ '000	Polyolefin US$ '000	Styrene monomer US$ '000	Butadiene US$ '000	Sewa tangki dan dermaga/ *Tanks and jetty rental* US$ '000	Jumlah/ *Total* US$ '000	Eliminasi/ *Eliminations* US$ '000	Konsolidasian/ *Consolidated* US$ '000	
PENDAPATAN									REVENUE
Pendapatan eksternal	370.364	455.925	216.633	147.404	4.974	1.195.300	-	1.195.300	External revenue
Pendapatan antar segmen	161.314	-	-	-	93	161.407	(161.407)	-	Inter-segment revenue
Jumlah pendapatan	531.678	455.925	216.633	147.404	5.067	1.356.707	(161.407)	1.195.300	Total revenue
HASIL									RESULT
Hasil segmen	119.261	128.686	15.436	24.838	4.012	292.233		292.233	Segment result
Beban yang tidak dapat dialokasikan								(56.748)	Unallocated expenses
Bagian rugi bersih entitas asosiasi								(3.911)	Share of net loss of an associate
Laba sebelum pajak								231.574	Profit before tax
INFORMASI LAINNYA									OTHER INFORMATION
ASET									ASSETS
Aset segmen	1.025.029	326.360	187.346	208.086	8.970	1.755.791	(22.687)	1.733.104	Segment assets
Investasi pada entitas asosiasi								28.245	Investment in an associate
Aset yang tidak dapat dialokasi								389.965	Unallocated assets
Jumlah aset yang dikonsolidasikan								2.151.314	Consolidated total assets
LIABILITAS									LIABILITIES
Liabilitas segmen	(255.885)	(4.860)	(58.864)	(18.955)	(1.620)	(340.184)	22.687	(317.497)	Segment liabilities
Liabilitas yang tidak dapat dialokasi								(636.914)	Unallocated liabilities
Jumlah liabilitas yang dikonsolidasikan								(954.411)	Consolidated total liabilities
Pengeluaran modal	8.368	1.114	1.585	8.219	-	19.286		19.286	Capital expenditures
Pengeluaran modal yang tidak dapat dialokasikan								45.766	Unallocated capital expenditures
Jumlah pengeluaran modal								65.052	Total capital expenditures
Beban penyusutan	13.325	18.654	4.797	2.441	-	39.217		39.217	Depreciation expense

	2016 (Enam bulan/*Six months*)								
	Olefin	Polyolefin	Styrene monomer	Butadiene	Sewa tangki dan dermaga/ *Tanks and jetty rental*	Jumlah/ *Total*	Eliminasi/ *Eliminations*	Konsolidasian/ *Consolidated*	
	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	
PENDAPATAN									REVENUE
Pendapatan eksternal	249.670	432.052	131.398	64.038	4.951	882.109	-	882.109	External revenue
Pendapatan antar segmen	82.701	-	-	-	93	82.794	(82.794)	-	Inter-segment revenue
Jumlah pendapatan	332.371	432.052	131.398	64.038	5.044	964.903	(82.794)	882.109	Total revenue
HASIL									RESULT
Hasil segmen	71.746	129.176	7.994	5.158	3.891	217.965		217.965	Segment result
Beban yang tidak dapat dialokasikan								(37.079)	Unallocated expenses
Bagian rugi bersih entitas asosiasi								(2.896)	Share of net loss of an associate
Laba sebelum pajak								177.990	Profit before tax
Beban penyusutan	11.391	15.947	4.739	2.441	567	35.085		35.085	Depreciation expense

	2016 (Satu tahun/ *One year*)								
	Olefin	Polyolefin	Styrene monomer	Butadiene	Sewa tangki dan dermaga/ *Tanks and jetty rental*	Jumlah/ *Total*	Eliminasi/ *Eliminations*	Konsolidasian/ *Consolidated*	
	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	
PENDAPATAN									REVENUE
Pendapatan eksternal	609.799	884.650	289.240	139.346	7.301	1.930.336	-	1.930.336	External revenue
Pendapatan antar segmen	183.615	-	-	-	187	183.802	(183.802)	-	Inter-segment revenue
Jumlah pendapatan	793.414	884.650	289.240	139.346	7.488	2.114.138	(183.802)	1.930.336	Total revenue
HASIL									RESULT
Hasil segmen	165.857	282.836	25.177	15.406	5.042	494.318		494.318	Segment result
Beban yang tidak dapat dialokasikan								(87.904)	Unallocated expenses
Bagian rugi bersih entitas asosiasi								(5.861)	Share of net loss of an associate
Laba sebelum pajak								400.553	Profit before tax
INFORMASI LAINNYA									OTHER INFORMATION
ASET									ASSETS
Aset segmen	1.039.187	296.488	173.918	190.914	9.231	1.709.738	(18.558)	1.691.180	Segment assets
Investasi pada entitas asosiasi								32.156	Investment in an associate
Aset yang tidak dapat dialokasi								405.933	Unallocated assets
Jumlah aset yang dikonsolidasikan								2.129.269	Consolidated total assets
LIABILITAS									LIABILITIES
Liabilitas segmen	(291.241)	(3.715)	(55.140)	(17.088)	(2.030)	(369.214)	18.558	(350.656)	Segment liabilities
Liabilitas yang tidak dapat dialokasi								(636.945)	Unallocated liabilities
Jumlah liabilitas yang dikonsolidasikan								(987.601)	Consolidated total liabilities
Pengeluaran modal	51.207	3.626	5.395	3.210	1	63.439		63.439	Capital expenditures
Pengeluaran modal yang tidak dapat dialokasikan								20.108	Unallocated capital expenditures
Jumlah pengeluaran modal								83.547	Total capital expenditures
Beban penyusutan	24.721	34.609	10.653	4.882	-	74.865		74.865	Depreciation expense

	2015 (Satu tahun/ *One year*)								
	Olefin	Polyolefin	Styrene monomer	Butadiene	Sewa tanki dan dermaga/ *Tanks and jetty rental*	Jumlah/ *Total*	Eliminasi/ *Eliminations*	Konsolidasian/ *Consolidated*	
	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	
PENDAPATAN									REVENUE
Pendapatan eksternal	171.089	868.963	255.761	77.934	3.826	1.377.573	-	1.377.573	External revenue
Pendapatan antar segmen	119.239	-	-	-	187	119.426	(119.426)	-	Inter-segment revenue
Jumlah pendapatan	290.328	868.963	255.761	77.934	4.013	1.496.999	(119.426)	1.377.573	Total revenue
HASIL									RESULT
Hasil segmen	(1.593)	136.886	12.662	(3.992)	1.766	145.729		145.729	Segment result
Beban yang tidak dapat dialokasikan								(86.110)	Unallocated expenses
Bagian rugi bersih entitas asosiasi								(3.720)	Share of net loss of an associate
Laba sebelum pajak								55.899	Profit before tax
INFORMASI LAINNYA									OTHER INFORMATION
ASET									ASSETS
Aset segmen	987.157	264.693	147.034	147.049	15.720	1.561.653	(21.699)	1.539.954	Segment assets
Investasi pada entitas asosiasi								38.017	Investment in an associate
Aset yang tidak dapat dialokasi								284.415	Unallocated assets
Jumlah aset yang dikonsolidasikan								1.862.386	Consolidated total assets
LIABILITAS									LIABILITIES
Liabilitas segmen	(184.784)	(6.276)	(49.957)	(12.768)	(3.143)	(256.928)	21.699	(235.229)	Segment liabilities
Liabilitas yang tidak dapat dialokasi								(740.311)	Unallocated liabilities
Jumlah liabilitas yang dikonsolidasikan								(975.540)	Consolidated total liabilities
Pengeluaran modal	197.281	71	7.814	3.327	1.298	209.791		209.791	Capital expenditures
Pengeluaran modal yang tidak dapat dialokasikan								18.812	Unallocated capital expenditures
Jumlah pengeluaran modal								228.603	Total capital expenditures
Beban penyusutan	21.180	29.651	7.572	4.250	1.118	63.771		63.771	Depreciation expense

	2014 (Satu tahun/ *One year*)								
	Olefin	Polyolefin	Styrene monomer	Butadiene	Sewa tangki dan dermaga/ *Tanks and jetty rental*	Jumlah/ *Total*	Eliminasi/ *Eliminations*	Konsolidasian/ *Consolidated*	
	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	
PENDAPATAN									REVENUE
Pendapatan eksternal	514.337	1.302.846	418.849	218.885	5.134	2.460.051	-	2.460.051	External revenue
Pendapatan antar segmen	283.378	-	-	-	(52)	283.326	(283.326)	-	Inter-segment revenue
Jumlah pendapatan	797.715	1.302.846	418.849	218.885	5.082	2.743.377	(283.326)	2.460.051	Total revenue
HASIL									RESULT
Hasil segmen	10.272	90.765	7.319	6.247	2.861	117.464		117.464	Segment result
Beban yang tidak dapat dialokasikan								(91.838)	Unallocated expenses
Bagian rugi bersih entitas asosiasi								(825)	Equity in net loss of an associate
Laba sebelum pajak								24.801	Profit before tax
INFORMASI LAINNYA									OTHER INFORMATION
ASET									ASSETS
Aset segmen	864.593	327.798	182.953	147.488	16.738	1.539.570	(33.507)	1.506.063	Segment assets
Investasi pada entitas asosiasi								12.677	Investment in an associate
Aset yang tidak dapat dialokasi								404.771	Unallocated assets
Jumlah aset yang dikonsolidasikan								1.923.511	Consolidated total assets
LIABILITAS									LIABILITIES
Liabilitas segmen	(332.727)	(5.316)	(48.428)	(18.660)	(2.211)	(407.342)	33.507	(373.835)	Segment liabilities
Liabilitas yang tidak dapat dialokasi								(683.814)	Unallocated liabilities
Jumlah liabilitas yang dikonsolidasikan								(1.057.649)	Consolidated total liabilities
Pengeluaran modal	212.964	71	4.547	538	1.125	219.245		219.245	Capital expenditures
Pengeluaran modal yang tidak dapat dialokasikan								7.605	Unallocated capital expenditures
Jumlah pengeluaran modal								226.850	Total capital expenditures
Beban penyusutan	21.335	29.869	6.943	4.290	1.105	63.542		63.542	Depreciation expense

Segmen Geografis

Pendapatan bersih berdasarkan pasar

Tabel berikut ini menunjukkan distribusi dari keseluruhan pendapatan bersih Grup berdasarkan pasar geografis tanpa memperhatikan tempat diproduksinya barang:

Geographical Segments

Net revenues based on market

The following table shows the distribution of the total net revenues of the Group based on geographical segments without considering where the products are produced:

	2017 (Enam bulan/ *Six months*) US$'000	2016 (Enam bulan/ *Six months*) US$'000	2016 (Satu tahun/ *One year*) US$'000	2015 (Satu tahun/ *One year*) US$'000	2014 (Satu tahun/ *One year*) US$'000	
Asia	1.195.300	882.109	1.918.850	1.376.976	2.456.711	Asia
Amerika	-	-	11.379	-	-	America
Lainnya	-	-	107	597	3.340	Others
Jumlah	1.195.300	882.109	1.930.336	1.377.573	2.460.051	Total

Seluruh aset Grup berlokasi di Jawa, Indonesia.

All of the Group's assets are located in Java, Indonesia.

33. IKATAN

a. Fasilitas kredit yang belum digunakan

Pada tanggal 30 Juni 2017, Grup mempunyai fasilitas pinjaman yang belum digunakan sebagai berikut:

33. COMMITMENTS

a. Unused credit facilities

As of June 30, 2017, the Group has unused credit facilities as follow:

	Fasilitas maksimal/ *Maximum facilities* US$'000	Fasilitas yang telah digunakan/ *Used facilities* US$'000	Fasilitas yang belum digunakan/ *Unused faciltiies* US$'000	Tanggal jatuh tempo/ *Maturity date*	
Fasilitas kredit modal kerja					**Working capital credit facilities**
PT Bank Nasional Indonesia Tbk *Import L/C*	15.000	-	15.000	16 Maret 2018/ *March 16, 2018*	PT Bank Nasional Indonesia Tbk Import L/C
PT Bank Danamon Indonesia Tbk *Omnibus Trade Finance* dan *Trust Receipt Facility*	75.000	47.256	27.744	30 Juni 2018/ *June 30, 2018*	PT Bank Danamon Indonesia Tbk Omnibus Trade Finance and Trust Receipt Facility
PT Bank DBS Indonesia *Sight L/C* dan *Usance L/C*	29.000	13.988	15.012	31 Oktober 2017/ *October 31, 2017*	PT Bank DBS Indonesia Sight L/C and Usance L/C
DBS Bank Ltd., Singapura Fasilitas A	60.000	16.014	43.986	14 Nopember 2017/ *November 14, 2017*	DBS Bank Ltd., Singapore Facility A
Fasilitas B	60.000	41.884	18.116	14 Nopember 2019/ *November 14, 2019*	Facility B
PT Bank Central Asia Tbk *Sight L/C* dan *Usance L/C*	30.000	17.579	12.421	27 Oktober 2017/ *October 27,2017*	PT Bank Central Asia Tbk Sight L/C and Usance L/C
The Hongkong and Shanghai Banking Corporation Limited Fasilitas Perbankan Korporasi termasuk *Revolving Credit Facility*	100.000	48.614	51.386	30 Juni 2018/ *June 30, 2018*	The Hongkong and Shanghai Banking Corporation Limited Corporate Facility Agreement including Revolving Credit Facility
Deutsche Bank AG Jakarta Limit gabungan fasilitas perbankan	70.000	31.472	38.528	31 Agustus 2018/ *August 31, 2018*	Deutsche Bank AG Jakarta Combined limit banking facilities
Indonesia Exim Bank *Sight L/C* dan *Usance L/C*	35.000	14.599	20.401	10 Juli 2018/ *July 10, 2018*	Indonesia Exim Bank Sight L/C and Usance L/C
The Siam Commercial Bank Public Company Limited *Usance L/C*	30.000	25.136	4.864	11 Nopember 2017/ *November 11, 2017*	The Siam Commercial Bank Public Company Limited Usance L/C
Kasikorn Bank Public Company Limited *) *Letter of Credit Facility* dan *Trust Receipt Facility*	110.000	101.632	8.368	27 Juni 2018/ *June 27, 2018*	Kasikorn Bank Public Company Limited *) Letter of Credit Facility and Trust Receipt Facility
*) tidak dijaminkan (atau setara dengan THB 4.000 ribu)					*) unsecured (or equivalent with THB 4,000 thousand)

Seluruh fasilitas kredit modal kerja, kecuali Kasikorn Bank Public Company Limited dijamin dengan piutang usaha dan persediaan (Catatan 6 dan 7) secara *pari passu*.

All working capital credit facilities, except from Kasikorn Bank Public Company Limited are secured with trade accounts receivable and inventories (Notes 6 and 7) on pari passu basis.

b. Perjanjian operasional

- Pada bulan Juni 2013, Grup mengadakan perjanjian ventura bersama dengan Compagnie Financiere Du Groupe Michelin (Michelin). Dalam perjanjian tersebut, Perusahaan setuju untuk menjual dan/atau memasok butadiene kepada SRI secara non-eksklusif. Perusahaan dan PBI juga akan berbagi fasilitas dan menyediakan jasa untuk mendukung kegiatan usaha dan operasional SRI, berupa antara lain *HP steam, jetty* dan gudang penyimpanan, pembuangan limbah, akses jalan, dan lain-lain. Perjanjian ini terus berlaku hingga diakhiri berdasarkan kesepakatan bersama dari para pihak.

- Grup dan GI mengadakan perjanjian sewa ruang kantor dan lahan parkir selama dua tahun yang akan berakhir di bulan Juni 2018.

  Beban sewa untuk periode enam bulan yang berakhir 30 Juni 2017 dan 2016 dan tahun-tahun yang berakhir 31 Desember 2016, 2015 dan 2014 masing-masing sebesar US$ 330 ribu, US$ 386 ribu, US$ 678 ribu, US$ 578 ribu dan US$ 667 ribu dicatat sebagai beban umum dan administrasi.

b. Operational agreements

- In June 2013, the Group entered into a joint-venture agreement with Compagnie Financiere Du Groupe Michelin (Michelin). Based on the agreement, the Company agrees to sell and/or provide butadiene to SRI in non-exclusive basis. The Company and PBI will also share their facility and provide service to support SRI's business and operational activity, among others HP steam, jetty and warehouse storage, waste removal, road access, and others. The agreement shall continue in effect unless it is terminated by both parties on the basis of mutual agreement.

- The Group and GI entered into several operating lease agreements for office space and parking area rental for two years which will expire June 2018.

  Rent expense for the six-month periods ended June 30, 2017 and 2016 and the years ended December 31, 2016, 2015 and 2014 amounting to US$ 330 thousand, US$ 386 thousand, US$ 678 thousand, US$ 578 thousand and US$ 667 thousand, respectively, were recorded as general and administrative expenses.

34. INSTRUMEN KEUANGAN, MANAJEMEN RISIKO KEUANGAN DAN RISIKO MODAL

34. FINANCIAL INSTRUMENTS, FINANCIAL RISK AND CAPITAL RISK MANAGEMENT

A. Kategori dan Kelas Instrumen Keuangan

A. Categories and Classes of Financial Instruments

	Pinjaman yang diberikan dan piutang/ *Loans and receivables*	Aset keuangan yang diukur pada nilai wajar melalui laba rugi/ *Financial assets measured at fair value through profit and loss*	Liabilitas pada biaya perolehan diamortisasi/ *Liabilities at amortized cost*	Liabilitas keuangan yang diukur pada nilai wajar melalui laba rugi/ *Financial liabilities measured at fair value through profit and loss*	Jumlah/ *Total*	
	US$'000	US$'000	US$'000	US$'000	US$'000	
30 Juni 2017						June 30, 2017
Aset Keuangan Lancar						**Current Financial Assets**
Kas dan setara kas	212.292	-	-	-	212.292	Cash and cash equivalents
Rekening yang dibatasi penggunaannya	13.422	-	-	-	13.422	Restricted cash in banks
Piutang usaha						Trade accounts receivable
Pihak berelasi	7.064	-	-	-	7.064	Related party
Pihak ketiga	163.452	-	-	-	163.452	Third parties
Piutang lain-lain	2.619	-	-	-	2.619	Other accounts receivable
Aset Keuangan Tidak Lancar						**Noncurrent Financial Assets**
Rekening yang dibatasi penggunaannya	22.021	-	-	-	22.021	Restricted cash in banks
Aset keuangan derivatif	-	2.116	-	-	2.116	Derivative financial assets
Uang jaminan	1.281	-	-	-	1.281	Refundable deposits
Liabilitas Keuangan Jangka Pendek						**Current Financial Liabilities**
Utang usaha						Trade accounts payable
Pihak berelasi	-	-	5.930	-	5.930	Related party
Pihak ketiga	-	-	367.296	-	367.296	Third parties
Utang lain-lain	-	-	119	-	119	Other accounts payable
Biaya yang masih harus dibayar	-	-	4.913	-	4.913	Accrued expenses
Utang bank yang jatuh tempo dalam satu tahun	-	-	71.605	-	71.605	Current maturities of Bank loans
Liabilitas Keuangan Jangka Panjang						**Noncurrent Financial Liabilities**
Liabilitas jangka panjang - setelah dikurangi bagian yang jatuh tempo dalam satu tahun						Long-term liabilities - net of current maturities
Utang bank	-	-	264.605	-	264.605	Bank loans
Utang obligasi	-	-	36.708	-	36.708	Bonds payable
Liabilitas keuangan derivatif	-	-	-	318	318	Derivative financial liabilities

	Pinjaman yang diberikan dan piutang/ *Loans and receivables*	Aset keuangan yang diukur pada nilai wajar melalui laba rugi/ *Financial assets measured at fair value through profit and loss*	Liabilitas pada biaya perolehan diamortisasi/ *Liabilities at amortized cost*	Liabilitas keuangan yang diukur pada nilai wajar melalui laba rugi/ *Financial liabilities measured at fair value through profit and loss*	Jumlah/ *Total*	
	US$'000	US$'000	US$'000	US$'000	US$'000	
31 Desember 2016						December 31, 2016
Aset Keuangan Lancar						**Current Financial Assets**
Kas dan setara kas	298.729	-	-	-	298.729	Cash and cash equivalents
Rekening yang dibatasi penggunaannya	10.398	-	-	-	10.398	Restricted cash in banks
Piutang usaha						Trade accounts receivable
Pihak berelasi	1.663	-	-	-	1.663	Related party
Pihak ketiga	135.685	-	-	-	135.685	Third parties
Piutang lain-lain	3.141	-	-	-	3.141	Other accounts receivable
Aset Keuangan Tidak Lancar						**Noncurrent Financial Assets**
Rekening yang dibatasi penggunaannya	12.953	-	-	-	12.953	Restricted cash in banks
Aset keuangan derivatif	-	1.500	-	-	1.500	Derivative financial assets
Uang jaminan	1.271	-	-	-	1.271	Refundable deposits
Liabilitas Keuangan Jangka Pendek						**Current Financial Liabilities**
Utang usaha						Trade accounts payable
Pihak berelasi	-	-	25.293	-	25.293	Related party
Pihak ketiga	-	-	318.812	-	318.812	Third parties
Utang lain-lain	-	-	157	-	157	Other accounts payable
Biaya yang masih harus dibayar	-	-	3.880	-	3.880	Accrued expenses
Utang bank yang jatuh tempo dalam satu tahun	-	-	63.113	-	63.113	Current maturities of Bank loans
Liabilitas Keuangan Jangka Panjang						**Noncurrent Financial Liabilities**
Liabilitas jangka panjang - setelah dikurangi bagian yang jatuh tempo dalam satu tahun						Long-term liabilities - net of current maturities
Utang bank	-	-	325.276	-	325.276	Bank loans
Utang obligasi	-	-	36.594	-	36.594	Bonds payable
Liabilitas keuangan derivatif	-	-	-	40	40	Derivative financial liabilities

	Pinjaman yang diberikan dan piutang/ *Loans and receivables*	Aset keuangan yang diukur pada nilai wajar melalui laba rugi/ *Financial assets measured at fair value through profit and loss*	Liabilitas pada biaya perolehan diamortisasi/ *Liabilities at amortized cost*	Liabilitas keuangan yang diukur pada nilai wajar melalui laba rugi/ *Financial liabilities measured at fair value through profit and loss*	Jumlah/ *Total*	
	US$'000	US$'000	US$'000	US$'000	US$'000	
31 Desember 2015						December 31, 2015
Aset Keuangan Lancar						**Current Financial Assets**
Kas dan setara kas	96.817	-	-	-	96.817	Cash and cash equivalents
Rekening yang dibatasi penggunaannya	12.764	-	-	-	12.764	Restricted cash in banks
Piutang usaha						Trade accounts receivable
Pihak ketiga	46.496	-	-	-	46.496	Third parties
Piutang lain-lain	3.783	-	-	-	3.783	Other accounts receivable
Aset Keuangan Tidak Lancar						**Noncurrent Financial Assets**
Rekening yang dibatasi penggunaannya	12.953	-	-	-	12.953	Restricted cash in banks
Aset keuangan derivatif	-	659	-	-	659	Derivative financial assets
Uang jaminan	1.120	-	-	-	1.120	Refundable deposits
Liabilitas Keuangan Jangka Pendek						**Current Financial Liabilities**
Utang bank	-	-	50.800	-	50.800	Bank loan
Utang usaha						Trade accounts payable
Pihak berelasi	-	-	87.869	-	87.869	Related party
Pihak ketiga	-	-	139.955	-	139.955	Third parties
Utang lain-lain	-	-	15.931	-	15.931	Other accounts payable
Biaya yang masih harus dibayar	-	-	6.089	-	6.089	Accrued expenses
Utang bank yang jatuh tempo dalam satu tahun	-	-	70.470	-	70.470	Current maturities of Bank loans
Liabilitas Keuangan Jangka Panjang						**Noncurrent Financial Liabilities**
Liabilitas jangka panjang - setelah dikurangi bagian yang jatuh tempo dalam satu tahun						Long-term liabilities - net of current maturities
Utang bank	-	-	426.459	-	426.459	Bank loans
Liabilitas keuangan derivatif	-	-	-	677	677	Derivative financial liabilities

	Pinjaman yang diberikan dan piutang/ *Loans and receivables*	Aset keuangan yang diukur pada nilai wajar melalui laba rugi/ *Financial assets measured at fair value through profit and loss*	Liabilitas pada biaya perolehan diamortisasi/ *Liabilities at amortized cost*	Liabilitas keuangan yang diukur pada nilai wajar melalui laba rugi/ *Financial liabilities measured at fair value through profit and loss*	Jumlah/ *Total*	
	US$'000	US$'000	US$'000	US$'000	US$'000	
31 Desember 2014						December 31, 2014
Aset Keuangan Lancar						**Current Financial Assets**
Kas dan setara kas	207.915	-	-	-	207.915	Cash and cash equivalents
Rekening yang dibatasi penggunaannya	14.250	-	-	-	14.250	Restricted cash in banks
Piutang usaha						Trade accounts receivable
Pihak berelasi	13.472	-	-	-	13.472	Related party
Pihak ketiga	86.537	-	-	-	86.537	Third parties
Piutang lain-lain	8.319	-	-	-	8.319	Other accounts receivable
Aset Keuangan Tidak Lancar						**Noncurrent Financial Assets**
Rekening yang dibatasi penggunaannya	11.095	-	-	-	11.095	Restricted cash in banks
Aset keuangan derivatif	-	1.118	-	-	1.118	Derivative financial assets
Uang jaminan	1.145	-	-	-	1.145	Refundable deposits
Liabilitas Keuangan Jangka Pendek						**Current Financial Liabilities**
Utang usaha						Trade accounts payable
Pihak berelasi	-	-	133.861	-	133.861	Related parties
Pihak ketiga	-	-	254.698	-	254.698	Third parties
Utang lain-lain	-	-	10.159	-	10.159	Other accounts payable
Biaya yang masih harus dibayar	-	-	5.513	-	5.513	Accrued expenses
Liabilitas jangka panjang yang jatuh tempo dalam satu tahun						Current maturities of long-term liabilities
Utang bank	-	-	68.477	-	68.477	Bank loans
Sewa pembiayaan	-	-	54	-	54	Finance lease obligation
Liabilitas Keuangan Jangka Panjang						**Noncurrent Financial Liabilities**
Liabilitas jangka panjang - setelah dikurangi bagian yang jatuh tempo dalam satu tahun						Long-term liabilities - net of current maturities
Utang bank	-	-	421.957	-	421.957	Bank loans
Liabilitas keuangan derivatif	-	-	-	491	491	Derivative financial liabilities

B. Tujuan dan kebijakan manajemen risiko keuangan

Fungsi *Corporate Group Treasury* menyediakan jasa untuk bisnis, mengkoordinasikan akses ke pasar keuangan domestik dan internasional, memantau dan mengelola risiko keuangan yang berkaitan dengan operasi Grup melalui laporan risiko internal yang menganalisis eksposur dengan derajat dan besarnya risiko. Risiko ini termasuk risiko pasar (termasuk risiko mata uang, risiko suku bunga dan risiko harga lainnya), risiko kredit, risiko likuiditas.

Grup berusaha untuk meminimalkan dampak dari risiko dengan menggunakan instrumen keuangan derivatif untuk lindung nilai terhadap eksposur risiko. Penggunaan derivatif keuangan diatur oleh kebijakan Grup yang disetujui oleh dewan direksi, yang memberikan prinsip-prinsip tertulis pada risiko nilai tukar, risiko suku bunga, risiko kredit, penggunaan derivatif keuangan dan instrumen derivatif non-keuangan, dan investasi atas kelebihan likuiditas. Kepatuhan terhadap batasan kebijakan dan eksposur ditinjau oleh auditor internal secara terus menerus. Grup tidak melaksanakan atau memperdagangkan instrumen keuangan, termasuk instrumen keuangan derivatif, untuk tujuan spekulasi.

Fungsi *Corporate Treasury* melaporkan secara berkala kepada dewan direksi untuk memantau risiko dan mengurangi eksposur risiko.

B. Financial risk management objectives and policies

The Group's Corporate Treasury function provides services to the business, co-ordinates access to domestic and international financial markets, monitors and manages the financial risks relating to the operations of the Group through internal risk reports which analyze exposures by degree and magnitude of risks. These risks include market risk (including currency risk, interest rate risk and other price risk), credit risk, liquidity risk.

The Group seeks to minimize the effects of these risks by using derivative financial instruments to hedge risk exposures. The use of financial derivatives is governed by the Group policies approved by the board of directors, which provide written principles on foreign exchange risk, interest rate risk, credit risk, the use of financial derivatives and non-derivative financial instruments, and the investment of excess liquidity. Compliance with policies and exposure limits is reviewed by the internal auditors on a continuous basis. The Group does not enter into or trade financial instruments, including derivative financial instruments, for speculative purposes.

The Corporate Treasury function reports regularly to the board of directors to monitor risks and mitigate risk exposures.

i. Risiko pasar

Aktivitas Grup terekspos terutama untuk risiko keuangan atas perubahan nilai tukar mata uang asing (Catatan 34.b.ii) dan suku bunga (Catatan 34.b.iii). Grup mengadakan berbagai instrumen keuangan derivatif untuk mengelola eksposur risiko mata uang asing dan risiko suku bunga, termasuk:

- Swap mata uang untuk melindungi keragaman suku bunga mengambang yang timbul dari kurs mengambang atas pinjaman bank yang didenominasi dalam mata uang US$;
- Swap suku bunga untuk mengurangi risiko kenaikan suku bunga;
- Kontrak valuta asing berjangka untuk mengurangi eksposur terhadap fluktuasi nilai tukar; dan
- *Cross Currency Swap* untuk mengurangi risiko kenaikan suku bunga dan kurs pada utang obligasi.

Tidak terdapat perubahan eksposur Grup terhadap risiko pasar atau cara dimana risiko tersebut dikelola dan diukur.

ii. Manajemen risiko mata uang asing

Pendapatan, biaya-biaya, dan bagaimanapun, pinjaman Grup sebagian besar diselenggarakan dalam mata uang Dolar Amerika Serikat. Namun, karena Grup beroperasi di Indonesia, terdapat keadaan dimana Grup dipengaruhi oleh fluktuasi dari nilai tukar Rupiah terhadap Dolar Amerika Serikat terutama terkait dengan pajak dan beberapa beban tertentu yang berdenominasi dalam Rupiah. Jumlah eksposur bersih mata uang selain Dolar Amerika Serikat Grup pada tanggal pelaporan diungkapkan dalam Catatan 35.

Grup memelihara saldo kas dalam mata uang Rupiah yang cukup untuk memenuhi kebutuhan beban dalam Rupiah.

<u>Analisis sensitivitas mata uang asing</u>

Analisis sensitivitas Grup di bawah ini terhadap peningkatan dan penurunan dalam US$ terhadap mata uang Rupiah menggunakan 1%, 2%, 4% dan 5% pada tanggal 30 Juni 2017, 31 Desember 2016, 2015 dan 2014 yang dijelaskan di bawah. Tingkat sensitivitas ini yang digunakan ketika melaporkan secara internal risiko mata uang asing kepada para karyawan kunci, dan merupakan penilaian manajemen terhadap perubahan yang mungkin terjadi pada nilai tukar valuta asing. Analisis sensitivitas hanya mencakup item instrumen keuangan dalam mata uang moneter selain Dolar Amerika Serikat yang ada dan menyesuaikan translasinya pada akhir periode untuk perubahan persentase dalam nilai tukar mata uang asing.

i. Market risk

The Group's activities expose it primarily to the financial risks of changes in foreign currency exchange rates (Note 34.b.ii) and interest rates (Note 34.b.iii). The Group enters into a variety of derivative financial instruments to manage its exposure to foreign currency risk and interest rate risk, including:

- Cross currency swap to hedge variability of floating interest rate arising on the US$ denominated floating rate bank loan;
- Interest rate swaps to mitigate the risk of rising interest rates;
- Forward foreign exchange contracts to mitigate exposures to exchange rate fluctuating; and
- Cross currency swap to mitigate the risk of rising interest rate and foreign exchange on the bonds payable.

There has been no change to the Group's exposure to market risk or the manner in which these risks are managed and measured.

ii. Foreign currency risk management

The Group's underlying revenues, costs and however, borrowings are denominated mostly in U.S. Dollar. However, since the Group operates in Indonesia, there are instances where the Group is affected by the fluctuation of Indonesian Rupiah against the U.S. Dollar pertaining mainly to taxes and certain expenses which are denominated in Indonesian Rupiah. The Group's net open currency other than U.S. Dollar exposure as of reporting date is disclosed in Note 35.

The Group maintains sufficient cash balance denominated in Indonesian Rupiah to cover the expenses denominated in Indonesian Rupiah.

<u>Foreign currency sensitivity analysis</u>

The Group's sensitivity analysis below to the increase and decrease in the US$ against the relevant foreign currencies uses 1%, 2%, 4% and 5% at June 30, 2017, December 31, 2016, 2015 and 2014, respectively is shown below. These sensitivity rate are the ones used when reporting foreign currency risk internally to key management personnel and represents management's assessment of the reasonably possible change in foreign exchange rates. The sensitivity analysis includes only outstanding monetary items of financial instrument denominated in currency other than U.S. Dollar and adjusts their translation at the period end for percentage change in foreign currency rates.

Untuk periode enam bulan yang berakhir 30 Juni 2017 dan tahun-tahun yang berakhir 31 Desember 2016, 2015 dan 2014, jika US$ melemah/menguat sebesar 1%, 2%, 4% dan 5% terhadap Rupiah, dengan seluruh variabel lainnya tetap konstan, laba bersih, setelah pajak, masing-masing akan meningkat/menurun US$ 967 ribu, US$ 1.765 ribu, US$ 2.526 ribu dan US$ 3.905 ribu.

