

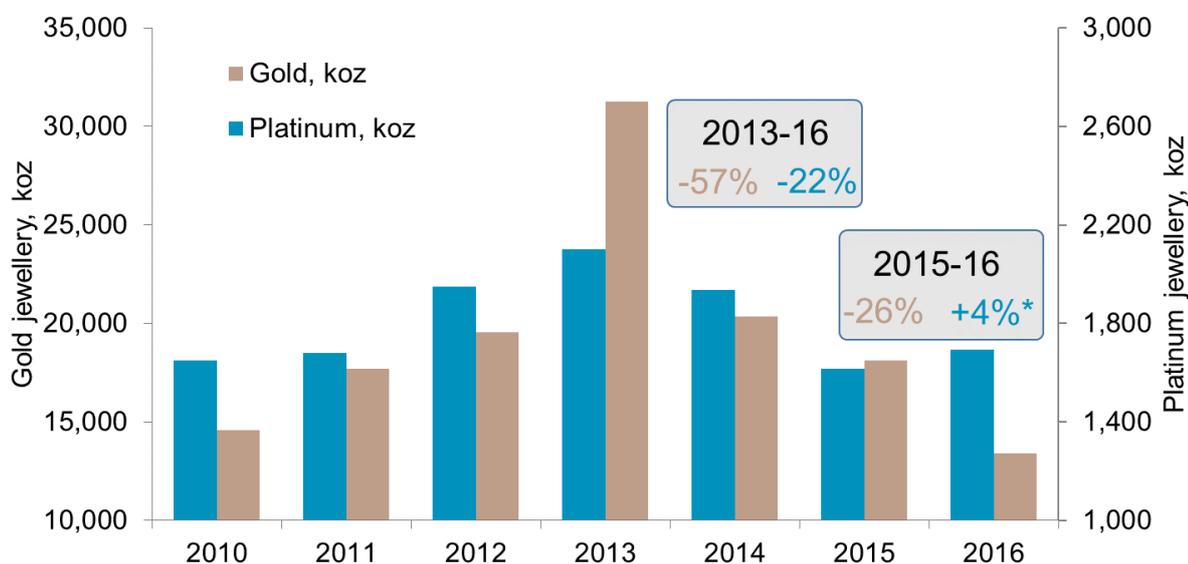
## Jewellery: Short-term platinum jewellery dynamics in China hide its demand growth potential

### Summary

Platinum mining companies have jointly funded global market development of platinum jewellery for more than 30 years. This growth stimulus continues today. This unique promotion of platinum jewellery, reinforcing its established brand equity, is likely to provide continued demand growth in the short and long term, particularly from the India and China markets. Estimated jewellery demand growth from 2013 to 2016 saw India increase by 15% per annum off a small base, and China fall by 8% per annum. This demand is defined as the metal purchased by jewellery manufacturers. Data representing absolute levels of platinum jewellery retail sales in China is not available. The decline in manufacturer buying has led to suggestions of a decline in platinum jewellery’s consumer brand strength.

Platinum jewellery value chain dynamics, peculiar to China in 2016, show that jewellery available for sale by retailers (i.e. retail ‘buy-in’) is far higher than manufacturer metal purchases. Also, Platinum Guild International (PGI)-commissioned survey results show that platinum brand strength remains high. Market and media comments suggested a decline in Chinese platinum jewellery retail sales in 2016 of between 3% and 20% based on the fall in manufacturer demand. However, the data published by Johnson Matthey (JM) in November 2016 indicates an increase in fabricated jewellery available for sale in 2016 of 4% (Figure 1). The fall of 57% in retailer sales of gold jewellery since 2013 has been largely due to the steep decline in sales of 24 carat investment gold. The dynamics of the platinum jewellery market in China are outlined in this note, together with their impact on 2015, 2016 and 2017, using Johnson Matthey’s published data and outlook, to assist investors evaluating the platinum demand growth potential from jewellery.

