

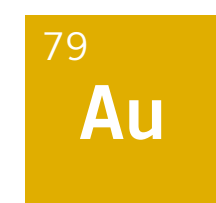
PRECIOUS APPRAISAL



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PRECIOUS METALS REVIEW

Gold



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	1,928	0.06%	1,947	20/09/2023	1,914	21/09/2023
€/oz	1,809	0.19%	1,821	20/09/2023	1,798	21/09/2023

The gold price requires a less hawkish Fed in order to rise. The Federal Reserve kept US interest rates at 5.25-5.50% last week, as expected. The change to the outlook for the next 24 months was a key change. The Fed members’ dot plot shows that most of them expect one final hike this year, with an upwardly revised expectation of where interest rates will remain over the next 24 months. As always, it will be a case of watch what they do and not what they say, as the Fed’s interest rate forecasts are rarely accurate. Markets are currently pricing-in a 2-in-3 chance of no change to rates in November, contrary to Fed messaging. This would likely be to gold’s advantage as it would have the effect of weakening the dollar, a positive driver for the gold price. On average, the gold price has been 6% higher one calendar year after the final interest rate hike of each hiking cycle since 1984, which, if rates are held at the next meeting, would have been in July. Unless there is a deterioration in the health of the US economy going into the autumn, it is unlikely that a cut will come that soon, however. It is more probable that interest rates will stay high until next year, meaning the gold price should remain under pressure.

Volatility in the gold market has subsided of late as trading volume has fallen and the price has been range-bound between \$1,890/oz and \$1,975/oz since May. Downside pressure has been largely resisted as gold has consistently found buyers at around \$1,900/oz following the decline from March highs, and liquidation of ETF holdings has done little to push the price lower. Last week, spot gold crept up to just below \$1,930/oz, having struggled to gain much ground against a stronger dollar that reacted to the upside following Wednesday’s interest rate decision.

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Silver



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	23.58	1.75%	23.77	22/09/2023	22.81	21/09/2023
€/oz	22.12	1.87%	22.33	22/09/2023	21.45	21/09/2023

Chinese solar capacity reached half a terawatt in August following the addition of the equivalent of the entire US solar capacity so far this year (133 GW). The production base in China is expanding rapidly, and growth is likely to be faster than thrifting of silver can be achieved to lower loadings, leading to a forecast increase in solar silver demand this year. China appears to be on track to exceed previous expectations for solar installations and cell/module production. Consequently, record solar silver demand is predicted for this year, which may exceed 165 moz, or more than 14% of global silver demand and 25 moz higher than in 2022 (source: The Silver Institute). Product innovation of solar cell types may also help demand. Newer TOPCon-type cell capacity is increasing; on average, the cells have ~30% higher silver loadings than traditional PERC-style cells (source: BloombergNEF). Despite a significant increase in demand, the silver price is not well correlated to industrial demand, and above-ground stocks of the metal will be able to satisfy greater demand if mined supply cannot.

The silver price finished the week slightly higher at \$23.58/oz, marking the second consecutive week of modest gains.

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Platinum

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Pt

	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	933	0.34%	953	19/09/2023	915	21/09/2023
€/oz	876	0.46%	890	19/09/2023	861	21/09/2023

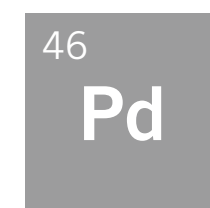
Europe's EV tariffs could be good for ICE vehicles. The EU will discuss applying higher tariffs to cheap Chinese-produced BEVs, reportedly including cars produced by non-Chinese OEMs in China. The EU claims government-subsidised production allows imported cars to undercut those produced in Europe. If Chinese electric vehicles are unable to be imported to the EU without tariffs above the standard 10%, it is feasible that the speed of electrification could slow owing to the potentially restricted availability of lower-cost BEV models. The share of Chinese BEVs in Europe's new vehicle sales has risen from 0.5% in 2019 to 8.2% year-to-date. PGM autocatalyst demand is biased in favour of palladium in Europe, though the continent represents a larger proportion of global demand in the platinum market than palladium owing to its higher diesel car market share (although much reduced, it is still in double digits). This year, European platinum autocatalyst demand is expected to total 810 koz. The growing market share of BEVs will begin to cut into platinum usage, but by slowing the rate of adoption, platinum could see a longer period of higher demand. It is uncertain what exactly the outcome of the EU investigation will be, but the European Commission has 13 months to come to a conclusion.

