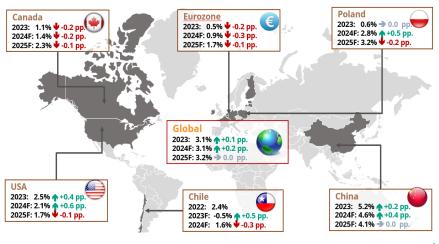


# **Market Overview**

- Copper: KoBold Metals using AI for exploration minerals, declared that the discovery made as part of the project Mingomba far surpasses existing operations in top producer Chile by copper grade. However, the production potential is comparable is to the Kamoa-Kakula mine located in the DRC (page 2).
- Precious metals: Analysts surveyed by the LBMA believe that gold will reach a record average annual price of \$2,059 an ounce this year, which is an increase of 6.1% y/y. Silver prices should average \$24.80 an ounce, or 6.2% above the price from last year (page 3).
- IMF: Global growth, estimated at 3.1 percent in 2023, is projected to remain at 3.1 percent in 2024 before rising modestly to 3.2 percent in 2025. In the United States, growth is projected to fall from 2.5 percent in 2023 to 2.1 percent in 2024 and 1.7 percent in 2025 (page 5).

### IMF World Economic Outlook - January 2024



Source: Bloomberg, KGHM Polska Miedź S.A.



### Key market prices

		Close price	2w chng.
	LME (USD/t)		
$\blacksquare$	Copper	8 091.50	-4.2%
$\blacksquare$	Nickel	15 725.00	-4.9%
	LBMA (USD/troz)		
$\blacksquare$	Silver	22.66	-1.1%
	Gold (PM)	2 023.50	0.3%
	FX		
$\blacksquare$	EURUSD	1.0772	-0.9%
$\blacksquare$	EURPLN	4.3167	-1.4%
$\blacksquare$	USDPLN	4.0096	-0.7%
	USDCAD	1.3458	0.1%
	USDCLP	957.86	5.1%
	Stocks		
•	KGHM	108.20	-4.5%

Source: Bloomberg, KGHM Polska Miedź S.A.; (more on page 10

### Important macroeconomic data

Release	For	
New yuan loans	Jan	4 920 🔺
Non-farm payrolls chng.	Jan	353 🔺
GDP (sa, yoy)	4Q	0.1% 🔺
BCCh rate decision	Jan	7.25% 🔻
Copper production (mt)	Dec	495 537 🔺
	New yuan loans Non-farm payrolls chng. GDP (sa, yoy) BCCh rate decision	New yuan loans Jan Non-farm payrolls chng. Jan GDP (sa, yoy) 4Q BCCh rate decision Jan

Source: Bloomberg, KGHM Polska Miedź S.A.; (more on page 8)

### **Market Risk Unit**

marketrisk@kghm.com



### **Base and precious metals | Other commodities**

### Copper

# Al-powered Zambian copper mine may become world's third largest

KoBold Metals using AI for exploration minerals, declared that the discovery made as part of the project Mingomba far surpasses existing operations in top producer Chile by copper grade. However, the production potential is comparable is to the Kamoa-Kakula mine located in the DRC.

Zambia may be home to the world's third-largest copper mine after a startup backed by billionaire Bill Gates discovered huge deposits of the metal, the country's president said. San Francisco Bay Area-based KoBold Metals, which uses artificial intelligence to explore for materials key to the green-energy transition, said that its discovery at the Mingomba project far surpasses existing operations in top producer Chile by copper grade. "It won't be just the largest mine in Zambia, but it will be one of the largest mines in the world," President Hakainde Hichilema said in an interview. "Maybe one of the top three largest mines in the world. We believe it will produce well over — when it's fully operational — 500,000 to 600,000 metric tons." Escondida in Chile, the world's biggest copper mine, produced more than a million metric tons of the metal last year and Grasberg, in Indonesia, the next largest about 770,000 metric tons in 2022. KoBold President Josh Goldman compared the Zambian mines potential to that of the Kamoa-Kakula, developed by Ivanhoe Mines Ltd. and China's Zijin Mining Group Co. just across the border in Democratic Republic of Congo. That mine produced almost 400,000 tons of copper last year and at full capacity will be able to produce 620,000 tons annually. KoBold, whose shareholders include Breakthrough Energy Ventures - backed by Gates and Jeff Bezos - as well as T. Rowe Price Group Inc., Bond Capital, Andreesen Horowitz and Equinor ASA, has been drilling at its Zambian permit for little over a year. Michael Bloomberg is also an investor in Breakthrough, according to the company's website. The discovery has "huge" implications for Zambia, Hichilema said. Total production of the metal in Africa's second biggest copper producer fell to below 700,000 tons last year. A new operation that could nearly double that will provide a boost toward Hichilema's target of lifting the national output to three million tons by 2031. KoBold, which hasn't commented on potential production levels, estimates it would cost about \$2 billion to build a mine at the Mingomba project.

