

PRECIOUS APPRAISAL



MARKET SPOTLIGHT

The Chinese car market in 2024 – PHEVs, subsidies and palladium

Passenger car sales in China slipped by 3% to 1.72 million units in July from 1.77 million in June (source: China Passenger Car Association). Total car sales were 2% higher in the first seven months of the year. Plug-in hybrids (PHEVs) continue to be the stand-out performer with sales up 72% so far this year to over 2 million, for an 18% market share, which is supportive of palladium demand. However, BEV sales have increased by 15% to 2.9 million at a 25% market share, leaving PHEV+ICE sales marginally down year-on-year.

The Chinese authorities have been trying to boost vehicle sales. In April 2024, China promulgated a new subsidy scheme to boost scrappage of ICEVs at the China 3 emissions standard (adopted between 2007 and 2011) or below and purchase of new vehicles (NEV or ICE). For passenger vehicles, the scheme initially subsidised CNY7,000 for trading in and purchasing an ICE vehicle and CNY10,000 for purchasing an NEV. It got off to a slow start with 113,000 vehicles traded in under the scheme in the first two months, constituting only 3% of the 3.5 million passenger vehicle sales (source: National Development and Reform Commission). The scheme gradually gained traction with 251,000 vehicles traded in from 25 June to 25 July, roughly 14.5% of total passenger vehicle sales.

The government doubled the subsidy amount in late July to stimulate domestic consumption as economic growth remained weak. The scheme still has great potential to encourage large-scale vehicle replacements. Currently, China has 16 million ICEVs with China 3 standards or below (source: Ministry of Commerce). As the trade-in policy terminates at the end of the year, there are a lot of potential vehicles to trade in and boost sales in the remainder of the year.

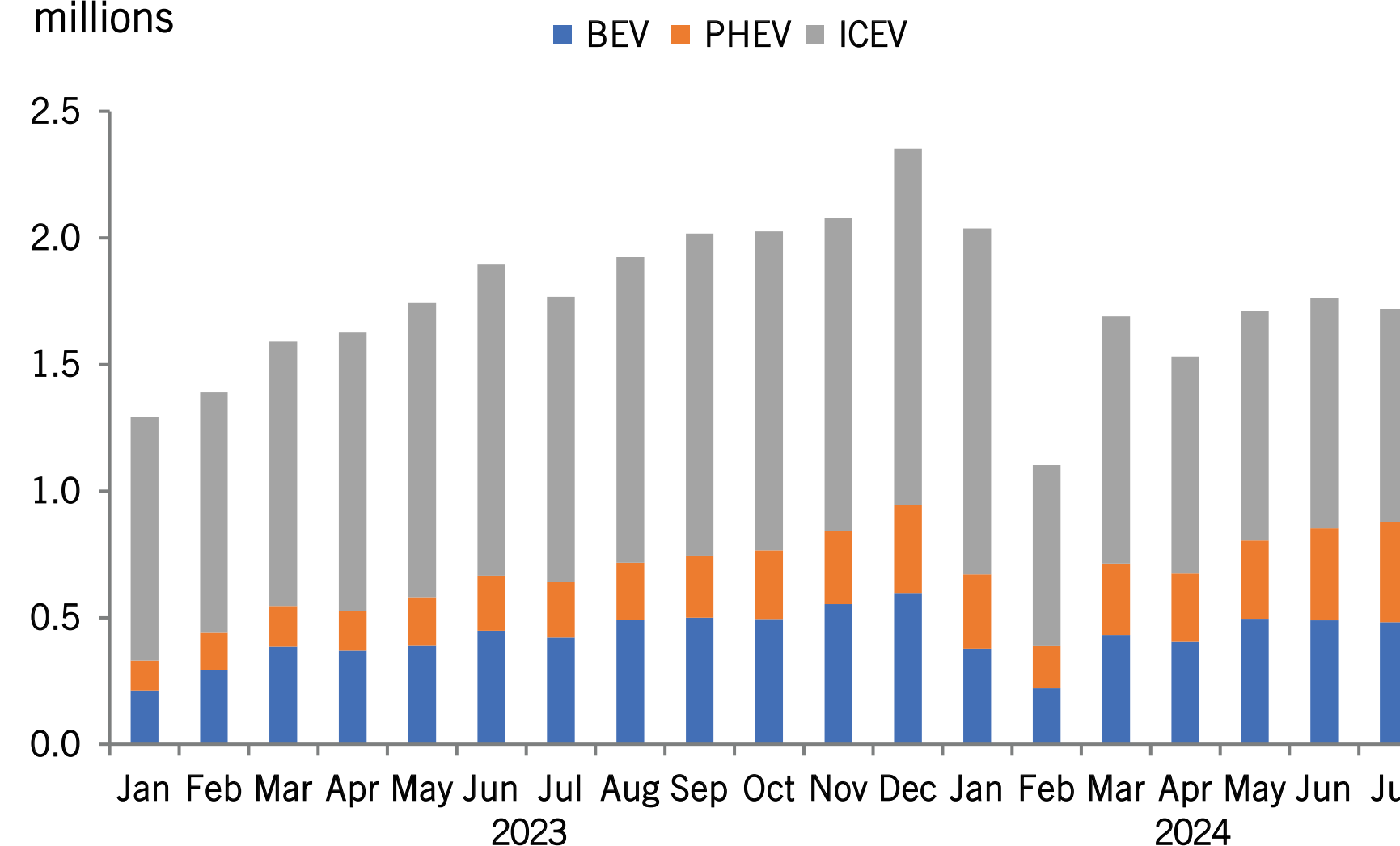
The scheme has mixed implications for palladium. Loadings on China 3 cars were low so only modest additional recycling of palladium from scrapped autocatalysts is anticipated, but the offsetting boost to palladium demand may be limited. The boost to sales adds to PGM demand only if the new cars

