



Frasers Hospitality Trust
Investor Presentation
November 2017

Important Notice

Certain statements in this presentation constitute “forward-looking statements”, including forward-looking financial information. Such forward-looking statements and financial information involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Frasers Hospitality Trust (“FHT”), Frasers Hospitality Asset Management Pte. Ltd. (as the manager of Frasers Hospitality Real Estate Investment Trust) or Frasers Hospitality Trust Management Pte. Ltd. (as trustee-manager of Frasers Hospitality Business Trust) (collectively, the “Managers”), or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements and financial information. Such forward-looking statements and financial information are based on numerous assumptions regarding the Managers’ present and future business strategies and the environment in which FHT or the Managers will operate in the future. Because these statements and financial information reflect the Managers’ current views concerning future events, these statements and financial information necessarily involve risks, uncertainties and assumptions. Actual future performance could differ materially from these forward-looking statements and financial information.

The Managers expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statement or financial information contained in this presentation to reflect any change in the Managers’ expectations with regard thereto or any change in events, conditions or circumstances on which any such statement or information is based, subject to compliance with all applicable laws and regulations and/or the rules of the Singapore Exchange Securities Trading Limited (“SGX-ST”) and/or any other regulatory or supervisory body or agency. The value of stapled securities in FHT (“Stapled Securities”) and the income derived from them, if any, may fall or rise. Stapled Securities are not obligations of, deposits in, or guaranteed by, the Managers or any of their affiliates. An investment in Stapled Securities is subject to investment risks, including the possible loss of the principal amount invested. Investors should note that they have no right to request the Managers to redeem their Stapled Securities while the Stapled Securities are listed. It is intended that holders of Stapled Securities may only deal in their Stapled Securities through trading on the SGX-ST. Listing of the Stapled Securities on the SGX-ST does not guarantee a liquid market for the Stapled Securities.

This presentation is for information only and does not constitute an invitation or offer to acquire, purchase or subscribe for the Stapled Securities. The past performance of FHT and the Managers is not necessarily indicative of the future performance of FHT and the Managers.

This presentation includes market and industry data and forecast that have been obtained from internal survey, reports and studies, where appropriate, as well as market research, publicly available information and industry publications. Industry publications, surveys and forecasts generally state that the information they contain has been obtained from sources believed to be reliable, but there can be no assurance as to the accuracy or completeness of such included information. While the Managers have taken reasonable steps to ensure that the information is extracted accurately and in its proper context, the Managers have not independently verified any of the data from third party sources or ascertained the underlying economic assumptions relied upon therein.

Any discrepancies in the figures included herein between the listed amounts and total thereof are due to rounding.

Content

- ➔ Overview of FHT
- ➔ Our Strategy
- ➔ Market Outlook

Overview of FHT



Sofitel Sydney Wentworth

Global Hotel and Serviced Residence Trust

Stapled Group	Comprises FH-REIT and FH-BT ¹
Investment Mandate	Hospitality and hospitality-related assets located globally, excluding Thailand
Sponsor and Strategic Partner	<ul style="list-style-type: none"> • Frasers Centrepoint Limited (FCL) – 22.6% • TCC Group Investments – 38.3%
The Managers	<p>For FH-REIT: Frasers Hospitality Asset Management</p> <p>For FH-BT: Frasers Hospitality Trust Management</p> <p>Both are wholly-owned subsidiaries of FCL</p>
Date of Listing	14 Jul 2014
Market Capitalisation	Approximately SGD1.4 billion

¹ Activated on 19 Oct 2016 to act as the master lessee of Novotel on Collins under the Melbourne Master Lease Agreement.

Independent Platform Providing Flexibility and Access

Strong Developer-Sponsor in FCL

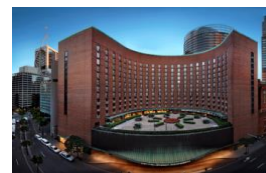
- One of Singapore's largest real estate groups with strong real estate capabilities and proven track record in REIT management.

Independent Hospitality Trust Platform

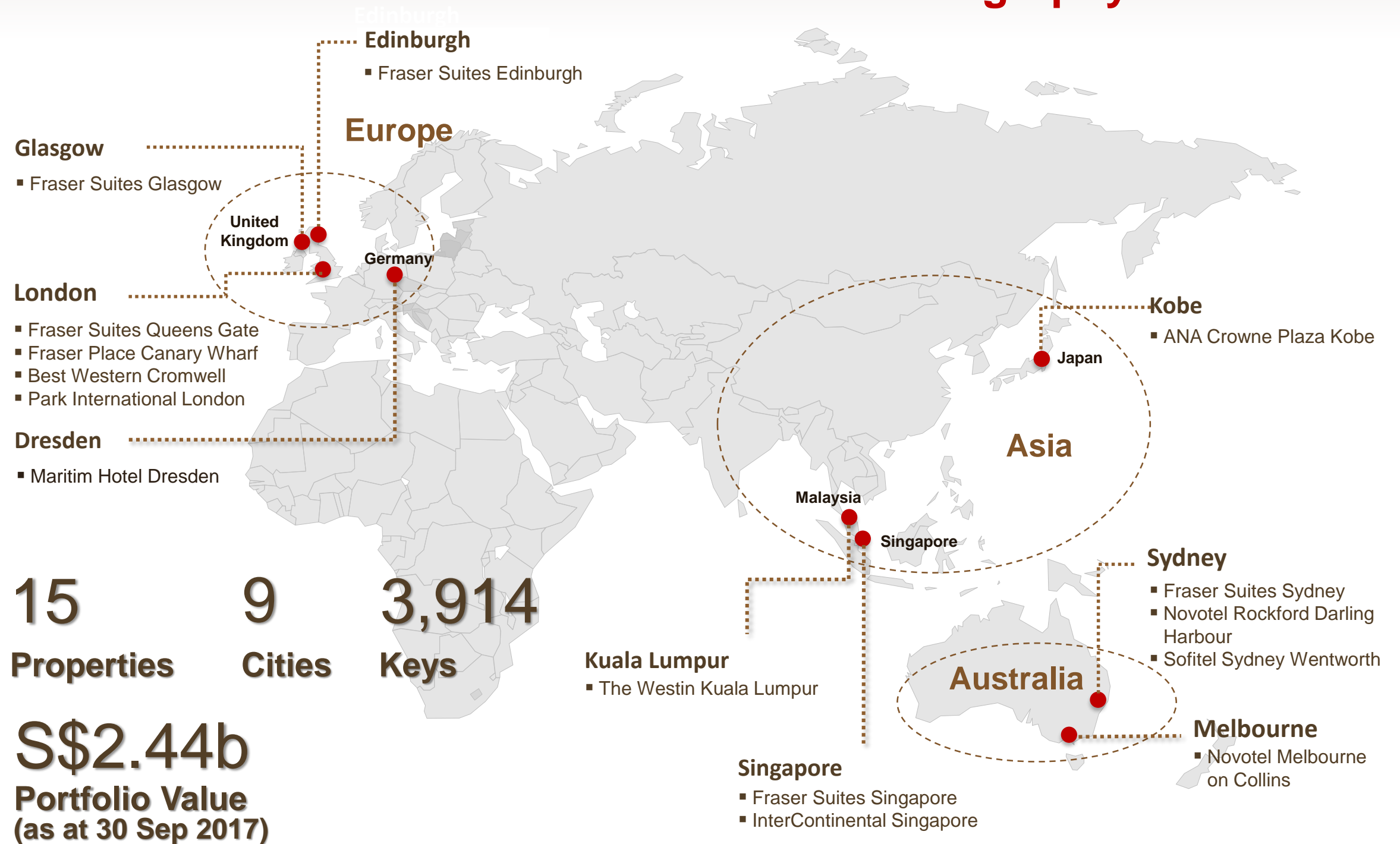
- Best of both worlds – leverage on resources of both in-house Frasers Hospitality and third-party operators.
- Access to networks and distribution channels of international chain operators.

Full Flexibility to Source for Acquisition Opportunities

- Robust pipeline of “rights of first refusal” assets from the Sponsor.
- Full flexibility to acquire third-party assets.