**Figure 1: Platinum and gold jewellery retail sales estimates**



Source: Johnson Matthey, Thomson Reuters GFMS, WPIC research (\*2015 and 2016 platinum is jewellery available for sale (i.e. retail ‘buy-in’), based on JM data – see Figure 5)

### Background

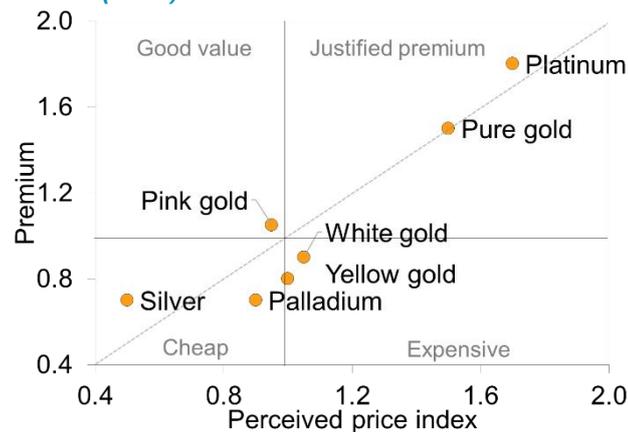
When global platinum jewellery demand is considered it is easy to use misleading indicators, particularly in China, the largest market and over 60% of global demand. The platinum jewellery market in China is significantly different to Western jewellery markets and also has key differences to the gold jewellery market in China.

Platinum jewellery is sold in China based on weight and the current market price. A plain platinum piece, without diamonds or gems (which account for over 70% of annual sales) is weighed and priced against the current spot

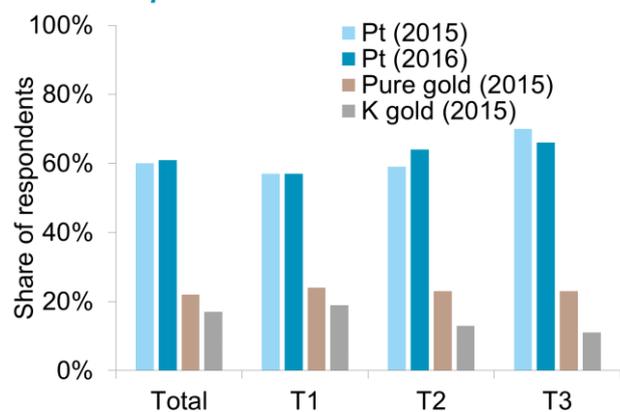
market price before a manufacturing charge and retailer margin are added. More prestigious retailers add a higher margin, sometimes embedded in the spot price displayed in the store. Consequently, the Chinese consumer is acutely aware of the value of the metal in a platinum jewellery piece relative to the current market price of platinum. The large majority of jewellery pieces sold in China, that resulted in the total annual demand for platinum jewellery exceeding 2 million ounces, are plain metal with a value below \$200 per piece acquired as a gift of love or through self-purchase. As this platinum jewellery largely fulfills emotional needs, its price elasticity is comparatively low and jewellery sales rose during periods of strong price increases.

The establishment of platinum as the premier jewellery metal brand in China started through national TV advertising, famous brand ambassador affiliation and extensive print, billboard and point-of-sale promotion. A similar programme in the west was the famous De Beers 'A Diamond is Forever' campaign. The strong platinum brand awareness created in China by such long term promotional programmes was remarkable and underpinned jewellery sales growth over 20 years. Measuring the resilience of brand strength is complex but independent surveys commissioned by PGI (Figure 2) reveal that Chinese consumers still see value in paying a premium for platinum jewellery. Platinum also remains the most desired jewellery metal for urban consumers surveyed in 17 Chinese cities. (Figure 3).

**Figure 2: Chinese consumer value view of jewellery metals (2015)**



**Figure 3: Chinese jewellery consumer purchase intentions per metal across Tier 1 and 3 cities**



Source: Independent research (Kantar Millward Brown, TNS), commissioned by Platinum Guild International (PGI)

### Demand growth potential

The platinum jewellery market in China is ten times smaller than that of gold (Figure 1). Historically, platinum jewellery demand growth was driven largely by market penetration rather than increased ownership by existing participants. Regular platinum jewellery buyers constitute only 5% of the 220 million urban female target market aged 18 to 55. This makes promotion extremely attractive to retailers. The loss of gold sales by jewellery retailers in China of over 57% between 2013 and 2016, responsible for significant turmoil in the jewellery industry, now makes platinum a higher portion of retailer profits. Platinum margins can be significantly higher than margins on gold jewellery. PGI retail partnerships are well placed to assist retailers in increasing their own promotion of platinum jewellery to secure higher margins and offset lost profits due to the decline in gold volumes. Platinum's resilience in 2016 compared to that of gold, up 4% against a gold fall of 26% (Figure 1) may further support retail interest.

