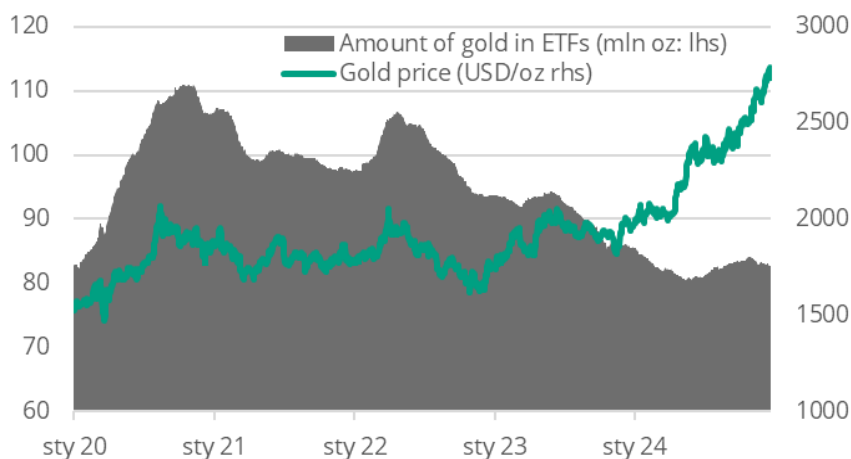


# Market Overview

- **Copper:** Vedanta is set to invest \$2 billion to build copper-processing facilities in Saudi Arabia, a significant boost for the kingdom's ambitions to become a global metals and mining hub (*page 2*).
- **Precious metals:** A gold deposit with estimated reserves exceeding 1,000 tons has been discovered in central China's Hunan province. Advanced ore exploration technologies, such as 3D geological modelling, were used (*page 5*).
- **USA:** Fed Chairman Jerome Powell said in early November that the economy was not sending signals indicating the need to rush into lowering interest rates. The meeting transcript shows that other decision-makers also support this position (*page 6*).

## Rising gold prices without significant impact on the level of stocks in ETF funds



Source: Bloomberg, KGHM Polska Miedź S.A.






as of: 2<sup>nd</sup> December 2024

## Key market prices

	Price	1m chng.
<b>LME (USD/t)</b>		
▼ Copper	8 879.00	-5.8%
▲ Nickel	15 745.00	1.4%
<b>LBMA (USD/troz)</b>		
▼ Silver	30.70	-8.6%
▼ Gold (PM)	2 651.05	-3.0%
<b>FX</b>		
▼ EURUSD	1.0562	-2.9%
▼ EURPLN	4.3043	-1.1%
▲ USDPLN	4.0770	1.8%
▲ USDCAD	1.4010	0.7%
▲ USDCLP	977.32	2.8%
<b>Stocks</b>		
▼ KGHM	127.25	-14.9%

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

## Important macroeconomic data

Release	For	
 Fed upper rate	Nov	4.75% ▼
 Caixin's manuf. PMI	Oct	50.3 ▲
 Manufacturing PMI	Oct	49.2 ▲
 Industr. prod. (wda, yoy)	Sep	-4.6% ▼
 Composite PMI	Nov	49.9 ▼

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

## Market Risk Unit

marketrisk@kgm.com

## Base and precious metals | Other commodities

### Copper

#### **Vedanta Plans to Invest \$2 Billion in Saudi Copper Projects**

**Vedanta is set to invest \$2 billion to build copper-processing facilities in Saudi Arabia, a significant boost for the kingdom's ambitions to become a global metals and mining hub.**

