PRECIOUS APPRAISAL

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MARKET SPOTLIGHT

Palladium demand supported for longer after new US emissions law changes

The US has announced less severe emissions targets that will effectively allow for more catalysed car sales. Last week the Biden administration finalised stronger emissions targets for the US, though they were less stringent than the proposal made by the US Environmental Protection Agency (EPA) in April 2023.

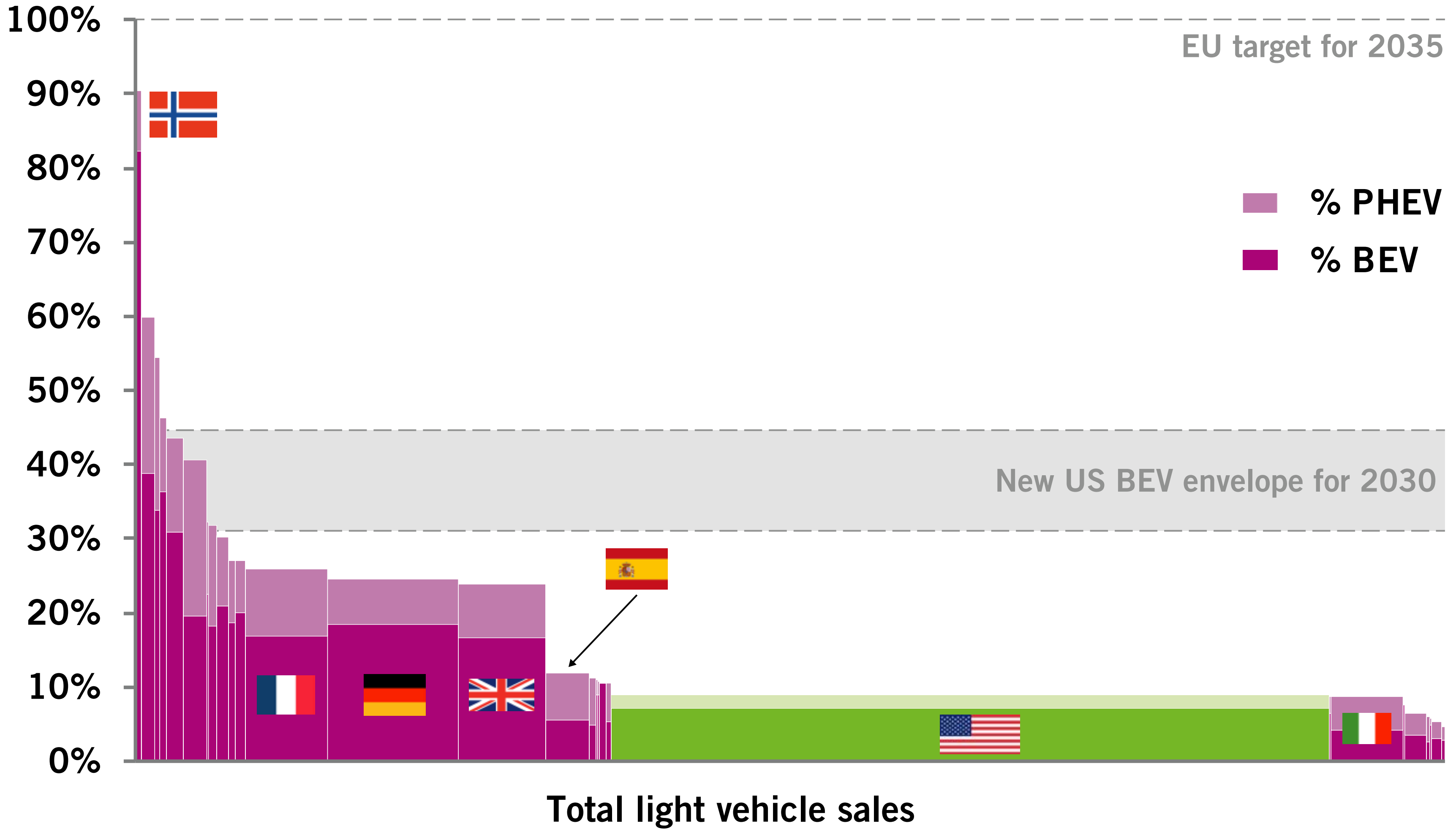
New targets will encourage sales of electrified vehicles over the next six years, but now allow targets to be met with a higher proportion of catalysed vehicles (plug-in hybrids). Targets can be met with 56-69% catalysed vehicle market share by 2030 (source: EPA) – higher than previous targets, and positive for extending the longevity of the combustion engine market. In 2023, PHEVs showed better year-on-year growth than BEVs, suggesting they are becoming more popular with consumers as PHEVs are less reliant on charging infrastructure. Last year, US BEV market penetration reached 7.1%, while PHEV sales were lower at 2% of total sales.