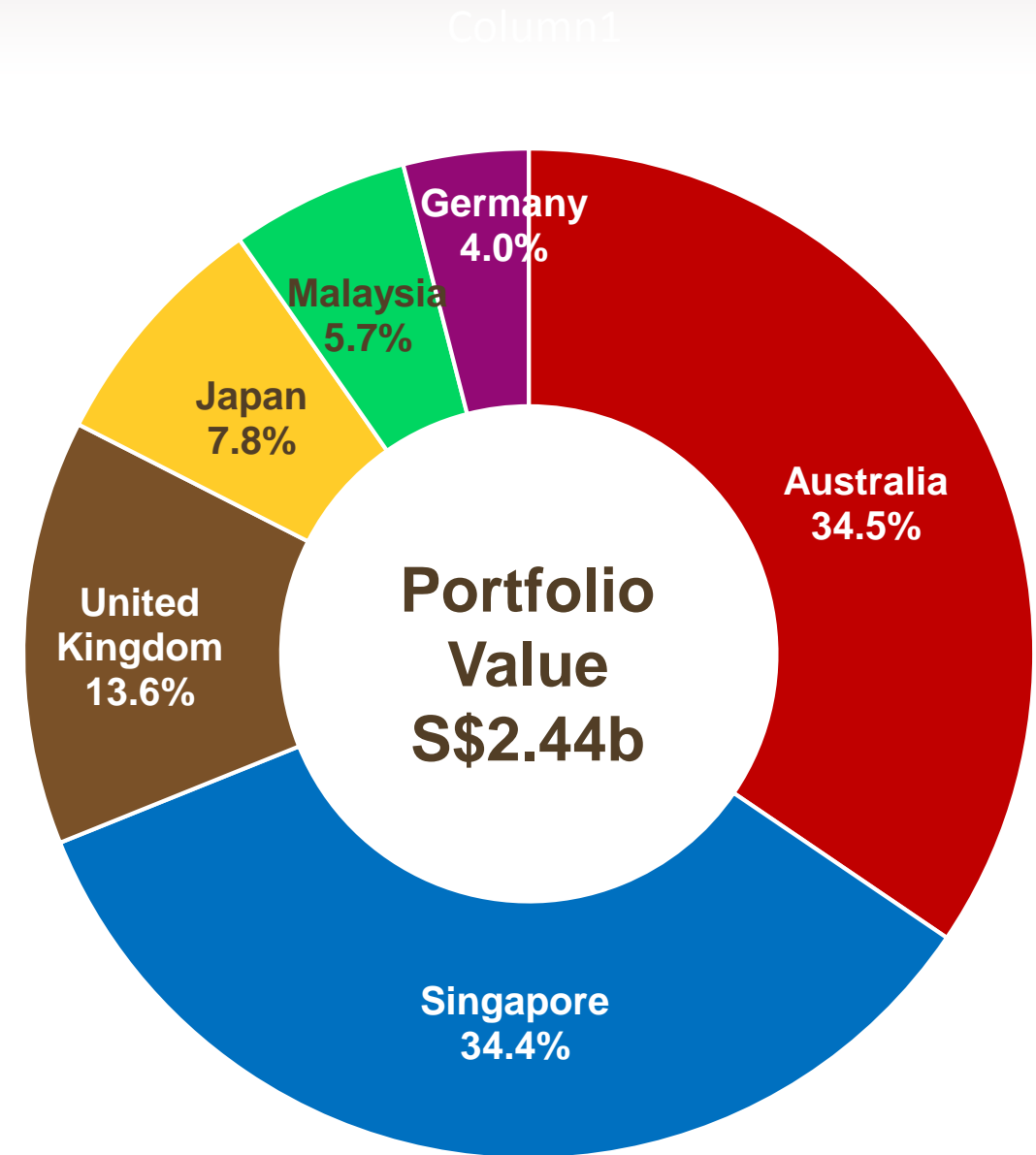


Resilient and Diversified Portfolio Across Geography



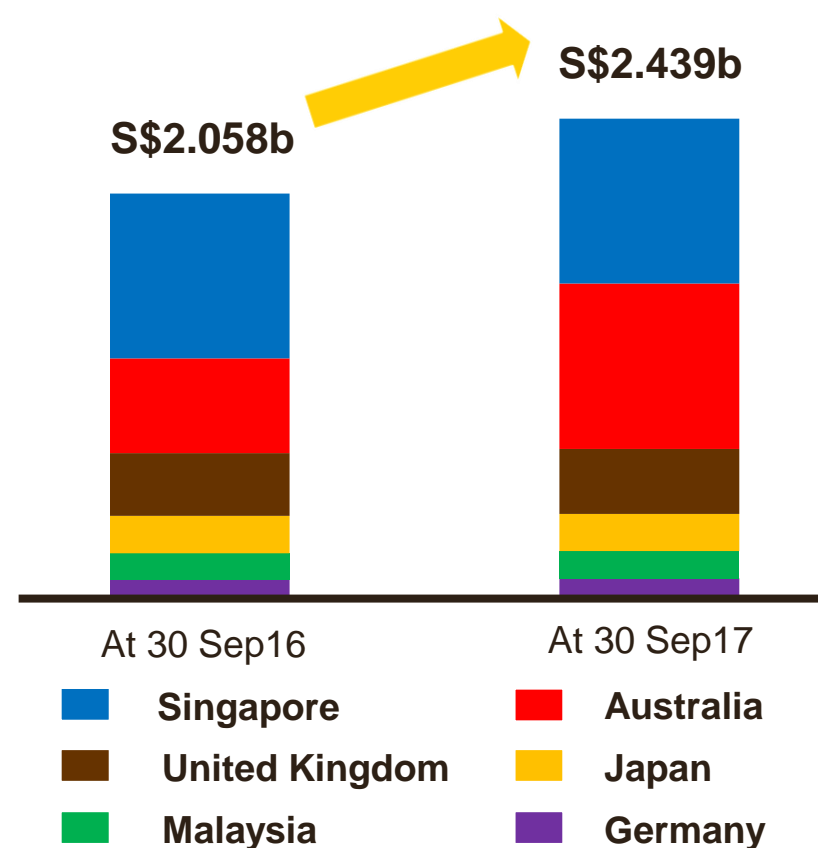
Portfolio Value as at 30 Sep 2017

Country	Portfolio Value as at 30 Sep 2017
Australia	AUD792.3 million
Singapore	SGD840.0 million
United Kingdom	GBP181.9 million
Japan	JPY15,700.0 million
Malaysia	MYR430.0 million
Germany	EUR61.2 million
Total	SGD2.439 billion



Portfolio Growth

- Portfolio grew 18.5% yoy due mainly to the addition of NMOC
- Excluding NMOC, valuation of portfolio increased 5.5% yoy
- Valuation of NMOC was 6.0% higher than the purchase consideration



Country	Valuation as at 30 Sep 2016 (S\$m)	Valuation as at 30 Sep 2017 (S\$m)	Increase/Decrease in SGD (%)	Increase/Decrease in Local Currency (%)
Singapore	840.0	840.0	0.0%	0.0%
Australia	482.3 ¹	842.7	74.7%	71.1%
United Kingdom	319.7	331.2	3.6%	0.7%
Japan	191.0	189.2	-1.0%	9.8%
Malaysia	135.2	138.2	2.2%	4.9%
Germany	90.2	98.2	8.8%	3.9%
Total	2,058.4	2,439.5	18.5%	-
Total (same-store)	2,058.4	2,172.2²	5.5%²	

1 Valuation for the Australia properties in FY2016 excludes NMOC as its acquisition was completed in Oct 2016.

2 Same-store excludes NMOC.

Financial Review for 4Q FY2017

S\$m	4Q FY2017	4Q FY2016	Variance
Gross Revenue (GR)	41.6	33.5	▲ 24.2%
Net Property Income (NPI)	31.5	28.6	▲ 9.8%
Distribution Income (DI)	23.8	21.9	▲ 8.5%
Distribution Per Stapled Security (DPS)	1.2763 cents	1.1903 cents	▲ 7.2%

- GR, NPI and DI were boosted by the addition of Novotel Melbourne on Collins. All country portfolios, except Singapore and Japan, also reported better yoy performance.
- Consequently, DPS improved 7.2% yoy to 1.2763 cents.

