

Market Overview



as of: 4th December 2023






- **Copper:** In early October, the International Copper Study Group said it expects a surplus of 467,000 tons next year — its largest forecast for a glut since 2014. Now, the news that Panama intends to shut down one of the world's biggest and newest copper mines threatens to disrupt that trajectory (*page 2*).
- **Precious metals:** Chinese demand for gold bars and gold coins amounted to 82 tons in the third quarter, despite rising gold prices in yuan terms. This was a 16% year-on-year increase and the highest investment demand for gold in China in the third quarter since 2018 (*page 3*).
- **Asia:** The Chinese market is unable to offset losses from Europe and the USA. Data shows that factories are producing less and employing fewer workers. The research also showed that export-dependent Japan, South Korea and Taiwan were hardest hit by the global slowdown, with their manufacturing activities stagnating in November (*page 5*).

Key market prices

	Close price	2w chng.
LME (USD/t)		
▲ Copper	8 456.00	3.9%
▼ Nickel	16 655.00	-0.7%
LBMA (USD/troz)		
▲ Silver	25.16	4.9%
▲ Gold (PM)	2 045.40	3.2%
FX		
▲ EURUSD	1.0875	0.0%
▼ EURPLN	4.3494	-0.6%
▼ USDPLN	3.9910	-1.0%
▼ USDCAD	1.3507	-1.6%
▼ USDCPL	869.56	-1.3%
Stocks		
▲ KGHM	121.40	4.9%

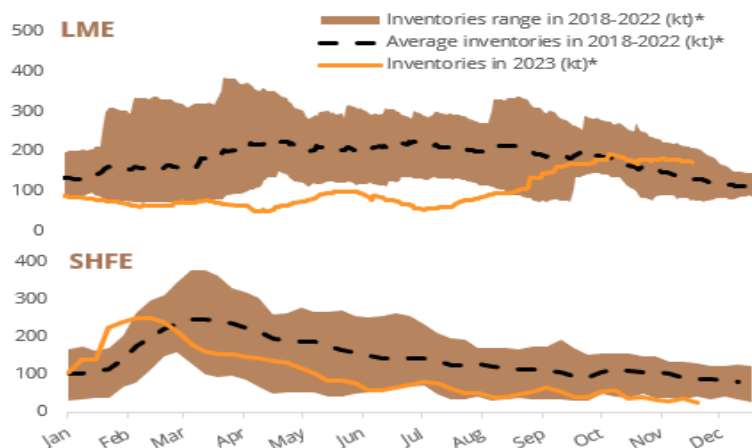
Source: Bloomberg, KGHM Polska Miedź S.A.; (*more on page 8*)

Important macroeconomic data

Release	For		
 Official manuf. PMI	Nov	49.4	▼
 GDP (annlzd., qoq)	3Q	5.2%	▲
 CPI (yoy)	Nov	6.5%	▼
 CPI estimate (yoy)	Nov	2.4%	▼
 Copper production (mt)	Oct	464 311	▲

Source: Bloomberg, KGHM Polska Miedź S.A.; (*more on page 6*)

Copper stocks on the LME have rebounded from multi-year lows, however on SHFE remain below the range of the last five years



Source: Bloomberg, KGHM Polska Miedź S.A.

Market Risk Unit

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Base and precious metals | Other commodities

Copper

Panama mine shutdown threatens copper's surplus

In early October, the International Copper Study Group said it expects a surplus of 467,000 tons next year — its largest forecast for a glut since 2014. Now, the news that Panama intends to shut down one of the world's biggest and newest copper mines threatens to disrupt that trajectory.