### Other important information on copper market:

• Indian billionaire Gautam Adani's conglomerate has signed contracts to buy 1.6 million tons a year of copper concentrate for the world's largest singlelocation smelter for the industrial metal. The first 500,000 tons of capacity at the \$1.2 billion facility in Mundra in the western state of Gujarat is set to start operations in march. This will be expanded to 1 million tons by March 2029 to



cater for a forecast doubling of Indian copper demand by the end of the decade. The smelter is starting up just as the global copper market experiences a collapse in the fees that processors charge miners because there's not enough ore to go around. According to Vinaya Prakash, CEO of Adani Natural Resources, a combination of high operating costs and the low fees means smelters and refiners globally may be forced to curtail production. "Our plant will be a low-cost producer with higher metal recovery and this will help us to remain competitive in the market", he added. The concentrate deals are a mix of short- and long-term arrangements.

Chilean Codelco expects its Chuquicamata underground mine to reach processing capacity of 140,000 metric tons a day by 2030, the mine's head said. The site, which is being converted from an open-pit mine to an underground mine, will also see a month-long stoppage next year to swap out the conveyor belt. The century-old mine – one of the world's largest – is crucial to Codelco's production plans as it looks to revamp its core projects to make up for declining ore quality. Development plans have been plagued by delays, with Codelco warning in August that maximum capacity could be postponed by two or three years. In January, Codelco submitted an environmental permit application to invest \$720 million more in transforming the site, also known as "Chuqui," to clear bottlenecks limiting production.

### **Precious Metals**

# Gold and silver to lead 2024 with average prices to rise more than 6% - LBMA annual price forecast

Analysts surveyed by the LBMA believe that gold will reach a record average annual price of \$2,059 an ounce this year, which is an increase of 6.1% y/y. Silver prices should average \$24.80 an ounce, or 6.2% above the price from last year.

Despite a relatively slow start to the year, after hitting a record annual price in 2023, analysts see the potential for the precious metal to achieve another record this year, according to the latest survey from the London Bullion Market Association. Member analysts of the LBMA see the gold market achieving a record annual price of \$2,059 an ounce this year, an increase of 6.1% compared to \$1,940.54 an ounce achieved last year. The survey shows analysts are relatively split on the main drivers for gold prices this year. According to the results, 25% expect U.S. monetary policy to be the most significant factor; at the same time, in a tie, 22% either expect central bank demand or geopolitical risk to drive prices. Looking beyond the humdrum average forecast, there is solid bullish sentiment among analysts. The report noted that all analysts surveyed



expect gold prices to hit new all-time highs this year. The most bullish analyst was Chantelle Schieven, head of research at Capitalight Research. She said that she sees gold prices rising to \$2,400 an ounce and averaging the year around \$2,170 an ounce. "Central banks, notably the US Federal Reserve, are expected to start lowering interest rates in coming months, and our expectation is that they will ease throughout 2024 and the US dollar is likely to continue to decline through 2024. Central bank demand for gold was at a record level in 2022-23. The days of gold being phased out of the international monetary system (1990-2008) are over! Dedollarisation, aided by fear of Western financial sanctions, are driving central banks back to the original reserve: gold," she said in her estimate. The most bearish analyst is James Steele, chief precious metals analyst at HSBC. He looks for gold to trade between \$1,825 an ounce and \$2,200 an ounce, with average prices settling the year around \$1,947.

