

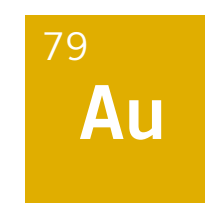
# PRECIOUS APPRAISAL



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# PRECIOUS METALS REVIEW

## Gold



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	1,912	2.61%	1,917	13/01/2023	1,867	11/01/2023
€/oz	1,769	0.79%	1,769	13/01/2023	1,733	12/01/2023

**Wide gold price discounts in India suggest domestic consumer demand may be decelerating.** The second-largest gold consumer, India, is a price-sensitive market for precious metal purchases. When prices are rising, consumers tend to buy less and when prices are falling, they buy more. The gold price has been rallying since November, and in rupee terms reached ₹4,969/g last week, just below the all-time high of ₹5,047/g achieved in March 2022. India’s gold demand was up 10% year-on-year in the first three quarters of 2022 to 498 tonnes. However, retail demand began to slow in November and imports of gold fell 12% month-on-month and 9% year-on-year to 67 tonnes during the month. Consumer demand was likely soft during December owing to the elevated prices and a seasonal slowdown in weddings, which should continue in January if local gold prices remain high. The local discount on the gold price rose to \$41/oz in early January, indicative of a demand slump as dealers try to attract sales. Although high gold prices will remain a headwind for demand going forward, falling consumer inflation in India may help to boost sales later in Q1’23. In demand terms, India could outpace China where the high number of Covid cases is likely to have a sharp impact on retail purchases.

**The US bond market is not expecting inflation to persist.** The yield on the 10-year US Treasury has fallen by 77 bp from the peak in late October and by 40 bp year-to-date. Falling bond yields suggest that debt market participants see future inflation dropping compared to previous forecasts. Inflation in the US has been retreating since June when it peaked at 9.1%, driven primarily by high gasoline and energy prices. The latest US CPI for December 2022, released last week, came in at 6.5%, the first time inflation has been below 7% in the US since November 2021. Inflation continuing to fall in 2023 could pave the way for a less-hawkish rate-hike path from the Federal Reserve. Interest rate traders see a 95% chance that the Fed will introduce a 25 bp hike at its 1 February meeting, having softened from a consensus 50 bp prediction a month ago, which would take the upper bound of the Fed’s target rate to 4.75%. A smaller hike could see the dollar weaken, potentially supporting the gold price.

Gold gained 2.6% last week to reach \$1,912/oz, adding to the best 50-day returns since gold rose to a new all-time high in August 2020. The gold price has now risen by 17% since the start of the current rally in early November. The sharp price reversal followed a drop to an 18-month low in the gold price in the previous month and has been supported by the weakening of the US dollar.

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## PRECIOUS METALS REVIEW

### Silver



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	24.10	1.07%	24.18	12/01/2023	23.22	11/01/2023
€/oz	22.29	-0.72%	22.59	12/01/2023	20.87	10/01/2023

**The Perth Mint outsold the US Mint in silver coins in 2022.** Record levels of silver coin demand at the Perth Mint last year resulted in a total of 23.2 moz of coins sold by year-end. This exceeds annual sales of the US Mint's Silver Eagle coins by 7 moz for the year – the first time the Perth Mint's bullion sales have exceeded those of the US Mint. The Perth Mint's silver product sales grew by 21% year-on-year on an annual basis and 2022 was the best year on record in terms of ounces of silver bullion sold. Conversely, net outflows from silver ETFs totalled 137 moz in 2022. Net additions to global silver ETF holdings were made on 206 days of 2022 versus 159 days recording net outflows, indicating that average magnitude of outflows outweighed that of positive demand.