Platinum found resistance in the low \$950s last week, and had retreated lower to \$933/oz by the end of the week's trading.

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PRECIOUS METALS REVIEW

Palladium



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	1,251	0.45%	1,296	20/09/2023	1,227	18/09/2023
€/oz	1,175	0.65%	1,211	20/09/2023	1,153	18/09/2023

Can BEV adoption maintain its head of steam? Disruptive trends tend to find early adopters slowly, and over time the rate of adoption increases. In 22 of the 31 European nations, more than 5% of new light-vehicle sales were BEVs in the first eight months of 2023. Sales of BEVs grew by 63% year-on-year in January-August to 985,000 units (source: ACEA). However, moving further along the adoption curve may not be easy for BEVs. The supporting charging infrastructure must be installed to underpin widespread adoption, and in many areas in Europe it is lacking. The longer it takes to achieve adequate supporting infrastructure, the longer combustion engine vehicles are expected to be on the road. This year, palladium automotive demand in Western Europe is forecast to be around 1.2 moz. The EU aims to stop selling new combustion engine light vehicles by 2035, which is likely to remove a significant chunk from global palladium autocatalyst demand.

The UK has postponed its proposed ban on ICE vehicles from 2030 to 2035 to bring it in line with the rest of the continent. Market penetration of BEVs in the UK has reached 16.4% of all new car sales in January-August 2023, though the announcement may temper the urgency that some car buyers felt to meet the previous deadline to go green by 2030. The decision is also an implicit admission that perhaps the climate targets set have been too ambitious. The target is unlikely to be moved again now that it falls in line with the rest of Europe.

Vehicle inventories can likely absorb strike fallout in the US. The UAW union is striking at some plants of the ‘big three’ US automakers (GM, Ford and Stellantis), aiming for a large wage increase and job security guarantees. The big three’s US production base is responsible for 43% of US production. The automakers had planned for potential strike action by upping vehicle output in Q2’23. US vehicle inventories reached a two-year high of 162,000 units in July. This should help to offset production potentially lost by strikes, though prolonged action would erode this vehicle stock. A 100-day strike could negatively impact US automotive demand by ~180 koz, from ~1,500 koz forecast for the year.

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Rhodium, Ruthenium, Iridium



	RHODIUM	RUTHENIUM	IRIDIUM
Reporting Week	\$4,650/oz	\$475/oz	\$5,050/oz
Previous Week	\$4,650/oz	\$475/oz	\$4,950/oz

Rhodium industrial demand is forecast to fall this year. Glass fibre manufacturers in China have been actively reducing the rhodium content in the platinum-rhodium bushings used to extrude molten glass, in favour of platinum. This resulted in a build-up of rhodium metal stock, and it was reported that several glass manufacturers sold back to the market earlier this year, putting pressure on the rhodium price. Including this destocking, net global rhodium industrial demand may fall to the lowest level in many years. It is possible that owing to the now lower rhodium price, there could be a bounce in demand in 2024 as demand from Chinese glass makers recovers, along with incremental increases in other sectors.

The iridium price rose by \$100/oz last week, returning to mid-August levels, but still more than 25% lower than the peak price in 2021 of \$6,750/oz. Both rhodium and ruthenium remained stable week-on-week at \$4,650/oz and \$475/oz, respectively. Ruthenium has now been at this price point since the start of July.

