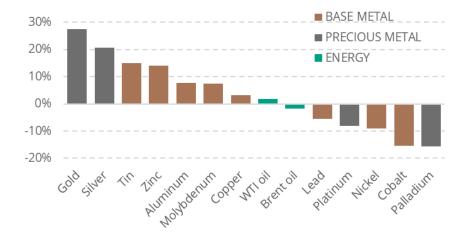


Market Overview

- Copper: Copper production in Peru is expected to remain flat in 2025 due to declining ore grades and a lack of new projects. The country ranks third in the world in copper production, behind Chile and the Democratic Republic of the Congo (page 2).
- Precious metals: Global gold production will peak at around 3,250 tonnes in 2025 before entering a long-term decline due to reserve depletion, declining ore quality and aging mine closures (page 5).
- USA: Federal Reserve officials projected just two rate cuts in 2025, and they made it clear that future reductions would hinge on inflation progress (page 6).

% prices change of selected metals and energy raw materials in 2024



Source: Refinitiv, KGHM Polska Miedź S.A.



Key market prices

		Price	1m chng.
	LME (USD/t)		
\blacksquare	Copper	8 706.00	-1.9%
\blacksquare	Nickel	15 100.00	-4.1%
	LBMA (USD/troz)		
\blacksquare	Silver	28.91	-5.8%
\blacksquare	Gold (PM)	2 610.85	-1.5%
	FX		
•	EURUSD	1.0389	-1.6%
\blacksquare	EURPLN	4.2730	-0.7%
	USDPLN	4.1012	0.6%
	USDCAD	1.4389	2.7%
	USDCLP	992.12	1.5%
	Stocks		
_	KGHM	115.00	-9.6%

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

Important macroeconomic data

	Release	For	
*)	Industrial prod. (yoy)	Nov	5.4% 🔺
	Fed upper rate	Dec	4.50%
	Manufacturing PMI	Nov	48.9 ▼
	ECB main refinancing rate	Dec	3.15% 🔻
	Manufacturing PMI	Nov	43.0 =

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

Market Risk Unit

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Base and precious metals | Other commodities

Copper

Peru Foresees Another Production Plateau In 2025

Copper production in Peru is expected to remain flat in 2025 due to declining ore grades and a lack of new projects. The country ranks third in the world in copper production, behind Chile and the Democratic Republic of the Congo.

Peruvian copper production is expected to remain flat in 2025 for the third straight year, as declining ore grades and a lack of new projects cap output. The South American country is a global copper powerhouse, ranking third in production behind Chile and the Democratic Republic of the Congo, which unseated Peru from second place in 2023. Yet poorer ore grades after years of extraction are making it more difficult for miners to maintain output levels, just as a major copper supply deficit is looming in the next decade due to anticipated demand for electric vehicles, renewable energy and data centers. The expected gap has put pressure on some of the world's biggest miners to secure more supply through massive acquisitions, such as BHP's \$49 billion bid for Anglo American that was rejected this year. Peru's top mining association SNMPE expects the country's 2025 copper output to hit around 2.8 million metric tons, matching 2023 and what is expected for 2024, as miners contend with poorerquality resources and development bottlenecks for new projects. Peru's mining ministry has not issued a 2025 forecast. Juan Carlos Ortiz, vice president of Peru's Institute of Mining Engineers, said he expected flat production given the lack of new projects. "We are going to repeat the copper production of 2024," said Ortiz, who is also vice president of operations at Minas Buenaventura. A dramatic turnaround is looking unlikely anytime soon. Peru's last new mine was Anglo American's \$5.5 billion Quellaveco, which opened in 2022 with expected annual capacity of 300,000 tons. It currently accounts for more than 10% of domestic output. At best, Peru could get a bump from Southern Copper's Tia Maria project, with production expected in 2027, and Teck Resources' Zafranal, forecast for 2029. Together, they would add about 150,000 tons of annual output. Miners are also working to boost their processing capacity to compensate for poorer ore grades. Most of the \$3.8 billion invested in the sector so far this year was for concentrator plants and equipment, representing a 2% increase from last year. As well, energy use at copper mines increased 2.3% year-over-year through October, according to private power sector body COES (El Comité de Operación Económica del Sistema). "What matters now is that work continues," Gobitz said, referring to small projects such as Tia Maria, Zafranal and mine expansions. Of Peru's 10 biggest copper mines, seven reported lower production through October, the latest month with official data available, compared to last year. At the largest, Freeport McMoRan's Cerro Verde, production fell 5.4% year-on-year through October. Freeport previously told investors it expected lower ore grades