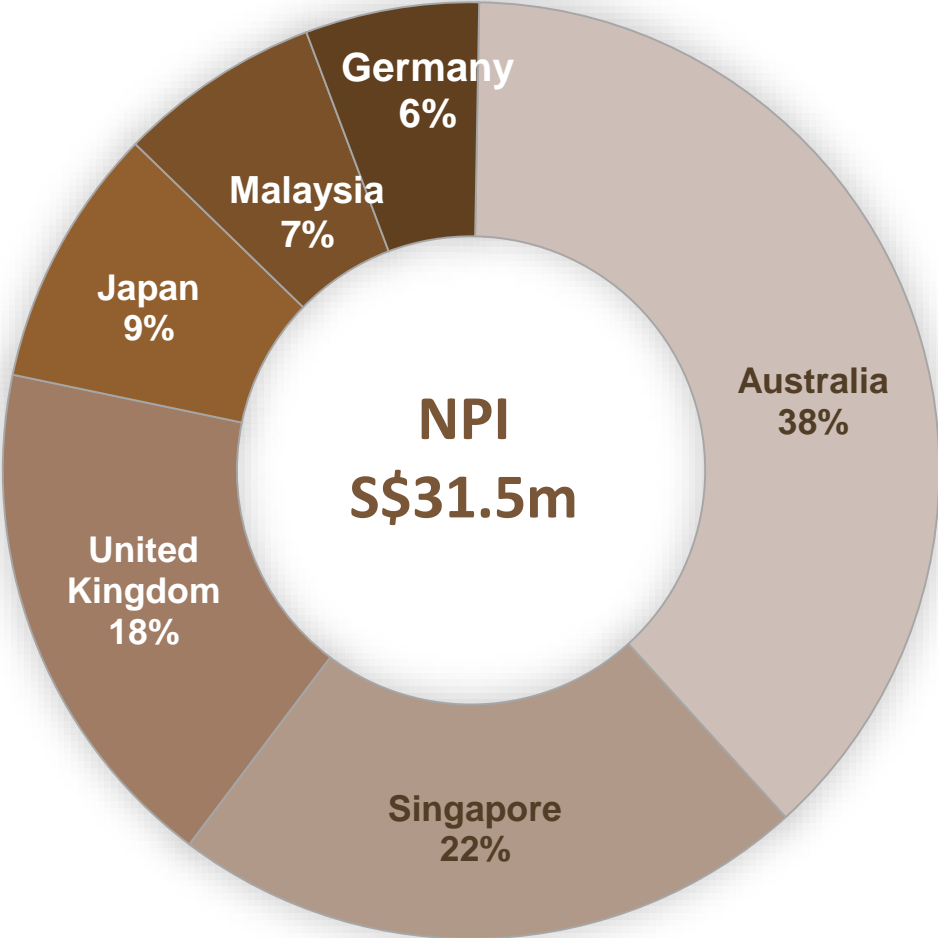
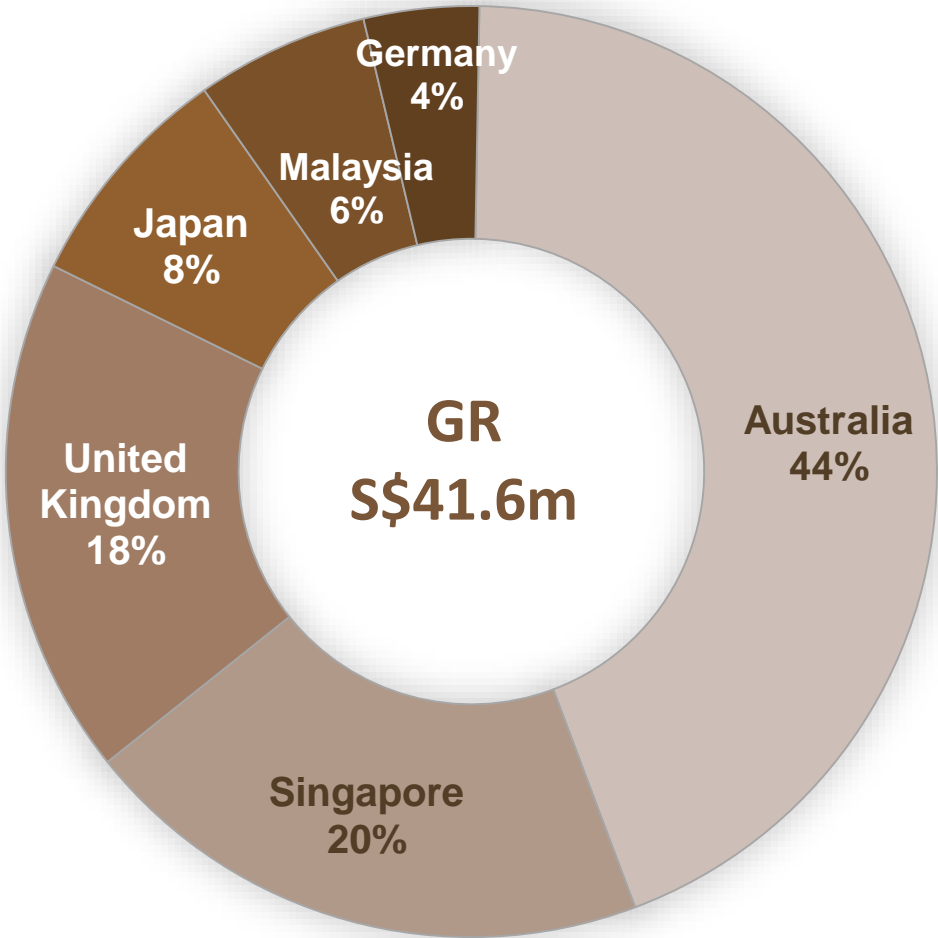
Financial Review for FY2017

S\$m	FY2017	FY2016	Variance
GR	158.7	123.6	▲ 28.4%
NPI	120.2	104.2	▲ 15.3%
DI	93.5	84.9	▲ 10.0%
DPS	5.0458 cents	5.2299 cents	▼ 3.5%

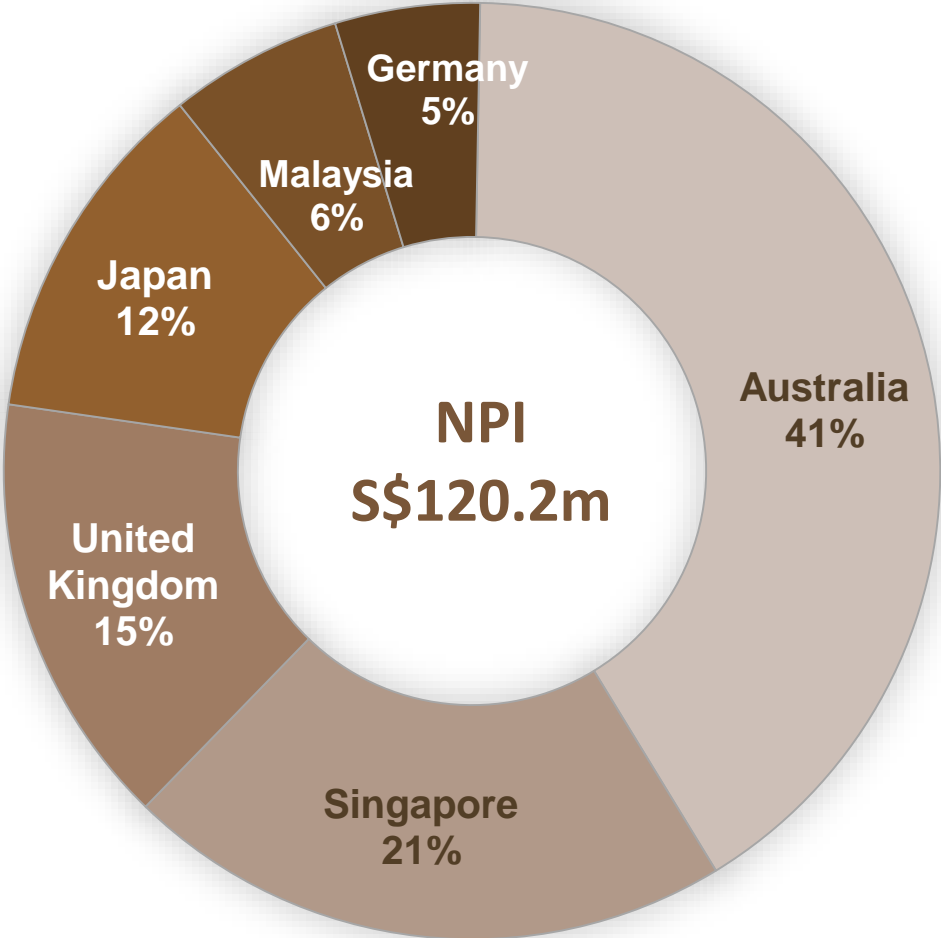
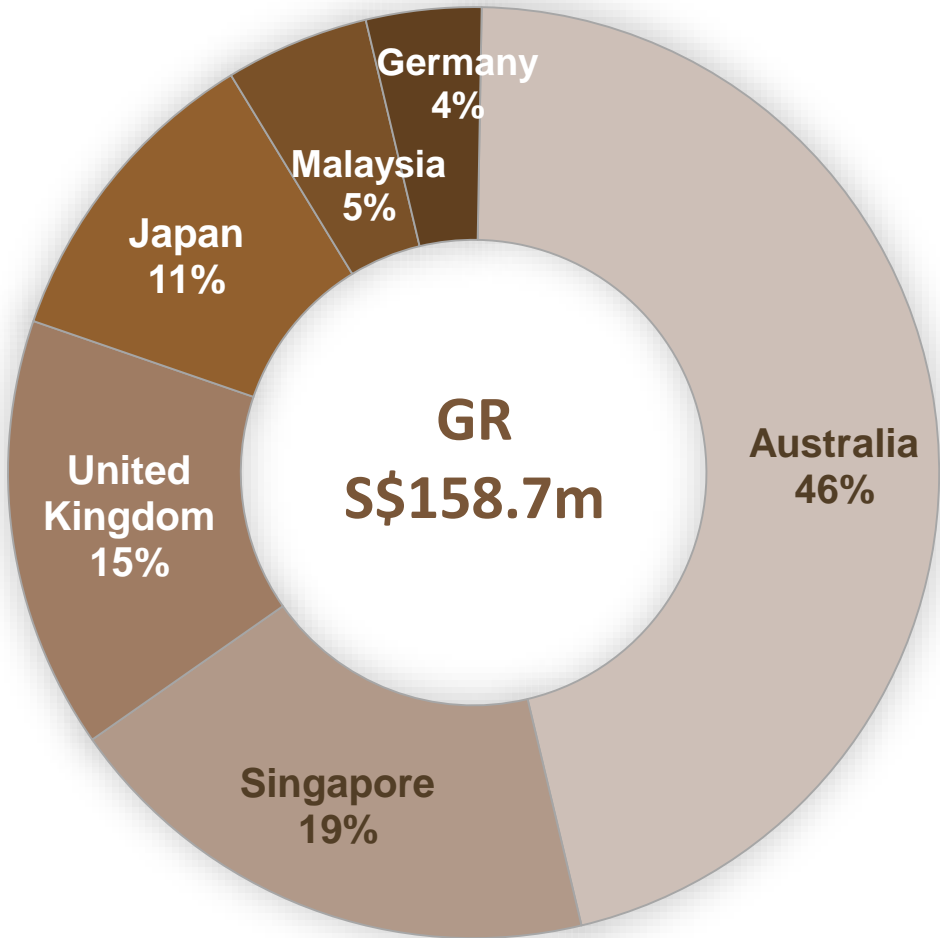
- GR, NPI and DI were mainly boosted by the addition of Novotel Melbourne on Collins and Maritim Hotel Dresden as well as better overall portfolio performance.
- Due to the enlarged stapled security base post-rights issue¹, DPS was 3.5% lower at 5.0458 cents.

