

Market Overview



as of: 27th February 2023

- **Copper:** Due to the escalation of the dispute with Panama's government over tax and royalty payments and the order to suspend the loading of excavated material in the main port, First Quantum Minerals stops mining at the Cobre mine Panama (*page 2*).
- **Precious metals:** China's total gold imports last year increased by 64% compared to 2021, reaching 1,343 tons, the highest since 2018. In December 2022 alone, China imported 157 tons of gold closing a strong second half of the year (*page 4*).
- **Euro zone:** Minutes of the Fed meeting held on January 31 to February 1 states that policymakers agreed that interest rates will have to rise, but moving to smaller increases would let them calibrate more closely with incoming data (*page 5*).

Key market prices

	Close price	2w chng.
LME (USD/t)		
▼ Copper	8 807.00	-1.1%
▼ Nickel	24 850.00	-10.3%
LBMA (USD/troz)		
▼ Silver	21.09	-4.6%
▼ Gold (PM)	1 810.95	-2.6%
FX		
▼ EURUSD	1.0570	-1.1%
▼ EURPLN	4.7245	-1.0%
▲ USDPLN	4.4630	0.1%
▲ USDCAD	1.3622	1.9%
▲ USDCLP	802.93	0.8%
Stocks		
▼ KGHM	124.00	-7.2%

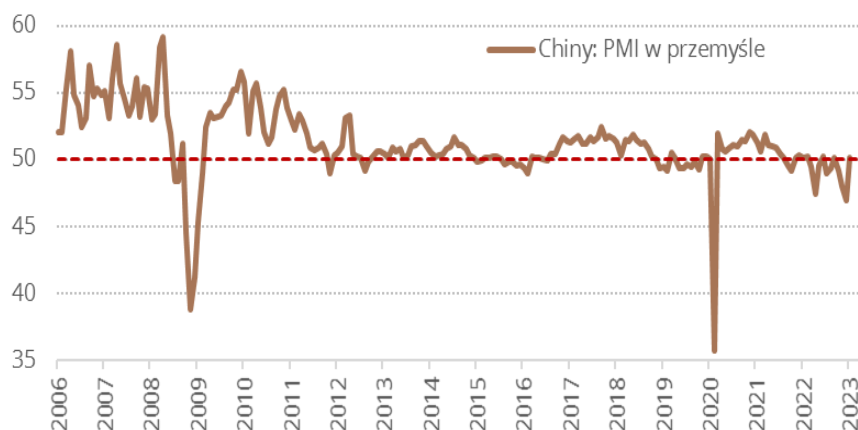
Source: Bloomberg, KGHM Polska Miedź S.A.; (*more on page 9*)

Important macroeconomic data

Release	For	
 Manufacturing PMI	Feb	47.8 ▲
 GDP (sa, yoy)	4Q	0.3% ▼
 Manufacturing PMI	Feb	48.5 ▼
 CPI (yoy)	Jan	17.2% ▲
 Composite PMI	Feb	51.6 ▲

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

China's PMI rose to 50.1 in January, so it's still there on the line between growth and decline in industrial activity



Source: Bloomberg, KGHM Polska Miedź S.A.

Market Risk Unit

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Base and precious metals | Other commodities

Copper

First Quantum halts copper processing in Panama

Due to the escalation of the dispute with Panama's government over tax and royalty payments and the order to suspend the loading of excavated material in the main port, First Quantum Minerals stops mining at the Cobre mine Panama.

