Market Overview

as of: 3th March 2025

- **Copper:** China has tightened copper smelter rules, requiring mine supply ownership. China will also encourage copper smelters to sign long-term purchase agreements with global miners, boost imports of copper blister and anode, and encourage scrap imports *(page 2)*.
- **Precious metals:** Silver has a strong start to 2025, with the price up 12.6 percent. However, it remains significantly underpriced compared to gold from a historical perspective with the gold-silver ratio still above 90-1 *(page 5)*.
- **USA:** A growing number of Americans are beginning to expect that prices will stay high, or even rise. Some surveys indicate that not only consumers but also businesses expect higher prices *(page 6)*.

The gold/silver ratio remains around 90, well above its long-term average

Source: Bloomberg, KGHM Polska Miedź S.A.

Key market prices

		Close price	1m chng.
	LME (USD/t)		
▲	Copper	9 767.00	6.0%
▲	Nickel	17 005.00	1.1%
	LBMA (USD/troz)		
▲	Silver	31.08	5.4%
▲	Gold (PM)	2 629.95	4.6%
	FX		
▲	EURUSD	1.1196	1.0%
▼	EURPLN	4.2791	0.0%
▼	USDPLN	3.8193	-1.2%
▲	USDCAD	1.3499	0.1%
▼	USDCLP	896.25	-2.3%
	Stocks		
▲	KGHM	159.35	14.8%

Source: Bloomberg, KGHM Polska Miedź S.A.; *(more on page 9)*

Important macroeconomic data

Release	For		
Fed upper rate	Sep	5.00%	▼
Caixin's manuf. PMI	Aug	50.4	▲
Industrial prod. (yoy)	Aug	4.5%	▼
Manufacturing PMI	Aug	47.8	▲
BoC rate decision	Sep	4.25%	▼

Source: Bloomberg, KGHM Polska Miedź S.A.; *(more on page 7)*

Market Risk Unit

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Base and precious metals | Other commodities

Copper

China tightens rules on new copper smelters

China has tightened copper smelter rules, requiring mine supply ownership. China will also encourage copper smelters to sign long-term purchase agreements with global miners, boost imports of copper blister and anode, and encourage scrap imports.

China has tightened requirements for building new copper smelters, in its latest attempt to curb relentless capacity expansion. Companies building new copper smelters should control enough mine supply — via outright ownership or equity stakes — to feed the plants, according to a 2025-2027 development plan for the country's copper industry jointly issued by 11 ministries. This condition would likely be met by only a small number of major Chinese companies. The sector has seen cut-throat competition for raw material as mines across the world faced production disruptions, falling grades, and higher exploration costs. Spot processing fees have plunged below zero, causing industry-wide losses and threatening output cuts at Chinese plants.
The China Nonferrous Metals Industry Association last October called for curbs on new smelters as a "top priority" and urged the copper sector to learn from government intervention in the steel and aluminum industries. About 85% of concentrate used in Chinese plants is imported, according to data from the US Geological Survey. The country produced 12 million tons of refined copper in 2023, while mined output was at 1.7 million tons. Total reserves of the red metal stood at 41 million tons as of 2023, or 4.1% of the global total, according to USGS. The country aims to boost domestic copper mine resources by 5% to 10% in three years to secure raw material supply, according to the government plan. China will also encourage copper smelters to sign long-term purchase agreements with global miners, boost imports of copper blister and anode, and encourage scrap imports, according to the plan.

US consumers to bear brunt of copper tariffs, ex-Codelco CEO - Marcos Lima - says

M. Lima believes that the only effect of the tariffs will be an increase in copper prices in the United States. He noted that it is not possible for the country to boost domestic copper production overnight. Copper imports to the United States rose to 45% last year, from almost zero in 1991.