A plan to close a major mine in Panama is threatening to upend the global copper market by whipsawing the industry back into a period of tighter supply. Until recently, the broad consensus among forecasters was that copper would enjoy a comfortable surplus for the next few years, before tightening sharply later in the decade as supply struggles to keep up with surging demand for the energy transition. The expectation for a looser market in the near term has been reflected in copper prices, which drifted sideways for most of this year, while inventory levels on the London Metal Exchange bounced back from perilously low levels to hit a two-year high last month. In early October, the International Copper Study Group said it expects a surplus of 467,000 tons next year — its largest forecast for a glut since 2014. Now, the news that Panama intends to shut down one of the world's biggest and newest copper mines threatens to disrupt that trajectory. First Quantum Minerals Ltd.'s \$10 billion Cobre Panama operation produces about 1.5% of the world's copper supply, and boasts estimated copper resources worth more than \$100 billion at current prices, according to Bloomberg calculations. The project has been the target of protests across the central American country over the past few weeks, culminating in announcement by President Laurentino Cortizo that authorities will start a process to close the mine after a supreme court ruling against it. The Canadian company, which had already temporarily stopped production after protesters blocked supplies from reaching the mine, said it was still open to dialog and would seek clarification from the government, while listing a large number of concerns regarding a potential closure. Some analysts have suggested the mine could reopen under a new government after Panama's election in May, if the company is able to renegotiate new terms. But based on its estimated annual production of as much as 375,000 tons this year, a prolonged or permanent shutdown at Cobre Panama would erode most of the ICSG's predicted surplus in 2024. The effect would be even more dramatic using a surplus of 355,000 tons forecast by Citigroup Inc. analysts. The shutdown at Cobre Panama comes at a particularly sensitive time in the market for copper concentrates, an intermediate product used to make refined metal, as Chinese smelters negotiate processing fees for next year with key mining suppliers. In the first of such deals, Antofagasta Plc and smelter Jinchuan Group agreed to copper-concentrate supply contracts for 2024 that set processing charges 9% lower than this year. The drop is a sign of how the concentrate market has been tightening — partly

because of a massive expansion of Chinese smelter capacity, which increases competition for the feedstock, and partly because of concern about the future of Cobre Panama. “This is a significant event, adding uncertainty to the supply outlook,” said Craig Lang, principal analyst at researcher CRU Group. “This is likely to place further downwards pressure on copper concentrate market terms as smelters and traders look to cover Panama supply with alternative sources of material.” Cobre Panama is a major supplier of concentrate to the Chinese market, where visible stocks of refined copper remain near multi-year lows, as robust consumption by electricity grids and the renewable energy industry counter depressed demand elsewhere. A further tightening of the market could increase the flow of refined metal into the country, depleting stockpiles held elsewhere that have only partially recovered from the low levels seen earlier this year. The supply disruptions also come as China is becoming increasingly aggressive in taking measures to shore up its ailing property sector, a significant pillar of global copper demand, while a slump in global bond yields makes the metal more attractive to investors. And Cobre Panama isn’t the only mine facing disruptions. Workers at MMG Ltd.’s copper mine in Peru — another large operation — began a strike.

Other important information on copper market:

- Canada’s First Quantum Minerals and a Zambian mining company have signed an agreement to fast-track the development of a copper project in Africa’s second-biggest producer of the metal, the companies said. Zambia has ambitions to triple its copper output and has reviewed its tax policy to increase mining exploration and output. First Quantum is already a major miner in the southern African country. Its agreement with Zambia’s Mimosa Resources envisages mining at the Fishtie copper project starting from 2026, ramping up to maximum production of 30,000 metric tons of copper a year by the end of the decade, First Quantum and Mimosa Resources said in a joint statement. First Quantum reiterated it thought the investment climate in Zambia had improved.

Precious Metals

Chinese Investors Turning to Gold

Chinese demand for gold bars and gold coins amounted to 82 tons in the third quarter, despite rising gold prices in yuan terms. This was a 16% year-on-year increase and the highest investment demand for gold in China in the third quarter since 2018.

China Daily called the demand for gold “robust” through the first three quarters of 2023 and said it is expected to continue “as economic and geopolitical uncertainties may drive up investors’ purchases of safe-haven assets.” China ranks as the world’s biggest gold market, and Chinese demand has a significant impact on the global gold market. Chinese demand for gold bars and gold coins came in at 82 tons in the third quarter, despite surging gold prices in yuan terms. It was a 16% increase year-on-year and the strongest Q3 Chinese gold investment demand since 2018. It was also above both the five-year and 10-year third-