Canada's First Quantum Minerals said on Thursday (Feb 24) it had halted ore processing operations at its giant Cobre Panama copper mine, in the latest escalation of a dispute with Panama's government over tax and royalty payments. Negotiations between the Toronto-based miner and the country's government over a new contract for the mine turned sour in December, when the President announced a plan to halt the operation. The move, unusual among Latin American countries, came after the First Quantum missed a deadline to sign the new contract because it didn't agree with some of its terms. Talks have continued since and, at times, they seemed to progress. Earlier this month, Panama's maritime authority ordered First Quantum's local unit Minera Panama to suspend loading operations at a major port, effectively blocking all exports from the mine. The company was then asked to produce a third-party assessment confirming its scales have been properly balanced. The miner, which said it submitted the proof on February 3, warned it would have to shut down the massive operation by mid-February because of limited storage capacity. First Quantum has now begun a partial demobilization of its workforce of over 8,000 employees and contractors, it said on Thursday (Feb 23). In addition to workforce reductions, the mine has ceased purchasing supplies and services that are equivalent to \$20 million in weekly revenues to more than 2,000 Panamanian companies. "Panama has continuously demonstrated its commitment to hold talks based on good faith and trust," the country's Ministry of Commerce and Industries said in an emailed statement. "However, Minera Panama has demonstrated the opposite, as they have not honored their word and refuse to sign the agreement with the previously accepted terms, instead engaging in delay tactics that have lengthened the process for more than a year." The Cobre Panama mine's union had called its members to strike against the halting of operations, arguing it would negatively impact workers. Top copper mine First Quantum is one of the world's top copper miners and Canada's largest producer of the metal. It churned out 816,000 tonnes of copper in 2021, its highest ever, thanks mainly to record output at Cobre Panama. The Cobre Panama mine complex, located about 120 km west of Panama City and 20 km from the Atlantic coast, contributes 3.5% of the Central American country's gross domestic product, according to government figures. The asset is estimated to hold 3.44 billion tonnes in proven reserves and at full capacity can produce more than

300,000 tonnes of copper per year, or about 1.5% of global production of the metal.

Other important information on copper market:

- Antofagasta forecasts higher copper and molybdenum this year as it completes work on an expansion and a new desalination plant at its flagship Los Pelambres mine. "Looking ahead, the Los Pelambres expansion is expected to be in production during Q2 including the new desalination plant which will significantly alleviate the water constraints that we have experienced over the past 18 months," said CEO Ivan Arriagada. The company said it is aiming to produce in a range of 670,000-710,000 mt of copper in 2023, up from 646,200 mt in 2022. Output fell 10.4% last year as the company faced water shortages and technical problems with its concentrate pipeline at Los Pelambres and lower ore grades at Centinela. Molybdenum production is expected to rise to 10,000-11,500 mt, up from 9,700 mt.
- Teck has begun commissioning its new QB2 copper mine in northern Chile. The open pit operation is expected to reach full capacity by the end of 2023. The mine is forecast to produce 150,000-180,000 mt of copper in concentrate this year and an average of 285,000-315,000 mt/year between 2024-2026. Cash costs are expected to average \$1.40-\$1.60/lb when at full capacity. The mine had initially been expected to begin production by the end of 2022. However, the company announced last October that bad weather had delayed the construction of the mine's ship loader. QB2 is the first of a series of projects the company plans to develop to significantly increase its copper output over the next decade. Others include the San Nicolas copper-zinc mine in Mexico, the Zafranal copper mine in Peru, and an expansion of the QB mill, all of which it aims to commission by 2028, to produce about 1 million mt/year by the end of the decade. The Canadian firm also announced that it plans to split into two companies by the end of 2023, Teck Metals holding its metals assets located in North and South America and a second Elk Valley Resources, containing its metallurgical coal operations in Canada.
- The world's refined copper market saw a three tonne surplus in December, compared with a deficit of 93,000 tonnes in November, the International Copper Study Group (ICSG) said in its latest monthly bulletin. World refined copper output and consumption in December were about 2.2 million tonnes. In 2022, the market was in a 376,000 tonne deficit compared with a 455,000 tonne deficit in the previous 12-month period.

Precious Metals

Chinese Gold Imports Hit Highest Level Since 2018

China's total gold imports last year increased by 64% compared to 2021, reaching 1,343 tons, the highest since 2018. In December 2022 alone, China imported 157 tons of gold closing a strong second half of the year.