A similar focus by the PGI in India, to stimulate retail marketing, has resulted in action by trade and retailers to enhance their own business models and capture the higher platinum margins. It appears that jewellery growth in India is seen by platinum investors as more likely than in China. This may be due to inaccurate consumer buying assumptions in China due to misunderstood stock and recycling movements in the jewellery value chain. These effects are explained below.

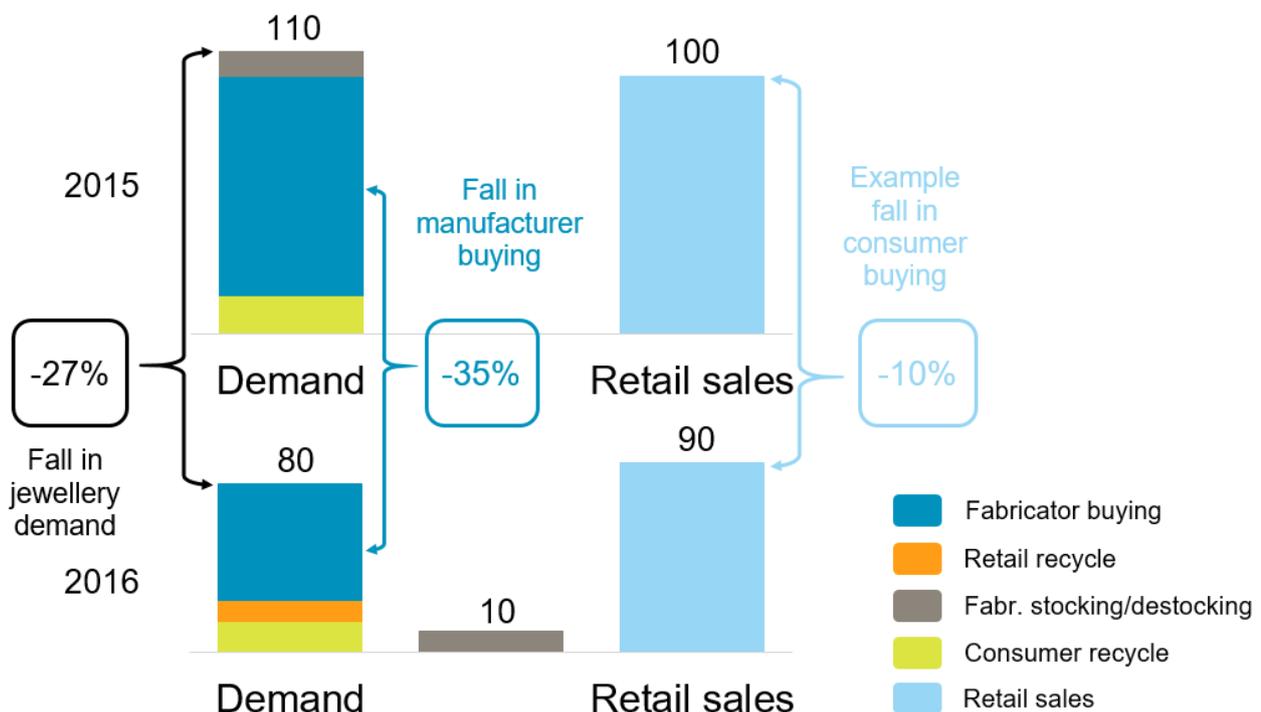
### The jewellery supply chain in China

Strong seasonality of consumer buying of platinum jewellery in China results in seasonal stock buying by manufacturers. Over an 18-month period average stock levels are typically kept at similar levels. However, stocking and de-stocking by manufacturers during the year is used to adjust for anticipated strong or weak consumer demand. This stock cycle creates a short-term disconnect between manufacturer buying and jewellery available for sale. This disconnect is regularly explained by JM in May and November each year but is often overlooked, particularly when platinum price changes are contrary to changes in demand. The low margin at the retail level, compared to non-Chinese jewellery markets, provides an efficient route for consumer recycled jewellery. This is almost exclusively used as partial payment to acquire heavier pieces, which flows directly to the manufacturer. This is common and comprises some 15% of manufacture metal requirements per annum. Less common over many years, is the flow of unsold retail stocks to manufacturers, which reduces manufacturer buying. This is made more attractive when prices rise, as retailers can enhance profitability and also typically occurs when retail sales are depressed. This route was initially established between retailers and manufacturers to cater for unsold unpopular designs in a rising sales environment, rather than for when sales declined.

Between 2015 and 2016, (Figure 4) the dynamics described above provided an example of all aspects having a material impact as follows. The fall in Chinese platinum demand in 2016 by manufacturers was far greater than the fall in retail sales. Manufacturers increased stock levels in late 2015 due to the very low platinum price. Lower retail sales in 2016 were due to lower gold sales bringing lower footfall, other product competition and gold-led retail profit loss. The low-margin value chain and high Pt price in mid-2016 led to unusually high retail recycling. The fall in manufacturer buying in 2016 was due to destocking and higher recycling.

Figure 4 shows that manufacturer stock changes and retail recycling supply caused a greater disconnect between jewellery demand (manufacturer buying) and consumer buying. This shows that between 2015 and 2016, a 10% decline in consumer buying would have reflected as a 27% fall in jewellery demand and a 35% fall in manufacturer buying. Using the SGE as the measure of consumer demand in 2016 would have been created a distortion of 25%.