Potential US tariffs on copper will only serve to drive up prices for consumers because domestic producers won't be able to make up the shortfall, the former CEO of Chilean mining giant Codelco says. Implementing such a measure as part of protectionist policies to boost domestic copper production would not be beneficial for the US, Marcos Lima, Codelco's former CEO. Lima is a founding partner at the CIS Consultores consultancy in Santiago. US President Donald

Trump on signed an executive order that launches a so-called Section 232 review into copper imports. Section 232 investigations are called to determine the effects of any imports on US national security. “The only thing that will happen is that the price of copper in the United States will rise,” Lima said Friday via email. “It’s impossible for the country to increase its production levels overnight.” The probe into copper – which is designed to give Trump ammunition to impose levies – threatens to escalate concerns over the effects that a trade war would have on global growth. Trump, who reiterated yesterday he intends to slap import tariffs on Mexican and Canadian goods, has also vowed to penalize shipments from the European Union. In 2018, Trump imposed a 25% tariff on steel and a 10% tariff on aluminum after arguing that foreign shipments threatened US national security. The current probe follows that track, heightening concerns among traders and market watchers.

China has been using state subsidies and excess capacity to weaken foreign competition and boost market share, Peter Navarro, the White House’s senior counselor for trade and manufacturing. “Like our steel and aluminum industries, our great American copper industry has been decimated by global actors attacking our domestic production,” Navarro said. “American industries depend on copper and it should be made in America, no exemptions, no exceptions. It’s time for copper to come home.” US copper production has been declining in recent years, and the country’s permitting system remains a major obstacle to speeding up mining projects. US copper production dropped 3% last year from 2023, following an 11% decline in 2023, according to US Geological Service data. While the country holds ample reserves, it has lagged other global players in smelting and refining capacity. A single foreign producer – likely China’s Jiangxi Copper – controls over half of global smelting capacity and owns four of the top five refining facilities, according to a White House brief released this week. China is the world’s largest consumer of copper, and Jiangxi is the nation’s largest supplier of the refined metal.

US copper imports have soared to 45% last year from nearly nothing in 1991, leaving domestic producers exposed to price fluctuation and supply disruptions. Meantime, traders such as Glencore and Trafigura are scrambling to ship copper to the US ahead of a potential tariff announcement to capitalize on potential profits, Bloomberg reported. US copper prices have traded at a premium [against LME] of as much as $1,300 a tonne in February, Bloomberg said. Shipping copper to the US costs about $300 a ton or less.

Other important information on copper market:

- Chilean state-run copper giant Codelco and London-listed miner Anglo American signed a memorandum of understanding to jointly operate neighboring copper mines in central Chile. In a letter to the local regulator, Codelco said its board of directors approved a deal to operate its Andina mine alongside Anglo American's flagship Los Bronces mine. "This memorandum of understanding will allow us to jointly develop a mining plan for both joint deposits that are right next to each other," Codelco's chairman Maximo Pacheco told. He added that the deal would increase production by 120,000 metric tons a year for 21 years without the need for additional investment. Andina produced 164,500 metric tons of copper in 2023. Los Bronces, meanwhile, is a key mine for Anglo American, with output of 215,000 tons in 2023. Anglo American confirmed the agreement and said the rise in production would start in 2030.

- Chile's state copper commission Cochilco held its copper price forecast for 2025 steady at $4.25 per pound and also used the same price for its new 2026 projection, the agency said. Cochilco raised its 2025 price to $4.25 from $3.85 last May and has kept the projection steady ever since. It said it expects copper prices to remain above $4.00 over the next decade. Cochilco expects the global copper deficit to be 118,000 metric tons this year with a surplus of 210,000 tons through to next year. It also expects Chile's copper production to rise by 4.6% this year to 5.76 million tons and grow another 3.6% to 5.97 million tons in 2026.

- Indonesia will allow copper miner PT Freeport Indonesia to resume copper concentrate exports but it will impose higher export duties as a penalty. The higher duties were because the company's smelter in Gresik had failed to operate on schedule after a fire in 2024. Indonesia has banned exports of copper concentrate, but the government had given Freeport an extension until December last year while they ramped up production at their new smelter. However, the smelter is still being repaired after a fire in October, and Freeport cannot currently process copper concentrate at the plant. Freeport has requested an export quota of 1.3 million tons for this year. The company currently has around 400,000 tons of copper concentrate in their inventories, and it estimated concentrate excess could potentially amount to 1.5 million tons this year.