Analysts are also upbeat on silver as the market could see significant volatility this year. The survey said that analysts see silver prices averaging the year around \$24.80 an ounce, 6.2% above the 2023 average price of \$23.35. The average price is also 7% above the average in the first month of the new year. Analysts are expecting some price volatility with their predicted trading range of \$14 - between \$18.00 and \$32.00 - compared to the actual trading range of almost \$6 last year. The analyst with the most bullish silver outlook was Julia Du, precious metals analyst at ICBC Standard Bank. She sees silver trading between \$20 and \$30 and averaging the year around \$27 an ounce. "Projected Fed interest rate cuts may boost economic growth, increasing silver demand. The correlation with gold, especially when gold becomes expensive, is likely to elevate silver prices. Additionally, support from a weaker dollar due to expected lower rates could help silver to touch \$30 in 2024," Du said in her note. The most bearish in the silver market was Debajit Saha, metals analyst at Refinitiv. He said he sees silver trading between \$20.50 and \$26.76 an ounce and averaging 2024 around \$22.50 an ounce.

Gold and silver are expected to be the leaders in the precious metals space as analysts see slightly less potential in platinum and are outright bearish on palladium. According to the survey, platinum is forecast to average \$1,015, up 5.2% from last year's average price of \$952.88 an ounce. "While the price expectations are relatively modest, the spread between the lowest low and the highest high is \$529, suggesting some volatility ahead," the LBMA said. While Steele had the most bearish vote for gold, he was the most bullish on platinum; he sees prices trading between \$875 and \$1,329 with an annual average of around \$1,105. "Platinum is likely to trade in a wide volatile range this year. Auto demand should continue to rise sharply on increased substitution for more expensive palladium and the continued recovery in vehicle production globally, but we expect this to be partially offset by increases in auto recycling and EV sales." Steele said in his survey comments. Finally, analysts expect palladium to continue to suffer. The analysts see prices averaging the year around \$1,060.10 an ounce, down sharply from last year's average price of \$1,337.39 an ounce.



## **Global economies | Foreign exchange markets**

### World Economic Outlook Update - IMF - January 2024

Global growth, estimated at 3.1 percent in 2023, is projected to remain at 3.1 percent in 2024 before rising modestly to 3.2 percent in 2025. In the United States, growth is projected to fall from 2.5 percent in 2023 to 2.1 percent in 2024 and 1.7 percent in 2025.

Global growth, estimated at 3.1 percent in 2023, is projected to remain at 3.1 percent in 2024 before rising modestly to 3.2 percent in 2025. Compared with that in the October 2023 WEO, the forecast for 2024 is about 0.2 percentage point higher, reflecting upgrades for China, the United States, and large emerging market and developing economies. Nevertheless, the projection for global growth in 2024 and 2025 is below the historical (2000–19) annual average of 3.8 percent, reflecting restrictive monetary policies and withdrawal of fiscal support, as well as low underlying productivity growth. Advanced economies are expected to see growth decline slightly in 2024 before rising in 2025, with a recovery in the euro area from low growth in 2023 and a moderation of growth in the United States. Emerging market and developing economies are expected to experience stable growth through 2024 and 2025, with regional differences.

World trade growth is projected at 3.3 percent in 2024 and 3.6 percent in 2025, below its historical average growth rate of 4.9 percent. Rising trade distortions and geoeconomic fragmentation are expected to continue to weigh on the level of global trade. Countries imposed about 3,200 new restrictions on trade in 2022 and about 3,000 in 2023, up from about 1,100 in 2019, according to Global Trade Alert data.

These forecasts are based on assumptions that fuel and nonfuel commodity prices will decline in 2024 and 2025 and that interest rates will decline in major economies. Annual average oil prices are projected to fall by about 2.3 percent in 2024, whereas nonfuel commodity prices are expected to fall by 0.9 percent. IMF staff projections are for policy rates to remain at current levels for the Federal Reserve, the European Central Bank, and the Bank of England until the second half of 2024, before gradually declining as inflation moves closer to targets. The Bank of Japan is projected to maintain an overall accommodative stance.

