



China's gold market: progress and prospects



About the World Gold Council

The World Gold Council is the market development organisation for the gold industry. Working within the investment, jewellery and technology sectors, as well as engaging with governments and central banks, our purpose is to provide industry leadership, whilst stimulating and sustaining demand for gold.

We develop gold-backed solutions, services and markets based on true market insight. As a result we create structural shifts in demand for gold across key market sectors.

We provide insights into international gold markets, helping people to better understand the wealth preservation qualities of gold and its role in meeting the social and environmental needs of society.

Based in the UK, with operations in India, the Far East, Europe and the US, the World Gold Council is an association whose members comprise the world's leading gold mining companies.

Methodology

The World Gold Council commissioned Precious Metals Insights (PMI) to lead the research into the outlook for Chinese gold demand over the medium term (defined as 2014-2017 for the purpose of this report) and to compose this report that details its findings. Philip Klapwijk, founder and Managing Director of PMI, is a veteran of the gold market, with a wealth of experience through his time as Executive Chairman of GFMS and Head of Global Metals Analytics at Thomson Reuters GFMS. This research is a synthesis of his intimate knowledge of the Chinese gold market and the World Gold Council's expertise.

This was complemented by a series of in-depth interviews PMI and the World Gold Council jointly undertook with a number of key gold market participants in Shenzhen, Shanghai and Beijing. In addition, the report draws upon the extensive consumer research the World Gold Council has undertaken over recent years. This includes:

- A comprehensive usage and attitudes study of over 10,000 Chinese consumers' relationship with gold jewellery, undertaken in 2011 (TNS).
- A piece of regular research conducted between May 2013 and March 2014, with a series of waves asking Chinese consumers about their outlook for gold prices and intentions to buy gold jewellery over the next 12 months (Kadance).
- A snapshot of 1,000 Chinese consumers in December 2013 to understand what motivates them to buy gold jewellery and bullion (TNS).

The collective knowledge of PMI and the World Gold Council, combined with extensive consumer research and industry expertise, has resulted in a detailed and insightful piece of analysis.

Unless otherwise stated, all photographs were shot on location in Beijing by Ms Yuan Liu and Shanghai by Mr Chun Chen. All images are copyright to the photographers and the World Gold Council.

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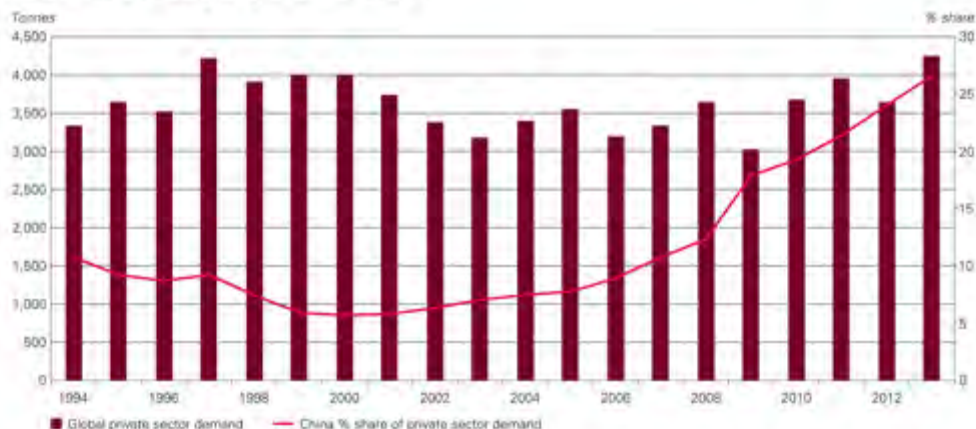
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Executive summary

Introduction

In 2013 China accounted for 26% of global private sector gold demand (**Chart 1**).¹ Taking advantage of lower prices the country's consumers and investors increased their purchases of jewellery and bullion by a combined 259 tonnes: today, China is both the world's largest jewellery and physical bullion investment market. These facts illustrate the extent to which China has become a key driver of global demand. This report explores the factors which have led to China becoming the world's leading gold nation and examines what the future holds for Chinese gold demand.

Chart 1: China's share of global private sector demand



Source: Precious Metals Insights, Thomson Reuters GFMS, World Gold Council

¹ Jewellery consumption, investment (in physical bars and coins) and other fabrication demand (namely, for electronics and other industrial applications). Excludes producer de-stocking.

Key conclusions

Chinese gold demand in 2013 was exceptional. Jewellery buyers and investors in bullion products took full advantage of the rapid and sizeable fall in local gold prices.² They set the bar at a very high level – private sector demand for jewellery, investment and gold used in industrial applications hit a record 1,132 tonnes (t).³

We expect 2014 to be a year of consolidation. The sudden price drop in 2013 meant some Chinese consumers brought forward jewellery and bar purchases, which may limit growth in demand in 2014. Expansion by the trade is also expected to slow, particularly in terms of additional manufacturing capacity. However, the lower domestic gold price should support purchases by consumers, especially of 24 carat jewellery.

Over the medium term physical gold demand is likely to see further growth driven by a number of factors, including:

- Rising real incomes will create many more potential consumers with greater spending power, particularly in the so-called third and fourth tier cities.⁴ Between now and 2020 Ernst & Young⁵ estimate that the number of middle class households will grow from 300 to 500 million.
- The pool of private savings is vast with further scope for consumers to increase their exposure to gold. Chinese households collectively hold an estimated US\$7.5tr⁶ in bank accounts, while households' overall allocation to gold – around US\$300bn⁷ – is tiny by comparison. In addition, domestic gold prices will most probably remain at attractive and affordable levels during the next few years.
- The traditional appeal of gold to the Chinese people and consumers' optimistic outlook for prices (Chart 2) should result in private sector demand from all sources climbing to at least 1,350t by 2017.⁸

Chart 2: Chinese consumer survey: Price expectations for the next 12 months



Source: THS, December 2013, sample size of 1,000; World Gold Council

There are risks to this forecast. China faces important challenges in moving from an investment and export-led growth model to a more balanced one in which private consumption plays a larger part. Although the risks associated with this economic transformation should not be underestimated, on balance this process should result in a considerably higher level of consumer spending, which ought to favour the jewellery sector. While GDP growth rates may fall, private consumption's share of the economy is forecast to rise. For most people, 'pure gold' articles, which account for the vast majority of jewellery demand, will continue to be an essential purchase for weddings, festivals and other gift giving occasions. At the moment, there is little indication that 24 carat jewellery's unique appeal, as both a form of adornment and a form of savings, is waning among the general public.

² Gold prices fell 29% on SGE 40 (T&D) from opening on 4 January 2013 to close on 31 December 2013.

³ Source: Thomson Reuters GFMS. This compares with the China Gold Association's estimate of 1,176.4t.

⁴ Please see the glossary for the definitions of tier 1, 2, 3 and 4 cities.

⁵ Ernst & Young, *The growth of the middle class in emerging markets*.

⁶ PBOC, June 2013.

⁷ Based on Precious Metals Insight's estimate of investment and jewellery stock of 10,000t.

⁸ Precious Metals Insight.

The outlook for gold investment demand may at first sight appear to be somewhat less favourable over the next few years, particularly because of the liberalisation of the financial sector which could reduce the appeal of gold. Investment in the precious metal has undoubtedly benefited from the limited selection of alternative forms of savings in China. This will change. But it is clear that reform of the financial system will be gradual. For example, there is no chance that capital controls will be lifted by 2017. Perhaps more importantly, Chinese investors' gold holdings, which were worth about US\$77bn at the end of 2013,⁹ are small compared to the value of their bank deposits, stocks, property and other assets. There remains therefore considerable scope for growth in gold investment demand, especially in light of the major banks' commitment to develop the market.

Gold demand in China could not have flourished as it has without the blessing of the authorities. Extensive gold ownership by the people is viewed as increasing the nation's overall wealth. It also helps to absorb cash in the economy and limit the inflationary impact of rapid growth in the money supply that in turn is linked to China's large balance of payments surpluses.

China has become the most important physical gold market in the world. It is both the number one producer and consumer of the precious metal. And, the country is the world's largest bullion importer. China's exchanges have also established themselves as regional leaders and key players in the global gold trading system. The market is abuzz with talk about possible official purchases by China. But, will gold's increasingly Sino-centric focus continue?

The conclusion of this report is that China's gold market development is solid, on-going and for the long term. Even if there are occasional setbacks along the way, the country's massive population, continued rapid economic growth and, critically, its deeply rooted pro-gold culture will ensure that the spotlight will continue to be on China for many years to come.



A customer browses 24 carat gold jewellery at China Gold's flagship store in Beijing.

⁹ Precious Metals Insights, based on the stock of bars and coins held by Chinese consumers.

China's developing urban landscape

Over the past 30 years China has witnessed a migration of people from the countryside to towns and cities. In 1980, only 31% of the population lived in towns and cities; this figure is now 52%¹⁰ and China has over 140 metropolitan areas with a population of more than 1 million – in contrast, the US has 52 metropolitan areas with a population north of 1m.¹¹ China's economic growth and boom in urban population has boosted China's burgeoning middle class.

For a long time the Tier 1 cities – Beijing, Shanghai, Guangzhou, and Shenzhen – have been home to the country's middle class. But as China's economy has grown and the middle-class swelled, other cities have blossomed. Many of the Tier 2 cities are provincial capitals that have benefited from China's 12th Five-Year Plan (2011-15), which has national policies supportive of their development.

Looking ahead, a raft of Tier 3 and Tier 4 cities will see their middle-classes continue to grow, and this cohort will continue to increase its wealth and spending. Many of these cities will benefit from China's increasing domestic trade, improved transport infrastructure, and government policies designed to support their growth.

China's transition from an investment led economy to one with a greater reliance on consumption will not be without difficulty, but direction of travel is clear: China's middle-class is expected to grow from 300 to 500 million by 2020¹² and the nation's wealth will increasingly be spread across the country and population.

As explained in this report, notwithstanding the economic risks that may lie ahead, these factors are supportive of gold demand over the medium term and we expect Chinese private sector gold demand to be at least 1,350t by 2017.

This map depicts a small subset of China's Tier 1-4 cities.

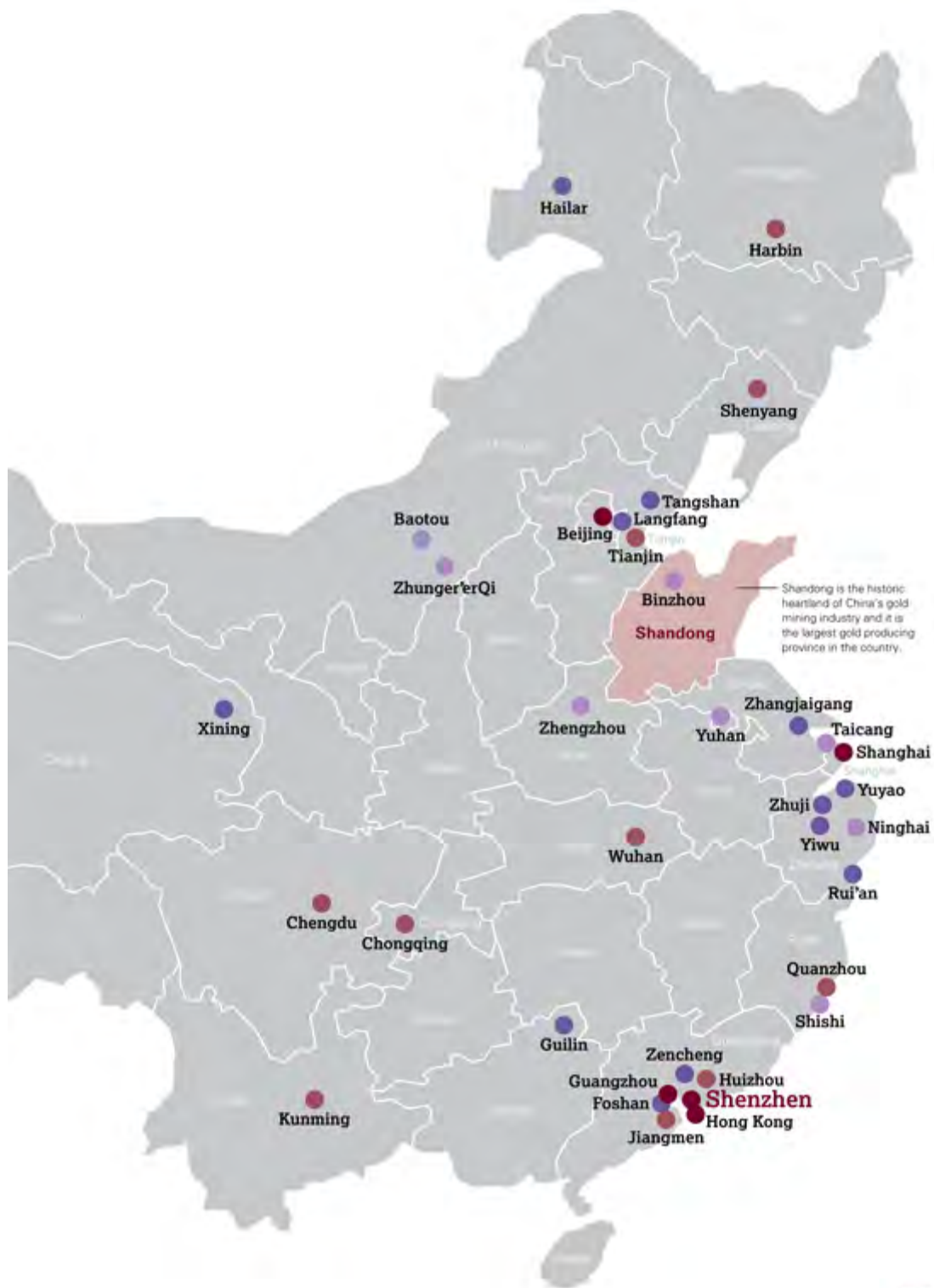
- Tier T1
- Tier T2
- Tier T3
- Tier T4



10 World Bank; National Bureau of Statistics

11 National Bureau of Statistics; United States Office of Management and Budget

12 Ernst & Young: The growth of the middle class in emerging markets.



Economic development and the gold market

China's economic development has been a mainstay of analysts' and media commentary over the past 20 years. It has flourished from a poor, under-developed country to a major trading nation with burgeoning levels of wealth and a positive growth outlook. The same can be said of China's gold market. It has gone from a minnow to becoming a large and increasingly sophisticated market.

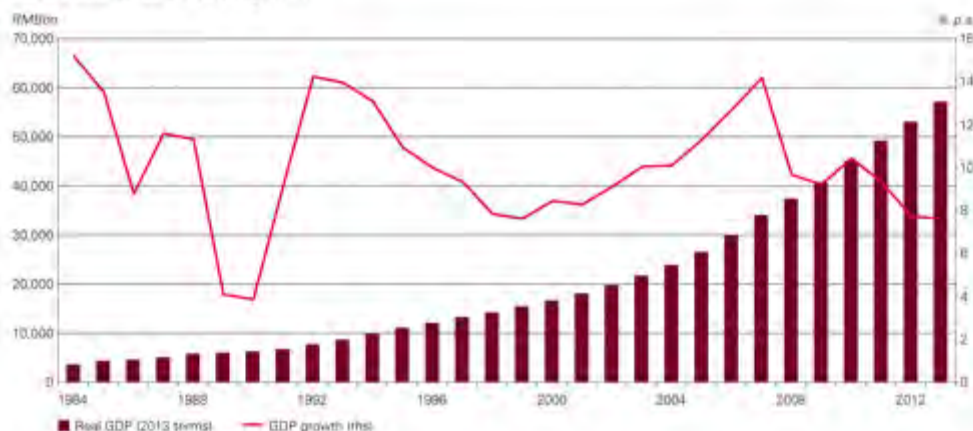
Introduction

In thirty years China has been transformed from a poor developing country into an increasingly prosperous 'middle income' one.

In 1978 China had just emerged from the turmoil of the Cultural Revolution. It was, at the time, a populous but poor country, with the vast majority of its citizens, over 70%,

working the land.¹³ However, that same year the country's leadership, with Deng Xiao Ping in the vanguard, embarked on a programme of economic reform that still continues today. China has since been transformed. Hundreds of millions have been lifted from poverty; the majority of its population live in cities; the economy is the world's second largest and China has become an 'upper middle income' country¹⁴ (Chart 3).

Chart 3: Chinese GDP and GDP growth



Source: IMF, PricewaterhouseCoopers Insights, World Gold Council

13. World Bank.

14. Ibid.



The Shanghai Gold Exchange's trading information, displayed in Chenghuang jewellery store in Shanghai.

At the same time China has come from nowhere to become the world's largest consumer and producer of gold. Over the medium term, growth in income and in the public's pool of savings should support an increase in gold jewellery and investment demand.

In parallel the Chinese gold market has developed from almost non-existent to the world's largest in terms of production and consumption of physical gold. In 1950 the 'new China' prohibited private ownership of bullion and put the gold industry under state control. Just over fifty years later the People's Bank of China (PBoC) abandoned its monopoly on the purchase, allocation and pricing of gold. The decade since has seen extraordinary growth in private sector demand for jewellery and, more recently, investment gold.

Economic growth in China is slowing. However, even if it were to drop to a conservative average of 6% over the 2014–17 period (as used for the demand forecasts in this report) consumers would have more disposable income available to spend on jewellery. Indeed, given the rebalancing of the economy towards consumption, it is likely that overall consumer spending will grow at a faster rate than headline GDP. Similarly, although China's very high savings rate is projected to fall, the public's enormous pool of savings will only get deeper as the economy expands. This means that there will be plenty of room for growth in gold investment demand. Only a major economic setback, caused perhaps by a bursting of the 'credit bubble' seriously affecting economic growth, would cloud this positive outlook for the Chinese economy and gold demand.

Gold market control and de-regulation

The new People's Republic of China quickly placed the gold market under the strict control of the state.

In 1949 the victorious Communist Party inherited a country that had been ravaged by an eight year liberation war against the Japanese invaders as well as the Civil War between the Communists and the Kuomintang. There was a pressing need to stabilise the economy and tackle the hyperinflation that had plagued China for much of the previous decade. A central plank of the new leadership's economic policy was the introduction of a new currency. During the Civil War a number of different currencies circulated in the country and it was imperative that this new national currency should be the only means of exchange and store of value. Hyperinflation had eroded the role of local currencies to such an extent that most trade was conducted via barter or using gold and silver. Gold and silver, together with foreign currencies, were both the medium for measuring prices and the principal means of preserving financial wealth. To improve the chances of the currency reform it was necessary to remove this competition. The government therefore began to restrict activity in precious metals and foreign currencies, leading in 1950 to an outright ban on private use of gold, silver and foreign monies. Similarly, all import and export of gold and silver by private persons was forbidden. All precious metals activity would be controlled by the state via the PBoC.

Economic reform post-1978 saw the gradual re-establishment of a gold market in China under the close control of the PBoC. The end of the PBoC's monopoly and the setting up of the Shanghai Gold Exchange accelerated gold market development from 2002 onwards.

The initial phase of economic reform saw only a very cautious market opening, mainly characterised by growth in jewellery manufacturing capacity, especially in the Shenzhen Special Economic Zone. Indeed, the PBoC's central role in the Chinese gold and silver markets was validated by the 1983 'Regulations on the Administration of Gold and Silver' that stated the central bank was responsible for the regulation, supervision and control of the purchase and distribution of gold and silver in China. The PBoC was also explicitly tasked with managing the country's gold bullion reserves.

During the 1990s the PBoC gradually adapted its management of the market to make it more efficient. This was especially noticeable in terms of an increased supply of metal to local fabricators and the move to a more market-based gold pricing system. However, it was only in 2001 that the state signalled the ending of the PBoC's control on: the setting of domestic prices; the purchasing of mined gold and scrap; and the selling of refined gold to manufacturers.¹⁵ Instead, prices would be determined via the soon-to-be-established Shanghai Gold Exchange (SGE),¹⁶ of which the PBoC would be the founder and the key stakeholder. All refined gold would have to be sold on the SGE and the Exchange would also be the only market for the purchase of gold by industry and financial institutions.¹⁷ Likewise, all imports of bullion would have to be made through the SGE. The SGE started trading in October 2002. Further liberalisation occurred in 2003, when the licensing system for running businesses in gold and silver products was abolished and in 2004 when for the first time since 1950 private persons were permitted to own and trade bullion.

China is still a long way from having a completely 'free market' in gold but it is gradually moving in that direction.

The Chinese gold market still remains under the indirect control of the state. Market mechanisms have been introduced and, to a large extent, private trade in gold has been unshackled. However, there are substantial barriers in place, particularly in terms of the interface between the Chinese and international markets. This is understandable given the tight controls that exist on capital flows and on the foreign exchange market. Indeed, these controls on currency and capital flows and on the operation of exchange rate and monetary policy by the PBoC would be completely undermined if all the remaining restrictions on the gold market were to be lifted. Further liberalisation will be dictated by the broader economic objectives referred to above. As such the pace is likely to be slow and steady. A 'Big Bang' approach to reform is unlikely. Instead, one can expect similar, gradual moves towards greater openness. For example, the SGE plans to launch an 'international board', or trading platform, in the newly established Shanghai Free Trade Zone. This will provide a platform for overseas investors to trade its products directly and for the launch of new products. In the longer run the SGE plans to integrate this with its main trading system, yet another step in the liberalisation of the gold market.