The EPA's three proposed scenarios for meeting the new targets include different levels of BEV market penetration. The highest-BEV case proposes 44% BEV penetration by 2030, while the scenario with the lowest BEV penetration reaches only 31% BEVs by then. By taking the lower-BEV route, the US could see more than 5 million additional catalysed vehicles sold, with a resulting increase of 1 moz of 3E PGM demand cumulatively from 2025-2030.

Meanwhile in Europe, Euro 7 passed into law last week. The Euro 7 emissions legislation will be the final new emissions standard introduced before all new cars are required to be zero-emission, and does not tighten tailpipe emissions any further. This means there will be little to no impact on PGM demand in European autocatalysts.

In the shorter term, automotive PGM demand is still expected to feel pressure from BEV sales in both markets. North American 3E PGM demand is forecast to remain stable this year at 2.5 moz. In Europe, where BEVs are expected to gain proportionally higher market share, 3E PGM demand is forecast to decline 4% year-on-year to 2.1 moz.

BEV and PHEV market share in Europe and the US, 2023



Source: SFA (Oxford), ACEA, Argonne National Laboratory, EPA, European Commission

PRECIOUS METALS REVIEW

Gold

	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
$/oz	2,163	0.18%	2,221	20/03/2024	2,147	19/03/2024
€/oz	2,002	0.92%	2,026	20/03/2024	1,974	18/03/2024

Gold hits new records despite no rate cuts. The market-assessed probability of the Fed cutting rates at last week's meeting peaked at 76.9% in January. Since then, hotter than expected inflation readings and stronger than anticipated sectoral growth in the US eliminated the chance of a cut. Last Wednesday, the Fed opted to keep rates where they were but maintained the outlook for 75 bp of interest rate cuts this year, suggesting the central bank is not concerned the US economy is running too hot. The cautious, yet still dovish, tone and forecast for cuts weakened the dollar following the Fed's announcement and pushed the US dollar gold price above $2,200/oz for the first time. On the other side of the Atlantic, Thursday's weaker than expected Purchasing Managers' Index (PMI) manufacturing data in France weakened EURUSD following the previous day's strength, also sending the euro gold price to a new all-time high intraweek. The French manufacturing PMI has now contracted for 13 months in a row. Weakness in the major European economies increases the likelihood that the ECB will begin to reduce benchmark interest rates at the decision meeting in June. If the ECB cuts rates before the Fed, this could benefit the euro gold price if the euro weakens relative to the US dollar.

PRECIOUS METALS REVIEW

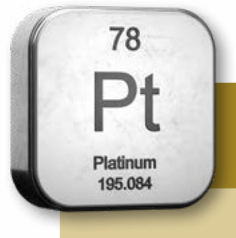
Silver

	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
$/oz	24.68	-2.11%	25.77	21/03/2024	24.41	22/03/2024
€/oz	22.84	-1.39%	23.99	18/03/2024	22.46	20/03/2024

Silver ETF holdings have held up better than gold. Despite the price performing comparatively worse than gold year-to-date, silver ETF holdings in global funds have increased by 2% since the beginning of January, against a reduction of 4% for holdings in gold funds (including gold inflows creeping in last week). Holdings in silver funds have increased to 716.5 moz from 699.9 moz at the end of 2023, while investors have sold 3.1 moz from gold funds. Silver ETF buying momentum swung more positive in the last week, following the price higher. However, holdings are still a long way off the peak of 1,021 moz in February 2021. Silver coin sales have been more buoyant than in gold as well. First-quarter Silver Eagle sales from the US Mint are on track to outpace Q1'23 by nearly 40%, while the gold equivalent is likely to be at least 50% lower year-on-year. The silver price has regained some ground relative to gold in the last few weeks and could outperform gold in the near term if the current rally is sustained following last week's pullback.

PRECIOUS METALS REVIEW

Platinum



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
$/oz	896	-4.59%	931	18/03/2024	890	20/03/2024
€/oz	829	-3.91%	854	18/03/2024	819	20/03/2024

Zimbabwe’s platinum production forecast to dip from record high in 2024. Zimbabwe produced a record-high volume of platinum last year of 521 koz, as the three producing mines all improved output. Zimplats commissioned its third concentrator at the end of H1’23 which helped to boost production by 7% year-on-year, and the Mimosa and Unki mines also improved volumes by 6% each, equal to growth of ~13 koz. Depletion and two smaller pits reaching end-of-life mean that output is likely to decline slightly to 512 koz, though this would still be the second-highest production level ever. The Karo platinum mine is currently scheduled to begin production in 2025, which could help to boost the country’s supply if commissioning goes to plan. Cost-cutting at platinum operations has spread north to Zimbabwe, as Zimplats has announced a round of voluntary job cuts at its operations, though this should not affect production.