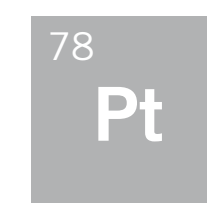
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### Platinum



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	1,063	-2.35%	1,106	11/01/2023	1,051	13/01/2023
€/oz	983	-3.99%	1,030	09/01/2023	973	13/01/2023

**Industrial demand slightly softening in 2023 but remains historically high.** Total industrial platinum demand is forecast to hit the second-highest level on record at nearly 2.3 moz in 2023, a 2% decline year-on-year from the highest demand on record last year. Platinum catalyst demand from the chemicals sector is the largest industrial demand sector and is forecast to recover to 650 koz. The overall decline in global industrial demand despite the chemical sector recovery is linked to a drop in glass manufacturing demand after a record year in 2022.

Ammonia production in Europe was troubled in 2022 by high energy and natural gas prices. As gas prices rose to prohibitive levels, Yara, one of the largest ammonia and fertiliser producers, cut the ammonia plant utilisation rate in Q3'22 to 57%, compared to an average quarterly utilisation rate of 83% since Q1'19. Lower ammonia production results in a reduced amount of platinum catalyst regeneration and replacement demand. European gas prices are currently 75% down from the peak in 2022, meaning ammonia plants could return to normal utilisation rates, thereby stimulating top-up platinum demand in 2023. Year-ahead benchmark gas prices suggest prices will remain low for 2023, supporting expectations that ammonia production will not face further curtailment. Industrial platinum demand could see downside revisions, however, if the US and Europe do enter recession in 2023.

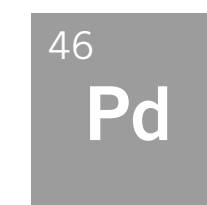
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### Palladium



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\$/oz	1,777	-1.36%	1,843	09/01/2023	1,732	13/01/2023
€/oz	1,644	-3.09%	1,723	09/01/2023	1,608	13/01/2023

**Recovering autocatalyst demand in the US is facing headwinds.** North American palladium autocatalyst demand is estimated to have grown moderately in 2022 to 1.5 moz, and it has the potential to grow again in 2023 if regional sales recover. In the US, around 85% of new light-vehicle sales are financed with a loan or lease. A combination of higher average vehicle prices and rising interest rates, which nearly doubled over the course of last year, drove up the average monthly finance payment on a new vehicle for December to nearly \$720, up around \$45 dollars year-on-year (source: JD Power). The increasing costs are likely to be deterring some buyers of new vehicles, and consequently suppressing palladium demand. Despite this, December did see the highest level of light-vehicle sales in 2022 at 1.3 million units. This is still well below pre-chip shortage levels but suggests that vehicle inventories may finally be recovering. Total US light-vehicle sales reached 13.7 million units, an 8% decline year-on-year, representing the lowest annual sales figure since 2011. Supply constraints are estimated to continue easing in 2023, and consequently levels of vehicle production are expected to grow. However, a recession in the US and higher vehicle costs are not conducive to keeping US light-vehicle production and sales on an upward trend.

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### Rhodium, Ruthenium, Iridium



	RHODIUM	RUTHENIUM	IRIDIUM
Reporting Week	\$13,650/oz	\$515/oz	\$4,750/oz
Previous week	\$13,850/oz	\$525/oz	\$5,000/oz

#### Steelmaking decarbonisation could help galvanise green hydrogen demand.

Europe's net-zero emissions targets are prompting the steel industry to find low-carbon alternatives to conventional steelmaking. As steelmaking is a large contributor to global CO<sub>2</sub> emissions, new technologies need to be developed and commercialised by the end of the decade to meet climate targets. Green hydrogen can replace conventional feedstocks for iron reduction and reduce emissions. At least 14 plants that can use hydrogen feedstocks could come online in Europe by 2030. It is possible that these plants will require on-site electrolyzers, and that they will be large capacity units owing to the volume of gas required. A steel plant in Austria, with support from the EU, is currently testing the direct reduction process using hydrogen produced on site by a 6 MW proton exchange membrane (PEM) electrolyser. The EU plans to use the results of testing to aid the large-scale adoption of the technology, potentially providing significant demand upside for iridium in the next decade. Demand for iridium from the hydrogen economy is already existent but is forecast to grow rapidly as industrial applications for electrolysis become more mainstream.