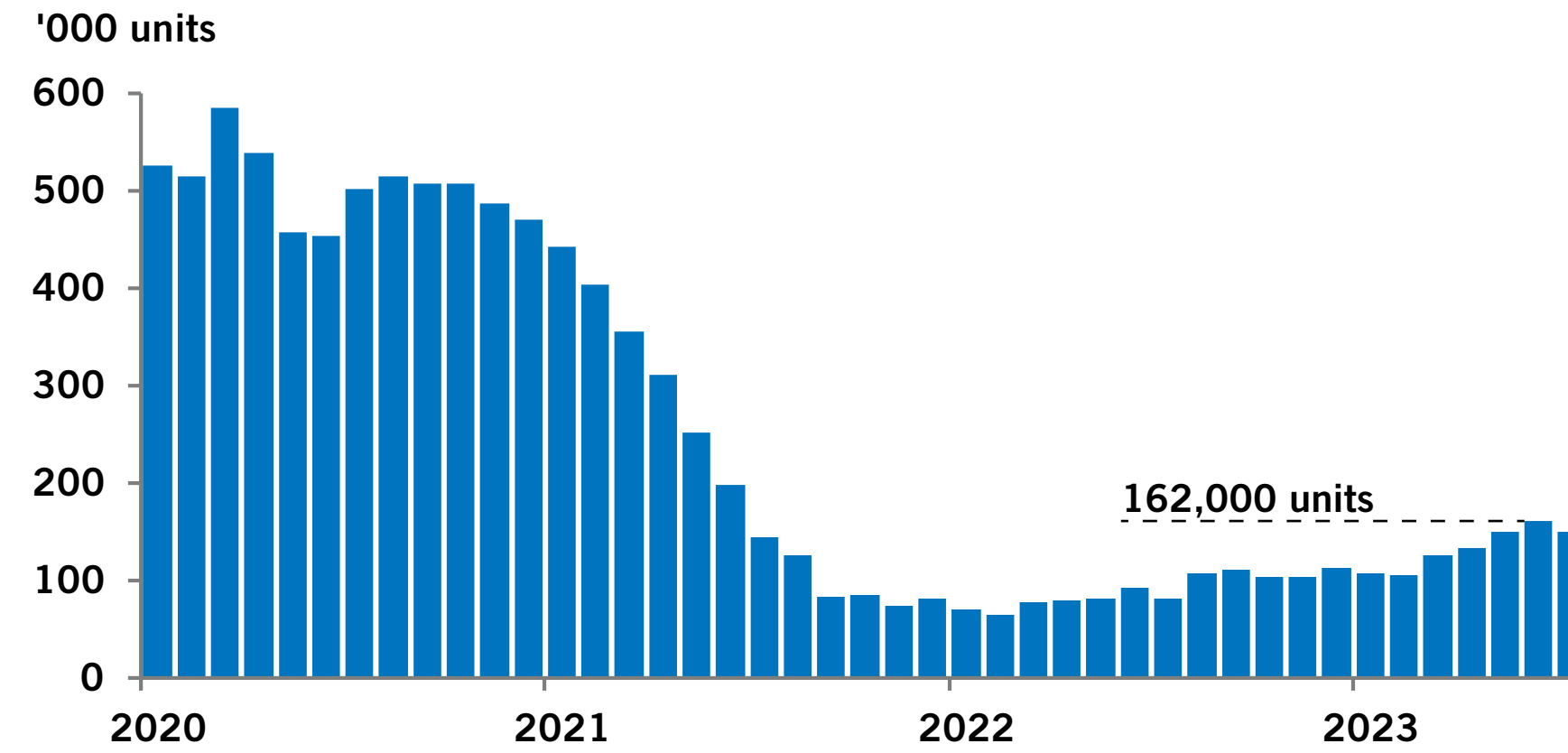
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