**Figure 4: China jewellery structure and data flow caused overstated consumer weakness in 2016**

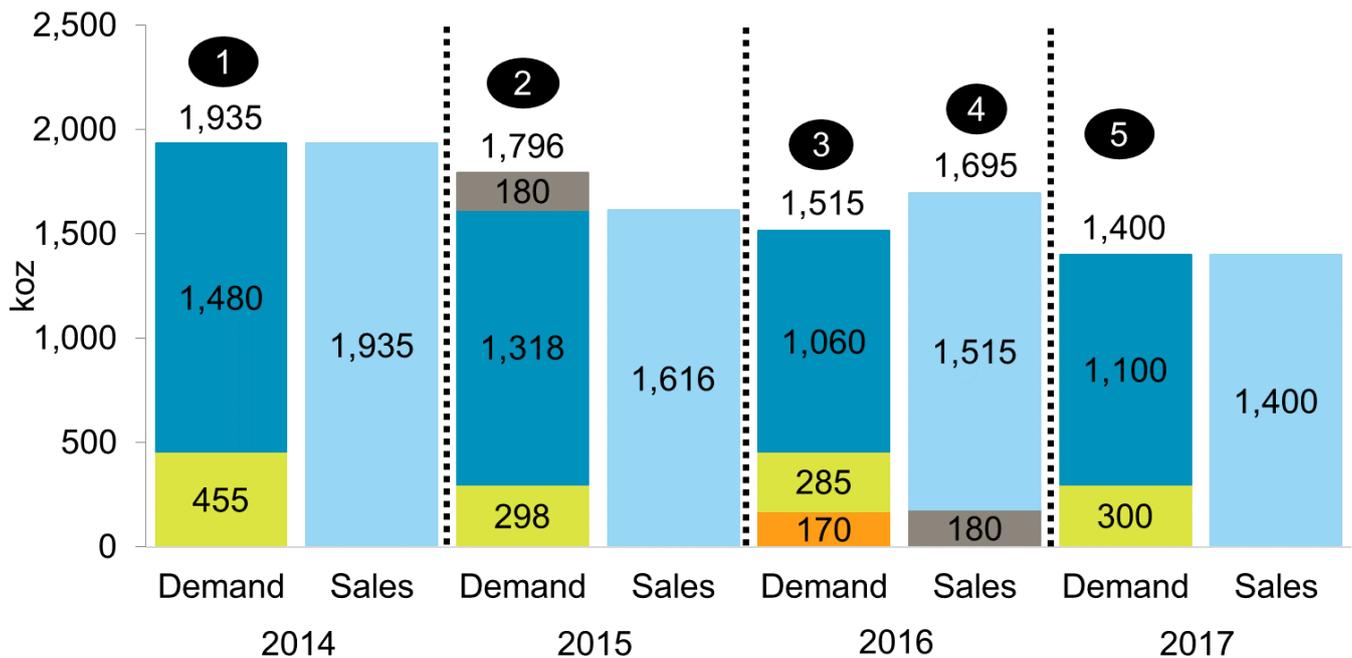


The illustration in Figure 4, presented by WPIC in November 2016, used estimates of typical recycle levels and estimated stock movements in 2015 and 2016 to illustrate the principle. However, by using the revised estimates published by JM in November it is evident that rather than a fall, jewellery available for sale increased by 4% in 2016. The detailed description below and Figure 5 use published data to quantify the interactions illustrated in Figure 4.

1. During 'normal' years, about 15-20% of gross jewellery purchases are funded by old consumer jewellery returned. This return or recycle is almost exclusively only to the retailer where the original piece was purchased and only if used to fund the purchase of a new piece at least 20% heavier than the one traded in. This recycled material is 'sold' by the retailer to the manufacturer at close to current spot price. In 2014, Platinum recycling was estimated at 455 koz and manufacturer buying from the SGE at 1,480 koz to give an estimate of product sold to the retail network of 1,935 koz.
2. The platinum price fell during 2015 and in USD, reached a level in H2 2015 some 20% below the level at the end of 2014. Chinese manufacturers took the opportunity to acquire platinum via the SGE at what they perceived to be good value and with hopes for an increase in demand in 2016 based on strong sales in H2 2015. The build-up in stock exaggerated gross demand by 180 koz. As these stocks were built up at the end of the year, they did not translate to sales and resulted in demand in 2015 exceeding consumer buying.
3. At the start of 2016, buying associated with Chinese New Year celebrations failed to meet expectations. In H1 2016, unsold retail stock was available as a source to supplement weaker gold revenues. This was made even more attractive to the retailer as the platinum price had risen significantly in H1 2016.