quarter averages. Through the first nine months of 2023, investment gold demand was up 26% compared to 2022. WGC CEO Wang Lixin told China Daily, “The rising interest in gold bars and coins was primarily driven by investors’ safe-haven demand, supported by global geopolitical instability and weak performance of investment products denominated in Chinese yuan.” The spread between domestic and international gold prices was another reason behind the gold investment demand boom. Wang also mentioned central bank gold buying as a catalyst for investor demand in China. Since the beginning of the year, the People’s Bank of China has increased its reserves by 181 tons, and it has added 232 tons since it resumed official purchases in November 2022. As of the end of September, China officially held 2,192 tons of gold, making up 4% of its total reserves. Chinese investors have also put money into gold-backed ETFs. As a result, ETF gold holdings rose by 9.53 tons in the third quarter alone. Total gold holdings in China-based ETFs stand at around 57 tons. China Daily reported a 12.2% increase in gold and silver jewelry sales through the first three quarters of 2023. According to the president of the Gems & Jewelry Trade Association of China, the increase in jewelry sales was nearly double the growth in the overall retail sector. Wang told China Daily that the post-COVID economic recovery was a significant driver of the resurgence in domestic gold jewelry demand. He said pent-up demand for wedding jewelry since last year also provided a boost. According to China Daily, jewelry exports have recovered to pre-pandemic levels, with the total value of precious jewelry exports reaching about 66.7 billion yuan in 2022. That represents an 18% increase compared to 2019. The overall export value of jewelry from January to June 2023 came in at 39.4 billion yuan, a 13.3% increase over the same period last year. Overall, Chinese gold demand was up 7.3% year on year through the first nine months of 2023.

Global economies | Foreign exchange markets





Asia Factory Activity Weakens, Uncertainty On China Clouds Outlook








The Chinese market is unable to offset losses from Europe and the USA. Data shows that factories are producing less and employing fewer workers. The research also showed that export-dependent Japan, South Korea and Taiwan were hardest hit by the global slowdown, with their manufacturing activities stagnating in November.

Asia's factory activity remained weak in November on soft global demand, surveys showed, with mixed signs on the strength of China's economy clouding the outlook for the region's fragile recovery. China's private Caixin/S&P Global manufacturing purchasing managers' index (PMI) unexpectedly rose to 50.7 in November from a 49.5 reading in October, exceeding the 50 mark separating growth from contraction and surpassing analysts' forecasts. The reading came a day after official survey that showed a contraction in both manufacturers' and non-manufacturers' activity, underscoring deepening troubles in the world's second largest economy. "The domestic market cannot make up for losses in Europe and the United States. The data shows that factories are producing less and hiring fewer people," Dan Wang, chief economist at Hang Seng Bank China, said. Export-reliant Japan, South Korea and Taiwan bore the brunt of sluggish global demand with their manufacturing activity remaining stagnant in November, surveys showed. "It's hard to expect a recovery in Asia any time soon," said Toru Nishihama, chief emerging market economist at Dai-ichi Life Research Institute. "While exports probably hit bottom, they won't accelerate much from here as the global economy lacks a key driver of growth." Japan's final Jibun Bank manufacturing PMI fell to 48.3 in November from 48.7 in October, shrinking at the fastest pace in nine months. South Korea's PMI stood at 50.0 in November, rising slightly from October's reading of 49.8. The factory gauge rebound came after 16 straight months of contraction through October, the longest downturn since the survey began in April 2004. Manufacturing activity also shrank in Taiwan, Vietnam and Malaysia, but expanded in India, Indonesia and the Philippines, the surveys showed. China's economy has struggled this year to mount a strong post-pandemic recovery, adding gloom to an already darkening global outlook as U.S. and European economies begin to feel the pinch from past aggressive interest rate hikes. "The weakness in China's service sector is particularly worrying, as it shows demand is evaporating even as supply picks up," Nishihama of Dai-ichi Life Research Institute said. In India, the PMI survey released showed the country's manufacturing growth accelerated in November on robust output and new orders. While domestic demand appeared strong, international demand took a hit, with new export orders at a five-month low.