Crowds shop for gold in Leo Feng Xiang store, prior to Chinese New Year 2014.

15. In 2000 the World Gold Council and the PBoC jointly commissioned the Development Research Centre of the State Council to review how the Chinese gold market should develop.

16. The World Gold Council was actively involved in establishing the SGE and Albert Cheng – the World Gold Council's Far East Managing Director – remains on its International Advisory Board.

17. Only SGE recognised or LBMA accredited refineries are allowed to trade on the SGE. It is compulsory that their entire output is sold to the Exchange. Gold traded on the Exchange is VAT free. Gold traded OTC not on the Exchange is subject to VAT of 17%.

Economic development and gold demand

China is today the world's second largest economy and its leading trading nation. Its rapid economic growth has had some negative side effects that are now being addressed.

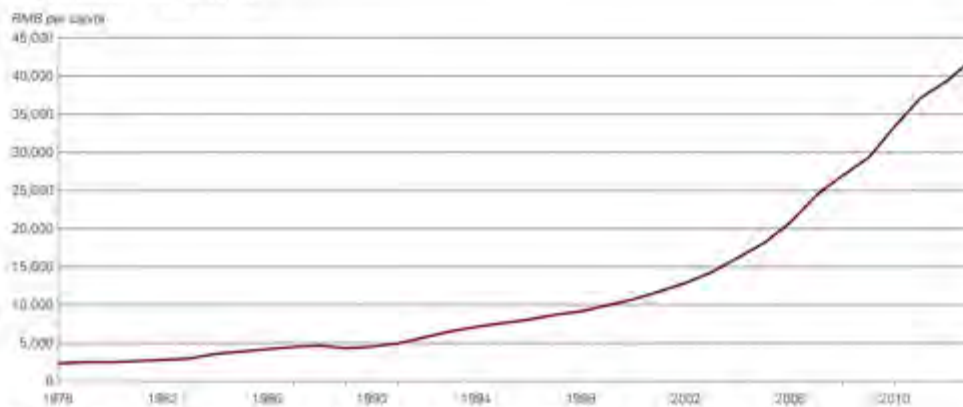
In 1978 China's per capita income stood at just over US\$200 in current dollars.¹⁸ Last year this figure had increased to no less than US\$6,850 – equal to over RMB42,000 (Chart 4). In 1980 30% of GDP came from agriculture and 69% of the population were rural dwellers. The same figures for 2012 were around 8% and 48% respectively.¹⁹ The last decade alone has seen the Chinese economy grow by 140%²⁰ and, according to the World Bank, the percentage of China's population living on less than US\$2 per day (PPP in 2005 terms) dropped from 78% in 1994 to 27% in 2009. China is not only the world's most populous country but also its second largest economy and leading trading nation.

Economic growth has not, however, been without certain less welcome consequences. The country is grappling with the environmental side effects of breakneck industrialisation and

urbanisation, coupled with an increasingly large car fleet – China is now the world's largest automobile producer and consumer.²¹ The cities are also home to hundreds of millions of migrants, the majority of which do not have formal residents' rights. And then there are the other by-products of what some would regard as a 'top sided' economic model that, since the global financial crisis, has relied principally on fixed investment as the motor of economic growth. These include a housing construction boom, a plethora of infrastructure projects, many of which will never show an economic return, a massive rise in debt levels and a policy of financial repression that has led to an explosive growth in shadow banking. These developments are interlinked and have the potential to morph into a major financial crisis for China that could profoundly affect the real economy.

The central government is well aware of these dangers and looks to mitigate them through liberalisation of the financial system and a rebalancing of the economy away from an overreliance on investment, with a greater role for private consumption.

Chart 4: Chinese GDP per capita



Source: IMF, National Bureau of Statistics, Precious Metals Institute, World Bank, World Gold Council

18. National Bureau of Statistics

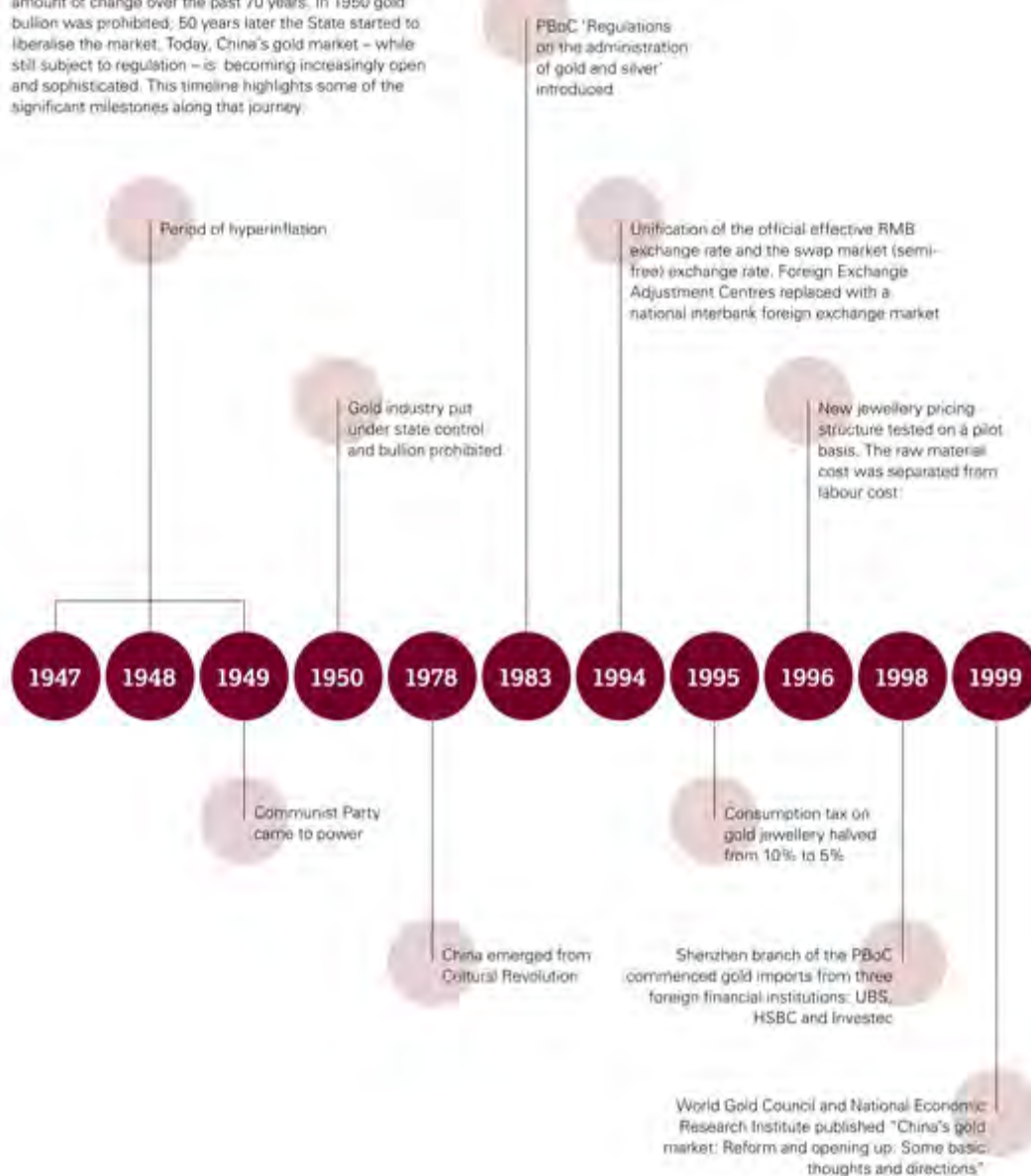
19. World Bank, National Bureau of Statistics

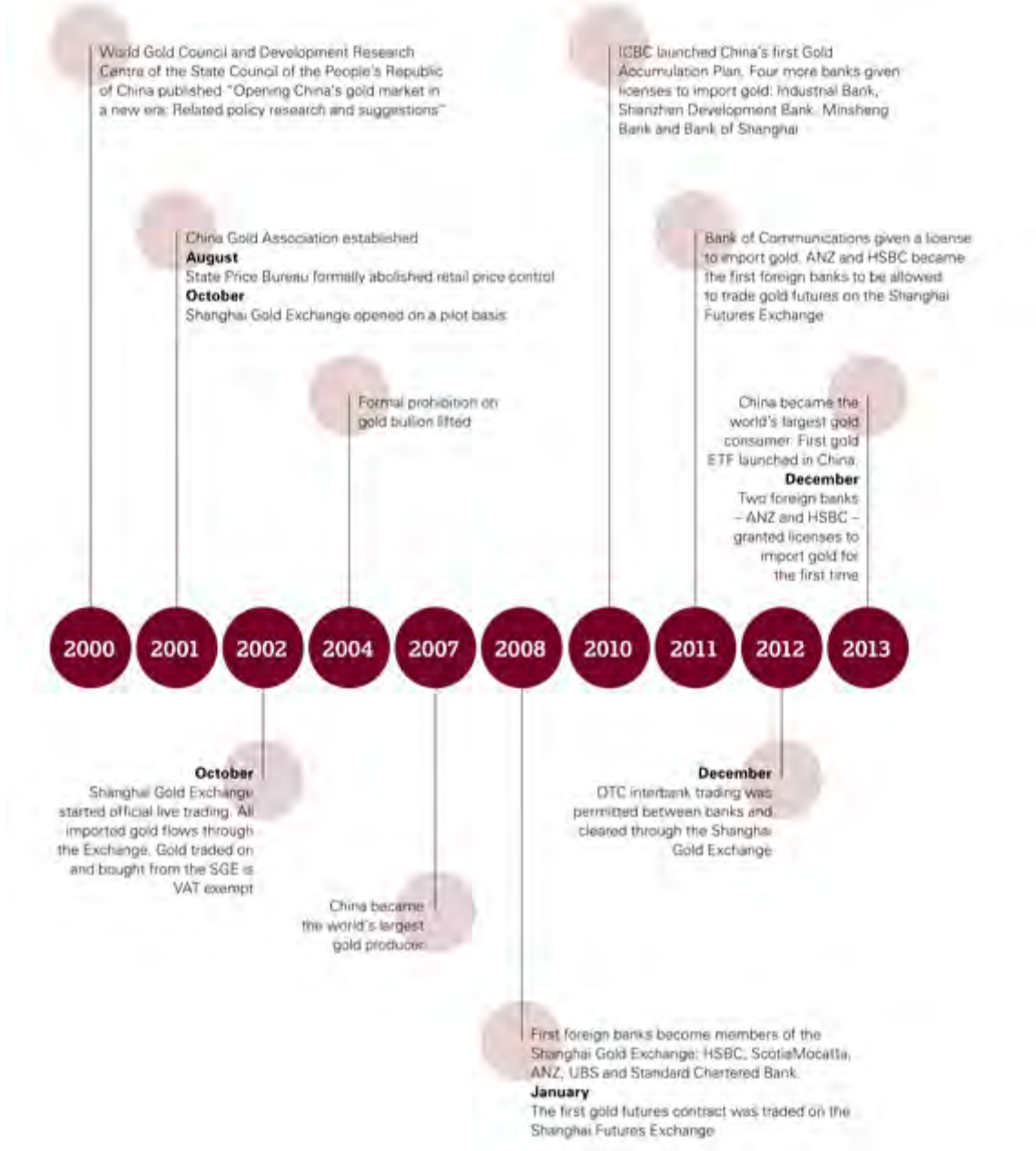
20. IMF

21. China Association of Automobile Manufacturers

Policy timeline

The Chinese gold market has undergone an enormous amount of change over the past 70 years. In 1950 gold bullion was prohibited; 50 years later the State started to liberalise the market. Today, China's gold market – while still subject to regulation – is becoming increasingly open and sophisticated. This timeline highlights some of the significant milestones along that journey.





Changing the economic model will take time and could result in some transitional instability. In the future consumption will be a more important driver of growth but only if the Chinese people save less.

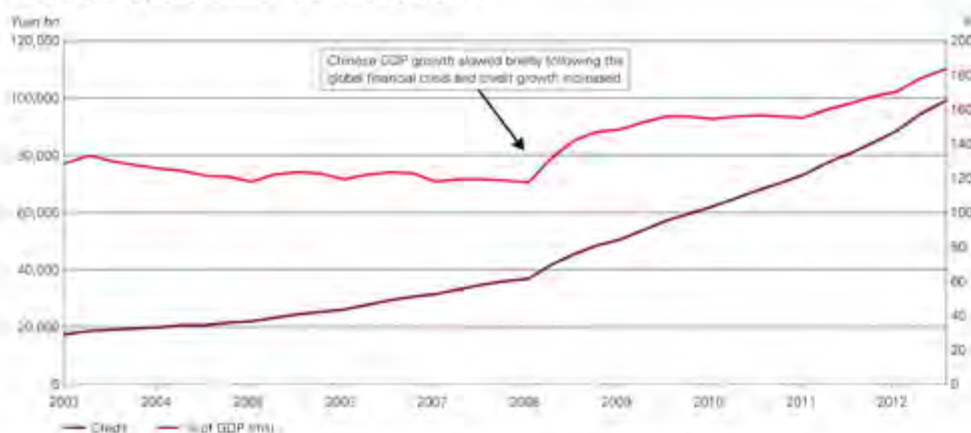
This process of transformation of the economic model is moving ahead in fits and starts. Attempts to restrict credit growth have had to be balanced against other objectives such as the solvency of local governments, state-owned enterprises and private companies. There are concerns that a credit crunch could lead to a jump in unemployment and a crash in the housing market. However, this 'stop-go' policy of tightening and relaxing credit may simply lead to more serious problems in the future: rather than balance sheets being repaired over time, they are generally becoming more heavily exposed to risk. Data shows that far from being reined in, overall credit growth has soared in the past couple of years (**Chart 5**). As such, the probability of a 'hard landing' is growing and it would be imprudent to discount this happening over the next few years. Nevertheless, the forecasts for jewellery, investment and industrial demand over the 2014-17 time frame contained in this report are based on a less-malign scenario under which an episode of financial turmoil is contained without too much impact on the level of GDP growth over the four-year period.

Although the Chinese economy should eventually be stronger for being more balanced, and should have a greater role for private consumption, the process of transition is not going to be easy, especially in view of the legacies of excessive credit growth and over-investment (**Chart 6**). In any case, it is clear that GDP and industrial production growth rates are set to fall further. This is a function not only of the much higher base for GDP but also because resources thrown into investment are producing less output than they did in the past. Together with the diminishing returns on investment, the export sector has become more mature and in some industries could even see a drop in activity. China's current account surplus therefore looks set to drop further. Consumption will eventually pick up a good deal of the slack but at the moment it is inhibited by the public's exceptionally high savings rate, which is largely the product of new social and demographic realities.

High savings is a rational response to greater expected future expenditure in the absence of a comprehensive social welfare system.

The Chinese economy has already undergone a massive economic restructuring involving the closure of scores of State Owned Enterprises (SOEs). Tens of millions of workers lost their jobs in the 1990s. In addition, social security that had been previously provided by these SOEs was made the responsibility of local governments, which lacked the necessary infrastructure and resources to fulfil the brief.

Chart 5: Credit to private non-financial sector and as % of GDP



Source: Bank of International Settlements, National Bureau of Statistics of China, Thomson Reuters Datastream, World Gold Council

The effective privatisation of health care (in which money needs to change hands between patients and providers) has required people to save more. It is a similar story with China's demographic challenge. In general parents now have only one child to look after them in their old age and, as indicated above, their work unit²² usually no longer exists to provide a safety net. Other factors driving the high savings rate are housing and marriage. Housing costs have risen in many cities to levels that imply a major burden on wage earners and, in some cases, even price them out of the market entirely. The cost of marriage has also risen and will probably increase further as the male/female ratio widens and scarcity of female partners drives up the effective "bride price"²³ for grooms and their families. These factors partly account for China's high savings rate compared to the other countries (Table 1).

Table 1: Gross national saving: an international perspective

	1990 (% of GDP)	2012 (% of GDP)
China	39.2	51.4
India	23.8	32.8
Korea	37.8	30.3
US	18.3	20.3
UK	16.6	14.6

Source: IMF WEO.

Chart 6: Consumption and investment shares of Chinese GDP



Source: IMF, Oxford Economics

²² A work unit – *danwei* – is the name given to a place of employment in the People's Republic of China.

²³ The excess of males to females has led to increased competition amongst males for females' affection. This often requires that they are able to provide comforts, accommodation and – in some instances – jewelry. Some local commentators attribute part of the high savings rate to this phenomenon.

The economic outlook is positive for gold demand but there are risks, especially if a major financial crisis were to affect the 'real economy'. It is our view that the secondary effects of any financial crisis could well stimulate additional gold investment demand.

This picture of a difficult re-balancing of the economy and demographic changes over the next few years sends mixed messages for gold. A major positive will be the greater role for private consumption expenditure in future. A higher share of consumption in GDP should offset the step down in overall GDP growth rates. (This forecast assumes these will average a 'below consensus' 6% per annum from 2014-17, in part because of the negative impact of a 'credit crisis'.) To some extent, however, the positive effect of rising disposable incomes will be dampened by a stubbornly high savings rate, as it will take a long time for the state to stitch together a convincing social welfare safety net. However, notwithstanding some additional headwinds from the number of marriages peaking, the backdrop for jewellery demand over the medium term should be moderately positive. Consumer spending is expected to grow at a high single digit rate per annum,²³ which would underpin further growth in jewellery demand even from 2013's high base. The main risk is that a major financial crisis spreads to the 'real economy'. This could hit gold jewellery demand as

unemployment would rise and households would save more. If this situation led to a fall in the value of the yuan this would raise local gold prices, hit purchasing power and hence depress the volume of jewellery demand. Similarly, a major drop in house prices could also produce a negative wealth effect and trim expenditure on jewellery.

The impact of a financial crisis might be expected initially to hurt investment demand for gold because it would reduce the value of many other assets and even force some investors to sell in order to raise cash. This would be a similar outcome to the first phase of the global financial crisis, when some investors sold gold to meet margin calls and other financial commitments caused by the meltdown in global markets. In this scenario, subsequent demand for bullion could well increase 'above trend', as it did in many Western countries in 2009-12. This would be driven both by the financial crisis itself, resulting in a flight to safety in gold, and the authorities potentially engaging in massive monetary easing to deal with the emergency, which would in turn raise investors' inflation expectations. And, although any crisis-induced fall in the value of the yuan would make gold more expensive, this effect might be outweighed, in the investment market at least, by the stimulus of rising local gold prices offering higher investment returns.

²³ McKinsey Quarterly: *Managing China's economic slide* by Giacomo Bernini, Giuseppe Chiaruzzi and Amy Jin

Jewellery

Jewellery forms the bedrock of gold demand in China. In 2013 at 669t it accounted for close to 60% of all private sector gold demand. Its growth has been supported by rising incomes, the newly emerging middle class and the process of urbanisation. Looking forward, there are threats to gold jewellery demand but we expect it to continue to grow and reach at least 780t by 2017.

Introduction

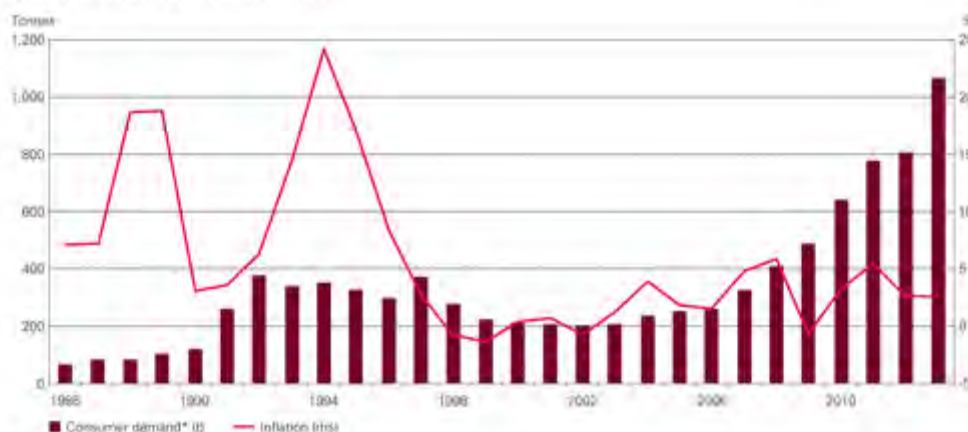
From humble beginnings China has become the world's number one jewellery market, nearly trebling in size over the past decade.

Thirty years ago, Shenzhen, the city in southern China where over 70% of the country's jewellery is fabricated,²⁵ was a small town of 330,000 people having only recently benefited from Deng Xiao Ping's new liberalisation measures. It is now a major metropolis with more than ten million people²⁶ and an internationally known economic powerhouse. Shenzhen is a

good analogy for the Chinese jewellery market, which from humble beginnings has risen to become the largest in the world as measured both by fabrication and consumption volumes.

Twenty years ago China's gold jewellery demand was over 300t. Consumption surged in the early 1990s driven by a major pick-up in GDP growth, higher incomes and, critically, savers' desperate search for an inflation hedge to protect their newfound wealth. As measured by the official CPI index, inflation rose to double-digit levels in 1993-95²⁷ and 24 carat gold jewellery represented one of the few available safe havens for the public, especially given deeply negative real interest rates on bank deposits over the same period (Chart 7).