The global economic recovery from the COVID-19 pandemic, Russia's invasion of Ukraine, and the cost-of-living crisis is proving surprisingly resilient. Inflation is falling faster than expected from its 2022 peak, with a smaller-than-expected toll on employment and activity, reflecting favorable supply-side developments and tightening by central banks, which has kept inflation expectations anchored. At the same time, high interest rates aimed at fighting inflation and a withdrawal of fiscal support amid high debt are expected to weigh on growth in 2024.



For advanced economies, growth is projected to decline slightly from 1.6 percent in 2023 to 1.5 percent in 2024 before rising to 1.8 percent in 2025. An upward revision of 0.1 percentage point for 2024 reflects stronger-than-expected US growth, partly offset by weaker-than-expected growth in the euro area.

In the United States, growth is projected to fall from 2.5 percent in 2023 to 2.1 percent in 2024 and 1.7 percent in 2025. For 2024, an upward revision of 0.6 percentage point since the October 2023 WEO largely reflects statistical carryover effects from the stronger-than-expected growth outcome for 2023.

Growth in the euro area is projected to recover from its low rate of an estimated 0.5 percent in 2023, which reflected relatively high exposure to the war in Ukraine, to 0.9 percent in 2024 and 1.7 percent in 2025. Stronger household consumption as the effects of the shock to energy prices subside and inflation falls, supporting real income growth, is expected to drive the recovery. Compared with the October 2023 WEO forecast, however, growth is revised downward by 0.3 percentage point for 2024, largely on account of carryover from the weaker-than-expected outcome for 2023.

Economic growth is estimated to have been stronger than expected in the second half of 2023 in the United States, and several major emerging market and developing economies. In several cases, government and private spending contributed to the upswing, with real disposable income gains supporting consumption and households drawing down on their accumulated pandemicera savings. A supply-side expansion also took hold, with a broad-based increase in labor force participation, resolution of pandemicera supply chain problems, and declining delivery times. The rising momentum was not felt everywhere, with notably subdued growth in the euro area, reflecting weak consumer sentiment, the lingering effects of high energy prices, and weakness in interest-rate-sensitive manufacturing and business investment. Low-income economies continue to experience large output losses compared with their prepandemic (2017–19) paths amid elevated borrowing costs.

Amid favorable global supply developments, inflation has been falling faster than expected, with recent monthly readings near the prepandemic average for both headline and underlying (core) inflation. Global headline inflation in the fourth quarter of 2023 is estimated to have been about 0.3 percentage point lower than predicted in the October 2023 WEO on a quarter-over-quarter seasonally adjusted basis. Diminished inflation reflects the fading of relative price shocks—notably those to energy prices—and their associated pass-through to core inflation. The decline also reflects an easing in labor market tightness, with a decline in job vacancies, a modest rise in unemployment, and greater labor supply, in some cases associated with a strong inflow of immigrants. Wage growth has generally remained contained, with wage-price spirals—in which prices and wages accelerate together—not taking hold. Near-term inflation expectations have fallen in major economies, with long-term expectations remaining anchored.



To reduce inflation, major central banks raised policy interest rates to restrictive levels in 2023, resulting in high mortgage costs, challenges for firms refinancing their debt, tighter credit availability, and weaker business and residential investment. Commercial real estate has been especially under pressure, with higher borrowing costs compounding postpandemic structural changes. But with inflation easing, market expectations that future policy rates will decline have contributed to a reduction in longer-term interest rates and rising equity markets. Still, long-term borrowing costs remain high in both advanced and emerging market and developing economies, partly because government debt has been rising. In addition, central banks' policy rate decisions are becoming increasingly asynchronous. In some countries with falling inflation—including Brazil and Chile, where central banks tightened policy earlier than in other countries—interest rates have been declining since the second half of 2023. In China, where inflation has been near zero, the central bank has eased monetary policy. The Bank of Japan has kept short-term interest rates near zero.