¹ FHT issued 441,549,281 Rights Stapled Securities at \$0.603 each on 14 Oct 2016.

Portfolio Contribution by Country – 4Q FY2017



Portfolio Contribution by Country – FY2017



Portfolio Highlights By Country – 4Q FY2017

Country	4Q FY2017			
	Gross Operating Revenue (GOR)		Gross Operating Profit (GOP)	
	Local Currency (m)	Variance (yoy)	Local Currency (m)	Variance (yoy)
Australia	31.4	▲ 39.6%	13.6	▲ 45.7%
Singapore	24.0	▼ 2.1%	9.2	▼ 2.0%
UK	7.3	▲ 4.8%	4.3	▲ 0.5%
Japan	1,465.7	▼ 3.9%	360.7	▼ 7.7%
Malaysia	26.1	▲ 13.8%	9.2	▲ 23.8%
Germany ¹	2.9	▲ 4.4 %	1.3	▲ 6.8%

¹ Refers to Maritim Hotel Dresden which was acquired on 15 Jun 2016.

Portfolio Highlights By Country – FY2017

Country	FY2017			
	GOR		GOP	
	Local Currency (m)	Variance (yoy)	Local Currency (m)	Variance (yoy)
Australia	128.6	▲ 40.5%	58.3	▲ 50.1%
Singapore	88.6	▲ 0.9%	35.0	-
UK	24.9	▲ 4.8%	13.7	▲ 0.9%
Japan	6,311.6	▼ 1.9%	1,731.3	▲ 1.4%
Malaysia	96.4	▲ 6.3%	32.6	▲ 12.5%
Germany ¹	10.4	n.m.	4.3	n.m.

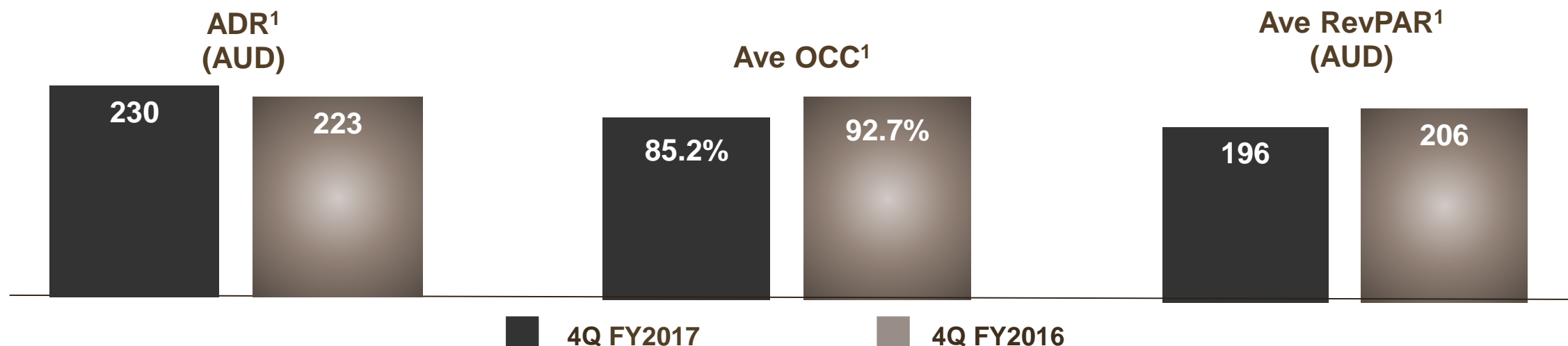
¹ Refers to Maritim Hotel Dresden which was acquired on 15 Jun 2016.

Australia Portfolio Performance

AUD (m)	4Q FY2017	4Q FY2016	Variance
GOR	31.4	22.5	▲ 39.6%
GOP	13.6	9.3	▲ 45.7%

- ❖ **Novotel Melbourne on Collins (NMOC)**
- ❖ **Novotel Rockford Darling Harbour (NRDH)**
- ❖ **Fraser Suites Sydney (FSS)**
- ❖ **Sofitel Sydney Wentworth (SSW)**

- NMOC contributed to the significant increase in GOR and GOP of Australia portfolio in 4Q FY2017.
- Ave RevPAR for the portfolio declined 4.9% yoy, mainly due to NRDH refurbishment hitting its peak which in turn affected the overall portfolio occupancy.
- Sydney and Melbourne continued to enjoy a busy events calendar, with Sydney in particular benefitting from the opening of the International Convention Centre. RevPAR for FHT's Sydney (excl. NRDH) and Melbourne properties increased by 3.6% and 4.0% respectively for the quarter.



¹ ADR, Ave OCC and Ave RevPAR were calculated based on 4 properties in 4Q FY2017 and 3 properties in 4Q FY2016 as NMOC was acquired on 20 Oct 2016.

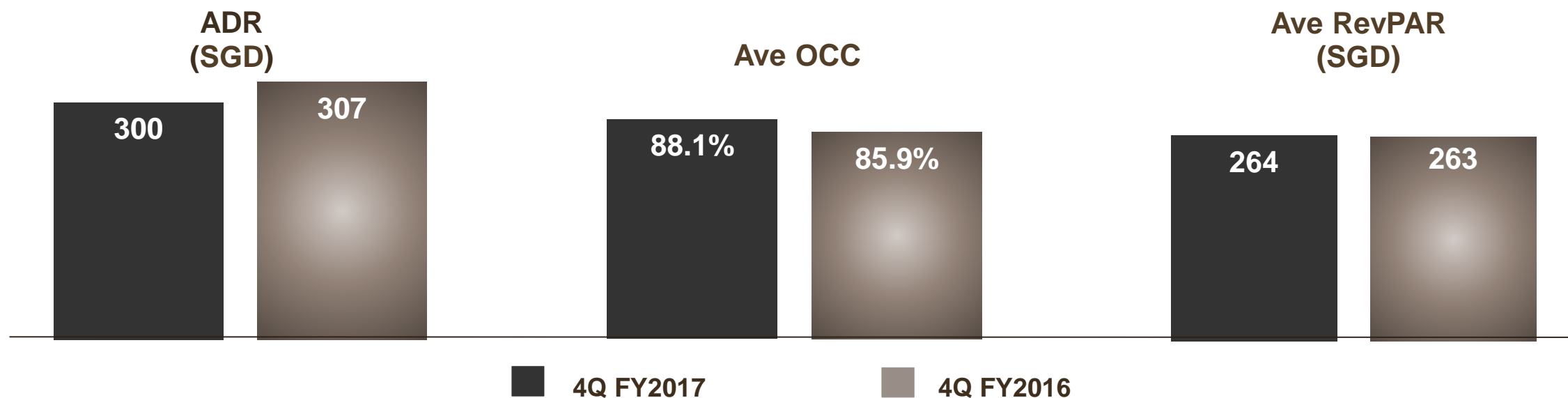
Singapore Portfolio Performance

SGD (m)	4Q FY2017	4Q FY2016	Variance
GOR	24.0	24.5	▼ 2.1%
GOP	9.2	9.4	▼ 2.0%

❖ Fraser Suites Singapore (FSSG)

❖ InterContinental Singapore (ICSG)

- GOR and GOP of the Singapore properties declined marginally in 4Q FY2017.
- ICSG achieved higher RevPAR on the back of occupancy gains which was offset by a decline in banquet revenue.
- FSSG turned in lower GOR and GOP in this quarter due to continued downward pressure on ADR.