China imported 1,343 tons of gold in 2022, the highest import level since 2018. Total gold imports for the year were up 64% over 2021. China ranks as the world's biggest gold consumer. Gold demand in China picked up during the second half of the year as the government relaxed some COVID restrictions. China imported 157 tons of gold in December to close out a strong H2. On-and-off lockdowns in major cities during the first half suppressed local gold demand and imports. As COVID-controlling measures eased and the local gold price premium rose to a multi-year high, imports during the second half jumped. " According to the WGC, strength in the Chinese gold market continued into January. Stronger gold demand during January was key. A recovery in the Chinese economy after it was strangled by government COVID restrictions helped drive the rebound in the gold market. China experienced a COVID peak in December. According to the World Gold Council, Chinese economic activities revived in January. That drove a boom in the gold market. According to the China Gold Association, during the 15-day period from the Chinese New Year day to the Spring Lantern Festival, Chinese gold consumption was up by 18% year-on-year. Gold withdrawals from the Shanghai Gold Exchange totaled 140 tons in January. That was a modest month-on-month decline of 2 tons and 25% lower than January 2022. But the lower number was primarily due to the 2023 Chinese New Year holiday that limited January to just 16 trading days. That was the fewest since 2012. When compared with previous Chinese New Year months, January's withdrawal total was 12% higher than the 10-year average. As we've reported, the People's Bank of China resumed official gold purchases in November. That continued into January, with the Chinese central bank adding another 15 tons to its reserves. Gold now accounts for 3.7% of China's total reserves. The Chinese central bank accumulated 1,448 tons of gold between 2002 and 2019, and then suddenly went silent. Many speculate that the Chinese continued to add gold to its holdings off the books during those silent years. There has always been speculation that China holds far more gold than it officially reveals. As Jim Rickards pointed out on Mises Daily back in 2015, many people speculate that China keeps several thousand tons of gold "off the books" in a separate entity called the State Administration for Foreign Exchange (SAFE). If this apparent rebound in the Chinese gold market continues into 2023, it will drive overall global gold demand higher.

Global economies | Foreign exchange markets

Fed minutes show openness to higher rates endgame





Minutes of the Fed meeting held on January 31 to February 1 states that policymakers agreed that interest rates will have to rise, but moving to smaller increases would let them calibrate more closely with incoming data.








As Reuters informs nearly all Federal Reserve policymakers rallied behind a decision to further slow the pace of interest rate hikes at the U.S. central bank's last policy meeting, but also indicated that curbing unacceptably high inflation would be the "key factor" in how much further rates need to rise. In language that suggested a compromise between officials worried about a slowing economy and those convinced inflation would prove persistent, minutes from the Jan. 31-Feb. 1 meeting said policymakers agreed rates would need to move higher, but that the shift to smaller-sized hikes would let them calibrate more closely with incoming data. "Almost all participants agreed that it was appropriate to raise the target range of the federal funds rate 25 basis points," with many of those saying that would let the Fed better "determine the extent" of future increases, said the minutes. At the same time, "participants generally noted that upside risks to the inflation outlook remained a key factor shaping the policy outlook," and that interest rates would need to move higher and stay elevated "until inflation is clearly on a path to 2%." At the same time, "participants generally noted that upside risks to the inflation outlook remained a key factor shaping the policy outlook," and that interest rates would need to move higher and stay elevated "until inflation is clearly on a path to 2%. Recent inflation data and upward revisions to earlier figures means the "upside risks to inflation" cited by policymakers in the minutes "are clearly much higher today than they were when the (Federal Open Market) Committee last met. "The March dots will move higher," with the median projected year-end policy rate perhaps pushed up to as much as 5.6%, compared with the median 5.1% "dot plot" projection in December. The minutes showed the Fed navigating towards a possible endpoint to its current rate increases, at once slowing the pace in order to more cautiously approach a possible stopping point while also leaving open just how high rates will ultimately rise in the event inflation does not slow. The readout of the meeting included particularly pointed back-and-forth references to sets of developments in the economy that contributed to a still large degree of uncertainty about where things are heading. While "some" participants saw an "elevated" likelihood of a recession in the United States this year, and pointed to a drop in consumer spending at the end of 2022, others noted that households continued to sit on excess savings and that some local governments had "sizeable budget surpluses" that could also help stave off a painful downturn. Business investment was "subdued" at the end of the year. Still, "a couple" participants at the last Fed policy meeting said businesses "appeared more confident" that supply bottlenecks had been eliminated, and that the global economic environment was improving and "could provide support to final