The rhodium, ruthenium and iridium prices all fell week-on-week. Ruthenium and iridium continued to retreat from recent highs, while rhodium continued its 10-month downward trajectory.

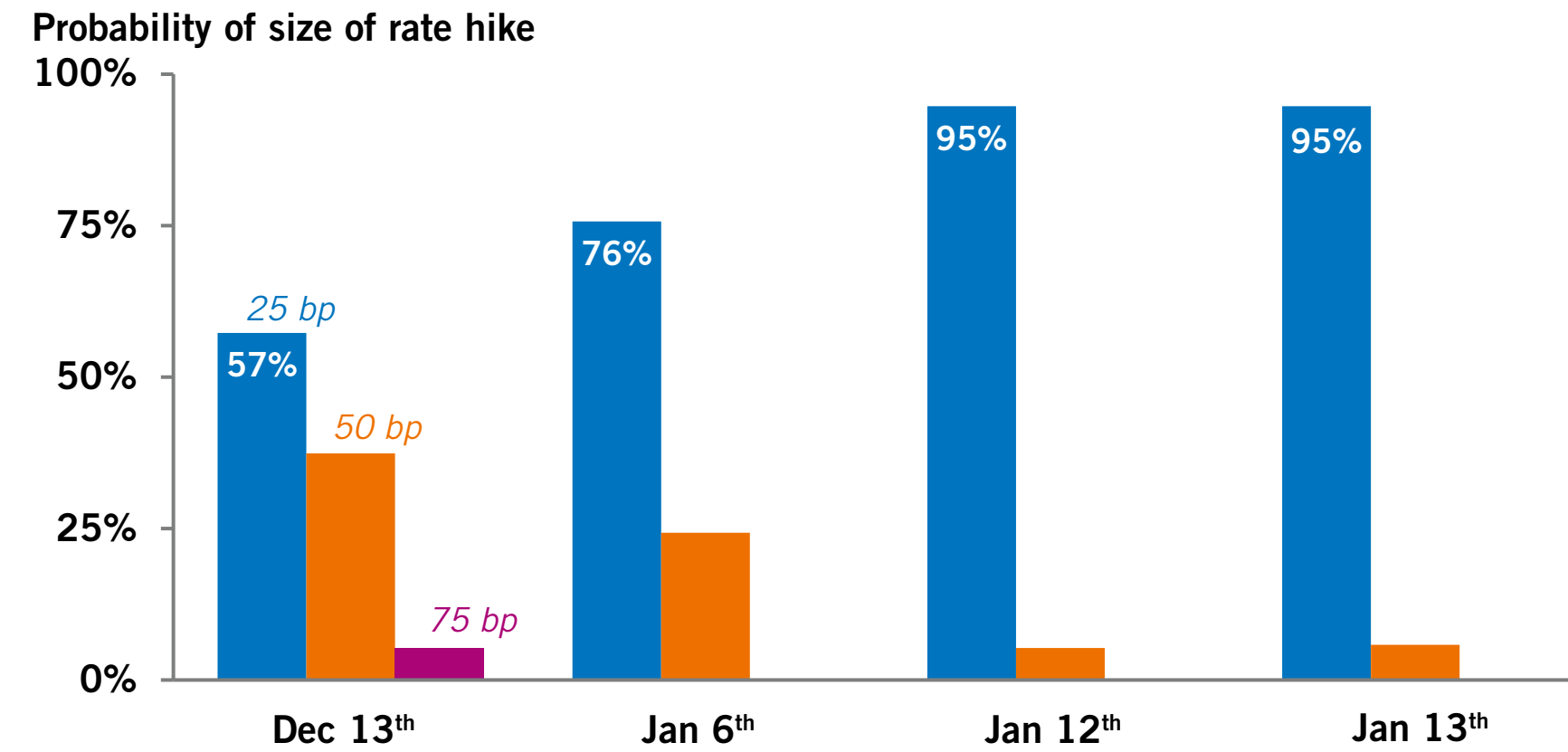
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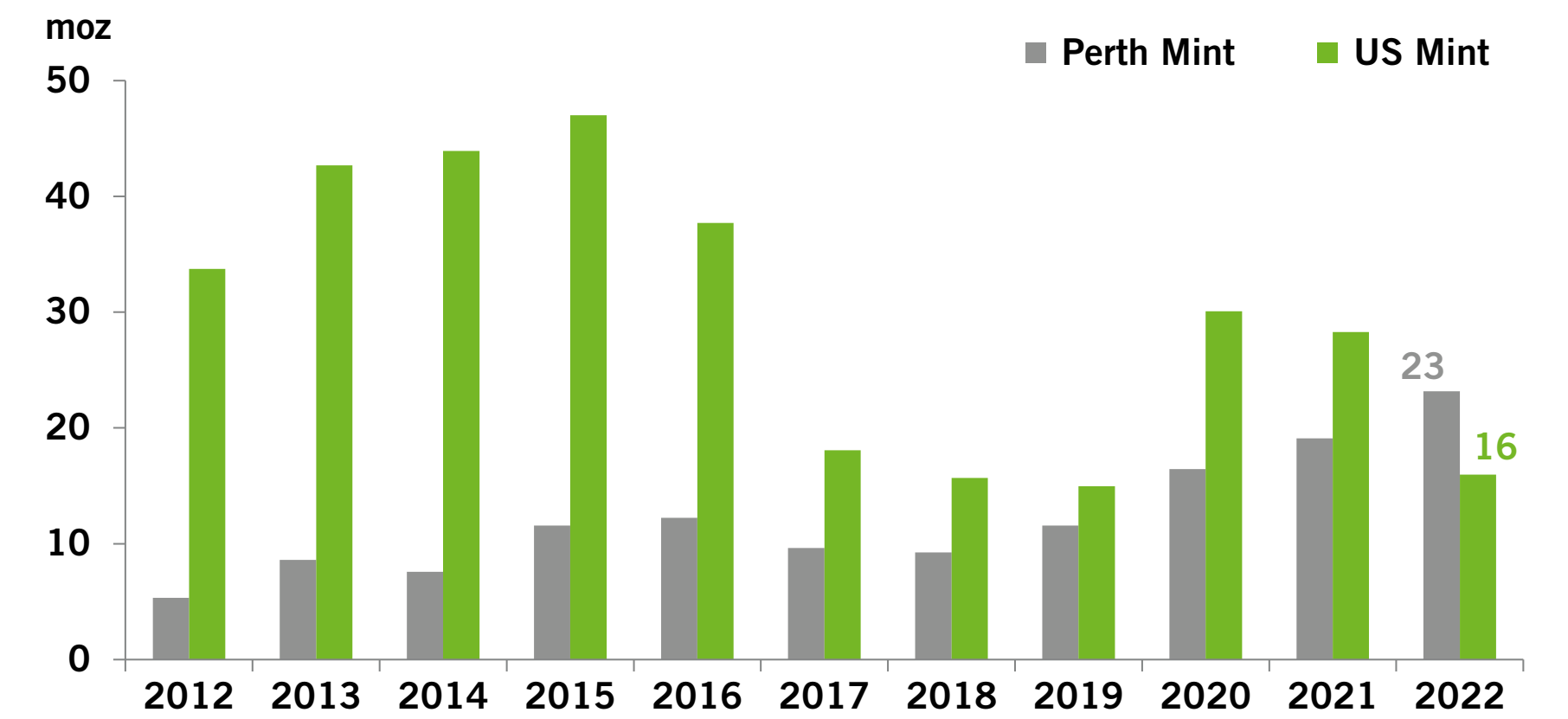
# TRENDS AND INVESTMENTS