Macroeconomic calendar

Important macroeconomic data releases

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
China 						
🔴🔴	27-Nov	Industrial profits (yoy)	Oct	2.7% ▼	11.9%	--
🔴🔴🔴	30-Nov	Official manufacturing PMI	Nov	49.4 ▼	49.5	49.8 📉
🔴🔴🔴	01-Dec	Caixin's manufacturing PMI	Nov	50.7 ▲	49.5	49.6 📈
Poland 						
🔴🔴🔴🔴	21-Nov	Sold industrial production (yoy)‡	Oct	1.6% ▲	-3.3%	1.7% 📉
🔴🔴	21-Nov	Average gross salary (yoy)	Oct	12.8% ▲	10.3%	12.0% 📈
🔴🔴	21-Nov	Producer inflation PPI (yoy)‡	Oct	-4.1% ▼	-2.7%	-3.6% 📉
🔴	21-Nov	Employment (yoy)	Oct	-0.1% ▼	0.0%	0.0% 📉
🔴🔴🔴	22-Nov	Retail sales (yoy)	Oct	4.8% ▲	3.6%	4.7% 📈
🔴	23-Nov	M3 money supply (yoy)	Oct	8.2% ▼	8.3%	8.6% 📉
🔴🔴	24-Nov	Unemployment rate	Oct	5.0% -	5.0%	5.0% 🟡
🔴🔴🔴🔴🔴	30-Nov	GDP (yoy) - final data	3Q	0.5% ▲	0.4%	--
🔴🔴🔴🔴🔴	30-Nov	GDP (qoq) - final data	3Q	1.5% ▲	1.4%	--
🔴🔴🔴🔴	30-Nov	Consumer inflation CPI (yoy) - preliminary data	Nov	6.5% ▼	6.6%	6.6% 📉
🔴🔴🔴	01-Dec	Manufacturing PMI	Nov	48.7 ▲	44.5	45.5 📈
US 						
🔴🔴	22-Nov	Durable goods orders - preliminary data‡	Oct	-5.4% ▼	4.0%	-3.2% 📉
🔴🔴	22-Nov	University of Michigan confidence index - final data	Nov	61.3 ▲	60.4	61.0 📈
🔴🔴🔴	24-Nov	Composite PMI - preliminary data	Nov	--	50.7	50.4
🔴🔴🔴	24-Nov	Manufacturing PMI - preliminary data	Nov	--	50.0	49.9
🔴🔴🔴	24-Nov	PMI services - preliminary data	Nov	--	50.6	50.3
🔴	27-Nov	Dallas Fed manufacturing activity	Nov	-19.9 ▼	-19.2	-16.0 📉
🔴	28-Nov	Richmond Fed manufacturing index	Nov	-5.0 ▼	3.0	1.0 📉
🔴🔴🔴🔴🔴	29-Nov	GDP (annualized, qoq) -	3Q	5.2% ▲	4.9%	5.0% 📈
🔴🔴🔴🔴	30-Nov	Consumer spending inflation PCE (mom)	Oct	0.2% ▼	0.3%	0.2% 🟡
🔴🔴🔴🔴	30-Nov	Consumer spending inflation PCE (yoy)	Oct	3.5% ▼	3.7%	3.5% 🟡
🔴🔴	30-Nov	Personal income (sa, mom)‡	Oct	0.2% ▼	0.4%	0.2% 🟡
🔴🔴	30-Nov	Personal spending (sa, mom)	Oct	0.2% ▼	0.7%	0.2% 🟡
🔴🔴🔴	01-Dec	Manufacturing PMI - final data	Nov	49.4 ▼	50.0	49.5 📉
🔴🔴	01-Dec	ISM Manufacturing	Nov	46.7 -	46.7	47.8 📉
Eurozone 						
🔴	22-Nov	Consumer confidence - preliminary data‡	Nov	-16.9 ▲	-17.8	-17.8 📈
🔴🔴🔴	23-Nov	Composite PMI - preliminary data	Nov	--	46.5	46.8
🔴🔴🔴	23-Nov	Manufacturing PMI - preliminary data	Nov	--	43.1	43.5
🔴🔴🔴	23-Nov	Services PMI - preliminary data	Nov	--	47.8	48.1
🔴	28-Nov	M3 money supply (yoy)	Oct	-1.0% ▲	-1.2%	-0.9% 📉
🔴	29-Nov	Economic confidence‡	Nov	93.8 ▲	93.5	93.6 📈
🔴	29-Nov	Industrial confidence‡	Nov	-9.5 ▼	-9.2	-9.0 📉
🔴	29-Nov	Consumer confidence - final data	Nov	-16.9 -	-16.9	--
🔴🔴🔴🔴	30-Nov	Core CPI (yoy) - preliminary data	Nov	3.6% ▼	4.2%	3.9% 📉
🔴🔴🔴🔴	30-Nov	CPI estimate (yoy)	Nov	2.4% ▼	2.9%	2.7% 📉
🔴🔴	30-Nov	Unemployment rate	Oct	6.5% -	6.5%	6.5% 🟡
🔴🔴🔴	01-Dec	Manufacturing PMI - final data‡	Nov	44.2 -	44.2	43.8 📈