As Bloomberg informs Vedanta is set to invest \$2 billion to build copper-processing facilities in Saudi Arabia, a significant boost for the kingdom's ambitions to become a global metals and mining hub. The firm, controlled by Indian billionaire Anil Agarwal, will build a new smelter and refinery with a capacity of 400,000 metric tons per year, according to a statement. Vedanta also plans to set up a facility to produce as much as 300,000 tons per year of copper rods, a key raw material for electric cables. "It's just impossible to ignore the demand for copper," Chris Griffith, chief executive officer of Vedanta Base Metals, said in an interview. "This project ties in very nicely, both with our own ambitions as Vedanta to grow our footprints in India and the Middle East, but also with the industrial growth strategy in Saudi Arabia their desire to secure a copper supply chain." The firm plans to commence operations in the kingdom with a 125 kiloton per year copper rod mill project that will require an investment of about \$30 million, it said in a statement. Full commercial production is expected to start in 2026. Vedanta's \$2 billion investment will be among the biggest by a foreign firm backing Saudi Arabia's metals strategy, and a major boost for Riyadh's efforts to attract foreign direct investment to help drive Crown Prince Mohammed bin Salman's economic diversification plan. Vedanta hasn't yet inked further agreements with Saudi companies but there will be opportunities to partner with local firms, he said. According to government estimates, Saudi Arabia has untapped resources including phosphate, copper, gold and bauxite worth as much as \$2.5 trillion. Many of these commodities are crucial for decarbonizing global economies, which has triggered a rush for control of assets, and for the technology and cash needed to turn the minerals into usable products. But the recent construction of new copper smelters in China, India and Indonesia has created major commercial strains across the industry, with processing fees that cover the cost of turning raw ores into refined metal on course to hit record lows next year. With mine supply growing less quickly than refining capacity, it's likely that some smelters will need to curtail output due to the collapse in margins and shortages of feedstock. Vedanta expects global annual demand for copper to increase by 40% by 2040. "I think what we're going to have to see in any event is much higher copper prices to incentivize new copper production," Griffith said. Executives from the firm are set to visit Ras Al Khair, home of a mining complex in Northern Saudi Arabia, to scope potential sites for the copper development, he said. Vedanta is also in discussions with Saudi authorities about potential incentives that could be

offered to help fund the plants. The kingdom has been trying to lure companies to help develop the mining industry as part of its efforts to become a hub for the sector in the Middle East and Africa. The Saudi Industrial Development Fund, for example, will offer financing for up to 75% of a project. Saudi Arabia announced deals worth \$9.3 billion as part of its plans to become a global supply chain hub, including an agreement with GlassPoint to develop a factory for renewable energy components used to decarbonize industrial heat production. The plant is the first stage of a \$1.5 billion project with Saudi Arabian Mining Co., known as Maaden, to use solar-to-heat technology to help reduce emissions in aluminium production.

### **Copper TC/RCs Benchmark Next Year Seen At 15-Year Low**

**The 2025 projections are well below the 2024 benchmark of \$80 per tonne. CRU data shows that the last time the annual TC/RC benchmark was below \$50 was in 2010.**

Copper concentrate processing fees are expected to be set at a 15-year-low in 2025 because of increasing tightness in raw material supply from mine disruptions and an expansion in smelting capacity. As copper sector participants meet for their annual Shanghai gathering next week, attention will be on negotiations between global miners and smelters in China, the world's dominant processor, to set the global benchmark for next year's fees. Treatment and refining charges (TC/RCs), a key source of revenue for smelters, are paid by miners when they sell concentrate, or semi-processed ore, to be refined into metal. The charges tend to fall when ore supply declines and rise when more concentrate is available. A Reuters poll of industry sources including smelters, traders, miners, analysts and consultants showed a wide range of expectation for the TC/RC benchmark, from the high teens to \$50 a metric ton. The forecasts are well below 2024's \$80 a ton benchmark. The last time annual benchmark TC/RCs were below \$50 was in 2010, CRU data showed. TC/RC prices should decline as more smelters come online amid less concentrate supply. Analysts at consultancy Shanghai Metals Market (SMM) expect the global copper concentrate deficit to widen to 822,000 tons in 2025 from this year's 221,000 tons. In China alone, smelting capacity will reach 16 million tons in 2025 and approach 17 million tons in 2027, from 14.26 million tons at the end of last year, Ge Honglin, chairman of the China Nonferrous Metals Industry Association (CNIA), told a conference in late October. "All these smelters will need concentrates, so they're hitting the market at probably the worst time," said analyst Edward Meir at broker Marex. Drastic falls in TC/RCs along with a worsening concentrate shortage have eroded smelters' margins, forcing some to start maintenance or postpone production at new plants. The weekly index of TC/RCs for the Chinese spot market published by Shanghai Metal Markets is at \$10.45 a ton. "According to our estimate, if the benchmark is set below \$40, many smelters will suffer loss," said Zhao Yongcheng, principal analyst at Benchmark Minerals Intelligence. Recent accidents at smelters owned by China Daye Non-Ferrous Metals Mining and Freeport Indonesia could mean the release of some copper raw material to the market, giving smelters some leverage over negotiations, analysts said. A wide range in expectations means negotiations

could extend into December. "None of these smelters are going to accept numbers around \$10 or below," said Meir. "But if you're a miner and you see TC/RCS trading at around plus or minus \$10, it's very hard for you to pay big numbers next year... Miners would need to pay up to ensure that they have enough smelting capacity," he added. Smelters will also likely increase usage of scrap copper to replace concentrate feed, analysts said. Beijing has allowed imports of more recycled copper and established a new state-backed recycling company to help reduce reliance on primary raw materials. "But this is only going to be a temporary solution. The growth in secondary projects outside of China is increasingly likely to constrain the volume of scrap that China can import in the next few years," said analyst Jonathan Barnes at consultancy Project Blue.