Menurut pendapat manajemen, analisis sensitivitas tidak representatif atas risiko valuta asing melekat karena eksposur pada akhir periode pelaporan tidak mencerminkan eksposur selama periode berjalan.

iii. Manajemen risiko tingkat bunga

Grup terpapar risiko suku bunga karena entitas dalam Grup meminjam dana mayoritas dalam Dolar Amerika Serikat dengan tingkat bunga mengambang. Risiko ini dikelola oleh Grup, antara lain, dengan menggunakan kontrak swap suku bunga.

Eksposur Grup terhadap suku bunga dalam aset keuangan dan liabilitas keuangan dirinci dalam bagian manajemen risiko likuiditas pada catatan ini.

Analisis sensitivitas suku bunga

Analisis sensitivitas di bawah ini telah ditentukan berdasarkan eksposur suku bunga untuk kedua instrumen derivatif dan non-derivatif pada akhir periode pelaporan. Untuk liabilitas tingkat bunga mengambang, analisis tersebut disusun dengan asumsi jumlah liabilitas terutang pada akhir periode pelaporan itu terutang sepanjang tahun. Kenaikan atau penurunan 50 basis poin digunakan ketika melaporkan risiko suku bunga secara internal kepada karyawan kunci dan merupakan penilaian manajemen terhadap perubahan yang mungkin terjadi pada suku bunga.

Jika suku bunga lebih tinggi/rendah 50 basis poin dan semua variabel lainnya tetap konstan, laba bersih, setelah pajak, untuk periode enam bulan yang berakhir 30 Juni 2017 dan tahun-tahun yang berakhir 31 Desember 2016, 2015 dan 2014 akan turun/naik masing-masing sebesar US$ 776 ribu, US$ 1.123 ribu, US$ 1.440 ribu dan US$ 1.146 ribu. Hal ini terutama disebabkan oleh eksposur Grup terhadap suku bunga atas pinjamannya dengan suku bunga variabel.

For the six-month period ended June 30, 2017 and for the years ended December 31, 2016, 2015 and 2014, if US$ had weakened/strengthened by 1%, 2%, 4% and 5% against Indonesian Rupiah with all other variables held constant, net profit, after tax, would have been increased/decreased by US$ 967 thousand, US$ 1,765 thousand, US$ 2,526 thousand and US$ 3,905 thousand, respectively.

In management's opinion, the sensitivity analysis is unrepresentative for the inherent foreign exchange risk because the exposure at the end of the reporting period does not reflect the exposure during the period.

iii. Interest rate risk management

The Group is exposed to interest rate risk because entities in the Group borrow funds largely in US Dollar at floating interest rates. The risk is managed by the Group by the use of interest rate swap contracts.

The Group’s exposures to interest rates on financial assets and financial liabilities are included in the liquidity risk management section of this note.

Interest rate sensitivity analysis

The sensitivity analyses below have been determined based on the exposure to interest rates for both derivatives and non-derivative instruments at the end of the reporting period. For floating rate liabilities, the analysis is prepared assuming the amount of the liability outstanding at the end of the reporting period was outstanding for the whole year. A 50 basis point increase or decrease is used when reporting interest rate risk internally to key management personnel and represents management's assessment of the reasonably possible change in interest rates.

If interest rates had been 50 basis points higher/lower and all other variables were held constant, net profit after tax, for the six-month period ended June 30, 2017 and for the years ended December 31, 2016, 2015 and 2014 would decrease/increase by US$ 776 thousand, US$ 1,123 thousand, US$ 1,440 thousand and US$ 1,146 thousand, respectively. This is mainly attributable to the Group’s exposure to interest rates on its variable rate borrowings.

Kontrak swap suku bunga

Dalam kontrak swap suku bunga, Grup setuju untuk menukar perbedaan antara jumlah tingkat bunga tetap dengan mengambang yang dihitung atas jumlah pokok nosional yang disepakati. Meskipun tidak ditetapkan dan memenuhi kualifikasi sebagai akuntansi lindung nilai, kontrak tersebut memungkinkan Grup untuk mengurangi risiko perubahan suku bunga eksposur arus kas pada utang tingkat bunga variabel. Nilai wajar *plain vanilla* (tingkat bunga tetap untuk tingkat bunga mengambang) swap dihitung dengan menambahkan nilai kini dari pembayaran bunga tetap yang telah diketahui dari awal swap (*fixed leg*) dan nilai kini dari pembayaran bunga mengambang yang ditentukan pada setiap tanggal pembayaran yang ditentukan (*floating leg*). Tingkat suku bunga rata-rata didasarkan pada tingkat bunga tetap yang dibayarkan oleh Bank.

Kontrak swap suku bunga diselesaikan secara triwulanan. Tingkat bunga mengambang pada swap suku bunga adalah *London Interbank Offered Rate* (LIBOR). Grup akan menyelesaikan perbedaan antara tingkat bunga tetap dan mengambang secara dasar neto.

iv. Risiko harga petrokimia

Pendapatan Grup sangat bergantung pada penjualan barang-barang turunan/olahan petrokimia *naphtha* yang sangat dipengaruhi oleh harga petrokimia dunia. Di sisi lain, harga petrokimia dunia dapat berfluktuasi secara signifikan yang dipengaruhi terutama oleh harga minyak mentah *Brent* dan faktor permintaan dan penawaran.

Untuk memitigasi risiko ini, Grup mengkombinasikan strategi metode penetapan harga maupun waktu penetapan dengan terus memperhatikan perkembangan global yang mempengaruhi pasar petrokimia.

v. Manajemen risiko kredit

Risiko kredit mengacu pada risiko rekanan gagal dalam memenuhi kewajiban kontraktualnya yang mengakibatkan kerugian keuangan bagi Grup.

Risiko kredit Grup terutama melekat pada rekening bank dan piutang usaha. Grup menempatkan saldo bank pada institusi keuangan yang layak serta terpercaya. Piutang usaha dilakukan dengan pihak ketiga terpercaya dan pihak berelasi. Eksposur Grup dan pihak lawan dimonitor secara terus menerus dan nilai agregat transaksi terkait tersebar di antara pihak lawan yang telah disetujui. Eksposur kredit dikendalikan oleh batasan (limit) pihak lawan yang direviu dan disetujui oleh manajemen.

Interest rate swap contracts

Under interest rate swap contracts, the Group agrees to exchange the difference between fixed and floating rate interest amounts calculated on agreed notional principal amounts. Although not designated and qualified for hedge accounting, such contracts enable the Group to mitigate the risk of changing interest rates on the cash flow exposures on issued variable rate debt. The fair value of a plain vanilla (fixed rate for floating rate) swap is computed by adding the present value of the fixed coupon payments known at the start of the swap (fixed leg) and present value of the floating coupon payments determined at the agreed dates of each payment (floating leg). The average interest rate is based on the fixed rate paid by the Banks.

The interest rate swaps settle on a quarterly basis. The floating rate on the interest rate swaps is London Interbank Offered Rate (LIBOR). The Group will settle the difference between the fixed and floating interest rate on a net basis.

iv. Petrochemical price risk

The Group’s revenue is highly dependent on naphtha petrochemical process, which in turn is highly influenced by global petrochemical prices, which tend to be cyclical and subject to significant fluctuations. Global petrochemical prices are subject to numerous factors beyond the Group’s control, including mainly Brent crude oil price and supply and demand factors.

To mitigate this risk, the Group combines strategies of price fixing method and the timing of price fixing, while maintaining close attention on global developments that affect petrochemical market.

v. Credit risk management

Credit risk refers to the risk that a counterparty will default on its contractual obligation resulting in financial loss to the Group.

The Group’s credit risk is primarily attributed to its cash in banks and trade accounts receivable. The Group places its bank balances with credit worthy financial institutions. Trade accounts receivable are entered with respected and credit worthy third parties and related parties. The Group’s exposure and its counterparties are continuously monitored and the aggregate value of transactions concluded is spread amongst approved counterparties. Credit exposure is controlled by counterparty limits that are reviewed and approved by the management.

Grup menyadari bahwa, walaupun penjualan produk kepada pelanggan akan lebih baik dalam bentuk tunai, pembayaran dimuka atau menggunakan *Letter of Credit*, penjualan kredit adalah praktik umum di industri dan merupakan faktor penting dalam keputusan pembelian pelanggan. Oleh karena itu Grup memperbolehkan penjualan kredit tetapi dengan pengendalian terhadap risiko kredit tersebut. Dalam hal ini, Grup telah membentuk sebuah komite kredit yang bertanggung jawab untuk keseluruhan manajemen dan pengendalian risiko kredit.

Piutang usaha terdiri dari sejumlah besar pelanggan, tersebar di berbagai industri dan wilayah geografis. Evaluasi kredit yang sedang berlangsung dilakukan berdasarkan pada rekam jejak hasil penerimaan dari penjualan kepada pelanggan.

Grup tidak memiliki eksposur kredit yang signifikan untuk setiap rekanan tunggal atau kelompok pihak lawan yang memiliki karakteristik serupa. Grup menentukan pihak lawan sebagai memiliki karakteristik serupa jika mereka entitas terkait.

Nilai tercatat aset keuangan pada laporan keuangan konsolidasian setelah dikurangi dengan cadangan kerugian mencerminkan eksposur Grup terhadap risiko kredit.

vi. Manajemen risiko likuiditas

Tanggung jawab utama untuk manajemen risiko likuiditas terletak pada dewan direksi, yang telah membentuk kerangka kerja manajemen risiko likuiditas yang sesuai untuk manajemen Grup dan pendanaan jangka pendek, menengah dan jangka panjang dan persyaratan manajemen likuiditas. Grup mengelola risiko likuiditas dengan memelihara cadangan yang memadai, fasilitas perbankan dan fasilitas pinjaman cadangan, dengan terus memantau arus kas prakiraan dan aktual, dan dengan cara mencocokkan profil jatuh tempo aset dan liabilitas keuangan. Rincian fasilitas tambahan yang belum digunakan yang dimiliki Grup untuk mengurangi risiko likuiditas termasuk dalam Catatan 33.

Tabel risiko likuiditas dan suku bunga

Tabel berikut merinci sisa jatuh tempo kontrak untuk liabilitas keuangan non-derivatif dengan periode pembayaran yang disepakati Grup. Tabel telah disusun berdasarkan arus kas yang tak terdiskonto dari liabilitas keuangan berdasarkan tanggal terawal dimana Grup dapat diminta untuk membayar. Jatuh tempo kontrak didasarkan pada tanggal terawal dimana Grup mungkin akan diminta untuk membayar.

The Group realizes that while product sales to customers should preferably be made on cash, cash in advance or Letter of Credit, sales of products on credit is a common industry practice and is a major consideration of the customers buying decision. Therefore, the Group's credit sale is permitted subject to proper management and controls of significant and aggregate credit risk. In this respect, the Group has established a credit committee who is accountable for overall management and control of credit risk.

Trade receivables consist of a large number of customers, spread across diverse industries and geographical areas. Ongoing credit evaluation is performed on the track record of the collection result from sales made to customers.

The Group does not have significant credit exposure to any single counterparty or any group of counterparties having similar characteristics. The Group defines counterparties as having similar characteristics if they are related entities.

The carrying amount of financial assets recorded in the consolidated financial statements, net of any allowance for losses represents the Group's exposure to credit risk.

vi. Liquidity risk management

Ultimate responsibility for liquidity risk management rests with the board of directors, which has established an appropriate liquidity risk management framework for the management of the Group's short, medium and long-term funding and liquidity management requirements. The Group manages liquidity risk by maintaning adequate reserves, banking facilities and reserve borrowing facilities, by continuously monitoring forecast and actual cash flows, and by matching the maturity profiles of financial assets and liabilities. Details of additional undrawn facilities that the Group has at its disposal to further reduce liquidity risk are included in Note 33.

Liquidity and interest risk tables

The following table details the Group's remaining contractual maturity for its non-derivative financial liabilities with agreed repayment periods. The table has been drawn up based on the undiscounted cash flows of financial liabilities based on the earliest date on which the Group can be required to pay. The table includes both interest and principal cash flows. The contractual maturity is based on the earliest date on which the Group may be required to pay.

	Tingkat bunga efektif rata-rata tertimbang/ *Weighted average effective interest rate*	Kurang dari satu bulan/ *Less than 1 month*	1-3 bulan/ *1-3 months*	3 bulan - 1 tahun/ *3 months to 1 year*	1-5 tahun/ *1-5 years*	Diatas 5 tahun/ *5+ years*	Jumlah/ *Total*	
	%	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000	
30 Juni 2017								**June 30, 2017**
Tanpa bunga								Non-interest bearing
Utang usaha								Trade accounts payable
Pihak berelasi	-	5.930	-	-	-	-	5.930	Related party
Pihak ketiga	-	367.296	-	-	-	-	367.296	Third parties
Utang lain-lain	-	119	-	-	-	-	119	Other accounts payable
Biaya yang masih harus dibayar	-	4.913	-	-	-	-	4.913	Accrued expenses
Instrumen tingkat bunga variabel								Variable interest rate instruments
Utang bank	4,99%	1.117	10.968	39.223	166.179	38.678	256.165	Bank loans
Instrumen tingkat bunga tetap								Fixed interest rate instruments
Utang bank	5,33%	465	9.702	26.066	115.301	38.115	189.649	Bank loans
Utang obligasi	5% - 5,5%	-	339	1.017	39.543	-	40.899	Bonds Payable
Jumlah		379.840	21.009	66.306	321.023	76.793	864.971	Total

	Tingkat bunga efektif rata-rata tertimbang/ *Weighted average effective interest rate*	Kurang dari satu bulan/ *Less than 1 month*	1-3 bulan/ *1-3 months*	3 bulan - 1 tahun/ *3 months to 1 year*	1-5 tahun/ *1-5 years*	Diatas 5 tahun/ *5+ years*	Jumlah/ *Total*	
	%	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000	
31 Desember 2016								**December 31, 2016**
Tanpa bunga								Non-interest bearing
Utang usaha								Trade accounts payable
Pihak berelasi	-	25.293	-	-	-	-	25.293	Related party
Pihak ketiga	-	318.812	-	-	-	-	318.812	Third parties
Utang lain-lain	-	157	-	-	-	-	157	Other accounts payable
Biaya yang masih harus dibayar	-	3.880	-	-	-	-	3.880	Accrued expenses
Instrumen tingkat bunga variabel								Variable interest rate instruments
Utang bank	4,55%	1.240	9.340	41.251	195.477	100.789	348.097	Bank loans
Instrumen tingkat bunga tetap								Fixed interest rate instruments
Utang bank	5,20%	470	11.426	17.165	76.845	12.454	118.360	Bank loans
Utang obligasi	5% - 5,5%	-	482	1.446	42.508	-	44.436	Bonds Payable
Jumlah		349.852	21.248	59.862	314.830	113.243	859.035	Total

	Tingkat bunga efektif rata-rata tertimbang/ *Weighted average effective interest rate*	Kurang dari satu bulan/ *Less than 1 month*	1-3 bulan/ *1-3 months*	3 bulan - 1 tahun/ *3 months to 1 year*	1-5 tahun/ *1-5 years*	Diatas 5 tahun/ *5+ years*	Jumlah/ *Total*	
	%	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000	
31 Desember 2015								**December 31, 2015**
Tanpa bunga								Non-interest bearing
Utang usaha								Trade accounts payable
Pihak berelasi	-	87.869	-	-	-	-	87.869	Related party
Pihak ketiga	-	139.955	-	-	-	-	139.955	Third parties
Utang lain-lain	-	15.931	-	-	-	-	15.931	Other accounts payable
Biaya yang masih harus dibayar	-	6.089	-	-	-	-	6.089	Accrued expenses
Instrumen tingkat bunga variabel								Variable interest rate instruments
Utang bank	4,78%	1.639	48.931	53.125	388.795	678	493.168	Bank loans
Instrumen tingkat bunga tetap								Fixed interest rate instruments
Utang bank	5,51%	15.671	10.044	20.183	121.328	-	167.226	Bank loans
Jumlah		267.154	58.975	73.308	510.123	678	910.238	Total

	Tingkat bunga efektif rata-rata tertimbang/ *Weighted average effective interest rate*	Kurang dari satu bulan/ *Less than 1 month*	1-3 bulan/ *1-3 months*	3 bulan - 1 tahun/ *3 months to 1 year*	1-5 tahun/ *1-5 years*	Diatas 5 tahun/ *5+ years*	Jumlah/ *Total*	
	%	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000	
31 Desember 2014								**December 31, 2014**
Tanpa bunga								Non-interest bearing
Utang usaha								Trade accounts payable
Pihak berelasi	-	133.861	-	-	-	-	133.861	Related party
Pihak ketiga	-	254.698	-	-	-	-	254.698	Third parties
Utang lain-lain	-	10.159	-	-	-	-	10.159	Other accounts payable
Biaya yang masih harus dibayar	-	5.513	-	-	-	-	5.513	Accrued expenses
Instrumen tingkat bunga variabel								Variable interest rate instruments
Utang bank	4,57%	2.653	7.081	39.101	247.218	46.981	343.034	Bank loans
Instrumen tingkat bunga tetap								Fixed interest rate instruments
Utang bank	5,40%	8	9.580	33.930	153.332	15.957	212.807	Bank loans
Liabilitas sewa pembiayaan	6,74%	6	12	37	-	-	55	Finance lease liabilities
Jumlah		406.898	16.673	73.068	400.550	62.938	960.127	Total

Jumlah yang dicakup di atas untuk instrumen suku bunga variabel untuk liabilitas keuangan non-derivatif harus berubah jika perubahan suku bunga variabel berbeda dengan estimasi suku bunga yang ditentukan pada akhir periode pelaporan.

The amounts included above for variable interest rate instruments for both non-derivative financial liabilities is subject to change if changes in variable interest rates differ to those estimates of interest rates determined at the end of the reporting period.

C. Manajemen risiko modal

C. Capital risk management

Grup mengelola risiko modal untuk memastikan bahwa mereka akan mampu untuk melanjutkan keberlangsungan hidup, selain memaksimalkan keuntungan para pemegang saham melalui optimalisasi saldo utang dan ekuitas.

The Group manages capital risk to ensure that it will be able to continue as a going concern while maximizing the return to stakeholders through the optimization of the debt and equity balance.

Struktur modal Perusahaan terdiri dari utang, yang mencakup pinjaman, instrumen keuangan derivatif dan utang obligasi yang dijelaskan pada Catatan 16 dan 17, dan jumlah ekuitas, yang terdiri dari modal yang ditempatkan, tambahan modal disetor, penghasilan komprehensif lain, saldo laba dan kepentingan non-pengendali yang dijelaskan pada Catatan 19, 20, 21, dan 22.

The capital structure of the Group consists of debt, which includes the borrowings, derivative financial instrument and bond payable disclosed in Notes 16 and 17, and total equity, comprising issued capital, additional paid-in capital, other comprehensive income, retained earnings and non-controlling interest, as disclosed in Notes 19, 20, 21, and 22.

Dewan Direksi Grup secara berkala melakukan reviu struktur permodalan Grup. Sebagai bagian dari reviu ini, Direksi mempertimbangkan biaya permodalan dan risiko yang berhubungan.

The Board of Directors of the Group periodically reviews the Group's capital structure. As part of this review, the Board of Directors considers the cost of capital and the related risks.

Rasio jumlah pinjaman terhadap kapitalisasi pada tanggal 30 Juni 2017, 31 Desember 2016, 2015 dan 2014 adalah sebagai berikut:

The total debt to capitalization ratio as of June 30, 2017, December 31, 2016, 2015 and 2016 are as follows:

	30 Juni/ *June 30,* 2017	31 Desember/*December 31,* 2016	2015	2014	
	US$ '000	US$ '000	US$ '000	US$ '000	
Pinjaman	373.236	425.023	497.606	490.979	Debt
Jumlah ekuitas	1.196.903	1.141.668	886.846	865.862	Total equity
Jumlah kapitalisasi	1.570.139	1.566.691	1.384.452	1.356.841	Total Capitalization
Rasio jumlah pinjaman terhadap kapitalisasi	24%	27%	36%	36%	Total debt to capitalization ratio

D. Pengukuran Nilai Wajar

Nilai wajar instrumen keuangan yang dicatat pada biaya perolehan diamortisasi

Direksi menganggap bahwa nilai tercatat aset keuangan dan liabilitas keuangan pada biaya perolehan diamortisasi pada tanggal 30 Juni 2017, 31 Desember 2016, 2015 dan 2014, diakui mendekati nilai wajarnya.

Teknik penilaian dan asumsi yang diterapkan untuk tujuan pengukuran nilai wajar

Nilai wajar aset keuangan dan liabilitas keuangan ditentukan sebagai berikut:

- Nilai wajar aset keuangan dan liabilitas keuangan dengan syarat dan kondisi standar dan diperdagangkan di pasar aktif ditentukan dengan mengacu pada harga pasar.
- Nilai wajar swap suku bunga dihitung dengan menambahkan nilai kini dari pembayaran bunga tetap yang telah diketahui dari awal swap (*fixed leg*) dan nilai kini dari pembayaran bunga mengambang yang ditentukan pada setiap tanggal pembayaran yang ditentukan (*floating leg*).
- Nilai wajar kontrak valuta berjangka mata uang asing diukur dengan menggunakan kurs kuotasi yang berasal dari suku bunga kuotasi mencocokkan jatuh tempo kontrak.
- Nilai tercatat dari aset dan liabilitas keuangan yang jatuh tempo dalam satu tahun mendekati nilai wajarnya karena jatuh tempo dalam jangka pendek. Untuk aset keuangan dan liabilitas keuangan jangka panjang, biaya perolehan diamortisasi mendekati nilai wajarnya karena instrumen tersebut dikenakan tingkat bunga pasar.

Pengukuran nilai wajar diakui dalam laporan posisi keuangan konsolidasian

Tabel berikut ini memberikan analisis dari instrumen keuangan yang diukur setelah pengakuan awal sebesar nilai wajar, dikelompokkan ke Tingkat 1 sampai 3 didasarkan pada sejauh mana nilai wajar diamati.

- Tingkat 1 pengukuran nilai wajar adalah yang berasal dari harga kuotasian (tak disesuaikan) dalam pasar aktif untuk aset atau liabilitas yang identik.
- Tingkat 2 pengukuran nilai wajar adalah yang berasal dari input selain harga kuotasian yang termasuk dalam Tingkat 1 yang dapat diobservasi untuk aset atau liabilitas, baik secara langsung (misalnya harga) atau secara tidak langsung (misalnya deviasi dari harga).

D. Fair Value Measurements

Fair value of financial instruments carried at amortized cost

The directors consider that the carrying amounts of financial assets and financial liabilities recognized at amortized cost as of June 30, 2017, December 31, 2016, 2015 and 2014, approximate their fair values.

Valuation techniques and assumptions applied for the purposes of measuring fair value

The fair values of financial assets and financial liabilities are determined as follows:

- The fair values of financial assets and financial liabilities with standard terms and conditions and traded on active liquid markets are determined with reference to quoted market prices.
- The fair value of interest rate swap is computed by adding the present value of the fixed coupon payments known at the start of the swap (fixed leg) and present value of the floating coupon payments determined at the agreed dates of each payment (floating leg).
- Foreign currency forward contracts are measured using quoted forward exchange rates derived from quoted interest rates matching maturities of the contracts.
- The carrying amount of financial assets and liabilities due in one year approximates fair value because of their short-term maturity. For non-current financial assets and financial liabilities, the amortized cost approximates fair value because such instruments carry market rate of interest.

Fair value measurements recognised in the consolidated statements of financial position

The following table provides an analysis of financial instruments that are measured subsequent to initial recognition at fair value, grouped into Levels 1 to 3 based on the degree to which the fair value is observable.

- Level 1 fair value measurements are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2 fair value measurements are those derived from inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).

- Tingkat 3 pengukuran nilai wajar adalah yang berasal dari teknik penilaian yang mencakup input untuk aset atau liabilitas yang bukan berdasarkan data pasar yang dapat diobservasi (input yang tidak dapat diobservasi).

- Level 3 fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).

	Tingkat 1/ *Level 1* US$'000	Tingkat 2/ *Level 2* US$'000	Tingkat 3/ *Level 3* US$'000	Jumlah/ *Total* US$'000	
30 Juni 2017					June 30, 2017
Aset keuangan pada FVTPL					Financial assets at FVTPL
Instrumen keuangan derivatif	-	2.116	-	2.116	Derivative financial instrument
Liabilitas keuangan pada FVTPL					Financial liabilities at FVTPL
Instrumen keuangan derivatif	-	318	-	318	Derivative financial instrument
31 Desember 2016					December 31, 2016
Aset keuangan pada FVTPL					Financial assets at FVTPL
Instrumen keuangan derivatif	-	1.500	-	1.500	Derivative financial instrument
Liabilitas keuangan pada FVTPL					Financial liabilities at FVTPL
Instrumen keuangan derivatif	-	40	-	40	Derivative financial instrument
31 Desember 2015					December 31, 2015
Aset keuangan pada FVTPL					Financial assets at FVTPL
Instrumen keuangan derivatif	-	659	-	659	Derivative financial instrument
Liabilitas keuangan pada FVTPL					Financial liabilities at FVTPL
Instrumen keuangan derivatif	-	677	-	677	Derivative financial instrument
31 Desember 2014					December 31, 2014
Aset keuangan pada FVTPL					Financial assets at FVTPL
Instrumen keuangan derivatif	-	1.118	-	1.118	Derivative financial instrument
Liabilitas keuangan pada FVTPL					Financial liabilities at FVTPL
Instrumen keuangan derivatif	-	491	-	491	Derivative financial instrument

Tidak ada transfer antara tingkat 1, tingkat 2 dan tingkat 3 pada periode berjalan.

There were no transfers between level 1, level 2 and level 3 in the period.

35. ASET DAN LIABILITAS DALAM MATA UANG SELAIN DOLAR AMERIKA SERIKAT

35. MONETARY ASSETS AND LIABILITIES DENOMINATED IN CURRENCIES OTHER THAN U.S. DOLLAR

Pada tanggal 30 Juni 2017, 31 Desember 2016, 2015 dan 2014, Grup, kecuali RPU dan CAP2, mempunyai aset dan liabilitas moneter dalam mata uang selain Dolar Amerika Serikat sebagai berikut:

As of June 30, 2017, December 31, 2016, 2015 and 2014, the Group, except RPU and CAP2, had monetary assets and liabilities denominated in currencies other than U.S. Dollar as follows:

		30 Juni/*June 30,* 2017		31 Desember/*December 31* , 2016		2015		2014		
		Mata uang selain Dolar Amerika Serikat/ *Currencies other than U.S. Dollar*	Ekuivalen US$ '000/ *Equivalent in US$'000*	Mata uang selain Dolar Amerika Serikat/ *Currencies other than U.S. Dollar*	Ekuivalen US$ '000/ *Equivalent in US$'000*	Mata uang selain Dolar Amerika Serikat/ *Currencies other than U.S. Dollar*	Ekuivalen US$ '000/ *Equivalent in US$'000*	Mata uang selain Dolar Amerika Serikat/ *Currencies other than U.S. Dollar*	Ekuivalen US$ '000/ *Equivalent in US$'000*	
ASET										ASSETS
Kas dan setara kas	Rp'000	629.823.638	47.288	316.850.923	23.582	149.184.869	10.814	180.948.940	14.546	Cash and cash equivalents
	Lainnya/ *Others*		65		64		64		67	
Piutang usaha	Rp'000	1.654.978.983	124.257	1.252.408.322	93.213	307.735.588	22.308	96.719.030	7.775	Trade accounts receivable
Piutang lain-lain	Rp'000	19.968.460	1.499	61.382.081	4.568	36.064.740	2.614	51.380.058	4.130	Other accounts receivable
Pajak dibayar dimuka	Rp'000	439.752.544	33.017	237.682.840	17.690	355.164.373	25.746	527.005.971	42.364	Prepaid taxes
Tagihan restitusi pajak	Rp'000	863.067.207	64.800	863.067.207	64.235	863.067.207	62.564	863.067.221	69.378	Claims for tax refunds
Aset lain-lain tidak lancar	Rp'000	31.743.412	2.383	30.987.742	2.306	5.509.845	4.024	51.567.528	4.182	Other noncurrent assets
Jumlah			273.309		205.658		128.134		142.442	Total
LIABILITAS										LIABILITIES
Utang usaha	Rp'000	789.843.338	59.302	265.383.201	19.752	234.110.581	16.971	153.168.698	12.313	Trade accounts payable
	Lainnya/ *Others*		212		206		1.238		912	
Utang lain-lain	Rp'000	705.907	53	120.294	9	677.158	49	3.241.978	261	Other accounts payable
	Lainnya/ *Others*				-		179		13	
Utang pajak	*Rp'000*	173.275.688	13.010	11.887.608	885	25.311.314	1.835	18.174.740	1.461	Taxes payable
Biaya yang masih harus dibayar	Rp'000	40.118.599	3.012	45.051.217	3.353	28.113.824	2.225	17.593.734	1.414	Accrued expenses
Liabilitas imbalan pasca kerja	Rp'000	415.735.670	31.214	365.099.948	27.173	295.517.856	21.422	272.858.960	21.934	Post-employment benefits obligation
Utang obligasi	Rp'000	500.000.000	37.510	500.000.000	36.594	-	-		-	Bonds payable
Jumlah			144.313		87.972		43.919		38.308	Total
Aset Bersih			128.996		117.686		84.215		104.134	Net Assets

Entitas anak, RPU dan CAP2, memiliki mata uang fungsional dalam Rupiah (Rp), dimana aset bersih dalam mata uang asing masing-masing sebesar US$ 3.506 ribu, US$ 925 ribu, US$ 1.703 ribu dan US$ 2.270 ribu pada tanggal 30 Juni 2017, 31 Desember 2016, 2015 dan 2014.

Pada tanggal 30 Juni 2017, 31 Desember 2016, 2015 dan 2016, kurs konversi yang digunakan Perusahaan dan entitas anak masing-masing adalah US$ 0,075, US$ 0,074, US$ 0,072 dan US$ 0,080 untuk Rp 1.000.

36. KONDISI INDUSTRI

Secara historis, industri petrokimia selalu mempunyai siklus tertentu. Perubahan di dalam permintaan dan penawaran yang berakibat pada tingkat utilisasi operasi merupakan faktor kunci yang mempengaruhi siklus industri dan profitabilitas dari industri tersebut. Kebutuhan dari industri dipengaruhi oleh aktivitas ekonomi sementara itu, penawarannya dipengaruhi oleh tambahan kapasitas baru.

Sifat siklus dari industri tersebut telah mempengaruhi dan dapat terus mempengaruhi hasil kegiatan usaha Grup di masa yang akan datang. Pada 1H 2017, tahun 2016 dan 2015, marjin dari produk-produk yang dimiliki oleh Grup membaik, terutama disebabkan oleh dinamika permintaan dan penawaran. Selain itu, industri diuntungkan oleh rendahnya harga biaya bahan baku dengan turunnya harga minyak mentah *Brent* selama tahun 2016 dan 2015 dan hal tersebut memberikan dampak positif pada marjin petrokimia.

Grup telah melakukan dan akan terus melaksanakan langkah-langkah secara hati-hati seperti di bawah ini:

- Meningkatkan kapasitas pabrik Grup untuk menyesuaikan dengan pertumbuhan permintaan produk-produk petrokimia di Indonesia dan mencapai skala ekonomi yang diperlukan. Saat ini, Grup telah meningkatkan kapasitas dari pabrik Cracker sekitar 40% untuk meningkatkan produksi produk ethylene dari 600 KT per tahun menjadi 820 KT per tahun dengan penyelesaian mekanik pada 9 Desember 2015, dilanjutkan dengan peningkatan pada Q1 2016 dan penyelesaian seluruhnya pada bulan April 2016;

- Mengintegrasikan turunan produk dan mendiversifikasikan produk yang ditawarkan secara berkesinambungan. Sebagai contoh, pabrik Butadiene yang dimiliki oleh Grup yang mulai beroperasi pada triwulan ketiga tahun 2013 yang akan memberikan nilai tambah pada produk crude C4 yang sebelumnya diekspor. Pada tahun 2013, Grup juga mengadakan perjanjian ventura bersama degan Compagnie Financiere Du Groupe Michelin (Michelin) untuk investasi dalam *synthetic butadiene rubber*. Pekerjaaan *Engineering Procurement and Construction* (EPC) telah berlangsung sejak Juni 2015 dengan ekspektasi *startup* pabrik pada 2018;

A subsidiary, RPU and CAP2, has functional currency in Indonesian Rupiah (Rp), with net monetary assets of US$ 3,506 thousand, US$ 925 thousand, US$ 1,703 thousand and US$ 2,270 thousand as of June 30, 2017, December 31, 2016, 2015 and 2014, respectively.

As of June 30, 2017, December 31, 2016, 2015 and 2014, the conversion rates used by the Company and its subsidiaries were US$ 0.075, US$ 0.074, US$ 0.072 and US$ 0.080 for Rp 1,000, respectively.

36. INDUSTRY CONDITION

The petrochemical industry has historically been cyclical. Changes in supply and demand and resulting operating utilization levels are key factors that influence the cycle and profitability of the sector. Industry demand is primarily influenced by economic activity while supply is affected by new capacity additions.

The cyclical nature of the industry has affected and may continue to affect the Group operating results in the future. In first half 2017, 2016 and 2015, the Group's product margins improved reflecting the demand and supply dynamics. In addition, the industry benefited from lower feedstock costs with lower Brent crude oil prices in 2016 and 2015 and this had a positive effect on petrochemical margins.