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
Germany 						
🕒🕒🕒	23-Nov	Composite PMI - preliminary data	Nov	--	45.9	46.3
🕒🕒🕒	23-Nov	Manufacturing PMI - preliminary data	Nov	--	40.8	41.2
🕒🕒🕒🕒🕒	24-Nov	GDP (yoy) - final data	3Q	-0.8% -	-0.8%	-0.8% 🕒
🕒🕒🕒🕒🕒	24-Nov	GDP (sa, qoq) - final data	3Q	-0.1% -	-0.1%	-0.1% 🕒
🕒🕒	24-Nov	IFO business climate	Nov	87.3 ▲	86.9	87.5 📉
🕒🕒	28-Nov	GfK consumer confidence‡	Dec	-27.8 ▲	-28.3	-28.2 📈
🕒🕒🕒🕒	29-Nov	Harmonized consumer inflation HICP (yoy) - preliminary data	Nov	2.3% ▼	3.0%	2.5% 📉
🕒🕒🕒🕒	29-Nov	Consumer inflation CPI (yoy) - preliminary data	Nov	3.2% ▼	3.8%	3.5% 📉
🕒🕒🕒	30-Nov	Retail sales (yoy)‡	Oct	-0.1% ▲	-3.8%	-1.9% 📈
🕒🕒	30-Nov	Unemployment rate	Nov	5.9% ▲	5.8%	5.8% 📈
🕒🕒🕒	01-Dec	Manufacturing PMI - final data‡	Nov	42.6 -	42.6	42.3 📈
France 						
🕒🕒🕒	23-Nov	Composite PMI - preliminary data	Nov	--	44.6	44.9
🕒🕒🕒	23-Nov	Manufacturing PMI - preliminary data	Nov	--	42.8	43.3
🕒🕒🕒🕒🕒	30-Nov	GDP (yoy) - final data	3Q	0.6% ▼	0.7%	0.7% 📉
🕒🕒🕒🕒🕒	30-Nov	GDP (qoq) - final data	3Q	-0.1% ▼	0.1%	0.1% 📉
🕒🕒🕒🕒	30-Nov	Harmonized consumer inflation HICP (yoy) - preliminary data	Nov	3.8% ▼	4.5%	4.1% 📉
🕒🕒🕒🕒	30-Nov	Consumer inflation CPI (yoy) - preliminary data	Nov	3.4% ▼	4.0%	3.7% 📉
🕒🕒🕒	01-Dec	Manufacturing PMI - final data‡	Nov	42.9 -	42.9	42.6 📈
Italy 						
🕒🕒🕒🕒	30-Nov	Harmonized consumer inflation HICP (yoy) - preliminary data	Nov	0.7% ▼	1.8%	1.1% 📉
🕒🕒	30-Nov	Unemployment rate‡	Oct	7.8% ▲	7.6%	7.4% 📈
🕒🕒🕒🕒🕒	01-Dec	GDP (wda, yoy) - final data	3Q	0.1% ▲	0.0%	0.0% 📈
🕒🕒🕒🕒🕒	01-Dec	GDP (wda, qoq) - final data	3Q	0.1% ▲	0.0%	0.0% 📈
🕒🕒🕒	01-Dec	Manufacturing PMI	Nov	44.4 ▼	44.9	45.2 📉
UK 						
🕒🕒🕒	23-Nov	Manufacturing PMI (sa) - preliminary data	Nov	--	44.8	45.0
🕒🕒🕒	23-Nov	Composite PMI - preliminary data	Nov	--	48.7	48.7
🕒🕒🕒	01-Dec	Manufacturing PMI (sa) - final data‡	Nov	47.2 -	47.2	46.7 📈
Japan 						
🕒🕒🕒🕒	24-Nov	Consumer inflation CPI (yoy)	Oct	3.3% ▲	3.0%	3.4% 📉
🕒🕒🕒	24-Nov	Composite PMI - preliminary data	Nov	--	50.5	--
🕒🕒🕒	24-Nov	Manufacturing PMI - preliminary data	Nov	--	48.7	--
🕒🕒🕒🕒	30-Nov	Industrial production (yoy) - preliminary data	Oct	0.9% ▲	-4.4%	0.4% 📈
Chile 						
🕒🕒🕒🕒🕒	20-Nov	GDP (yoy)‡	3Q	0.6% ▲	-0.8%	0.2% 📈
🕒🕒🕒	30-Nov	Total copper production (metric tons)	Oct	464 311 ▲	457 393	--
🕒🕒🕒	30-Nov	Manufacturing (yoy)	Oct	9.5% ▲	-1.1%	2.6% 📈
🕒🕒🕒🕒	01-Dec	Economic activity (yoy)‡	Oct	0.3% -	0.3%	0.4% 📈
Canada 						
🕒🕒🕒🕒	21-Nov	Consumer inflation CPI (yoy)	Oct	3.1% ▼	3.8%	3.1% 🕒
🕒🕒🕒🕒🕒	30-Nov	GDP (yoy)	Sep	0.6% ▼	0.9%	0.8% 📉
🕒🕒🕒🕒🕒	30-Nov	GDP (annualized, qoq)‡	3Q	-1.1% ▼	1.4%	0.1% 📉
🕒🕒🕒	01-Dec	Net change in employment (ths)	Nov	24.9 ▲	17.5	14.0 📈