to affect 2024 sales volumes. "Annual production will vary with ore grades, but Cerro Verde's 2024 operating rates have been strong," Freeport spokeswoman Linda Hayes said. She added that most of Cerro Verde's spending is for operational improvements, and urged Peru's government to streamline regulatory processes and encourage exploration. Despite Peru's struggles, it may have a chance to recoup its No. 2 global spot from its African rival. By the end of August, Congo's production fell nearly 6% from 2023, leaving room for Peru.

Codelco Concludes Acquisition Of Quebrada Blanca Stake

Codelco has finalized the purchase of a 10% stake in the Quebrada Blanca mine from Enami. The QB2 project is expected to produce 240,000-280,000 tons of copper in 2025, peaking at 310,000 tons in 2026-27.

Chile's state copper giant Codelco concluded the acquisition of 10% of the Quebrada Blanca mine in northern Tarapacá region from state minerals company Enami by making a final payment of US\$338mn of the total US\$520mn, the companies said in a joint statement. The US\$8.8bn Quebrada Blanca II (QB2) project aims to push Canada's Teck Resources, which owns 60% of the mine and is the operator, into the top 10 of the world's largest copper producers. Japan's Sumitomo owns the other 30%. QB2 is expected to produce 240,000-280,000t copper in 2025, peaking at up to 310,000t in 2026-27, according to Teck's latest operational report. Codelco's chairman Máximo Pacheco said the sale of the stake is accompanied by a collaboration agreement with Enami on matters such as the expansion of smelting capacity and the national lithium strategy. For Enami, which focuses on processing minerals of small and medium copper producers, the sale is expected to help it improve its critical financial situation. Quebrada Blanca has resources of 10Bt and is the sixth largest copper producer in Chile after Escondida, Collahuasi, Codelco's El Teniente and Radomiro Tomic, and Los Pelambres, based on 2023 production figures. Codelco - the world's largest copper producer – also has partnerships with Anglo American for the Los Bronces mine, with Freeport McMoRan at El Abra and a JV with Rio Tinto, as well as an agreement with lithium producer SQM.



Other important information on copper market:

- Chile's state-run copper giant Codelco produced 125,500 metric tons of the metal in November, up 18% year-on-year, but still fell 3% behind its target for the month. The only divisions to meet their target were the El Teniente and the Radomiro Tomic. The copper giant, has been aiming to quicken production to meet its 2024 target. After November's performance, Codelco will still need to produce more than 161,000 tons of copper in December to reach the low-end of its target, which the company earlier this year put between 1.325 million to 1.352 million tons. November production was hurt by delays at the Rajo Inca project at the Salvador mine. It also showed lower recovery and processing at the Andina, Chuquicamata and Gabriela Mistral units and lower ore grades at Ministro Hales. Smelting and cathode production were also below Codelco's target in November.
- Copper production in Chile is projected to range between 5.4 and 5.6 million tons in 2025, the National Mining Association (Sonami) said. Chilean mining firms also expect copper prices to range between \$4.2 and \$4.5 per pound next year, according to industry projections. In September, Chile's central bank forecast an average copper price of \$4.25 per pound in 2025, slightly below its previous estimate of \$4.30 per pound. The country plans to invest approximately \$83.18 billion in Mining from 2024 through 2033, a 27% increase from last year's estimate, according to a study by state-run agency Cochilco..
- Peru's copper production in October fell 1.4% compared to the same month last year due to less output from two of the country's largest mines. October copper production totaled 236,797 metric tons. The data, from the Energy and Mining Ministry, showed that copper production from the Cerro Verde mine controlled by Freeport-McMoRan, and the Antamina mine run jointly by Glencore and BHP, fell in the month by 6.6% and 22.2%, respectively. During the first 10 months of the year, national copper production totaled 2.23 million tons, down 0.7% compared to the same 10-month period last year. The government forecasts that 2024 copper output will total 2.8 million tons, up slightly from the 2.76 million tons mined last year..
- The global refined copper market showed a 41,000 metric tons deficit in October, compared with a 136,000 metric tons deficit in September, the International Copper Study Group (ICSG) said. For the first 10 months of the year, the market was in a 287,000 metric tons surplus compared with a 9,000 metric tons surplus in the same period a year earlier. World refined copper output in October was 2.30 million metric tons, while consumption was 2.34 million metric tons.