- The global refined copper market showed a 22,000 metric tons deficit in December, compared with a 124,000 metric tons deficit in November, the International Copper Study Group (ICSG). For whole 2024, the market was in a 301,000 metric tons surplus compared with a 52,000 metric tons deficit a year earlier, the ICSG said. World refined copper output in December was 2.37 million metric tons , while consumption was 2.39 million metric tons.

Precious Metals

There Are Some Bullish Indicators in the Silver Market

Silver has a strong start to 2025, with the price up 12.6 percent. However, it remains significantly underpriced compared to gold from a historical perspective with the gold-silver ratio still above 90-1.

Silver has quietly had a strong start to 2025, with the price up 12.6 percent. However, it remains significantly underpriced compared to gold from a historical perspective with the gold-silver ratio still above 90-1.

The gold-silver ratio tells you how many ounces of silver it takes to buy one ounce of gold given the current spot price of both metals. While industrial demand has a much bigger impact on the price of silver than gold, silver is still fundamentally a monetary metal and its price tends to track with gold over time. The gold-silver ratio reflects this relationship.

In the modern era, the gold-silver ratio has averaged between 40-1 and 60-1. The current ratio running so much wider than that historical spread indicates that silver is underpriced and is a bargain compared to gold. As with most averages, the gold-silver ratio tends to eventually return to the mean when it gets significantly out of whack. Over the last few decades, this snap-back has tended to happen very quickly.

For instance, in 2020, the gold-silver ratio set a record of 123-1 as the pandemic gripped and then plunged to around 60-1 as central banks around the world cranked up the money creation machine to cope with governments shutting down economies. The 2008 financial crisis provide another example. The spread rose to over 80-1 in the early days of the crisis and then fell to 30-1 as the Federal Reserve cranked up the money printing machine.

These two examples indicate that there appears to be some correlation between the gold-silver ratio and central bank money creation. The spread tends to drop when the Fed cranks up money creation and opens back up when the central bank attempts to tighten monetary policy.

The ratio did narrow as the Fed began discussing monetary easing last summer, but it now appears that the central bank is trying to slow rate cuts due to sticky price inflation. Even so, the slowdown in balance sheet reduction the Fed initiated last summer and the three rate cuts late last year have already created a more inflationary environment with the money supply rising. This is, by definition, inflation. This has supported both gold and silver prices, along with market volatility caused by the flow of metal from London to New York due to tariff threats and other factors.

Given the level of debt and malinvestments in the economy due to decades of easy money, it's only a matter of time before the Fed is forced to lean back into monetary easing. This could be the catalyst to drive silver higher and close the gold-silver ratio. The supply and demand dynamics also indicate that silver is underpriced.

Global economies | Foreign exchange markets

A Disturbing Wobble in the Gauge That Long Comforted the Fed

A growing number of Americans are beginning to expect that prices will stay high, or even rise. Some surveys indicate that not only consumers but also businesses expect higher prices.

A growing number of Americans are beginning to expect that prices will stay high, or even rise — a bad omen for the Federal Reserve and its years-long fight to stifle inflation. Consumer inflation expectations have been rising for the last month or two across several reports. Some surveys point to businesses anticipating higher prices as well. If those expectations become reality, it could prove catastrophic for the Fed's attempt to stabilize prices without causing a recession. "It's something that has to concern the Fed, and it should concern the administration too," said Stephen Stanley, chief US economist at Santander US Capital Markets LLC. One survey in particular has raised eyebrows. According to the University of Michigan, Americans' expectations of price growth over the next 5 to 10 years rose to the highest level in nearly three decades. But the alarming statistic came with a surprising political twist that has complicated how policymakers might interpret it. Inflation expectations have long shown a gap between Republicans and Democrats, with slightly lower projections from the side that controls the White House. Economists tend to ignore the gap and focus on the median. But recently, the divergence has become striking, especially in the short term. One-year expectations for Democrats rose to 5.4% in February from 1.6% in October. Republican expectations dropped to -0.1% from 3.7%. That has made some question whether the data is so distorted by politics as to be useless.