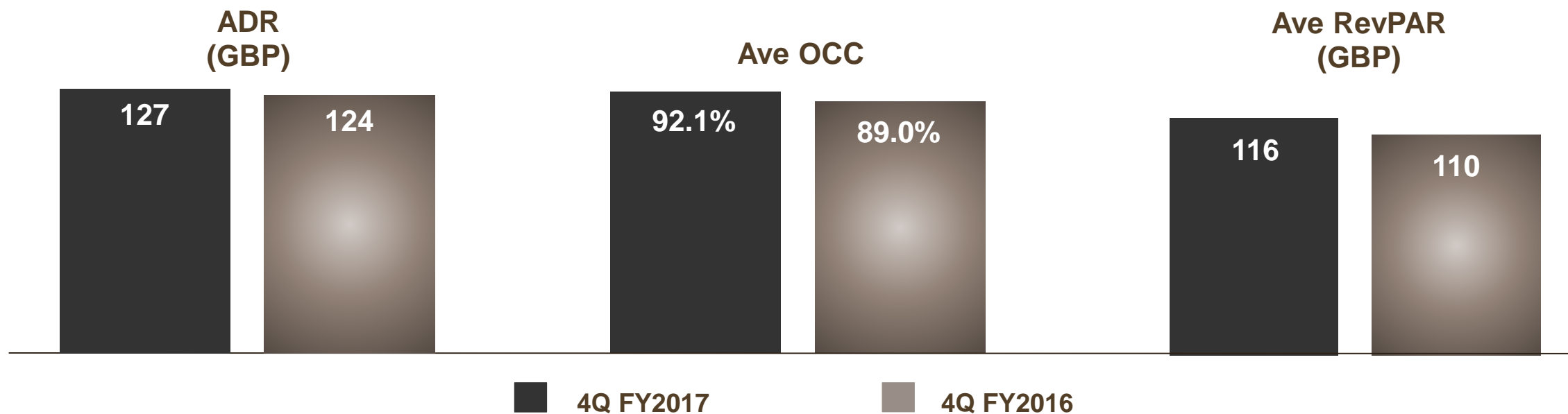


UK Portfolio Performance

GBP (m)	4Q FY2017	4Q FY2016	Variance
GOR	7.3	6.9	▲ 4.8%
GOP	4.3	4.3	▲ 0.5%

- ❖ Fraser Suites Edinburgh (FSE)**
- ❖ Fraser Place Canary Wharf (FPCW)**
- ❖ Fraser Suites Glasgow (FSG)**
- ❖ Best Western Cromwell London (BWCL)**
- ❖ Fraser Suites Queens Gate (FSQG)**
- ❖ Park International London (PIL)**

- GOR and GOP of the UK portfolio increased 4.8% and 0.5% respectively yoy.
- Higher ADR and occupancy contributed to 6.4% growth in RevPAR.
- While the portfolio performance has improved, GOP growth remains under pressure due to higher costs arising from the increase in minimum wage rates.

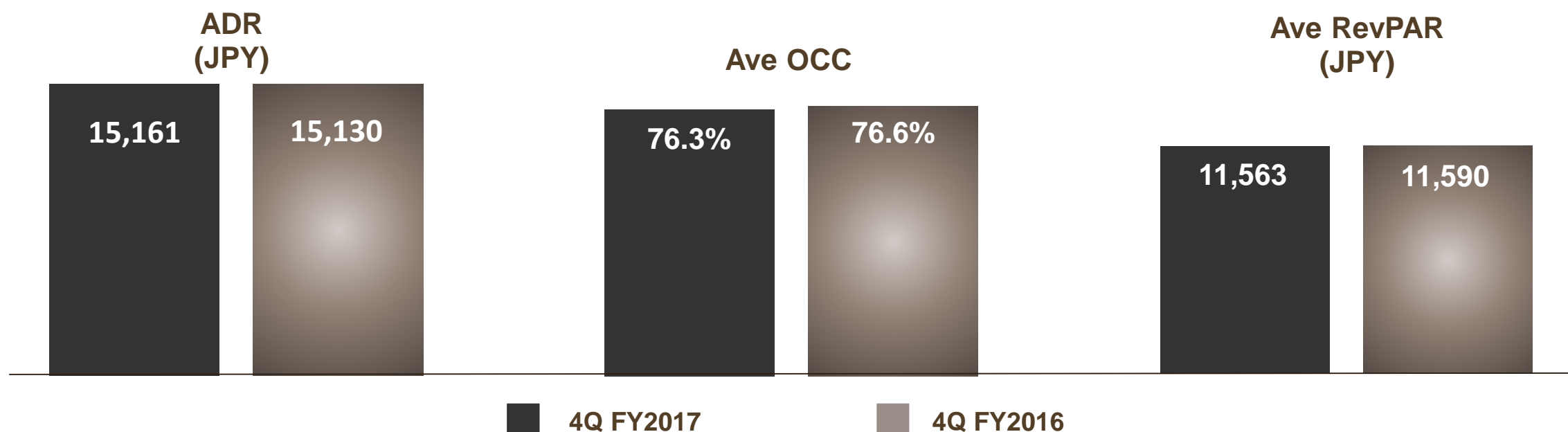


Japan Portfolio Performance

JPY (m)	4Q FY2017	4Q FY2016	Variance
GOR	1,465.7	1,524.8	▼ 3.9%
GOP	360.7	390.6	▼ 7.7%

❖ ANA Crowne Plaza Kobe (CPK)

- CPK's GOR and GOP declined by 3.9% and 7.7% respectively yoy due mainly to lower banquet revenue from weddings. Room revenue was stable yoy.
- Apart from continuing to drive room revenue, CPK will also focus on increasing revenue from local and international conferences and events.

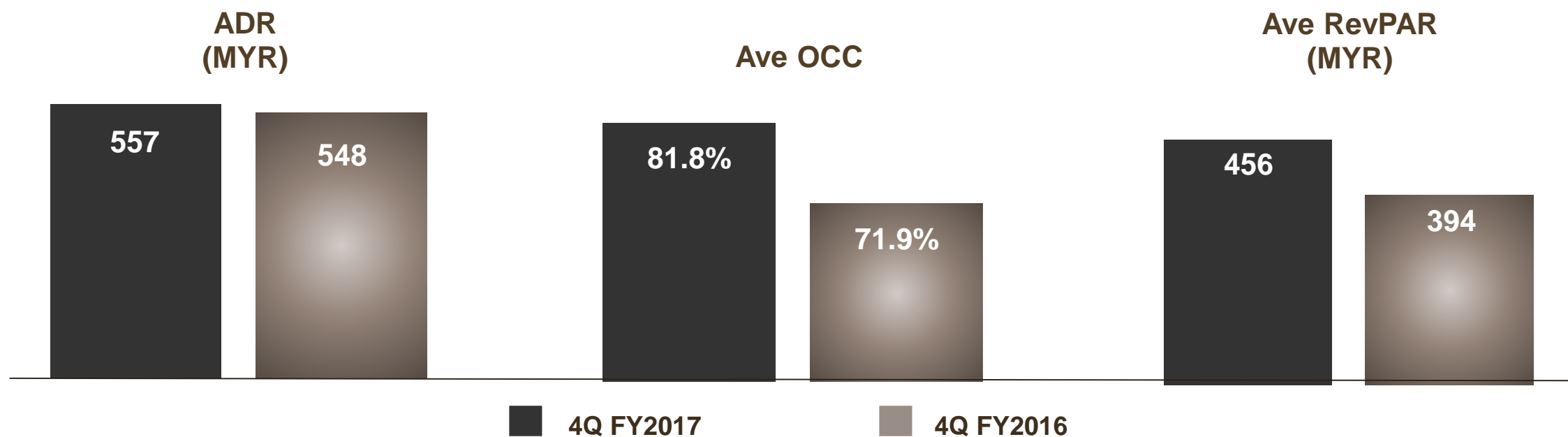


Malaysia Portfolio Performance

MYR (m)	4Q FY2017	4Q FY2016	Variance
GOR	26.1	22.9	▲ 13.8%
GOP	9.2	7.4	▲ 23.8%

❖ The Westin Kuala Lumpur (TWKL)

- The KL market continued its strong growth, with TWKL recording yoy RevPAR growth of 15.7%.
- Stronger transient and corporate demand contributed to the higher occupancy at TWKL while improved consumer sentiment led to an increase in F&B outlet revenue.
- Banquet revenue of the hotel also improved, driven by an increase in corporate and social events.