4. During 2016 manufacturers were aware that retail sales were weak and decided to reduce their own stock levels, using the metal purchased in 2015 to produce jewellery. This large flow of metal of 180 koz was fabricated into jewellery and available for purchase by consumers. This is the adjusted consumer buying level in Figure 1.
5. JMs outlook is that jewellery demand in China will fall again in 2017 but at a lower rate than in 2016. However, for this to be true, and at the lower expected level of recycling, it will be necessary for consumer buying to fall by 18%. This is a possibly why platinum's brand reputation is being questioned without supporting evidence. The extent to which consumer buying matched the jewellery available for sale in 2016 is not yet known. Although some large retailers reported stronger sales than expected in the last 2 months of 2016, the revised estimates will only become clear over the first quarter of 2017. These estimates and indications of sales during the traditionally high sales Chinese New Year celebrations will provide an indication of likely platinum jewellery sales in 2017.

Pronounced movement in stocks and increased recycling reflects one of the differences between Chinese and other jewellery markets. In Europe and the US, buying is less seasonal and at far lower volumes with smaller changes in

Figure 5: China jewellery demand, stocking, recycle supply and sales 2014 – 2017



Source: Johnson Matthey, WPIC research

### Conclusion

The dynamics that caused the fall in manufacturer purchases by almost 30% in 2016 are likely to see a reversal in 2017 by at least 10%. If, as we expect, the growing importance of platinum to the retail jewellery business takes hold the increase could be more significant. This change in importance of platinum to retail jewellery, and the strong brand strength of platinum at the consumer level, is likely to result in cumulative demand growth over a long period. For investors, the distraction of “geared” indicators should no longer obscure the retail demand growth potential of platinum jewellery.

### December 2016