Precious Metals

Gold mining faces a cliff after 2025

Global gold production will peak at around 3,250 tonnes in 2025 before entering a long-term decline due to reserve depletion, declining ore quality and aging mine closures.

Global gold production will peak at about 3,250 tonnes (105 million ounces) in 2025, marking a historic high before entering a prolonged decline, a London event heard this month. From 2025 onward, global gold production is forecast to fall. Reserves will deplete, ore grades will decline and aging mines will close, CRU Consulting gold and base metals asset analyst Oliver Blagden told The Northern Miner's International Metals Symposium in London on Dec. 2. The decline marks a turning point for an industry facing dwindling reserves, geopolitical risks, and few new projects. Despite high profitability from strong gold prices, experts warn that without fresh investments, production could drop sharply, tightening supply and reshaping markets. Even if all planned projects come online, production could drop by as much as 17% by 2030, Blagden noted. He highlighted the challenges of maintaining output levels, particularly in regions like China and Russia. China is the world's largest gold producer, according to CRU. It contributes 11% of global output but faces modest reserves relative to its production rate, indicating a potential supply bottleneck. Similarly, geopolitical pressures and diminishing ore quality tempered Russia's production expansion. Jurisdictional risks add to the challenges, the analyst told a room of industry execs and investors. Blagden noted a rise in resource nationalism in West Africa. Countries like Mali and Burkina Faso have nationalized operations, deterring foreign investment. Conversely, Blagden noted bright spots. These are Argentina's mining-friendly reforms and potential shifts in United States policy. They could streamline permits and encourage new developments. However, he cautioned that North America, while politically stable, remains the highest-cost region for gold mining globally. Despite these challenges, the gold mining industry remains highly profitable. Blagden said 97% of gold producers are operating with positive margins, assuming a gold price of \$2,235 per ounce. Average all-in sustaining cost (AISC) margins stand at 47%, reflecting the industry's strong financial footing. Yet, Blagden warned that profits hide a troubling deficit in new greenfield projects. High prices have not spurred enough investment in exploration. High-grade, well-located deposits are harder to find. Blagden noted gold's unique position among commodities. Unlike metals such as copper or lithium, gold is not consumed but accumulated. "If we stopped all gold mining today, above-ground stockpiles could satisfy fabrication demand for 75 years," he said. In 2023, central banks set record purchase levels. They continue to support prices. Blagden called for miners to act decisively during this period of high profitability. He urged miners to invest in strategic acquisitions, brownfield expansions and exploration to extend mine life and ensure future supply.



Global economies | Foreign exchange markets

Fed Cuts Rates, but Projects Fewer Reductions in 2025

Federal Reserve officials projected just two rate cuts in 2025, and they made it clear that future reductions would hinge on inflation progress.