Chart 7: Inflation and consumer demand*



*Consumer demand includes jewellery and total bar and coin demand.

Source: National Bureau of Statistics, Precious Metals Insights, Thomson Reuters GFMS, World Gold Council

²⁵ Shenzhen Gold and Jewellery Association

²⁶ Shenzhen Municipal Statistics Bureau

²⁷ National Bureau of Statistics

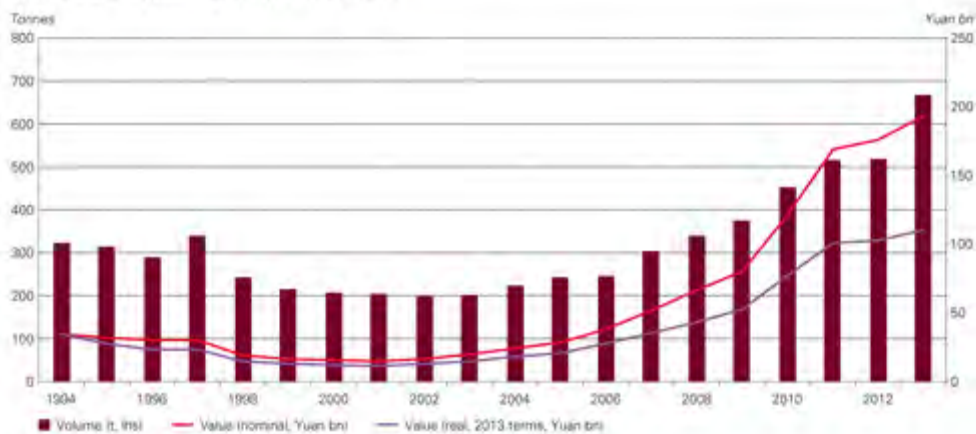


A Ruyi pendant, a symbol of good luck.

A return to price stability in 1998-2003, coupled with positive real interest rates and the impact of a sharp fall in Chinese GDP growth related to the Asian financial crisis, saw demand slide back to the 2001 level. However, during this time the industry was gearing up for what later turned out to be a period of explosive growth. This was particularly clear from supply side developments with much new manufacturing capacity established, especially in Shenzhen, and retail jewellery stores and counters opened, mostly at this stage in the first and second tier cities.

Over the past decade the Chinese jewellery market has been transformed. In terms of gold demand this has meant a near tripling in volume from 2004's 224t to 669t last year (**Chart 8**). Even more impressive is that over the same period expenditure on gold jewellery has risen close to six-fold. In 2013 China eclipsed India to become the world's largest consumer and manufacturer of jewellery. Moreover, in 2013 the country accounted for no less than 30% of global jewellery demand. As explained below, this tremendous expansion has been founded on a combination of economic, demographic and cultural factors.

Chart 8: Jewellery consumption volume and value



Source: Precious Metals Insights, Shanghai Gold Exchange, Thomson Reuters GFMS, World Gold Council

Market and product structure

Shenzhen is the world's largest gold jewellery manufacturing centre and accounts for over 70% of China's production base. Over 85% of 2013's fabrication of 724t was destined for the domestic market.

Today China has the world's largest jewellery manufacturing base. Massive factories have been established, of which each consumes far more gold than the famous Italian gold chain makers in their heyday. There was a further surge in the number of Chinese jewellery producers in 2013 in response to record demand and a temporary surge in profit margins on 24 carat products. In Shenzhen alone there are estimated to be nearly 4,000 formal manufacturers, excluding thousands more small workshops and artisans.

According to Thomson Reuters GFMS China's fabrication of gold jewellery jumped to 724t in 2013, a 31% rise over the previous year's figure. Over 85% of fabrication is destined for the domestic market.²⁸ Exports to the US and Europe increased substantially in the 2000s. Although they declined following the onset of the financial crisis in 2008, they have picked up more recently as these markets recovered (the section on Supply – page 49 – discusses trade flows in more detail).

A fair amount of trade is conducted with Hong Kong. Typically China imports 18 carat (mainly Italian) and some gem-set products via the Special Administrative Region (SAR). Exports from China are principally of either 14 and 18 carat jewellery for Western markets (much of it made by Hong Kong-owned companies based in the city of Panyu) or 24 carat articles destined for Hong Kong itself. A large share of Hong Kong jewellery sales, especially 24 carat and diamond-set articles, is accounted for by tourists from the mainland. Tax-free prices in Hong Kong are lower, especially for gem-set jewellery, and Hong Kong's major jewellery brands have a very good reputation for selling quality diamonds and other gems.



Cai Bai store in Beijing

There are now approximately 100,000 jewellery outlets in China, stocking mostly 24 carat products.

The boom in Chinese jewellery consumption has been accompanied by break-neck growth in the number of retail outlets. The first wave of openings targeted wealthier first and second tier cities but in recent years expansion has been concentrated on China's over 600 third and fourth tier cities.²⁹ Many of the stores are franchises belonging to the large Hong Kong retailers such as Chow Tai Fook and Luk Fook or local heavyweights such as Lao Feng Xiang and China National Gold Group. The latter, for example, has in just a handful of years built a portfolio of 2,200 stores. There are also many smaller, regionally focused groups; mega-stores such as Beijing's famous Cai Bai and retail chains owned by jewellery manufacturers. Growth in the number of shops has occurred hand-in-hand with a huge increase in the number of department stores and shopping malls in China's cities. Each department store will typically have no less than five jewellery counters and new malls will feature outlets representing several of the famous brands.

²⁸ Precious Metals Insights.

²⁹ National Bureau of Statistics, December.

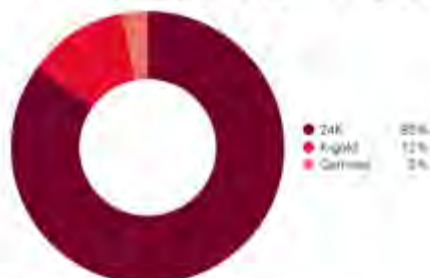
The Chinese market is dominated by plain, 24 carat products, which represent about 85% of the market by volume

(Chart 9) This market share increased in 2013 as the jewellery component of last year's surge in demand was entirely based on 24 carat items. This 'pure gold' jewellery (known as *Zu Jin* in Putunhua/Mandarin and *Chuk Kam* in Cantonese) is almost entirely sold by weight. Shops weigh the items chosen by their customers, multiply the fine weight in grammes by the daily SGE spot price and then add a mark-up that incorporates the labour charge and a retail margin. Final retail prices for plain, unbranded items typically will be some 15% – 20% above the value of the metal contained in the article. The balance of the market is made up of 18 carat (known as *K-gold* in China) and gem-set products.¹⁾ A large share of the 18 carat market is for wedding bands, where 'white gold' provides strong competition for platinum. In addition, especially in first tier cities, there is a healthy market for 18 carat fashion jewellery, much of the upper end of which is imported Italian product. Gem-set, a category of 18 carat jewellery in China incorporating both diamonds and the more expensive coloured stones, is growing in popularity but from a very low base. (Note: jewellery where the gems are not the principle material value would usually be placed in the plain K-gold category.)

China is also the world's largest market for both platinum and silver jewellery, with silver demand being powered by young people looking for affordable, fashionable designs.

The broader competitive set within jewellery consists of platinum and silver, with palladium having dropped out of the race. In addition, costume or fashion (plated) jewellery is a big business in China, with a substantial export volume as well as growing demand locally from younger consumers. At the margin this competes with high fashion products in 18 carat gold but the two are distinct markets, with completely different price points. More costly, branded costume jewellery still has little appeal in China where consumers at these high price points want to have the 'real thing' in terms of fine, carat jewellery.

Chart 9: Gold jewellery demand by product category in 2013



Source: Precious Metals Insights

In wedding bands, diamond set and plain white products there is direct competition between white 18 carat and platinum jewellery. For a long time, platinum has had an edge over white K-gold because of its greater purity (999 versus 750), traditionally higher price and the very large sums spent on effective marketing campaigns by the Platinum Guild International. However, the slump in the platinum price in the second half of 2011 and its discount to gold ever much of 2012 coupled with reduced and less effective marketing spend has seen white K-gold regain some lost ground.

⁽¹⁾ Precious Metals Insights

⁽²⁾ Precious Metals Insights estimated based on trade research

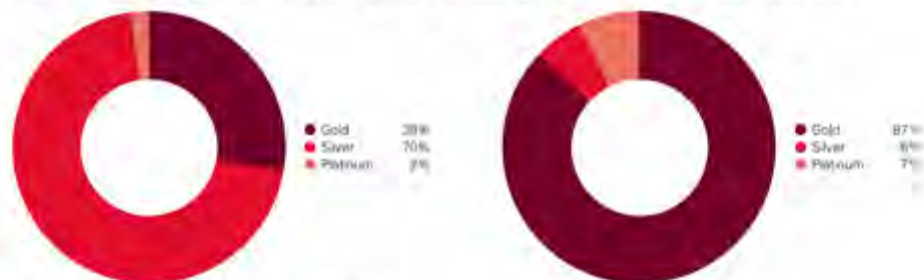
Silver jewellery has performed especially well in China over recent years. Data from Thomson Reuters GFMS show that fabrication demand has almost trebled in the past decade, reaching 1,762t in 2012.³² In terms of local consumption, silver jewellery has moved well beyond its former stronghold among non-Han Chinese ethnic groups. More fashionable products produced to a higher quality and usually plated with rhodium, have sold very well to budget-conscious younger consumers. To a limited extent this may have nibbled away at the market for lower end white K-gold products, although by no means is the competition from silver analogous to that seen in the US and certain European markets.

Overall in terms of jewellery consumption, gold in volume terms is, not surprisingly, smaller than silver but dwarfs platinum. Looking at the value of the metal contained in jewellery, gold is dominant with an estimated market share close to 87% in 2013 (Chart 10).³³

'Pure gold' jewellery is a unique product that fulfils the requirements of both adornment and investment, and research confirms its appeal to young consumers.

The competition for 24 carat jewellery from platinum, silver or costume jewellery is very limited and looks set to remain that way for at least the medium term. 'Pure gold' jewellery has a very well defended position because it is the only jewellery on sale that is also considered to be a form of investment. Nevertheless, in the long run some younger consumers may be more tempted by K-gold, other 'white metal' jewellery or gem set pieces. For example, in Shanghai it is already noticeable that some younger, well-off local female consumers are shifting to these categories away from 24 carat jewellery.

Chart 10: (a) Jewellery demand by metal weight in 2013 (b) Jewellery demand by contained metal value in 2013



Source: Precious Metals Insights, Thomson Reuters GFMS

32 The Silver Institute, Thomson Reuters GFMS, 2012 (last accessed point)

33 Precious Metals Insights estimates based on Thomson Reuters GFMS data and findings

But it would be wrong to exaggerate the speed at which consumers, in general, will migrate to other jewellery categories. Firstly, ownership levels of 'pure gold' jewellery are still low even if annual demand is now rather high. Secondly, Chinese consumers associate gold with its yellow colour – the appeal of 'white' precious metal is a long way from being the same. The Chinese market in this regard is quite unlike Japan or Germany where the 'white look' has a strong cross-generational appeal. Finally, manufacturers are well aware of the demographic challenges facing their industry and are very active in developing new styles of 24 carat jewellery that appeal to younger consumers. Indeed, a comprehensive World Gold Council usage and attitudes study in China from 2011 indicates that while younger consumers are more open to experimenting with different kinds of jewellery, 'pure gold' products easily remain the most favoured category (Chart 11).

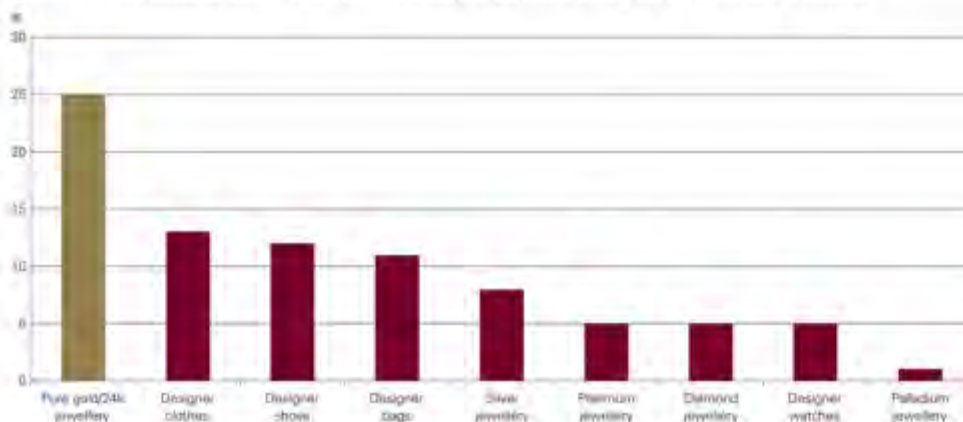
Factors driving demand

China's transformation over the past 30 years from rural poverty to urban prosperity has created a new middle class, with economic growth producing hundreds of millions of new consumers.

China's economy has grown by an astonishing 140% over the past decade.³⁴ Yet this figure is eclipsed by spending on gold jewellery, which is estimated to have risen by 500% in real

terms over the same period.³⁵ Although this outperformance implies that other factors have been at work, their positive impact on the jewellery market has been underpinned by the huge strides made by the Chinese economy. Economic growth has not only lifted hundreds of millions of China's citizens out of poverty³⁶ but also helped create sufficient wealth to drive a boom in expenditure on a wide range of consumer discretionary goods and services. Average GDP per capita in China has increased to over RMB42,000 (around US\$7,000).³⁷ However, income distribution between social groups and regions is very unequal. This means that there are a substantial number of Chinese citizens whose incomes are a multiple of the average. Indeed, the 'middle class', defined as those households with incomes greater than RMB50,000, now consists of almost 300 million people and is forecast to grow to 500 million by 2020.³⁸ Such people have sufficient disposable income to purchase higher value non-essential items, such as jewellery and luxury goods. This group of wealthier individuals has expanded considerably both in absolute terms and in spending power. Moreover, its presence has also grown in those parts of China, such as the West and North East of the country, where economic development has historically lagged behind that of Beijing and the prosperous Eastern seaboard.

Chart 11: Chinese consumer survey: Which of the following do you intend to buy yourself in the next 12 months?



Source: TNS survey 15-17 consumer intent of the World Gold Council in 2011

³⁴ IMF

³⁵ Precious Metals Institute

³⁶ Based on official unemployment rates and UN figures on working age population vs. estimate that the number of people in employment increased by around 200m between 1980 and 2010.

³⁷ IMF; World Bank

³⁸ Chinese Academy of Social Sciences, National Bureau of Statistics, Ernst & Young, *The growth of the middle class in emerging markets*

China's gold market: progress and prospects

Over the past few decades China has been transformed from a largely agrarian society to an urban one. In 1980 agriculture accounted for 30% of China's GDP; its share is now less than 10%.³⁸ This shift is even starker in terms of where people live. Whereas twenty years ago 70% of the population lived in the countryside now over 50% are urban residents³⁹ and over 600 million of these live in cities. Although most of these new urban residents are ordinary workers that send a good part of their surplus income back to family members who remain in their home villages, increasingly they have put down roots in the cities and are spending money locally. The better off among them are new consumers for gold jewellery. This is a process of urbanisation and income growth that in many respects started in Shenzhen, which was the 'test bed' chosen for the new economic policy instituted over thirty years ago. It has since spread to other parts of China and has resulted in the rapid economic development of China's interior. Second tier cities, such as Chongqing, Chengdu and Wuhan have become regional powerhouses and their growing wealth has been reflected in surging demand for jewellery.

An embryonic middle class is also emerging in the country's over 600 third and fourth tier cities, which – together with wealthy local entrepreneurs – is generating new demand for gold jewellery in the larger provincial and county level population centres. Indeed, most of the growth in 24 carat gold demand seen over the last couple of years has occurred in these third and fourth tier cities, nearly 140 of which boast more than one million inhabitants.⁴⁰



A display of 24 carat jewellery.

A huge expansion in manufacturing capacity and retail outlets has provided the foundation for explosive growth in jewellery demand.

The importance of this retail expansion should not be underestimated. While it would be an exaggeration to claim that supply-side developments have driven the expansion of the market it is true that they have provided the necessary foundation for this to occur. Moreover, especially in parts of the country where retail jewellery stores barely existed ten years ago, the opening of new outlets has stimulated demand. Besides providing consumers with an avenue through which they can buy gold jewellery, development of the retail infrastructure has in itself directly created additional fabrication demand. This is because new stores require inventory. Typically a store in a third or fourth tier city may need RMB4-6mn stock.⁴¹ Although at current prices this amounts to only about 20kg per store, this approximate initial stock figure needs to be multiplied by the many thousands of new outlets that have been set up in China over recent years. Similarly, the expansion in the manufacturing base to serve the local market, with close to 4,000 formal manufacturers in Shenzhen alone,⁴² has tied up an increasingly large amount of gold in companies' work-in-progress inventories or wholesale trade stocks. This partly accounts for China's gold surplus, which is discussed in more detail in the section on Supply – page 49.

Demand has benefited from a substantial increase in the working age population and a rise in the number of marriages: we estimate that wedding demand accounts for 40% of gold consumption.

Besides the process of urbanisation referred to above, Chinese jewellery consumption has also been stimulated by the demographic dividend of a rising working age population (until 2011) and a related growth in the number of marriages. UN data shows that working age population – defined as those aged from 15-59 – jumped from 723 million in 1990 to 944 million in 2010. Analysis of employment rates indicates an additional 200 million people found employment during this period. The combination of more people in work and higher average incomes has underpinned growth in the number of jewellery consumers. UN data forecast the 15-59 age group at 938 million in 2015, 929 million in 2020 and 908 million in 2025. So although this pillar of support will wane, it will not do so until the 2020s and even then will be offset by rising incomes.

³⁸ World Bank.

³⁹ *Ibid.*

⁴⁰ National Bureau of Statistics.

⁴¹ World Gold Council trade sources.

⁴² Shenzhen Gold and Jewellery Association advised that there are more than 3,000 jewellery corporations and another 3,000 self-employed individual jewellers registered in Shenzhen.

It is estimated that close to 40% of Chinese 24 carat jewellery consumption is related to weddings.⁴⁴ In the third and fourth tier cities this percentage is greater. The growth in the number of people of marriageable age together with, in general, increasing wealth has boosted sales of jewellery for traditional wedding sets and rings. Typically a three-piece wedding set, known in Mandarin Chinese as *jiehun san jing* might consist of a necklace/pendant/bracelet, ring and earring combination. Bracelets are especially popular in southern China where wedding sets are also often five- rather than three-piece. The number of marriages, according to the mainland's official data for China (which includes figures for Hong Kong, Macao and Taiwan) has increased by 60% since the middle of the last decade to 13.2 million at the end of 2012.⁴⁵ This has undoubtedly made an important contribution to growth in demand for 24 carat gold over the last decade (Chart 12).

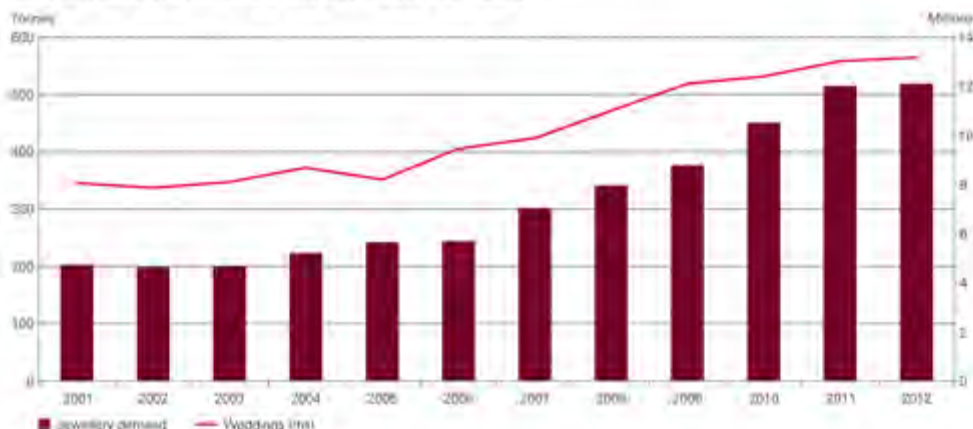
It might be thought, given China's demographic challenges, that this pillar of jewellery offtake will weaken in future. Such an observation is correct, but the data suggest that the impact of adverse demographics will be felt mainly in the 2020s, and not to any great extent during the period 2015 to 2017. According to

UN data, the number of females in the 20-29 age group totalled 98 million in 2005, rising to 115 million in 2010 and is forecast to reach 114 million in 2015, 89 million in 2020 and 73 million in 2025.

Gold's social role is not just confined to marriage; it is often the basis of gift giving for other important family occasions and national holidays. The gifting motive is underpinned by gold's role as a store of wealth.

Gold's place at the centre of traditional Chinese weddings is an important manifestation of its cultural importance. However, its historical appeal goes beyond the particular domain of marriage. For instance, childbirth is another social occasion where gifting of gold is an obligation for many. Chinese New Year, also known as the Spring Festival, is the most important holiday in the country and always sees a major increase in gift-related purchases of jewellery and ornaments, the latter usually commemorating the animal associated with the new lunar year. Valentine's Day has more recently become an important event in the trade's calendar, joining the longer established Mother's Day as an occasion for purchasing gold jewellery.