### Other important information on copper market:

- China's refined copper production in October fell 1.3% from the prior year to 1.12 million metric tons, data from the country's National Bureau of Statistics showed. On a daily basis, average refined copper output stood at 36,000 tons, according to Reuters calculations based on the official data.
- Chile's state-owned copper producer Codelco has offered its refined copper output to Chinese clients at a premium of \$89 per metric ton for 2025, largely unchanged from a year ago. The copper premium, a fee on top of the London Metal Exchange prices charged to buyers, is a demand indicator for the metal.
- Chile's Codelco increased production by 5.2% year-on-year in September for a total of 123,100 metric tons, the country's copper commission Cochilco said. Production at BHP's Escondida mine, the world's largest copper mine, dropped 5.4% to 101,500 tons while Collahuasi, mine jointly run by Glencore and Anglo American, jumped 14% to 51,400. Codelco has been struggling to lift its output in 2024 after registering a 25-year-low in 2023. In July, it was revealed that the company was behind target to meet its 2024 production goals, but Codelco's Chairman Maximo Pacheco said its production would pick up in the second half of the year
- Peru's copper production fell 1.2% in September compared to the same month last year to settle at 232,423 metric tons, data from the ministry of energy and mines showed. The monthly drop in production was mainly due to lower supply from the Andean country's two largest copper miners – Cerro Verde, controlled by Freeport-McMoRan, and Antamina, jointly controlled by Glencore and BHP. Output from Cerro Verde and Antamina fell 11% and 6.7% respectively year-on-year, the ministry of energy and mines said in a report. Accumulated copper output from January to September stood at 1,993,627 metric tons, 0.6% less than in the same period last year, the ministry added. Peru's government recently lowered its 2024 copper production expectations to 2.8 million tons, from about 3 million tons projected at the beginning of the year.

## Precious Metals

### Supergiant gold deposit discovered in central China's Hunan

**A gold deposit with estimated reserves exceeding 1,000 tons has been discovered in central China's Hunan province. Advanced ore exploration technologies, such as 3D geological modelling, were used.**

A massive gold deposit with estimated reserves exceeding 1,000 tonnes has been discovered in central China's Hunan Province, the Geological Bureau of Hunan Province announced. Geologists identified over 40 gold veins, with a reserve of 300 tonnes, within a depth of 2,000 meters beneath the Wangu Goldfield in Pingjiang County, according to the bureau. The total gold reserve at depths reaching 3,000 meters is estimated to surpass 1,000 tonnes, with an estimated value of 600 billion yuan (approximately \$83 billion).

The current exploration efforts have been successful largely due to the application of new technologies in conducting exploration at depths above 1,500 meters. According to ore prospecting expert Chen Rulin, the success rate has been exciting – out of 55 drilled holes in regions above 1,500 meters, 48 have revealed the presence of gold, achieving a discovery rate of 87.3 percent. In addition, gold deposits were also found in two drill holes at depths of 2,000 meters, indicating the extraordinary scale of potential reserves.

Wu Jun, a director of the Hunan Province Geological Disaster Survey and Monitoring Institute, stated that the Wangu Goldfield is the largest gold deposit discovered in Hunan's history. Nationwide, only around five gold deposits of such scale exist. The exploration efforts have spanned 30 years, during which geological experts have continuously worked on sample collection, drilling, and conducting comprehensive research at the site.

While deposits have already been identified at a depth of 2,000 meters, the exploration is ongoing. Wu indicated that based on current predictions, what has been discovered so far represents only a small fraction of this reserve. Upcoming exploration will focus on the fringes and peripheral regions of the field to locate the remaining 700 tonnes of gold resources.

"Many drilled rock cores showed visible gold," said Chen Rulin, adding that a tonne of ore in the 2,000-meter range contained up to 138 grams of gold. Liu Yongjun, deputy head of the Geological Bureau, highlighted that advanced ore prospecting technologies, such as 3D geological modeling, were used at the site. He added that gold was also found during drills conducted in peripheral areas, revealing promising future prospects.