## Market's expectations of Fed rate hikes on 1 Feb



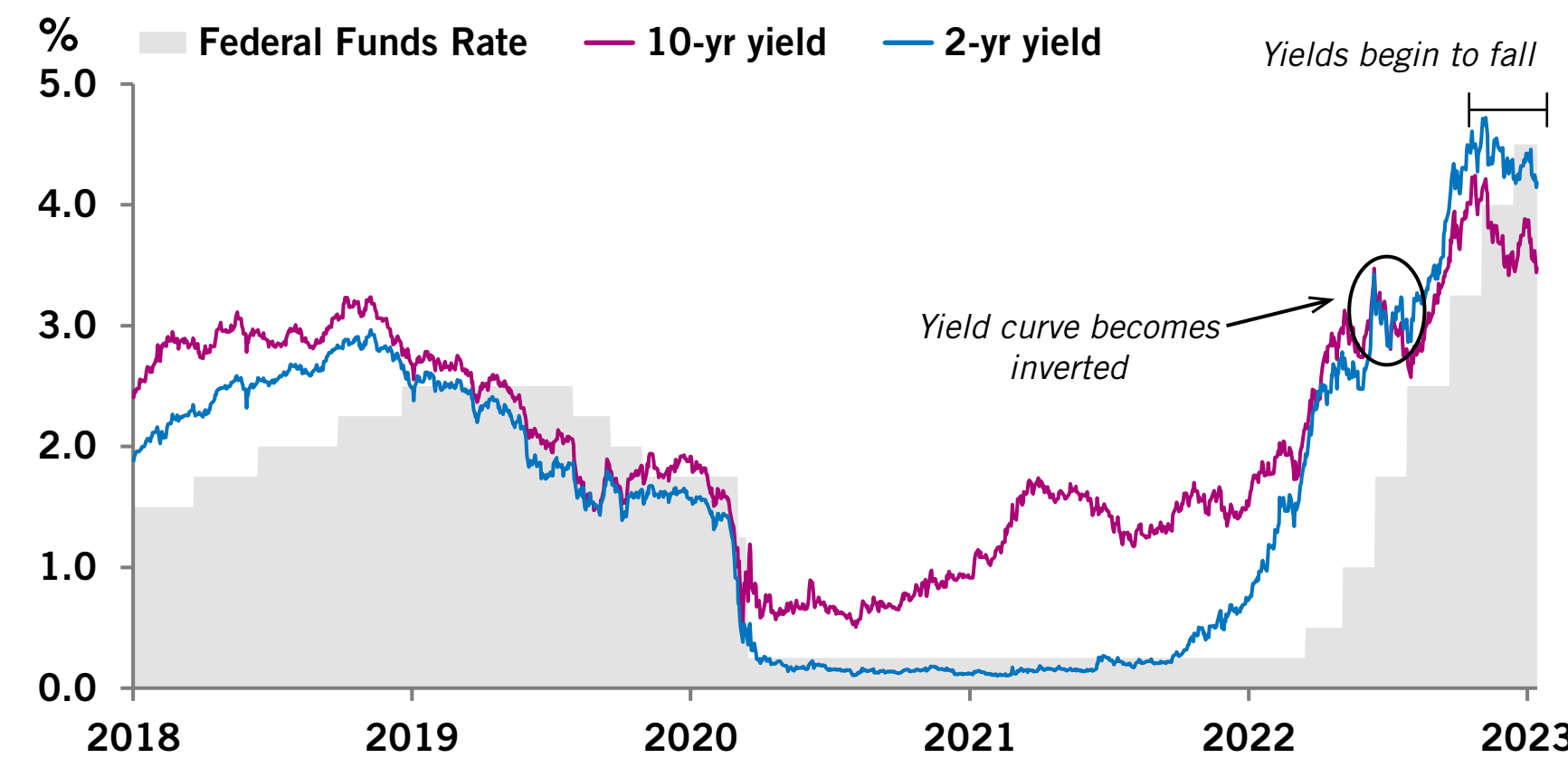
Source: SFA (Oxford), CME FedWatch Tool

## Silver bullion sales by mint



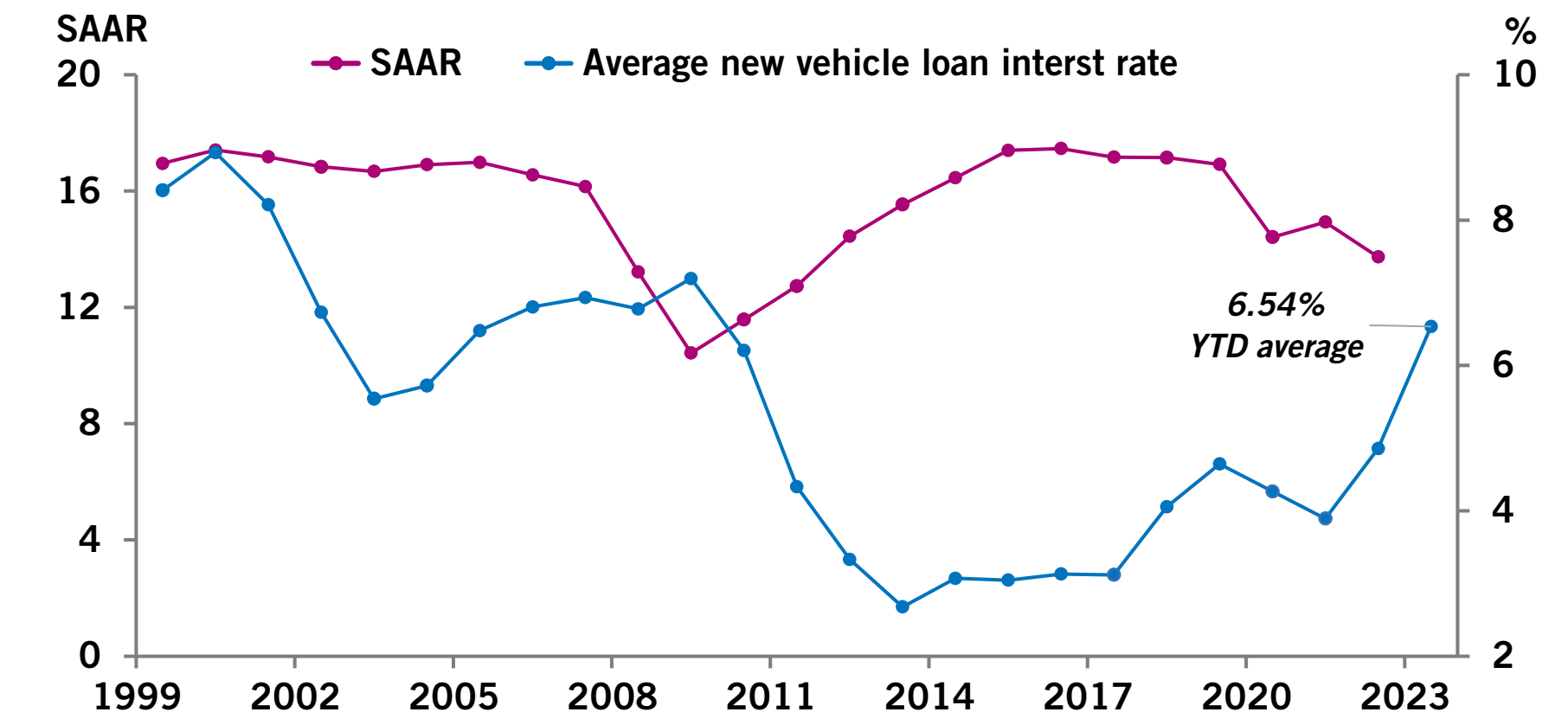
Source: SFA (Oxford), Perth Mint, US Mint

## US Treasury yields versus Federal Funds Rate



Source: SFA (Oxford), Bloomberg

## US light-vehicle SAAR vs. auto loan interest rates



Source: SFA (Oxford), Bloomberg. Note: SAAR = seasonally adjusted annualised rate

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