Chart 12: Number of weddings and gold jewellery demand in China



Source: Ministry of Civil Affairs; Thomson Reuters (F&ES)

⁴⁴ Precious Metals Insights, World Gold Council, IndiaSource.

⁴⁵ Ministry of Civil Affairs.

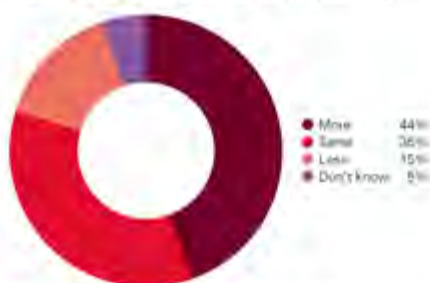
More generally, the Chinese traditionally regard gold as a form of money. Indeed, the character for gold in Mandarin (金) is also a synonym for money. This is an important fact when it comes to the motivations behind the purchase of jewellery. Asian buyers of plain, 22 or 24 carat jewellery have no doubt in their mind that they are buying gold as well as an object of beauty that can be worn. The perception of value is very important in markets such as India and China where plain, very high carat or 'pure gold' articles bought on low mark-ups comprise the majority of gold jewellery consumption. As such, the level and direction of local gold prices usually have an important bearing on jewellery consumption. This was very clear in 2013 when in April of that year the sudden slump in prices triggered an extraordinary wave of buying in China. Consumers perceived this as a unique opportunity to exchange renminbi for gold at a very favourable rate. It was also of course a chance to bring forward planned purchases for gifts or weddings, especially as the consensus was that prices were bound, eventually, to move a good deal higher.

World Gold Council consumer research indicates that consumers remain very positively disposed towards 'pure gold' jewellery.

It might be thought that the disappointing price trend in the second half of 2013 had undermined this optimism as well as the public's desire to purchase 'pure gold' jewellery. This does not seem to be the case. An extensive consumer survey¹⁴⁶ conducted towards the end of 2013 on behalf of the World Gold Council illustrates how China's population continues to view 'pure gold' jewellery as a form of money, with little indication that this traditional attitude will change any time soon. Asked whether they agreed with the statement that 24 carat gold jewellery "... is as much an investment as it is a fashion item"¹⁴⁷ no less than 80% of the sample agreed, while only 4% disagreed (16% held no view either way). Agreement levels were strong across all respondents.

Moreover, support for future demand is strong: in a separate survey of over 10,000 Chinese consumers,¹⁴⁸ 76% of those aged between 18 and 27 also affirmed 'pure gold' jewellery's investment status. And the majority of respondents planned to maintain or increase their spending on 24 carat gold jewellery over the next 12 months (44% and 35% respectively – **Chart 13**). For those planning to increase their spending, the principal motives were that they expected 24 carat jewellery to hold its value over the long-term and anticipated that they would have a higher level of disposable income.

Chart 13: Chinese consumer survey: Compared to the last 12 months, do you think you will spend more, less or the same in the next 12 months on gold jewellery?



Note: Survey of 1,001 Chinese consumers and their attitude towards gold conducted by the World Gold Council during January 2014.

Source: World Gold Council

¹⁴⁶ TNS surveyed 1,001 Chinese consumers in December 2013 on behalf of the World Gold Council.

¹⁴⁷ TNS surveyed over 12,000 Chinese consumers between May 2013 to February 2014.

Outlook

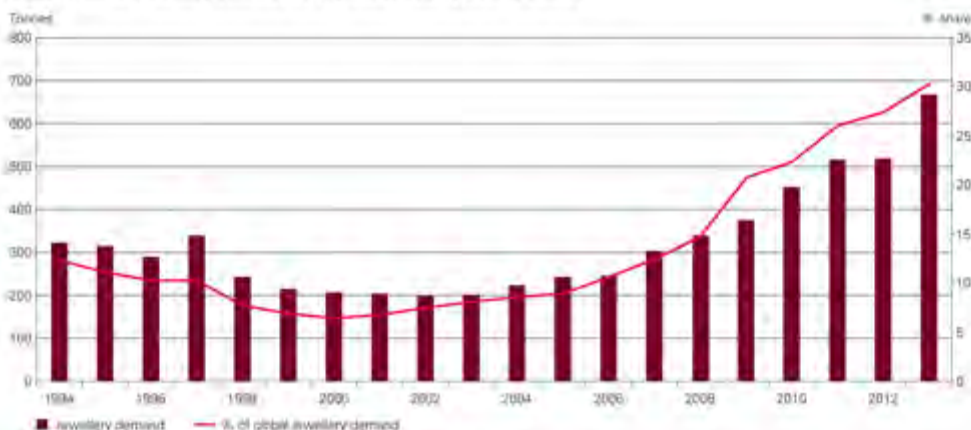
2014 is likely to be a year of consolidation after 2013's spectacular growth in demand, although much will depend on the trend in local gold prices. Over the medium term the expected increase in real income and purchasing power will support growth in jewellery consumption.

Following last year's exceptional advance it is probable that 2014 will see little growth in jewellery consumption. The increase in 2013 was so large that a degree of consolidation this year would be no surprise. To a certain extent this is because some purchases will have been brought forward. This would have been more a function of consumers buying in advance for marriages or other key events in 2014 than the trade, as shops turn their 24 carat inventory very quickly. Of course, much will depend on local gold prices in 2014. A quick, substantial drop in the price might encourage a new wave of buying analogous to that seen last year, although, one suspects, probably less intense as price expectations may not be quite so rosy the second time round. And, while Chinese consumers were largely immune to rising gold prices in the lead up to 2012, if gold were to move higher, an element of 'budget constraint' may be triggered that for jewellery would be a more powerful influence than any popular expectations of higher prices yet to come. Under such circumstances demand could ease from 2013's record level (Chart 14).

Another downside risk is the growing danger of a 'credit crisis' in China due to the rapid expansion in credit, which would in turn depress GDP growth and consumer spending. It is of course impossible to be sure about the timing and impact of any bursting of the 'credit bubble', although the medium-term forecast in this report does incorporate some impact on both GDP growth and the local gold market. Against this, it should be borne in mind that the Year of the Horse is an auspicious one for weddings (as a "double spring" and intercalary September in a lunar year is good for marriages) and that consumers' incomes, barring a major economic upset, should be growing at close to 10% this year. Taking all these factors into account, it would be prudent to assume a more or less flat outcome for consumption in 2014.

Looking further ahead to the prospects for demand over 2015-17 it is probable that the market will see decent growth. The main basis for this expectation is the forecast increase in consumers' purchasing power. Supposing conservatively that real incomes grow on average by 7.5% per annum, the compounding effect over the medium-term would leave them a third higher than in 2013. Therefore, barring a major, unexpected economic setback it is hard not to be optimistic about growth in Chinese consumers' purchasing power over the medium-term.

Chart 14: China's jewellery demand and % share of global jewellery demand



Source: Precious Metals Insights, Thomson Reuters GFMS, World Gold Council

Price expectations as well as the actual level and direction of prices are other factors to consider when it comes to jewellery consumption. The average mark-up on jewellery will rise moderately over 2015-17; this may marginally dilute expenditure on gold.

Naturally price will be a key factor in adding to or subtracting from the positive income-effect forecast over the medium term. Other considerations will tend to mitigate the price or budgetary impact. One of these is consumers' price expectations, as the anticipation of higher or lower prices would – all other things being equal – at the margin tend to result in greater or lesser immediate demand, respectively. On the other hand, there is a requirement, especially for weddings, that the jewellery chosen should meet certain criteria in terms of look and size. This tends to stabilise the amount of gold purchased, independent of the level of gold prices. Nevertheless, if gold prices were to be substantially higher or lower this would undoubtedly be an important consideration and could well have an impact greater than the income-effect discussed above.

Because of fierce competition in retail and fabrication markets, average mark-ups over the spot price have tended to be very low (a major exception was the April to September period last

year). This could change over the coming years and mark-ups could rise, but there is very little chance that average mark-ups will rise sufficiently over the medium term to 'dilute' by very much expenditure on gold jewellery. First, when it comes to basic 24 carat products, massive production capacity and fierce competition at the retail level will prevent any meaningful increase in margins. Second, the trade is finding it very difficult to sell more sophisticated 24 carat products on a per piece basis. For example, most '3D Hard Gold', a new, electroformed 24 carat product that is as hard as 18 carat gold, is still sold on a weight basis. And, although this subset of special products can be sold by weight on a higher per-gramme mark-up, it will continue to account for only a small share of the 'pure gold' market. Third, some growth in sales of 18 carat and gem-set can be expected as younger, more fashion conscious buyers favour these products. However, the moneyed, young urban elite in a first tier city like Shanghai is not representative of the majority of younger consumers in third and fourth tier cities. More conservative tastes predominate here even among the 18-25 age group. In addition, the share of 'pure gold' jewellery in the product mix will be defended by the continued expansion of plain 24 carat demand in third and fourth tier cities from 'first time buyers'.



Small gold bars designed for gifting at Chinese New Year. The horse statue is electroplated with gold and typical of the type given as an auspicious New Year gift.



A 1kg gifting bar and smaller 100g and 80g bars

Other categories of consumer expenditure may take some market share from gold jewellery but only at the margin. 24 carat jewellery faces increasing competition from financial assets, although this is not a new phenomenon.

Competition from non-jewellery categories of expenditure is another area that must be considered when making a medium or long term forecast for demand. Luxury goods, holidays and mobile phones are usually cited as the obvious competitors for jewellery. However, when it comes to China, local trade sources are surprisingly sanguine about competition from these sources, at least over the next few years. (This view is supported by the results of World Gold Council's consumer survey discussed above.) This is largely because consumers regard 24 carat jewellery as being, firstly, a unique product, which is purchased for both adornment and investment and, secondly, of traditional importance for weddings and other social occasions. 'Pure gold' jewellery is not just another product competing for a share of the consumer's wallet, although this would largely be true of the smaller gem-set and K-gold jewellery categories, where adornment is the principal consideration. For the medium term future at least it seems that this optimistic view is correct. Nevertheless, it would still be wise to assume that there will be marginal attrition from the other expenditure categories mentioned above and that this effect may grow over time. During 2015-17, however, the dampening effect on gold jewellery demand should be fairly limited.

It is also worth reviewing the competition 'pure gold' jewellery will face in the future from financial assets. (This phenomenon is covered in greater detail in the section on *Investment* – page 29 – as it is of greater relevance to investment than to jewellery.) As discussed earlier in this section, demand in China for 24 carat articles is, to a large extent, driven by financial considerations and the recognition that in extremis 'pure gold' jewellery can easily be exchanged for cash. The growing availability and potentially better performance of other financial assets could, therefore, have some bearing on demand. It would seem, though, that this would largely depend on the type of financial instrument; for instance, only a minority of jewellery consumers own equities.

A move to a positive real interest rate regime for savers would represent a more direct threat to 'pure gold' jewellery demand.

A larger impact on jewellery consumption would be probable from any shift to positive real interest rates on bank deposits. This would affect a much larger share of the population and represent a more direct form of competition for 24 carat gold jewellery. However, even in this case, the effect might not be that extreme. So-called Wealth Management Products (WMPs) offered by banks typically pay rates of 6%-plus and have boomed as financial intermediaries; wealthy savers and the credit-starved have found ways to circumvent official controls on interest rates and lending. The extraordinary growth in these products, which according to the China Banking Regulatory Commission exceeded RMB9tn (US\$1.6tn) at the end of September 2013, has not stopped the boom in 'pure gold' jewellery demand. Moreover, when it comes to interest rate liberalisation for ordinary savers it is unlikely that the authorities will permit this to happen quickly or that, in any case, rates would be allowed to float higher purely in line with market forces. And any impact interest rate liberalisation may have is unlikely to affect rural savers with limited access to banks, whose preferred form of saving is likely to continue to be gold

Until 2004 the purchase of gold investment bars by private individuals was not permitted in China. Coins and gift bars were an imperfect means of circumventing these restrictions. The change in legislation after this date gave banks an opportunity to create a mass market for gold bullion products. In only a few years they have overseen an explosion in demand for gold bars, with purchases in 2013 estimated at no less than 366t. While most buyers of 24 carat jewellery are acquiring a product that fulfils both adornment and investment criteria, the chief motive for a minority will largely be investment. This group could be persuaded to switch away from 'pure gold' jewellery by the lower mark-up on bars and, increasingly, their more efficient secondary market. An investment bar of standard weight, sold through a major bank on a low margin on its gold content, with a guaranteed buy-back, is undoubtedly a more 'efficient' form of gold investment than 24 carat jewellery, ignoring the latter's aesthetic appeal. As more bank branches offer bullion bars and an increasing number of jewellery retailers also sell these products, it is expected that some potential buyers of 'pure gold' jewellery will migrate to investment bars.



24 carat gold wedding gift jewellery – a European crown style hairpiece, and hair pins for the bride.

Expansion in retail and, especially, manufacturing capacity will slow in the next few years reducing its support for market growth.

'Supply side' expansion will be much less of a supportive factor than it has been over the last few years. It is probable that the frenzied pace of new store and outlet openings will slacken somewhat. Perhaps more importantly, increased competition at the retail level will 'weed out' the financially weak. In addition, the trade is forecasting the pace of consolidation to increase, particularly through mergers and acquisitions of regional chains. Nevertheless, even though the retail expansion will be less hectic there is still some room for growth in shelf space devoted to jewellery, above all in the third and fourth tier cities. In addition, there is a consensus among industry insiders that from a low level, on-line sales of gold jewellery will develop rapidly. Indeed, the World Gold Council is actively looking to support this market, having launched lovegold.cn in August 2013, to much success.

When it comes to the manufacturing base, it is probable that expansion will be far more limited in 2015-17 and there could even be some attrition following the surge in capacity last year. Overall, therefore, the 'supply side' of the jewellery industry should develop at a moderately positive pace for jewellery fabrication demand, both in terms of making product available to consumers and in the form of a somewhat higher level of trade stocks.

Jewellery consumption will rise further by 2017 but underperform GDP growth and consumer spending over the same period. Consumption is forecast to reach 780t, which would represent a rise of nearly 17% over the current 2013 figure.

To sum up the medium-term outlook, it is very probable that jewellery consumption growth will slow markedly compared to 2010-13. Whereas during the earlier four-year period demand

comfortably outpaced GDP growth and the general rise in consumer spending, the expectation is that over the next four years jewellery consumption will underperform these measures. An important reason is the base effect: 2013 was an exceptional year. In addition, conditions over the next few years may not be as favourable as they were in 2010-13. Relatively low RMB gold prices compared to 2011-12 and real income growth will provide support for gains in demand but against this trade expansion will slow and competition for jewellery will, at the margin, increase (particularly from bullion). The forecast also recognises the probability that GDP growth will be below current consensus levels of around 7% per annum (in annual average of 6% is assumed instead). This is because the rate of growth will be lowered by the costs of gradually shifting the economy from an investment and export led model to a more consumer-driven one. Although the end result of this process is likely to be favourable for jewellery demand over the long run, the transition could create instability. In particular, at some point over the next four years the 'credit bubble' in China may burst and this will result in significant headwinds for the economy.

In spite of all the challenges listed above, the forecast for jewellery demand over 2014-17 still shows good growth for the period as a whole. By 2017 consumption is expected to reach 785t and rise by just over 17% from 2013's high watermark. (The forecast increase in value terms is about 20%.) Because of the lofty benchmark in 2013 and limited growth prospects in 2014, the increment by 2017 is 'just' 116t above the current estimate for Chinese jewellery consumption last year, which was 669t. This compares to the increase of 216t between 2010 and 2013 and the 132t gain recorded in the 2006-09 period.

Investment

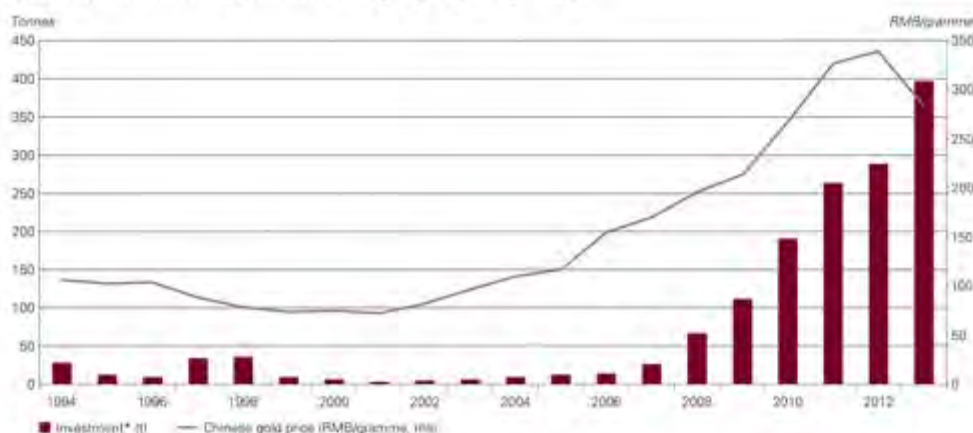
Since investment in bullion was permitted in 2004 demand for bars and coins has soared from a mere 10t to 397t in 2013. This phenomenal increase is connected to the relatively limited set of investment options for savers in China. It is also a reflection of investors' desire to diversify assets away from an over-reliance on volatile equities, illiquid property and bank deposits that pay negative real rates of interest. We judge that medium term prospects are very positive and demand could reach close to 500t by 2017, although in the meantime we expect 2014 to be a year of consolidation.

Introduction

Bullion investment was effectively prohibited in China from 1950-2004. Today the country is the world's largest market for gold bars, in part because of successful development initiatives by the major banks.

In 2004 the PBoC authorised the purchase and sale of gold in bullion form among private persons for the first time since 1950. In the decade since this historic decision China has become the world's largest market for gold bullion. In 2013 an estimated 397t of bars and coins bought by local investors accounted for around 23% of global physical investment demand (Chart 15).

Chart 15: Chinese investment* demand and the gold price (RMB/gramme)



*Investment includes total bar and coin demand.

Source: Shanghai Gold Exchange, Thomson Reuters GFMS, World Gold Council

These data show investment in China was initially quite modest following market liberalisation. It took some time before products were developed and networks established by local refiners and banks to take advantage of the new regime. Likewise, investors needed to be persuaded of the merits of investing in gold bullion, which, unlike jewellery, had not been available in China for several generations. In fact, it was not until late 2005 that the Industrial and Commercial Bank of China (ICBC) and the SGE launched the first spot-trading product for private investors, known as *zhengjin*. In December 2006 China National Gold Group (CNGG) launched the first gold investment bar traded in line with prices on the SGE, with a guaranteed buy-back.⁴⁸ (Even today the buying back of bars is limited in terms of the outlets or bank branches offering this service, although the number is growing.) At the same time a range of bars had started to appear in jewellery stores, the majority of which were aimed at the gift market and were therefore sold at relatively high mark-ups. It took a while for a genuine investment bar market to develop and, in this regard, the major banks, especially the ICBC, played a critical part in developing the necessary infrastructure through their branch networks and in promoting branded investment bars of various sizes to their customers.

A full range of 9999 investment bars is now available through an increasing number of bank branches and jewellery stores. The bullion market is dominated by investment bars, although there is also a market for higher-price 'gift bars'.

Currently a full range of small investment bars is available to investors primarily through many thousands of bank branches, but also at jewellery stores and, more recently, via the internet.

These products are 9999 bars ranging in size from 1g through to 1kg and sold at low premiums over the SGE price. The most popular sizes are reported to be 50g and 100g. Coins are traditionally far less popular than bars in China and not so widely available, although an exception to this is the Chinese Panda bullion coin, which is often to be found on sale. (Total Chinese coin fabrication came to 39t in 2013, although some of this would have been exported.) The third 'leg' of the physical investment products available to Chinese consumers is that of 'gift bars'. These bars are still produced in 9999 gold, usually in standard sizes but also in traditional tael weights, and are distinguished by their beautiful finish and the motifs they sport. Particularly popular in the latter case are the prevailing Spring Festival symbols: for example in the current Lunar New Year horses are the favoured animals. Although 'gift bars' are distributed mainly through jewellery stores, some banks also offer these products. Gift bars are usually sold on a per gramme basis but on a substantially higher spread over the spot price than investment bars of the same weight.