The Group has undertaken and will continue to implement prudent measures, such as the following:

- Increase our plant capacity to capture strong Indonesian petrochemical growth and achieve economies of scale. The Group expanded the production capacity of its Cracker by some 40% to increase ethylene production from 600 KT per annum to 820 KT per annum with mechanical completion achieved on December 9, 2015, followed by ramp-up in Q1 2016 and fully operational in April 2016;

- Continue to expand our product offerings and further integrate downstream. For example, the Group's Butadiene Extraction plant, Indonesia's first Butadiene plant, which came on-stream in Q3 2013, had added value to the crude C4 product which we previously export. In 2013, the Group has also entered into a joint venture with Compagnie Financiere Du Groupe Michelin (Michelin) to invest in synthetic butadiene rubber. Engineering Procurement and Construction (EPC) works commenced in June 2015 with plant startup expected in 2018;

- Mencapai tingkat produksi yang optimal sebagai respon terhadap keadaan pasar dan kondisi perekonomian melalui penerapan metode produksi yang aman dan efisien;
- Secara berkesinambungan menerapkan program efisiensi untuk meningkatkan produksi, pengurangan pemakaian energi dan pengurangan biaya operasi per unit;
- Meningkatkan pangsa pasar domestik melalui pengembangan pelanggan baru;
- Menurunkan biaya bahan baku utama dengan mencari sumber alternatif bahan baku, jika memungkinkan dan mengusahakan memperbanyak sumber pemasok bahan baku, termasuk dari sumber domestik.

Manajemen berkeyakinan bahwa tindakan tersebut akan efektif untuk memperoleh kegiatan usaha yang menguntungkan.

- Achieve optimum production levels in response to market and economic conditions by applying safe and efficient production methods;
- Continuously implement plant operation improvements relating to yield, energy and efficiency initiatives to reduce unit operating costs;
- Increase domestic market share by developing new customers;
- Lower feedstock costs by sourcing alternative feedstock, where possible, and maintaining a broader base of raw material suppliers, including domestic sources.

Management believes that the above measures will be effective to achieve profitable operations.

37. PERISTIWA SETELAH PERIODE PELAPORAN

a. Pada tanggal 31 Agustus 2017, Perusahaan mengadakan perjanjian dengan Toyo Engineering Corporation dan Toyo Engineering Korea Limited untuk pengadaan pelayanan konsultan teknis, manajemen proyek untuk detail tehnik dan material dari luar negeri, dan transpotasi untuk membangun *new swing plant of HDPE, LLDPE, and mLLDPE* yang terletak di Ciwandan, Cilegon, Banten, Indonesia.

b. Pada tanggal 31 Agustus 2017, Perusahaan mengadakan perjanjian dengan PT Inti Karya Persada Tehnik untuk pengadaan barang dari dalam negeri, peralatan dan fasilitas konstruksi, penerimaan dan pembongkaran barang dari luar negeri di pelabuhan untuk membangun *new swing plant of HDPE, LLDPE, and mLLDPE* yang terletak di Ciwandan, Cilegon, Banten, Indonesia.

c. Pada tanggal 14 Agustus 2017, Perusahaan memperoleh pernyataan efektif dari OJK berdasarkan surat No. S-410/D.04/2017 untuk mengadakan Penawaran Umum Terbatas II (PUT II) dengan Hak Memesan Efek Terlebih Dahulu dimana Perusahaan menerbitkan sebanyak 279.741.494 saham dengan harga Rp 18.000 per saham atau dengan total penerimaan bersih sebesar US$ 372.236 ribu setelah dikurangi biaya emisi.

37. EVENTS AFTER THE REPORTING PERIOD

a. On August 31, 2017, the Company has entered into the agreement with Toyo Engineering Corporation and Toyo Engineering Korea Limited to supply technical advisory service, project management for detail engineering and offshore procurement, and transportation to build a new swing plant of HDPE, LLDPE, and mLLDPE in Ciwandan, Cilegon, Banten, Indonesia.

b. On August 31, 2017, the Company has entered into the agreement with PT Inti Karya Persada Tehnik to supply local equipment, construction equipment and facilities, the receiving and unloading of the imported equipment at relevant port to build a new swing plant of HDPE, LLDPE, and mLLDPE in Ciwandan, Cilegon, Banten, Indonesia.

c. On August 14, 2017, the Company obtained Effective Letter No. S-410/D.04/2017 from Financial Services Authority (OJK) in accordance with Limited Public Offering II for additional capital with total of 279,741,494 shares with price Rp 18,000 per share or with total receipt amounted to US$ 372,236 thousand net after emission costs.

38. INFORMASI KEUANGAN TERSENDIRI PERUSAHAAN

Informasi keuangan entitas induk terdiri dari informasi laporan posisi keuangan, laporan laba rugi dan penghasilan komprehensif lain, laporan perubahan ekuitas, laporan arus kas dan catatan atas investasi pada entitas anak dan entitas asosiasi.

38. PARENT ENTITY'S FINANCIAL INFORMATION

The financial information of the parent entity comprise of statements of financial position, statements of profit or loss and other comprehensive income, statements of changes in equity, statements of cash flows information and notes on investments in subsidiaries and associate.

Informasi keuangan entitas induk disajikan dari halaman 92 sampai dengan 97. Informasi laporan keuangan induk tersendiri mengikuti kebijakan akuntansi yang digunakan dalam penyusunan laporan keuangan konsolidasian seperti yang dijelaskan dalam Catatan 3, kecuali untuk investasi pada entitas anak dan entitas asosiasi yang dicatat menggunakan metode biaya.

Financial information of the parent entity was presented on pages 92 to 97. These parent only financial information follow the accounting policies used in the preparation of the consolidated financial statements that are described in Note 3, except for the investments in subsidiaries and associate which are accounted for using the cost method.

39. TANGGUNG JAWAB MANAJEMEN DAN PERSETUJUAN ATAS LAPORAN KEUANGAN KONSOLIDASIAN

Penyusunan dan penyajian wajar laporan keuangan konsolidasian dari halaman 1 sampai 91 dan informasi tambahan di halaman 92 sampai dengan 97 merupakan tanggung jawab manajemen, dan telah disetujui oleh Direktur untuk diterbitkan pada tanggal 18 September 2017.

39. MANAGEMENT RESPONSIBILITY AND APPROVAL OF CONSOLIDATED FINANCIAL STATEMENTS

The preparation and fair presentation of the consolidated financial statements on pages 1 to 91 and supplementary information on pages 92 to 97 were the responsibilities of the management, and were approved by the Directors and authorized for issue on September 18, 2017.

	30 Juni/ *June 30,* 2017 US$ '000	31 Desember/ *December 31,* 2016 US$ '000	31 Desember/ *December 31,* 2015 US$ '000	31 Desember/ *December 31,* 2014 US$ '000	
ASET					**ASSETS**
ASET LANCAR					**CURRENT ASSETS**
Kas dan setara kas	136.332	238.430	77.330	145.657	Cash and cash equivalents
Rekening bank yang dibatasi penggunaannya	13.422	10.398	12.764	14.250	Restricted cash in banks
Piutang usaha					Trade accounts receivable
Pihak berelasi	29.751	20.221	21.699	46.979	Related party
Pihak ketiga - setelah dikurangi cadangan kerugian penurunan nilai sebesar US$ 118 ribu pada 30 Juni 2017, 31 Desember 2016, 2015 dan 2014	104.437	95.824	30.508	62.678	Third parties - net of allowance for impairment losses of US$ 118 thousand at June 30, 2017, December 31, 2016, 2015 and 2014
Piutang lain-lain					Other accounts receivable
Pihak berelasi	3.138	3.122	72.010	48.012	Related party
Pihak ketiga	2.537	5.762	10.311	6.972	Third parties
Persediaan - bersih	176.068	161.157	144.081	188.925	Inventories - net
Pajak dibayar dimuka	151	6.308	40.314	67.084	Prepaid taxes
Uang muka dan biaya dibayar dimuka	35.022	18.195	10.308	9.407	Advances and prepaid expenses
Aset tidak lancar yang tersedia untuk dijual	-	-	-	6.998	Noncurrent assets held for sale
Jumlah Aset Lancar	500.858	559.417	419.325	596.962	Total Current Assets
ASET TIDAK LANCAR					**NONCURRENT ASSETS**
Piutang kepada pihak berelasi	140.280	137.915	46.855	64.793	Accounts receivable from related parties
Investasi saham	189.676	159.976	129.976	129.976	Investment in shares of stock
Uang muka pembelian aset tetap	7.141	3.101	13.278	11.195	Advances for purchase of property, plant and equipment
Aset keuangan derivatif	2.116	1.500	659	1.118	Derivative financial assets
Tagihan restitusi pajak	64.800	64.235	62.564	69.378	Claims for tax refund
Rekening bank yang dibatasi penggunaannya	9.068	-	-	2.862	Restricted cash in banks
Aset tetap - setelah dikurangi akumulasi penyusutan sebesar US$ 971.735 ribu pada 30 Juni 2017, US$ 939.756 ribu pada 31 Desember 2016, US$ 972.999 ribu pada 31 Desember 2015 dan US$ 922.167 ribu pada 31 Desember 2014	1.127.087	1.131.079	1.115.468	950.135	Property, plant and equipment - net of accumulated depreciation of US$ 971,735 thousand at June 30, 2017, US$ 939,756 thousand at December 31, 2016, US$ 972,999 thousand at December 31, 2015 and US$ 922,167 thousand at December 31, 2014
Aset tidak lancar lainnya	2.288	2.212	2.072	4.896	Other noncurrent assets
Jumlah Aset Tidak Lancar	1.542.456	1.500.018	1.370.872	1.234.353	Total Noncurrent Assets
JUMLAH ASET	2.043.314	2.059.435	1.790.197	1.831.315	**TOTAL ASSETS**

*) Disajikan menggunakan metode biaya

*) Presented using cost method

	30 Juni/ *June 30,* 2017 US$ '000	31 Desember/ *December 31,* 2016 US$ '000	31 Desember/ *December 31,* 2015 US$ '000	31 Desember/ *December 31,* 2014 US$ '000	
LIABILITAS DAN EKUITAS					**LIABILITIES AND EQUITY**
LIABILITAS JANGKA PENDEK					**CURRENT LIABILITIES**
Utang bank	-	-	50.800	-	Bank loans
Utang usaha					Trade accounts payable
Pihak berelasi	275	23.918	91.164	132.758	Related parties
Pihak ketiga	356.996	312.112	126.451	247.561	Third parties
Utang lain-lain					Other accounts payable
Pihak berelasi	-	15.000	-	-	Related party
Pihak ketiga	51	144	12.202	9.216	Third parties
Utang pajak	21.683	30.934	778	1.167	Taxes payable
Biaya yang masih harus dibayar	2.227	1.508	1.224	3.140	Accrued expenses
Uang muka pelanggan	4.624	3.945	4.503	3.125	Customer advances
Utang bank jangka panjang yang jatuh tempo dalam satu tahun	71.278	62.304	69.375	68.400	Current maturities of long-term bank loans
Jumlah Liabilitas Jangka Pendek	457.134	449.865	356.497	465.367	Total Current Liabilities
LIABILITAS JANGKA PANJANG					**NONCURRENT LIABILITIES**
Liabilitas pajak tangguhan - bersih	119.685	120.706	123.848	110.849	Deferred tax liabilities - net
Utang bank jangka panjang - setelah dikurangi bagian yang jatuh tempo dalam satu tahun:					Long-term bank loans - net of current maturities:
Utang bank	264.605	325.276	425.819	421.106	Bank loans
Utang obigasi	36.708	36.594	-	-	Bonds payable
Liabilitas keuangan derivatif	318	40	677	491	Derivative financial liabilities
Liabilitas imbalan pasca kerja	25.897	22.522	17.751	18.280	Post-employment benefits obligation
Estimasi biaya pembongkaran aset tetap	2.254	2.163	2.127	2.097	Decommissioning cost
Jumlah Liabilitas Jangka Panjang	449.467	507.301	570.222	552.823	Total Noncurrent Liabilities
JUMLAH LIABILITAS	906.601	957.166	926.719	1.018.190	**TOTAL LIABILITIES**
EKUITAS					**EQUITY**
Modal saham - nilai nominal Rp 1.000 per saham					Capital stock - Rp 1,000 par value per share
Modal dasar - 12.264.785.664 saham					Authorized - 12,264,785,664 shares
Modal ditempatkan dan disetor penuh - 3.286.962.558 saham	359.989	359.989	359.989	359.989	Issued and fully paid - 3,286,962,558 shares
Tambahan modal disetor	108.675	108.675	108.675	108.675	Additional paid-in capital
Penghasilan komprehensif lain	(2.147)	(720)	744	495	Other comprehensive income
Saldo laba					Retained earnings
Ditentukan penggunaannya	13.039	7.039	5.639	4.739	Appropriated
Tidak ditentukan penggunaannya	657.157	627.286	388.431	339.227	Unappropriated
JUMLAH EKUITAS	1.136.713	1.102.269	863.478	813.125	**TOTAL EQUITY**
JUMLAH LIABILITAS DAN EKUITAS	2.043.314	2.059.435	1.790.197	1.831.315	**TOTAL LIABILITIES AND EQUITY**

*) Disajikan menggunakan metode biaya

*) Presented using cost method

	2017 (Enam bulan/ *Six months*) US$ '000	2016 (Enam bulan/ *Six months*) US$ '000	2016 (Satu tahun/ *One year*) US$ '000	2015 (Satu tahun/ *One year*) US$ '000	2014 (Satu tahun/ *One year*) US$ '000	
PENDAPATAN BERSIH	991.250	768.387	1.683.305	1.161.894	2.103.807	**NET REVENUES**
BEBAN POKOK PENDAPATAN	740.516	563.571	1.229.544	1.024.688	2.000.620	**COST OF REVENUES**
LABA KOTOR	250.734	204.816	453.761	137.206	103.187	**GROSS PROFIT**
Beban penjualan	(19.383)	(20.569)	(40.054)	(36.561)	(35.285)	Selling expenses
Beban umum dan administrasi	(21.333)	(14.316)	(25.291)	(22.148)	(21.895)	General and administrative expenses
Beban keuangan	(17.331)	(14.039)	(31.576)	(22.140)	(31.529)	Finance costs
Keuntungan (kerugian) atas instrumen keuangan derivatif	1.037	(1.588)	606	(1.524)	(2.596)	Gain (loss) on derivative financial instruments
Keuntungan (kerugian) kurs mata uang asing - bersih	1.670	3.490	(1.527)	(9.561)	(2.055)	Gain (loss) on foreign exchange - net
Keuntungan dan kerugian lain-lain - bersih	6.924	13.894	19.678	41.318	15.381	Other gains and losses - net
LABA SEBELUM PAJAK	202.318	171.688	375.597	86.590	25.208	**PROFIT BEFORE TAX**
BEBAN PAJAK PENGHASILAN - BERSIH	(49.381)	(43.322)	(91.908)	(31.986)	(7.293)	**INCOME TAX EXPENSE - NET**
LABA PERIODE BERJALAN	152.937	128.366	283.689	54.604	17.915	**PROFIT FOR THE PERIOD**
PENGHASILAN KOMPREHENSIF LAIN						**OTHER COMPREHENSIVE INCOME**
Pos yang tidak akan direklasifikasi ke laba rugi:						Item that will not be reclassified subsequently to profit or loss:
Pengukuran kembali atas program imbalan pasti - setelah pajak	(1.427)	(1.909)	(1.464)	249	(1.483)	Remeasurement of defined benefits obligation - net off tax
JUMLAH LABA KOMPREHENSIF PERIODE BERJALAN	151.510	126.457	282.225	54.853	16.432	**TOTAL COMPREHENSIVE INCOME FOR THE PERIOD**

*) Disajikan menggunakan metode biaya

*) Presented using cost method

	Modal ditempatkan dan disetor penuh/ *Issued and fully paid capital*	Tambahan modal disetor/ *Additional paid-in capital*	Pendapatan komprehensif lain/ *Other comprehensive income* — Pengukuran kembali atas program imbalan pasti/ *Remeasurement of defined benefits obligation*	Saldo Laba/ *Retained earnings* — Ditentukan penggunaannya/ *Appropriated*	Saldo Laba/ *Retained earnings* — Tidak ditentukan penggunaannya/ *Unappropriated*	Jumlah ekuitas/ *Total equity*	
	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	
Saldo per 1 Januari 2014	359.989	108.675	1.978	3.939	324.712	799.293	Balances as of January 1, 2014
Laba tahun berjalan	-	-	-	-	17.915	17.915	Profit for the year
Penghasilan komprehensif lain - Pengukuran kembali atas program imbalan pasti	-	-	(1.483)	-	-	(1.483)	Other comprehensive income - Remeasurement of defined benefit obligation
Cadangan umum	-	-	-	800	(800)	-	General reserve
Dividen tunai	-	-	-	-	(2.600)	(2.600)	Cash dividends
Saldo per 31 Desember 2014	359.989	108.675	495	4.739	339.227	813.125	Balances as of December 31, 2014
Laba tahun berjalan	-	-	-	-	54.604	54.604	Profit for the year
Penghasilan komprehensif lain - Pengukuran kembali atas program imbalan pasti	-	-	249	-	-	249	Other comprehensive income - Remeasurement of defined benefit obligation
Cadangan umum	-	-	-	900	(900)	-	General reserve
Dividen tunai	-	-	-	-	(4.500)	(4.500)	Cash dividends
Saldo per 31 Desember 2015	359.989	108.675	744	5.639	388.431	863.478	Balances as of December 31, 2015
Laba periode berjalan	-	-	-	-	128.366	128.366	Profit for the period
Penghasilan komprehensif lain - Pengukuran kembali atas program imbalan pasti	-	-	(1.909)	-	-	(1.909)	Other comprehensive income - Remeasurement of defined benefit obligation
Cadangan umum	-	-	-	1.400	(1.400)	-	General reserve
Dividen tunai	-	-	-	-	(10.500)	(10.500)	Cash dividends
Saldo per 30 Juni 2016	359.989	108.675	(1.165)	7.039	504.897	979.435	Balances as of June 30, 2016
Saldo per 31 Desember 2015	359.989	108.675	744	5.639	388.431	863.478	Balances as of December 31, 2015
Laba tahun berjalan	-	-	-	-	283.689	283.689	Profit for the year
Penghasilan komprehensif lain - Pengukuran kembali atas program imbalan pasti	-	-	(1.464)	-	-	(1.464)	Other comprehensive income - Remeasurement of defined benefit obligation
Cadangan umum	-	-	-	1.400	(1.400)	-	General reserve
Dividen tunai	-	-	-	-	(43.434)	(43.434)	Cash dividends
Saldo per 31 Desember 2016	359.989	108.675	(720)	7.039	627.286	1.102.269	Balances as of December 31, 2016
Laba periode berjalan	-	-	-	-	152.937	152.937	Profit for the period
Penghasilan komprehensif lain - Pengukuran kembali atas program imbalan pasti	-	-	(1.427)	-	-	(1.427)	Other comprehensive income - Remeasurement of defined benefit obligation
Cadangan umum	-	-	-	6.000	(6.000)	-	General reserve
Dividen tunai	-	-	-	-	(117.066)	(117.066)	Cash dividends
Saldo per 30 Juni 2017	359.989	108.675	(2.147)	13.039	657.157	1.136.713	Balances as of June 30, 2017

*) Disajikan menggunakan metode biaya

*) Presented using cost method

	2017 (Enam bulan/ *Six months*)	2016 (Enam bulan/ *Six months*)	2016 (Satu tahun/ *One year*)	2015 (Satu tahun/ *One year*)	2014 (Satu tahun/ *One year*)	
	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	
ARUS KAS DARI AKTIVITAS OPERASI						**CASH FLOWS FROM OPERATING ACTIVITIES**
Penerimaan kas dari pelanggan	973.786	687.196	1.618.909	1.223.848	2.156.012	Cash receipts from customers
Pembayaran kas kepada:						Cash paid to:
Pemasok	(720.536)	(492.063)	(1.094.978)	(1.107.449)	(2.043.413)	Suppliers
Direksi dan karyawan	(41.362)	(20.683)	(47.058)	(38.452)	(41.521)	Directors and employees
Kas dihasilkan dari operasi	211.888	174.450	476.873	77.947	71.078	Cash generated from operations
Penerimaan dari restitusi pajak	6.173	33.938	33.938	30.887	37.275	Tax restitution received
Pembayaran pajak penghasilan	(62.817)	(13.506)	(64.334)	(20.845)	(27.452)	Payment of income taxes
Kas Bersih Diperoleh dari Aktivitas Operasi	155.244	194.882	446.477	87.989	80.901	Net Cash Provided by Operating Activities
ARUS KAS DARI AKTIVITAS INVESTASI						**CASH FLOWS FROM INVESTING ACTIVITIES**
Perolehan aset tetap	(24.886)	(15.307)	(53.692)	(192.655)	(174.066)	Acquisitions of property, plant and equipment
Pembayaran uang muka pembelian aset tetap	(7.141)	(7.124)	(3.101)	(3.837)	(10.051)	Payment of advance for purchase of property, plant and equipment
Penarikan (penempatan) dari rekening yang dibatasi penggunaannya	(12.092)	2.801	2.366	4.348	-	Withdrawal (placement) of restricted cash in banks
Penerimaan pendapatan bunga dari pihak berelasi	3.239	2.675	5.782	5.066	4.819	Interest received on accounts receivable from related party
Penerimaan bunga	908	1.246	1.725	454	1.828	Interest received
Piutang kepada pihak berelasi - bersih	(2.381)	(25.000)	(22.171)	(7.647)	(3.985)	Accounts receivable from related parties - net
Penambahan investasi saham	(29.700)	-	(15.000)	-	-	Additional investment in shares of stock
Pembayaran beban bunga yang dikapitalisasi ke aset tetap	-	(4.830)	(4.830)	(14.821)	(3.890)	Payment of interest expenses capitalized to property, plant and equipment
Hasil penjualan aset tidak lancar yang tersedia untuk dijual	-	-	-	25.789	-	Proceeds from sale of noncurrent assets held for sale
Pembayaran tagihan atas restitusi pajak	-	-	-	-	(27.444)	Payment of claims for tax refund
Penempatan pada rekening yang dibatasi penggunaannya	-	-	-	-	(9.078)	Placement on restricted cash in banks
Kas Bersih Digunakan untuk Aktivitas Investasi	(72.053)	(45.539)	(88.921)	(183.303)	(221.867)	Net Cash Used in Investing Activities
ARUS KAS DARI AKTIVITAS PENDANAAN						**CASH FLOWS FROM FINANCING ACTIVITIES**
Penerimaan utang bank jangka pendek	-	220.135	220.135	238.800	72.003	Proceeds from short-term bank loans
Penerimaan utang bank jangka panjang	-	-	199.800	159.980	200.000	Proceeds from long-term bank loans
Penerimaan utang obligasi	-	-	37.510	-	-	Proceeds from bonds payable
Pembayaran utang bank jangka pendek	(54.965)	(270.935)	(308.694)	(188.000)	(93.779)	Payment of short-term bank loans
Pembayaran utang bank jangka panjang	-	(34.687)	(270.935)	(152.280)	(46.410)	Payment of long-term bank loans
Pembayaran bunga dan beban keuangan	(13.258)	(12.753)	(43.434)	(24.419)	(25.518)	Interest and financial charges paid
Pembayaran dividen	(117.066)	(10.500)	(27.375)	(4.500)	(2.600)	Dividend payment
Pembayaran biaya perolehan pinjaman	-	-	(3.463)	(2.594)	(3.531)	Payment of transaction costs
Kas Bersih Diperoleh dari (Digunakan untuk) Aktivitas Pendanaan	(185.289)	(108.740)	(196.456)	26.987	100.165	Net Cash Provided by (Used in) Financing Activities
KENAIKAN (PENURUNAN) BERSIH KAS DAN SETARA KAS	(102.098)	40.603	161.100	(68.327)	(40.801)	**NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS**
KAS DAN SETARA KAS AWAL PERIODE	238.430	77.330	77.330	145.657	186.458	**CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD**
KAS DAN SETARA KAS AKHIR PERIODE	136.332	117.933	238.430	77.330	145.657	**CASH AND CASH EQUIVALENTS AT END OF PERIOD**

*) Disajikan menggunakan metode biaya

*) Presented using cost method

Rincian investasi pada entitas anak dan asosiasi adalah sebagai berikut:

Details of investments in subsidiaries and an associate are as follows:

Entitas Anak dan Entitas Asosiasi/ *Subsidiaries and Associates*	Domisili/ *Domicile*	30 Juni/ *June 30,* 2017	Persentase Pemilikan/ *Percentage of Ownership* 31 Desember/*December 31,* 2016	2015	2014	Jenis Usaha/ *Nature of Business*	Tahun Operasi Komersil/ *Start of Commercial Operations*
Entitas Anak/Subsidiaries							
PT Styrindo Mono Indonesia ("SMI")	Jakarta	99,99%	99,99%	99,99%	99,99%	Petrokimia/ *Petrochemical*	1993
PT Redeco Petrolin Utama ("RPU") *)	Jakarta	50,75%	50,75%	50,75%	50,75%	Sewa tanki/ *Tanks lease*	1986
Altus Capital Pte., Ltd. ("AC")	Singapura/ *Singapore*	100,00%	100,00%	100,00%	100,00%	Keuangan/ *Finance*	2009
PT Petrokimia Butadiene Indonesia ("PBI") **)	Jakarta	99,98%	99,98%	99,97%	99,97%	Petrokimia/ *Petrochemical*	2013
PT Banten Aromatic Indonesia ("BAI") ***)	Jakarta	-	-	100,00%	100,00%	Petrokimia/ *Petrochemical*	-
PT Chandra Asri Perkasa ("CAP2") ****)	Jakarta	100,00%	-	-	-	Petrokimia/ *Petrochemical*	Tahap Pengembangan/ *Development Stage*
Entitas Asosiasi/Associate							
PT Synthetic Rubber Indonesia ("SRI") *)	Jakarta	45,00%	45,00%	45,00%	45,00%	Petrokimia/ *Petrochemical*	Tahap pengembangan/ *Development Stage*

*) Kepemilikan tidak langsung melalui SMI/*Indirect ownership through SMI*

**) Kepemilikan tidak langsung melalui SMI (55%) dan PBI (45%)/*Indirect ownership through SMI (55%) and PBI (45%)*

***) Pada tahun 2016, berdasarkan Akta No. 32 dari Jose Dima Satria, S.H., M.Kn, Notaris di Jakarta, SMI & PBI, entitas anak, menyetujui untuk melikuidasi BAI/
In 2016, based on Notarial Deed No. 32 from Jose Dima Satria, S.H., M.Kn, Notary in Jakarta, SMI & PBI, subsidiaries, agreed to liquidate BAI.

****) Berdasarkan Akta No. 1 dari Mina Ng, S.H., Spn. M.Kn, Notaris di jakarta, Perusahaan dan SMI mendirikan suatu perusahaan bernama PT Chandra Asri Perkasa (CAP2)/
Based on Notarial Deed No. 1 from Mina Ng, S.H., Spn. M.Kn, Notary in Jakarta, The Company and SMI established a new company named PT Chandra Asri Perkasa (CAP2)

ANNEX A

Confidential
Industry Report

Independent Market Report on the Global and Indonesian Petrochemicals Industry

October 2017

Prepared for
Board of PT. Chandra Asri Petrochemical Tbk

Nexant

Confidential
Industry Report

Independent Market Report on the Global and Indonesian Petrochemicals Industry

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Board of PT. Chandra Asri Petrochemical Tbk

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Nexant

Contents

Section 1 Introduction

1.1 OBJECTIVES

Nexant has been appointed as an Industry Consultant to provide an independent industry report (this "Report") to support the forthcoming right issues of PT. Chandra Asri Petrochemical Tbk. ("CAP").

The scope of this Report covers key aspects of the global and Indonesian petrochemicals sector. This Report covers the following major petrochemical products:

- Olefins (ethylene, propylene and butadiene)
- Olefin derivatives (polyethylene and polypropylene)
- Styrene monomer.

The report includes product analysis covering details of market supply and demand, net trade and pricing

1.2 PETROCHEMICAL SECTOR

Petrochemicals are chemical products derived from petroleum and other hydrocarbon sources. In 2016, total global industry revenues for the sector were estimated at approximately US$3 trillion. Petrochemicals are used principally as building blocks for a wide variety of materials and applications. Given the wide diversity of uses, the petrochemical industry plays an integral role in both manufacturing and consumer sectors. Furthermore, due to limitations of feasible and economic substitutes, petrochemical products are an essential component of the global economy. Key market end-use sectors include transportation, packaging, construction, agriculture, textiles, consumer goods and electronics.

Table 1.1 Overview of Petrochemical Products Covered within this Report

			Global		SEA*		Indonesia	
Building Block	Derivative	Key Derivatives and/or Applications	Demand 2016 (mtpa)	%CAGR (2017-2023)F	Demand 2016 (mtpa)	%CAGR (2017-2023)F	Demand 2016 (mtpa)	%CAGR (2017-2023)F
Ethylene		Feedstock for polyethylene	147	3.2	10.3	3.7	1.4	0.5
	Polyethylene	Packaging, agriculture, automotive, construction	91	3.4	5.7	3.9	1.3	4.4
Propylene		Feedstock for polypropylene	97	3.4	6.0	7.0	0.8	1.4
	Polypropylene	Packaging, textiles, automotive, construction	64	3.6	4.8	4.2	1.5	4.7
Butadiene		Feedstock for SB Rubber, Butadiene Rubber, ABS	11	2.4	0.7	5.5	0.1	17.7
Styrene		Feedstock for PS, ABS, SB Latex, UPR, SB Rubber	29	1.6	1.3	2.3	0.2	10.5

Note: SEA* = South East Asia including Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam
Note: CAGR = Compound Annual Growth Rate
Note: mtpa = million tons per annum
Note: F = Forecast
Source: Nexant

The petrochemical industry is a process-based industry that is characterised by the following key issues:

- **Feedstock inputs**: Raw materials typically account for the majority of operating expenses and are predominantly petroleum based. Therefore petrochemical producers have significant exposure to crude oil pricing. Given the importance of feedstock, producers with access to low priced gas feedstocks typically have a competitive advantage and higher levels of profitability over naphtha based producers;
- **Regional diversity:** Whilst the industry is global, market demand growth for chemicals is highest in developing regions. The Asian region is a major consumer and demand driver for the global

petrochemical industry. This is attributed to the rapid expansion in the region's industrial and manufacturing sectors, large population base, rising income levels and urbanisation trends. Mature markets such as the US and Europe are also significant in size but exhibit much lower growth;

- **Capital intensity:** Economies of scale and continued asset reinvestment to leverage improved technology and maintain plant equipment are essential to sustain competitiveness. Access to capital is therefore a significant barrier to entry to the industry. Capital spending is also cyclical and typically follows industry peaks when large cash flows are more readily available;
- **Cyclicality:** Demand for petrochemicals is subject to business and economic developments driving cyclicality in industry profitability. Industry cyclicality is further impacted by supply and the reinvestment in new petrochemical plant capacity. This process is relatively long with new large scale petrochemical projects taking approximately five years or more to be fully implemented;
- **Portfolio realignment:** Despite a high level of diversity, the industry has also experienced considerable portfolio realignment and increased levels of vertical integration. This is predominantly driven by competitive rivalry which has resulted in restructuring, mergers and acquisitions and demergers.

2.1 INDUSTRY OVERVIEW

2.1.1 Key Industry Value Chains

Primary petrochemical building blocks can be divided in the following major categories:

- Chemicals derived from methane ("C1 chemicals") such as methanol and ammonia
- Olefins – primarily include; ethylene, propylene and butadiene
- Aromatics – primarily include; benzene, toluene and xylenes.

The major petrochemical building blocks can be viewed by value chain. These products form the basis of the global commodity petrochemical industry. Figure 2.1 provides a high level overview of the principal petrochemical value chains and major applications and end uses.

Figure 2.1 Overview of Principal Petrochemical Value Chains

Building Block	Key Derivatives		Major Applications
Ammonia	Urea	Urea-formaldehyde, fertilizers	Agriculture, construction materials and furniture
Methanol	MTBE, Acetic Acid, DME	Vinyl acetate monomer (VAM)	Fuel usage, textiles, packaging and construction materials
Ethylene	Polyethylene		Packaging, construction materials, automotive
	EDC/VCM/PVC		Construction materials
	Ethylene Oxide/Ethylene Glycol	Polyester	Textiles, packaging, gas treatment and antifreeze
	Styrene	Polystyrene, EPS, ABS, SB rubber	Packaging, electronics, automotive and construction materials
Propylene	Polypropylene		Packaging, electronics, automotive and construction materials
	Propylene Oxide	Polyurethanes	Automotive, construction materials and furniture
	Acrylic Acid, Oxo Alcohols	Super absorbent Polymers	Diapers, automotive and construction materials
Butadiene	Butadiene Rubber, Styrene butadiene rubber		Tyre, automotive, electronics and appliances
Benzene	Styrene	Polystyrene, ABS, SB Rubber	Coatings, electronics, composites
	Cumene/Phenol/Acetone	Polycarbonate, Epoxy resins	Electronics, automotive and construction materials
	Diphenylmethane diisocyanate (MDI)	Polyurethanes	Automotive, construction materials and furniture
	Caprolactam, Adipic Acid	Polyamides (nylons)	Textiles, fibers and automotive
Toluene	Toluene diisocynate (TDI)	Polyurethanes	Automotive, construction materials and furniture
Xylenes	Purified Terephthalic Acid (PTA)/Dimethyl Terephthalate (DMT)		Textiles fibers and packaging

Source: Nexant

2.1.2 Industry Outlook

Petrochemical industry margins are subject to cyclicality. Changes in supply and demand and resulting plant operating utilisation levels ("operating rates") are key factors that influence the cycle and the profitability of the petrochemical sector. Additionally the sector is highly capital intensive. This also contributes to cyclicality as new investments usually occur at the same time, following periods of sustained higher profitability. The price of crude oil directly impacts the production costs and selling prices of most petrochemical products.

Crude oil prices have declined sharply since 2013 due to significant increases in global production. The supply landscape of crude oil has been enhanced by the further development of U.S. shale oil resources and the removal of sanctions on Iranian crude oil in January 2016. These factors contributed to a market oversupply and resulted in crude oil prices falling below US$30 per barrel in Q1 2016. Oil prices have since recovered from those low levels to trade within the US$40-55 per barrel range from Q2 2016 to Q1 2017. Going forward the current pricing stability is forecast to be sustained. A modest increase in short term pricing is feasible and supported by OPEC and non-OPEC decisions to cut production towards the end of 2016. Crude oil prices were marginally higher in Q1 2017 at close to US$54 per barrel.