## **Macroeconomic calendar**

### Important macroeconomic data releases

Weight	Date	Event		Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>
		China				*3
000	31-Jan	Official manufacturing PMI	Jan	49.2	49.0	49.3
000	01-Feb	Caixin's manufacturing PMI	Jan	50.8 =	50.8	50.8
٥	07-Feb	Foreign reserves (USD bn)	Jan	3 219	3 238	3 220 👅
0000	08-Feb	Consumer inflation CPI (yoy)	Jan	-0.8%	-0.3%	-0.5%
00	08-Feb	Producer inflation PPI (yoy)	Jan	-2.5%	-2.7%	-2.6%
0	09-Feb	New yuan loans (CNY bn)‡	Jan	4 920 🛕	1 171	4 500
		Poland				
000	01-Feb	Manufacturing PMI	Jan	<b>47.1</b> ▼	47.4	48.1
00000	07-Feb	NBP base rate decision	Feb	5.75% =	5.75%	5.75%
		US				
0	29-Jan	Dallas Fed manufacturing activity‡	Jan	- 27.4 🔻	- 10.4	- 11.0 👅
00000	31-Jan	FOMC base rate decision - upper bound (Fed)	Jan	5.50% =	5.50%	5.50%
00000	31-Jan	FOMC base rate decision - lower bound (Fed)	Jan	5.25% =	5.25%	5.25%
000	01-Feb	Manufacturing PMI - final data	Jan	50.7	50.3	50.3
00	01-Feb	ISM Manufacturing‡	Jan	49.1	47.1	47.2
00	02-Feb	Change in non-farm payrolls (ths)‡	Jan	353 🛕	333	185
00	02-Feb	Durable goods orders - final data	Dec	0.0% =	0.0%	0.0%
00	02-Feb	Underemployment rate (U6)	Jan	7.2%	7.1%	
00	02-Feb	Unemployment rate	Jan	3.7% =	3.7%	3.8%
00	02-Feb	University of Michigan confidence index - final data	Jan	79.0	78.8	78.9
٥	02-Feb	Average hourly earnings (yoy)‡	Jan	4.5%	4.3%	4.1%
000	05-Feb	Composite PMI - final data	Jan	52.0	52.3	52.3
000	05-Feb	PMI services - final data	Jan	52.5	52.9	52.9
		Eurozone				400
00000	30-Jan	GDP (sa, yoy) - estimation	4Q	0.1%	0.0%	0.1%
00000	30-Jan	GDP (sa, qoq) - estimation	4Q	0.0%	-0.1%	-0.1%
•	30-Jan	Economic confidence‡	Jan	96.2	96.5	96.1
•	30-Jan	Industrial confidence‡	Jan	- 9.4 <b>V</b>	- 9.0	- 9.0
0	30-Jan	Consumer confidence - final data	Jan	- 16.1 =	- 16.1	
0000	01-Feb	Core CPI (yoy) - preliminary data	Jan	3.3%	3.4%	3.2%
0000	01-Feb	CPI estimate (yoy)	Jan	2.8%	2.9%	2.7%
000	01-Feb	Manufacturing PMI - final data	Jan	46.6 =	46.6	46.6
00	01-Feb	Unemployment rate	Dec	6.4% =	6.4%	6.4%
000	05-Feb	Composite PMI - final data	Jan	47.9 =	47.9	47.9
000	05-Feb	Services PMI - final data	Jan	48.4 =	48.4	48.4 🔾
00	05-Feb	Producer inflation PPI (yoy)	Dec	-10.6%	-8.8%	-10.5%
00	06-Feb	Retail sales (yoy)‡	Dec	-0.8%	-0.4%	-0.8%



Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>
		Germany				
00000	30-Jan	GDP (yoy) - preliminary data‡	4Q	-0.4% 🔺	-0.7%	-0.4%
00000	30-Jan	GDP (sa, qoq) - preliminary data‡	4Q	-0.3%	0.0%	-0.3%
0000	31-Jan	Harmonized consumer inflation HICP (yoy) - preliminary data	Jan	3.1%	3.8%	3.2%
0000	31-Jan	Consumer inflation CPI (yoy) - preliminary data	Jan	2.9%	3.7%	3.0%
000	31-Jan	Retail sales (yoy)‡	Dec	-4.4%	-1.2%	-1.9%
00	31-Jan	Unemployment rate‡	Jan	5.8% =	5.8%	5.9%
000	01-Feb	Manufacturing PMI - final data	Jan	45.5 🔺	45.4	45.4
000	05-Feb	Composite PMI - final data	Jan	47.0	47.1	47.1
000	06-Feb	Factory orders (wda, yoy)‡	Dec	2.7%	-4.7%	-5.3%
0000	07-Feb	Industrial production (wda, yoy)‡	Dec	-3.0%	-4.3%	-2.4%
0000	09-Feb	Harmonized consumer inflation HICP (yoy) - final data	Jan	3.1% =	3.1%	3.1%
0000	09-Feb	Consumer inflation CPI (yoy) - final data	Jan	2.9% =	2.9%	2.9%
		France				
00000	30-Jan	GDP (yoy) - preliminary data	4Q	0.7% 🔺	0.6%	0.7%
00000	30-Jan	GDP (qoq) - preliminary data‡	4Q	0.0% =	0.0%	0.0%
0000	31-Jan	Harmonized consumer inflation HICP (yoy) - preliminary data	Jan	3.4%	4.1%	3.6%
0000	31-Jan	Consumer inflation CPI (yoy) - preliminary data	Jan	3.1%	3.7%	3.3%
000	01-Feb	Manufacturing PMI - final data	Jan	43.1	43.2	43.2
0000	02-Feb	Industrial production (yoy)‡	Dec	0.9%	0.4%	-0.2%
000	05-Feb	Composite PMI - final data	Jan	44.6	44.2	44.2
		Italy				
00000	30-Jan	GDP (wda, yoy) - preliminary data	4Q	0.5%	0.1%	0.2%
00000	30-Jan	GDP (wda, qoq) - preliminary data	4Q	0.2%	0.1%	0.0%
00	31-Jan	Unemployment rate‡	Dec	7.2%	7.4%	7.5%
0000	01-Feb	Harmonized consumer inflation HICP (yoy) - preliminary data	Jan	0.9% 🔺	0.5%	0.8%
000	01-Feb	Manufacturing PMI	Jan	48.5	45.3	47.0
000	05-Feb	Composite PMI	Jan	50.7	48.6	50.2
0000	09-Feb	Industrial production (wda, yoy)‡	Dec	-2.1% 🔺	-2.9%	-2.5%
		UK				
00000	01-Feb	BoE base rate decision	Feb	52.5 =	52.5	52.5
000	01-Feb	Manufacturing PMI (sa) - final data	Jan	47.0 <b>V</b>	47.3	47.3
000	05-Feb	Composite PMI - final data	Jan	52.9	52.5	52.5
		Japan				
0000	31-Jan	Industrial production (yoy) - preliminary data	Dec	-0.7% 🔺	-1.4%	0.2%
000	01-Feb	Manufacturing PMI - final data	Jan	48.0 =	48.0	
000	05-Feb	Composite PMI - final data	Jan	51.5 🔺	51.1	
		Chile				*
00000	31-Jan	BCCh overnight rate target	Jan	7.25%	8.25%	7.25%
000	31-Jan	Total copper production (metric tons)	Dec	495 537 🔺	444 905	
000	31-Jan	Manufacturing (yoy)	Dec	-1.8%	4.5%	1.7%
0000	01-Feb	Economic activity (yoy)	Dec	-1.0%	1.2%	0.5%
000	07-Feb	Copper exports (USD mn)	Jan	3 377	4 162	
00	07-Feb	Nominal wages (yoy)	Dec	7.7%	8.2%	
		Canada				•
00000	31-Jan	GDP(yoy)	Nov	1.1% 🔺	0.9%	1.0%
000	09-Feb	Net change in employment (ths)	Jan	37.3 🔺	0.1	15.0

Source: Bloomberg, KGHM Polska Miedź

<sup>&</sup>lt;sup>1</sup> Reading difference to previous release: ▲ = higher than previous; ▼ = lower than previous; •= equal to previous.

<sup>&</sup>lt;sup>2</sup> Reading difference to consensus: ■ = higher than consensus; ■ = lower than consensus; □ = equal to consensus. mom = month-on-month; yoy = year-on-year; qoq = quarter on quarter; ytd year-to-date; sa = seasonally adjusted; wda = working days adjusted; ‡ = previous data after revision.