## Global economies | Foreign exchange markets







### Fed Minutes Show Officials Prefer Future Rate Cuts to Be Gradual

**Fed Chairman Jerome Powell said in early November that the economy was not sending signals indicating the need to rush into lowering interest rates. The meeting transcript shows that other decision-makers also support this position.**

As Bloomberg informs, Federal Reserve officials indicated broad support for a careful approach to future interest-rate cuts as the economy remains solid and inflation slowly cools, minutes from their November policy meeting showed. “Participants anticipated that if the data came in about as expected, with inflation continuing to move down sustainably to 2% and the economy remaining near maximum employment, it would likely be appropriate to move gradually toward a more neutral stance of policy over time,” according to the minutes of the Federal Open Market Committee meeting ended Nov. 7. The Fed lowered its benchmark interest rate by a quarter-percentage point earlier in November, to a range of 4.5%-4.75%, following a larger-than-usual, half-point reduction in September. Fed Chair Jerome Powell said earlier that the economy is not sending signals policymakers need to be in a hurry to lower rates. Fed officials will gather for their last policy meeting of the year on Dec. 17-18. The record of the November meeting showed some officials said the Fed could pause rate cuts and hold borrowing costs at a restrictive level if inflation remains elevated. Some noted reductions could be accelerated if the economy or labor market deteriorates. Policymakers also noted a lack of clarity about the so-called neutral rate, a level of policy that neither restricts nor stimulates economic growth, as a reason for caution. Officials’ estimates for the neutral rate have steadily climbed over the past year, but just how close rates may be to such a stance remains unclear. Policymakers saw the downside risks to employment and growth as having “decreased somewhat.” Officials generally assessed there was “no sign of rapid deterioration” in the job market, the minutes showed. The employment snapshot for October was muddied by hurricanes and a major labor strike. But the broader picture suggests the labor market is gradually cooling though still on solid footing, with low levels of unemployment and limited layoffs. On inflation, officials said price growth has eased substantially from its peak but noted the core measure, which excludes food and energy, remains “somewhat elevated.” “Participants indicated that they remained confident that inflation was moving sustainably toward 2%, although a couple noted the possibility that the process could take longer than previously expected,” the minutes showed. The central bank’s November meeting came on the heels of the re-election of Donald Trump.