Others say it's valid as long as the sentiment captured in the survey tells you something about how the respondent behaves as a shopper and a worker. "Ultimately it doesn't matter if you think that and you're a Democrat or a Republican, if it affects how you're actually consuming or asking for wage increases and things of that nature," said Omair Sharif, president of Inflation Insights LLC. "It's still going to potentially affect inflation." It's hard to overemphasize how important inflation expectations are to any central bank's mission to keep price growth low and stable. The last time price pressures got truly out of control in the US, in the 1970s and 1980s, they were vanquished not simply when high interest rates forced down inflation. The threat dissipated only after inflation expectations had been wrestled to the ground following multiple rounds of high rates, an effort that had a devastating impact on the labor market. This history is top of mind for Kansas City Fed President Jeff Schmid. He warned about the "sharp upward" movement in price expectations in a speech, noting the data had made him more cautious about the inflation outlook than he was even a month prior.

Macroeconomic calendar

Important macroeconomic data releases

Weight	Date	Event	For	Reading [1]		Previous	Consen
		China					
✪✪✪	02-Sep	Caixin's manufacturing PMI	Aug	50.4	▲	49.8	50.0
✪✪✪✪	14-Sep	Industrial production (yoy)	Aug	4.5%	▼	5.1%	4.7%
✪✪	14-Sep	Fixed assets investments (ytd, yoy)	Aug	3.4%	▼	3.6%	3.5%
✪✪✪✪✪	24-Sep	Reserve requirement ratio	Sep	9.5%	▼	10.0%	--
✪✪	27-Sep	Industrial profits (yoy)	Aug	-17.8%	▼	4.1%	--
✪✪✪	30-Sep	Official manufacturing PMI	Sep	49.8	▲	49.1	49.4
✪✪✪	30-Sep	Caixin's manufacturing PMI	Sep	49.3	▼	50.4	50.
		Poland					
✪✪✪	02-Sep	Manufacturing PMI	Aug	47.8	▲	47.3	47.4
✪✪✪✪	19-Sep	Sold industrial production (yoy)‡	Aug	-1.5%	▼	5.2%	-0.3%
✪✪	19-Sep	Average gross salary (yoy)	Aug	11.1%	▲	10.6%	10.4%
✪	19-Sep	Employment (yoy)	Aug	-0.5%	▼	-0.4%	-0.3%
✪✪	24-Sep	Unemployment rate	Aug	5.0%	-	5.0%	5.0
		US					
✪✪✪	03-Sep	Manufacturing PMI - final data‡	Aug	47.9	-	47.9	48.0
✪✪✪	05-Sep	Composite PMI - final data‡	Aug	54.6	-	54.6	54.0
✪✪✪	05-Sep	PMI services - final data‡	Aug	55.7	-	55.7	55.1
✪✪	06-Sep	Change in non-farm payrolls (ths)‡	Aug	142	▲	89.0	165
✪✪	06-Sep	Underemployment rate (U6)	Aug	7.9%	▲	7.8%	--
✪✪	06-Sep	Unemployment rate	Aug	4.2%	▼	4.3%	4.2%
✪	17-Sep	Capacity utilization‡	Aug	78.0%	▲	77.4%	77.9%
✪✪✪✪✪	18-Sep	FOMC base rate decision - upper bound (Fed)	Sep	5.00%	▼	5.50%	5.25%
✪✪✪✪✪	18-Sep	FOMC base rate decision - lower bound (Fed)	Sep	4.75%	▼	5.25%	5.00%
✪✪✪	23-Sep	Composite PMI - preliminary data	Sep	54.4	▼	54.6	54.3
✪✪✪	23-Sep	Manufacturing PMI - preliminary data	Sep	--		47.9	48.6
✪✪✪	23-Sep	PMI services - preliminary data	Sep	55.4	▼	55.7	55.
		Eurozone					
✪✪✪✪✪	06-Sep	GDP (sa, yoy) - final data	2Q	0.6%	-	0.6%	0.6%
✪✪✪✪✪	12-Sep	ECB main refinancing rate	Sep	3.65%	▼	4.25%	3.65%
✪✪✪✪✪	12-Sep	ECB deposit facility rate	Sep	3.5%	▼	3.8%	3.5%
✪✪✪✪	13-Sep	Industrial production (wda, yoy)‡	Jul	-2.2%	▲	-4.1%	-2.3
		Germany					
✪✪✪	02-Sep	Manufacturing PMI - final data‡	Aug	42.4	-	42.4	42.1
✪✪✪	04-Sep	Composite PMI - final data‡	Aug	48.4	-	48.4	48.5
✪✪✪	05-Sep	Factory orders (wda, yoy)‡	Jul	3.7%	▲	-11.2%	-1.9%
✪✪✪✪	06-Sep	Industrial production (wda, yoy)‡	Jul	-5.3%	▼	-3.7%	-3.5%
✪✪✪	23-Sep	Composite PMI - preliminary data	Sep	47.2	▼	48.4	48.2
✪✪✪	23-Sep	Manufacturing PMI - preliminary data	Sep	--		42.4	42.
		France					
✪✪✪	02-Sep	Manufacturing PMI - final data	Aug	43.9	▼	44.0	42.1
✪✪✪	04-Sep	Composite PMI - final data‡	Aug	53.1	-	53.1	52.7
✪✪✪✪	06-Sep	Industrial production (yoy)‡	Jul	-2.2%	▼	-1.7%	-0.9%
✪✪✪	23-Sep	Composite PMI - preliminary data	Sep	47.4	▼	53.1	51.5
✪✪✪	23-Sep	Manufacturing PMI - preliminary data	Sep	--		43.9	44.2