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

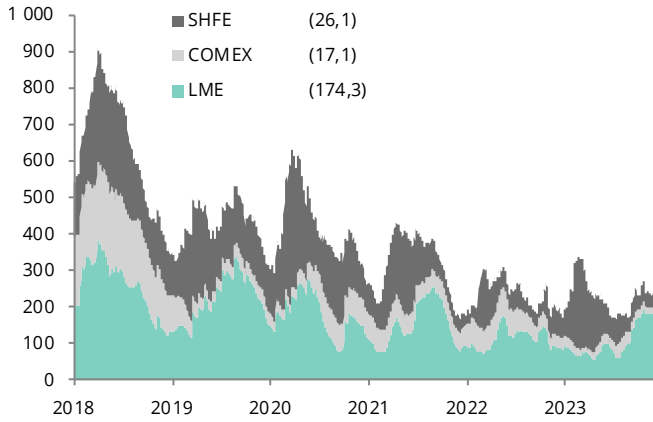
Key base & precious metal prices, exchange rates and other important market factors

(as of: 01-Dec-23)	Price	Price change ¹				From year beginning ²		
		2W	QTD	YTD	1Y	Average	Min	Max
LME (USD/t; Mo in USD/lbs)								
Copper	8 456.00	▲ 3.9%	▲ 2.7%	▲ 0.8%	▲ 2.9%	8 484.50	7 812.50	9 436.00
Molybdenum	18.03	▲ 4.6%	▼ -24.1%	▼ -31.0%	▼	24.90	17.18	38.28
Nickel	16 655.00	▼ -0.7%	▼ -10.0%	▼ -45.3%	▼ -38.2%	21 867.88	15 885.00	31 200.00
Aluminum	2 147.50	▼ -0.8%	▼ -6.9%	▼ -9.0%	▼ -11.6%	2 255.24	2 068.50	2 636.00
Tin	23 250.00	▼ -7.0%	▼ -3.9%	▼ -6.3%	▲ 0.6%	26 057.73	22 225.00	32 050.00
Zinc	2 465.50	▼ -4.0%	▼ -6.6%	▼ -18.5%	▼ -19.3%	2 657.61	2 224.00	3 509.00
Lead	2 099.00	▼ -8.0%	▼ -5.0%	▼ -10.1%	▼ -2.6%	2 146.32	1 989.00	2 331.00
LBMA (USD/troz)								
Silver	25.16	▲ 4.9%	▲ 9.0%	▲ 5.1%	▲ 13.7%	23.31	20.09	26.03
Gold ²	2 045.40	▲ 3.2%	▲ 9.4%	▲ 12.9%	▲ 13.4%	1 934.51	1 810.95	2 048.45
LPPM (USD/troz)								
Platinum ²	929.00	▲ 3.1%	▲ 0.7%	▼ -12.8%	▼ -10.8%	966.71	850.00	1 128.00
Palladium ²	1 009.00	▼ -3.0%	▼ -21.7%	▼ -43.6%	▼ -47.0%	1 356.07	963.00	1 802.00
FX ³								
EURUSD	1.0875	▲ 0.0%	▲ 2.7%	▲ 2.0%	▲ 4.0%	1.0806	1.0469	1.1255
EURPLN	4.3494	▼ -0.6%	▼ -6.2%	▼ -7.3%	▼ -7.2%	4.5596	4.3327	4.7895
USDPLN	3.9910	▼ -1.0%	▼ -8.7%	▼ -9.3%	▼ -11.1%	4.2201	3.9451	4.4888
USDCAD	1.3507	▼ -1.6%	▼ -0.1%	▼ -0.3%	▲ 0.6%	1.3502	1.3128	1.3875
USDCNY	7.1285	▼ -1.2%	▼ -2.3%	▲ 3.3%	▲ 1.1%	7.0815	6.7010	7.3439