# Macroeconomic calendar

## Important macroeconomic data releases

Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>
<b>China</b> 						
🔔🔔🔔	01-Nov	Caixin's manufacturing PMI	Oct	50.3 ▲	49.3	49.7 🟢
🔔🔔🔔🔔	15-Nov	Industrial production (yoy)	Oct	5.3% ▼	5.4%	5.6% 🟡
🔔🔔	15-Nov	Fixed assets investments (ytd, yoy)	Oct	3.4% -	3.4%	3.5% 🟡
🔔🔔	27-Nov	Industrial profits (yoy)	Oct	-10.0% ▲	-27.1%	--
🔔🔔🔔	30-Nov	Official manufacturing PMI	Nov	50.3 ▲	50.1	50.2 🟢
<b>Poland</b> 						
🔔🔔🔔	04-Nov	Manufacturing PMI	Oct	49.2 ▲	48.6	48.6 🟢
🔔🔔🔔🔔🔔	14-Nov	GDP (yoy) - preliminary data	3Q	2.7% ▼	3.2%	2.9% 🟡
🔔🔔🔔🔔	25-Nov	Sold industrial production (yoy)‡	Oct	4.7% ▲	-0.4%	1.8% 🟢
🔔🔔	25-Nov	Average gross salary (yoy)	Oct	10.2% ▼	10.3%	10.4% 🟡
🔔	25-Nov	Employment (yoy)	Oct	-0.5% -	-0.5%	-0.5% 🟡
🔔🔔	27-Nov	Unemployment rate	Oct	4.9% ▼	5.0%	5.0% 🟡
🔔🔔🔔🔔🔔	28-Nov	GDP (yoy) - final data	3Q	2.7% -	2.7%	--
<b>US</b> 						
🔔🔔🔔	01-Nov	Manufacturing PMI - final data‡	Oct	48.5 -	48.5	47.8 🟢
🔔🔔	01-Nov	Change in non-farm payrolls (ths)‡	Oct	12.0 ▼	223	100 🟡
🔔🔔	01-Nov	Underemployment rate (U6)	Oct	7.7% -	7.7%	--
🔔🔔	01-Nov	Unemployment rate	Oct	4.1% -	4.1%	4.1% 🟡
🔔🔔🔔	05-Nov	Composite PMI - final data‡	Oct	54.1 -	54.1	54.3 🟡
🔔🔔🔔	05-Nov	PMI services - final data‡	Oct	55.0 -	55.0	55.3 🟡
🔔🔔🔔🔔🔔	07-Nov	FOMC base rate decision - upper bound (Fed)	Nov	4.75% ▼	5.00%	4.75% 🟡
🔔🔔🔔🔔🔔	07-Nov	FOMC base rate decision - lower bound (Fed)	Nov	4.50% ▼	4.75%	4.50% 🟡
🔔	15-Nov	Capacity utilization‡	Oct	77.1% ▼	77.4%	77.1% 🟡
🔔🔔🔔	22-Nov	Composite PMI - preliminary data	Nov	55.3 ▲	54.1	54.3 🟢
🔔🔔🔔	22-Nov	Manufacturing PMI - preliminary data	Nov	--	48.5	48.9
🔔🔔🔔	22-Nov	PMI services - preliminary data	Nov	57.0 ▲	55.0	55.0 🟢
<b>Eurozone</b> 						
🔔🔔🔔🔔🔔	14-Nov	GDP (sa, yoy) - preliminary data	3Q	0.9% -	0.9%	0.9% 🟡
🔔🔔🔔🔔	14-Nov	Industrial production (wda, yoy)‡	Sep	-2.8% ▼	-0.1%	-2.0% 🟡
<b>Germany</b> 						
🔔🔔🔔	04-Nov	Manufacturing PMI - final data‡	Oct	43.0 -	43.0	42.6 🟢
🔔🔔🔔	06-Nov	Composite PMI - final data‡	Oct	48.6 -	48.6	48.4 🟢
🔔🔔🔔	06-Nov	Factory orders (wda, yoy)‡	Sep	1.0% ▲	-3.4%	-2.1% 🟢
🔔🔔🔔🔔	07-Nov	Industrial production (wda, yoy)‡	Sep	-4.6% ▼	-3.0%	-3.0% 🟡
🔔🔔🔔🔔🔔	22-Nov	GDP (yoy) - final data	3Q	0.1% ▼	0.2%	0.2% 🟡
🔔🔔🔔	22-Nov	Composite PMI - preliminary data	Nov	47.3 ▼	48.6	48.7 🟡
🔔🔔🔔	22-Nov	Manufacturing PMI - preliminary data	Nov	--	43.0	43.0
<b>France</b> 						
🔔🔔🔔	04-Nov	Manufacturing PMI - final data	Oct	44.5 ▼	44.6	44.5 🟡
🔔🔔🔔🔔	05-Nov	Industrial production (yoy)‡	Sep	-0.6% ▼	0.1%	-0.4% 🟡
🔔🔔🔔	06-Nov	Composite PMI - final data‡	Oct	48.1 -	48.1	47.3 🟢
🔔🔔🔔	22-Nov	Composite PMI - preliminary data	Nov	44.8 ▼	48.1	48.3 🟡
🔔🔔🔔	22-Nov	Manufacturing PMI - preliminary data	Nov	--	44.5	44.5

Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>
<b>Italy</b>						
🔴🔴🔴	04-Nov	Manufacturing PMI	Oct	46.9 ▼	48.3	48.5 📉
🔴🔴🔴	06-Nov	Composite PMI	Oct	51.0 ▲	49.7	50.0 📈
🔴🔴🔴🔴	08-Nov	Industrial production (wda, yoy)	Sep	-4.0% ▼	-3.2%	-3.5% 📉
<b>UK</b>						
🔴🔴🔴	01-Nov	Manufacturing PMI (sa) - final data‡	Oct	49.9 =	49.9	50.3 📉
🔴🔴🔴	05-Nov	Composite PMI - final data‡	Oct	51.8 =	51.8	51.7 📈
🔴🔴🔴🔴	07-Nov	BoE base rate decision	Nov	47.5 ▼	50.0	47.5 🟡
🔴🔴🔴🔴	15-Nov	GDP (yoy) - preliminary data	3Q	1.0% ▲	0.7%	1.0% 🟡
🔴🔴🔴	15-Nov	Industrial production (yoy)‡	Sep	-1.8% ▼	-1.7%	-1.1% 📉
🔴🔴🔴	22-Nov	Manufacturing PMI (sa) - preliminary data	Nov	--	49.9	50.0
🔴🔴🔴	22-Nov	Composite PMI - preliminary data	Nov	49.9 ▼	51.8	51.7 📉
<b>Japan</b>						
🔴🔴🔴	01-Nov	Manufacturing PMI - final data	Oct	49.2 ▼	49.7	-- 📉
🔴🔴🔴	06-Nov	Composite PMI - final data	Oct	49.6 ▼	52.0	-- 📉
🔴🔴🔴🔴	15-Nov	Industrial production (yoy) - final data	Sep	-2.6% ▲	-2.8%	-- 📈
🔴🔴🔴	22-Nov	Composite PMI - preliminary data	Nov	49.8 ▲	49.6	-- 📈
🔴🔴🔴	22-Nov	Manufacturing PMI - preliminary data	Nov	--	49.2	--
🔴🔴🔴🔴	29-Nov	Industrial production (yoy) - preliminary data	Oct	1.6% ▲	-2.6%	2.0% 📈
<b>Chile</b>						
🔴🔴🔴🔴	04-Nov	Economic activity (yoy)	Sep	0.0% ▼	2.3%	1.2% 📉
🔴🔴🔴🔴	18-Nov	GDP (yoy)	3Q	2.3% ▲	1.6%	2.2% 📈
<b>Canada</b>						
🔴🔴🔴🔴	29-Nov	GDP (yoy)‡	Sep	1.6% ▲	1.5%	1.6% 🟡

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

<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.

Source: Bloomberg, KGHM Polska Miedź



## Key market data

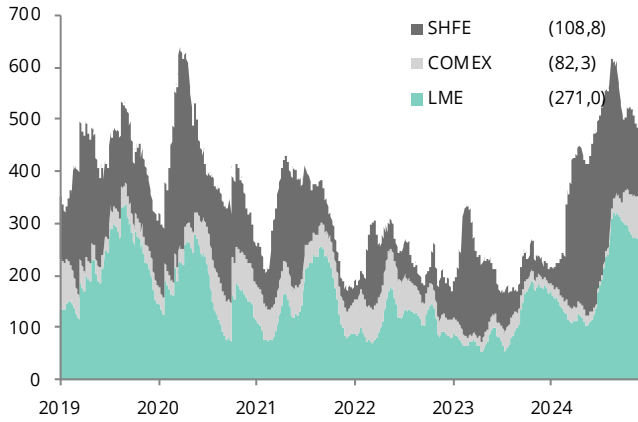
### Key base & precious metal prices, exchange rates and other important market factors