Weight	Date	Event	For	Reading [1]		Previous	Consen	
		Italy						
✪✪✪✪✪	02-Sep	GDP (wda, yoy) - final data	2Q	0.9%	-	0.9%	0.9%	○
✪✪✪	02-Sep	Manufacturing PMI	Aug	49.4	▲	47.4	48.5	◓
✪✪✪	04-Sep	Composite PMI	Aug	50.8	▲	50.3	51.4	◒
✪✪✪✪	10-Sep	Industrial production (wda, yoy)	Jul	-3.3%	▼	-2.6%	-1.8%	
		UK						
✪✪✪	02-Sep	Manufacturing PMI (sa) - final data‡	Aug	52.5	-	52.5	52.5	○
✪✪✪	04-Sep	Composite PMI - final data‡	Aug	53.8	-	53.8	53.4	◓
✪✪✪✪	11-Sep	Industrial production (yoy)	Jul	-1.2%	▲	-1.4%	-0.1%	◒
✪✪✪✪✪	19-Sep	BoE base rate decision	Sep	50.0	-	50.0	50.0	○
✪✪✪	23-Sep	Manufacturing PMI (sa) - preliminary data	Sep	--		52.5	52.2	
✪✪✪	23-Sep	Composite PMI - preliminary data	Sep	52.9	▼	53.8	53.5	◒
✪✪✪✪✪	30-Sep	GDP (yoy) - final data	2Q	0.7%	▼	0.9%	0.9%	
		Japan						
✪✪✪	02-Sep	Manufacturing PMI - final data	Aug	49.8	▲	49.1	--	
✪✪✪	04-Sep	Composite PMI - final data	Aug	52.9	▲	52.5	--	
✪✪✪✪	13-Sep	Industrial production (yoy) - final data	Jul	2.9%	▲	2.7%	--	
✪✪✪	24-Sep	Composite PMI - preliminary data	Sep	--		52.9	--	
✪✪✪	24-Sep	Manufacturing PMI - preliminary data	Sep	--		49.8	--	
✪✪✪✪	30-Sep	Industrial production (yoy) - preliminary data	Aug	-4.9%	▼	2.9%	-1.5%	
		Chile						
✪✪✪✪	02-Sep	Economic activity (yoy)‡	Jul	4.2%	▲	0.2%	2.7%	
		Canada						
✪✪✪✪✪	04-Sep	BoC base rate decision	Sep	4.25%	▼	4.50%	4.25%	○
✪✪✪✪✪	27-Sep	GDP (yoy)‡	Jul	1.5%	▲	1.3%	1.4%	◓