South African supply is also expected to fall slightly this year, contributing to a 1% year-on-year decline in global primary platinum output predicted for 2024. The small decline in production this year is forecast to contribute to a tighter platinum market. However, above-ground stocks built up during the period of market surpluses from 2016-2022 will need to be reduced before platinum is likely to react to the market deficit. The PGM prices retreated last week, though platinum outperformed palladium, declining by only 4.59% to $896/oz.

PRECIOUS METALS REVIEW

Palladium

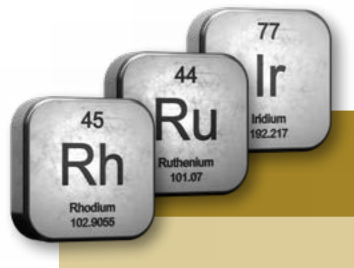
Pd	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
$/oz	995	-8.28%	1,073	18/03/2024	977	19/03/2024
€/oz	919	-7.54%	985	18/03/2024	900	19/03/2024

Europe's auto market is driving ahead but won't lift palladium autocatalyst demand. In the first two months of the year, the EU light-vehicle market has expanded 11.2% year-on-year to 1.74 million units (source: ACEA). The hybrid sector saw the most growth (+24% year-on-year) followed by BEVs (+17.4% year-on-year). Battery electric vehicles' market share held steady year-on-year at 12% in February. Despite a forecast rise in new vehicle sales this year, Western European palladium autocatalyst demand is forecast to be ~1.05 moz (-3% year-on-year) thanks to BEV sales, and therefore is unlikely to be supportive of the palladium price. An additional downside risk is a potential recovery in autocatalyst recycling volumes this year. Global secondary palladium supply contracted sharply in 2023 and is likely to recover only modestly in 2024. However, European secondary palladium supply is expected to expand in the next few years as more Euro 6-compliant cars with higher palladium loadings begin to be scrapped.

The palladium price reversed last week and fell more than 8% week-on-week. The NYMEX net speculators' short position remains at >1 moz, indicating that institutional investors remain pessimistic on palladium.

PRECIOUS METALS REVIEW

Rhodium, Ruthenium, Iridium



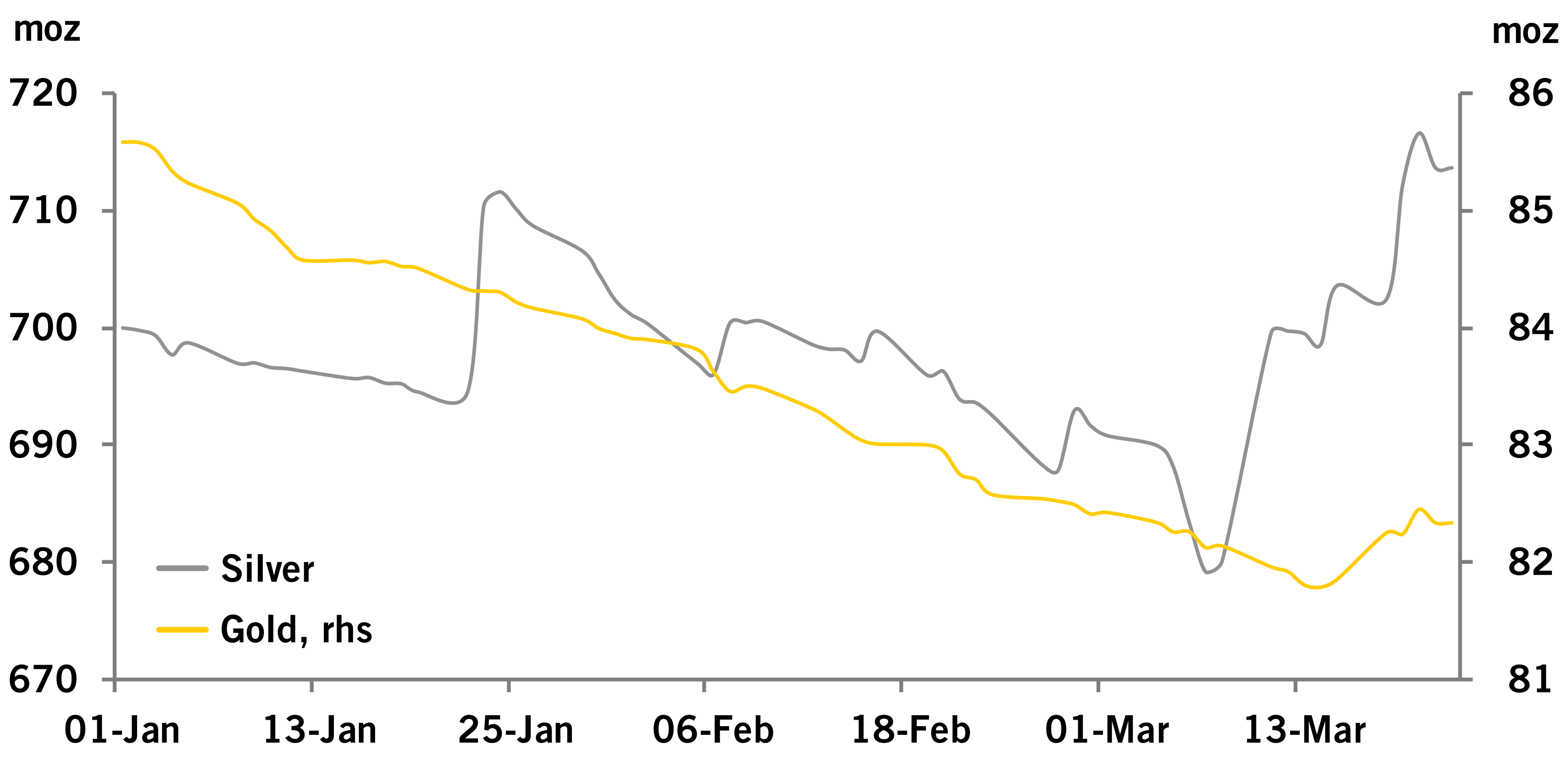
	RHODIUM	RUTHENIUM	IRIDIUM
Reporting Week	$5,150/oz	$445/oz	$5,350/oz
Previous Edition	$5,225/oz	$455/oz	$5,400/oz