Federal Reserve officials made their third and final rate cut of 2024 at their meeting in December. They also forecast two fewer rate reductions in 2025 than they had previously expected, as inflation lingers and the economy holds up. The Fed has come a long way from just a few years ago: In 2022, inflation was more than twice its current rate and many economists thought that the central bank's decisions might cause economic pain — and even a recession — as it rapidly lifted interest rates to slow demand and wrestle price increases back under control. That didn't happen. The job market slowed without falling apart, and inflation cooled so substantially that the Fed was able to begin cutting interest rates in September. But the Fed is now entering a new phase in its journey toward an economic soft landing — a much more uncertain one. Officials thought that it was clear that rates needed to come down notably from their 5.3 percent peak, and they have steadily lowered them to about 4.4 percent by making three back-to-back reductions. Policymakers do not want to cut rates so much that they reignite the economy, though — and they have now arrived at a point where it is uncertain how much further rates should fall. "Our policy stance is now significantly less restrictive," Jerome H. Powell, the Fed chair, said during a news conference. "We can therefore be more cautious as we consider further adjustments to our policy rate." The Fed's forecasts make clear that central bankers are poised to slow rate cuts notably starting in 2025 as stubborn inflation lingers — and Mr. Powell made it clear that the Fed wants to see further progress toward cooler inflation to cut interest rates at all. Markets shuddered at that assessment, with the dollar soaring and stocks plummeting. The S&P 500 index fell nearly 3 percent, its worst tumble since August. Fed officials predicted that they will cut rates to 3.9 percent in 2025 in their fresh economic estimates — suggesting that they will make just two rate cuts next year. They had forecast four when they last released economic projections back in September. They then expect to make two rate cuts in 2026, and one in 2027. The exact timing of the Fed's future rate reductions is uncertain, and Mr. Powell made it clear that any moves would be based on incoming data. He suggested that the Fed might hold off on rate cuts if inflation were to get stuck at an unexpectedly higher level. "For additional cuts, we're going to be looking for further progress on inflation," Mr. Powell said. Fed policymakers are balancing two big risks. They do not want to keep rates so high for so long that they tank the economy. But they also want to make sure to fully stamp out rapid inflation — and right now, price increases are making officials wary. On December meeting, policymakers predicted that inflation would end 2025 at 2.5 percent, up from the previous 2.1 percent estimate and well above the central bank's 2 percent inflation target. Those revisions come after a surprising period in the economy. Earlier in 2024, the unemployment rate was climbing, hiring was slowing, and inflation had been



falling steadily. But since September, the job market has shown signs of stabilizing, consumer spending has remained solid and inflation has been more stubborn than many economists had expected. Mr. Powell said that the recent lack of progress on inflation "might be the single biggest factor" driving the Fed's forecast for price increases in 2025 higher. But Fed officials are also operating in an environment of uncertainty: President-elect Donald J. Trump has been promising to impose tariffs on American trading partners, and those could push prices up and feed into inflation if they become reality. Some Fed policymakers did count fiscal policy into their economic projections, which could have driven some of the increase in their inflation forecasts. But exactly how much the policies would affect inflation is uncertain. Powell explained that officials are going to "take our time, not rush" and wait to see what the policies actually look like before reacting. The economic combination facing the Fed in 2025 — an expectation for resilient growth and a hairier inflation outlook — explains the central bank's shift toward a wait-and-see approach. "If the economy does evolve about as anticipated, we're at a point at which it would be appropriate to slow the pace of rate cuts," Mr. Powell said. In fact, some officials thought that the Fed should hit pause on interest rates in December. Beth Hammack, the president of the Federal Reserve Bank of Cleveland, voted against the rate cut, preferring to leave borrowing costs unchanged. And four officials in total favored leaving interest rates unchanged at this meeting, based on their economic projections. That could mean that three non-voting Fed officials would have preferred a cut (since only five of the Fed's 12 regional presidents vote at any given time). "The job's not done," Mr. Powell said Wednesday. The Fed chair still had an overall optimistic message for the American public: "The U.S. economy is just performing very, very well — substantially better than our global peer group," Mr. Powell said. "The outlook is pretty bright for our economy. We have to stay on task, though."