would not otherwise have been purchased and PHEV or ICE vehicles are chosen.

Automotive demand for palladium in China is predicted to gradually decline from ~1.7 moz this year. BEV market share is estimated to increase further, although total car sales are also expected to increase, somewhat mitigating the impact on palladium demand. The outlook will depend on whether the BEV share continues to grow as forecast. If PHEVs continue to be favoured, that is supportive of palladium demand.

China passenger vehicle sales

millions



Source: SFA (Oxford), China Passenger Car Association

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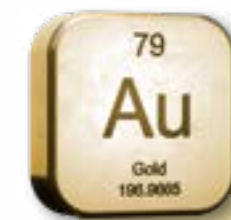
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PRECIOUS METALS REVIEW

Gold



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	2,492	2.48%	2,500	16/08/2024	2,432	15/08/2024
€/oz	2,266	1.80%	2,272	16/08/2024	2,213	14/08/2024

Gold hits another record high. On Wednesday, the headline US CPI dropped below 3% for the first time in three years. This immediately boosted market confidence of a rate cut being delivered by the Fed in September, although the optimism was weakened by stronger than expected employment data released on Thursday. There is a growing market consensus that inflation is now under control. As of Thursday, the swap market priced in a 74.5% chance of a 25 bp cut in September, compared to a 45% chance one week ago (source: CME). The gold price pushed higher but failed to reach a new record on Wednesday and although it initially fell back after the CPI announcement, it eventually climbed to an all-time high of \$2,500/oz on Friday.

Global gold ETF flows made sharp turns at high prices. In July, gold recorded its highest ETF inflows since March 2022 when Russia invaded Ukraine. The US ETFs became the biggest contributor after two months of net inflows, receiving 26 tonnes of gold. The EU followed suit by contributing another 17 tonnes. The trend differed sharply from the past year when investors in both regions were mainly divesting. Asia also had modest, although slower, inflows, as it had continuously received inflows this year (source: World Gold Council). The rise of US inflows was driven by political events that resulted in an increasingly likely Trump win in the November presidential election, as well as softening economic conditions that would benefit from a rate cut.