(as of: 29-Nov-24)		Price change <sup>1</sup>				From year beginning <sup>2</sup>		
	Price	1M	QTD	YTD	1Y	Average	Min	Max
<b>LME (USD/t; Mo in USD/lbs)</b>								
Copper	8 879.00	▼ -5.8%	▼ -9.1%	▲ 4.8%	▲ 6.6%	9 166.21	8 085.50	10 857.00
Molybdenum	21.78	▼ -0.7%	▲ 0.9%	▲ 17.5%	▲	21.28	19.18	23.73
Nickel	15 745.00	▲ 1.4%	▼ -7.4%	▼ -3.4%	▼ -3.6%	16 926.26	15 290.00	21 275.00
Aluminum	2 572.00	▼ -1.7%	▼ -1.5%	▲ 10.1%	▲ 19.2%	2 408.66	2 110.00	2 695.00
Tin	28 300.00	▼ -9.3%	▼ -15.1%	▲ 12.4%	▲ 23.5%	30 302.95	24 025.00	35 685.00
Zinc	3 092.00	▼ -0.3%	▲ 0.5%	▲ 17.1%	▲ 24.8%	2 756.45	2 285.50	3 237.50
Lead	2 043.00	▲ 3.3%	▼ -1.3%	▲ 0.6%	▼ -3.3%	2 079.39	1 905.00	2 291.00
<b>LBMA (USD/troz)</b>								
Silver	30.70	▼ -8.6%	▼ -1.2%	▲ 29.0%	▲ 22.7%	28.08	22.09	34.51
Gold <sup>2</sup>	2 651.05	▼ -3.0%	▲ 0.8%	▲ 28.5%	▲ 30.2%	2 366.36	1 985.10	2 777.80
<b>LPPM (USD/troz)</b>								
Platinum <sup>2</sup>	940.00	▼ -5.5%	▼ -4.6%	▼ -6.6%	▲ 0.3%	957.26	872.00	1 065.00
Palladium <sup>2</sup>	983.00	▼ -12.6%	▼ -1.5%	▼ -12.2%	▼ -4.1%	985.94	852.00	1 222.00
<b>FX<sup>3</sup></b>								
EURUSD	1.0562	▼ -2.9%	▼ -5.7%	▼ -4.4%	▼ -3.4%	1.0853	1.0412	1.1196
EURPLN	4.3043	▼ -1.1%	▲ 0.6%	▼ -1.0%	▼ -1.0%	4.3096	4.2499	4.4016
USDPLN	4.0770	▲ 1.8%	▲ 6.7%	▲ 3.6%	▲ 2.4%	3.9717	3.8117	4.1752
USDCAD	1.4010	▲ 0.7%	▲ 3.8%	▲ 5.9%	▲ 3.2%	1.3651	1.3316	1.4082
USDCNY	7.2460	▲ 1.8%	▲ 3.2%	▲ 2.1%	▲ 1.6%	7.1921	7.0109	7.2761
USDCLP	977.32	▲ 2.8%	▲ 9.0%	▲ 10.5%	▲ 12.6%	940.19	877.12	986.85
<b>Money market</b>								
3m SOFR	4.466	▼ -0.09	▼ -0.13	▼ -0.87	▼ -0.90	5.120	4.466	5.347
3m EURIBOR	2.934	▼ -0.13	▼ -0.35	▼ -0.98	▼ -1.03	3.636	2.898	3.970
3m WIBOR	5.850	- 0.00	- 0.00	▼ -0.03	▲ 0.02	5.856	5.820	5.890
5y USD interest rate swap	3.742	▼ -0.05	▲ 0.50	▲ 0.21	▼ -0.24	3.838	3.104	4.484
5y EUR interest rate swap	3.742	▼ -0.05	▲ 0.50	▲ 0.21	▼ -0.24	2.616	2.071	3.030
5y PLN interest rate swap	4.473	▼ -0.56	▲ 0.14	▲ 0.08	▼ -0.22	4.798	4.268	5.450
<b>Fuel</b>								
WTI Cushing	43.39	▲ 2.8%	▲ 8.2%	▼ -29.7%	▼ -26.5%	37.86	-37.63	63.27
Brent	47.18	▼ 0.0%	▲ 5.3%	▼ -32.2%	▼ -30.0%	42.22	11.41	70.54
Diesel NY (ULSD)	1.48	▲ 0.2%	▲ 2.1%	▼ -32.0%	▼ -29.3%	1.47	0.89	2.20
<b>Others</b>								
VIX	13.51	▼ -9.65	▼ -3.22	▲ 1.06	▲ 0.59	15.52	11.86	38.57
BBG Commodity Index	98.14	▲ 0.0%	▼ -2.2%	▼ -0.5%	▼ -3.6%	99.21	93.33	107.24
S&P500	6 032.38	▲ 5.7%	▲ 4.7%	▲ 26.5%	▲ 32.1%	5 375.26	4 688.68	6 032.38
DAX	19 626.45	▲ 2.9%	▲ 1.6%	▲ 17.2%	▲ 21.0%	18 251.16	16 431.69	19 657.37
Shanghai Composite	3 326.46	▲ 1.4%	▼ -0.3%	▲ 11.8%	▲ 9.8%	3 025.55	2 702.19	3 489.78
WIG 20	2 191.12	▼ -0.7%	▼ -5.7%	▼ -6.5%	▼ -1.1%	2 377.57	2 123.35	2 593.10
KGHM	127.25	▼ -14.9%	▼ -20.1%	▲ 3.7%	▲ 10.4%	134.93	105.75	170.00