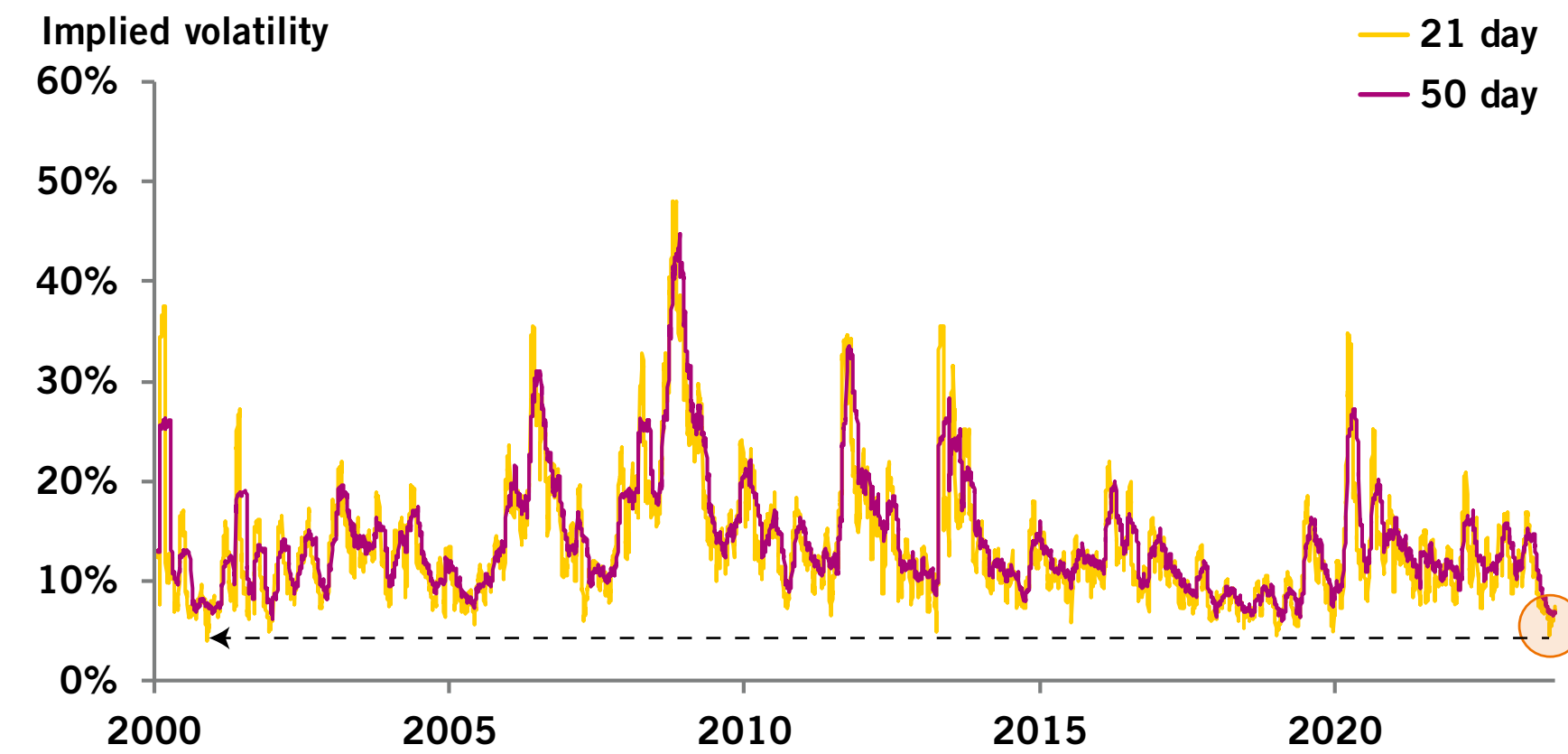
TRENDS AND INVESTMENTS