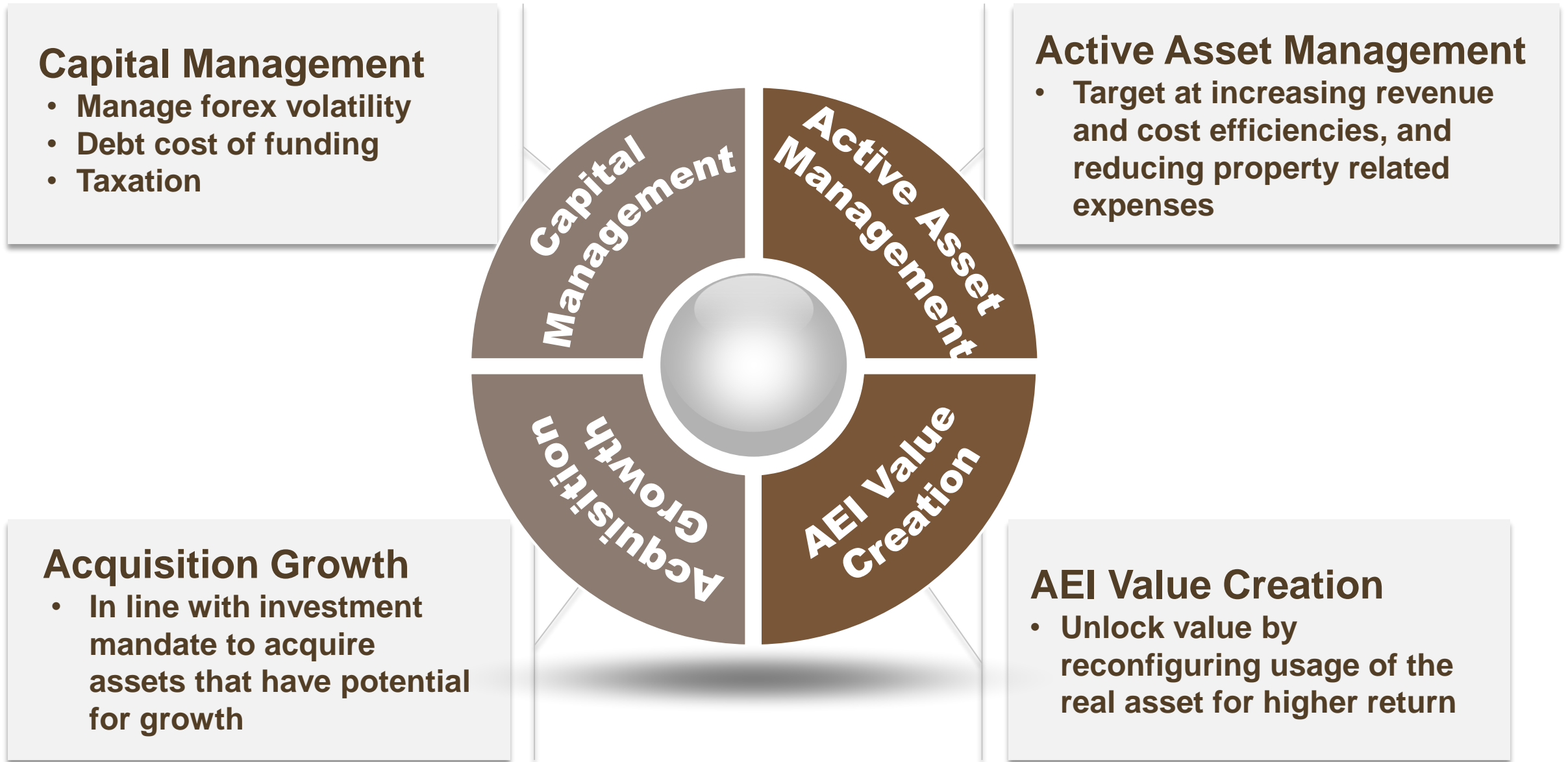


Our Strategy



InterContinental Singapore

Enhancing Stapled Securityholders' Returns



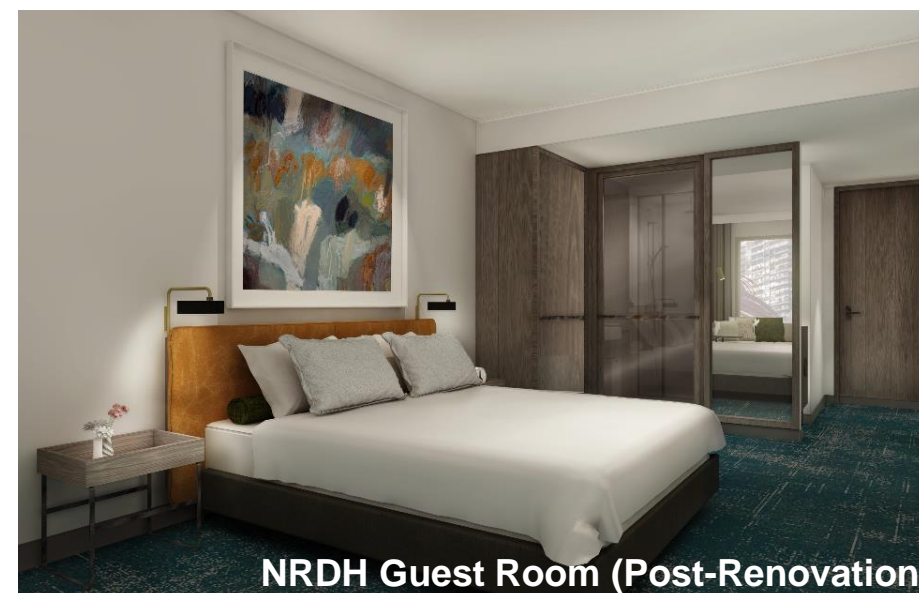
Asset Enhancement Initiatives (AEI)

NRDH

- Renovation has commenced since Apr 2017 and is on schedule to complete by 1Q FY2018.
- 5 levels of newly renovated rooms are back in inventory for sale. Another 1 level is expected to return to inventory by Nov 2017.

Retail Component of CPK (Kobe Retail Mall)

- AEI to reposition and uplift Kobe Retail Mall is in line with our plan to renovate and rejuvenate the hotel component of CPK.
- Master lessee will bear and finance the costs of mall renovation.
- Signed addendum to existing master lease agreement to facilitate unwinding of the perpetual lease and to fix the termination sum at a cap of JPY4.25 billion.
- Synergistic benefits expected with both retail and hotel components of CPK being managed as an integrated development.



NRDH Guest Room (Post-Renovation)