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Silver



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	28.46	3.74%	28.52	15/08/2024	27.18	14/08/2024
€/oz	25.88	3.07%	26.70	15/08/2024	24.58	14/08/2024

Silver has a long way to go to recover its lost ground on gold. The silver price has been underperforming the gold price and the gold:silver ratio hit 89 last week, its highest level since March. Silver is typically the higher beta metal but it is not even near its high for the year, let alone its all-time high price, while gold has again passed its record high. Support around \$26.50/oz held and the silver price has started to recover some of its lost ground of last week. A breakout for gold to new highs should help to lift silver.

Recorded vault holdings of silver have been climbing. Silver bullion held in London's vaults dropped sharply in the first quarter of the year but has recovered to 855.8 moz (source: LBMA) which is similar to the level at the start of the year. Silver in COMEX vaults has risen to 304 moz, from 278 moz at the start of the year.

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Platinum



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	952	2.79%	964	15/08/2024	923	14/08/2024
€/oz	865	2.09%	877	15/08/2024	838	14/08/2024

Northam Platinum increased PGM production in its financial year to June.

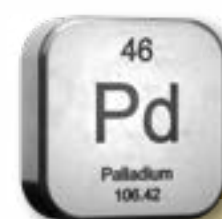
Northam reported output of 538 koz of refined platinum in FY2024, a 4% rise year-on-year. Overall, Northam also delivered a 5% increase in 4E metals. All of the company's mines realised production growth, and Northam attributed the strong production result to debottlenecking at the Booyendal UG2 mine and focused Merensky stoping at the Zondereinde mine. The Eland mine continued its ramp-up.

Northam expects mining tonnages and grades to continue improving over the coming two years due to completion of projects in the pipeline and an increase in mineable reserves. At Zondereinde mine, stoping is ramping up within the Western extension section. At Eland, the focus was on strike and raise development to increase mineable reserves to enable the underground stoping ramp-up to continue.

The platinum price rallied last week but remains in the middle of its trading range.

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Palladium



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	946	3.78%	955	16/08/2024	913	12/08/2024
€/oz	860	3.11%	869	16/08/2024	836	12/08/2024

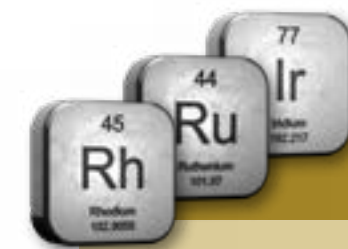
Germany’s EV transition has slowed significantly in 2024. In July, Germany reported a dramatic drop in EV sales – 30,782 EVs were sold, a 37% reduction year-on-year. In the first seven months of 2024, Germany recorded sales of 214,887 EVs, down 20% year-on-year (source: KBA), for a 12.6% market share. With overall sales rising 4% to 1.7 million units so far in 2024, sales of vehicles with catalysts have benefitted and this is supporting palladium demand.

The slowdown in Germany’s EV sales is attributed to an abrupt end to subsidies that was adopted under budget pressure in December 2023, before which consumers were awarded up to €4,500 for EV purchases. Despite OEMs attempting to maintain competitiveness by cutting prices, this failed to meaningfully stimulate sales, making Germany the worst performer in Europe in terms of BEV market share growth. The notable decline highlights the importance of subsidies. In the first half of the year, total vehicle sales in the EU rose by 4.4% to 6.9 million units and BEVs had a 15.7% market share, up from 13.9% in the same period in 2023. With the overall market growth helping to offset some of the loss of share to BEVs for ICEVs, automotive palladium demand in Western Europe is expected to be only modestly lower this year and remain above 1.0 moz.

The palladium price has recovered above \$900/oz, but is now in an area of resistance.

PRECIOUS METALS REVIEW

Rhodium, Ruthenium, Iridium



	RHODIUM	RUTHENIUM	IRIDIUM
Reporting Week	\$5225/oz	\$410/oz	\$5125/oz
Previous Edition	\$5100/oz	\$410/oz	\$5150/oz

Policy uncertainties could delay or cancel US hydrogen projects. The US cleantech manufacturing sector is bracing for a major slowdown as 40% of Inflation Reduction Act (IRA) projects are paused, delayed or even cancelled owing to delays to subsidies and growing concerns that a second Trump administration would repeal the IRA credits. The US is currently experiencing intense political debates over the stringency of emissions standards for green hydrogen and has significantly delayed the Section 45V hydrogen production tax credits. Companies including Woodside, Fortescue and ThyssenKrupp have all indicated uncertainty about their announced hydrogen projects in the US.