A recovery in smart device shipments may help to support iridium demand this year. After falling for the last two years, smartphone shipments are forecast to reach 2 billion units this year (source: IDC), an improvement of nearly 3% year-on-year. New technology, such as foldable screens and AI integration into mobiles, is expected to be a driver for growth over the next 12 months, particularly when consumers who held back on device replacement over the last two years re-enter the replacement cycle. All smartphones use surface acoustic wave (SAW) filters that require crystals cast using iridium crucibles. With demand for smartphones forecast to maintain growth in the next few years, it is possible that more iridium crucible capacity could be required. This would support electrical iridium demand which, along with various other applications, equates to ~25% of total iridium demand. The short-term risk to smartphone sales is an economic slowdown in the US and European markets, some of the largest for mobiles.

The small PGM prices all dropped last week. All three metals' markets are forecast to tighten this year and, despite the price drops, the rhodium, ruthenium and iridium prices are all still elevated versus historical standards.

TRENDS AND INVESTMENTS

Precious metal ETF holdings

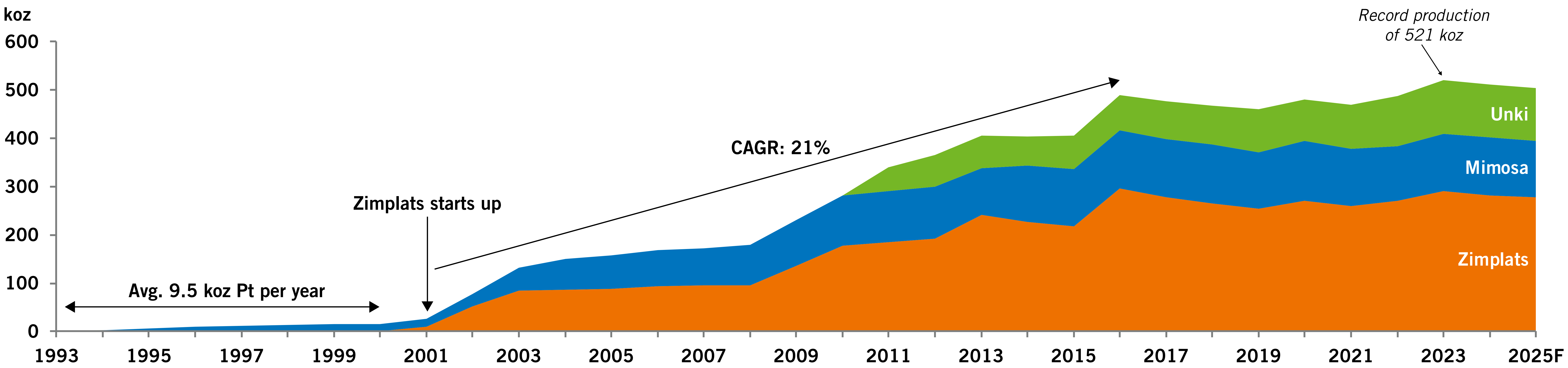


Source: SFA (Oxford), Bloomberg

Euro-dollar exchange rate

Source: SFA (Oxford), Bloomberg

Zimbabwe platinum production history



Source: SFA (Oxford)

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