## **Key market data**

Key base & precious metal prices, exchange rates and other important market factors

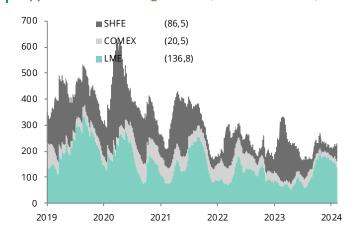
(as of: 09-Feb-24)		Price change <sup>1</sup>							From year beginning <sup>2</sup>			
	Price		2W		QTD		YTD		1Y	Average	Min	Max
LME (USD/t; Mo in USD/lbs)	_											
Copper	8 091.50		-4.2%	$\blacksquare$	-4.5%	•	-4.5%	$\blacksquare$	-9.6%	8 330.84	8 091.50	8 513.0
Molybdenum	19.66		-0.9%		6.1%		6.1%	$\blacksquare$		19.87	19.18	20.7
Nickel	15 725.00	_	-4.9%	$\blacksquare$	-3.5%	•	-3.5%	•	-41.9%	16 024.31	15 620.00	16 600.0
Aluminum	2 180.50	_	-1.4%	•	-6.6%	•	-6.6%	•	-10.1%	2 194.91	2 110.00	2 336.5
Tin	25 980.00	$\blacksquare$	-2.1%		3.2%		3.2%	$\blacksquare$	-6.1%	25 255.52	24 025.00	26 550.0
Zinc	2 322.00	_	-10.1%	$\blacksquare$	-12.1%		-12.1%	$\blacksquare$	-27.0%	2 494.71	2 322.00	2 607.0
Lead	2 050.00	_	-4.6%		0.9%		0.9%	•	-3.8%	2 094.88	2 012.00	2 180.0
LBMA (USD/troz)	_											
Silver	22.66	_	-1.1%	$\blacksquare$	-4.8%	•	-4.8%		0.8%	22.86	22.20	23.9
Gold <sup>2</sup>	2 023.50		0.3%	$\blacksquare$	-1.9%	•	-1.9%		7.7%	2 033.50	2 011.75	2 067.5
LPPM (USD/troz)	_											
Platinum <sup>2</sup>	879.00	•	-3.1%	•	-12.6%	•	-12.6%	•	-9.6%	918.45	878.00	988.0
Palladium <sup>2</sup>	875.00	_	-7.5%	$\blacksquare$	-21.8%	•	-21.8%	•	-46.9%	969.59	875.00	1 101.0
FX <sup>3</sup>												
EURUSD	1.0772	_	-0.9%	•	-2.5%	•	-2.5%		0.0%	1.0876	1.0743	1.098
EURPLN	4.3167	_	-1.4%	$\blacksquare$	-0.7%	_	-0.7%	$\blacksquare$	-8.9%	4.3570	4.3167	4.401
USDPLN	4.0096	_	-0.7%		1.9%		1.9%	_	-8.9%	4.0055	3.9432	4.048
USDCAD	1.3458		0.1%		1.8%		1.8%		0.2%	1.3435	1.3316	1.352
USDCNY	7.1936		0.2%		1.3%		1.3%		6.0%	7.1766	7.1432	7.198
USDCLP	957.86		5.1%		8.3%		8.3%		20.8%	917.21	877.12	957.8
Money market												
3m LIBOR USD	5.571	•	-0.01	•	-0.02	•	-0.02		0.70	5.577	5.534	5.59
3m EURIBOR	3.891		0.00	•	-0.02	•	-0.02		1.28	3.920	3.884	3.97
3m WIBOR	5.860	-	0.00	•	-0.02	•	-0.02	•	-1.08	5.863	5.850	5.89
5y USD interest rate swap	4.219	-	0.00	-	0.00	-	0.00		0.31	N/A	N/A	N/
5y EUR interest rate swap	2.766		0.14		0.34		0.34	•	-0.16	2.613	2.406	2.76
5y PLN interest rate swap	4.740		0.08		0.35		0.35	•	-0.65	4.533	4.315	4.74
Fuel												
WTI Cushing	71.46	_	-7.5%	•	-19.6%	•	-19.6%	•	-36.1%	79.84	71.02	88.9
Brent	76.48	•	-7.4%	•	-22.8%	•	-22.8%	•	-36.4%	86.82	76.48	96.9
Diesel NY (ULSD)	2.87	_	-11.0%	•	-37.2%	•	-37.2%	•	-27.9%	3.40	2.75	4.1
Others												
VIX	12.93	_	-0.33		0.48		0.48	•	-7.78	13.36	12.44	14.7
BBG Commodity Index	96.95	•	-1.9%	•	-1.7%	•	-1.7%	_	-10.2%	97.64	96.47	98.8
S&P500	5 026.61		2.8%		5.4%		5.4%		23.2%	4 845.56	4 688.68	5 026.6
DAX	16 926.50	_	-0.2%		1.0%		1.0%		9.0%	16 759.55	16 431.69	17 033.2
Shanghai Composite	2 865.90	•	-1.5%	_	-3.7%	_	-3.7%	_	-12.4%	2 853.11	2 702.19	2 967.2
WIG 20	2 309.39	<b>A</b>	3.9%	_	-1.4%	_	-1.4%		21.8%	2 260.02	2 167.71	2 350.4
KGHM ange over: 2W = two weeks												