United States light-vehicle inventory



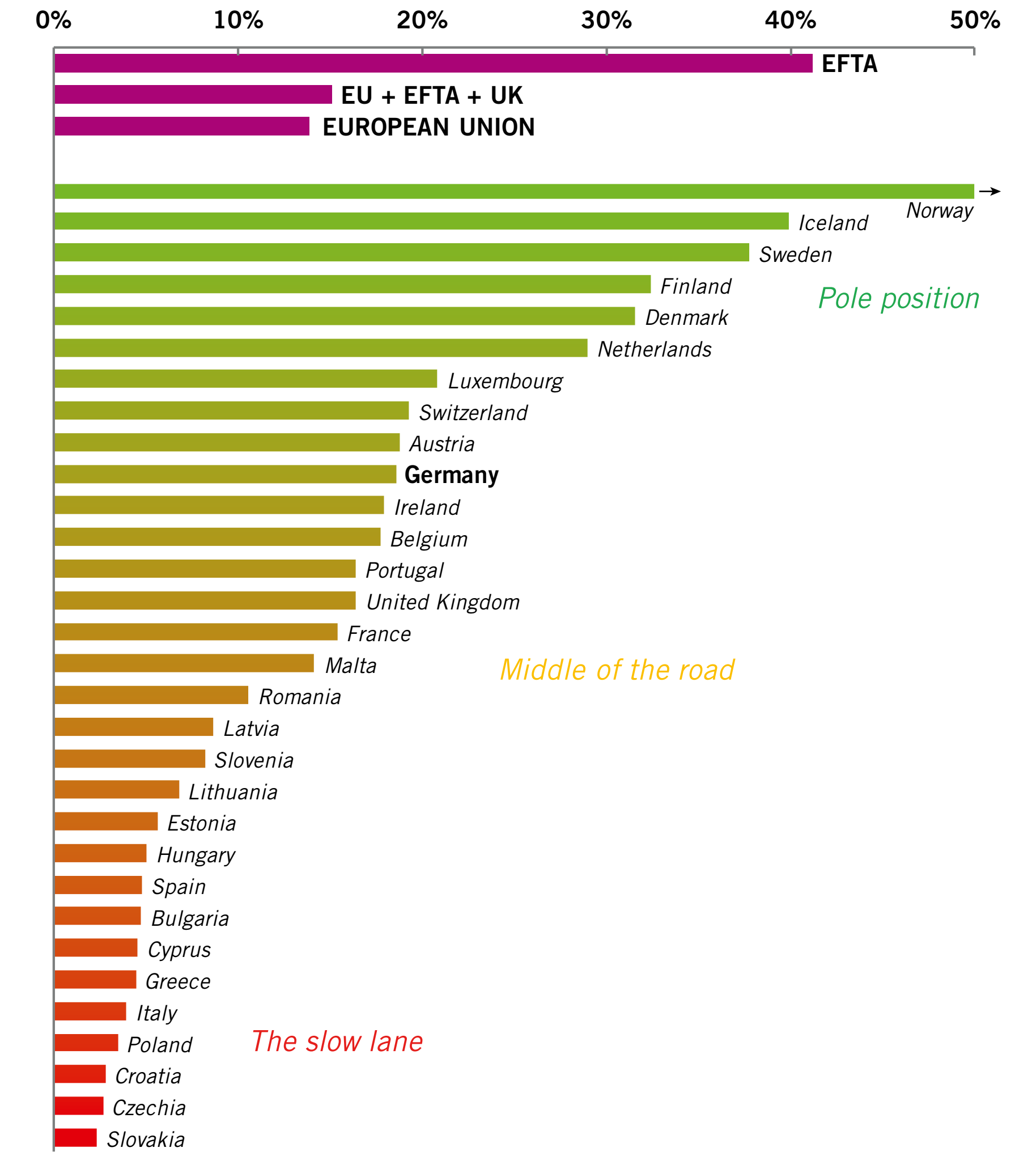
Source: SFA (Oxford), St. Louis Fed

Gold price volatility



Source: SFA (Oxford), Bloomberg

Europe BEV market share, Jan-Aug 2023



Source: SFA (Oxford), ACEA

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