Although crude oil prices fell to an average of US$50 per barrel in Q2 2017 as sentiment in global crude oil markets deteriorated to a more lengthy position, prices rebounded and increased through July and August, approaching a seven-month high of US$52 per barrel moving into September. Perception of global crude oil markets moved towards a more balanced position through Q3 2017, as recently extended supply constraints held supply behind firm demand growth, with OPEC leading an agreement in May 2017 to extend production quotas for another nine months through to March 2018.

Petrochemical markets have been exposed to cyclical changes in supply and demand. These changes are usually closely linked to economic growth patterns, especially in China given its strong manufacturing base. Demand can also be impacted by region specific seasonal events, such as the Lunar New Year or the Ramadan holiday periods. Global supply continues to increase, with renewed investments in the United States following increased shale gas availability. Conversely, capacity developments in the Middle East have slowed considerably due to lower availability of advantaged feedstocks for new projects. Asian capacity also continues to grow rapidly, led by investments in China. European producers remain heavily exposed to imports penetrating into Europe and displacement of uncompetitive material from traditional export markets.

Demand for olefins globally is projected to grow at approximately 3.3 percent CAGR (compound average annual growth rate) over the 2017-2023 period (3.4 and 3.2 percent CAGR for propylene and ethylene respectively) based on a high rate of current and future investments in propane dehydrogenation (propylene made from propane) and coal to olefin projects in China. Butadiene demand growth over the same period is forecast at 2.4 percent. Investments in new downstream derivatives capacity (products from these petrochemical building blocks) are continuing throughout the Asian region.

Global polyethylene demand was estimated at approximately 91 million tons while polypropylene demand was around 64 million tons in 2016. Those are forecast to grow at approximately 3.4 percent CAGR over the period 2017-2023. Demand for benzene globally reached 46 million tons in 2016. Nexant forecasts styrene demand to grow at 1.6 percent CAGR over the period 2017-2023. Principal demand drivers for these petrochemical products are associated with packaging, automotive, construction and electrical/electronic markets.

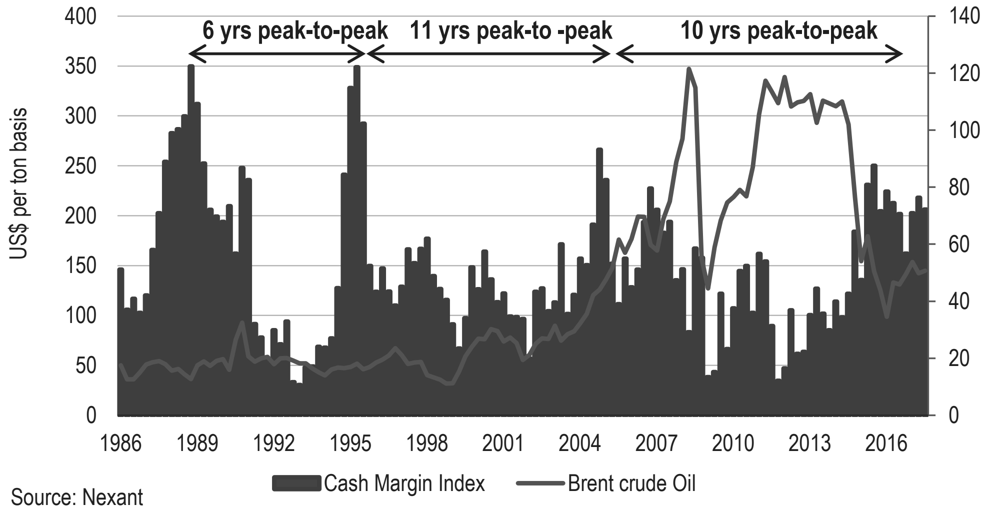
2.1.3 Pricing and Profitability

Industry demand is primarily influenced by economic activity while supply is affected by new capacity additions. Capital spending cycles are a common theme of the petrochemical sector as companies usually have access to large cash reserves at the same time. In times of economic growth, profitability is high resulting in multiple new investments in plant capacity. This often results in periods of oversupply as large increments of new capacity are realised at the same time. This leads to lower pricing and depressed margins for extended periods of time until the new capacity can be absorbed by new demand growth. Cyclicality also promotes industry restructuring, mergers, demergers and acquisitions. These factors may also result in capacity rationalisation whereby older, smaller scale, higher cost production units are closed.

Petrochemical industry cycles vary in length. However, historic data suggests that average cycle lengths have been between 6-11 years in duration, measuring peak to peak. Due to the global nature of the industry (connected through trade and pricing), the profitability of most commodity petrochemicals tends to follow a similar cycle. Therefore most products typically demonstrate peak or trough levels of profitability over the same periods. Occasionally, structural changes in a given market can cause profitability of one sector to diverge from the overall industry cycle.

Figure 2.2 Petrochemical Industry Cyclicality

(Cash margin index –commodity chemicals & polymers)



Source: Nexant

Figure 2.2 provides an overview of petrochemical industry profitability and highlights the cyclicality of the sector. Profitability is represented as a cash margin index. Cash margin presented represents the price of a petrochemical product minus its cash cost of production, excluding finance costs, depreciation and taxes. Data is based on an average for leading petrochemical plants in the region. This gives an estimated weighted average cash margin for the industry.

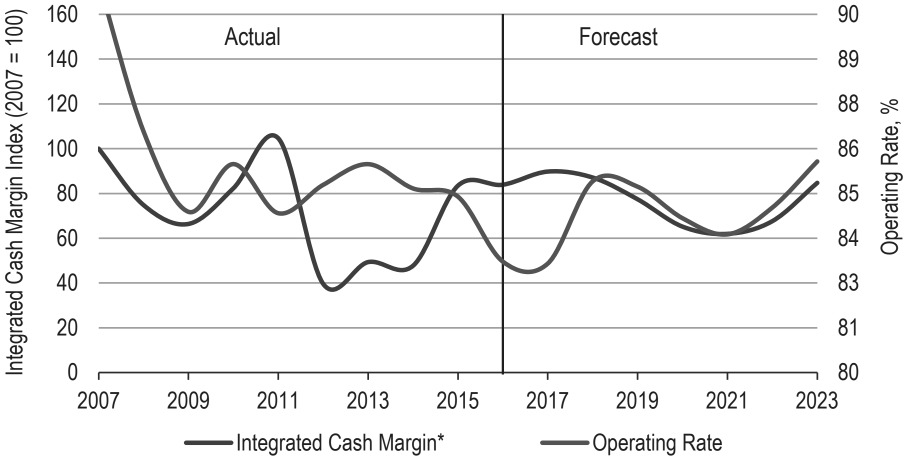
2.1.3.1 Asian Petrochemical Profitability

Average industry profitability levels rebounded since a low point in 2012. A good level of profitability has been sustained over the past two years and indicates a new cyclical peak over this period. Structurally the industry has benefited from modest supply additions over the period 2013-2016 whilst demand levels have remained steady with some recovery in the global economy observed through 2014. In 2015, the large drop in both crude oil and naphtha costs also contributed to improved cash margins for producers. New capacity, particularly in China, has been partially offset by some capacity closures of non-competitive units in other North-East Asia countries. Profitability has declined modestly in 2016, owing principally to increased supply across the propylene value chain, but this was partially off-set by better market fundamentals for ethylene and butadiene value chains.

With crude oil prices increasing in Q1 2017, petrochemical margins in Asia were contracted for some products. Relatively weak seasonal demand, around the Lunar New Year holidays, limited price increases for the following products, polyolefins, propylene and butadiene derivatives. Conversely tighter market supply in ethylene, butadiene and aromatics resulted in price increases being implemented and improved product margins for integrated petrochemical producers. Petrochemical prices in Asia generally decreased in Q2 2017, reflecting relatively weak demand as well as lower underlying crude oil pricing, although the impact on petrochemical profitability varied across different value chains. In Q3 2017, downstream manufacturing markets in China continued to be impacted by the ongoing environmental investigations.

Figure 2.3 Asian Petrochemical Industry Profitability

(Annual average integrated cash cost margin)



Note: Integrated cash cost margin for all commodity petrochemical products, across all integrated complexes in SEA

Source: Nexant

Asian markets are more heavily influenced by transactions in spot markets, contrary to the preference for contract volumes in Western markets. Market sentiment and opportunistic purchasing patterns in spot markets promote more volatility in profitability of Asian operations. However, strength of underlying markets (indicated by operating rates) remains the principle influence of profitability in the longer term.

In the short-term new capacity additions, primarily in China and the U.S., will put downward pressure on industry margins. However it is assumed that Asia will lead global demand growth, progressively absorbing major new capacity additions. The profitability of the Asian petrochemical industry is forecast to fluctuate near the historical average over the next five years. Future margins are expected to be sufficient to support selective investment in new capacity capturing some form of cost advantage through feedstock sourcing or downstream integration.

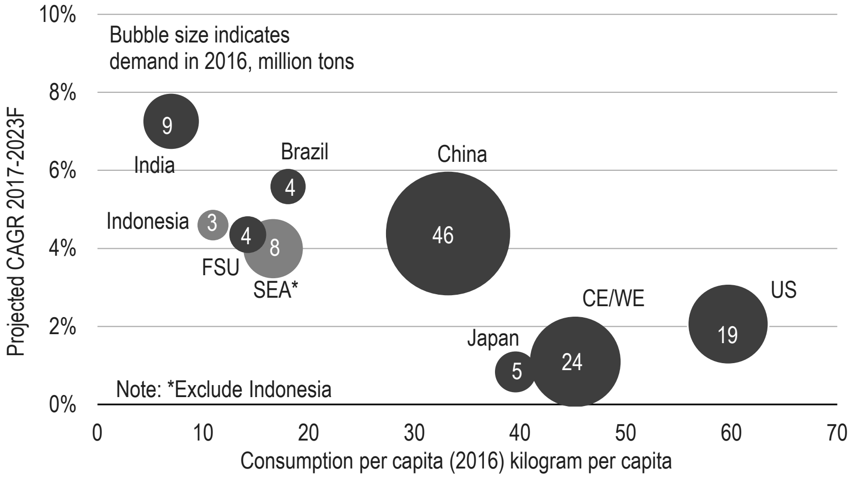
2.2 PETROCHEMICALS KEY DRIVERS & TRENDS

2.2.1 Demand Side Fundamentals

Consumption growth of petrochemicals can be measured by total olefins (ethylene and propylene) demand, which form two of the key industry building blocks. However, most olefins are used for captive consumption to produce other downstream derivative products from ethylene and propylene (such as polyolefins) onsite. Therefore, actual consumption growth of olefins by region does not provide a clear overview of end-user demand. As such consumption of polyolefins provides a more accurate representation of petrochemicals demand by region as they are consumed directly by end users in a wide variety of key end uses such as construction, automotive, packaging, agricultural products, textiles and various consumer goods.

High market growth potential for plastics continues to exist in emerging markets. Key markets such as India (9 million tons), Indonesia (3 million tons) and other South East Asia (SEA) countries (8 million tons) still have a relatively low consumption per capita for polyolefins compared to other mature markets such as Japan (6 million tons) and Europe (24 million tons). Consumption growth in emerging markets is supported by high population, rising living standards, urbanisation trends and infrastructure development. Additionally, material substitution trends (plastics replacing traditional materials) continues to offer high growth potential e.g. the replacement of paper and card by polyolefins in the packaging sector.

Figure 2.4 Polyolefins Consumption per Capita



Note: FSU means Former Soviet Union, CE means Central Europe, WE means Western Europe

Source: Nexant

Global demand for polyolefins exhibited good growth in 2016. Global demand was estimated at around 154 million tons in 2016 representing around 4 percent consumption growth over 2015. A high proportion of global consumption growth is still in China. China's total polyolefins demand in 2016 was estimated at approximately 46 million tons or approximately 30 percent of the global market. China's consumption per capita is estimated at around 35 kiliogram per capita. This is lower compared with some mature regions such as Europe (45 kilogram per capita) and the US (60 kilogram per capita). In contrast many of the emerging markets have very low levels of consumption per capita and present significant growth opportunities for polyolefins over the forecast period. Indonesia and India currently have very low levels of consumption per capita for polyolefins at 9 and 10 kilograms respectively.

Future prospects for the global polyolefins market are closely linked to Chinese demand growth and sustained economic development. Its economy is increasingly benefiting from domestic consumption which is largely responsible for recent growth. However China continues to go through a transitional period with lower GDP growth year on year forecast, with GDP forecasts for China in the range of 5.6-6.2 percent between 2017-2023[1]. This compares with double digit growth achieved over the last decade. As a consequence Nexant forecasts total polyolefins consumption growth in China to slow to 4.4 percent (CAGR) over the period 2017-2023, in line with slower economic growth.

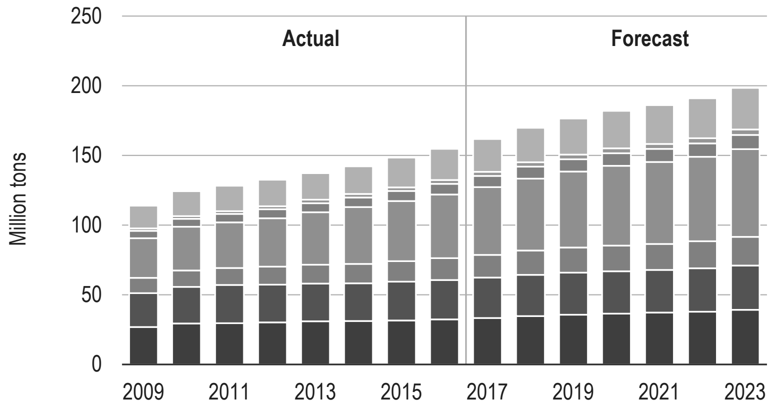
[1] IMF Statistics, October 2016

Indonesia has tremendous market potential associated with its large population base. Nexant forecasts total polyolefins' consumption in Indonesia to grow at a CAGR of 4.6 percent over the period of 2017-2023. Other South East Asia is also expected to show ongoing levels of consumption growth. Nexant forecasts total polyolefins' consumption in South East Asia to grow at a CAGR of 4.0 percent over the period of 2017-2023. Overall, total Asia Pacific is forecast to grow at around 4.3 percent CAGR over the same period.

Demand growth is also highest in developing regions such as Brazil and the Middle East, and Africa which are forecast to grow at approximately 4 percent per year on average over the period 2017-2023. Although the Middle East/African has high demand growth, the total current market size of 16 million tons is relatively small, therefore the region remains a major exporter of polyolefins at between 11-14 million tons per year.

North America and Europe are large markets for polyolefins, but growth rates have been relatively flat in recent years due to maturity of polyolefin end-uses and low population growth. Nexant forecasts growth at approximately 1-2 percent per year for both regions over the period 2017-2023. Demand in North America is also supported by the rapid development of the Mexican economy.

Figure 2.5 Polyolefins Consumption by Region



%CAGR '17-'23	Market Share, % 2017	2023
4.1	14%	15%
4.6	2%	2%
3.8	5%	5%
4.4	30%	32%
4.0	10%	10%
1.6	18%	16%
2.8	21%	20%

Source: Nexant

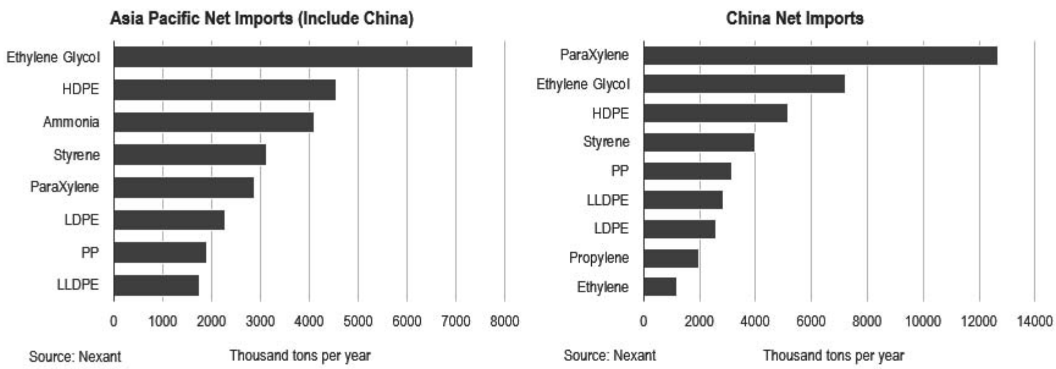
Emerging markets provide significant consumption growth potential for material substitution. Petrochemical polymers are substituting basic materials such as wood, glass, metals, paper and card in packaging, automotive and construction industries. This substitution is easily promoted as plastics tend to offer higher performance at a lower cost. This is highly visible in the food packaging sector where plastic packaging provides increased storage life, hygiene and freshness compared to traditional paper or fibre packaging. Plastic pipes for water transportation are also proving to be more cost effective and out performing metal based pipes in construction.

Asia Pacific has become a major consuming region for petrochemicals over the past decade. According to Nexant analysis, demand growth for polyolefins has been growing at approximately 6 percent CAGR over the period 2007-2016. This development has occurred largely in support of the region's rapidly expanding manufacturing sectors. A large proportion of this manufacturing is for export-oriented goods.

Nexant forecasts demand growth for petrochemicals in Asia Pacific during 2017-2023 to continue to outpace the rate of new supply additions in the region. As a result, Asia Pacific is expected to remain a significant importer of various chemical intermediates and polymers.

The following figure provides Nexant's estimate of net trade for Asia Pacific (total including China) and China (individual data) in 2016 for major petrochemical products. Net trade is the difference between production and consumption in a market. Where production is greater than consumption, a market is a net exporter. Where consumption is greater than production, a market is a net importer.

Figure 2.6 Net Imports of Major Petrochemical Products
(Basis 2016)



Nexant expects that a large proportion of these net imports are for ethylene derivatives such as ethylene glycol, polyethylene and styrene in the Chinese market.

Key drivers and trends for global petrochemicals' demand (during the forecast period 2017-2023) include the following:

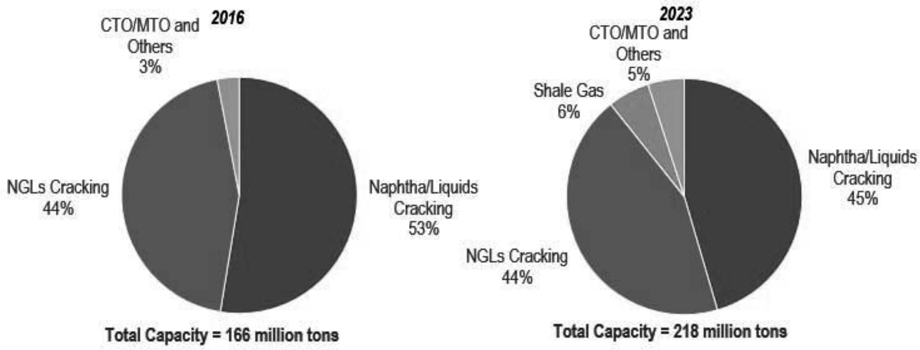
- Olefins/polyolefins markets are forecast to exhibit growth in-line with global GDP but remain relatively sensitive to changing economic conditions – consumption is primarily driven by packaging, automotive and building and construction industries. Consumer spending and confidence tends to promote market consumption. Demand also benefits from the substitution of basic materials such as glass, metals, paper and card, which is more prevalent in emerging markets
- Global butadiene market demand is driven by the auto sector and the production of tyres. High levels of demand are forecasted in emerging markets as car ownership continues to rise and distribution by truck increases. Supply of butadiene is expected to tighten as demand levels increase as a higher proportion of ethylene production is forecast to be derived from naphtha feedstock alternatives. This trend is influenced by increases in lighter feedstock cracking in the Middle East and North America (due to increased shale gas usage)
- Styrene demand, produced from benzene, is primarily driven by Expandable Polystyrene (EPS) and Acrylonitrile Butadiene Styrene (ABS). Consumption growth is driven primarily by demand from packaging, automotive, construction and consumer goods (electrical/electronic) sectors. Material substitution in the polystyrene sector has resulted in lower demand growth. However, this has been partially off-set by strong growth for expandable polystyrene (EPS) and acrylonitrile butadiene styrene (ABS). Demand growth is highly focused in China, Taiwan and other parts of South East Asia.

2.2.2 Supply Side Fundamentals

The majority of new petrochemical capacity developments are focused in the U.S, Middle East and Asia (primarily China). These developments are largely associated with feedstock development trends and can be summarised as follows:

- U.S. shale gas has resulted in increased feedstock supply, specifically ethane and other natural gas liquids. As a result, U.S. petrochemical feedstock prices have declined relative to naphtha based regions where feedstock pricing correlates more closely with crude oil pricing. This has resulted in improved production cost competitiveness and a surge in new investment interest in the U.S.
- Construction of new refineries in China is driving investments in new naphtha cracking complexes. Additionally the country's coal to chemicals sector is also expanding rapidly based on methanol to olefin (MTO) conversion technologies. China is also developing various propane dehydrogenation (PDH) to propylene projects based on imported propane
- The Middle East continues to expand its petrochemicals capacity based on available feedstocks within the region. However the pace of development has slowed as advantaged low cost feedstocks, such as ethane, are in tighter supply within the region. New capacity developments are being focused on heavier feedstocks (LPG and naphtha) and include refinery integration projects utilising naphtha.

Figure 2.7 Ethylene Production Capacity by Feedstock Type



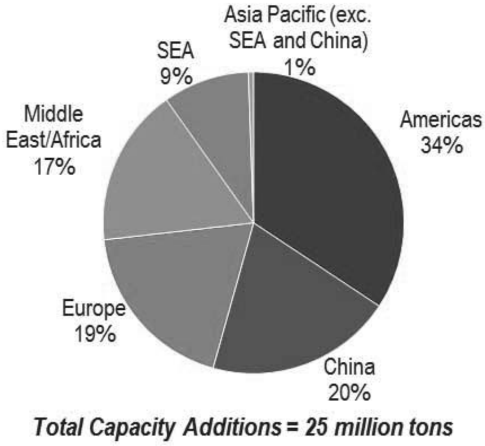
Global ethylene demand is forecast to grow at approximately 3.2 percent CAGR over the period 2017-2023. This is aligned with global GDP growth. On this basis actual consumption growth over the period is estimated at around 31 million tons and as a result, significant investment in new ethylene capacity would be required to meet market needs. Considering world scale cracker sizes of between 1.2-1.5 million tons per annum, total new cracker builds could be as high as 20-26 new ethylene plants.

Nexant forecasts total firm net ethylene capacity additions of approximately 25 million tons over the period 2017-2023. This increase consists of projects that are already under construction or have passed final investment decision. The timeline to develop a new world scale olefins complex is approximately five years from initial planning to production. This includes a construction period of approximately 2-3 years.

China has plans to develop both refinery/steam cracker projects as well as methanol-based olefin projects, most of which are being developed around coalfield methanol. Nexant forecasts that China will add approximately 5 million tons of additional firm ethylene capacity over the period 2017-2023. In South East Asia, firm capacity additions include Long Son Petrochemical (LSP) project in Vietnam with a new 950 000 tons per year ethylene cracker and the RAPID project being developed in Malaysia by

PETRONAS and Saudi Aramco with an ethylene capacity of 1.3 million tons per year. These projects are expected to start up during 2020/2021.

Figure 2.8 Global Ethylene Firm Capacity Addition between 2017 and 2023



China is also expanding domestic propylene capacity with a surge in propylene production in China from methanol and PDH (propane dehydrogenation). The bulk of the methanol-based propylene developments are in inland, coal-rich areas, whereas most of the PDH plants are in coastal areas giving access to imported propane. Some methanol-based plants have also chosen coastal locations however, as imported methanol pricing can be competitive with domestic methanol pricing, and using purchased methanol avoids the restrictive permitting procedures which affect oil and coal-based chemicals developments in China. Nexant forecasts that China alone adds approximately 10 million of additional propylene capacity over the period 2017-2023. South East Asia capacity additions are forecast to increase by an additional 5 million tons over the same period. This includes new projects in India, Vietnam and Malaysia.

There are currently no firm ethylene capacity additions forecast for Indonesia. However, new ethylene projects are under evaluation by CAP, Pertamina and Lotte Chemical Titan. Although Pertamina and Lotte Chemical Titan have continued to study potential ethylene projects, no firm projects have materialised yet.

Figure 2.9 Total Olefins Forecast Capacity Changes
(Million tons, 2017 Vs 2023F)

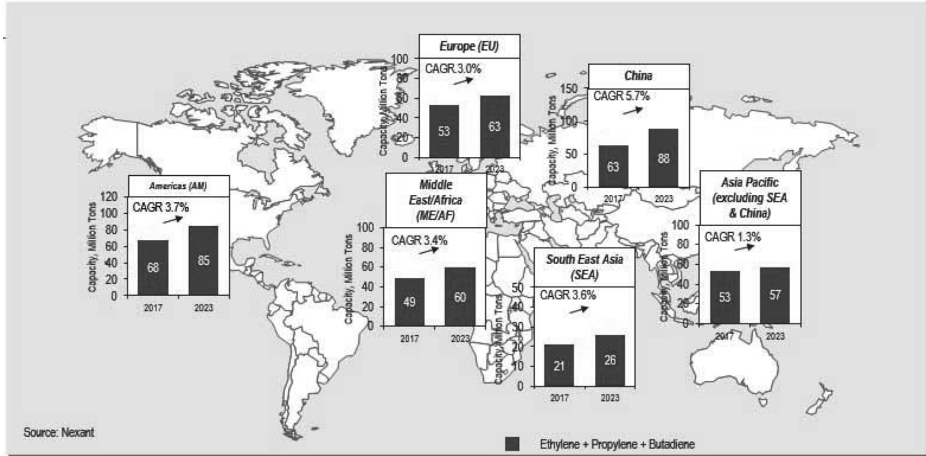
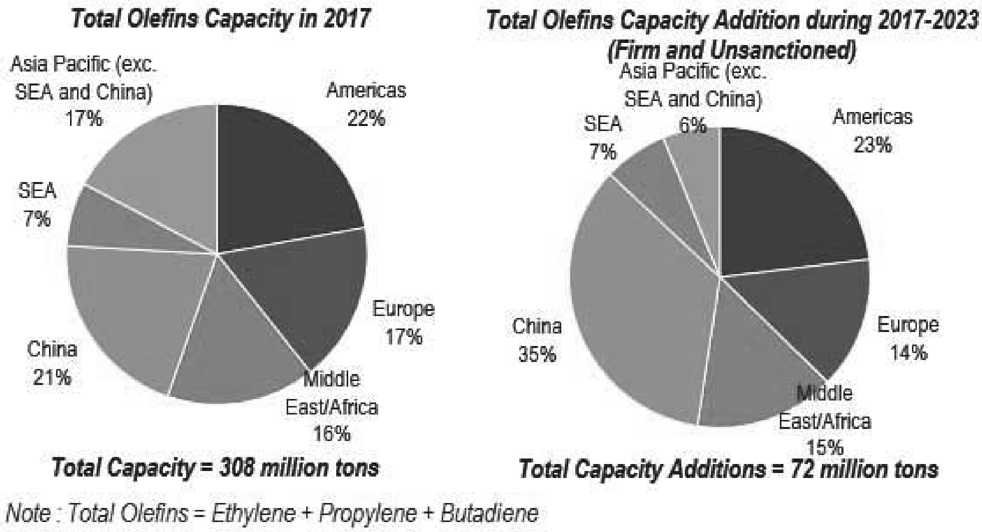


Figure 2.10 Total Olefins Capacity and Forecast Capacity Changes
(2017 Vs 2023F)



The pace of new petrochemical investment in the Middle East has slowed in recent years. This slowdown is attributed to declining availability of additional low cost ethane throughout the region. The majority of current ethane supply is allocated to existing olefin projects. As a consequence new ethylene projects in the region are more likely to be based on mixed feedstock slates. This includes naphtha based projects associated with new refinery builds. Nexant forecasts 7 million tons of additional ethylene capacity in the Middle East over the period 2017-2023.

Shale gas in North America has boosted investment interest in the region's petrochemical sector. This is especially true for existing petrochemical hubs in the U.S. Gulf Coast region which have high connectivity to the nation's gas infrastructure. Exploitation of shale gas reserves is resulting in increased natural gas supply and lower domestic gas pricing relative to global energy markets which remain driven by crude oil.

Ethane supply, co-produced from natural gas extraction, is also increasing. Ethane has minimum alternative value if not extracted from natural gas and hence its price is related to the low extraction costs to be monetized and used as feedstock in the petrochemicals industry. This results in lower feedstock costs for domestic ethylene producers and improved production competitiveness for many polymer and chemical intermediates sold into export regions.

Nexant forecasts between 10 million tons of additional ethylene capacity over the period 2017-2023 in North America. The total ethylene capacity expansion in the region consists of both new projects and expansions of existing crackers. Furthermore many existing crackers have been converted to lighter feedstocks to take advantage of low prevailing ethane pricing. However, Nexant notes that the competitive advantage on ethane has declined with the recent falling oil prices post Q4 2014. Post 2023, additional investment in ethylene capacity is expected in North America. However, this second investment wave could be subject to delay, as further developments currently remain challenged by high capital costs and a low crude oil price environment.

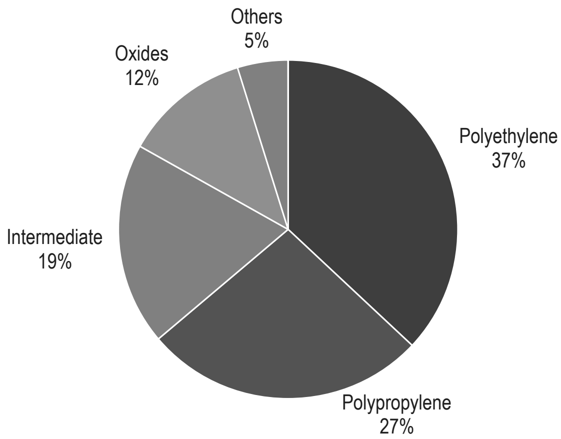
3.1 OLEFINS MARKET

3.1.1 Global and Regional Overview

Base olefins (defined as ethylene and propylene) are regarded as the most commercially important components of the petrochemical industry and the primary building blocks for various chemical intermediates, polymers and rubbers. Nexant estimates that the combined consumption of base olefins was approximately 244 million tons in 2016. Nexant forecasts growth at a CAGR of 3.3 percent over the period 2017-2023. The main consumption drivers are tied to emerging markets through increasing consumption in plastic packaging, automotive, textiles and construction sectors.

Nexant estimates that approximately 64 percent of base olefins globally are consumed directly to make polyolefins. Chemical intermediates, such as ethylene dichloride, styrene and cumene account for approximately 19 percent of consumption and oxides (ethylene oxide/propylene oxide) approximately 12 percent. Other products include synthetic rubbers and other miscellaneous applications represent approximately 5 percent of demand.

Figure 3.1 Global Olefins Consumption by End Use
(2016)

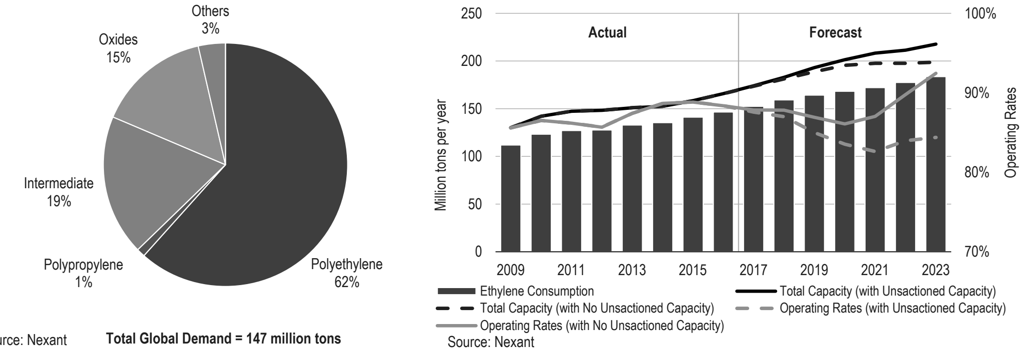


Source: Nexant **Total Global Demand = 244 million tons**

The majority of olefin market consumption is for ethylene which in 2016 accounted for nearly 60 percent of the total, at approximately 147 million tons with the remaining of 40 percent for propylene. However, Nexant forecasts both ethylene and propylene to exhibit similar demand growth of 3.2-3.4 percent CAGR over the period 2017-2023.

The bulk of olefins produced tend to be for captive consumption whereby production is typically consumed on site by adjacent derivative plants. The business model is driven by the high cost of transportation associated with olefins, which exist as gases at standard temperature and pressure. As a result, merchant market end-users of olefins only represent a very small percentage of the total market.