° change over: 2W = two weeks; QTD = quarter-to-day; YTD = year-to-date; 1Y = one year. 1 based on daily closing prices. 2 latest quoted price. 3 central banks' fixing rates (Bank of China HK for USD/CNY). 4.

Source: Bloomberg, KGHM Polska Miedź

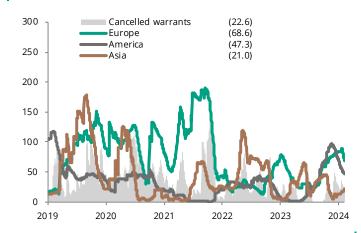


### Copper: official exchange stocks (thousand tonnes)



Note: Latest values in brackets. Source: Bloomberg, KGHM

### Copper: official LME stocks (thousand tonnes)



Note: Latest values in brackets. Source: Bloomberg, KGHM

#### Copper: price in USD (lhs) and PLN (rhs) per tonne



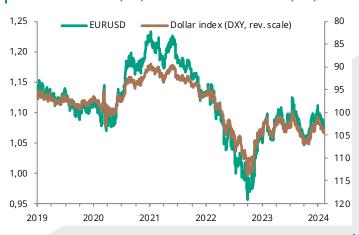
Source: Bloomberg, KGHM Polska Miedź

### Silver: price (lhs) and gold ratio (rhs)



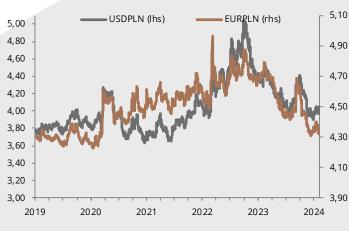
Source: Bloomberg, KGHM Polska Miedź

### USD: dollar index (lhs) and ECB-based EURUSD (rhs)



Source: Bloomberg, KGHM Polska Miedź

### PLN: NBP-fixing based rate vs. USD (lhs) and EUR (rhs)



Source: Bloomberg, KGHM Polska Miedź



### **Legal note**

This document has been prepared based on the below listed reports, among others, published in the following period: **15 January – 11 February 2024.** 

- Barclays Capital,
   BofA Merrill Lynch,
   Citi Research,
   CRU Group,
   Deutsche Bank Markets Research,
- GavekalDragonomics,
   Goldman Sachs,
   JPMorgan,
   Macquarie Capital Research,
   Mitsui Bussan Commodities,
- Morgan Stanley Research,
   SMM Information & Technology,
   Sharps Pixley.

Moreover, additional information published here was acquired in direct conversations with market dealers, from financial institution reports and from the following websites: • thebulliondesk.com, • lbma.org.uk, • lme.co.uk, • metalbulletin.com, • nbp.pl, , also: Bloomberg and Thomson Reuters.

Official metals prices are available on following websites:

base metals: www.lme.com/dataprices\_products.asp (charge-free logging)

silver and gold: www.lbma.org.uk/pricing-and-statistics

platinum and palladium: www.lppm.com/statistics.aspx

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