USDCLP	869.56	▼ -1.3%	▼ -4.1%	▲ 1.2%	▼ -2.8%	836.25	781.49	945.61
Money market								
3m LIBOR USD	5.637	▲ 0.01	▼ -0.02	▲ 0.87	▲ 0.87	5.379	4.782	5.687
3m EURIBOR	3.960	▼ -0.02	▲ 0.01	▲ 1.83	▲ 1.99	3.401	2.170	4.002
3m WIBOR	5.840	▲ 0.03	▲ 0.07	▼ -1.18	▼ -1.41	6.577	5.620	7.010
5y USD interest rate swap	4.219	- 0.00	- 0.00	▲ 0.20	▲ 0.52	3.821	3.418	4.408
5y EUR interest rate swap	2.801	▼ -0.27	▼ -0.61	▼ -0.44	▲ 0.27	3.162	2.672	3.500
5y PLN interest rate swap	4.614	▼ -0.02	▲ 0.11	▼ -1.55	▼ -1.08	5.069	4.140	6.125
Fuel								
WTI Cushing	74.07	▼ -2.4%	▼ -18.4%	▼ -7.7%	▼ -8.8%	78.12	66.74	93.68
Brent	89.91	▼ -8.9%	▼ -4.4%	▼ -9.4%	▼ -2.8%	107.48	84.59	137.67
Diesel NY (ULSD)	4.30	▲ 1.8%	▲ 18.7%	▲ 52.6%	▲ 56.0%	3.89	2.85	5.08
Others								
VIX	12.63	▼ -1.17	▼ -4.89	▼ -9.04	▼ -7.21	17.18	12.46	26.52
BBG Commodity Index	101.47	▼ -0.4%	▼ -3.2%	▼ -10.0%	▼ -12.6%	104.93	97.96	112.52
S&P500	4 594.63	▲ 1.8%	▲ 7.1%	▲ 19.7%	▲ 12.7%	4 250.33	3 808.10	4 594.63
DAX	16 397.52	▲ 3.0%	▲ 6.6%	▲ 17.8%	▲ 13.2%	15 599.33	14 181.67	16 469.75
Shanghai Composite	3 031.64	▼ -0.7%	▼ -2.5%	▼ -1.9%	▼ -4.2%	3 195.96	2 939.29	3 395.00
WIG 20	2 285.98	▲ 2.6%	▲ 19.3%	▲ 27.6%	▲ 29.4%	1 977.23	1 670.18	2 285.98
KGHM	121.40	▲ 4.9%	▲ 8.4%	▼ -4.2%	▲ 1.2%	119.41	104.60	153.80

° 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

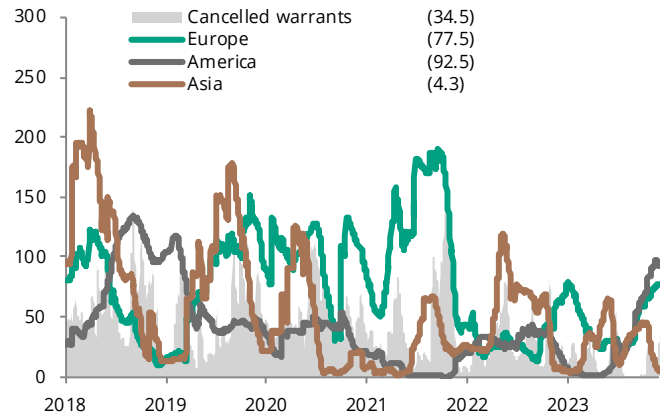
Source: Bloomberg, KGHM Polska Miedź

Copper: official exchange stocks (thousand tonnes)