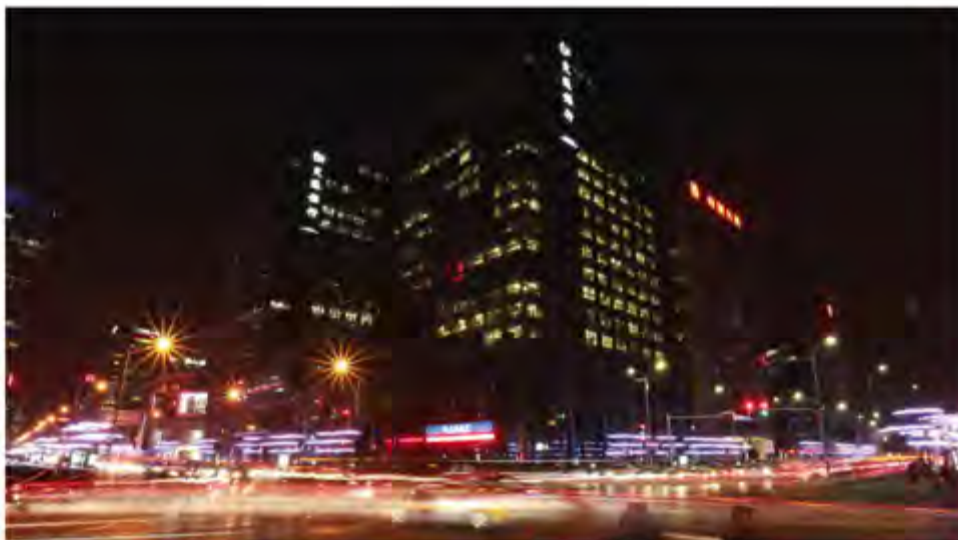
The bar market by weight is increasingly dominated by investment bars, as local investors prefer the lower mark-up, standardisation and security of these branded products. Gift bars' share of the total also declined considerably in 2013 due to the government's anti-corruption programme. Indeed, the volume of gift bars is believed to have dropped last year in absolute terms as well as in their share of the overall bar market. Estimates vary considerably, but Precious Metals Insights judge that gift bars accounted for less than 20% of the 366t bar market in 2013. It should be noted that a fair part of the investment bar demand is essentially for gifting purposes, be that family or social occasions.

Gold Accumulation Plans have proved to be popular since their launch in December 2010, while gold ETFs – launched in July 2013 – have not met expectations.

The commitment of the banks was also a necessary condition for Gold Accumulation Plans (GAPs) to be successfully developed in China. In December 2010 ICBC, with the support of the World Gold Council, launched the first GAP, which was aimed at ordinary savers who were interested in regularly accumulating a certain amount of gold at the bank, with the option of eventually taking delivery of the precious metal in bar form. ICBC's GAP has proved very popular and the bank continues to roll out the product to more of its 17,125 branches across the country. Four other banks have since launched similar GAPs as have some large jewellery retailers, such as Beijing's famous CaiBai store. It is thought that the total amount of gold represented by these GAP products nationally now exceeds 60t⁴⁹ and is owned by over ten million customers.

In June 2013 the China Securities Regulatory Commission gave permission for two Shanghai-based asset management

companies, HuaAn and GuoTai to launch domestic gold ETF products. Much time had been spent on designing a gold ETF that would appeal to investors while respecting financial legislation that forbade the direct linking of securities to physical commodities. The solution was to link the ETFs to spot gold contracts traded on the SGE rather than directly to bullion sitting in a vault. On 18 July 2013 the HuaAn and GuoTai gold ETFs were launched on the Shanghai Stock Exchange, with China Construction Bank and ICBC the custodian banks responsible for backing the products with spot metal. The ETFs' shares are quoted in yuan and each share represents 1/100th of a gramme of gold. For both funds the minimum investment is 300,000 shares (equivalent to 3kg) and the maximum annual management fee is 50 basis points. At the end of 2013 the size of the HuaAn fund was 2.4t and the GuoTai fund 0.4t.⁵⁰ In both cases the size of the fund has declined since the launch in July. More recently, in December 2013, a Shenzhen-based asset management called E-Fund launched an ETF and many market participants expect this market to grow.



The financial district in Beijing.

⁴⁹ World Gold Council.

⁵⁰ Morningstar.

Chinese investors have to-date shown a preference for ownership of physical bullion as opposed to 'paper products', but the latter may prove to be more successful when China starts to develop a larger and more sophisticated institutional investor base.

Clearly these funds have not met expectations – the targets for initial funding were RMB 2.3bn for HuaAn and RMB 1.6bn for GuoTai. This is in part due to the fact that these products are aimed at institutional and high net worth private investors. It appears that the negative gold price trend and the related drop in high profile 'western' ETF gold holdings during most of 2013 may have put off such potential investors. In retrospect, the timing of these Chinese products' launch was unfortunate. The general widespread investor distrust of the stock market following a number of especially poor years for equities will also not have helped the prospects for what is, after all, a security. In addition, in the last couple of years wealthier investors' attention has been focused on Wealth Management Products (WMPs), which offer attractive coupons and perceived low risk. (Rightly or wrongly, most investors believe that state-owned banks' WMPs are ultimately underwritten by the government.) Moreover, after the dull reception these gold ETF products received asset managers have shifted their attention to other funds within their stables.

It may also be that this type of securitised instrument, which is a hybrid between 'physical' and 'paper' gold is simply not appropriate for the Chinese market at the moment. This is a reflection on the type of gold investor currently active and the perception of risk they typically have. Most investors in China that look to own gold want it in physical form and in their own direct possession because of a lack of trust in third party custodians. This is why – notwithstanding the success of GAPs and other gold savings plans – the vast majority of gold investment in China is in the form of the direct physical purchase of bullion bars. (The reason why GAPs and similar products have taken off to the extent that they have is because they are



Customers in Changhuang jewellery store in Shanghai

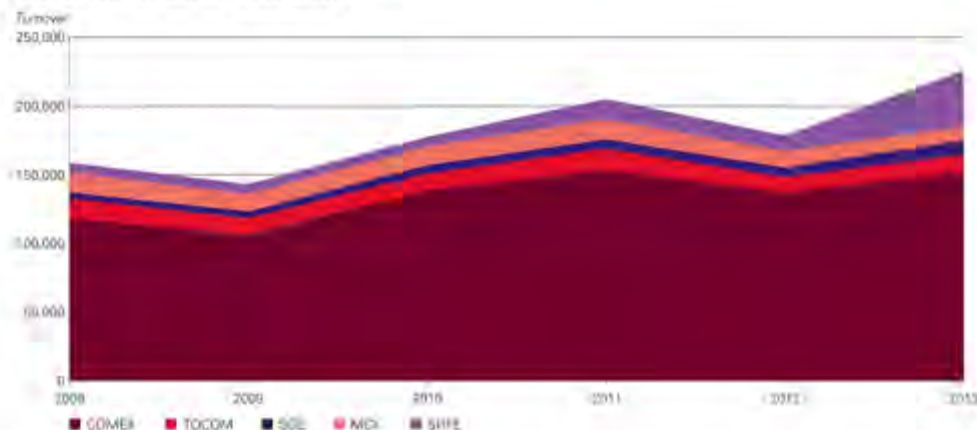
flexible, convenient and, crucially, marketed and provided by the large state-owned banks.) In spite of their poor performance to date, as China develops a more sophisticated institutional investor base it is probable that gold ETFs will start to attract more inflows, not only from dedicated gold or commodities funds but also from managers looking for portfolio diversification using gold-backed securities as their tool.

Speculative investment in gold, especially via the Shanghai Futures Exchange, has also grown tremendously in recent years.

A different type of private investor, or rather speculator, is active in the 'paper' markets, be that the SGE or, more notably, the Shanghai Futures Exchange (SHFE). By definition, in order to access these markets even through intermediaries the investors need to be large and relatively sophisticated. They are also usually taking positions based upon short-term price expectations. Unlike physical bullion where investors typically invest for the long-term, these are actively traded gold markets not 'buy and hold' ones. As explained below, these markets have thrived, experiencing a major jump in turnover in recent years. Gold is a very high profile, liquid and internationally-traded asset that Chinese speculators are increasingly keen to trade on domestic bourses, or even loco-London or Comex. These markets offer a less costly and more highly leveraged means of speculating on gold than, for example, ETFs.

The Shanghai Futures Exchange (SFHE) started trading a 1kg gold contract in 2008. In 2012, volume on the exchange exploded to a notional 40,176t, largely due to the introduction of evening trading hours. This still left the SHFE a considerable distance behind the Comex's 152,000t, although well ahead of the Toocom with its 12,225t turnover last year (**Chart 16**).⁵¹ The SHFE has 200 members of which 80% are Futures Commission Merchants (FCMs).⁵² Individual private investors cannot trade directly but do so via brokerage accounts with the FCMs. The majority of gold futures trading on the SHFE originates from private investors' orders through their futures brokers. Currently there are only two futures funds in China, which both launched in 2012, but another 16 futures brokers have been granted permission to apply for asset management licences. It is understood that their clients will be high net worth private investors.

Chart 16: Futures markets and SGE turnover



Source: Thomson Reuters GFMS

⁵¹ Thomson Reuters GFMS

⁵² Shanghai Futures Exchange

Clearly the SHFE is already providing an important platform for a very large number of Chinese investors to speculate on gold prices. The establishment of more Managed Futures Funds will probably further expand the number of clients that directly or indirectly trade gold futures. This is unlikely, however, to cannibalise much demand from the domestic physical gold investment market because the motivation of a holder of a long (or short) futures contract is typically quite different from that of the physical gold buyer. Similarly, the investment horizon tends to be very short term compared to the majority of physical bar and coin purchases, which are for long-term capital security and appreciation.

Shanghai Gold Exchange also sees a very large amount of private investor activity via the member banks' Agency Gold Trading.

The SGE opened on 30 October 2002. It is the sole physical gold trading market in China and all 'new gold' must be sold on the Exchange. The SGE's turnover has grown significantly since it commenced trading spot, and later spot-deferred, gold contracts. It has become an important platform for Chinese investors to take positions in gold, which they can do through opening accounts with commercial banks that are members of the Exchange. In July 2007 individual investors were allowed to start trading Au9999 and Au100g contracts via commercial bank intermediaries. (Prior to this a project had been piloted by ICBC but the minimum lot size of 1kg was a disincentive to private investors.) By 2010, according to the then Chairman of the Exchange, Mr Wang Zhe, some 1.8 million individual investors accounted for 18% of the SGE's gold trading. That year the SGE traded 5,715t; by 2013, it had grown to 10,701t.⁵³ The implication is that private investors have probably tended to increase their trading volumes on the SGE in the intervening period. Such Agency Gold Trading through financial institutions that are members of the SGE has been heavily promoted in recent years and offers investors a low-cost means of trading with an option to take physical delivery. Currently all the gold contracts on the SGE can be traded by individual investors with the threshold for transactions just 100g in the case of the Au9999 and Au100g contracts. Physical delivery is for a minimum of either 100g, 1,000g or 3,000g, depending on the contract.⁵⁴ However, it is clear that the majority of trading by private investors is not related to taking physical delivery but rather to leveraged speculation on the price.

Factors driving demand

Development of the supply-side infrastructure, making products available to the public, has been essential for investment demand growth.

Supply side developments have been essential for the growth of the investment market in China. If it were not for the commitment of the banks and others like CNGG to the development of this market it is probable that demand would have stagnated at a much lower level. The infrastructure and products created by these stakeholders, in several instances with support from the World Gold Council, has in a short time transformed the gold investment market in China. Currently investors in China can purchase gold bars on the telephone, via the internet and at over 100,000 bank branches.⁵⁵ An increasing number of China's estimated 100,000 jewellery stores⁵⁶ now also offer investment as well as gift bars. And this network continues to grow, making bullion products available in parts of the country where formerly they were absent.

The Chinese people have a deeply ingrained fear of inflation due to bouts of hyperinflation in the country's turbulent past. The inflation spike in the 1990s led to an increase in unofficial demand for bars.

But of course the boom in investment demand could not have occurred solely due to the 'supply push' referred to above. Latent demand for gold bullion existed in China well before the market was opened in 2004. This is apparent from the level of bar demand in the 1990s, which in certain years reached quite significant numbers in spite of the government's prohibition of such activity. It should also be noted that 'pure gold' jewellery during this period was, for many local investors desperate for an inflation hedge, the best available proxy for bullion (Chart 8 in the section on Jewellery).

53 Thomson Reuters GFMS.

54 Shanghai Gold Exchange.

55 World Gold Council.

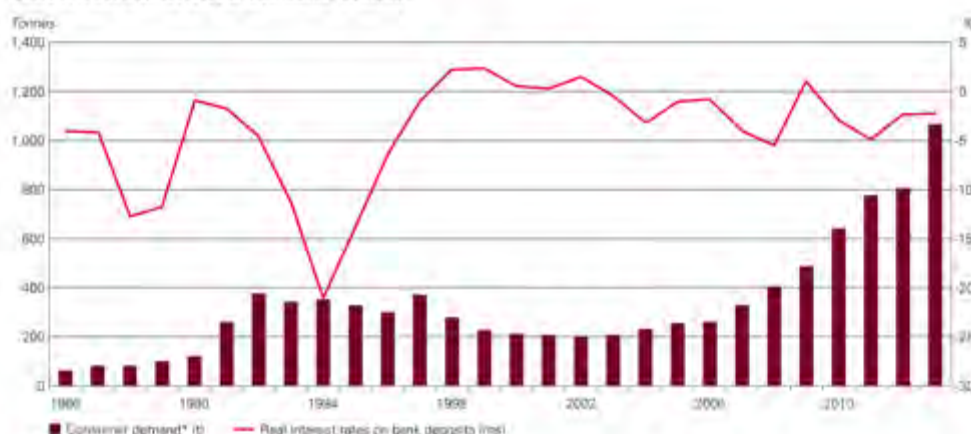
56 China Gold Association.

Fear of inflation is in fact one of the major factors behind the growth in domestic investment demand seen since 2004. In China there is to some extent a German-style popular memory of past hyperinflation that continues to influence attitudes and behaviour today. The reference here is to the hyperinflation that occurred in the 1937-49 period during the Second Sino-Japanese War and the final stage of the subsequent Chinese Civil War. For a time money lost any real value and there was a resort to barter. Gold, silver and foreign currencies were the only means of preserving financial wealth. China again saw high levels of inflation from late 1992 to early 1996, with official figures showing an annual average peak of 24% in 1994.⁵⁷ Since then inflation has tended to remain under control, although with occasional higher blips, specifically in 2007-08 and 2011. However, there is a widespread belief that the official CPI measurement understates the true level of inflation in the country. Alternative measures of price rises, such as the GDP deflator, have from time-to-time supported this belief, notably so in 2010-11. Moreover, it is clear that food and housing costs have both generally been increasing well in excess of the headline CPI inflation rate. Indeed, it is perhaps surprising that China has not suffered from much higher rates of inflation given the explosion in credit and associated growth in money

supply over recent years. Investors are aware of this and have, in increasing numbers, looked to gold for protection not just against current moderate rates of inflation but also because they fear potentially much higher rates in the future.

Naturally, inflation is of particular concern when interest rates for depositors are low. In China the return on bank deposits is controlled and limited by state decree. Furthermore, until fairly recently, economic policy has explicitly favoured a high rate of investment in the economy as the principal driver of economic growth; in turn this is helped by a low interest rate environment that penalises savers and rewards borrowers. Indeed, in spite of talk of shifting towards a more consumption-driven economic model, since the end of 2008 and the onset of the global financial crisis China has seen both investment's share of GDP jump to a little under 50%⁵⁸ and a near tripling of credit outstanding to non-financial institutions⁵⁹ (Chart 3 in the section on Economic Development and the Gold Market). At the same time, even on the basis of official CPI inflation, real interest rates for savers have remained negative throughout 2010-13. This environment of ultra low nominal interest rates that are negative in real terms has underpinned the massive growth in demand for gold investment products (Chart 17).

Chart 17: Real interest rates and consumer demand*



* Consumer demand includes jewellery and total bar and coin demand.

Source: National Bureau of Statistics; Precious Metals Insights; Thomson Reuters GFMS; World Gold Council.

⁵⁷ National Bureau of Statistics.

⁵⁸ IMF.

⁵⁹ Bank for International Settlements.

The volume and growth of private savings in China is huge; gold's share of these is tiny.

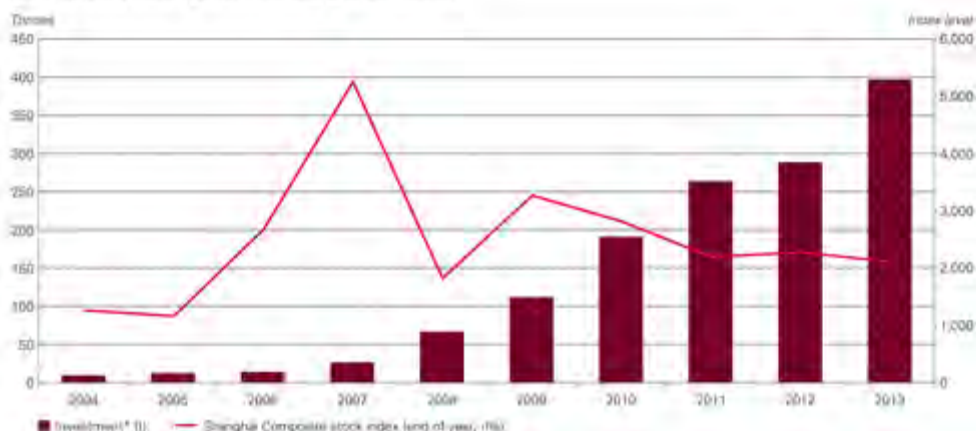
In spite of the trivial rates of interest available, Chinese households collectively increased their bank deposits by RMB 5.49tn (US\$87bn) in 2013 according to the PBoC. Indeed, the IMF estimates that urban households in China save on average close to one-third of their disposable income. The transformation of the country's economy has removed the former so-called 'iron rice bowl', which previously, on paper at least, provided cradle-to-grave security. The country has seen a massive reduction in the number of workers on the public payroll. It is estimated that from 1995 to 2001 some 65 million workers in State-owned and urban collective enterprises lost their jobs.¹⁰⁰ While the private sector has created enough jobs to absorb not only many of these workers but also new entrants to the labour force, these new positions come without the social benefits on which the previous generation used to rely. An updated social security system that fits the current economic realities in China is still a long way off. As such the public has had to raise its precautionary savings in case of illness, unemployment or to provide for old age, and the bulk of these savings are in bank deposits and real estate. From this massive and ever rising pool of savings, a small but growing portion has

been diverted into physical bullion and other gold products. However, in spite of this growth in gold investment, aggregate bullion holdings at the end of 2013 are estimated by Precious Metals Insights at a little less than 2,000t or some US\$77bn, representing just a tiny fraction of overall private savings.

Poor stock market performance has provided a boost to gold investment.

Gold investment has also fared well because of investors' disillusionment with the stock market. Following outstanding returns in 2006 and 2007 the Shanghai Composite Stock Index dropped by a huge 65% during 2008 (Chart 18) and, although it rebounded in 2009, the trend since then has been disappointing, with for example a 6.7% intra-year loss in 2013.¹⁰¹ Besides this, many potential private investors feel that the stock market is too easily manipulated and that losses have been disproportionately heavy for those who are not 'insiders'. Gold, in contrast, is regarded as an internationally-traded commodity much less prone to manipulation and with a clear underlying trend higher in its price. This has tended to benefit gold demand at the expense of investment in the stock market.

Chart 18: Stock market performance and gold investment*



Source: National Bureau of Statistics, Thomson Reuters GFMS

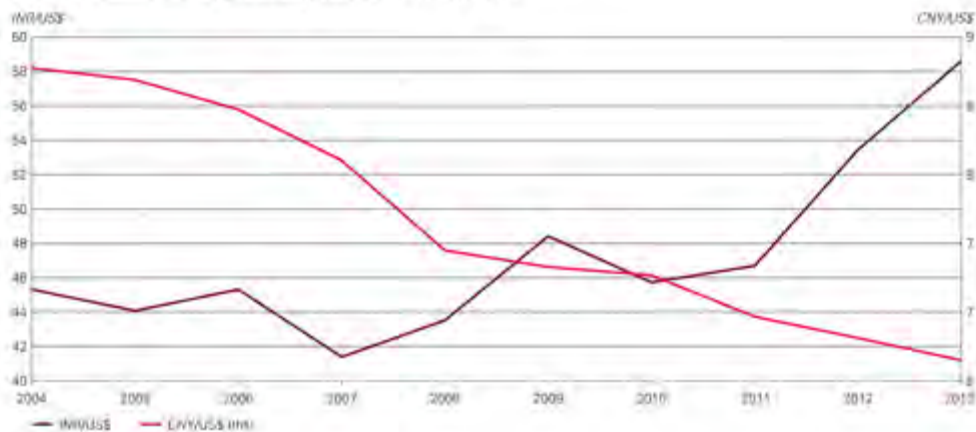
¹⁰⁰ National Bureau of Statistics cited in *The China Quarterly*, 2008
¹⁰¹ National Bureau of Statistics

The renminbi foreign exchange rate has not been a major factor influencing investment demand, although the drop in the RMB price last year was perceived as a unique 'buying opportunity'.

Given strict capital controls and the very limited circulation of US dollars or other foreign currencies in China, the general public is not nearly as sensitive to movements in the exchange rate as it is in other developing countries, such as India (**Chart 19**). While internal purchasing power of the currency is a major concern its external value has so far only been an issue for the very wealthy minority with assets abroad. This state of affairs is also related

to the tight management of the exchange rate by the PBOC, which has tended to permit a gradual appreciation of the yuan against the dollar in recent years. The strengthening currency took some of the edge off gold price rises between 2009-2012, which made jewellery a little more affordable. However, while China's currency remains non-convertible, the yuan's exchange rate seems to have had little impact on genuine gold investment, although it has certainly been a factor when it comes to the growth in purely financial arbitrage operations involving gold.