Macroeconomic calendar

Important macroeconomic data releases

Weight	Date	Event	For	Reading ¹	Previous	Consensus	
		China				*2	
000	02-Dec	Caixin's manufacturing PMI	Nov	51.5 🔺	50.3	50.6	
0000	16-Dec	Industrial production (yoy)	Nov	5.4%	5.3%	5.4%	
00	16-Dec	Fixed assets investments (ytd, yoy)	Nov	3.3%	3.4%	3.5%	
00	27-Dec	Industrial profits (yoy)	Nov	-7.3% 🔺	-10.0%		
000	31-Dec	Official manufacturing PMI	Dec	50.1	50.3	50.2	
		Poland					
000	02-Dec	Manufacturing PMI	Nov	48.9	49.2	49.1	
0000	19-Dec	Sold industrial production (yoy)‡	Nov	-1.5%	4.6%	-1.3%	
00	19-Dec	Average gross salary (yoy)	Nov	10.5%	10.2%	10.0%	
0	19-Dec	Employment (yoy)	Nov	-0.5% =	-0.5%	-0.6%	
00	23-Dec	Unemployment rate	Nov	5.0%	4.9%	5.0%	
		US					
000	02-Dec	Manufacturing PMI - final data‡	Nov	49.7 =	49.7	48.8	
000	04-Dec	Composite PMI - final data‡	Nov	54.9 =	54.9	55.3	
000	04-Dec	PMI services - final data‡	Nov	56.1 =	56.1	57.0	
00	06-Dec	Change in non-farm payrolls (ths)‡	Nov	227 🔺	43.0	220	
00	06-Dec	Underemployment rate (U6)	Nov	7.8% 🔺	7.7%		
00	06-Dec	Unemployment rate	Nov	4.2%	4.1%	4.1%	
000	16-Dec	Composite PMI - preliminary data	Dec		54.9	55.1	
000	16-Dec	Manufacturing PMI - preliminary data	Dec		49.7	49.5	
000	16-Dec	PMI services - preliminary data	Dec		56.1	55.8	
0	17-Dec	Capacity utilization‡	Nov	76.8%	77.0%	77.3%	
00000	18-Dec	FOMC base rate decision - upper bound (Fed)	Dec	4.50%	4.75%	4.50%	
00000	18-Dec	FOMC base rate decision - lower bound (Fed)	Dec	4.25%	4.50%	4.25%	
		Eurozone				0	
00	02-Dec	Unemployment rate	Oct	6.3% =	6.3%	6.3%	
00000	06-Dec	GDP (sa, yoy) - final data	3Q	0.9% =	0.9%	0.9%	
00000	12-Dec	ECB main refinancing rate	Dec	3.15%	3.40%	3.15%	
00000	12-Dec	ECB deposit facility rate	Dec	3.0%	3.3%	3.0%	
0000	13-Dec	Industrial production (wda, yoy)‡	Oct	-1.2% 🔺	-2.2%	-1.9%	
		Germany					
000	02-Dec	Manufacturing PMI - final data	Nov	43.0 =	43.0	43.2	
000	04-Dec	Composite PMI - final data‡	Nov	47.2 =	47.2	47.3	
000	05-Dec	Factory orders (wda, yoy)‡	Oct	5.7% 🔺	4.2%	1.8%	
0000	06-Dec	Industrial production (wda, yoy)‡	Oct	-4.5%	-4.3%	-3.3%	
000	16-Dec	Composite PMI - preliminary data	Dec		47.2	47.5	
000	16-Dec	Manufacturing PMI - preliminary data	Dec		43.0	43.1	
		France					
000	02-Dec	Manufacturing PMI - final data‡	Nov	43.1 =	43.1	43.2	
000	04-Dec	Composite PMI - final data‡	Nov	45.9 =	45.9	44.8	
0000	05-Dec	Industrial production (yoy)‡	Oct	-0.6%	-0.7%	-0.2%	
000	16-Dec	Composite PMI - preliminary data	Dec		45.9	46.0	
000	16-Dec	Manufacturing PMI - preliminary data	Dec		43.1	43.0	