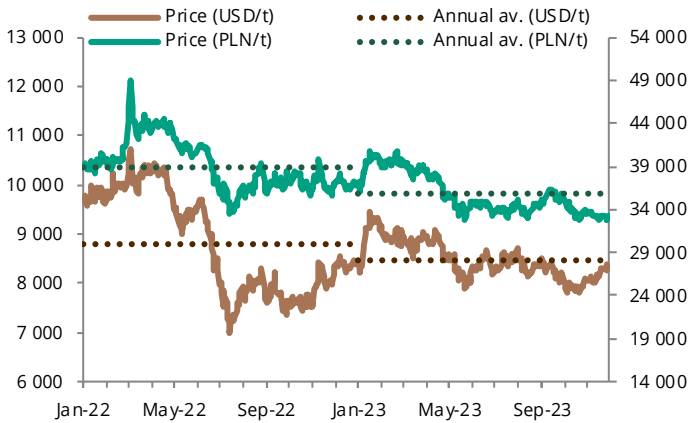
Note: Latest values in brackets. Source: Bloomberg, KGHM

Copper: official LME stocks (thousand tonnes)



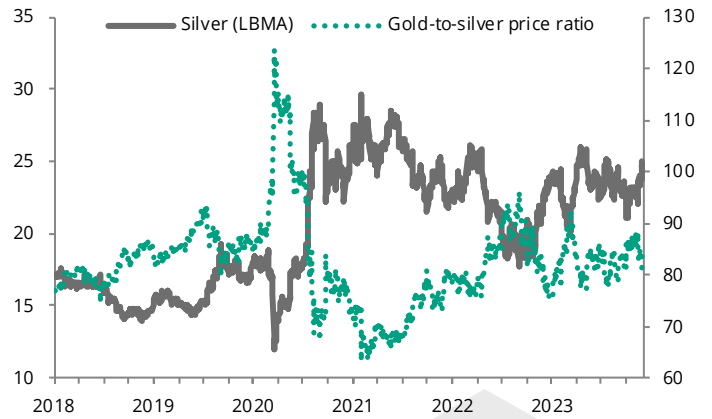
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



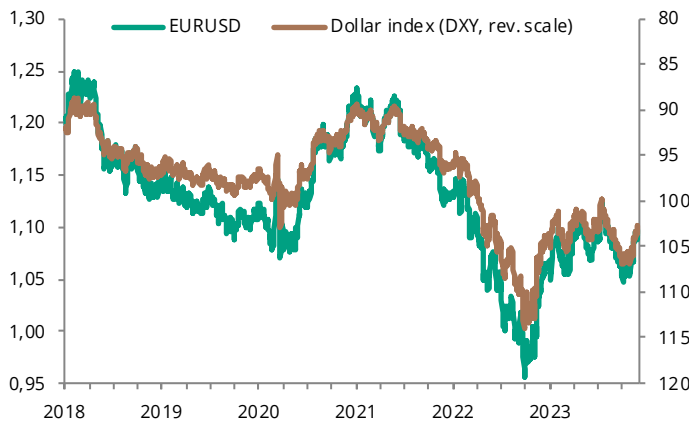
Source: Bloomberg, KGHM Polska Miedź

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



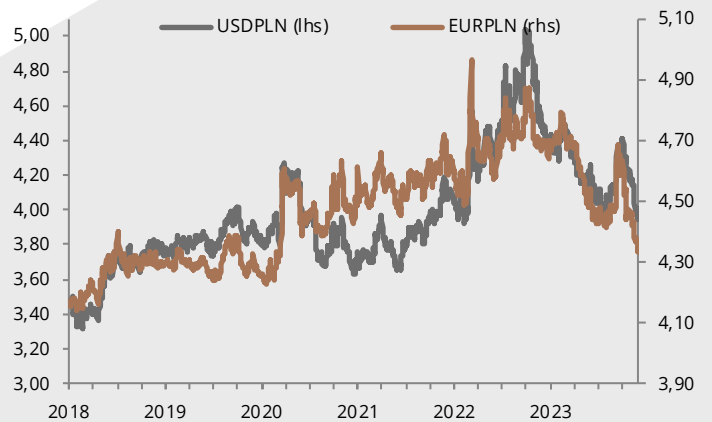
Source: Bloomberg, KGHM Polska Miedź

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:
20 November - 3 December 2023.

- 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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