A repeal of IRA credits could reduce iridium demand from electrolyzers. The US has the potential to install over 16 GW of electrolysis projects based on existing announcements and projects currently under feasibility studies, from a mere operational capacity of 45 MW today (source: IEA). Most of the projects are for proton exchange membrane (PEM) electrolyzers that use iridium (and platinum). The IRA subsidises green hydrogen with up

to \$3/kg CO₂, approximately 46% of the average green hydrogen production costs in the US in 2023 (source: EIA). A potential repeal of IRA subsidies could leave many projects financially unviable and therefore remove some demand for iridium.

The rhodium price rose by 2.5% last week to \$5,225/oz, while the iridium price decreased slightly. The ruthenium price was unchanged.

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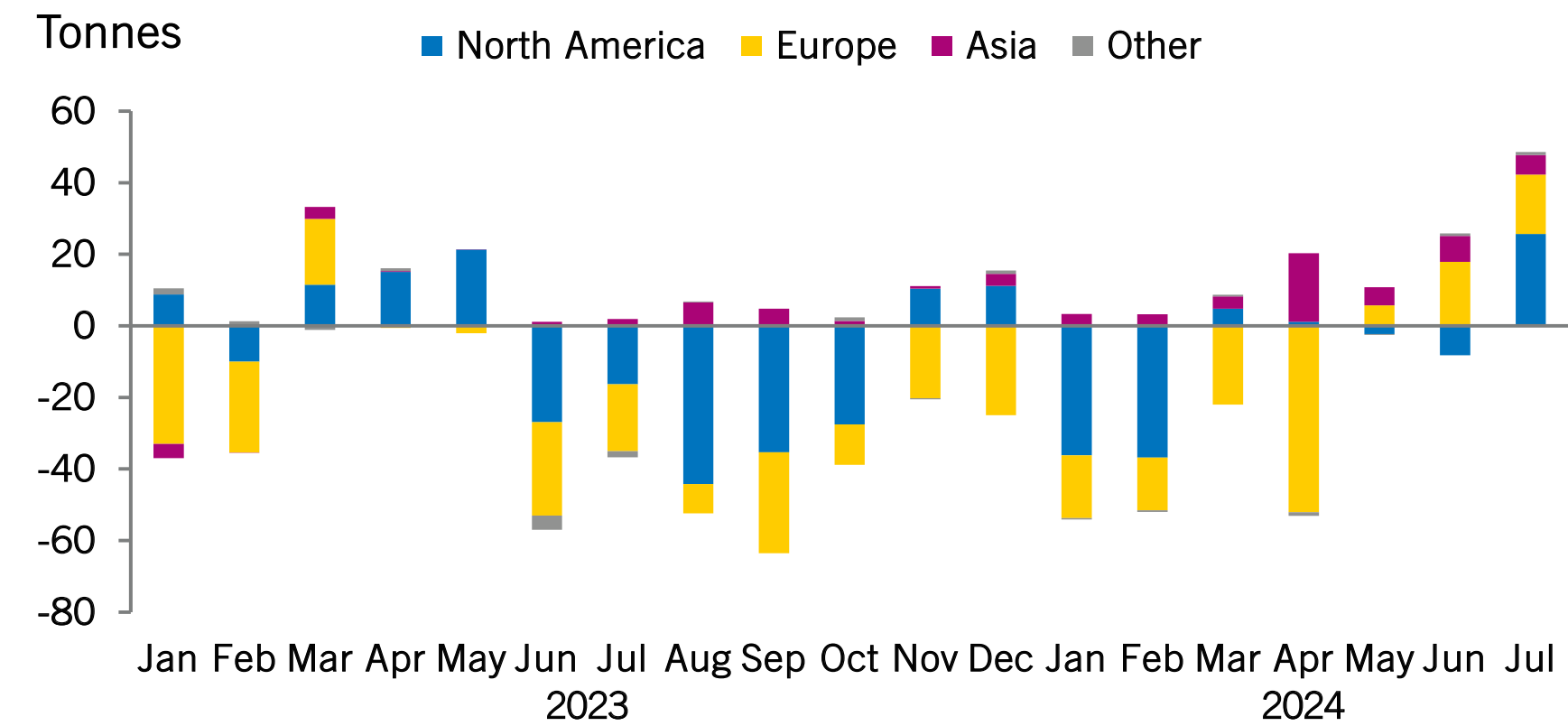
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Gold ETF flows