Chart 19: Renminbi and rupee exchange rates against the US dollar



Source: Bloomberg, Reserve Bank of India

The rising price of gold – in nominal RMB terms the annual average rose 3.5 times between 2003 and 2012 – has played an important part in the growth of investor demand for bullion in China (Chart 20). While the prime motive for gold investment is wealth preservation, not too far behind is the prospect for capital gain, even if that capital gain never needs to be realised. Interestingly, the close to 17% fall in the average renminbi price last year (-29% on an intra-year basis)⁸² did not demolish the bullishness on gold of most Chinese investors. This explains why the drop in price during April 2013 actually triggered a major lift in physical gold demand (for both bars and 'pure gold' jewellery): buyers saw this as possibly a 'one-off' opportunity to purchase gold at much lower prices.

Investors in China believe that US economic policies will eventually undermine the dollar and drive up the international price of gold.

The subsequent lack of a sustained recovery in the price will have challenged such optimism but, generally speaking, faith in gold remains intact despite a recent disappointing performance. Besides a traditional belief that in the long term gold must rise in price and preserve its real value there is a prevailing 'gold friendly' economic narrative, which is widely believed by Chinese investors. In essence, this is that the US dollar will inevitably be undermined by America's unsustainable growth in debt and by the huge growth in money supply and inflation that will eventually result from Quantitative Easing policies. This collapse of the dollar will naturally lead to a massive rise in the international price of gold. These theories fit well with the general world-view in China that America's post-Cold War hegemony is on the wane.

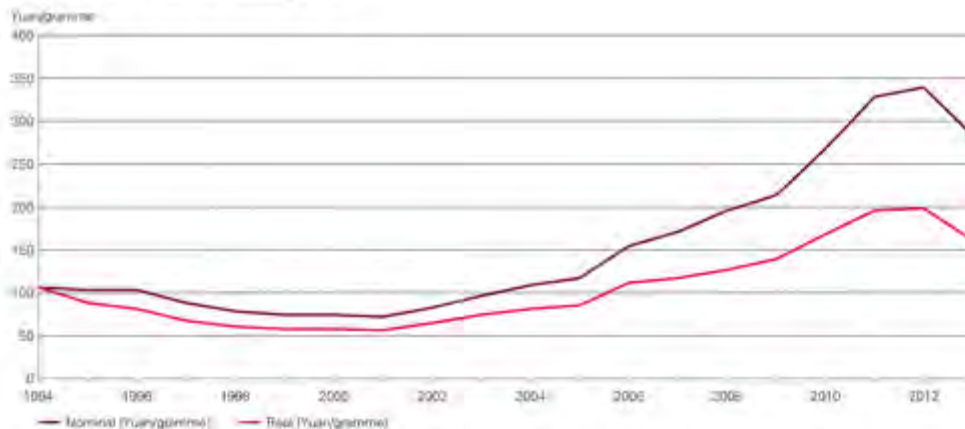
Outlook

Investment demand was an exceptional 397t in 2013, up 38% over the previous year. While this may drop back in 2014, it should remain well above 2012's level.

The 397t of physical gold investment in 2013 represented a 109t or 38% rise over the previous year's level, according to the latest data from Thomson Reuters GFMS. Looking ahead to 2017, what are the prospects for further substantial growth in Chinese physical investment?

First, it is worth noting that 2013 was a rather special year for demand, above all because of the particularly sudden and major drop in prices during April and June. This stimulated an above-trend increase in demand that is unlikely to be repeated in 2014. Second, even if Chinese investors remain a good deal more positive about gold's prospects than their peers elsewhere, it would be dangerous to assume that they are entirely sanguine about the negative price trend over the past 12 months. Furthermore, it is possible that stock market developments in 2014, in part related to the planned wave of IPOs (now the government imposed moratorium has been lifted), may take the shine off investors' appetite for gold.

Chart 20: Chinese real and nominal gold prices



Source: IMF WEO, National Bureau of Statistics, Precious Metals Institute, Shanghai Gold Exchange, Thomson Reuters GFMS, World Gold Council

⁸² Shanghai Gold Exchange.

Finally, although there is no way of knowing when or even if it may happen, the danger of a credit crisis in China is growing. A full-blown credit crisis could dampen gold investment demand, at least initially, because of the negative wealth effect it would bring in its wake. This all suggests that it may be difficult for demand in 2014 to beat or even match 2013's record level. More probable is some volume decline, even though the annual figure should still be well above 2012's outcome.

Medium term prospects are very positive; demand could reach close to 500t by 2017 although this is not without risks.

Over the medium term, in contrast, the prospects for investment demand are much brighter. Gold investment per capita is still low (just over 0.23g in 2013⁴¹) and in relation to growing personal income has fallen even further over the last twelve months. Financial reforms over the next few years are unlikely to change the investment landscape so radically as to substantially reduce the on-going rationale for gold investment. Investors will still have to cope with low and probably negative yields; they will continue to fear the potential for much higher inflation as a result of credit and money supply growth; and their access to foreign markets will still be heavily restricted – it is most unlikely that exchange controls would be lifted by 2017.

Furthermore, the ageing population's pool of savings will continue to grow and gold should benefit from this process (over the medium term China will still be some way from the demographic turning point that requires a running down of savings). This should be helped by the major banks' and other financial institutions continued commitment to developing their gold businesses. More bank branches offering a wider array of products requiring the direct or indirect purchase of physical gold will add to Chinese demand. In addition, some buyers will migrate from 24 carat jewellery to lower margin gold bullion products. An expected recovery in the gold price, even if it were not stellar over 2015-17, would provide further stimulation to the investment market. All this ought to mean that by 2017 investment demand in China should have risen to nearly 25% above its record level last year.⁴²

What are the major risks to this positive forecast for investment?

First, a worse economic or financial crisis than allowed for in the economic outlook could lead to a major destruction in wealth and collapse in liquidity, perhaps even resulting in the forced liquidation of gold assets by some investors. This is by no means impossible given the credit and housing bubbles that exist in China, even though such a crisis might just be the possible to major 'safe haven' buying of gold as was seen during 2008/09 in 'western' markets, and thus boost global gold demand.

Second, if the gold price downtrend were to continue over 2015-17 there is a risk that investors' faith in gold would be shaken. This danger cannot be dismissed but it is unlikely to result in a 'binary outcome', i.e. some investors would remain positive and others would take advantage of lower prices to buy more gold, even if the general mood became rather pessimistic and demand was hit.

Third, alternative assets to gold might become more attractive: the stock market may boom; real interest rates might become positive; alternative investments could blossom as capital controls are lifted and the yuan becomes a convertible currency. In the long run, it is true that the financial environment is surely going to become more competitive for gold as financial repression gives way to liberalisation. However, the authorities will ensure that financial reform takes place only gradually: so over the medium term the options for ordinary Chinese investors are unlikely to be all that different from those on offer today.

Finally, it is recognised that the development of the gold investment market in China has to-date been encouraged by the government and the Communist Party. It is unlikely but if, for whatever reason, the authorities were to take an anti-gold line then the consequences for gold investment would be extremely negative. An indication of this is the clear impact of the anti-corruption campaign last year, which put limited pressure on demand for gold ornaments and 'gift bars'.

Industrial demand

Over the next four years it is probable that there will be a moderate increase in other fabrication demand from 2013's 66t.⁶⁵ Driving this will be continued growth in China's GDP and industrial production, even if in both cases the advance is at a more modest pace than in recent years. Gold use is also expected to receive a boost from the production of basic semi-fabricated materials being relocated from other countries to China. Decorative applications should see more growth than electronics end-uses, as increases in the latter will be constrained by substitution to alternative materials in certain areas.

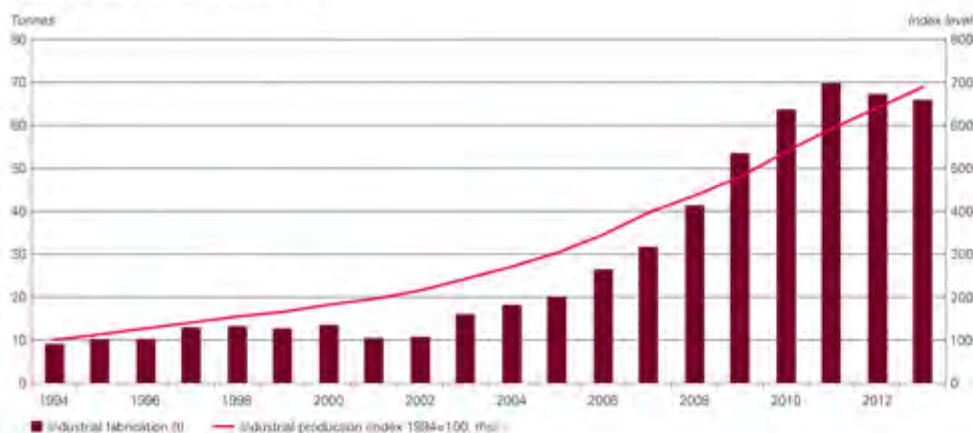
Overview

Industrial demand for gold has grown strongly but is tiny compared to jewellery and investment demand.

Gold use in a variety of industrial applications accounted for around 5.5% of total private sector demand and 8% of Chinese fabrication demand in 2013. Around two-thirds of industrial demand in China is related to electronics, with the balance largely required for a variety of decorative uses.

Overall industrial demand has grown strongly in the past decade, climbing from 16t in 2003 to around 66t in 2013. This is in line with China's rise to prominence as the world's manufacturing hub. Data on industrial production show the same trend, with output in 2013 over 2.5 times greater than it was in 2004 (**Chart 21**).⁶⁶ In the interim, China has become the world's dominant producer of electronics goods, the world's largest manufacturer of automobiles⁶⁷ and a growing centre for the production of branded luxury goods.

Chart 21: Chinese industrial fabrication



Source: Oxford Economics; Precious Metals Insights; Thomson Reuters GFMS; World Gold Council

⁶⁵ Precious Metals Insights estimate based upon Thomson Reuters GFMS data.

⁶⁶ Oxford Economics.

⁶⁷ China Association of Automobile Manufacturers.

Electronics

Electronics is the dominant source of industrial gold demand.

The transformation of raw gold into materials for the electronics industry has become an increasingly important business in China. Over the past decade the quantity of gold required for gold potassium cyanide (GPC) and, especially, bonding wire (GBW) has grown four-fold to 48t in 2012 (the latest data available). Major sources of demand for electronics using gold-plated components or semi-conductors with GBW are the automobile and the consumer electronics industries. Chinese automobile output has risen from 13.8 million vehicles in 2009 (passenger and commercial combined) to 22.1 million vehicles in 2013.⁶⁸ In addition, the number of electronics components per vehicle has grown considerably. Although manufacturers are always trying to reduce the cost of components and substitute gold with lower cost alternatives, this cannot be done where optimum performance and, especially, safety concerns are to the fore. Airbag connectors, for example, use durable and reliable gold-plated terminals. China produces over 1 billion mobile phones each year,⁶⁹ more than half the global total. On average each phone will contain around 0.03g of gold.⁷⁰ Loadings are on average much greater for laptops and other computers, which contain chips traditionally using GBW and circuit boards that are full of gold plated pins and connectors. China produced around 350 million computers and similar devices in 2012.⁷¹

Demand growth also reflects the relocation of production to China and, increasingly, local consumption of products.

But growth in gold electronics demand is not just related to output growth from these various industries. It is also a function of the shifting of components and materials production from other countries to China. In the past a large share of electronics components and gold materials, which were required by manufacturers in China, were imported from Europe, Japan and the US. For example, China would import most of the GPC used for electronics and decorative plating or bonding wire used for computer chips. This meant that the associated gold fabrication demand was located outside China. The past



Fine gold wiring is used inside microchips (bonding wire) and then gold plating on contacts and connectors.

(Copyright: World Gold Council)

decade has seen production of basic materials required for electronics components manufacturing increasingly move to China. This import substitution process has been driven by the search for greater manufacturing efficiency and permitted by the gradual elimination of the previously substantial quality gaps between materials produced in China and those produced in the advanced economies. It is also a reflection of the growing importance of Chinese domestic demand to the producers of these manufactured goods. For example, whereas in the past output of mobile phones was four-fifths plus for export, these days that figure has fallen to about two-thirds.⁷²

⁶⁸ China Association of Automobile Manufacturers.

⁶⁹ Ministry of Industry and Information Technology.

⁷⁰ Tech Page One, part of Del.

⁷¹ Ministry of Industry and Information Technology.

⁷² Display Search; Ministry of Industry and Information Technology.

Decorative uses

Gold use in decorative applications is mainly for electroplating.

China's use of gold in decorative applications has also risen four-fold over the past decade, reaching over 19t in 2012 (the latest available figure) and taking the country to first position globally, well ahead of South Korea in second place. Decorative gold demand is largely for electroplating that requires GPC as the intermediate product. A wide range of consumer products made in China are plated with gold, including belt buckles, watch cases, sunglasses and other fashion accessories. The jewellery industry also uses gold for flash plating of carat gold and costume jewellery and for electroformed products and ornaments. In most cases the output of plated articles manufactured in China has grown substantially. This is partly a reflection of burgeoning consumer demand abroad and in the domestic market. It is also because major international brands produce many of their less-expensive lines in China rather than in France, Italy or the US, where labour costs are a multiple of those in China. In addition, demand in China has grown because manufacturers of these goods are using more locally produced materials: formerly most of the GPC used was imported because the locally produced plating salts were of inferior quality. This quality gap has, to a large extent, now been closed and so there has been a shift to suppliers located in China.

Outlook

Demand over the medium term will depend on economic and industrial production growth, manufacturers' strategies and technological developments.

Economic development will be a moderately positive factor over the next four years. Official bodies such as the IMF expect an acceleration of global GDP growth following a subdued period in the wake of the global financial crisis. This should be good news for China's exports of products that contain gold. On the other hand, China's own GDP growth rate is expected to fall over 2014-17 compared to the previous four years. Just as importantly, the composition of Chinese GDP growth should shift towards a greater reliance on consumer spending instead of fixed investment as a driver. Together, these different international and domestic trends should still provide an environment conducive to growth in Chinese industrial demand for gold but probably less so than in the past decade.

Relocation of production will provide less of a boost to demand than it has in the past.

China should continue to benefit from some further relocation of manufacturing, both for finished products and components. Yet this is likely to be much less important than it was in the past 10-20 years. China's labour costs have risen such that other developing countries are now more competitive for certain low-end manufactured goods. Nevertheless, China's position in industries producing more sophisticated products such as automobiles and electronics is very strong and output should rise further, with this particularly related to the room for growth in domestic consumption of such goods. For example, mobile phone penetration and, above all, car ownership levels in China are still low compared to developed countries.

The urbanisation of China will also continue at a steady rate. However, it would seem that in some more mature industries at least, the period of most rapid advance has passed. Industrial production growth will slow in future even if the base is of course now much higher. Finally, there is some scope for domestic manufacturers to source gold-specific materials locally rather than from overseas, particularly GPC, although much of this has already been done. On balance, therefore, the relocation of production to China will be less of a driver of industrial gold demand than it used to be in the past.

Substitution and economisation will limit growth in electronics demand. But, over the medium term, industrial demand should increase modestly, with most of the gain coming from growing use in decorative applications.

Technological change is more of an issue for electronics than decorative demand. It is in electronics where there is a threat from substitution and, to a lesser extent, economisation in

gold use. Recent years have seen increasing substitution of GBW by more economical copper or palladium-plated copper wires. This trend will continue. Furthermore, where substitution may be impossible manufacturers are generally trying to economise in their gold use. Surface areas plated or plating thickness tends to decline over time. Technological developments will therefore provide an important 'headwind' to further growth in gold use in electronics.

To sum up, it is probable that Chinese electronics demand for gold will, at best, only see limited gains in the next four years. Decorative uses, on the other hand, should perform far more strongly because of higher demand for gold-plated articles and fittings and an increase in jewellery plating and electroformed jewellery production.

Official sector

China's official monetary gold reserves, according to data supplied to the IMF, totalled 1,054t at the end of 2013. This figure has been unchanged since 2009, when reported gold reserves jumped from a long-standing level of 600t. Notwithstanding this picture of stability, in recent years there has been much speculation over whether China may have increased its official gold holdings. This has been encouraged by the juxtaposition of China's very low share of gold in its total reserves (just 1.1% at market prices at end 2013) and occasional 'pro-gold' and 'anti-dollar' statements from senior officials and other important personalities in the country. In addition, the large and growing apparent 'surplus' in the local market, after taking into account supply, demand and net imports, has been suggested as pointing to unreported accumulation of gold by the state.

Introduction

China's outsized-exposure to the US dollar compels it to diversify its reserves; increasing its gold holdings would help this process.

China's weight in the international monetary system has grown substantially and will increase in the future as the yuan becomes more internationally tradable in the run-up to an eventual lifting of foreign exchange and capital controls. According to the Bank for International Settlements, the yuan is now the world's ninth most traded currency, although US\$/CNY volumes are still tiny compared to the largest currency pairs such as US\$/EUR and US\$/JPY. China's semi-fixed exchange rate and intervention policy is one of the main reasons behind its accumulation of reserves. In addition, the world's largest trading nation still invoices mainly in US dollars, although from a low base more of its trade is being settled in yuan. This fact, coupled with China's massive trade and current account surpluses, has resulted in the country amassing a huge stock of US dollars.

In the past, these have usually been recycled back into US government debt obligations. However, in recent years, America's growing public debt, and experimental monetary policy, namely Quantitative Easing (QE), has likely stretched the patience of its largest creditor. Indeed, there is a school of thought in China that US policy is a deliberate attempt to place the burden of economic adjustment onto other countries and to maintain its strategic hegemony. For some vocal intellectuals and policy-makers China's response should be to reduce its exposure to the US dollar and diversify its foreign exchange reserves.²³ A greater role for domestic consumption, as opposed to exports and investment in Chinese GDP, would also reduce the country's vulnerability to the world's largest debtor nation. Gold clearly has been assigned an important part in this process. It is no coincidence that the government looks favourably on domestic gold purchases by the general public. There is also much speculation that the pro-gold policy of the authorities goes beyond encouraging the development of the domestic market and includes the acquisition of gold by the state itself.

²³ For example, speech by Jun Zhongxue, former President of CNGG and CGA, 28 June 2013; Xinhua commentary, 13 October 2013.

Historical and current situation

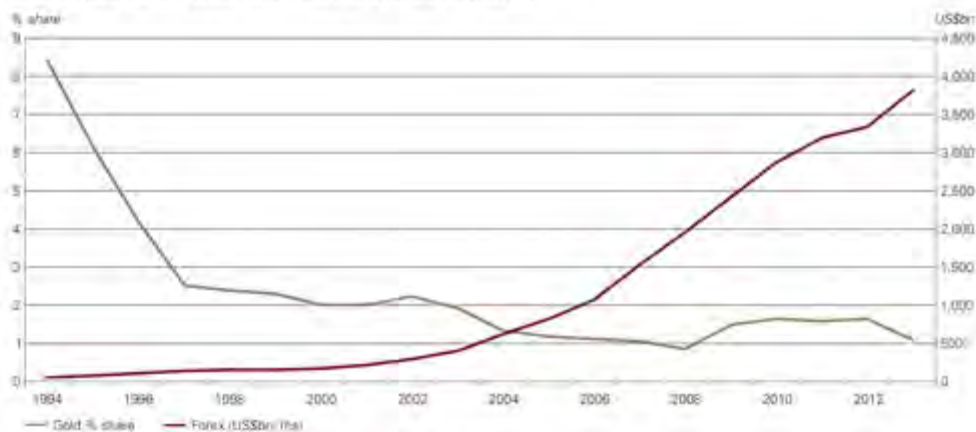
Successive years of large current account surpluses have resulted in a build up of foreign exchange reserves, some US\$ 3.8tn at the end of 2013.

China's foreign exchange reserves totalled a mere US\$2.3bn at the end of 1980, the year it assumed the country's seat at the IMF. By the end of 2013, in contrast, the figure had climbed to an astounding US\$3.8tn³⁴ (Chart 22). This transformation has come about because of the rapid economic development and opening up of the Chinese economy to the rest of the world, which was initiated by the reform programme over thirty years ago. Since then there has been a huge rise in its trade and current account surplus; as China has become the workshop of the world, the country has undergone an investment boom and domestic savings have exploded. The current account surplus peaked in 2008 at US\$420.6bn, equal to 9.2% of GDP³⁵. Since then it has declined sharply to a still substantial US\$169bn last year, although due to the much larger size of the economy this represented just 2.1% of GDP. The majority of the growth in

reserves implied by these surpluses was in US dollars as, until recently, nearly all trade was conducted in this currency. China used these dollars to buy American debt securities, mostly but not exclusively US Treasuries.

Managing these reserves is difficult. A recent paper by the Official Monetary and Financial Institutions Forum looking at the role of gold, the renminbi and the multi-currency system, discusses in detail the economic and financial challenges facing China and its monetary system.³⁶ In addition to these challenges, China's appetite for taking on more US dollar exposure has waned in recent years, particularly so since the global financial crisis and the beginning of QE. The perception is that the massive increase in the Federal Reserve's balance sheet will eventually result in a major increase in US money supply that, together with a return to rapid credit growth, will drive up inflation in the US, with the fall in purchasing power of the dollar for foreign holders being exaggerated by a steep devaluation of the American currency.