[1] Reading difference to previous release: ▲ = higher than previous; ▼ = lower than previous; - = equal to previous.
[2] 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.
Source: Bloomberg, KGHM Polska Miedź

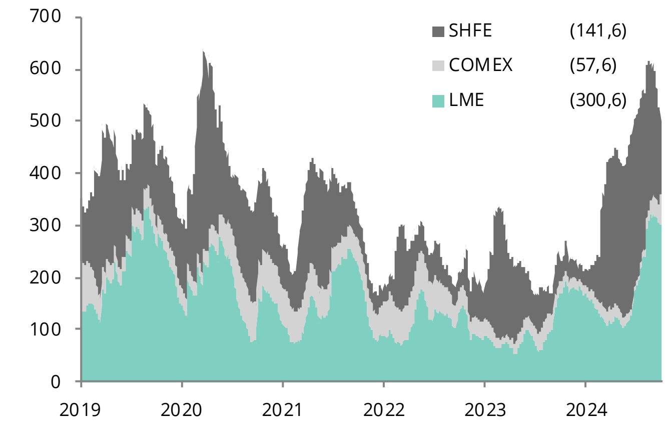
Key market data

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

(as of: 30-Sep-24)		Price change[1]				From year beginning[2]		
	Price	**1M**	**QTD**	**YTD**	**1Y**	**Average**	**Min**	**Max**
LME (USD/t; Mo in USD/lbs)								
Copper	9 767.00	▲ 6.0%	▲ 3.1%	▲ 15.2%	▲ 18.7%	9 131.16	8 085.50	10 857.00
Molybdenum	21.59	▲ 2.5%	▼ -7.1%	▲ 16.5%	▼	21.14	19.18	23.73
Nickel	17 005.00	▲ 1.1%	▲ 0.3%	▲ 4.3%	▼ -8.1%	17 072.08	15 470.00	21 275.00
Aluminum	2 611.00	▲ 6.0%	▲ 5.0%	▲ 11.8%	▲ 13.2%	2 366.41	2 110.00	2 695.00
Tin	33 325.00	▲ 2.8%	▲ 1.0%	▲ 32.4%	▲ 37.7%	30 130.32	24 025.00	35 685.00
Zinc	3 075.50	▲ 7.5%	▲ 5.3%	▲ 16.5%	▲ 16.5%	2 687.70	2 285.50	3 093.00
Lead	2 070.50	▲ 2.2%	▼ -4.1%	▲ 1.9%	▼ -6.3%	2 094.70	1 905.00	2 291.00
LBMA (USD/troz)								
Silver	31.08	▲ 5.4%	▲ 5.8%	▲ 30.6%	▲ 34.7%	27.22	22.09	32.48
Gold[2]	2 629.95	▲ 4.6%	▲ 12.8%	▲ 27.5%	▲ 40.6%	2 295.75	1 985.10	2 663.75
LPPM (USD/troz)								
Platinum[2]	985.00	▲ 4.8%	▼ -2.7%	▼ -2.1%	▲ 6.7%	951.60	872.00	1 065.00
Palladium[2]	998.00	▲ 1.8%	▲ 2.7%	▼ -10.8%	▼ -22.6%	973.29	852.00	1 101.00
FX [3]								
EURUSD	1.1196	▲ 1.0%	▲ 4.6%	▲ 1.3%	▲ 5.7%	1.0871	1.0632	1.1196
EURPLN	4.2791	▼ 0.0%	▼ -0.8%	▼ -1.6%	▼ -7.7%	4.3063	4.2499	4.4016
USDPLN	3.8193	▼ -1.2%	▼ -5.3%	▼ -2.9%	▼ -12.6%	3.9619	3.8117	4.0760
USDCAD	1.3499	▲ 0.1%	▼ -1.4%	▲ 2.1%	▼ -0.2%	1.3604	1.3316	1.3858
USDCNY	7.0187	▼ -1.0%	▼ -3.4%	▼ -1.1%	▼ -3.8%	7.1983	7.0109	7.2761
USDCLP	896.25	▼ -2.3%	▼ -5.8%	▲ 1.3%	▼ -1.2%	937.56	877.12	986.85
Money market								
3m SOFR	4.592	▼ -0.42	▼ -0.73	▼ -0.74	▼ -0.80	5.239	4.592	5.347
3m EURIBOR	3.279	▼ -0.21	▼ -0.43	▼ -0.63	▼ -0.67	3.761	3.279	3.970
3m WIBOR	5.850	- 0.00	- 0.00	▼ -0.03	▲ 0.08	5.857	5.850	5.890
5y USD interest rate swap	3.246	▼ -0.15	▼ -0.86	▼ -0.28	▼ -1.13	3.863	3.104	4.484
5y EUR interest rate swap	3.246	▼ -0.15	▼ -0.86	▼ -0.28	▼ -1.13	2.694	2.214	3.030
5y PLN interest rate swap	4.329	▼ -0.21	▼ -0.66	▼ -0.07	▼ -0.17	4.811	4.268	5.450
Fuel								
WTI Cushing	40.10	▼ -0.9%	▲ 62.1%	▼ -35.0%	▼ -29.0%	36.91	-37.63	63.27
Brent	44.82	▲ 1.1%	▲ 80.1%	▼ -35.6%	▼ -28.7%	41.40	11.41	70.54
Diesel NY (ULSD)	1.45	▲ 0.4%	▲ 32.4%	▼ -33.4%	▼ -31.9%	1.47	0.89	2.20
Others								
VIX	16.73	▲ 1.73	▲ 4.29	▲ 4.28	▼ -0.79	14.94	11.86	38.57
BBG Commodity Index	100.34	▲ 4.4%	▼ -0.6%	▲ 1.7%	▼ -4.3%	99.27	93.33	107.24
S&P500	5 762.48	▲ 2.0%	▲ 5.5%	▲ 20.8%	▲ 34.4%	5 265.24	4 688.68	5 762.48
DAX	19 324.93	▲ 2.2%	▲ 6.0%	▲ 15.4%	▲ 25.6%	18 013.51	16 431.69	19 473.63
Shanghai Composite	3 336.50	▲ 17.4%	▲ 12.4%	▲ 12.2%	▲ 7.3%	2 962.39	2 702.19	3 336.50
WIG 20	2 324.13	▼ -3.6%	▼ -9.3%	▼ -0.8%	▲ 21.3%	2 405.26	2 167.71	2 593.10
KGHM	159.35	▲ 14.8%	▲ 6.0%	▲ 29.9%	▲ 42.3%	132.27	105.75	170.00