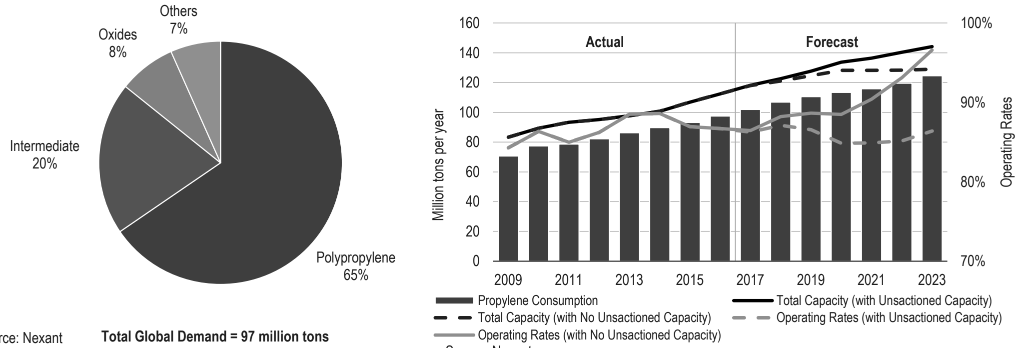
Figure 3.2 Global Ethylene Supply and Demand Balance



Source: Nexant

Source: Nexant

Figure 3.3 Global Propylene Supply and Demand Balance



Source: Nexant

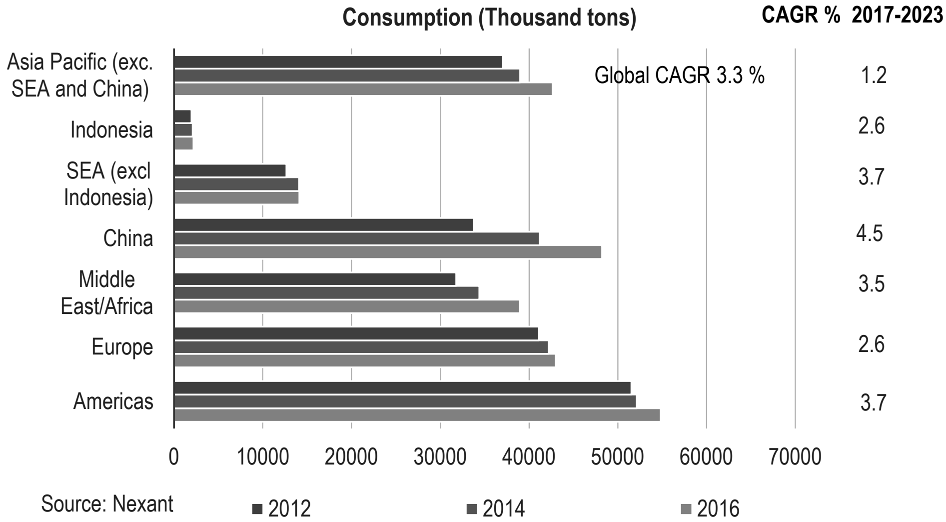
Source: Nexant

Olefins demand recovered in 2015, following low growth in 2014. Part of the fall in demand in 2014 was due to the falling oil price, which triggered widespread destocking (consuming of inventory) in ethylene derivatives. Conversely part of the recovery in 2015 was also attributed to restocking. The fall in oil prices was itself driven partly by weaker economic sentiment, particularly regarding recently high performing economies such China, Russia, and Brazil. The global olefin market grew at 4.1 percent in 2016, relatively the same level of market growth in 2015. Producers are forecasting lower long term growth in China as the market matures, however current consumption remained fairly robust in 2015-2016. Economic issues in other regions such as Europe and the US appear to be easing. The US especially is forecast for a sustained recovery associated with new ethylene derivatives capacity developments tied to shale gas. The European market recovery appears more fragile in comparison. Polyolefins remain the main drivers of the demand improvement and consumption driver for the olefins business. Nexant forecasts average utilisation levels to remain fairly steady over the forecast period at around approximately 85 percent despite significant capacity additions being planned.

China is the largest market for ethylene in Asia, accounting for around one-third of regional demand. Despite China's recent economic issues and a slowdown in the construction of new naphtha cracker complexes, the completion of numerous new integrated MTO complexes are expected to drive ethylene consumption at relatively high rates over the coming years. China aims to improve its self-sufficiency in olefins production through making use of its rich coal resources and by investing in propane dehydrogenation facilities to make propylene. With the large demand base, Nexant forecasts demand growth levels of olefins in China at a CAGR of approximately 4.1 percent over the period 2017-2023.

Average industry operating rates for ethylene have been sustained at a good level over the period 2013-17, averaging approximately 88 percent against nameplate capacity. However operating rates are forecast to decline gradually post 2017 as new capacity comes on stream. Nexant forecasts an operating low point of approximately 83 percent in 2021 before recovering gradually to a new operating peak forecast for 2025. Industry operating rates for propylene are forecast to follow a similar trend. However, new propylene capacity additions will take longer to be absorbed by the market over the period 2020-2022. As a result Nexant forecast average propylene operating rates to be lower over this period at approximately 85 percent of capacity utilisation.

Figure 3.4 Overview of Olefins Consumption by Region



Source: Nexant

In South East Asia, Malaysia and Vietnam are forecast to exhibit relatively rapid ethylene market growth as a result of new derivatives capacity additions. New olefin capacity projects are also being assessed in Indonesia by CAP, Pertamina and Lotte Chemical Titan. However if progressed, these projects are not expected to start production within the forecast period. Nexant forecasts demand growth levels of olefins in South East Asia at a CAGR of approximately 3.7 percent over the period 2017-2023. Demand for olefins in this region is mainly driven by polyolefins, ethylene oxide/ethylene glycol, and ethylene dichloride (EDC)/vinyl chloride monomer (VCM).

In the rest of Asia Pacific (excluding SEA and China), demand is mainly concentrated in North East Asian countries including Japan, South Korea and Taiwan currently accounting for three-fourths of regional demand with the remaining, approximately 25 percent, in India and others. However, significant demand growth in this region is mainly driven by the rapid growth in India. India is expected to demonstrate the strongest growth in Asia as a result of the development of new cracker complexes serving rapidly expanding derivatives markets. The Middle East/Africa region is estimated to grow at around 3.5 percent over the same period. In contrast, demand growths in Europe and the Americas are forecasted at approximately 2.6-3.5 percent.

3.1.2 Forecast Pricing and Spreads

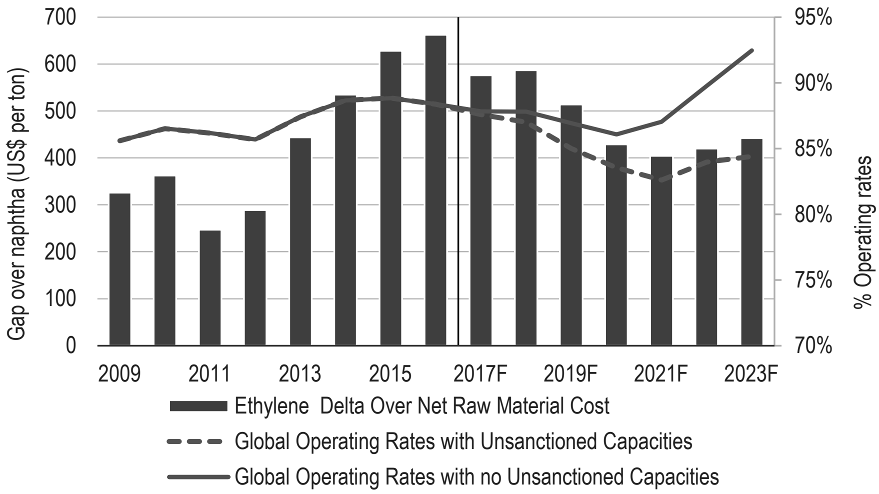
3.1.2.1 Ethylene

Ethylene is a pure commodity, with no product differentiation between different supply sources. Furthermore ethylene is expensive to transport and not widely traded. Therefore the majority of ethylene production is for captive consumption.

Ethylene economics demonstrate basic commodity theory such that prices are largely dictated by the cost of production plus a margin. The magnitude of the margin is influenced by the strength of the market as measured by the industry average operating rate (total production over total capacity). As operating rates rise, absorbing marginal production capacity, producers can generally command higher margins. The largest cost component of the naphtha cracker is acquiring feedstock, with around three tons of naphtha required per ton of ethylene. Hence, the ethylene-naphtha price spread is an indicator of a naphtha cracker's profitability. Naphtha is produced from crude oil refining and naphtha pricing is closely associated with crude oil pricing. Future naphtha prices are forecast to follow trend projections for crude oil. Meanwhile, the cracker generates significant co-product revenue from sale of propylene, mixed C_4 and aromatics co-products. The value of the co-products tends to increase as respective markets tighten towards the peak of the petrochemical cycle. Net feedstock costs, after crediting revenue from co-products thus tend to ease towards the peak in the petrochemical cycle.

Figure 3.5 Ethylene Price and Naphtha Spread

(Basis: Current US$, South East Asia Market Pricing)



Note: - 2017 is based on weighted average of actual on year to date basis (Jan-Aug) and the forecast at US$55 Brent Crude for the remaining months
- Forecast price is based on Brent Crude at US$65 (2018) and US$70 (2019-2023) per barrel

Ethylene/naphtha price spreads have exhibited a new industry peak over 2015/16. This peak is attributed to improved market conditions resulting in higher industry operating rates. Good levels of profitability have been achieved in Q1 2017 as tighter supply resulted in ethylene price increases. Furthermore increased revenues from co-product credits, including butadiene and benzene, has also contributed to higher levels of profitability. In Q2 2017, ethylene prices decreased roughly in line with naphtha prices, but the major impact on margins came from a sharp drop in co-product values, particularly for butadiene. Ethylene margins through Q3 2017 remained steady. The price spread is forecast to ease marginally in the medium term, owing to new global capacity additions. However, ethylene profitability levels are forecast to remain at very good levels over the 2017-19 period. Global ethylene operating rates are forecast to reach a low point of 83 percent in 2021. Therefore Nexant forecasts a lower ethylene naphtha spread at this time. Ethylene profitability for standard naphtha crackers in Asia are then assumed to strengthen to a new peak post 2023.

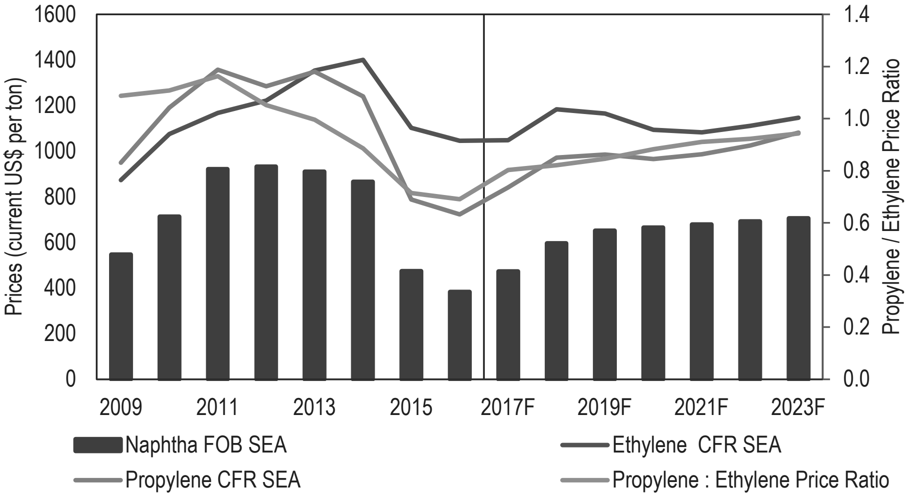
3.1.2.2 Propylene

The bulk of Asian propylene capacity is composed of co-product processes, with steam crackers supplying nearly half and refinery upgrading processes contributing more than a quarter of available capacity. Since the majority of propylene is produced as a co-product, it is generally inappropriate to relate propylene prices to a cost of production. The major influences on propylene price movements can be attributed to fluctuations in the supply/demand balance and the cost/value of the incremental supply and alternative uses. Historically, Asian propylene prices track ethylene prices, with some short term volatility, depending on the relative strength of each market.

South East Asian ethylene markets were oversupplied between 2008 and 2011 as ethylene cargoes were imported from the Middle East. Meanwhile Asian crackers increased throughput of LPG and lighter feeds, which gave lower propylene yields. As a result, the propylene market tightened relative to ethylene, and prices outpaced those of ethylene. The situation has since reversed, as ethylene markets tightened considerably while propylene market weakened due to a major increase in propylene capacity in China. This is the key factor driving propylene prices, and the price ratio to ethylene, lower over the period 2015-16. Propylene markets in Asia Pacific have weakened in Q1 2017 largely due to lower seasonal demand from the polypropylene sector. Higher levels of propylene supply, from naphtha crackers, also contributed to lower profitability. However, maintenance shutdowns at steam crackers and FCC units in North East Asia during Q2 2017 restored propylene markets to a more balanced position, and Asian propylene margins improved in Q3 2017, with improving demand into polypropylene. Although demand is expected to grow relatively strongly over the forecast period, the propylene price ratio to ethylene is projected to take time to recover as the current propylene surplus in the region is consumed.

Figure 3.6 Olefin Pricing and Propylene: Ethylene Price Ratio

(Olefin: Spot CFR South East Asia, Naphtha: FOB Singapore)



Note: - 2017 is based on weighted average of actual on year to date basis (Jan-Aug) and the forecast at US$55 Brent Crude for the remaining months
- Forecast price is based on Brent Crude at US$65 (2018) and US$70 (2019-2023) per barrel

3.2 BUTADIENE MARKET

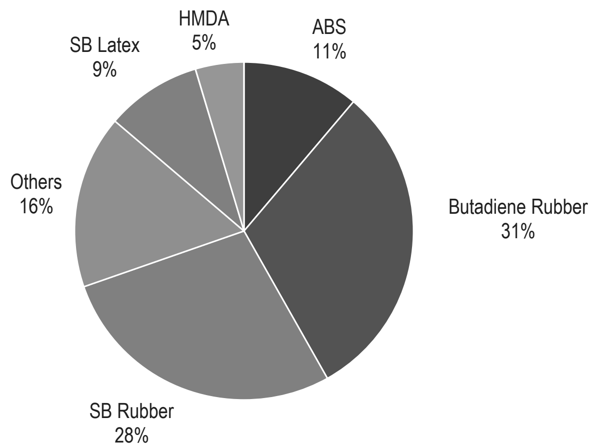
3.2.1 Global and Regional Overview

Butadiene is a feedstock for the production of a wide variety of synthetic rubbers and polymer resins. In the case of synthetic rubbers, butadiene can be homopolymerised (polybutadiene or butadiene rubber, BR), or copolymerised with a number of monomers, including styrene (to produce products such as styrene butadiene rubber – SBR, and styrene butadiene styrene – SBS) and acrylonitrile to produce nitrile rubber (NBR). Butadiene is also consumed in the production of engineering resins, notably acrylonitrile butadiene styrene (ABS), and naphthalene dicarboxylic acid. Butadiene is used as a feedstock for hexamethylene diamine (HMDA), laurylactam and now caprolactam for the production of different nylons.

Global butadiene demand growth was estimated at 3 percent in 2016, after a strong recovery year at 3.8 percent in 2015 due to challenges in the automotive industry and substitution pressure from natural rubber. The automotive sector is a key driver for butadiene demand, as more than half of global demand is currently for synthetic rubber production. The end to the slump in crude oil and rubber prices also contributed to a significant rebuilding in inventories of butadiene and its derivatives, which in turn let to the recovery in butadiene demand in 2015-2016.

Figure 3.7 Global Butadiene Consumption by End Use

(2016)



Source: Nexant **Total Global Demand = 11 million tons**

The Asian market has been particularly active building new butadiene and butadiene derivatives capacity, supported both by upstream developments (refinery and cracker projects) and regional demand, led by the ongoing development of vehicle and tyre production. The relocation of automotive industries to Asia increased synthetic rubber demand through tyre production. ABS demand also benefits from a variety of automotive applications, and demand into HMDA for nylon 6,6 production is driven by use of nylon tyre cord and resin for injection moulded components. Additional global demand for butadiene in recent years was almost entirely focused in Asia Pacific where significant new derivatives capacity was established, particularly in China and South Korea.

The market in North America has declined over the last ten years as a result of diminishing supply and competitiveness. Demand is also under pressure from imports of both commodity elastomers and tyres. The anti-dumping duties imposed on Chinese tyre imports provided minimal relief for local tyre producers, as other Asian suppliers rapidly replaced the imports from China. With U.S. producers apparently unable to recover market share in the commodity tyre markets and tightness on C_4s (by-product from naphtha crackers, which contains butadiene) continuing to restrict butadiene supply, the U.S. butadiene market is set to remain challenged.

The rapid emergence of major automotive markets in developing economies now outweighs the negative effect of the maturing markets in developed regions. The cost of transporting butadiene remains a significant competitive disadvantage for non-integrated consumers, but there remain many consumers with import requirements which have a sufficiently strong downstream position to sustain their businesses. Butadiene supply is comparatively plentiful in much of Asia, allowing Asian exporters to become increasingly competitive, and thus supporting Asian butadiene consumption at the cost of consumption in the United States.

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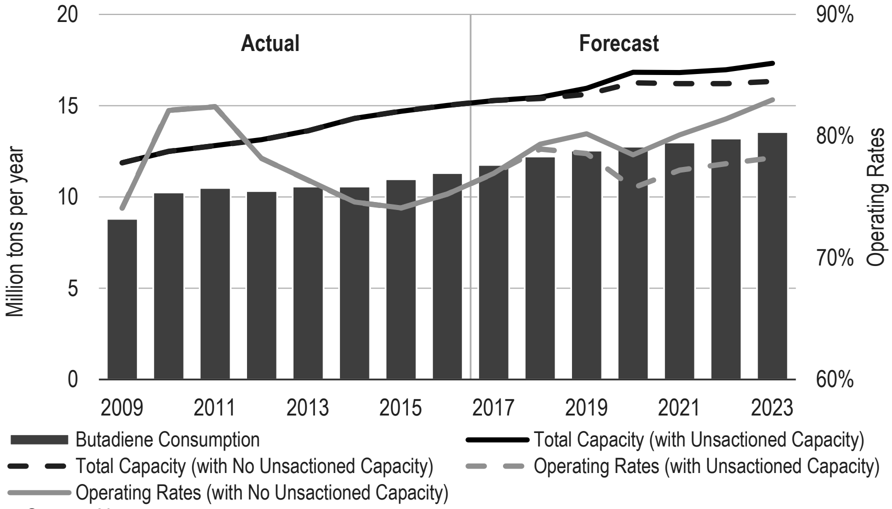
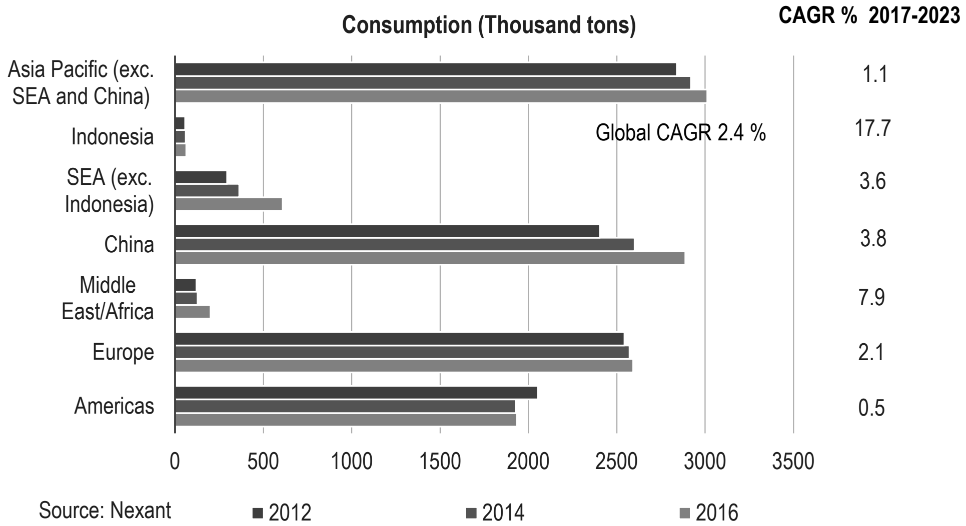
Figure 3.8 Global Butadiene Supply and Demand Balance



Source: Nexant

Asia is the largest butadiene consumer in the world, representing more than half of global butadiene demand in 2016. China is by far the largest butadiene consumer in Asia, accounting for 44 percent of total regional demand. Butadiene consumption in China has tripled since 2000, following substantial capacity development of synthetic rubber and latex, SBS and ABS in the country. Nevertheless, China still needs to import these elastomers and polymers to meet domestic demand. In South East Asia, demand for butadiene is mainly concentrated in Malaysia, and Thailand. In Indonesia, SBR and SB latex dominate butadiene consumption. Indonesia is a large natural rubber and tyre producer and the automobile production is growing quickly.

Figure 3.9 Overview of Butadiene Consumption by Region



Source: Nexant

3.2.2 Forecast Pricing and Spreads

The cost of mixed C_4 feedstock dominates production costs for butadiene, and is the most influential driver of the butadiene price from the supply side. In addition to butadiene extraction, other alternative uses for the mixed C_4 stream, influences valuation of mixed C_4 stream and butadiene production economics.

The key drivers in determining Asian butadiene prices are:

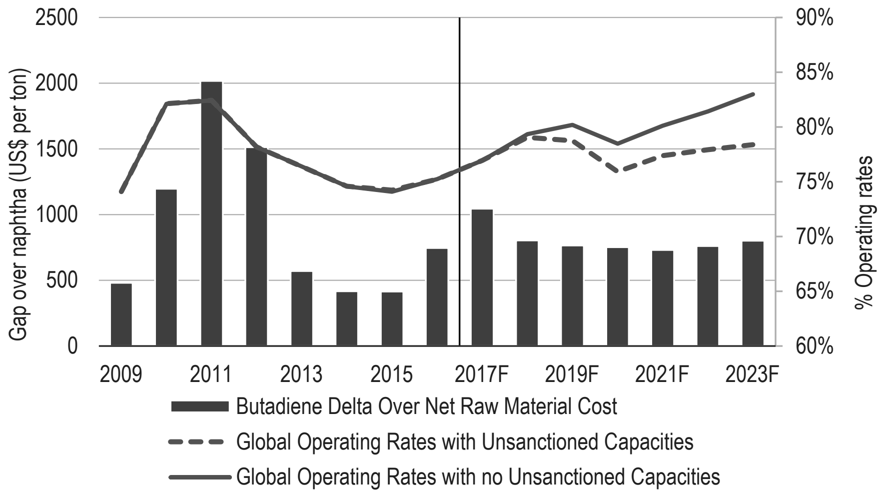
- Cost of production (dominated by mixed C_4 feedstock value)
- Inter-regional butadiene price relationship and the cost of freight between regions
- The profitability of butadiene derivative products (most notably, BR, SBR, ABS and latex)
- The price of alternative sources of natural rubber
- The butadiene supply/demand situation (Butadiene supply has been constrained by restricted availability of mixed C_4 feedstock from crackers).

Butadiene profitability climbed sharply in 2011 following a severe shortage of mixed C_4 feedstocks. This is attributed to increases in lighter feedstock cracking for ethylene production. The previously strong profitability had encouraged a number of investments in on-purpose dehydrogenation and traditional mixed C_4 extraction units. Over 2012-2014, China brought online five dehydrogenation units, along with other capacity additions from other Asian countries resulting in margins dropping towards historical lows in 2013-2014. The increase in butadiene supply resulted in a sharp decline in butadiene prices post 2012. Despite easing feedstock cost pressure, weak Asian butadiene demand depressed profitability over the 2013-2015 period.

Butadiene prices have been volatile in Q1 2017. Initial price spike resulted in high levels of butadiene profitability in Asia in early 2017. Higher price levels were supported by tighter availability of mixed C_4's and good demand ahead of the Lunar New Year. However, pricing levels and have since declined back towards the end of Q1 2017 due to a combination of increased supply and reduced off-take. Asian butadiene markets weakened in Q2 2017, with demand slowing as excess stocks were drawn down. The sharp peak in prices to US$3 000 per ton in February swiftly proved unsustainable as derivative units were halted, unable to pass through immense cost rises. Butadiene prices realigned with the cost base by April, as easing feedstock costs continued to depress prices. Further short term butadiene price spikes may be feasible but are not expected to be sustained as the supply side of the business is able to correct to meet demand. This includes additional butadiene production from on-purpose production sources in China. On-purpose butadiene, although higher cost, is forecast to play an increasingly important role in future industry supply. Therefore average butadiene price spreads over naphtha are forecast to be marginally higher over the period 2017-2023.

Figure 3.10 Butadiene Price and Naphtha Spread

(Butadiene: Spot CFR South East Asia, Naphtha: FOB Singapore)



Note: - 2017 is based on weighted average of actual on year to date basis (Jan-Aug) and the forecast at US$55 Brent Crude for the remaining months
- Forecast price is based on Brent Crude at US$65 (2018) and US$70 (2019-2023) per barrel

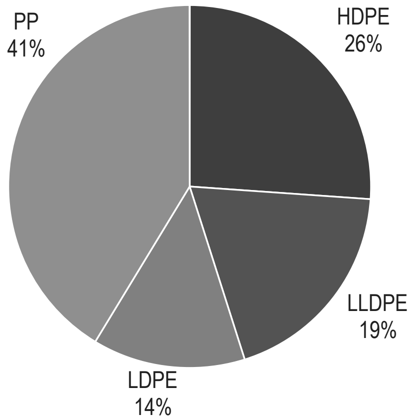
3.3 POLYOLEFINS MARKET

3.3.1 Global and Regional Overview

Polyolefins are commodity thermoplastic polymers consisting of long chains of the monomer ethylene or propylene, and of these, polyethylene is the world's most widely-consumed thermoplastic. There are three main types of polyethylene; Low Density Polyethylene (LDPE), Linear Low Density Polyethylene (LLDPE) and High Density Polyethylene (HDPE). These plastic polymers are used in a wide range of market segments including consumer goods, automotive, construction materials, packaging and general industrial and agriculture. LLDPE and LDPE are predominantly used in film applications for packaging materials. HDPE is a more versatile polymer which is also used in both film and non-film applications such as containers, bottle caps, crates and pallets etc.

As individual polyolefin, polypropylene had the largest share of the global market, accounting for more than 41 percent. HDPE had the second largest share, at 26 percent. LLDPE is expected to have the highest short-term and long-term growth rates and will increase its share of the global market to 20 percent by 2023. Polypropylene will have the second highest growth rates and increase its share to 42 percent. HDPE will maintain its 26 percent share, while LDPE will see its share decrease to 13 percent.

Figure 3.11 Global Polyolefins Consumption by Type
(2016)



Total Global Demand = 155 million tons

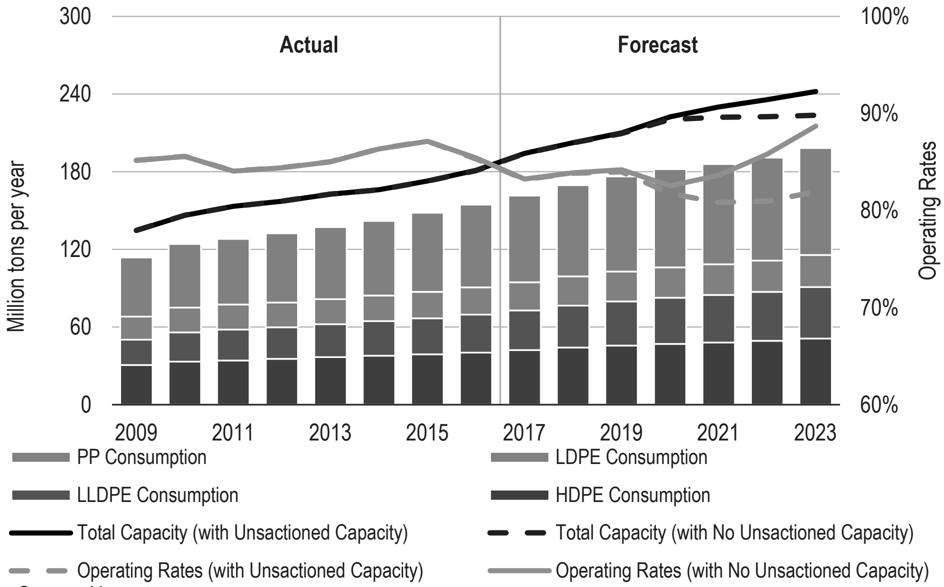
Global demand for polyolefins was approximately 155 million tons in 2016 and Nexant forecasts this to grow at a CAGR of 3.5 percent over the period 2017-2023. The global polyolefins market is increasingly dependent on Chinese demand growth. Nexant forecasts polyolefin demand in China to grow at approximately 4.4 percent over the period 2017-2023. Total polyolefins demand in China is estimated at approximately 46 million tons in 2016. The Americas (comprising, North, Central and South America) continue to show positive growth. Nexant forecasts growth at approximately 2.8 percent CAGR over the period 2017-2023. Demand prospects in North America are supported by the rapid development of the Mexican economy. The U.S. accounts for about 80 percent of total polyolefins demand in North America. In Europe, the general improvement in the economy across the majority of Western European countries supported some positive sentiment in the region. Demand for polyolefins in Europe is expected to grow at around 1.6 percent over the period of 2017-2023. Polypropylene had the strongest performance of all the polyolefins, outstripping GDP growth.

The Middle East and Africa are comparatively new markets for polyolefins, and are expected to grow at above average rates. The regions together constitute around 10 percent of global demand, and have a strong growth outlook due to high GDP and population growth, and currently a relatively low per-capita consumption. Nexant forecasts that polyolefins demand in the Middle East and Africa would grow at 4.0 percent CAGR over the period 2017-2023.

Asia Pacific is the biggest market at around half of the global demand. Nexant forecasts total consumption growth in the region at approximately 4.3 percent over the period of 2017-2023, which is above the global average.

From 2013 to 2016, operating rates for polyolefins averaged at over 86 percent. Nexant forecasts industry operating rates to decline from the current peak as new capacity additions come on stream.

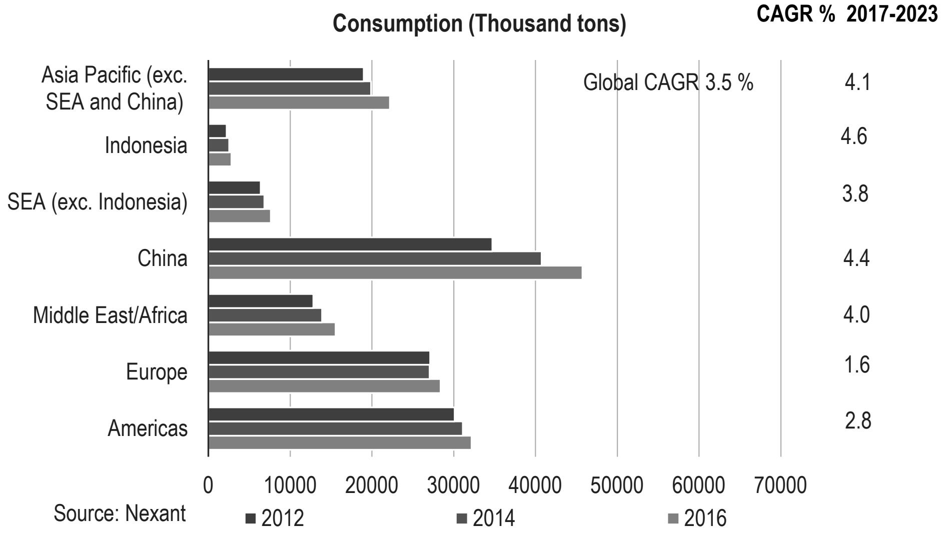
Figure 3.12 Polyolefins Global Supply and Demand Balance



Source: Nexant

In South East Asia, Indonesia and Thailand are by far the largest polyolefins consuming countries while Vietnam is emerging as a competitive manufacturing nation. Nexant forecasts demand growth in South East Asia, where markets are less mature and product substitution of basic materials is having a greater impact on consumption growth, to grow at 4.0 percent CAGR over the period 2017-2023. In the short-term future, polypropylene is forecast to continue growing at a faster rate as compared to polyethylene. For polypropylene, demand by end use is different in each country. Injection moulding dominates Thailand's polypropylene market while film and fibre applications are the largest end use in Indonesia and Vietnam.

Figure 3.13 Polyolefins Consumption by Region



Source: Nexant

3.3.2 Forecast Pricing and Spreads

3.3.2.1 Linear Low Density Polyethylene (LLDPE)

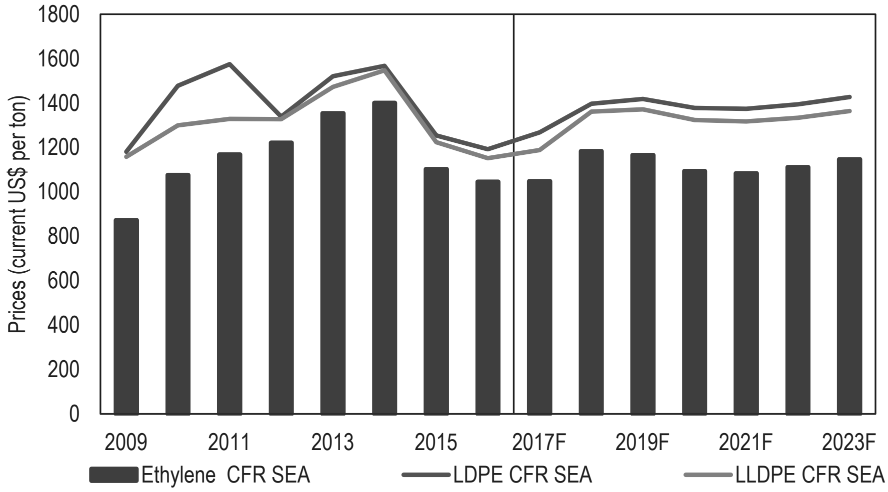
The main use of LLDPE is in film and packaging applications, where it competes directly with LDPE. The higher tensile strength and superior puncture and tear resistance of LLDPE compared to LDPE increases the value to convertors due to the opportunity to down-gauge and reduce resin consumption.

Prior to 2010, LLDPE prices closely tracked LDPE prices. The discount on LLDPE offset the cost burden to resin consumers of its inferior processing properties compared to LDPE, allowing penetration into film markets. The relative position of the two prices has fluctuated recently. Apart from brief divergence over 2010-2011, profitability of LLDPE production has closely tracked that of LDPE, albeit at a reduced level. Profitability of the two grades of polyethylene tend to move together, due to direct competition in most applications, and common exposure to ethylene monomer costs.

LLDPE demand in Q1, 2017 has been lacklustre due to a combination of a seasonal slowdown and high inventories. As a result average prices were reportedly lower and higher ethylene costs were not passed on successfully by producers. High stock levels, regional holidays including Ramadan, and seasonal weather during Q2 2017 limited buying interest, although demand started to improve in Q3 2017, particularly in China. Producer margins are expected to improve over the 2017/18 timeframe as limited capacity additions are forecast in the near term.