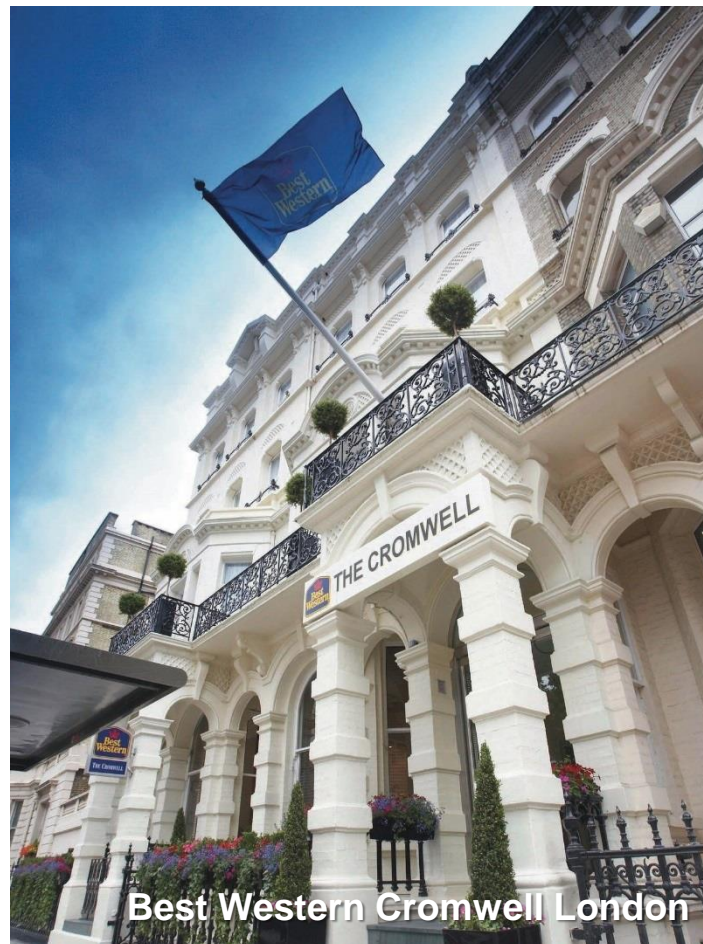


CPK

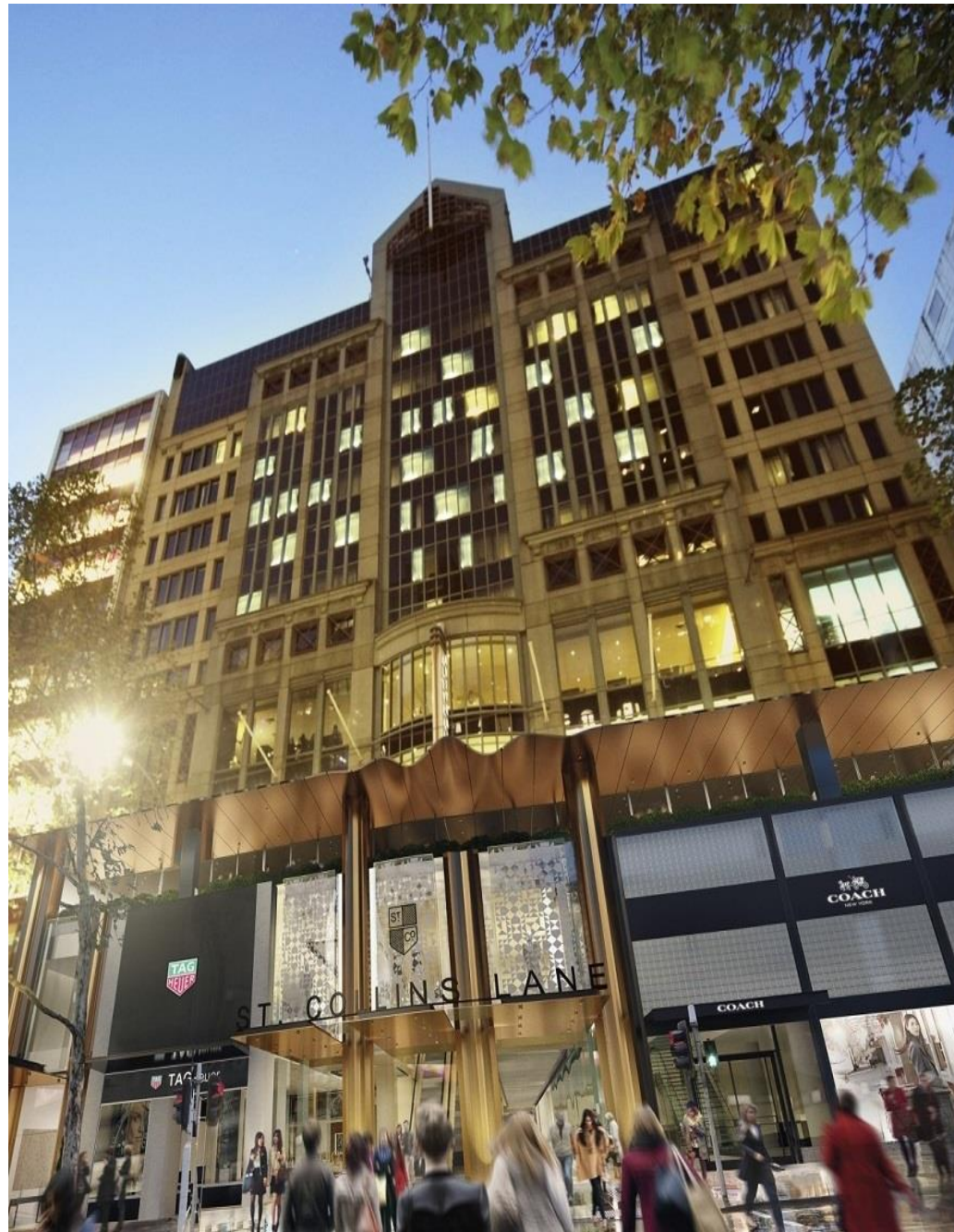
Other Potential Asset Enhancement Initiatives

Rebranding of:

- Best Western Cromwell London to ibis Styles, an Accor brand
- Park International London
- Novotel Melbourne on Collins



Defensive Acquisition of Novotel Melbourne on Collins



Location	<ul style="list-style-type: none"> 270 and 233-239 Collins Street, Melbourne, Victoria, Australia
Tenure	<ul style="list-style-type: none"> Freehold
Gross Floor Area	<ul style="list-style-type: none"> 20,860 sq m (224,535 sq ft)
Description	<ul style="list-style-type: none"> Located along the prime Collins Street, in the heart of Melbourne CBD Surrounded by prime and A-grade commercial offices, and retail malls Near Federation Square, Rod Laver Arena and Melbourne Cricket Ground
Rooms and Facilities	<ul style="list-style-type: none"> 380 rooms 2 F&B outlets, 9 conference/meeting rooms, gym, indoor swimming pool and spa Separately located 72 carpark lots on 233-239 Collins Street
Brand & Operating Structure	<ul style="list-style-type: none"> Upscale AccorHotels Group
Purchase Consideration	<ul style="list-style-type: none"> A\$237.0 million
Method of Financing	<ul style="list-style-type: none"> Rights issue of 441,549,281 new Stapled Securities at unit price of \$0.603

Yield-Accretive Acquisition of Maritim Hotel Dresden



Location	<ul style="list-style-type: none"> ▪ Devrientstr. 10 and 12, Kleine Packhofstr. 17, 01067 Dresden
Tenure	<ul style="list-style-type: none"> ▪ Freehold
Description	<ul style="list-style-type: none"> ▪ Located in Dresden's historical city centre and within the vicinity of various government and business offices and major tourist attractions ▪ Directly connected to the International Congress Centre Dresden
Rooms and Facilities	<ul style="list-style-type: none"> ▪ 328 rooms ▪ Restaurant, bar, swimming pool, gym
Brand & Operating Structure	<ul style="list-style-type: none"> ▪ Upscale Maritim brand ▪ Master leased to Maritim Hotelgesellschaft, part of Maritim Hotel Group
Purchase Consideration	<ul style="list-style-type: none"> ▪ €58.4m
NPI Yield	<ul style="list-style-type: none"> ▪ 6.8% (Based on annual fixed rent payable by Master Lessee)
Method of Financing	<ul style="list-style-type: none"> ▪ Issuance of S\$100m subordinated 4.45% fixed rate perpetual securities

Yield-Accretive Acquisition of Sofitel Sydney Wentworth

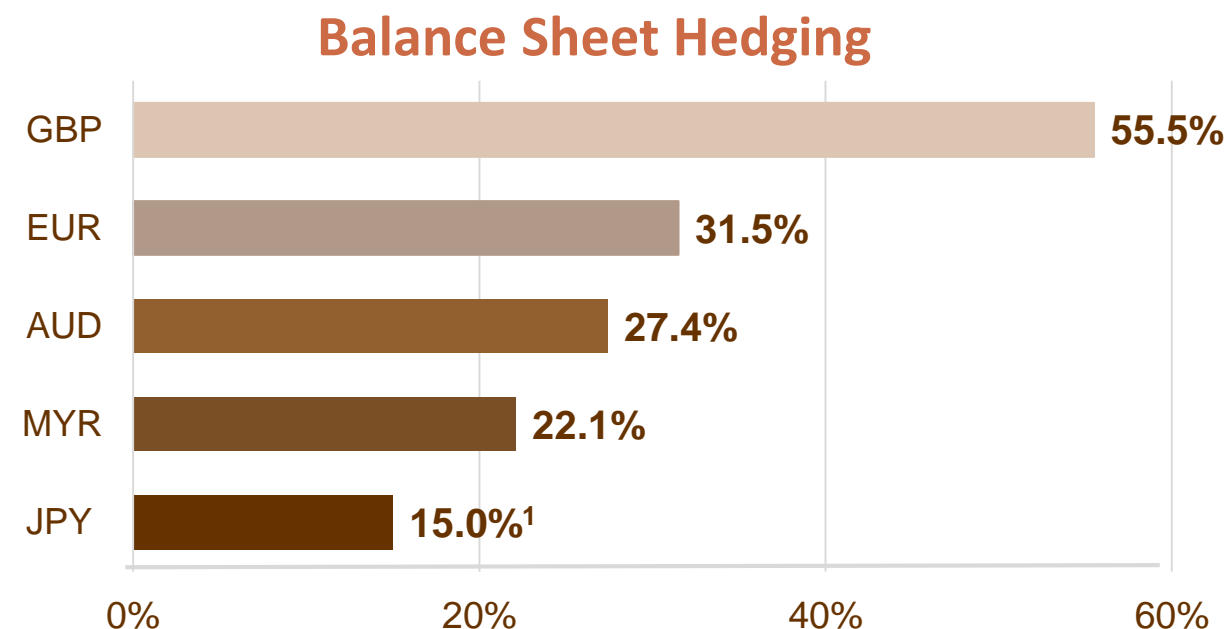
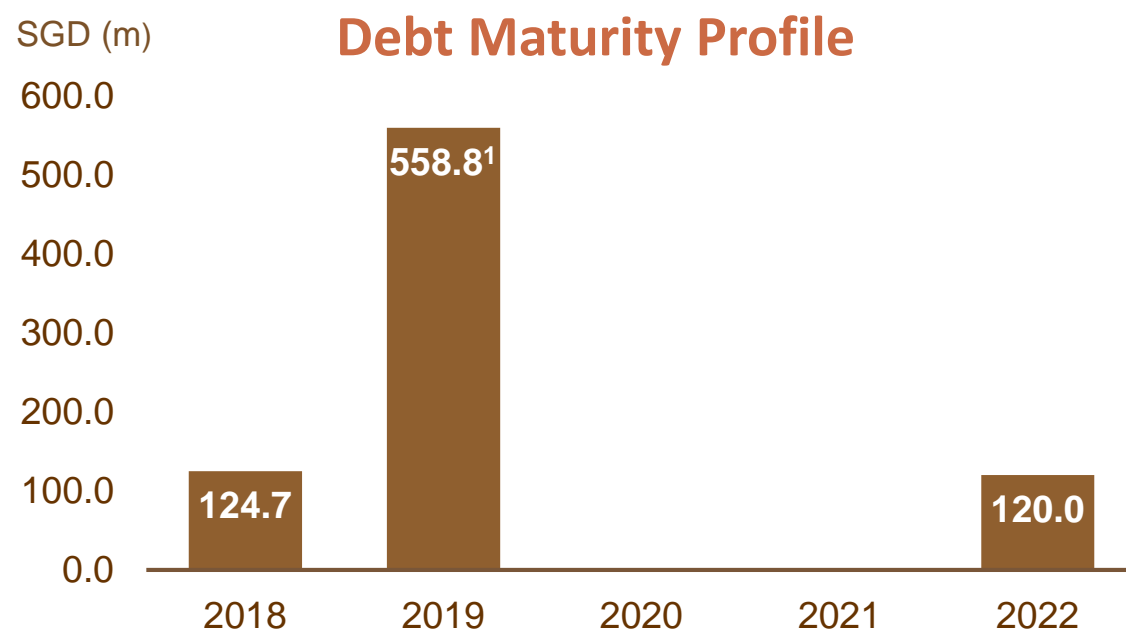