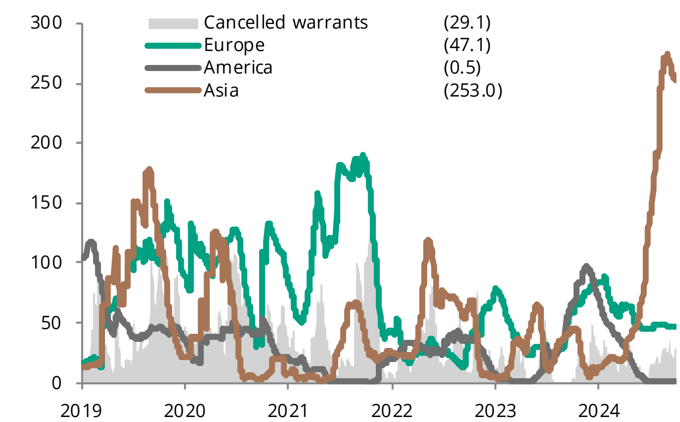
° change over: 2W = two weeks; QTD = quarter-to-day; YTD = year-to-date; 1Y = one year. [1] based on daily closing prices. [2] latest quoted price. [3] central banks' fixing rates (Bank of China HK for USD/CNY). [4].
Source: Bloomberg, KGHM Polska Miedź

Copper: official exchange stocks (thousand tonnes)