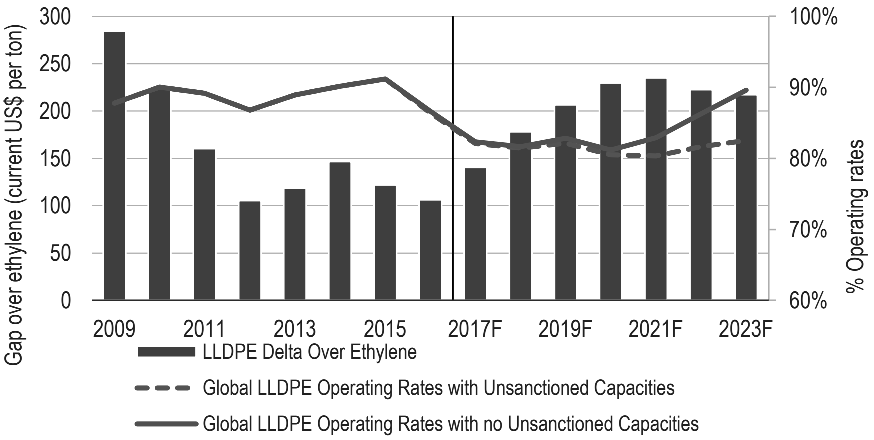
Returns for integrated producers are expected to decline post 2019. This decline is supply led, as a significant increase in new LLDPE capacity is forecast over the period 2017-2023. These additions include ethane based projects in North America, 3.5 million tons and a combination of naphtha and methanol to olefins projects in China, 2.6 million tons. New capacity elsewhere in Asia is estimated at approximately 724 000 tons and is limited to several cracker developments in South East Asia and India. Nexant forecasts a recovery in profitability levels post 2021 as surplus supply is absorbed by continuing demand growth.

Figure 3.14 LLDPE Vs. LDPE and Ethylene Prices
(Spot CFR South East Asia)



Note: - 2017 is based on weighted average of actual on year to date basis (Jan-Aug) and the forecast at US$55 Brent Crude for the remaining months
- Forecast price is based on Brent Crude at US$65 (2018) and US$70 (2019-2023) per barrel

Figure 3.15 LLDPE Price Spread
(Basis: Current US$, South East Asia Market Pricing)



Note: - 2017 is based on weighted average of actual on year to date basis (Jan-Aug) and the forecast at US$55 Brent Crude for the remaining months
- Forecast price is based on Brent Crude at US$65 (2018) and US$70 (2019-2023) per barrel

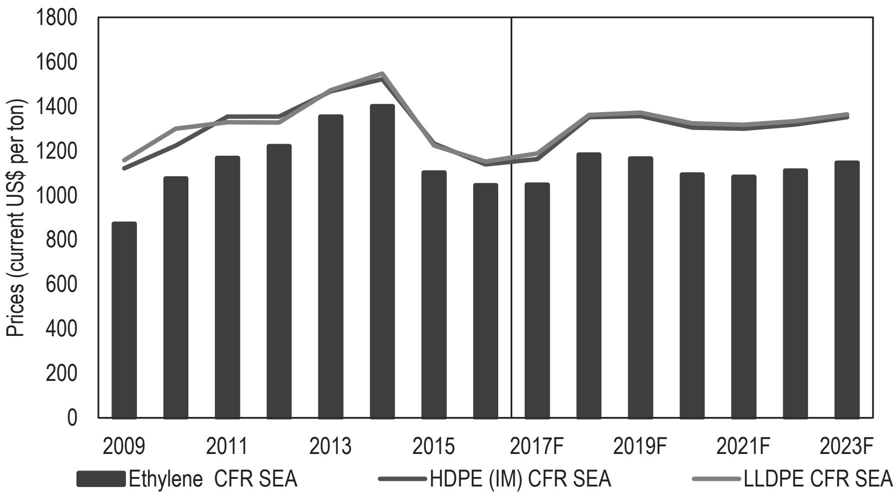
3.3.2.2 High Density Polyethylene (HDPE)

HDPE competes with several other polymers in its different end use applications. In many blow moulding and injection moulding applications, HDPE competes directly with polypropylene, with many plastic processors able to switch resin to the lowest cost alternative.

Prices of HDPE and LLDPE have tracked each other very closely. The ratio of HDPE to LLDPE has sustained a steady value in a band between 0.94 and 1.02. Recently, Middle Eastern exports to China have been predominantly LLDPE, putting a pressure on LLDPE prices. Despite rising cost of co-monomer for LLDPE production, very low LLDPE demand in Asia Pacific in 2012 pushed the ratio above parity. The ratio is expected to maintain close to parity through to 2023, due to the nature of HDPE/LLDPE swing capacity. Demand levels have been weak in Q1 2017 and this is partly associated with the seasonal slowdown and Lunar New Year. This, along with new HDPE supply from India, contributed to lower profitability in the first quarter. High stock levels, regional holidays including Ramadan, and seasonal weather limited buying interest in Q2 2017. While demand in China improved towards the end of the third quarter, demand in the rest of the Asia region remained lacklustre.

Profitability of HDPE and LLDPE production has historically tracked each other very closely. The common production technologies and the ability some producers have to alternate production between the resins have helped keep both markets in balance, and converged profitability of both products. Prices for the two products have typically tracked each other fairly closely considering the similar production costs, dominated by the cost of acquiring ethylene.

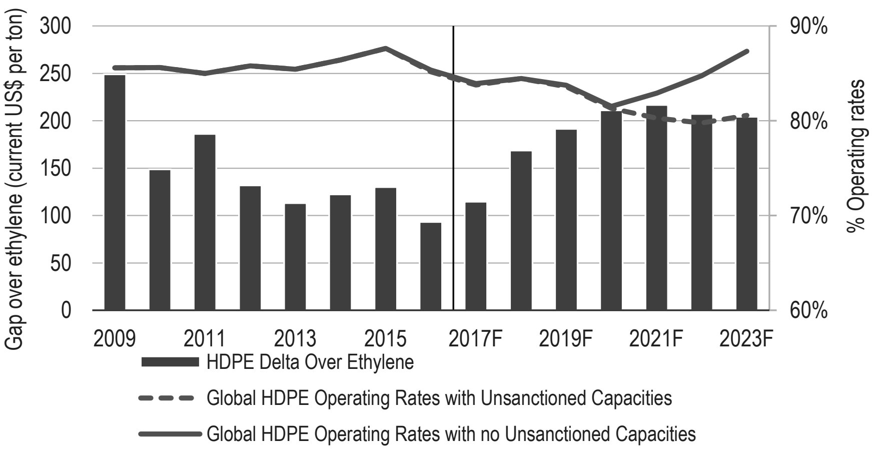
Figure 3.16 HDPE Vs. LLDPE and Ethylene Prices
(Spot CFR South East Asia)



Note: - 2017 is based on weighted average of actual on year to date basis (Jan-Aug) and the forecast at US$55 Brent Crude for the remaining months
- Forecast price is based on Brent Crude at US$65 (2018) and US$70 (2019-2023) per barrel

Figure 3.17 HDPE Price Spread

(Basis: Current US$, South East Asia Market Pricing)



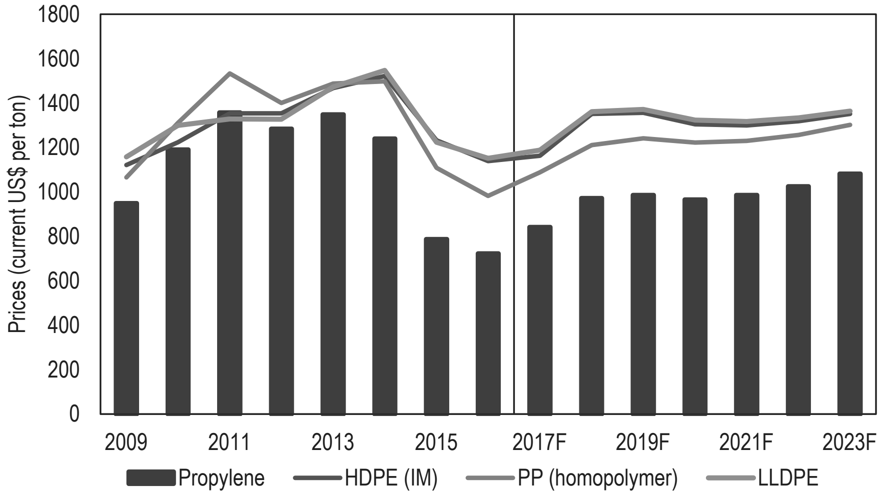
Note: - 2017 is based on weighted average of actual on year to date basis (Jan-Aug) and the forecast at US$55 Brent Crude for the remaining months
- Forecast price is based on Brent Crude at US$65 (2018) and US$70 (2019-2023) per barrel

3.3.2.3 Polypropylene (PP)

In Asia Pacific, more than one-third of polypropylene is consumed in injection moulding applications, where it competes directly with HDPE and polystyrene. In 2014, Asian polypropylene prices rose modestly against a decline in regional propylene prices, resulted from relatively strong ethylene and HDPE markets. Relative high HDPE prices boosted polypropylene prices, despite lowering propylene cost amid oversupply polypropylene market. As a result, margins for polypropylene rose and the situation continued through 2015. Despite a further decline in propylene against ethylene prices in 2015, polypropylene prices remained relatively strong, supporting high non-integrated and integrated margins. The margins remained high, but started to decline in 2016 from increasing propylene and polypropylene surpluses. Polypropylene markets were affected by weak downstream demand from consumer markets and the seasonal slowdown around the Lunar New Year holiday period. As a result product margins declined marginally as producers were unable to pass on higher propylene prices.

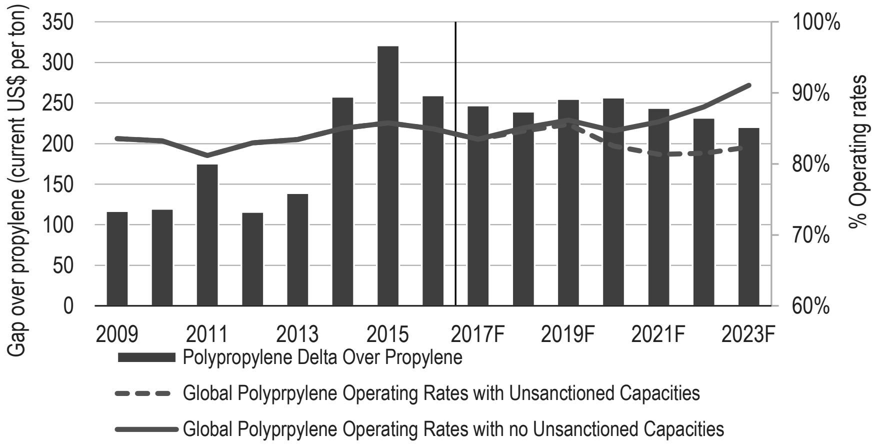
Nevertheless, with projected weakening ethylene and HDPE markets over the next few years, polypropylene prices are anticipated to soften against propylene feedstock. Non-integrated cash margins are however expected to remain above breakeven, owing primarily to a reasonable price spread between polypropylene and propylene prices in the medium term. Although the margins are not sufficient for non-integrated polypropylene to be constructed, the positive margins will allow integrated producers to supply incremental resin from propylene purchased in spot markets when economics are favourable. The trend for moving margins up the value chain is common where the industry sector is highly integrated. Capturing the margin on the monomer and minimising margin available at the polymer unit deters new entrants from competing in polymer markets alone.

Figure 3.18 Polypropylene Vs. HDPE and Propylene Prices
(Spot CFR South East Asia)



Note: - 2017 is based on weighted average of actual on year to date basis (Jan-Aug) and the forecast at US$55 Brent Crude for the remaining months
- Forecast price is based on Brent Crude at US$65 (2018) and US$70 (2019-2023) per barrel

Figure 3.19 Polypropylene Price Spread
(Basis: Current US$, South East Asia Market Pricing)



Note: - 2017 is based on weighted average of actual on year to date basis (Jan-Aug) and the forecast at US$55 Brent Crude for the remaining months
- Forecast price is based on Brent Crude at US$65 (2018) and US$70 (2019-2023) per barrel

3.4 STYRENE MONOMER MARKET

3.4.1 Global and Regional Overview

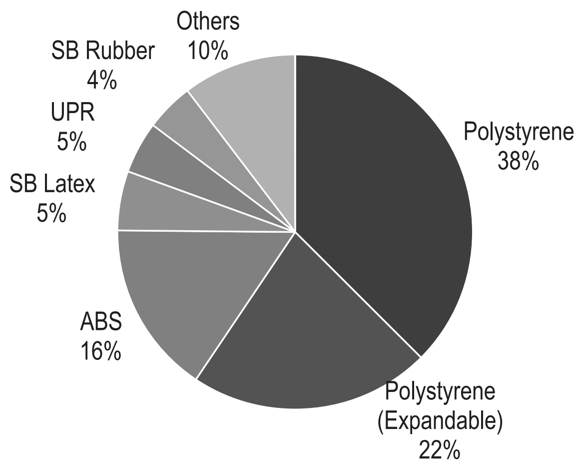
Styrene monomer (SM) is an important intermediate product used in production of a variety of plastics and rubbers. Styrene monomer is a true commodity, manufactured in large quantities by similar process technologies with virtually identical specifications. It is relatively inexpensive to move and is widely traded and exchanged between different regions. As a result, regional markets are greatly influenced by events in other markets. In addition, as with all commodities, it is subject to cyclicality.

Polystyrene is the main end-use for styrene, representing nearly 40 percent of total demand. Due to inter-polymer competition, consumer behaviour changes and technology development, polystyrene continues to be challenged by competition from other polymers and feedstock costs, thus the growth outlook for polystyrene remains modest and below global GDP.

Global styrene monomer demand was approximately 29 million tons in 2016 and is forecast to grow at a CAGR of around 1.6 percent over the period 2017-2023. Asia Pacific is the largest styrene consumer in the world, representing around 60 percent of styrene demand in 2016. China is the main consumer within Asia, accounting for more than half of the regional demand, followed by South Korea, Taiwan and Japan.

Styrene consumption in Asia is expected to continue to increase slightly above the global average, primarily driven by the addition of styrene downstream capacity in China, India and South East Asian countries. Manufacturing competitiveness in China, India and other Asian countries continues to support global demand growth for many kinds of manufactured goods and increasing wealth and urbanisation in these countries also continue to drive higher domestic consumption.

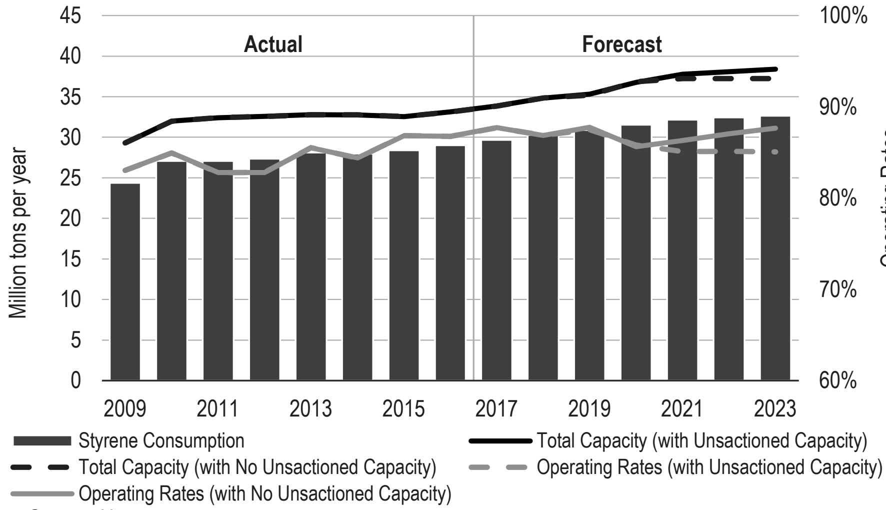
Figure 3.20 Global Styrene Consumption by End Use
(2016)



Total Demand = 29 million tons

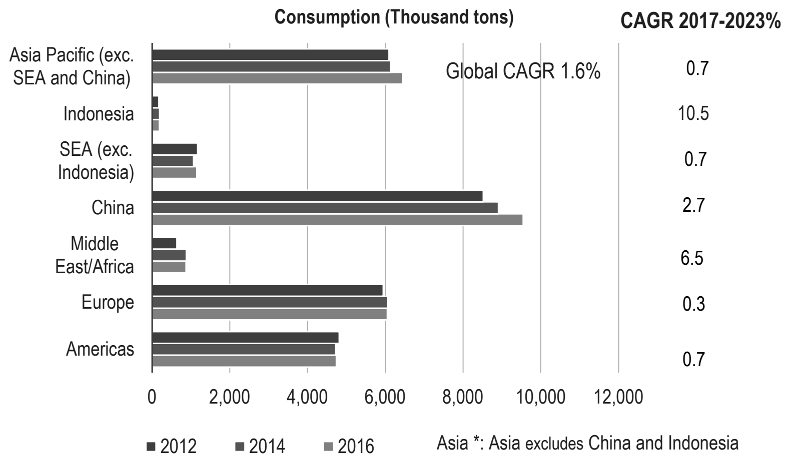
Nexant forecasts styrene demand in China to grow at approximately 3 percent CAGR over the period 2017-2023. Styrene demand in the Americas has declined while demand in Europe has been flat in recent years due to reduced levels of manufacturing activity and material substitution in packaging. Nexant forecasts demand growth of less than 1 percent CAGR respectively over the period 2017-2023 in these regions.

Figure 3.21 Global Styrene Supply and Demand Balance



Source: Nexant

Figure 3.22 Overview of Styrene Monomer Consumption by Region



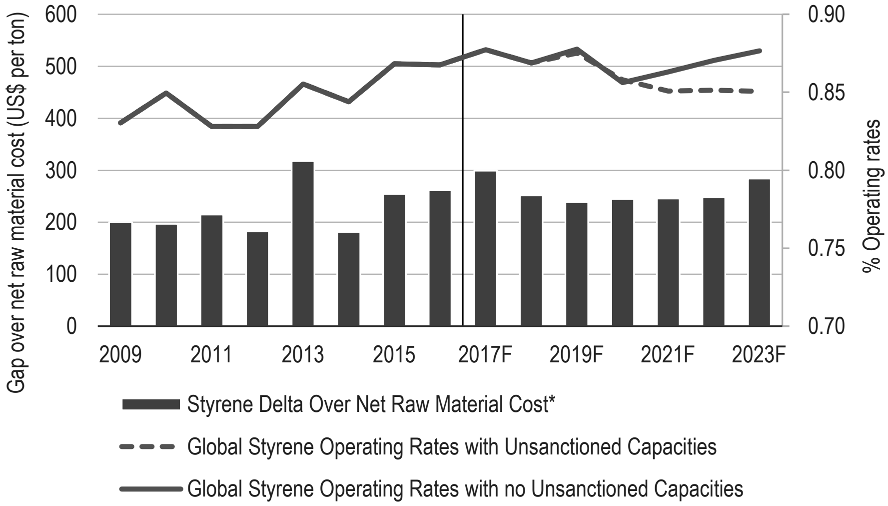
3.4.2 Forecast Pricing and Spreads

Most styrene production in Asia is captive, with many producers also producing polystyrene. Where styrene is sold into spot markets, prices are largely determined by free negotiation between producers and consumers. Prices displayed in this report are annual averages of the spot CFR South East Asian price and represent the offshore value of material imported into the region.

Styrene price spreads are structurally higher than seen previously over the 2009-2012 period. This improvement is attributed to a more balanced market and a slowdown in capacity additions. Operating rates have increased gradually since 2014 and margins are noticeably higher in the first quarter in 2017. Lower demand in Q1 2017 was partly off-set by planned maintenance turnarounds. Styrene demand in Asia generally remained relatively soft in the second and third quarters, before picking up in late Q3 2017 amidst the typical manufacturing seasons for exports. In addition, a series of scheduled and unscheduled shutdowns in the regional during Q3 2017 tightened the market and improved profitability. Current price spreads are forecast to decline in the near term as new production capacity is added to the market. However, post 2022 Nexant forecasts average styrene margins to increase as no further capacity additions are forecast.

Figure 3.23 Styrene Monomer Price Spread

(Basis: Current US$, South East Asia Market Pricing)



Note: - 2017 is based on weighted average of actual on year to date basis (Jan-Aug) and the forecast at US$55 Brent Crude for the remaining months

- Forecast price is based on Brent Crude at US$65 (2018) and US$70 (2019-2023) per barrel

4.1 INDONESIA

4.1.1 Economic Overview

Indonesian GDP growth has averaged 4.9 percent per year in the past 3 years. Over the forecast period, 2017-2023, Indonesia's outlook remains positive and is assumed to continue leading consumption growth in South East Asia. The country has put into place an economic planning regime that follows a 20-year development plan, spanning from 2005 to 2025. It is segmented into 5-year medium-term plans, each with different development priorities. The current medium-term development plan, which is currently in the third phase, runs from 2015 to 2020, focusing, among others, on infrastructure development and improving social assistance programs in education and health-care. Such shifts in public spending have been enabled by a reform of long-standing energy subsidies, allowing for more investment in programs to aid low income earners. In view of plans that have been put in place by the government, the manufacturing sector is expected to continue driving polyolefin demand in Indonesia.

Table 4.1 Profile of Macroeconomic Factors for Indonesia

	Actual						Forecast			
Indonesia	**2007**	**2009**	**2011**	**2013**	**2015**	**2016**	**2017**	**2019**	**2021**	**2023**
Population, million	228	234	242	249	255	259	262	269	275	280
GDP, million current US $	504466	574658	852762	887726	858951	940953	1031963	1212175	1412202	1640007
GDP, million 2016 $	572960	644545	727959	814747	896701	940953	990824	1097042	1210573	1331608
GDP deflator Index (2016 = 100)	60.3	69.6	77.0	85.2	96.5	100.0	104.2	110.5	116.7	123.2
GDP Real Growth Index (2016 = 100)	60.9	68.5	77.4	86.6	95.3	100.0	105.3	116.6	128.7	141.5
Economic Measures										
GDP/Capita (Current $)	$2,215	$2,453	$3,524	$3,568	$3,362	$3,636	$3,936	$4,512	$5,144	$5,855
GDP/Capita (2016 $)	$2,516	$2,751	$3,008	$3,274	$3,510	$3,636	$3,779	$4,083	$4,409	$4,754
Pop. Growth, percent	1.4%	1.4%	1.8%	1.4%	1.3%	1.3%	1.3%	1.2%	1.1%	1.0%
Real Growth, percent	6.3%	4.7%	6.2%	5.6%	4.8%	4.9%	5.3%	5.2%	5.0%	4.8%
GDP Deflator, percent	6.7%	5.0%	5.3%	6.4%	6.4%	3.7%	4.2%	3.0%	2.8%	2.8%
Change in real per capita GDP, percent	4.8%	3.2%	4.3%	4.1%	3.4%	3.6%	3.9%	3.9%	3.9%	3.8%
Exchange Rate (Rupiah per US $)	9,140	10,409	8,774	10,438	13,436	13,341	13,534	13,874	14,048	14,224

Source: IMF Statistics, October 2016

According According to the IMF (WEO October 2016), the global downturn adversely affected the economic performance of Indonesia, slowing real GDP growth rate to 5.6 percent, 5.0 percent, 4.8 percent in 2013, 2014 and 2015 respectively, before strengthening to 4.9 percent in 2016. Indonesia is expected to continue to be amongst Asia's fastest growing economies. According to the IMF, real GDP growth for 2017 - 2020 for Indonesia is expected to be 5.6 percent, compared to 7.8 percent, 6.0 percent, 6.8 percent, 6.2 percent, 4.8 percent, 3.1 percent, 2.5 percent, 1.3 percent, 1.6 percent, 2.0 percent and for India, China, Philippines, Vietnam, Malaysia, Thailand, Singapore, Germany, UK and US, respectively. Strong FDI inflows have also strengthened the Indonesian economy. According to Badan Koordinasi Penanaman Modal (BPKM), the FDI in Indonesia was US$24.5bn, US$28.6bn, US$28.5bn, US$29.3bn and US$29.0bn in 2012, 2013, 2014, 2015 and 2016 respectively.

4.1.2 Overview of Petrochemical Industry

The petrochemicals industry continues to play an important role in Indonesia's fast growing economy. Initially domestic industry developments were primarily focused in methanol, ammonia and agricultural sectors. Investment in these sectors has been facilitated by domestic availability of natural gas. However, over the last decade, the Indonesian petrochemical sector has developed further and has expanded into olefins and olefin downstream derivatives production including polyolefins. These products are being consumed locally for packaging, construction and the wider manufacturing sectors.

Government stimulus packages designed to improve basic infrastructure are also further driving domestic demand for chemicals, primarily for construction materials. With a significant population around 262 million and a significant potential for material substitution with plastics, potential demand growth of basic chemicals and polymers remains positive over the medium and long term. The consumption per capita is low compared to other Asian countries but is forecast to increase.

Indonesia is dependent on imports from other countries to satisfy its consumption of petrochemicals. Total imports of polyolefins in 2016 are estimated at over 1.5 million tons, with the majority of these imports coming from neighbouring Malaysia, Thailand and Singapore. Total polyolefin imports are set to remain at around one to two million tons per annum in the long term.

CAP, Lotte Chemical Titan and Pertamina (state owned company) are each separately evaluating petrochemical capacity expansion projects in Indonesia. These projects would consist of a new world scale naphtha cracker and downstream polyolefins plants. However these projects are currently under evaluation. The exact timeline for these expansions is not certain and hence Nexant assumes no firm capacity additions for polyolefins before 2023. Therefore net imports of both polyethylene and polypropylene are forecast to remain at high levels.

Nexant notes that CAP is in the process of executing a major capacity expansion over the 2018-2020 time frame. The expansion will include the following:

- New 400 000 tons per year LLDPE/HDPE swing plant
- Steam cracker debottlenecking resulting in an additional annual capacity of 40 000 tons ethylene and 20 000 tons propylene
- Butadiene expansion resulting in an additional 37 000 tons per year
- New MTBE and Butene-1 plants at capacities of 130 000 and 43 000 tons per year respectively.

CAP will utilise butene-1 as a co-monomer for its polyethylene production and therefore reduce the need for imports. MTBE production will be sold domestically for gasoline blending. Domestic MTBE demand in Indonesia is estimated at approximately 170,000 in 2016 of which more than 100,000 tons is currently imported.

Additionally, Synthetic Rubber Indonesia (SRI), a 55:45 joint-venture between Michelin and Petrokimia Butadiene Indonesia (PBI) plans to start-up a new polybutadiene rubber (PBR) and styrene butadiene rubber (SBR) production plant with a total capacity of 120 000 tons per year by 2018. PBI is a wholly owned subsidiary of CAP.

CAP is evaluating the construction of a second integrated facility to be located on a site adjacent to its existing complex. This would comprise a one million tons per year ethylene plant, together with polyolefins and aromatics facilities. The facility is planned to start production around 2023.

Table 4.2 Overview of Indonesian Petrochemical Industry

Products	Capacity 2016 (Thousand Tons)	Demand 2016 (Thousand Tons)	Net Export 2016 (Thousand Tons)	CAGR (2009-2016)	CAGR (2017-2023)F
Ethylene	860	1384	-619	3.1	3.1
Propylene	1078	811	-8	5.3	1.7
Butadiene	100	64	6	3.6	17.7
Polyethylene	790	1317	-653	21.2	13.1
HDPE	390	607	-249	7.5	4.4
LLDPE	400	510	-204	8.5	4.7
LDPE	0	200	-200	5.2	4.0
Polypropylene	765	1513	-860	7.9	4.7
Styrene	341	185	56	1.0	10.5

Table 4.3 Overview of Major Indonesian Petrochemical Producers

(2016)

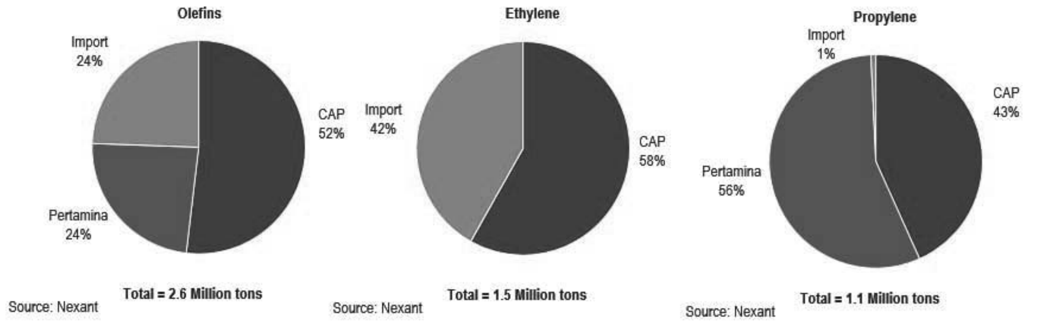
Capacity (' 000 tons per year)	Chandra Asri	Lotte Chemical Titan	Pertamina	Polytama	Asahimas	Sulfindo Adiusaha	TPPI	Others
Ethylene	860	-	-	-	-	-	-	-
Propylene	470	-	608	-	-	-	-	-
LLDPE	200	200	-	-	-	-	-	-
HDPE	136	250	-	-	-	-	-	-
Polypropylene	480	-	45	240	-	-	-	-
Ethylene Dichloride	-	-	-	-	644	370	-	-
Vinyl Chloride Monomer	-	-	-	-	734	130	-	-
Polyvinyl Chloride	-	-	-	-	507	95	-	202
Ethylene Oxide	-	-	-	-	-	-	-	240
Ethylene Glycol	-	-	-	-	-	-	-	220
Acrylic Acid	-	-	-	-	-	-	-	140
Butanol	-	-	-	-	-	-	-	20
Ethylhexanol	-	-	-	-	-	-	-	140
Py-Gas	400	-	-	-	-	-	-	-
Crude C4	315	-	-	-	-	-	-	-
Butadiene	100	-	-	-	-	-	-	-
Benzene	-	-	125	-	-	-	400	-
Para-Xylene	-	-	298	-	-	-	540	-
Styrene	340	-	-	-	-	-	-	-
Total	**3,301**	**450**	**1,076**	**240**	**1,885**	**595**	**940**	**962**

4.1.3 Indonesian Olefins Supply, Demand and Trade

In 2016, total olefins (ethylene and, propylene) capacity in Indonesia was approximately 1.9 million tons. CAP holds a majority of domestic capacity with an estimated share of 69 percent of the domestic olefins market in 2016. CAP is the sole domestic producer of ethylene with a current ethylene capacity of 860 000 tons per annum. Ethylene is expensive to transport and is typically moved via pipeline. CAP has a good competitive position within the domestic ethylene market, especially on a delivered basis to end users within close proximity to its plant. CAP also has 470 000 tons per year of propylene as a by-product from its steam cracker. Pertamina has a total propylene capacity of around 608 000 tons per year at present which is integrated with its refineries.

Figure 4.1 Olefins Domestic Market Share

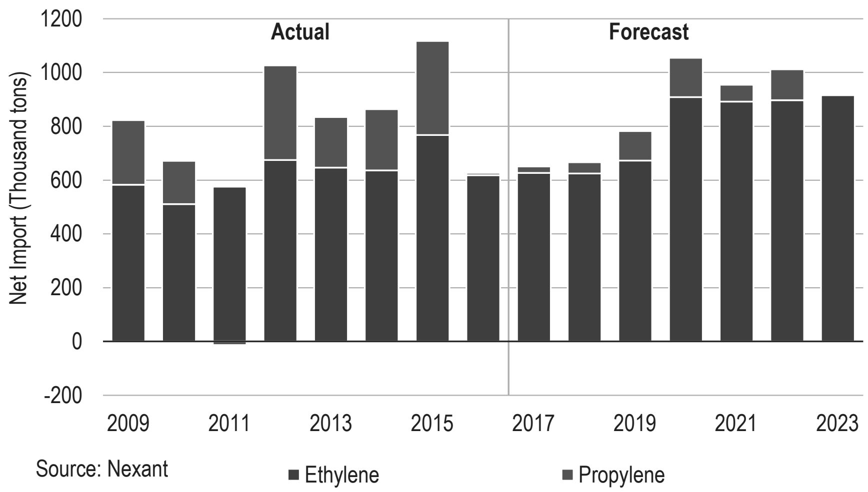
(Ethylene and Propylene, 2016)



Indonesia is Asia's second largest importer of olefins. Total imports of olefins are estimated at over 600 000 tons in 2016. The majority of these imports are supplied from neighbouring Malaysia, Thailand and Singapore, as well as from Saudi Arabia. There are currently no firm capacity additions forecast for olefins in Indonesia. However various companies are assessing new investments and it is feasible that new olefins capacity could be realised post 2023. CAP is also evaluating further new expansion projects. As part of this plan CAP is planning a new naphtha cracker and derivatives project.