Location	<ul style="list-style-type: none"> 61 – 101 Phillip Street, Sydney, Australia
Grade	<ul style="list-style-type: none"> Luxury
Leasehold Tenure	<ul style="list-style-type: none"> 75-year leasehold
Gross Floor Area	<ul style="list-style-type: none"> 33,589 sqm
Description	<ul style="list-style-type: none"> An iconic heritage 5-star hotel strategically located in Sydney’s core CBD and within a short walk to major office buildings, tourist attractions and transport hubs
Rooms and Facilities	<ul style="list-style-type: none"> 436 rooms 2 F&B outlets, Business Centre, Grand Ballroom and 11 meeting rooms
Acquisition Price	<ul style="list-style-type: none"> A\$224.0m
Method of Financing	<ul style="list-style-type: none"> Debt financing of A\$117.2m Issuance of 150 million new stapled securities at S\$0.82 cents

Risk and Capital Management

As at 30 Sep 2017	
Investment Properties	S\$2,172.1m
Property, Plant and Equipment	S\$267.3m
Total Assets	S\$2,533.9m
Total Borrowings	S\$810.9m
Gearing	32.1%
Net Asset Value (NAV) per Stapled Security	81.59 cents

As at 30 Sep 2017	
Weighted Average Years to Maturity	2.07 years
Unsecured Debt	96.2%
Effective Cost of Borrowing	2.6%
Borrowings on Fixed Rates	74.7%
Interest Cover	5.09 times
FHT's Issuer Rating by Moody's	Baa2



¹ The JPYSGD cross currency interest rate swap contract underlying the bank borrowings of S\$108.8 million was unwound in 4Q FY2017. FHT plans to refinance this amount in FY2018, ahead of the loan maturity in Jul 2019. The loan-to-valuation ratio for JPY assets is expected to increase post-refinancing.

Market Outlook



Fraser Suites Glasgow

Australia

- For Jan to Aug 2017, Tourism Australia reported an increase in international arrivals of 7.4% yoy, with Chinese visitors growing 12.1%.
- Sydney's strong performance is expected to continue, supported by strong corporate demand, inbound tourism growth and a busy events calendar. Stable occupancy and growth in ADR are expected to further push RevPAR upwards¹.
- The growth in Melbourne's hotel occupancy is expected to remain subdued due to more room supply. Nonetheless, its market outlook stays positive, with both rates and occupancy expected to remain high and stable².



*Pictures from Fraser Suites Sydney and Sofitel Sydney Wentworth
Source: JLL – Asia Pacific Property Digest, Q2 2017
1 Source: Savills – Asia Pacific Hotel Sentiments Survey, 2H 2017*

Singapore

- Singapore Tourism Board reported a yoy growth of 4.0% in visitor arrivals for Jan to Aug 2017. China and Indonesia were the top source markets, accounting for 36% of total arrivals.
- Singapore continues to grow its robust pipeline of MICE events, having successfully secured 8 large congresses and tradeshows recently. Most of these events such as Campus Party (the world's largest technology-based festival) and the 20th International Congress of Endocrinology will make their debut in Southeast Asia or Asia, attracting 20,000 additional visitors to the city¹.
- While pressure on hotel trading performance remains in 2017 due to new supply, this is expected to ease as new hotel projects going forward suggest substantially slower supply growth².

Pictures from Gardens by the Bay, InterContinental Singapore and Fraser Suites Singapore

1. Source: Singapore Tourism Board

2. Source: JLL – Asia Pacific Property Digest, Q2 2017 and Singapore – The Next Chapter in Hotels & Tourism, Sep 2017



United Kingdom

- According to Visit Britain, the UK received 23.1 million overseas visitors for Jan to Jul 2017, up 8.0% yoy.
- London's hotel business has been boosted by recovery of the global economy and the weaker pound which has attracted more leisure tourists from overseas.
- These positive factors should continue to support growth in 2018 but to a lesser extent. Brexit uncertainty is a possible dampener on business travel to the UK and the slowdown in the economy may also subdue domestic spending on hotels¹.



*Pictures from Visit London, Fraser Suites Edinburgh and Fraser Suites Queens Gate
1 Source: PwC – As good as it gets? UK hotels forecast 2018, Sep 2017*

Japan

- For Jan to Sep 2017, Japan National Tourism Organization recorded 17.9% growth in foreign visitors, with the number of Korean and Chinese visitors growing 40.3% and 11.0% yoy respectively.
- The strong momentum of inbound tourism is expected to continue going forward, supported by key events including the Rugby World Cup 2019 in Fukuoka, 2020 Tokyo Olympic Games and the highly anticipated integrated resort development¹.
- With the government's efforts to develop wide-area tour routes in regional cities, there appears to be more upside potential for hotels outside of Tokyo¹.

Pictures from IHG ANA Crowne Plaza Kobe

1 Source: Savills – Spotlight: Japan Hospitality, Sep 2017



Malaysia

- According to Tourism Malaysia, tourist arrivals declined by 1.5% yoy to 17.3 million for Jan to Aug 2017. However, Chinese tourists grew 8.3% yoy for the same period.
- Tourism Malaysia is targeting 31.8 million international arrivals for 2017.
- While hotel trading performance in Kuala Lumpur has improved, significant new supply over the next few years is likely to maintain pressure on room rates¹.
- Continued efforts by Tourism Malaysia to promote tourism and flight connectivity, targeting new source markets such as the Middle East and Europe, will be key factors to maintaining hotel demand¹.

Pictures from The Westin Kuala Lumpur and Tourism Malaysia

1 Source: JLL – Asia Pacific Property Digest, Q2 2017



Germany

- The Federal Statistical Office of Germany recorded a yoy increase of 3.0% in the number of domestic and foreign overnight stays for Jan to Sep 2017¹.
- In Dresden, the total number of domestic and foreign visitors rose 5.6% yoy for Jan to Jun 2017².
- The capital city of the Free State of Saxony continues to grow its pipeline of MICE events including Borsentag Tag, DATE (Design, Automation and Test in Europe), HAUS 2018 and Hematology and Oncology Conference.



Pictures from Semperoper Dresden and Maritim Hotel Dresden

1 Source: www.destatis.de






2 Source: www.dresden.de



Thank you

Portfolio Overview

Hotel Properties Managed by Third-Party Operators

	Property	Country	Description	Tenure	Class	Rooms
	InterContinental Singapore	Singapore	Only 5-star luxury hotel in Singapore to preserve Peranakan heritage in a shop house style setting	75 years	Luxury	406
	Novotel Rockford Darling Harbour	Australia	4.5-star hotel located within close proximity of Sydney's Darling Harbour & Chinatown	84 years	Mid-scale	230
	Sofitel Sydney Wentworth	Australia	Iconic 5-star hotel in Sydney's core CBD within a short walk to major office buildings, tourist attractions and transport hubs	75 years	Luxury	436
	Novotel Melbourne on Collins	Australia	Strategically located within Melbourne's core CBD area along Collins Street	Freehold	Upscale	380
	Best Western Cromwell London	United Kingdom	Distinctive white Victorian façade located in the heart of London	75 years	Mid-scale	85







Portfolio Overview

Hotel Properties Managed by Third-Party Operators

	Property	Country	Description	Tenure	Class	Rooms
	Park International London	United Kingdom	Elegant hotel ideally located in the heart of Kensington & Chelsea	75 years	Mid-scale	171
	ANA Crowne Plaza Kobe	Japan	Unique panoramic view of Kobe city from Rokko mountain	Freehold	Upper Upscale	593
	Westin Kuala Lumpur	Malaysia	5-star luxury hotel located in the center of Kuala Lumpur's bustling Golden Triangle area	Freehold	Upper Upscale	443
	Maritim Hotel Dresden	Germany	Heritage-listed and located in the historical city centre of Dresden, the capital city of the eastern German state of Saxony	Freehold	Upscale	328

Portfolio Overview

Serviced Residences Managed by Frasers Hospitality

	Property	Country	Description	Tenure	Class	Rooms
	Fraser Suites Singapore	Singapore	Luxurious serviced residences in the prime residential district of River Valley	75 years	Upper Upscale	255
	Fraser Suites Sydney	Australia	First luxury apartments in Sydney designed by internationally renowned architects	75 years	Upper Upscale	201
	Fraser Suites Edinburgh	United Kingdom	Rustic 1750s sandstone building located in the heart of Edinburgh's Old Town	75 years	Upper Upscale	75
	Fraser Suites Glasgow	United Kingdom	Stunning renovated 1850s building formerly the city bank of Glasgow	75 years	Upper Upscale	98
	Fraser Suites Queens Gate	United Kingdom	Beautiful Victorian apartment hotel in Kensington	75 years	Upper Upscale	105
	Fraser Place Canary Wharf	United Kingdom	Stunning apartments located by River Thames showcasing chic contemporary design	75 years	Upper Upscale	108