Chart 22: Gold share of total reserves and foreign exchange reserves



Source: IMF, People's Bank of China, Precious Metals Insights, World Gold Council

³⁴ People's Bank of China.

³⁵ State Administration for Foreign Exchange, Oxford Economics.

³⁶ For a more detailed analysis of the reserve management challenges China faces please see Gold, the reassembled the multi-currency reserve system by the Official Monetary and Financial Institutions Forum.

Increased political frictions with the US are also grounds for China to reduce its exposure to the US dollar. There are alternative reserve currencies, but they offer only a partial solution to China's 'diversification dilemma'.

In addition, China is wary of its over-exposure to US financial assets for political reasons. Geopolitical rivalry between the two countries has grown, with a particular focus being China's rising challenge to American dominance in the Pacific. The shift in America's military and diplomatic efforts towards Asia is a clear signal that the US is concerned about China's desire for more influence in the East Asian and South East Asian regions. Although it may be thought that the US is vulnerable to a 'buyer's strike' led by its largest creditor, China's leadership looks at the issue somewhat differently. In their view the creditor countries are more vulnerable to US unilateralism and de facto default, the latter exemplified by central bank debt monetisation and the policy goal of higher inflation to reduce the real value of debt obligations. China also views the principal global currency manipulator as the US. And, China has noted how the US has used its financial muscle and dominant reserve currency to impose sanctions to punish its enemies, such as Iran, North Korea and others.

For both economic and political reasons, therefore, China has sought to diversify its foreign reserves. However, this is not an easy task given the scale of its US dollar holdings and the lack of 'risk free' alternatives available. In part China has exchanged dollar assets for euros but it is also wary of the single European currency because of its inherent flaw of not being a single sovereign state and the associated risk of break-up. Such concerns have grown considerably since the sovereign debt crisis exploded in Europe in 2009. Even though the ECB has hitherto maintained a more conservative policy stance than the Fed, the euro is vulnerable to debasement as Europe struggles with severe and interrelated fiscal and banking crises. China has, in past years, purchased Japanese government bonds but because of Japan's huge public debt and fraught Sino-Japanese relations the yen is an even less attractive long-term dollar hedge than the euro. Other currencies, such as sterling, the Australian dollar or the Swiss franc, are too small to provide much in the way of diversification without over-concentrating risk in illiquid assets.



The People's Bank of China, Beijing.

China's gold market: progress and prospects

Diversifying into other assets is fraught with difficulties, but gold can clearly play a role.

The problem facing China is the sheer size of its reserves, which makes diversifying away from the US dollar into any other assets or currencies a difficult challenge. The impact of substantial sales of dollar assets to buy any other assets on a significant scale (not just gold) would potentially spill over into other markets. For example, it could easily have a negative effect on the value of China's remaining US dollar-denominated assets. Large-scale purchases of other assets for which the markets are less liquid, including gold, could easily drive up the prices of those alternative assets. When it comes to gold purchases specifically, China could be accused of manipulating its foreign trade account (as was Taiwan in the 1990s) and, more seriously, relations with the US could be harmed by a high profile dumping of dollar assets in favour of gold or even other currencies. China, therefore, would have to be very careful about any large-scale shift out of US dollars and into gold.

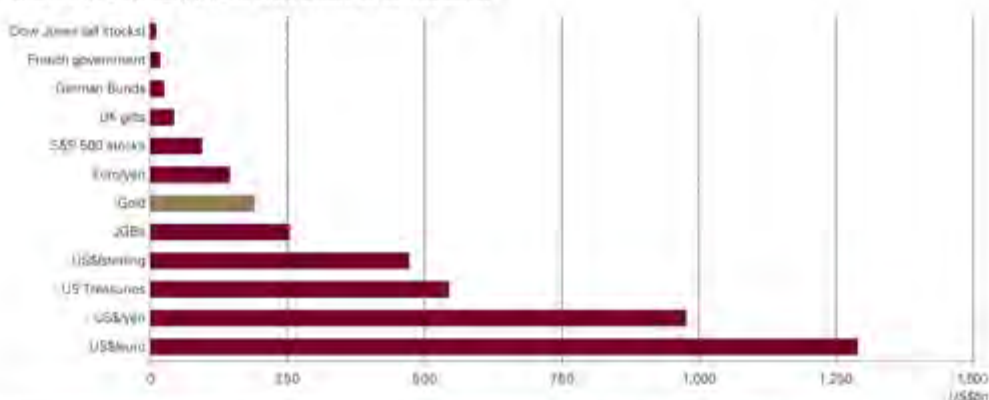
Nevertheless, the arguments in favour of diversifying into gold are strong. Gold is not subject to the same economic and political limitations that affect other asset classes. Indeed, it is an asset that is nobody else's liability. It cannot be created 'out of thin air' at the whim of central banks. Nor can it be

manipulated for the benefit of its issuer. It also has a long pedigree as a store of value that provides protection against inflation. While the gold market is relatively small compared to the dollar, euro, yen and, even the pound sterling, when considered against other assets for which it may be viewed as a substitute – including government bonds – it compares quite favourably.

China's leaders regard the public's gold holdings as part of the nation's reserves that could be called upon in an emergency.

One way that the authorities could try to square the circle would be for China to encourage domestic absorption of gold by the private sector. The reasoning would be that in extremis these 'reserves' held by the population could always be called upon by the state. (South Korea's mobilisation of the public's gold stocks during the Asian financial crisis impressed the Chinese.)⁷⁷ This strategy would also play to China's strengths: a huge population with a very high savings rate. Moreover, in the meantime it would bring the added benefit of reducing money supply and thereby inflationary pressures. This may help to explain why the state has to-date 'blessed' the rapid accumulation by the private sector of nearly 2,000t of bullion stocks.⁷⁸

Chart 23: Average daily volume in US dollars for various assets



Sources: Aurion Finance Tracker, BIS, Bloomberg, German Finance Agency, Japanese MOF, IMF, UK DMO, World Gold Council

⁷⁷ At the height of the Asian financial crisis in the late 1990s, the Korean Housing and Commerce Bank and a state-owned television station launched a gold collection campaign. Numerous Koreans voluntarily donated their jewellery or other valuables to the state. After just two days, the donations amounted to tonnes of gold.

⁷⁸ Precious Metals Institute.

Based on a declared stock of 1,054t China is the world's sixth largest holder of bullion but this only represents 1% of its total official reserves.

In fact, there have been three occasions in the recent past when China has reported a sudden increase in its official monetary reserves to the IMF. In 2001 reported monetary gold holdings increased from 395t to 500t and in 2002 to 600t (**Chart 24**). Then in April 2009 gold holdings jumped to 1,054t, a level that has been maintained since then through to the end of 2013. The most recent increase in reported gold holdings has led to China becoming the world's sixth largest holder of gold behind the US (8,134t), Germany (3,367t), the IMF (2,814t), Italy (2,452t) and France (2,435t).⁷⁹

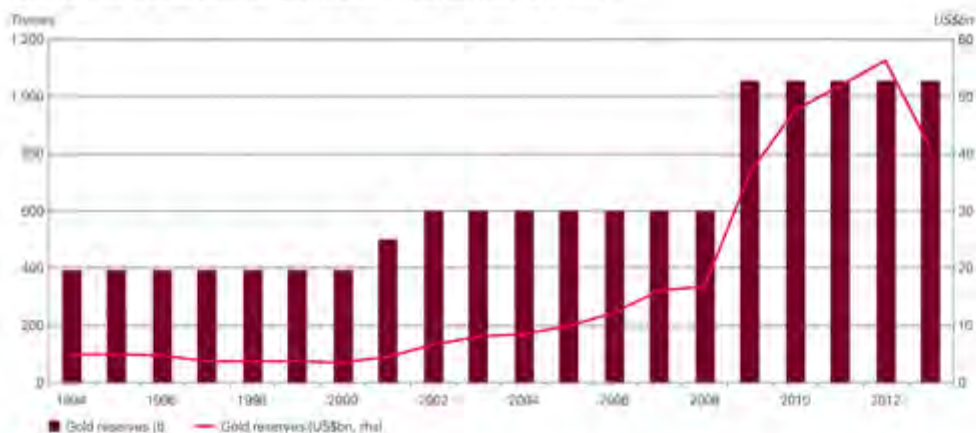
However, due to the much more rapid growth in the country's foreign exchange reserves, the share of gold in overall reserves has, in fact, declined, in spite of the substantial increase in gold prices over the past decade. In the early 1990s China's gold reserves represented between 14%-18% of the total but this figure dropped to just over 2% by the end of that decade (**Chart 22**). The 2% level was maintained in the early part of the last decade but then the growth in foreign exchange reserves outstripped the increase in the gold price such that the share of gold in total reserves fell to a low of 0.9% at the end of 2008. The increase in reported reserves in 2009, together with a recovery in gold prices, resulted in gold's share jumping to 1.5% at the end of that year. Higher gold prices in 2010-12 subsequently led to a small rise in this percentage, in spite of continued growth in China's foreign exchange holdings. However, at the end of 2013 gold's share of reserves had fallen to just 1.1%, due to a further substantial rise in foreign currency assets plus the valuation effect of the slump in the gold price.

The major increase in gold supply to the Chinese market in 2012 and especially 2013 could be partly related to large-scale official purchases.

Notwithstanding the stability of reported monetary gold holdings, there has been much discussion in recent years about possible Chinese official sector purchases. In part this is because of gold's low share of total reserves juxtaposed with frequent statements in the local media lamenting China's exposure to the US dollar and advocating a build-up in national gold stocks.

Between 2012-13 such speculation has grown because of the rising apparent surplus of gold in the Chinese market. As detailed in the section on Supply – page 49, in recent years supply of gold has risen even faster than demand because of a surge in bullion imports. This has fuelled talk of possible Chinese official gold purchases in the domestic market. Indeed, even taking into account very substantial amounts of financial arbitrage, gold exports, stock building and other phenomena, there still remains a large 'residual surplus' in the market, which some have interpreted as representing an implied build-up in official sector or state holdings of non-monetary gold. While it should be stressed that as of February 2014 there has been no acknowledgement by the PBoC or other Chinese authorities of an increase in national gold reserves, past practice suggests that any new data release would occur at a time of their own choosing and certainly not be in response to any market rumours.

Chart 24: China's official monetary gold reserves volume and value (end-year)



Source: IFS IMF

79 IMF

China's gold market: progress and prospects

Supply

Domestic gold supply consists of mine production and recycled gold. Although local supply has risen substantially in the past decade it has been outpaced by the growth of domestic demand. As a result, the Chinese market has swung from a small 'surplus' to a massive 'deficit', resulting in a huge rise in gold imports. Although China's bullion imports are distorted by gold required for purely financial operations and possibly, too, official purchases, the underlying increase in gold shipments to the country is genuine and related to real growth in demand from consumers and investors.

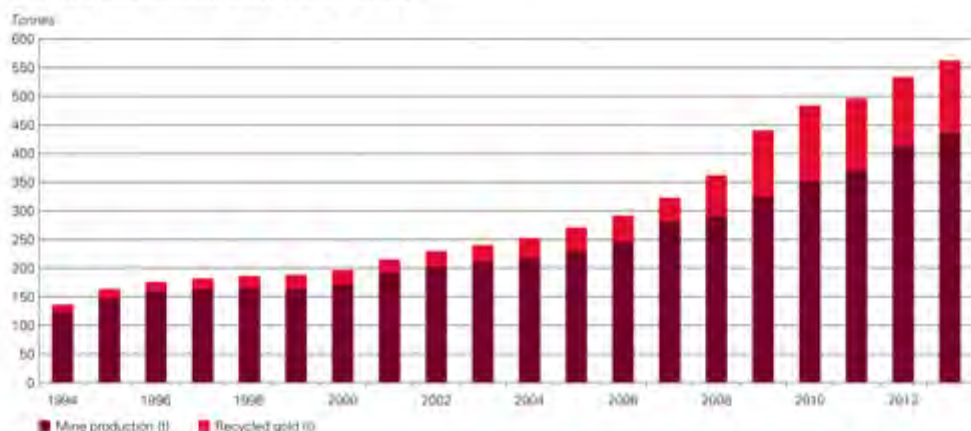
Introduction

The supply of gold to the Chinese market has grown massively in recent years, especially from bullion imports. In recent years total supply to the market has exceeded local demand for jewellery, industrial fabrication and bullion investment.

Supply of gold to the Chinese market comes from three main sources: local mine production, recycled gold and imports, the latter mostly in bullion form. Domestic supply has grown

substantially over the past decade, from some 137t in 2004 to 563t last year (**Chart 25**), driven mostly by a boom in mine production, although recycling has also increased over the same period. China does not regularly publish statistics on its gold bullion imports but based on Hong Kong and other countries' trade data and non-public domain sources it is clear that from a relatively low level these have increased considerably. Imports were particularly high in 2013, most of this gold being shipped from Hong Kong.⁸⁰

Chart 25: Chinese domestic supply of gold in tonnes



Source: Thomson Reuters GFMS, World Gold Council

⁸⁰ Only banks with PBOC-issued import licenses can import gold. They can only import LBMA good delivery bars and these must be traded through the SGE.

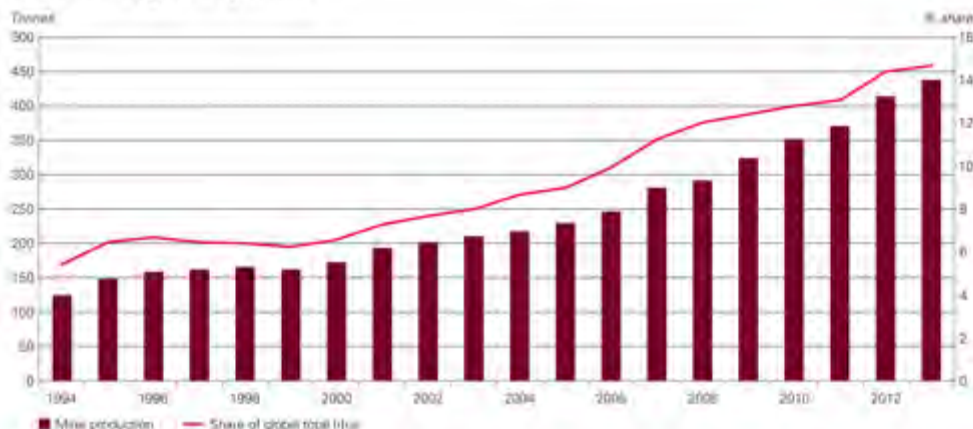
Up until 2010 the rise in imports was related to growth in demand outpacing increases in domestic supply. The widening gap between the two had to be filled by metal sourced from abroad. This is still an underlying cause of the growth in bullion imports to China. However, over the past few years the total supply of gold to the Chinese market has increased to well above the apparent level of demand from the private sector for jewellery, investment and industrial applications. As discussed later in this section, the resulting local market surplus is thought to be mainly the result of gold either being used in financial operations related to China's growing 'shadow banking' activity, or undeclared additions to the state's non-monetary gold holdings. To a lesser extent, domestic inventory accumulation by the jewellery trade and as a result of the banks' OTC products also explain this phenomenon. This has given rise to an increase in gold vaulting capacity in mainland China, especially in the Shanghai Free Trade Zone. As an example, in November 2013 Melca-Amit Global Ltd opened a 2,000 metric tonnes facility, almost double China's 2013 gold demand.⁶¹

Mine production

In thirty years China has gone from being a minor producer to the world's largest source of mined gold.

At the time economic reforms were launched in 1978 annual gold production in China was less than 10t per annum. Measures were taken to boost output including the setting up of the forerunner of China National Gold Group Corporation (China Gold Group) and the establishment of a special Gold Mining Unit of the People's Liberation Army (PLA) that was tasked with prospecting for gold and developing gold mines. These and other new policies, together with the investment in the sector provided for in the 1981-85 and 1986-90 five year plans, had by the early 1990s resulted in China's gold production rising to over 100t. This significant growth was eclipsed, however, by the more than 300t surge in output that took place between 1994 and 2013. In the past ten years alone production has jumped from 217 to 437t. China, which in 1994 accounted for a little over 9% of global mine production, became the world's largest producer in 2007 and has extended its lead, accounting for nearly 15% of global output last year (**Chart 26**).

Chart 26: Chinese gold mine production



Sources: Thomson Reuters GFMS

⁶¹ China has an extensive vaulting infrastructure run by the bullion banks. There are 68 vaults across 37 cities and these are actively monitored by the SGE.

Production in China comes mainly from over 600 primary mines in what is a fragmented market; the top ten producers account for about half of the country's output.

According to official production data for 2012,³² some 85% of gold mine production comes from primary mines and 15% is a by-product of other metals' mining. Primary output comes from over 600 mines the majority of which are very small, producing on average only about 300kg of gold each year. Nevertheless, the industry has seen a wave of consolidation and even some closures in the past decade. In 2002, for instance, the number of producers exceeded 1,200 (a figure back then considered by some to be very conservative). By 2012 the wave of consolidations resulted in the top ten producing companies increasing their share of the country's total official gold production to 49%, according to the Ministry of Industry and Information Technology (MIIT). It would appear that the single largest producer is China Gold Group, which in 2013 produced 39.4t from its own mines. (The company claims a 20% share of Chinese production but it would seem that this figure includes output from other producers that is refined by China Gold Group.) Shandong is historically the heartland of China's gold mining industry and it remains the largest producing province in the country. Zhaoyuan County is in turn the gold mining capital of Shandong and it alone hosts some 68 gold mines that in 2012 produced 33t. According to the MIIT, China's top five gold mining regions are the provinces of Shandong, Henan, Jiangxi, Yunnan and the autonomous region of Inner Mongolia, with these together accounting for 61.4% of official gold mine production in 2012.



Jinlong, an open pit and underground gold mine located in China's southern Guizhou Province.
(Copyright: Eldorado Gold Corporation)

³² Ministry of Industry and Information Technology, 2012, latest available data point

Production doubled in the past decade to reach a record 437t in 2013 but there are doubts it can be sustained at this level: the reserve base does not appear to support output of 400t or more per annum over the long run.

Although output was up by an estimated 24t in 2013 there are indications that the extraordinary growth in production recorded in the past three decades will not be maintained and that a plateau – if not a peak – might be reached in the next few years. This is due to the narrow and possibly declining reserve base, falling grades and rising production costs of the industry in China, plus the prospect of stricter enforcement of rules and regulations, especially environmental controls related to gold mining.

China's gold reserves are estimated by the US Geological Survey (USGS) to total just 1,900t out of the world total of 52,000t. According to this body, while China accounts for 15% of global mine production it holds less than 4% of the world's gold reserves. Alternatively, while the rest of the world's reserves accounted for an average of 19.7 years of production (based on 2013 output), for China this average figure was a mere 4.3 years. Anecdotal evidence is that exploration success in China, as in many parts of the world, has been conspicuous by its absence in the past decade. Although a narrow and declining reserve base would appear to be a genuine issue for many producers in China, other data suggest that China may not run out of gold so quickly. First, China's own gold reserves and resources statistics show much higher tonnages than the USGS data (which have remained unchanged for many years). The Ministry of Land and Resources claimed in 2012 that China's gold reserves were about 6,000t, while the China Geological and Mineral Survey Bureau estimated in 2008 that resources were in a 15,000-20,000t range. Second, some of the larger producers in the country report substantial reserves relative to their production, for example China Gold Group's 1,820t. And, finally, it is common for gold producers to develop resources

into reserves on an on-going basis in line with their mine plans. Usually, there is no need to spend large sums on proving up reserves that will only be exploited many years ahead.

Average grades have fallen, in part because small producers look to make maximum profits over the short term. And in common with other countries, costs have risen substantially in recent years.

Whatever their size, the quality of China's reserves does appear on average to be in decline. This is apparent from the admittedly sketchy but consistent anecdotal evidence pointing to a drop in average grades. Moreover, this drop in grades has not occurred through companies mining to a lower grade because of this, until recently, rising gold prices. Quite the opposite in fact: all the evidence is that the smaller operations in particular consistently 'high grade' their mines. This is because for many small-scale producers the objective is to get as much out of the mine as quickly as possible. A good example of the drop in grades comes from Zhiadyuan County, where the local gold industry management bureau stated in October 2013 that average grades have fallen from 4g/t in the past to around 2g/t currently. If this indeed were a generalised problem, then it would appear to represent a major threat to China's production continuing above the 400t level over the medium term.

Besides falling grades, producers in China have to deal with rising costs. Mining equipment, power, fuel and labour costs have all risen a good deal faster than average CPI inflation. In common with western mining companies, a rising gold price during 2002-12 alleviated the problem but now with gold prices substantially lower, average cash margins will have plummeted. There is a dearth of consistent data on production costs in China but there is little doubt that many smaller, inefficient operations must now be loss-making. It would appear that this could accelerate closures and shorten mine lives.