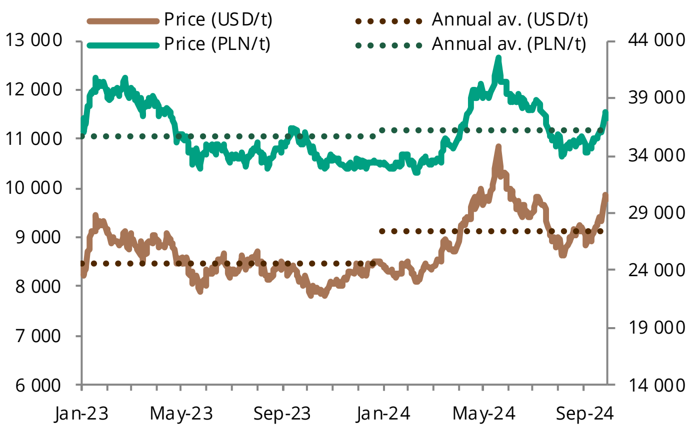
Note: Latest values in brackets. Source: Bloomberg, KGHM

Copper: official LME stocks (thousand tonnes)



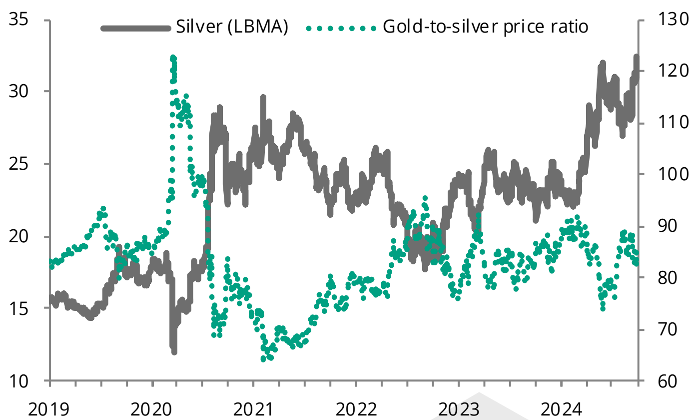
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



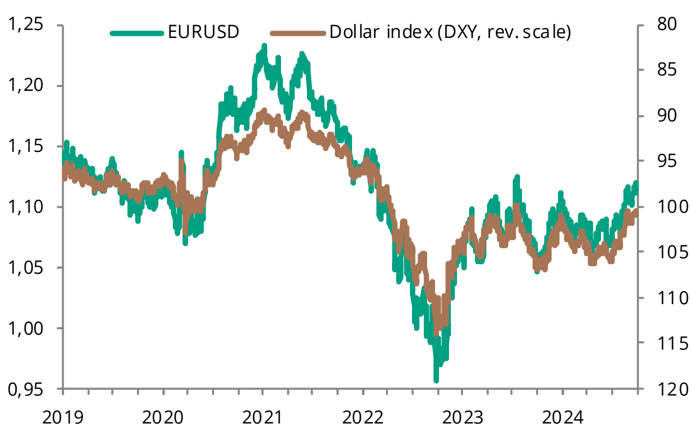
Source: Bloomberg, KGHM Polska Miedź

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



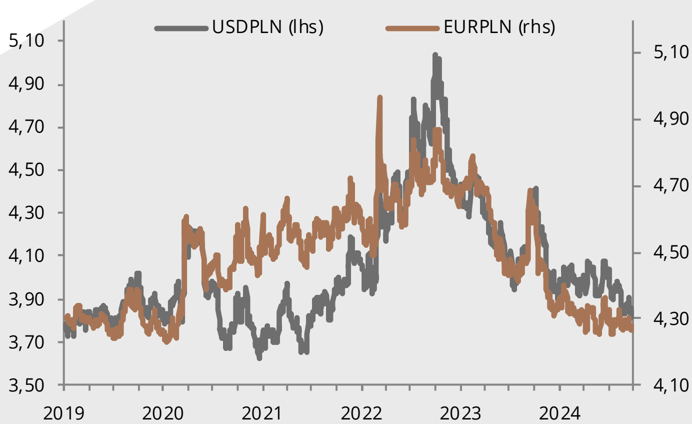
Source: Bloomberg, KGHM Polska Miedź

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: **1 – 28 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/

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