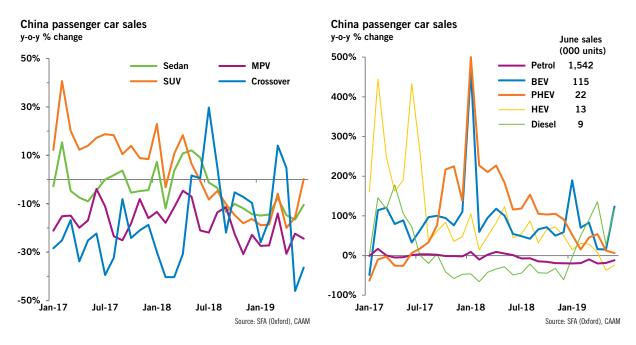


China car sales: BEVs' gain, petrol and palladium's pain

China is compressing several major automotive trends into a short timeframe, with rather unpredictable outcomes over the short term. This includes improving air quality, electrifying powertrains, aligning fiscal incentives with local manufacturing and pollution targets, and rightsizing domestic manufacturers. The decision by some provinces to bring forward the implementation of China 6 emissions legislation by a year to July this year has added to the challenges faced by China's auto industry.

China's car sales are down 12.4% in the first six months of the year (source: China Association of Automobile Manufacturers (CAAM)). Consumer demand has been weak and an acrimonious trade war has not helped sentiment. Car sales fell 9.6% year-on-year in June for a twelfth consecutive monthly decline. However, while sales in all car segments have dropped, petrol and electric vehicles have performed very differently.

Battery electric vehicle (BEV) sales have been surging, while petrol sales have fallen. BEV sales are up 68% at 440,000 in H1'19, while petrol car sales are down 17% at 9,278,000. However, petrol cars are the largest segment and will remain so for many years. BEV and PHEV sales together make up only 5.6% of total sales.



For palladium demand, the decline in petrol car sales is outweighing gains from tighter emissions legislation this year. China 6 requires higher palladium loadings in autocatalysts which, along with the growth in car sales that was anticipated at the start of the year, was expected to see palladium use in China increase by 5% to well over 2 moz this year. However, if car sales were to drop by 10% for the full year then palladium demand could fall by 5% to under 2 moz. With the palladium price trading close to its highest-ever level, it is hard to see further upside in the short term. However, growth in Chinese car sales is expected to resume next year, lifting palladium demand, and the palladium market will remain in deficit which is likely to take the price to new highs.



79 **Au**

Gold

	Close	Weekly change	High	Date	Low	Date
\$/oz	1,424	1.13%	1,453	18/07/2019	1,400	17/07/2019
€/oz	1,269	1.42%	1,288	18/07/2019	1,249	17/07/2019

Gold hits highest level in six years. Gold has been trading in a range between \$1,385/oz and \$1,430/oz since breaching \$1,378/oz, the 2016 high, following the Fed meeting last month. This sideways consolidation ended last week and gold's rally resumed, taking it to its highest level since 2013. Comments from Federal Reserve members were taken as confirmation that the Fed will cut rates at its meeting later this month, which is what the market is expecting. The hope is that this rally is not

a case of 'buy the rumour, sell the fact' if the Fed does finally cut interest rates, as gold is expected to benefit from looser monetary policy as real interest rates fall and the dollar weakens. Geopolitical risk has added to gold's attractiveness, with the ongoing tensions between Iran and the US, the Persian Gulf remains a potential flash point. In the short term further upside is likely and gold could ultimately challenge \$1,525/oz, which was the support level that was broken in 2013.



	Close	Weekly change	High	Date	Low	Date
\$/oz	16.12	6.30%	16.59	19/07/2019	15.25	15/07/2019
€/oz	14.36	6.60%	14.77	19/07/2019	13.53	15/07/2019

Silver finally gaining on gold. Silver was expected to outperform gold this year, but that had not been the case until last week. That outperformance continued even with gold moving to new highs. Silver ETFs added 11.4 moz last week, a notable increase even after two very strong weeks (8.8 moz and 8.6 moz). Silver cleared \$16.20/oz, the high from earlier this year, so this could increase traders' interest and see the price continue to climb. The gold:silver ratio had moved from 82 at the start of the year to 93, but has now dropped back to 88.

Silver production outlook cut. Fresnillo and Buenaventura have lowered their silver production guidance by a combined 4.5 moz, implying 5% and 7% lower output respectively. Fresnillo, the world's largest primary silver producer (~6% of global silver production), had lower than expected ore grades and missed ore throughput targets. This resulted in a 3 moz reduction in guidance to 55-58 moz for the year. Buenaventura has been undertaking a de-bottlenecking programme at its largest mine which has reduced output in the first half and lowered its guidance by 1.5 moz to 21 moz.

Pt Platinum

Ę		Close	Weekly change	High	Date	Low	Date
	\$/oz	846	2.03%	861	19/07/2019	835	17/07/2019
	€/oz	755	2.42%	767	19/07/2019	742	15/07/2019

platinum demand.