Weight	Date	Event	For	Reading	1	Previous	Consensus	
		Italy						
00000	02-Dec	GDP (wda, yoy) - final data	3Q	0.4%	-	0.4%	0.4%	0
000	02-Dec	Manufacturing PMI	Nov	44.5	•	46.9	46.0	_
00	02-Dec	Unemployment rate‡	Oct	5.8%	•	6.0%	6.1%	_
000	04-Dec	Composite PMI	Nov	47.7	•	51.0	49.6	
0000	10-Dec	Industrial production (wda, yoy)‡	Oct	-3.6%		-3.9%	-3.5%	_
		UK						
000	02-Dec	Manufacturing PMI (sa) - final data‡	Nov	48.0	-	48.0	48.6	_
000	04-Dec	Composite PMI - final data‡	Nov	50.5	-	50.5	49.9	
0000	13-Dec	Industrial production (yoy)	Oct	-0.7%		-1.8%	0.2%	_
000	16-Dec	Manufacturing PMI (sa) - preliminary data	Dec			48.0	48.5	
000	16-Dec	Composite PMI - preliminary data	Dec			50.5	50.6	
00000	19-Dec	BoE base rate decision	Dec	47.5	-	47.5	47.5	0
00000	23-Dec	GDP (yoy) - final data	3Q	0.9%	•	1.0%	1.0%	
		Japan						
000	02-Dec	Manufacturing PMI - final data	Nov	49.0	•	49.2		
000	04-Dec	Composite PMI - final data	Nov	50.1		49.6		
0000	13-Dec	Industrial production (yoy) - final data	Oct	1.4%	•	1.6%		
		Chile					*	
0000	02-Dec	Economic activity (yoy)‡	Oct	2.3%	A	0.3%	2.5%	_
		Canada					:	*
00000	11-Dec	BoC base rate decision	Dec	3.25%	▼	3.75%	3.25%	0
00000	23-Dec	GDP(yoy)	Oct	1.9%		1.6%	1.6%	

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



Key market data

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

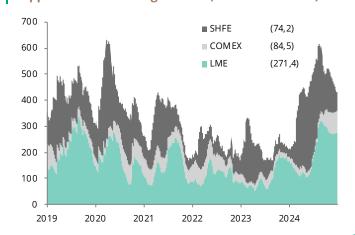
(as of: 31-Dec-24)		Price change ¹							From year beginning ²			
	Price		1M		QTD		YTD		1Y	Average	Min	Max
LME (USD/t; Mo in USD/lbs)	_											
Copper	8 706.00	•	-1.9%	\blacksquare	-10.9%		2.7%		2.7%	9 146.79	8 085.50	10 857.0
Molybdenum	21.37	_	-1.9%	\blacksquare	-1.0%		15.3%			21.30	19.18	23.7
Nickel	15 100.00	_	-4.1%	\blacksquare	-11.2%	\blacksquare	-7.4%	\blacksquare	-7.4%	16 811.63	14 965.00	21 275.0
Aluminum	2 516.50	_	-2.2%	\blacksquare	-3.6%		7.7%		7.7%	2 418.88	2 110.00	2 695.0
Tin	28 900.00		2.1%	\blacksquare	-13.3%		14.8%		14.8%	30 190.73	24 025.00	35 685.0
Zinc	2 974.00	_	-3.8%	\blacksquare	-3.3%		12.6%		12.6%	2 779.02	2 285.50	3 237.5
Lead	1 921.50	_	-5.9%	\blacksquare	-7.2%	\blacksquare	-5.4%	\blacksquare	-5.4%	2 072.67	1 905.00	2 291.0
LBMA (USD/troz)	_											
Silver	28.91	•	-5.8%	\blacksquare	-7.0%		21.5%		21.5%	28.27	22.09	34.5
Gold ²	2 610.85	_	-1.5%	\blacksquare	-0.7%		26.6%		26.6%	2 387.98	1 985.10	2 777.8
LPPM (USD/troz)												
Platinum ²	914.00	•	-2.8%	\blacksquare	-7.2%	•	-9.1%	•	-9.1%	955.51	872.00	1 065.0
Palladium ²	909.00	_	-7.5%	\blacksquare	-8.9%	\blacksquare	-18.8%	\blacksquare	-18.8%	983.20	852.00	1 222.0
FX ³												
EURUSD	1.0389	_	-1.6%	\blacksquare	-7.2%	•	-6.0%	•	-6.0%	1.0824	1.0389	1.119
EURPLN	4.2730	_	-0.7%	•	-0.1%	•	-1.7%	•	-1.7%	4.3065	4.2499	4.401
USDPLN	4.1012		0.6%		7.4%		4.2%		4.2%	3.9799	3.8117	4.175
USDCAD	1.4389		2.7%		6.6%		8.8%		8.8%	1.3698	1.3316	1.441
USDCNY	7.2993		0.7%		4.0%		2.8%		2.8%	7.2002	7.0109	7.299
USDCLP	992.12		1.5%		10.7%		12.2%		12.2%	943.58	877.12	996.3
Money market												
3m SOFR	4.305	_	-0.16	•	-0.29	•	-1.03	•	-1.03	5.057	4.305	5.34
3m EURIBOR	2.714	_	-0.22	•	-0.57	•	-1.20	•	-1.20	3.572	2.678	3.97
3m WIBOR	5.840	_	-0.01	•	-0.01	•	-0.04	•	-0.04	5.856	5.820	5.89
5y USD interest rate swap	4.039		0.30		0.79		0.51		0.51	3.845	3.104	4.48
5y EUR interest rate swap	4.039		0.30		0.79		0.51		0.51	2.582	2.012	3.03
5y PLN interest rate swap	5.000		0.53		0.67		0.61		0.61	4.801	4.268	5.45
Fuel												
WTI Cushing	40.97	_	-5.6%		2.2%	•	-33.6%	•	-32.9%	38.03	-37.63	63.2
Brent	43.50	_	-7.8%	•	-3.0%	•	-37.5%	•	-36.9%	42.26	11.41	70.5
Diesel NY (ULSD)	1.40	_	-5.9%	•	-3.9%	•	-36.0%	•	-35.8%	1.46	0.89	2.2
Others												
VIX	17.35		3.84		0.62		4.90		4.90	15.55	11.86	38.5
BBG Commodity Index	98.76		0.6%	_	-1.6%		0.1%		0.1%	99.11	93.33	107.2
S&P500	5 881.63	_	-2.5%		2.1%		23.3%		23.3%	5 428.24	4 688.68	6 090.2
DAX	19 909.14	<u> </u>	1.4%	_	3.0%		18.8%		18.8%	18 387.82	16 431.69	20 426.2
Shanghai Composite	3 351.76		0.8%	_	0.5%	_	12.7%	_	12.7%	3 058.58	2 702.19	3 489.7
WIG 20	2 192.01		0.0%	-	-5.7%	-	-6.4%	-	-6.4%	2 368.70	2 123.35	2 593.1
				*		*		•		134.21 based on da		