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

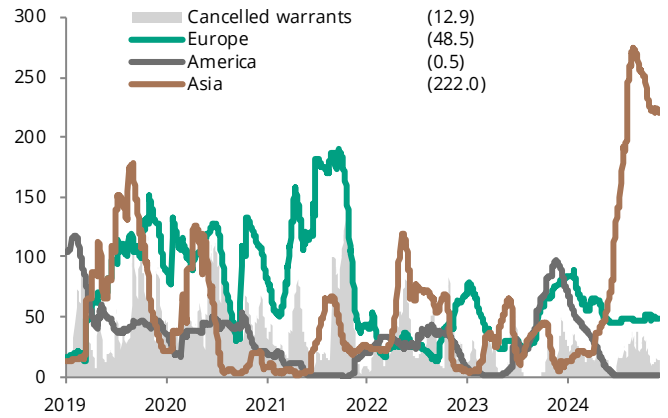
Source: Bloomberg, KGHM Polska Miedź

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



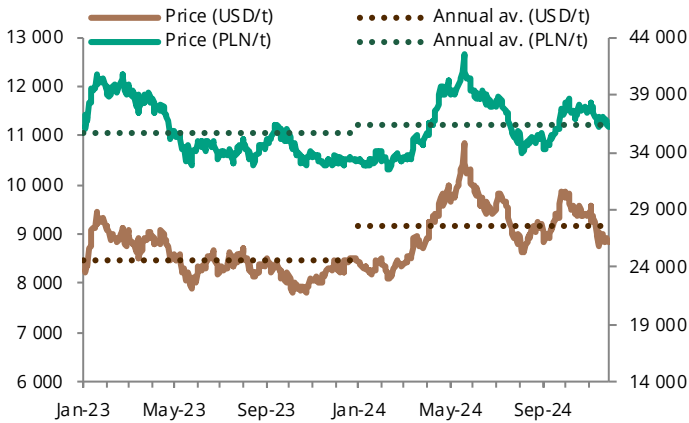
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



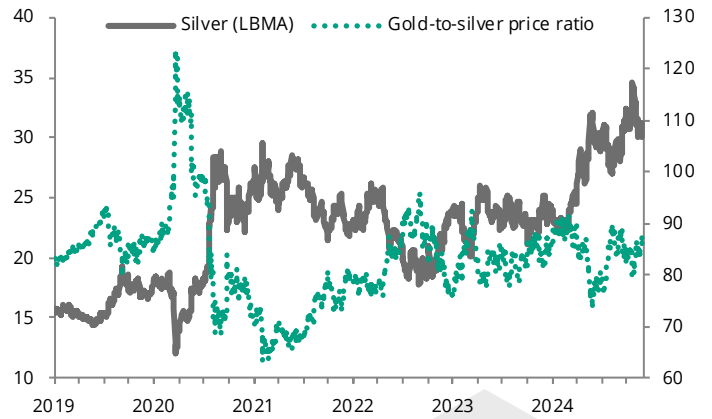
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



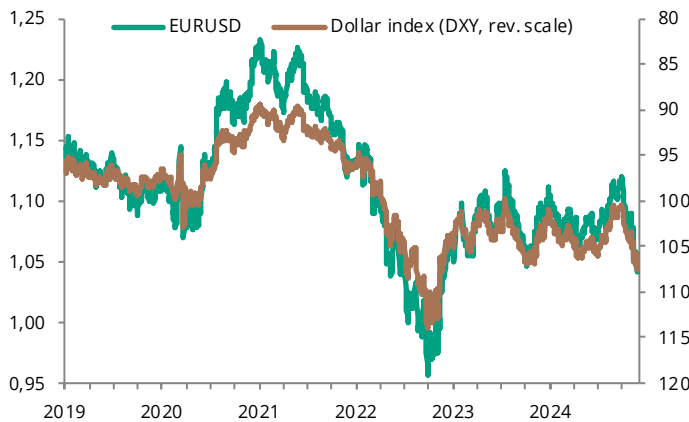
Source: Bloomberg, KGHM Polska Miedź

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



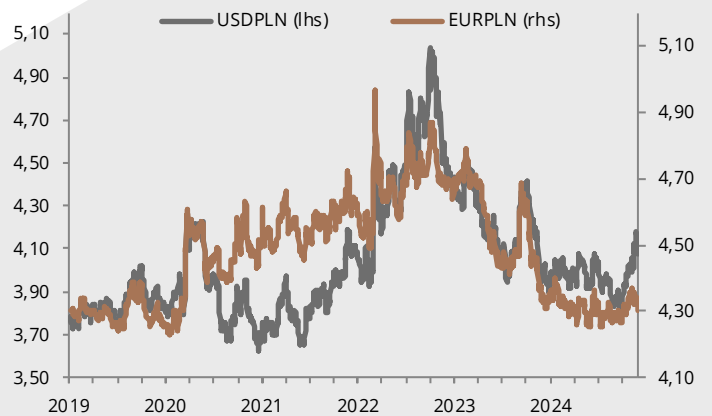
Source: Bloomberg, KGHM Polska Miedź

**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 – 30 November 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](http://www.lme.com/dataprices_products.asp) (charge-free logging)
- silver and gold: [www.lbma.org.uk/pricing-and-statistics](http://www.lbma.org.uk/pricing-and-statistics)
- platinum and palladium: [www.lppm.com/](http://www.lppm.com/)

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