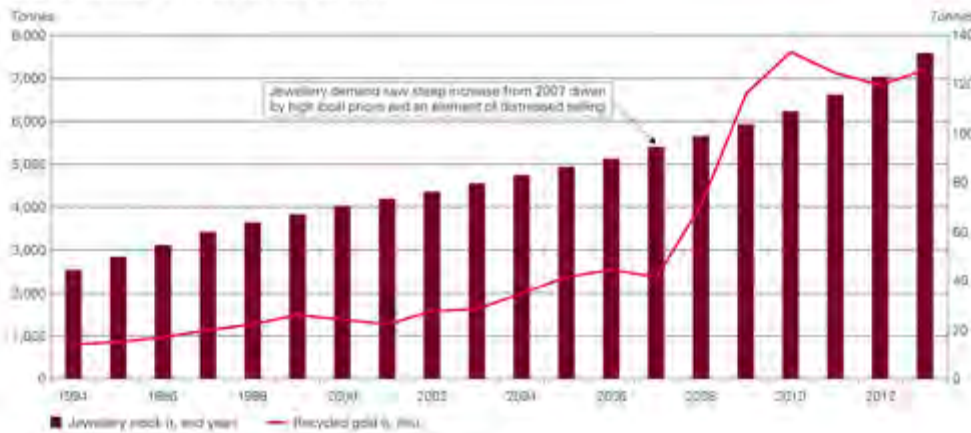
Scrap supply

Gold recycled from domestic sources is mainly from jewellery, whereas imported scrap is principally from electronics materials. The volume of domestic recycling has increased as China's stock of jewellery has grown.

Recycled gold in China is from two main sources: domestic, mainly jewellery scrap; and imported materials, mostly electronics scrap. There will also be a sizeable amount of process scrap (as opposed to old scrap) recycled mainly internally by the jewellery industry. The data for Chinese scrap should, in theory, exclude all process and imported scrap, the latter appearing in the statistics for the country of origin. However, as can be deduced from these different sources it is difficult always to be sure about the origin of scrap flows. For instance, even when refiners can segregate scrap from gold mine production in their incoming material an additional filtering for the precise origin of this scrap may be impossible. Complicating matters is the exchange by the public of old jewellery products for new ones – something increasing from a low base in China. Such exchange may be a closed loop or, less frequently, result in gold being recycled by a third party.

Whatever the potential shortcomings of the scrap data, it is not surprising that recycling has grown in recent years because of a combination of higher local gold prices and a rising stock of jewellery in the hands of the general public. Although average RMB prices declined in 2013 they were still 45% up on 2008's level. The country's jewellery stock has also grown considerably over the last 20 years. Back in 1994, jewellery stocks are estimated to have totalled a little over 2,500t whereas at the end of last year the figure was close to 7,600t, according to estimates by Precious Metals Insights (**Chart 27**). By 2017 the public's jewellery stocks are likely to have grown to not far short of 10,000t. The implication is that – independent of possible price effects – jewellery recycling is likely to grow in absolute terms. It may also see some trend increase as the fashion cycle speeds up and as a younger generation inherits pieces they do not care for. In both cases this should boost old for new exchange, which is the expectation of the trade in China.

Chart 27: Jewellery stock and recycled gold supply



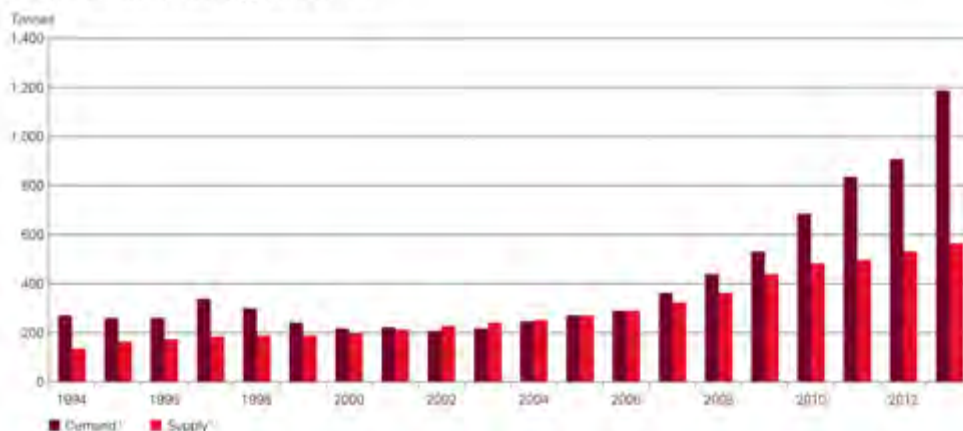
Source: Precious Metals Insights, Thomson Reuters GFMS, World Gold Council.

Since 2008 there has been a rapidly growing underlying 'deficit' in the Chinese domestic market that has had to be filled by imports, largely from Hong Kong, which is very well placed to supply China's largest physical gold hub Shenzhen.

Between 2000 and 2007 domestic supply and demand were evenly matched in China, both tending to grow at a moderate pace. Since 2008, however, jewellery and investment demand have increased more rapidly than local supply from mine production and scrap. This has resulted in a very large underlying 'deficit' emerging in the Chinese market (Chart 28), which has been filled by a steadily higher level of gold imports, mostly in the form of bullion shipments from Hong Kong.

Hong Kong is the most important gold entrepôt in the region. Moreover, Hong Kong International Airport is a mere 30 kilometres from China's most important gold manufacturing centre, Shenzhen. The SAR has top class transport infrastructure, logistics expertise and is one of the world's most important financial centres. Hong Kong is also home to countless Mainland Chinese companies' offshore enterprises and it is the most important centre for offshore renminbi trading. Hong Kong export data and other sources confirm that shipments to China from the SAR have exploded in recent years.

Chart 28: Chinese domestic supply and demand



* Demand comprises jewellery fabrication, bar and coin, and other fabrication

† Supply comprises mine production and recycled gold

Source: Thomson Reuters GFMS

Hong Kong bullion trade data captures the majority but not all of China's gold imports. These have surged in recent years; official shipments of bullion to China from Hong Kong alone reached 1,490t in 2013.

Official shipments of bullion from Hong Kong are not the sole source of bullion imports into China. For example, there are also growing direct flows to Shanghai that are mostly not picked up in the available bullion export data (the larger bilateral flows are from countries that suppress these statistics, although recent moves by the UK and Switzerland to report trade data should provide greater visibility). Such direct imports increased in 2013 from a very low base. Moreover, China is also importing a not insignificant amount of gold electronics scrap every year. To this can be added a further, although smaller, quantity from gold and silver doré and base metals concentrates that are refined in China.

It is clear from published statistics that China's imports of gold have soared in the last few years. Last year, in particular, saw exceptionally large shipments to China from Hong Kong, these rising to 1,490t from 830t in 2012.⁸³ Imports on this scale are

well in excess of what is required to fill the underlying 'deficit' that was discussed previously (Chart 28). This has inevitably provoked much discussion about what is going on in the Chinese market.

Before embarking on an answer to that difficult question it is necessary to bear in mind certain key facts about the trade data. First, data is incomplete: China does not publish bullion import and export statistics and nor do several of its trading partners. Second, not all relevant flows are captured in the available bullion trade data. Third, it is always important to analyse outflows as well as inflows of metal. China, for example, exports a substantial amount of gold, much of it in non-bullion form, as discussed in the section on Jewellery and the section on Investment. Aside from genuine exports, a good part of Hong Kong exports to China represents the 'round tripping' of gold that was previously imported.



Hong Kong harbour at sunset.
(Copyright: Corysta)

⁸³ Hong Kong Census and Statistics Department.

'Surplus' gold in the Chinese market

The 'surplus' in the Chinese market mainly stems from either possible official purchases or the extensive use of gold for financial operations.

As indicated above, gold imports exceed by some margin what is required to plug the local market "deficit" in China. Indeed, taking these imports into account the Chinese market effectively swings into a very large and growing 'surplus' during 2011-13. What then explains these apparent 'surpluses'? As suggested in the section on the *Official Sector* – page 44 – part of the explanation may well be official sector purchases of gold in the domestic market. These have not been confirmed by any official statistics but this would not be surprising as any gold that may have been purchased by the state could be classified as non-monetary holdings and not part of the formal monetary reserves. China would understandably only want to record any such purchases if and when they were re-classified and added to the official monetary gold stock.

Imported commodities are used in China for financing purposes – most notably copper but also, increasingly, gold. Restrictions on finance and lending have boosted this market.

While there is some uncertainty about whether there have been official purchases of gold in the domestic market, such doubts do not exist when it comes to the large-scale use of gold for purely financial operations in China. Restrictions on credit and cross-border capital flows create an incentive for the use of high-value, internationally-traded commodities as a means of bypassing such restrictions by both companies and speculators. Copper has been a very high profile vehicle for such activity.⁸⁸ In recent years gold has increasingly been used in a similar fashion, although this is much smaller and has received much less publicity.

The use of gold for purely financial operations is a form of demand that represents a small part of the much wider growth in shadow banking, which while entirely legal, is considered a grey area. Not surprisingly, there is little hard data on the shadow banking sector but J.P. Morgan recently estimated it at RMB46tn (US\$1.7tn), equal to about 84% of China's GDP.⁸⁹ No statistics are available on the outstanding amount of gold tied up in financial operations linked to shadow banking but Precious Metals Insights believes it is feasible that by the end of 2013 this could have reached a cumulative 3,000t, equal to a nominal value of nearly \$400bn.⁹⁰

Imported gold is being used via gold loans and letters of credit to raise low cost funds for business investment and speculation. Borrowers typically hedge the gold risk and there is no net physical market impact.

Most of this has been built up since 2011, when gold has been increasingly used as the basis for a variety of financial operations in China that have required the importation of very large quantities of physical bullion. These operations fall into two broad categories, although there is some overlap between the two. Firstly, there is the use of gold via loans and through letters of credit (LCs) as a form of financing. Secondly, there is the use of gold for financial arbitrage operations that will also be based upon gold loans or LCs. In most cases the gold is quickly re-exported to Hong Kong, often as very crude jewellery or ornaments to get round tight controls on bullion exports. (This is the practise commonly referred to as 'round-tripping'. Moreover, because nearly all gold flowing into China goes through the SGE, round-tripping can inflate the SGE delivery figures.) In other cases the metal is stockpiled in vaults in China or Hong Kong.

88. For example, <http://www.bloomberg.com/news/2013-07-16/china-copper-financing-gold-513405220220130215>

89. J.P. Morgan, Economic Research Note: To default or not to default: shadow banking in China.

90. Estimate based on total of metal accumulated over 2011-13.

in theory only jewellery manufacturers or others active in the gold trade can take out gold loans, although it appears that the rules can be circumvented either by setting up a 'gold enterprise' or by using the services of an existing company in the gold trade. The same is true for foreign currency LCs that are used to import gold. The gold borrowed/imported is usually sold spot and repurchased forward to create a synthetic currency loan well below market rates for cash. This is because the short-term interest rates on gold or Hong Kong/US dollars are well below renminbi ones and, moreover, the gold contango is very low. (Most users of these gold loans and LCs want to eliminate gold price risk.) In addition, it may be that it is not just the price of, but also access to, credit that is motivating the borrower: the firm may not otherwise obtain loan finance from the formal banking system. Gold loans or LCs used to import gold therefore offer wealthy individuals and companies a form of cheap short-term financing either for business or speculation. They can also be used to circumvent capital controls to bring funds into China. In some instances gold is being used as low-cost collateral by borrowers to fund financial operations in China.

Gold is used to raise funds for real estate purchases, speculation in higher yielding assets, and interest rate or currency arbitrage. Official sector attempts to rein in shadow banking have generally failed.

As mentioned above, besides its use for funding, gold is also being used for a variety of financial arbitrage operations and speculative investments. To some extent there has been some shorting of gold, although this does not seem to represent a large share of activity. (As mentioned above, positions are typically covered through gold purchases in the futures market.) Far more often gold is used to finance investment in WMPs or real estate, or to arbitrage interest rate differentials or those between on-shore and off-shore renminbi exchange rates. These operations are generally fairly short term as the term of the funds borrowed is almost always less than 12 months and may often be as little as one month.

The authorities have become concerned at the rapid growth in shadow banking and in its manifestations such as WMPs and commodity-based financing. Informal pressure in May 2013 led to some banks reducing the terms of LCs issued to jewellery companies. From 1 June 2013 new rules were introduced to tighten management of foreign exchange lending and the types

of clients with access to these loans. However, it appears that lenders and borrowers found ways to circumvent the new controls while still respecting the letter of the law. Indeed, the evidence points to a sizeable rise last year in the amount of additional gold liquidity required to fund the range of financial operations described above. It should be noted that attempts, more generally, to rein in shadow banking have not succeeded. In part this is because the interested parties find new ways of doing the same business. But it also reflects the dilemma facing the authorities as they try to lower risk in the financial system without reducing access to credit so much that they tip the country into a financial crisis and recession. In the meantime, unless either the PBoC cracks down more severely and effectively on commodity financing or the credit allocation and pricing system in China is improved, substantial amounts of gold may continue to be imported and tied up in financial operations.

Inventory accumulation by the jewellery trade and the banks absorbed some additional gold in 2013.

The final piece of the jigsaw explaining the surplus in the Chinese market relates to the more prosaic issue of stock building. As explained in the section on Jewellery, last year's significant increase in the number of jewellery manufacturers and retail outlets in China meant that there was a requirement for more work-in-progress material and start-up inventory to be put into new stores. In addition, following the clearing out of wholesale and retail jewellery stocks in the second quarter re-ordering was heavy, in part because of the trade not wanting to run-out of product as they did in April and June. Although the short inventory cycle in China will have limited the tonnage involved, evidence points to there still being a fairly substantial increase in jewellery trade stocks by year-end.

Chinese banks will also have wanted to avoid not having bars available for sale, especially in the run-up to Chinese New Year. While this seasonal effect is common every year and the banks do not want to hold idle gold balances, it appears that some further stock building did take place in 2013. Finally, the banks will have required additional bullion, that does not feature in the bar investment statistics for China, to support the financial products they sell. Most importantly in this regard would have been the additional tonnage required to back a sizeable increase in their aggregate Gold Accumulation Plan holdings.

Glossary

Agency gold trading

Private investors cannot trade gold directly on the Shanghai Gold Exchange (SGE). However, commercial banks that are members of the SGE offer agency gold trading products that allow private investors to trade gold contracts on the SGE via the banks' proprietary trading platforms. According to the Exchange in 2010 (the latest data available) private investors accounted for 39% of annual turnover.

First, second, third and fourth tier cities

Chinese cities are divided into four (sometimes five) tiers depending upon various economic, political and social factors. Higher prestige is associated with being placed in a higher tier. Moreover, membership of a given tier is not fixed for most cities. This helps to explain why there is no permanent official list based on standard criteria. Beijing and Shanghai have always been Tier 1 cities and they are currently joined by Guangzhou and Shenzhen. In the second tier are the municipalities of Chengqing and Tianjin plus provincial capitals like Chengdu and Kunming. The third tier typically encompasses prefecture cities (e.g. Foshan, Guilin, Tangshan) and the fourth, county level cities. According to a study by Deloitte, Tier 2 consists of some 34 cities, Tier 3 249 cities and Tier 4 366 cities.

Gold accumulation plans

Gold accumulation plans (GAPs) are savings plans that allow investors to regularly accumulate a specified amount of gold. Once a certain threshold is reached the investor can choose to take delivery of the metal. These plans are usually offered by financial institutions but some jewellery retailers also have similar GAP products.

Gold bonding wire

Gold bonding wire, usually referred to as GBW, is used in the semiconductor industry for chip to package wiring. Ultra-thin, usually 9999 fine, gold wires are still the most common interconnect technology but are being increasingly substituted by lower cost copper wires.

Gold loans

Loans where the principal is denominated in gold. The interest payment(s) may be in gold or settled in cash. Gold loans (also known as leases) are generally used for mine financing, manufacturers' working capital or speculation on gold. Sometimes, however, gold loans may be used for other purposes, especially when gold lease rates are well below money rates or if access to credit is easier through a gold loan.

Gold potassium cyanide

Gold potassium cyanide, commonly abbreviated as GPC or PGC, is a chemical compound, typically containing 68% gold. It is used in electroplating solutions for selective deposition of gold mainly in electronics or for decorative end-uses.

Investment bars/gift bars

Investment bars are 99.99% gold content (9999 fineness) ingots of standard weights (ranging from 1g to 1kg) that are sold on low mark-ups over the gold content. The majority of these bars are purchased for investment purposes, although some may be bought as gifts.

Gift Bars are typically 99.9% or 99.99% gold content (999 or 9999 fineness) ingots of both standard and non-standard weights (traditional tael sizes are also fairly common), which incorporate special designs or motifs and that are manufactured to a very high standard of finish. These bars are sold at premium prices. As such, they are usually purchased as gifts or for commemorative purposes.

Investment (in physical bullion)

Investment consists of the measurable, net private sector demand for bars and coins. It excludes over-the-counter (OTC) investment in gold, including through ETFs and similar 'paper' products.

Jewellery fabrication/jewellery consumption

Jewellery fabrication measures the amount of fine gold used in the local manufacture of jewellery during the period concerned.

Jewellery consumption measures apparent consumption at the trade level. It is the product of jewellery fabrication plus imports minus exports.

'K-gold' jewellery

'K-gold' jewellery is 18 carat jewellery (yellow or white in colour) of 75.0% gold content (750 fineness).

Letter of credit

Document from a financial institution guaranteeing (usually irrevocably) that a buyer's payment will be on time and for the full amount. Letters of credit (LCs) are typically provided by Chinese banks to authorised companies that wish to import commodities into China.

Mark-ups

Unless otherwise specified, mark-ups in this report refer to the gross margin over the value of the fine gold content of jewellery or investment products at the final retail sales level.

Mine reserves

The amount of resources that can be recovered from a deposit with a reasonable level of certainty using a basis of technical, economic and legal criteria. These criteria are partly subjective, which helps to explain different estimates of reserves for the same deposit or group of deposits, especially at an aggregate or country level.

Monetary/Non-monetary gold

The OECD defines monetary gold as gold owned by the authorities (or by others subject to the effective control of the authorities) and held as a reserve asset. Non-monetary gold is gold not held as reserves assets (monetary gold) by the authorities.

Ore grade

Concentration of gold in the ore, typically measured in grammes per tonne.

Private sector gold demand

For this report private sector gold demand is defined as the sum of jewellery consumption, investment in physical bullion and other fabrication demand (namely, for electronics and other industrial applications).

'Pure gold' jewellery

'Pure gold' jewellery, known as *24 Jin* in Putunhua and *Chuk Kim* in Cantonese is 24 carat jewellery, typically of 99.9% gold content (999 fineness). It is the mainstay of Chinese jewellery fabrication and consumption.

Shadow banking

Official controls on interest rates and on credit creation have led to the development of shadow banking in China. A number of different means are used by non-bank intermediaries (and indirectly by the banks themselves) to bypass the aforementioned official controls on the pricing and allocation of credit. J.P. Morgan recently estimated the size of the shadow banking sector in China as equivalent to 84% of country's annual GDP.

Special administrative region

The Hong Kong and Macao special administrative regions (SARs) are autonomous territories within the People's Republic of China that enjoy a high degree of autonomy. The Hong Kong and Macao SARs were formed at the time of the transfer of sovereignty to China from, respectively, Britain in 1997 and Portugal in 1999.

Tael

The tael is a traditional Chinese weight measure. In Mainland China since 1959 a tael has been equivalent to 50g. In Hong Kong one tael is 37.799g and in Taiwan 37.5g. Hong Kong's Chinese Gold and Silver Exchange Society trades a 100 taels 99 gold contract.

Wealth management products

The official cap on bank deposit interest rates (which is set at a low level) has encouraged banks and other financial institutions to develop wealth management products (WMPs) that offer much higher rates of return for those prepared to make a minimum investment in the same. Typically WMPs are off-balance sheet securities backed by a revenue stream from the interest and principal from one or more of the bank or financial institution's borrowers.

Key forecast assumptions

The forecasts for jewellery consumption and investment demand prepared for this report by Precious Metals Insights (PMI) are based on several key assumptions:

- Chinese GDP growth slows to an annual average rate of 6% between 2014-17. As the Chinese economy becomes larger and more mature its natural rate of growth will decline. Since 2009 the most important source of growth has been credit-driven fixed investment. This has become a less efficient means of generating additional gains in GDP. The transition towards an economic model where consumption plays a greater role in GDP is likely to result in lower GDP growth rates.
- Private consumption is forecast to grow at an average 7.5% per annum over 2014-17. The gradual shift towards a more consumption driven economic model will require the rate of private consumption growth to exceed that for overall GDP. Growth in private consumption will be constrained by an only slow decline in China's exceptionally high household savings rate.
- The probability of a financial crisis occurring over the medium term is considered high and growing. This risk stems from over-rapid credit growth and significant 'mal-investment'. A financial crisis is forecast to lower both GDP and private consumption growth over the 2014-17 period. (The precise timing and impact in any one year is impossible to forecast and so a loss of 2% of GDP is averaged out over the four years in question.)
- Inflation is expected to remain under control (below 5%) over the medium term but inflation expectations could well grow because of the massive monetary easing that would almost certainly be undertaken in the wake of a financial crisis occurring in China.
- No major change to the RMB exchange rate is forecast over the medium term. A modest appreciation is expected in 2014 but in 2015-17 there could be a shift to a moderate depreciation. This can be expected because (initially) there may be a period of general US dollar appreciation. In addition, a financial crisis may impact the renminbi negatively. The authorities could also use currency depreciation as a means of softening the blow from such a crisis, as this would assist the export sector.
- PMI's gold price assumption for this forecast is that 2014 sees a generally 'weak' trend. However, the expectation is that during the following three years gold prices will tend to recover, reaching an annual average of around US\$1,500 in 2017.

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