° 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

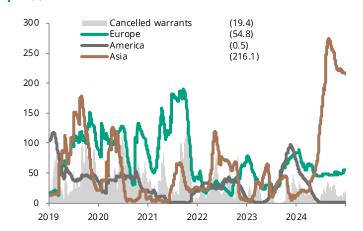


Copper: official exchange stocks (thousand tonnes)



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

Copper: official LME stocks (thousand tonnes)



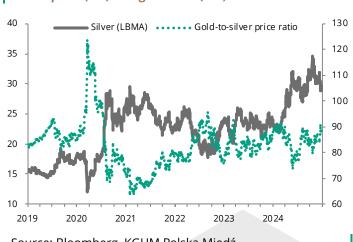
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



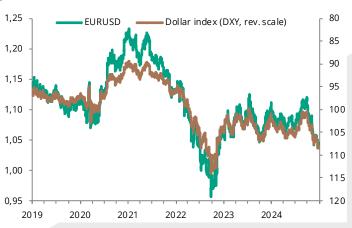
Source: Bloomberg, KGHM Polska Miedź

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



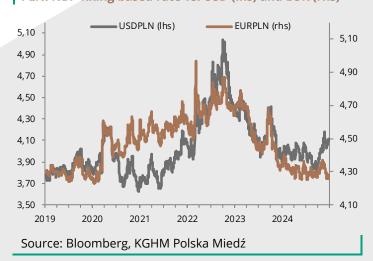
Source: Bloomberg, KGHM Polska Miedź

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)





Legal note

This document has been prepared based on the below listed reports, among others, published in the following period: **1 - 31 December 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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