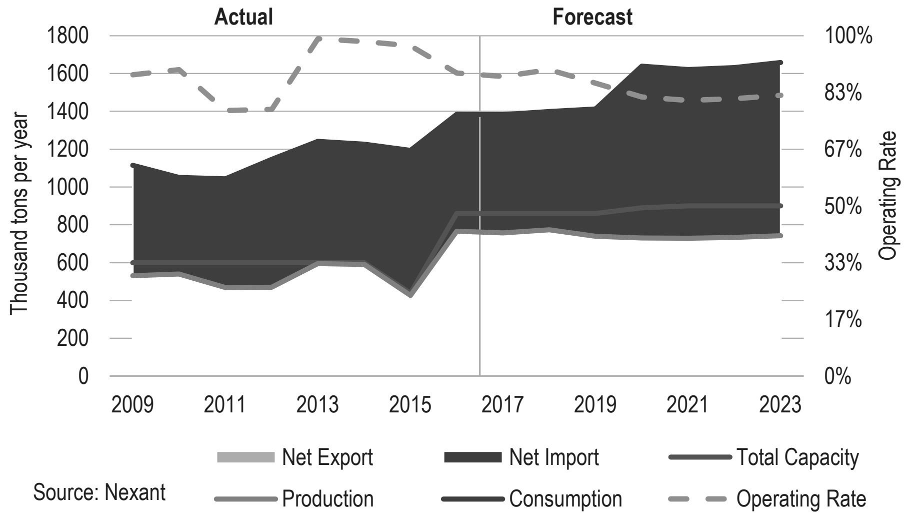
Figure 4.2 Overview of Domestic Olefins Net Trade

(With no Unsanctioned Capacity)



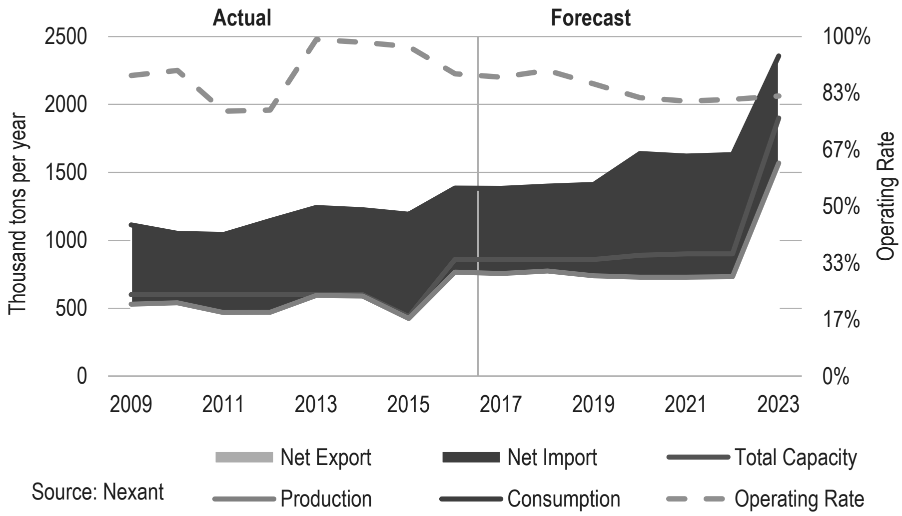
The outlook for domestic olefins demand is forecast to grow at approximately 2.6 percent CAGR over the period 2017-2023. This growth is largely driven by the construction of a new 400 000 tons per year LLDPE/HDPE plant by CAP. The new plant is scheduled to start production in Q4 2019.

Figure 4.3 Ethylene Supply, Demand and Trade – Indonesia
(With no Unsanctioned Capacity)



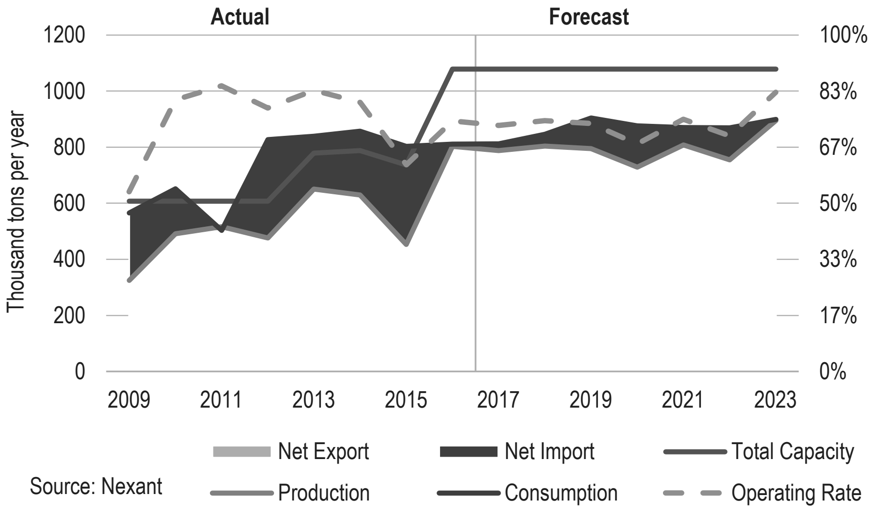
Source: Nexant

Figure 4.4 Ethylene Supply, Demand and Trade – Indonesia
(With Unsanctioned Capacity at a million tons per year)



Source: Nexant

Figure 4.5 Propylene Supply, Demand and Trade – Indonesia
(With no Unsanctioned Capacity)



Source: Nexant

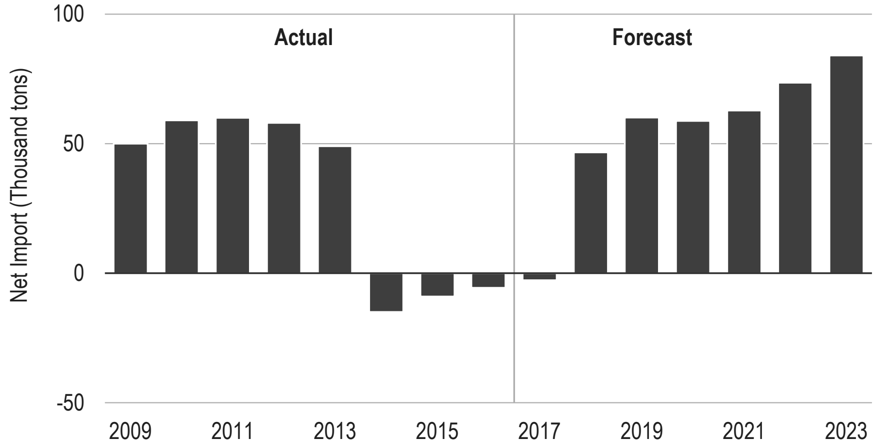
4.1.4 Indonesian Butadiene Supply, Demand and Trade

Demand for butadiene in Indonesia is expected to grow at 14 percent per year over the period of 2017-2027. This growth estimate is supported by expansions of existing domestic butadiene derivative product capacity. These include 60 000 tons per year of polybutadiene rubber (PBR) capacity and 60 000 tons per year of solution styrene butadiene rubber (sSBR) capacity by 2018 by Synthetic Rubber Indonesia (SRI). SRI is a joint venture company of CAP and leading global tyre producer Michelin.

PT Petrokimia Butadiene – a subsidiary of CAP – commissioned the country's first butadiene plant of 100 000 tons per year in late 2013. CAP is in the process of expanding the plant. Total capacity is set to be increased up to 137 000 by Q2 2018. There are currently no additional firm butadiene capacity additions forecast. However new capacity may be feasible post 2023 as part of a wider naphtha based ethylene projects.

Prior to 2013, butadiene demand in Indonesia was solely met by imports. Following the start-up of CAP's 100 000 tons per year production capacity in late 2013, Indonesia became a small net exporter of butadiene with the surplus amount supplied to China and South Korea. Indonesia is forecast to return to a net import position following the start-up of Synthetic Rubber Indonesia's new PBR and SBR plants in 2018.

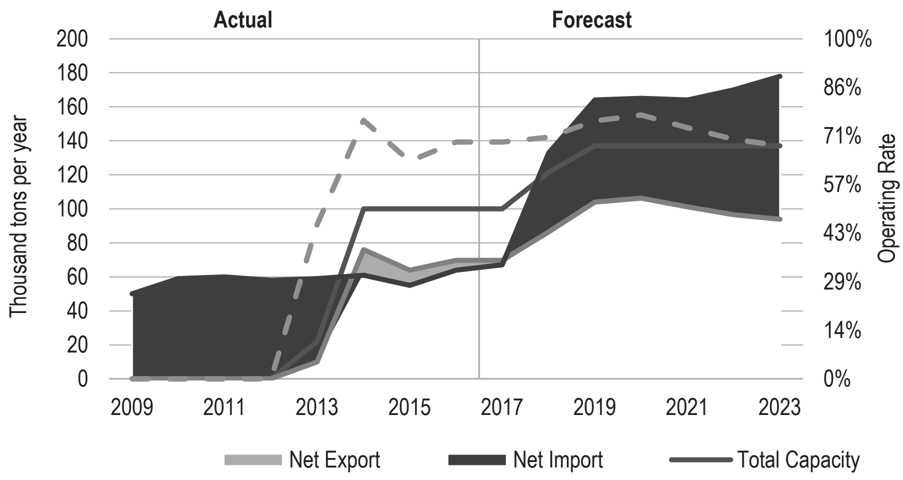
Figure 4.6 Overview of Domestic Butadiene Net Trade
(With no Unsanctioned Capacity)



Source: Nexant

In 2016, Indonesia consumed around 64 000 tons per year of butadiene of which PBR and SBR are key derivatives. Nexant forecasts demand growth of butadiene at a CAGR over 17 percent over the period of 2017-2023 as a result of envisaged PBR and SBR capacity additions resulting from demand from the Indonesian automotive industry. This underpins butadiene demand growth over the forecast period while butadiene supply is expected to be insufficient.

Figure 4.7 Butadiene Supply, Demand and Trade – Indonesia
(With no Unsanctioned Capacity)



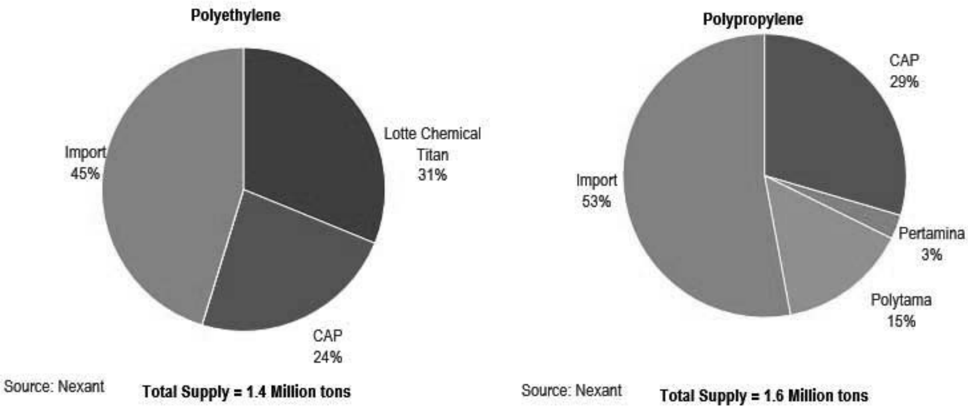
Source: Nexant

4.1.5 Indonesian Polyolefins Supply, Demand and Trade

Indonesia has four producers of polyolefins; CAP, Lotte Chemical Titan, Pertamina and Polytama. CAP is the only petrochemical producer with integrated operations into naphtha cracking. Therefore CAP is believed to be the lowest cost producer of polyethylene in Indonesia. CAP is also the largest producer of polyolefins in Indonesia with a combined capacity of approximately 816 000 tons per year and the only domestic producer of impact copolymer polypropylene. Domestic polyolefin producers have a competitive advantage within the domestic market. This is primarily due to their relative proximity and lower transport costs compared with external competitors.

Figure 4.8 Overview of Indonesian Polyolefins Domestic Market Share

(2016)



Indonesia is a net importer of polyethylene and polypropylene. In 2016, total net imports of polyethylene and polypropylene were approximately 653 000 and 860 000 tons respectively and account for 53 percent of the total domestic polyolefin market demand. The majority of these imports originate from Malaysia, Singapore, Thailand and the Middle East. Overall, Nexant forecasts Indonesia to remain as a major net importer of polyolefins over the period 2017-2023. A reduction in polyolefin net imports is contingent on the successful completion of future planned projects. The addition of a new LLDPE/HDPE swing facility by CAP is forecast to start-up in Q4 2019. Therefore total net import requirements are expected to decline marginally post 2019. Additional polyolefins capacity, with cracker integration, appears unlikely over the forecast period. This type of project would take approximately five years to complete. Nexant notes that various cracker projects are under evaluation, therefore new capacity additions are a realistic prospect post 2023.

Figure 4.9 Overview of Domestic Polyethylene Net Trade
(With no Unsanctioned Capacity)

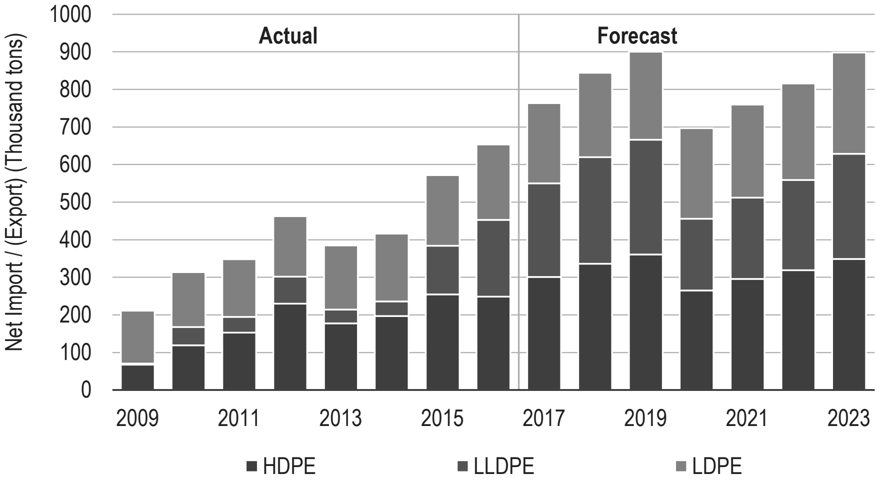
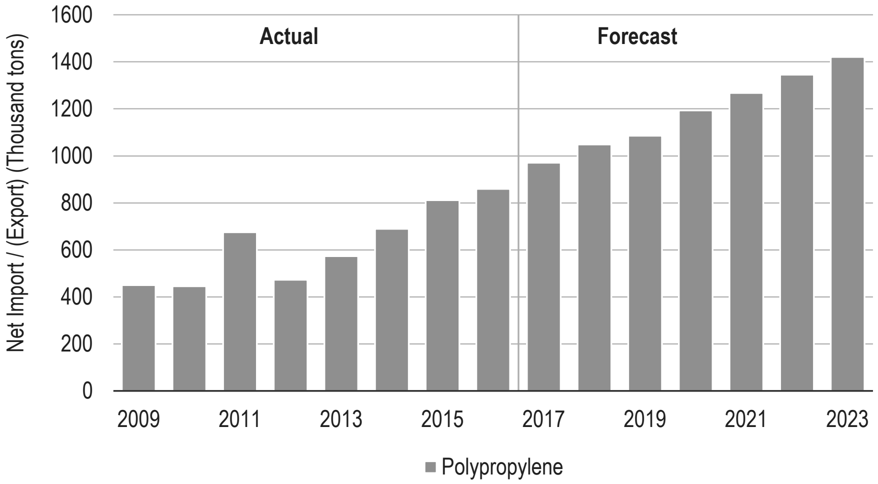


Figure 4.10 Overview of Domestic Polypropylene Net Trade
(With no Unsanctioned Capacity)



Indonesia consumed approximately 2.8 million tons of polyolefins in 2016 and Nexant forecasts demand growth at 4.4 percent CAGR over the period 2017-2023, which is aligned with Indonesia's GDP forecast growth. Nexant does not consider unsanctioned projects in its forecasts, however notes that Indonesia would remain a net importer assuming the construction of a million tons of new ethylene capacity.

Figure 4.11 Polyethylene Supply, Demand and Trade – Indonesia
(With no Unsanctioned Capacity)

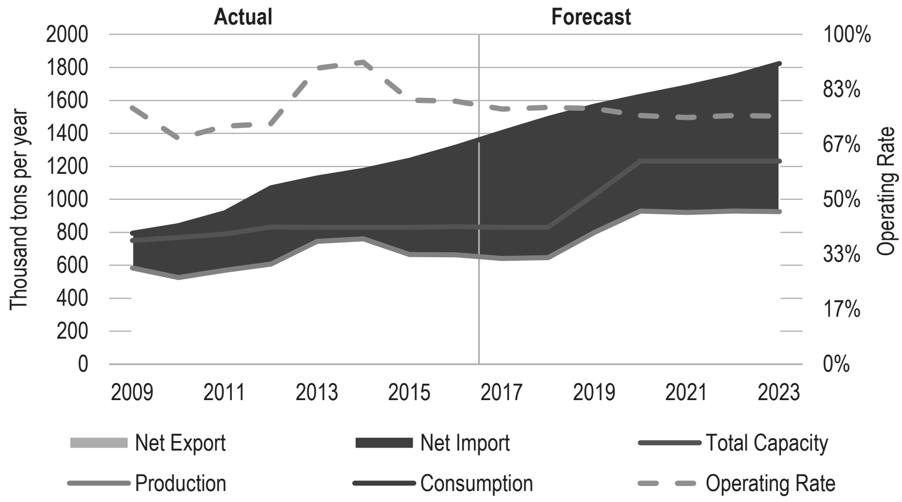


Figure 4.12 Polyethylene Supply, Demand and Trade – Indonesia
(With Unsanctioned Capacity at a million tons per year))

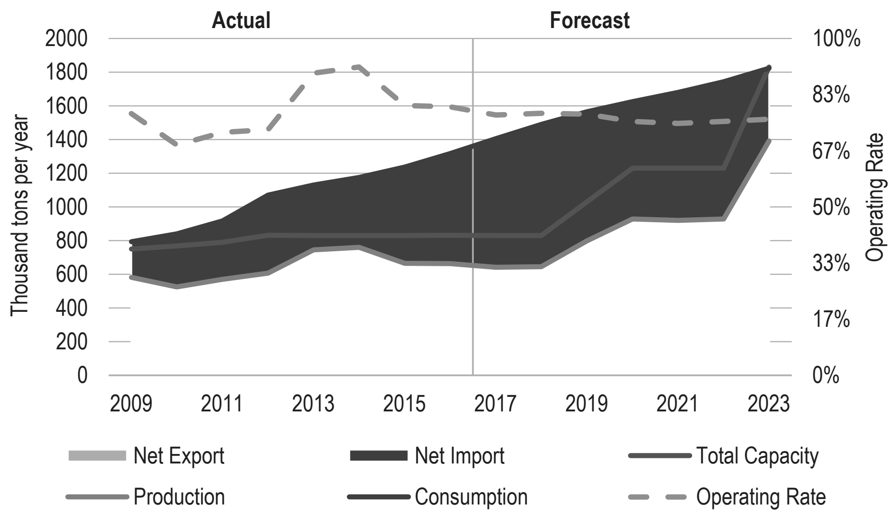
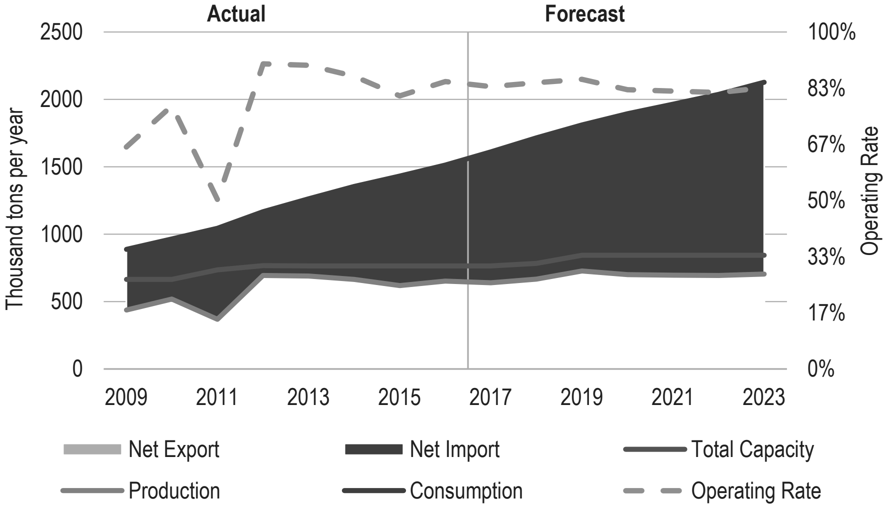


Figure 4.13 Polypropylene Supply, Demand and Trade – Indonesia
(With no Unsanctioned Capacity)

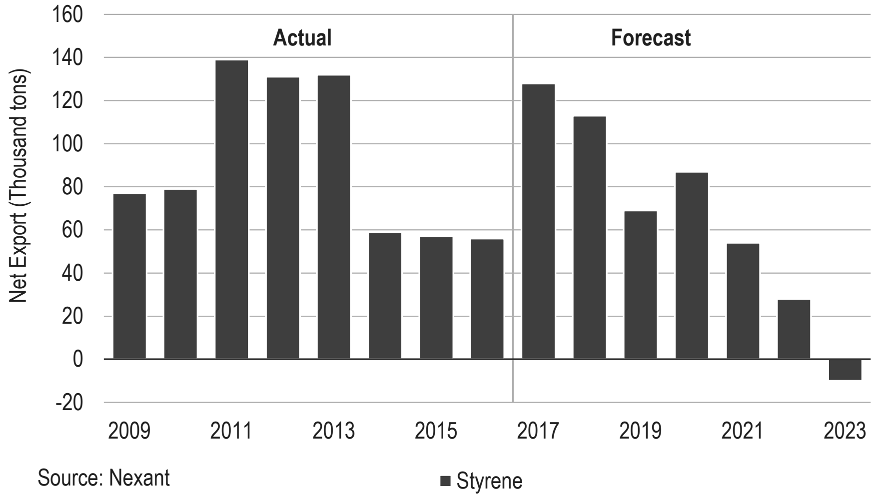


4.1.6 Indonesian Styrene Monomer Supply, Demand and Trade

Styrindo Mono Indonesia, a CAP subsidiary, is the only styrene monomer producer in Indonesia with a total capacity of 340 000 tons per year. Indonesia is the fourth largest exporter in Asia Pacific, primarily supplying to China, Malaysia and Thailand. Total exports of styrene were estimated at 56 000 tons in 2016.

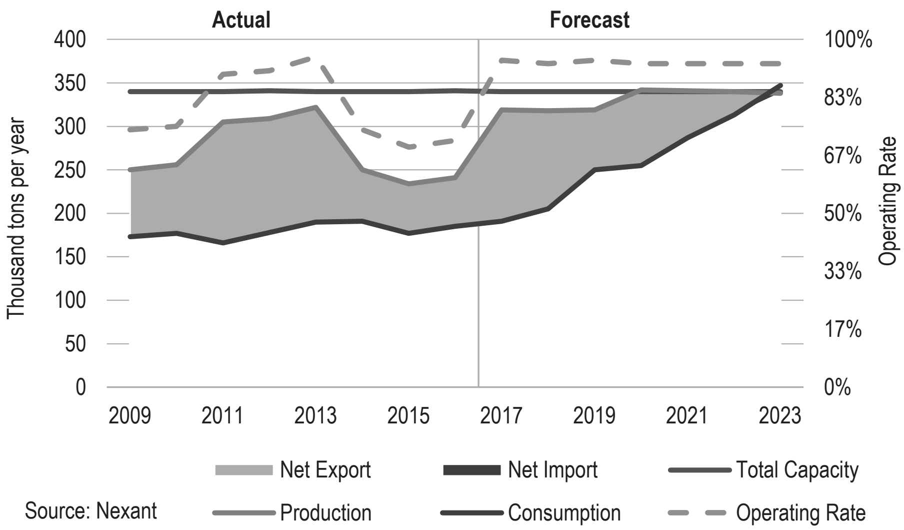
Domestic drivers for styrene consumption are associated with the consumption by downstream derivative products such as polystyrene, SB Latex and UPR. In 2018, Synthetic Rubber Indonesia (SRI), a 55:45 joint-venture between Michelin and Petrokimia Butadiene Indonesia (PBI) plans to start-up a new SBR (styrene butadiene rubber) which would require styrene as a raw material. Therefore this project is set to boost domestic styrene demand and reduce overall styrene export volumes over the forecast period. Overall, domestic demand is estimated to grow at an average of over 10 percent per year over the period of 2017-2023.

Figure 4.14 Overview of Domestic Styrene Monomer Net Exports
(With no Unsanctioned Capacity)



Source: Nexant

Figure 4.15 Styrene Monomer Supply, Demand and Trade – Indonesia
(With no Unsanctioned Capacity)



Source: Nexant

4.1.7 Regulatory Frameworks

Indonesia has underlined the oil, gas and coal based chemical industry as one of the ten priority industry groups to be developed under the Master Plan of National Industry Development Year 2015-2035. The overarching law regulating oil and gas activities in Indonesia is Law No. 22 dated 23 November 2001, with the following objectives:

- Guarantee effective, efficient, highly competitive and sustainable exploration and exploitation
- Assure accountable processing, transport, storage and commercial businesses through fair and transparent business competition
- Guarantee the efficient and effective supply of oil and gas as a source of energy and to meet domestic needs
- Promote national capacity
- Increase state income
- Enhance public welfare and prosperity equitably, while maintaining the conservation of the environment.

Law No.22 stipulates that upstream activities are controlled through "Joint Cooperation Contracts" between the business entity/permanent establishment and the executing agency (SKK Migas) (Article 6). Downstream activities are controlled by business licenses issued by the regulatory agency (BPH Migas) (Article 7). SKK Migas and BPH Migas supervise upstream and downstream activities respectively to ensure resource conservation, resource management, good practice of safety and technical norms, environmental conservation, and development of local capabilities. The key relevant laws governing the downstream sector include:

- Decree No.31/2013 on Expatriate Utilisation and the Development of Indonesian Employees in the Oil and Gas Business
- The Energy Law No.30/2007 providing a legal framework for overall energy sector
- Investment Law No. 25/2007 on the permitted mode of investment
- Company Law No. 40/2007 providing obligations for companies undertaking business activities in the natural resources field
- Environmental Law No.32/2009 on compliance with environmental quality requirements and permits
- Forestry Law No.41/1999 which prohibits oil and gas activities in protected forest areas
- Regulations PBI No.13/21/PBI/2011, PBI 14/25/PBI/2012 and 16/10/PBI/2014 from Bank Indonesia which regulate export proceeds and foreign exchange.

Regulation PBI 17/3/2015 from Bank Indonesia regarding mandatory use of Rupiah for cash and non-cash transactions in Indonesia

The Ministry of Energy and Mineral Resources (MoEMR) is charged with creating and implementing Indonesia's energy policy, ensuring that the related business activities are in accordance with the relevant laws and regulations, and awarding contracts. It is also responsible for the National Masterplan for the transmission and distribution of natural gas. The MoEMR is divided into directorates with the Directorate General of Oil and Gas (DGOG) responsible for the preparation, implementation, direction, supervision and implementation of various policies in oil and gas industry.

BPH Migas was established on 30 December 2002 to assume Pertamina's regulatory role in relation to downstream activities (Articles 46 and 47 of Law No.22). BPH Migas is charged with assuring sufficient natural gas and domestic fuel supplies and the safe operation of refining, storage, transportation and distribution of gas and petroleum products via business licences.

5.1 COMPETITIVENESS POSITIONING

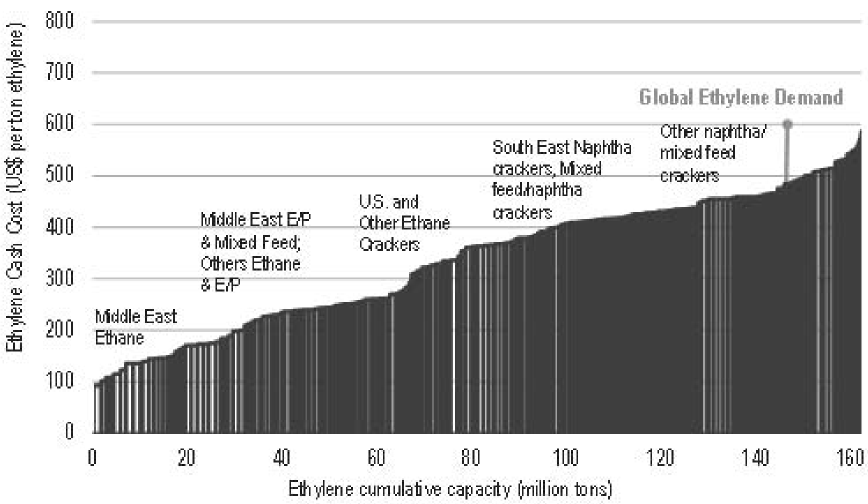
The cost of producing petrochemicals varies greatly by location around the world. The principal factors in determining operating costs are linked to the cost of the prevailing feedstock. However, secondary cost advantages are associated with the following key points:

- Plant scale (and its influence on fixed costs)
- Utility costs
- Technology/complexity
- Co-product credit (valuation of by-products in production)
- Fixed costs (location issues).

Currently, the lowest cost olefin producers are based in the Middle East. Leader ethylene crackers in the region are typically 100 percent ethane-based, although recent capacity additions are on mixed-feed cracker designs rather than on a 100 percent ethane feedstock basis. Ethane is usually supplied at a fixed price that is considerably below market price levels available in Europe or the U.S., with no linkage to the wider energy market.

Figure 5.1 Global Ethylene Cost Curve

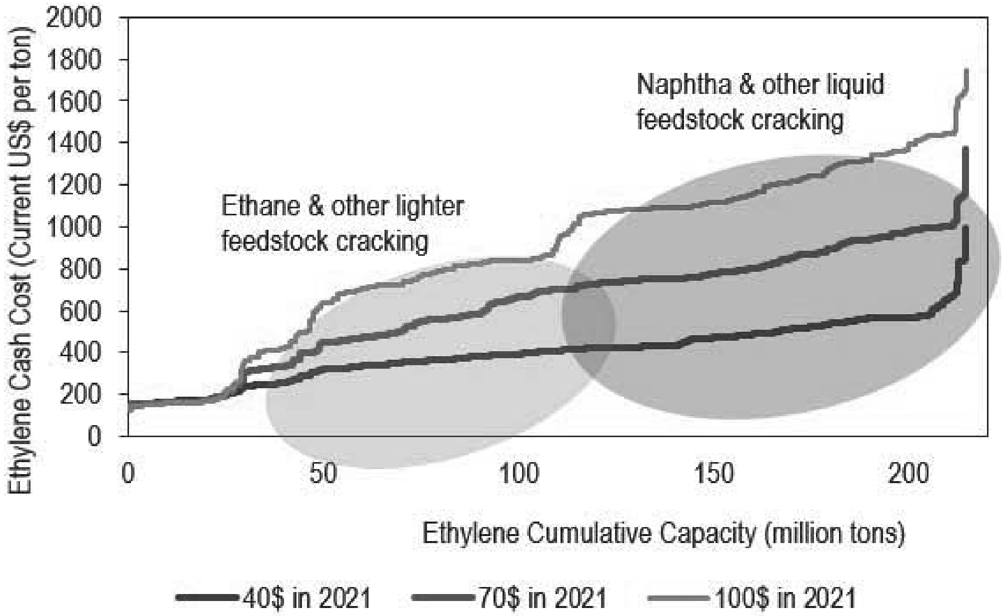
(Cash Cost Basis: 2016, Brent Crude Oil at US$44 per barrel)



Note : Ethane/Propane (E/P)

Source: Nexant

Figure 5.2 Global Ethylene Cost Curve
(Different Oil Scenarios: 2021)



With gas and ethane prices in North America currently falling to relatively low levels, gas-based ethylene facilities in North America are considerably more competitive than naphtha crackers in various regions. However, the ethane crackers in North America still incur slightly higher cash costs than the ethylene plants in locations such as Venezuela and Africa, where there is good accessibility to low cost feedstock gas.

Naphtha crackers in the world incur a range of cash costs; for example, naphtha crackers are estimated to be more competitive in South East Asia than in Japan and Western Europe. CAP's cost position is comparable with other naphtha based producers in South East Asia. CAP's overall competitive position has improved following a capacity expansion in 2016. Further enhancements to its cost position include upgrading of mixed C_4 streams to higher value butadiene.

Ethylene plants in China and Europe cracking gas oil and heavy feedstocks are broadly the high-cost producers in the global industry.

Ethylene is mainly produced from two different feedstocks (oil and gas) via steam cracking process. Oil-based ethylene feedstocks such as naphtha and condensate produce a greater proportion of propylene and butadiene per unit of ethylene produced while gas feedstocks such as ethane produce almost exclusively ethylene.

In general, naphtha-based plants offer the highest cost route to ethylene production (via steam cracking). These operations have no noticeable feedstock advantage and are highly capital intensive due to the complexity of the facility required to separate and utilise co-product streams.

5.1.1 Olefins

Olefins supply in South East Asia primarily consists of regional companies operating from a domestic base. However, international players, including Shell Chemicals, ExxonMobil and Sumitomo, also have olefins capacity in the region. All major olefins producing companies have forward integration into polyolefins. A number of producers, including PTT Global Chemical, PCG ("PETRONAS Chemicals Group") and Shell Chemicals, also have integration into other derivatives including styrene, ethylene oxide and ethylene glycol.

The Siam Cement Group (SCG) completed an agreement to purchase a 30 percent equity stake in CAP in September 2011. CAP successfully expanded its steam cracker to 860 000 tons per year in 2016. SCG is also focusing on building a new ethylene cracker with a capacity of 950 000 tons per year in Vietnam for Long Son Petrochemical (LSP) Project in Vietnam. The LSP project is scheduled to start-up in 2020/21

The RAPID project currently being developed by PCG in Malaysia and Saudi Aramco will include around 2 million tons per year of olefins capacity as well as its downstream derivatives. The project is scheduled to commence production in around 2020 and is integrated with a new 300 KBPD refinery.