US and European heavy-duty truck (HDV) markets have strong sales but weak new orders. HDV sales in North America rose by 20% year-on-year in the first half of 2019. However, Volvo reports its new orders dropped by half in the second quarter owing to exceptionally strong orders last year and some uncertainty about the economic outlook for 2020. In Europe, overall HDV sales were up 8% in the first five months, but there too Volvo reports that new orders were down 9% year-on-year for heavy- and medium-duty trucks. Volvo's market share is about 18% in North America and 25% in Europe. North America and Europe represent 60% of global HDV platinum demand. After exceptionally strong recent sales, HDV sales are expected to drop by 5% next year. However, the rapid decline in new orders is a concern and a 10% fall in sales next year could cut another 20 koz from platinum demand. This is another negative for a 2 | HERAEUS PRECIOUS APPRAISAL

market that is in surplus and the outlook remains that there is little upside and more likely further downside for the platinum price ahead.

Indian commercial vehicle sales suffer significant slowdown. Medium and heavy duty commercial vehicle sales decreased by 16.6% and light commercial vehicles by 5.1% year-on-year in Q2'19 (source: SIAM). Light commercial vehicle sales are projected to rise 3% this year while those of heavy commercial vehicles are set to fall by 9%, so this was a poor quarter even with those low expectations. Catalyst loadings are relatively low in India so, despite it being a large market in terms of sales (over a million commercial vehicles in 2018), a fall-off in sales may result in a drop of only a few thousand ounces in



Pd Palladium

Rh

	Close	Weekly change	High	Date	Low	Date
\$/0	z 1,506	-2.37%	1,571	15/07/2019	1,501	19/07/2019
€/0	z 1,341	-2.08%	1,396	15/07/2019	1,339	19/07/2019

European car sales contracted by 7.9% in June to 1.49 million units (source: ACEA) and declined by 3.1% over the first half of the year. Sales were down in the five largest markets, Germany (-4.7%), the UK (-4.9%), France (-8.4%), Italy (-2.1%) and Spain (-8.3%), in June and only Germany saw sales grow in the first half of the year (+0.5%). If sales fall 3% this year that would cut palladium demand by 25 koz compared to last year. Such a small adjustment to demand would not be enough to balance the market and the price is expected to remain elevated.

Car sales in China dropped by 9.6% year-on-year in June for a twelfth consecutive monthly decline (source: China Association of Automobile Manufacturers (CAAM)). Year-to-date passenger vehicle sales are down 12.4% at 12.3 million units. Last week, statistics from the China Passenger Car Association stated that passenger car retail sales grew by 4.9%. However, the figures from the CAAM are more in line with the recent trend. It may be a couple of months before some clarity returns on the level

of underlying demand following the heavy discounting of China 5-compliant vehicles and lack of full availability of China 6 models in the provinces that resulted from the early implementation of China 6 regulations this month.

No sign of the planned tax increase bringing forward car sales in Japan. Japan is the fourth-largest auto market and sales slipped by 0.7% year-on-year to 450,397 units in June. However, over the first half of the year they rose 0.8% to 2.75 million units (source: Japan Automobile Dealers Association). Japan and Germany were the only two major markets to see car sales rise in the first half of the year. The Japanese government is planning to raise the sales tax in October from 8% to 10%. Last time the tax was increased (from 5% to 8% in 2014) there was a surge in car purchases in the six months prior to its introduction followed by a sharp drop-off when the tax rise came into effect. So far, there is no sign of that being repeated. Annual sales were expected to grow by 2% this year, but if they were to be unchanged year-on-year that would cut only around 20 koz from palladium demand.

Rhodium, Ruthenium, Iridium

 Rhodium
 Ruthenium
 Iridium

 Reporting week
 \$3,525/oz
 \$250/oz
 \$1,460/oz

 Previous week
 \$3,625/oz
 \$250/oz
 \$1,460/oz

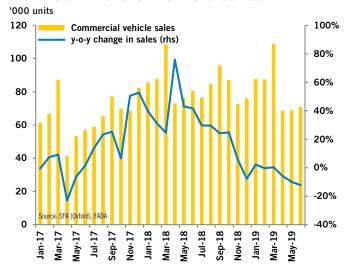
Declining electronic component sales indicate weakening demand for ruthenium. Yageo is the leading global supplier of thick film chip resistors, which contain ruthenium. The company's total revenue in Q2'19 fell by 17% from Q1'19 and chip resistors (thick and thin) represent around a quarter of the company's revenue.

Electronic demand for ruthenium is roughly a third of the 1.1 moz market.

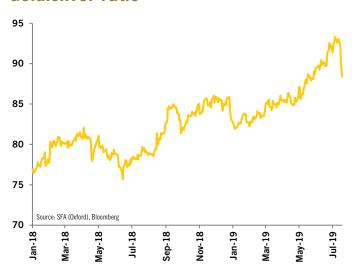
The rhodium price pulled back \$100/oz last week, but the ruthenium and iridium prices were unchanged.

TRENDS AND INVESTMENTS

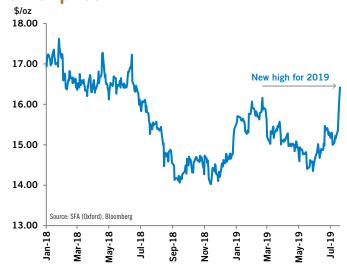
India commercial vehicle sales



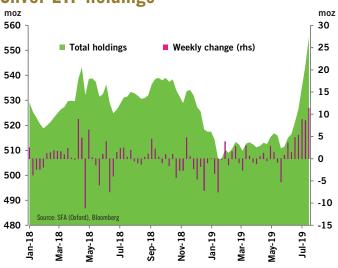
Gold:silver ratio



Silver price



Silver ETF holdings



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