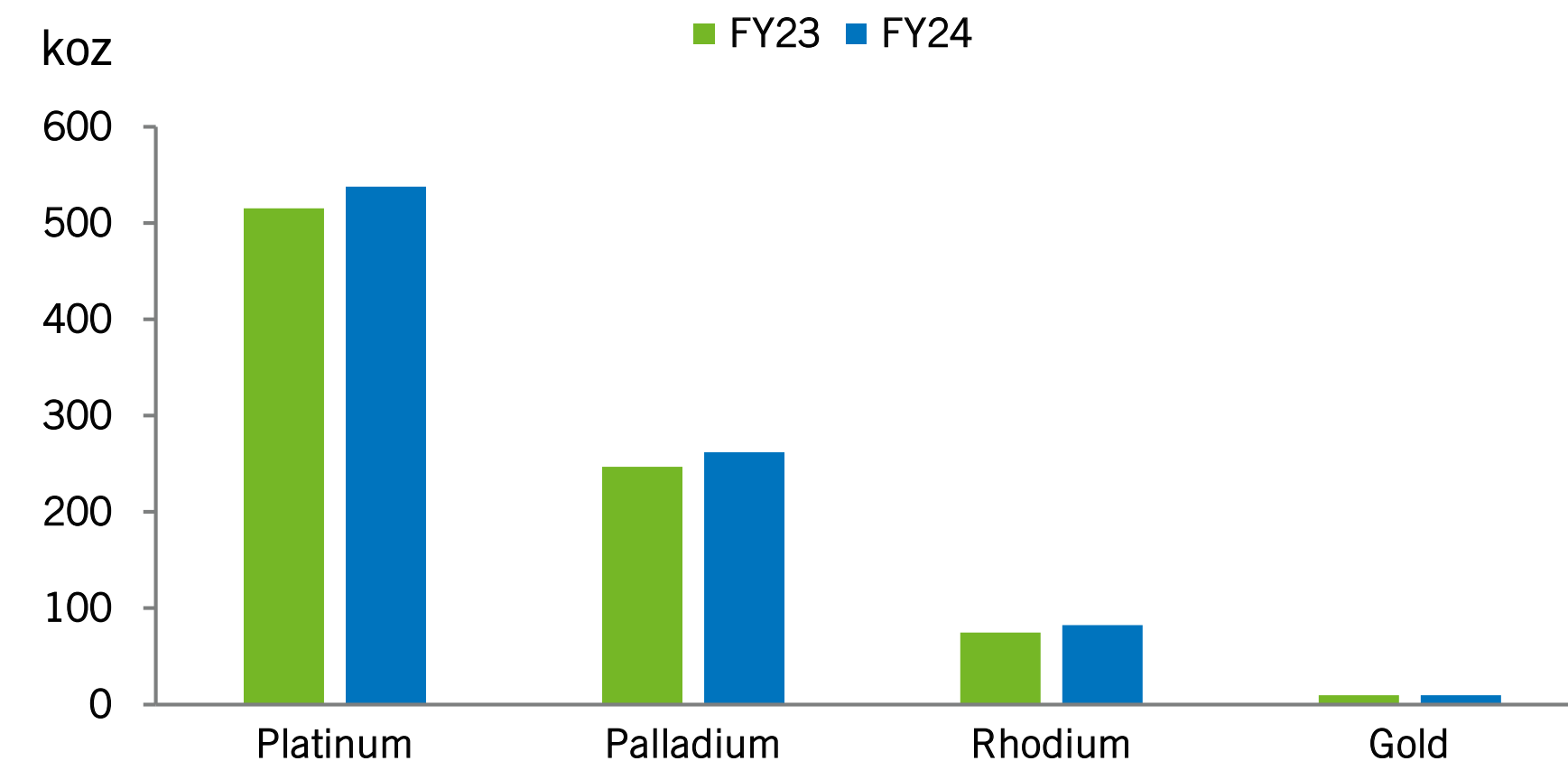
Source: World Gold Council

Gold:silver ratio



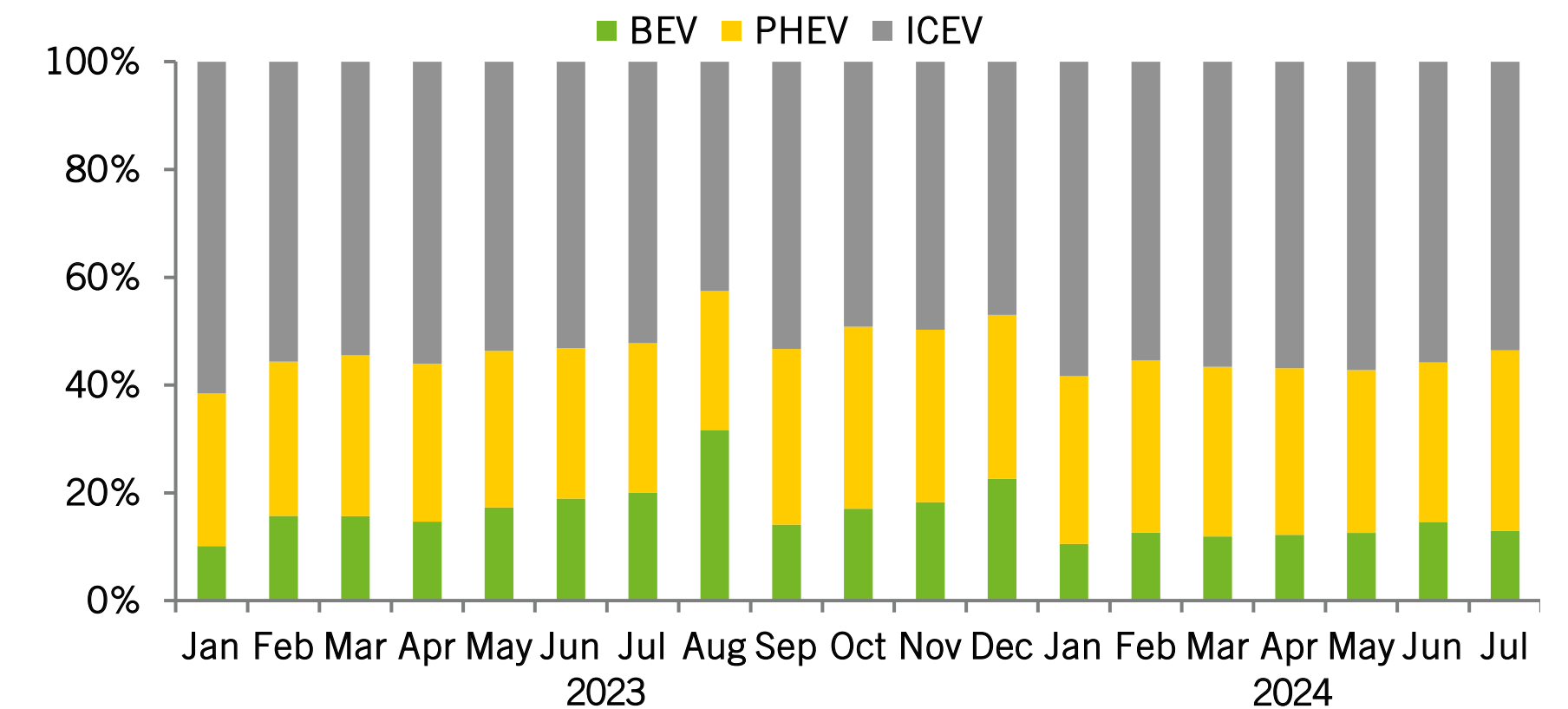