Figure 5.3 South East Asia Ethylene Capacity by Country
(2016)

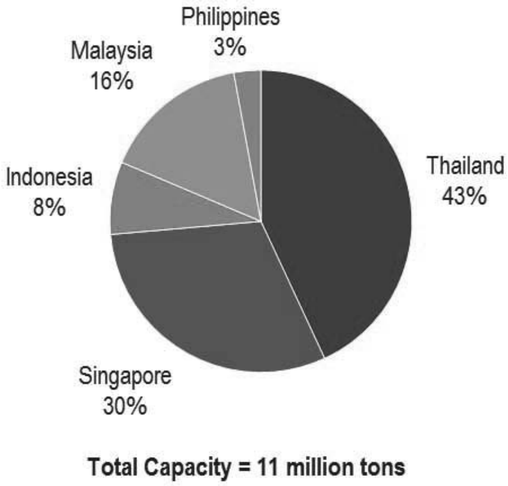
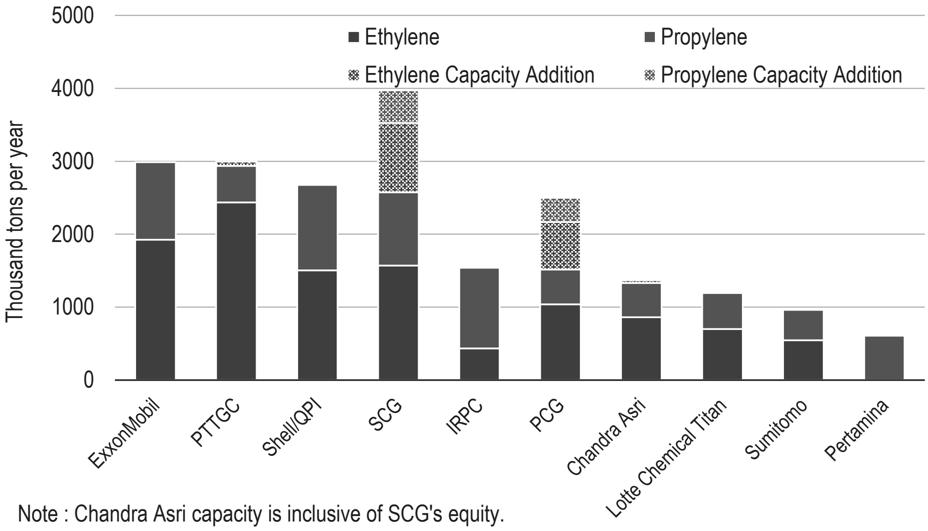


Figure 5.4 Top Ten Olefins Producers in South East Asia
(Capacity basis 2016)



Note : Chandra Asri capacity is inclusive of SCG's equity.

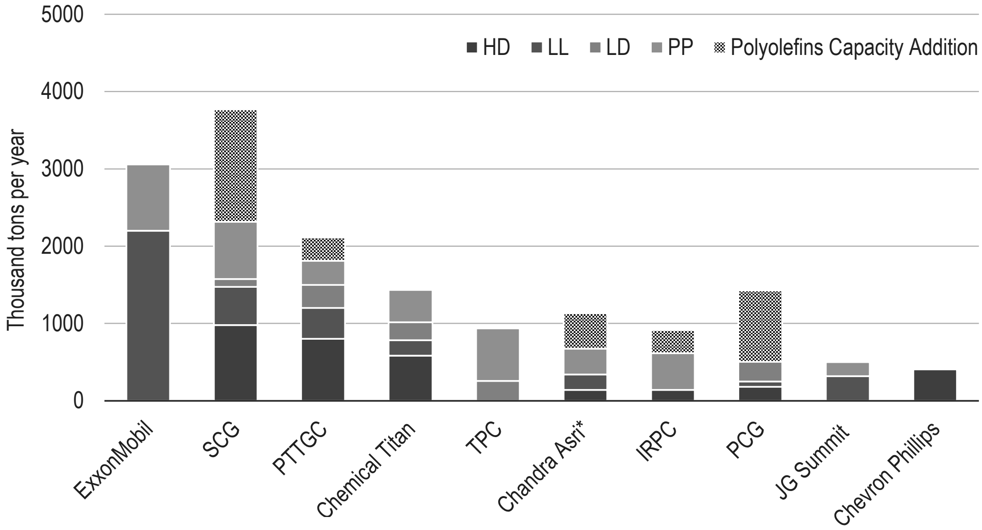
Notes:

- SCG plans to build new ethylene capacity of 950 000 tons per year and propylene capacity of 450 000 tons per year. The project, located in Vietnam, is referred to as Long Son Petrochemicals (LSP) and is scheduled to start-up date around 2020/2021. PetroVietnam is a partner in the project
- PCG/Aramco (under RAPID project in Malaysia) plans to build up new ethylene capacity of 1.3 million tons and propylene 663 000 tons per year in 2020.

5.1.2 Polyolefins

Polyolefins supply in South East Asia largely consists of regional players operating from a domestic base. In terms of regional market share the top three producers; ExxonMobil, SCG, and PTTGC account for over 54 percent of regional polyolefins capacity. Additionally, major international players such as Sumitomo and Chevron Philips also have an operational presence in the region. Leading polyolefin players typically produce most product grades (HDPE, LDPE, LLDPE and PP).

Figure 5.5 Top Ten Polyolefins Producers in South East Asia
(Capacity basis 2016)



Note : Chandra Asri capacity is inclusive of SCG's equity.

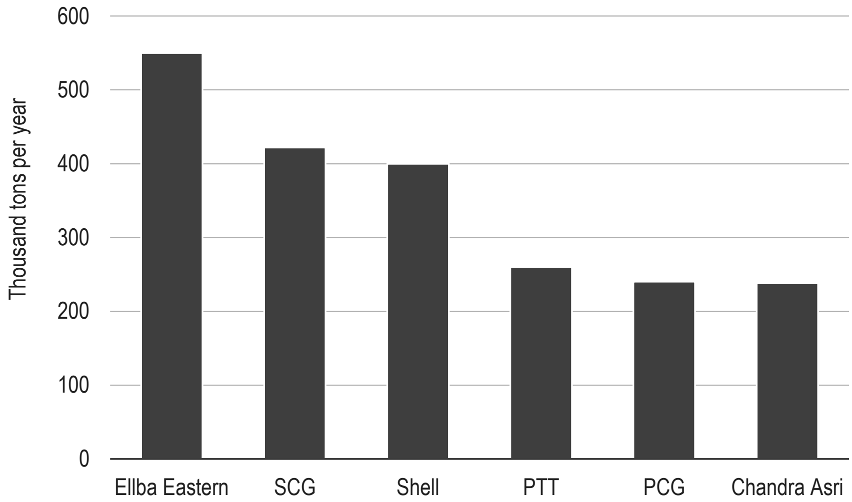
Notes:

- SCG (under LSP project in Vietnam) plans to add around 1.4 million tons of total polyolefins along with a new ethylene capacity of 950 000 tons per year and propylene capacity of 450 000 tons per year post 2020
- IRPC, a subsidiary of PTT, plans to add a total 300 000 tons per year of polypropylene in 2017. Additionally, PTTGC plans to add a 300 000 tons per year of LLDPE in 2018
- PCG (under RAPID project in Malaysia) plans to add around 1.4 million tons of total polyolefins along with a new ethylene capacity of 1.3 million tons and propylene 663 000 tons per year in 2020
- CAP plans to construct a new world-scale LLDPE/HDPE swing plant. The project will utilise available ethylene supply from the company's Cilegon petrochemicals complex in Indonesia and is scheduled to start production in Q4 2019.

5.1.3 Styrene Monomer

Total styrene monomer capacity in South East Asia is approximately 2 million tons in 2016. The supply base consists of five companies but is led by Ellba Eastern, the Shell/BASF joint venture located in Singapore. Ellba Eastern has an estimated capacity share of around 26 percent. SCG and Shell are ranked the second SM is produced using conventional technology via the alkylation of benzene with ethylene. Its production economics are principally driven by the cost of ethylene and plant scale. However, in Singapore, styrene production is fully upstream integrated. Styrene is produced from propylene-oxide-styrene monomer (POSM) route that produces propylene oxide as a co-product from its propylene oxide plant. This process is often referred to as POSM.

Figure 5.6 Styrene Monomer South East Asia Producers
(Capacity basis 2016)



Section 6 Glossary and Nexant Methodology

6.1 OVERVIEW OF NEXANT METHODOLOGIES

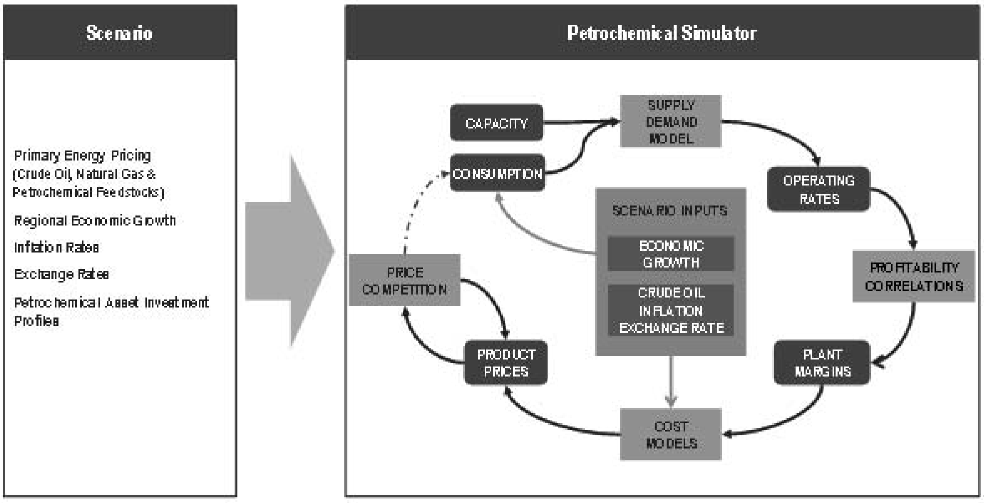
6.1.1 Market Dynamics and Profitability

The methodology for undertaking industry analysis – covering markets, industry structure, and pricing – includes consideration of the complex interactions between consumption drivers, capacity additions, and regional economics (taking account of regional GDP growth and inflation).

This methodology is the basis for the proprietary simulation model developed by Nexant of the global petroleum and petrochemicals industry. The advanced simulator is a fully integrated model of the global business dynamics (material flows and cash flows) using sophisticated software. The industry outlooks draw on more than 40 years of knowledge and experience of the global industry to develop algorithms to simulate petrochemical business dynamics.

The forecast methodology relates market demand drivers to petrochemical consumption. From a database of petrochemical processes and plant capacity, the regional consumption is compared to the ability to produce. Global trade algorithms complete a full supply, demand and trade model of the industry. Basic commodity theory dictates that market tightness (level of production versus available production capacity), is the primary driver of profitability. Production costs are built up from a detailed database of representative production cost models for regional producers, which are heavily influenced by assumptions of crude oil and energy prices. Petrochemical product prices are determined by adding projected production costs to the margin outlook. Inter-regional competition and inter-material competition add further constraints and complexity to shape the pricing dynamics.

Figure 6.1 Petrochemical Industry Simulator Forecast Methodology



Source: Nexant

6.1.2 Pricing Basis

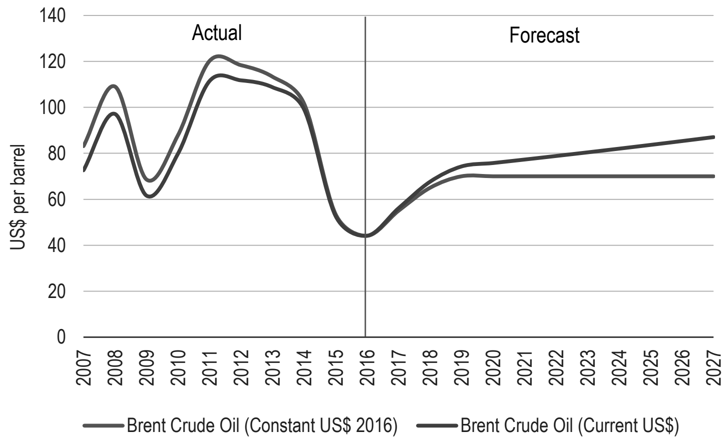
6.1.2.1 Crude Oil Scenario

Developments in crude oil markets have shown considerable volatility and unpredictability due to diversity of drivers. For this Report, Nexant has used the following scenario for the study, based on Brent FOB crude oil, noting that short term volatility and wide fluctuations in pricing may continue to occur in the longer term:

Oil scenario for Report: set at a long term US$70 per barrel (2016 constant dollars)

Figure 6.2 Crude Oil Price Scenarios

(Brent, Spot FOB North Sea)



Source: Nexant

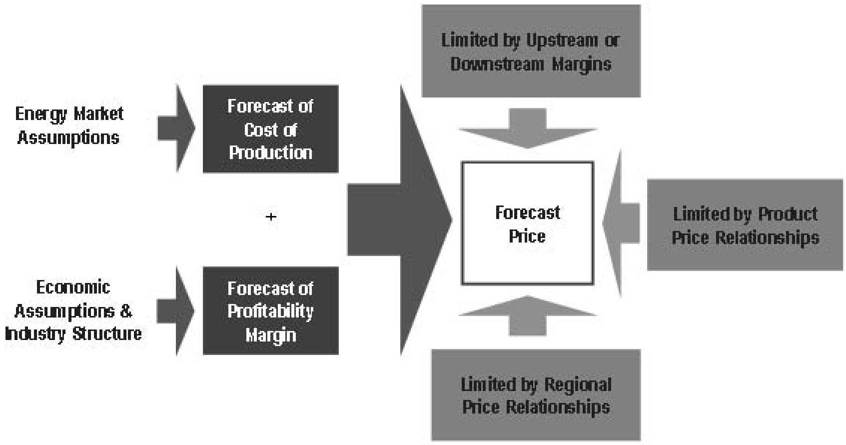
Naphtha

Naphtha is primarily a product produced in refineries and, to a lesser extent, in gas processing. Light naphtha is generally used for olefins production, while heavy naphtha is used for catalytic reforming for aromatics and gasoline production. Full range naphtha is also used for olefins production in cracker plants with sufficient flexibility to accept a wide range of hydrocarbon streams. Naphtha streams with high paraffin contents are preferred for steam cracking, while a high naphthenic and aromatics content favours catalytic reforming. Naphtha pricing exhibits a very close correlation to crude oil pricing, with relative variations driven by naphtha demand for petrochemicals and refinery margins. Published naphtha prices in Asia and the Middle East refer to "open spec" material with a minimum paraffin content of 65 percent. Sellers of more highly paraffinic naphtha or highly aromatic heavy naphtha will typically achieve a premium over this pricing. The premium depends on the economics of downstream processing, but can be as high as US$20 per ton for naphtha rich in paraffins and has recently exceeded US$50 per ton for some heavy naphtha streams.

6.1.2.2 Price Influences

Nexant's integrated approach used to forecast prices for petrochemicals combines separate forecasts for the primary influences; cash production costs (which for the majority of producers in price influencing regions such as Asia are strongly influenced by crude oil price) and cash margins (which are strongly influenced by industry operating rates (total level of production versus available production capacity, for respective regions).

Figure 6.3 Petrochemical Price Influences



Source: Nexant

Secondary influences on the price may place a ceiling or floor on the preliminary price projection derived from cost plus margin:

- **Forecast prices in other regions** - Inter-regional price spreads are assessed to ensure consistency with projected trade flows.
- **Relationship to other petrochemical products** - Where products with similar properties compete in an end use application, inter-product competition imposes price relationships between the products. Consumers have opportunity to switch product, choosing the one that offers best value.
- **Profitability of upstream and downstream processes** - Margins must be distributed in a balanced manner between different parts of the value chain for the whole petrochemical industry to be sustainable in the long term.

6.2 GLOSSARY

Term	Description
ABS	Acrylonitrile butadiene styrene is widely used in automotive applications, housings for electrical appliances and various household products
Acetic acid	Chemical intermediate (colourless liquid) traditionally made by fermentation (vinegar is mainly acetic acid). It is a raw material for several key petrochemical intermediates and products, including vinyl acetate monomer (VAM) for coatings and adhesives, purified terephthalic acid (PTA) for polyester production, acetate esters, cellulose acetate, acetic anhydride and monochloroacetic acid (MCA).
Alkylate	Alkylate is a key component in cleaner burning gasoline
Ammonia	A nitrogen and hydrogen compound in the form of colourless gas with a characteristic pungent odour.
ASEAN	Asssociation of Southeast Asian Nations.
Aromatics	A family of hydrocarbons characterised by a single or multiple ring structure. The most commonly traded are benzene, toluene, and xylenes.
BDH	Butylene dehydrogenation
Benzene	The simplest aromatic hydrocarbons (C6H6). Each carbon in the ring has a simple hydrogen attached. It is a volatile inflammable liquid created by catalytically reforming naphtha, in the thermal cracking process, and is used in production of other chemicals such as styrene, cumene, cyclohexane and maleic anhydride.
BPC	BASF Petronas Chemicals.
BTX	Benzene, Toluene, and Xylenes
Butadiene	Butadiene is a feedstock for the production of a wide variety of synthetic rubbers and polymer resins
Butadiene Rubber	Synthetic rubber widely employeded in tire treads for automobiles, made from the polymerisation of butadiene
Butane	A gas which liquefies with a relatively small increase in pressure or decrease in temperature. Used for heating, as a petrochemical industry feedstock and as an additive in petrol to enhance its vapour pressure.
Butanol	Chemical intermediate (colourless flammable liquid). It is used to produce other chemicals, as an ingredient in formulated products such as cosmetics, coatings, adhesives and as a solvent.
Butene-1	An organic chemical base, derived from cracking of petroleum or C4 distillate, and used mainly to produce butadiene and butanol.
Butyl acrylate	Butyl acrylate is colorless liquid, produced from the esterification of crude acrylic acid and butanol. It is used in the production of coatings and inks, adhesives, sealants, textiles, plastics and elastomers.
C1	monomer with one carbon molecule e.g. methane, methanol, ammonia
C2	monomer with two carbon molecules, e.g. ethane and ethylene
C3	monomer with three carbon molecules, e.g. propane, propylene
C4	monomer with four carbon molecules, e.g. butane, butadiene
C6	monomer with six carbon molecules e.g. bezene, styrene
Cash Margin	The difference between the price and the cash cost of production
Cash Cost	Cost of producing a product, accounting for raw materials, co-products, utility costs, labour, maintenance and other plant fixed costs.
CAGR	Compound annual growth rate.
Capacity utilisation	The total production (including off-specifications products) expressed as a percentage of nameplate capacity, adjusted for plant debottlenecking, scheduled turnaround and scheduled maintenance during the year.
Cash Cost	Cost of producing a product which factors in raw material costs,
CFR	Cost and freight. The delivery of goods to the named port of destination (discharge) at the seller's expense. Buyer is responsible for the cargo insurance and other costs and risks.
Cracking	A refining process which breaks down large molecules of oil into smaller molecules. When the process is achieved by applying heat only, it is known as thermal cracking. Cracking uses molecular decomposition and recombination to produce a range of more useful base chemicals suitable for motor oils or petrochemicals.
Crude Oil	Naturally occurring liquid fossil fuel resulting from plants and animals buried underground and exposed to extreme heat and pressure.
Debottlenecking	Increasing production capacity of existing facilities through the modification of existing equipment to remove throughput restrictions.
DEG	Diethylene glycol, a colourless, odourless, viscous liquid which is a by-product during the production of MEG. It is a chemical intermediate used in the production of unsaturated polyester resins (UPR), plasticisers, acrylate, and methacrylate resins and urethanes.
DMT	Dimethyl terephthalate is used to produce polyester fibre, film and bottle resins
Downstream	Refining activities, and/or further processing of a chemical to produce a produce or derivative in a petrochemical value chain.
EDC	Ethylene di-chloride (EDC) is the first molecule produced in the vinyls chain and is a toxic, flammable, and corrosive liquid at room temperature. EDC is most commonly formed from ethylene and chlorine, and is used for VCM production, with small amounts used for the manufacture of other organic compounds.
Ethane	A gaseous hydrocarbon, it is a major constituent of natural gas and a major raw material for the ethylene petrochemical industry.
Ethylbenzene	An aromatic liquid hydrocarbon, is a chemical intermediate made from the reaction of benzene and ethylene. It is a precursor to styrene production.
Ethylene	An essential organic chemical base derived from the thermal cracking of ethane and naphtha or from the dehydration of ethanol. It is used to make polyester and many organic chemical intermediates, such as polyethylene, ethylene oxide, ethylene glycol, vinyl chloride, styrene, acetaldehyde and ethanol.

Term	Description
Ethylene glycol	An organic chemical compound, derived from the oxidation of ethylene. Includes monoethylene glycol, diethylene glycol, triethylene glycol and polyethylene glycol.
Ethylene oxide	A highly reactive chemical intermediate used in the production of ethylene glycol and other oxide derivatives such as glycol ethers, polyethylene glycol, polyether polyols, diethylene and triethylene glycols and ethanolamines.
EPS	Expandable polystyrene is a form of polystyrene with a propellant such as pentane dissolved in it. Its largest use is in the production of foam boards for buildings insulation, and it is widely used to create moulded shapes for packaging fragile goods, such as TV sets, and in foam cups for hot drinks
EVA	Ethylene vinyl acetate is mainly used in moulded foam (largely shoes), film and adhesives
Feedstock	Raw materials used in a processing plant, of which naphtha and ethane are the most important for the olefins industry.
FOB	Free on board. The delivery of goods on board the vessel at the named port of origin (loading), at seller's expense. Buyer is responsible for the main carriage/freight, cargo insurance and other costs and risks.
Fuel Oil	A flammable liquid hydrocarbon with a chemical formula of C9+. Normally it is used as a fuel for plant boilers and ship bunkers. It can also be used to make carbon black material.
GDP	Gross domestic product
HDPE	High density polyethylene, used for tubes, pipes, household containers, grocery bags, water coolers, milk bottles and other products.
HMDA	Hexamethylenediamine is used almost exclusively for the production of nylon 6,6
Hydrocarbons	Substances composed of carbon and hydrogen.
KM	Kilometres
KT	Thousands of metric tons.
KTA	Thousands of metric tons per annum.
LDPE	Low density polyethylene, used for films, tubes, mechanical parts, toys, electric wire insulation and other products.
LLDPE	Linear low density polyethylene. LLDPE is commonly used in film applications for packaging and other products.
LPG	Liquefied petroleum gas, primarily propane and butane produced at refineries or natural gas processing plants.
MEG	Mono ethylene glycol (also referred to as EG) is the main constituent of anti-freeze, although consumption of MEG in the production of polyester has now overtaken this as the main end use, and MEG is therefore classed as a polyester intermediate. MEG is produced by the reaction of ethylene oxide and water, and most modern plants are combined EO/MEG units.
Metallocene	A catalyst employed in polyetheylene production to improve polymer performance such as mechanical strength, sealability and optical properties.
Methane	A light, colourless gas which is the principal component in natural gas.
Methanol	Simplest organic alcohol and is a colourless, flammable liquid. While originally produced from wood or coal, today methanol is produced mainly using methane as feedstock.
Metathesis	Metathesis is an equilibrium and reversible reaction between two olefins where the double bond of each is broken and new olefins are formed the exchange of parts of the reactants.
Monomers	Small molecules that may become chemically bonded to other monomers to form a polymer.
MOPJ	Means of-Platts CFR Japan which shows daily price assessment of CFR Japan open specification naphtha market.
MT	Metric ton or "ton" is equal to 1,000 kilograms, or 2,204.6 pounds.
MTBE	Methyl tertiary butyl ether is a volatile, combustible, colourless liquid that is categorised as an oxygenate due to its ability to boost the oxygen content and octane rating of gasoline. It is relatively water soluble and exhibits an unpleasant taste and odour in solution.
MTO, MTP	Metanol-to-Olefins, Metanol-to-Propylene. MTO and MTP are relatively new technologies but typically provide a route from natural gas or coal to olefins
MW	Megawatt (one million Watts), a measure of electrical power.
Nameplate capacity	The capacity of a production facility based on technology licenses and/or production rates guaranteed by the construction contractor.
Naphtha	A general term used for low boiling hydrocarbon fractions that are a product of crude oil or condensate refining. Naphtha is used as feedstock for ethylene and propylene production.
Natural gas	A colourless gas, high flammable gaseous hydrocarbon consisting primarily of methane, ethane, and small amounts of heavier gaseous hydrocarbon compounds such as propane.
n-butane	A gas in the LPG family of petroleum gases that can be separated from the gas stream that is often associated with crude oil as it leaves an oil well. Butane is a four carbon hydrocarbon that can either be arranged as a straight chain (n-butane) or branched (iso-butane). Butane extracted from associated gas is most usually a mixture of these two isomers. N-Butane is more highly valued as a petrochemical feedstock as it yields more ethylene in a steam cracker.
Olefins	A straight or branched-chain hydrocarbon with at least one unsaturated and carbon-carbon bond. Produced by cracking feedstock from raw materials such as natural gas and crude oil. The main olefins are ethylene and propylene and also include butadiene and C4 derivatives.
OPEC	The Organization of the Petroleum Exporting Countries
Operating rate	Total production expressed as a percentage of nameplate capacity.
Para-Xylene	An aromatic compound with two methyl groups substituted onto the benzene ring at opposite positions. Para-xylene is recovered from a mixed xylenes stream by adsorption and by isomerisation of C_8 aromatics. It is a major raw material for polyester production.
PDH	Propane dehydrogenation
PE	Polyethylene.
Performance chemicals	Chemicals produced in order to improve performance, increase efficiency and enhance features that benefit multiple industrial sectors.

Term	Description
Petrochemicals	Chemicals derived from petroleum or natural gas
Polyester	Type of polymer that contains an ester functional group in their main chain. As a specific material, it most commonly refers to a type called polyethylene terephthalate (PET), and is primarily use in the production of platic bottles or textile fibre.
Polyethylene	A polymer, derived from polymerisation of ethylene, and used to make various plastics such as film and sheet, piping and containers. Polyethylene is generally categorized into three sectors including HDPE, LLDPE and LDPE.
Polymer	When certain individual molecules (monomers) come together and link up in a chain-like fashion they form a polymer. The chemical reaction that forms a polymer is called polymerisation.
Polyolefins	Hydrocarbons resulting from the chemical combination of olefins or olefins and other polyolefins.
Propane	A gaseous hydrocarbon (C3H8), it is a major constituent of natural gas and a major raw material for the production of propylene.
Polypropylene	A polymer, derived from polymerisation of propylene. It is used to make packaging materials, toys, mechanical parts, housewares, synthetic fibers and other products.
Polystyrene	Polystyrene (PS) is a commodity polymer with a broad range of end-uses. There are two main types of polystyrene: general purpose (GPPS), and high impact (HIPS). HIPS contains a small proportion of butadiene rubber, giving it higher strength and better impact resistance. GPPS is normally used in the transparent or “crystal” form, or foamed
Propylene	An organic chemical base, which is a colourless, flammable, gaseous hydrocarbon obtained from the thermal cracking of hydrocarbons, ranging from natural gas liquids (ethane, propane and butane) to petroleum liquids (naphtha and gas oils). It is used to make polypropylene, acrylonitrile, propanoic acid ester, phenol, acetone, synthetic petroleum, synthetic resins, synthetic rubber and synthetic fibers.
PTA	Purified terephthalic acid is primarily used in polyester production with polyester fibre
PVC	Polyvinyl chloride. A versatile polymer, produced from VCM, is extensively used in construction sector including pipe, siding and window/door profiles, wire and cable insulation, rigid film/sheet, and flooring.
Pygas	Pyrolysis gasoline, a naphtha-range product with a high aromatics content, used in the production of benzene, toluene and mixed xylenes and as a motor vehicle gas blending stock.
Refining	The conversion of crude oil into useful products, such as naphtha, the most important feedstock for the petrochemical industry. The general refinery process begins with the separation of crude oil into different fractions by distillation. The fractions are further treated to convert them into mixtures of more useful products by various methods such as cracking, reforming, alkylation, polymerisation and isomerisation. These mixtures of new compounds are then separated using methods such as fractionation and solvent extraction.
Reformate	Reformate is the main source of aromatic bulk chemicals such as benzene, toluene, xylene and ethylbenzene which have diverse uses, most importantly as raw materials for conversion into plastics
R&D	Research and development
Resin	Any natural or synthetic organic compound consisting of a non-crystalline or viscous liquid substance. Natural resins are organic substances that are transparent or translucent, formed in plant secretions. Synthetic resins comprise a large class of synthetic products that have some of the physical properties of natural resins but are different chemically. Most synthetic resins are polymers.
SB Rubber or SBR	Styrene butadiene rubber (SBR) is the largest volume synthetic rubber, and its uses are dominated to a great extent by the automotive industry, particularly tyre production
SEA CFR	A standard price for various olefins and petrochemical products which includes the cost of the product and of shipment. Southeast Asia-based price cost and freight.
Specialty chemicals	Chemicals produced in small volume, having higher unit values and used for critical applications requiring stringent performance criteria.
Styrene	A colourless liquid that is a chemical intermediate made from dehydrogenation of ethylbenzene and a vinyl group on styrene molecule can readily undergo polymerisation. It is used in the production of variety of polymers and rubbers including polystyrene, ABS, SBR, SBL and unsaturated polyesters.
Thermal cracking	A petroleum refining process used to break up heavy oil molecules into lighter, more valuable fractions (e.g., gasoline or kerosene) by the use of high temperature without the aid of catalysts. It is used to convert gas oils into naphtha.
Toluene	Benzene rings where one of the hydrogen atoms is replaced by a methyl group (-CH3). It is used as an octane enhancer in gasoline, as a chemical intermediate in the production of benzene, paraxylene, toluene diisocyanate and as a solvent in paints.
Ton	Ton or "metric ton" is equal to 1,000 kilograms, or 2,204.6 pounds.
Upstream	Oil and gas activities including gas and oil extraction and storage
Urea	A fertiliser with a minimum nitrogen content of approximately 46% by weight.
US$ per ton	U.S. dollars per ton
Utilisation rate	Total production expressed as a percentage of nameplate capacity.
VAM	Vinyl acetate monomer is a highly verstaile and important intermediates used in the production of a variety of polymers (e.g. polyvinyl acetate, polyvinyl alcohol, polyvinyl butyral and polyvinyl formal)
VCM	Vinyl chloride monomer is an intermediate chemical of the vinyls chain, mainly produced by thermal cracking of EDC. Almost all VCM produced is used to manufacture PVC, with other applications consuming very little VCM.
Xylene	Xylene is an aromatic hydrocarbon that is a base for many petrochemicals and is used to derive orthoxylene and paraxylene. Orthoxylene is used in the production of plasticisers, vitamins, drugs, and dyes and paraxylene is used in the production of polyester and PTA.

Table A.1 Historical and Forecast Prices

Current US$ per ton - South East Asia			Actual								Brent Oil Scenarios						
											55$/bbl	65$/bbl	70$/bbl				
			2009	2010	2011	2012	2013	2014	2015	2016	2017-YTD Aug	2018F	2019F	2020F	2021F	2022F	2023F
Crude Oil - Dubai	FOB Fateh	US$/ton	448	568	771	792	766	702	370	300	375	469	516	526	537	548	559
	FOB Fateh	US$/bbl	62	78	106	109	106	97	51	41	52	65	71	72	74	75	77
Crude Oil - Brent	FOB North Sea	US$/ton	465	603	841	844	821	749	399	333	400	511	561	572	584	595	607
	FOB North Sea	US$/bbl	62	80	111	112	109	99	53	44	53	68	74	76	77	79	80
Naphtha	FOB SEA	US$/ton	547	713	921	932	910	865	474	383	472	596	651	665	678	691	705
Propane	FOB Singapore	US$/ton	511	730	845	947	881	808	460	346	456	559	611	624	636	648	661
Butane	CFR SEA	US$/ton	517	735	899	940	914	826	483	385	499	577	630	644	656	669	682
LPG	CFR SEA	US$/ton	513	732	867	944	894	815	469	362	473	566	619	632	644	657	670
Crude C4	FOB SEA	US$/ton	647	813	1021	1032	1010	965	568	459	683	715	782	798	814	830	846
Pyrolysis gas	FOB SEA	US$/ton	601	784	1013	1026	1001	952	521	421	584	656	716	732	746	761	776
Ethylene	CFR SEA	US$/ton	873	1075	1168	1221	1354	1400	1102	1045	1048	1183	1165	1094	1083	1112	1147
Propylene	CFR SEA	US$/ton	949	1191	1358	1285	1348	1241	788	722	841	972	986	965	986	1025	1082
Butadiene	CFR SEA	US$/ton	1028	1908	2937	2446	1480	1281	888	1127	1516	1399	1415	1416	1409	1451	1507
Benzene	FOB SEA	US$/ton	702	928	1125	1219	1314	1221	698	646	805	853	908	930	931	969	1027
Toluene	CFR SEA	US$/ton	719	856	1104	1211	1195	1067	695	626	698	817	869	892	917	941	963
Styrene	CFR SEA	US$/ton	993	1222	1419	1475	1722	1526	1107	1057	1220	1248	1273	1276	1275	1315	1406
Styrene-Indonesia	CFR SEA	US$/ton	1042	1283	1490	1549	1808	1602	1162	1110	1281	1310	1337	1340	1339	1381	1476
Styrene-China	FD Contract	US$/ton	993	1222	1419	1475	1722	1526	1107	1057	1220	1248	1273	1276	1275	1315	1406
MTBE	FOB SEA	US$/ton	683	804	1083	1115	1090	1006	675	573	616	739	807	824	840	857	873
LDPE	CFR SEA	US$/ton	1181	1478	1576	1339	1521	1568	1254	1192	1268	1397	1418	1377	1374	1394	1427
LLDPE	CFR SEA	US$/ton	1157	1300	1328	1327	1473	1547	1224	1152	1189	1361	1372	1324	1318	1334	1364
HDPE (IM)	CFR SEA	US$/ton	1122	1224	1354	1353	1467	1523	1232	1139	1163	1352	1357	1305	1299	1319	1351
PP (homopolymer)	CFR SEA	US$/ton	1066	1310	1533	1401	1487	1498	1109	982	1088	1211	1241	1222	1230	1257	1302
Raffinate-1	CFR SEA	US$/ton	652	820	1111	1146	1106	1030	642	521	618	741	808	826	842	859	875
Deflator			0.90	0.91	0.93	0.94	0.96	0.98	0.99	1.00	1.02	1.04	1.06	1.08	1.10	1.13	1.15

@ Brent US$55/bbl (YTD-Aug 2017) (Constant 2016 US$)
@ Brent US$65/bbl (2018) (Constant 2016 US$)
@ Brent US$70/bbl (2019-2023) (Constant 2016 dollars)

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