Source: SFA (Oxford), Bloomberg

Northam Platinum's refined production



Source: Northam Platinum

Germany's vehicle sales share by type



Source: Bloomberg

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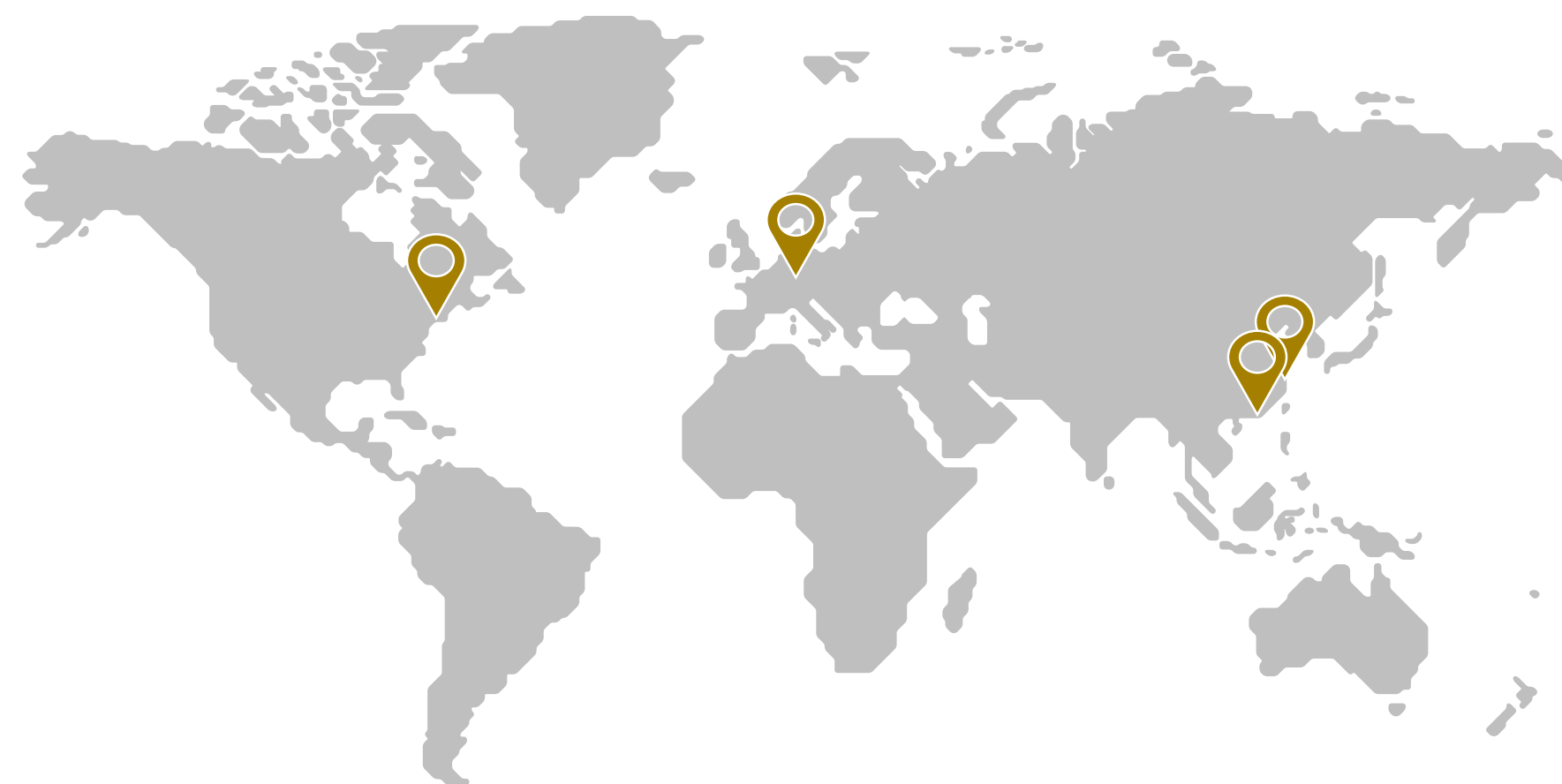
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