demand in the United States." The minutes said the labor market remained hot, with businesses – at least outside the tech sector – "keen to retain workers even in the face of slowing demand," a factor that would help sustain household incomes and spending. The Fed's Feb. 1 policy statement said "ongoing increases" in rates would still be needed, but shifted the focus from the pace of coming hikes to their "extent," a nod to the fact that policymakers feel they may be approaching a rate that is adequate to ensure steady progress in reducing inflation. Data since the last meeting have shown an economy continuing to grow and adding jobs at an unexpectedly rapid pace, while making less progress back towards the Fed's 2% inflation target. Inflation by the central bank's preferred measure was running in December at two and a half times the target. The minutes showed Fed officials still attuned to the risk they may have to do more in order to keep inflation falling. "Participants concurred that the Committee had made significant progress over the past year in moving toward a sufficiently restrictive stance of monetary policy". "Even so, participants agreed that, while there were signs that the cumulative effect of the Committee's tightening of the stance of monetary policy had begun to moderate inflationary pressures, inflation remained well above the Committee's longer-run goal of 2% and the labor market remained very tight."

Macroeconomic calendar

Important macroeconomic data releases

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²	
China							
<i>No major data in the period</i>							
Poland							
🔴🔴	13-Feb	Trade balance (EUR mn)‡	Dec	-2 716 ▼	- 978	-1 903	🔴
🔴🔴	13-Feb	Exports (EUR mn)‡	Dec	26 040 ▼	31 234	27 285	🔴
🔴🔴	13-Feb	Current account balance (EUR mn)‡	Dec	-2 526 ▼	313	-1 541	🔴
🟢🟢🟢🟢	14-Feb	GDP (yoy) - preliminary data	4Q	2.0% ▼	3.6%	2.2%	🔴
🟢🟢🟢🟢	14-Feb	GDP (qoq) - preliminary data	4Q	-2.4% ▼	1.0%	-0.5%	🔴
🟢🟢🟢🟢	15-Feb	Consumer inflation CPI (yoy)	Jan	17.2% ▲	16.6%	17.6%	🔴
🟢🟢🟢🟢	20-Feb	Sold industrial production (yoy)	Jan	2.6% ▲	1.0%	4.6%	🔴
🔴🔴	20-Feb	Average gross salary (yoy)	Jan	13.5% ▲	10.3%	12.7%	🟢
🔴🔴	20-Feb	Producer inflation PPI (yoy)‡	Jan	18.5% ▼	20.5%	18.4%	🟢
🟢	20-Feb	Employment (yoy)	Jan	1.1% ▼	2.2%	1.8%	🔴
🔴🔴	21-Feb	Retail sales (yoy)	Jan	15.1% ▼	15.5%	16.3%	🔴
🟢	22-Feb	M3 money supply (yoy)	Jan	6.9% ▲	5.4%	5.8%	🟢
🔴🔴	23-Feb	Unemployment rate	Jan	5.5% ▲	5.2%	5.5%	🟢
US							
🟢🟢🟢🟢	14-Feb	Consumer inflation CPI (mom)‡	Jan	0.5% ▲	0.1%	0.5%	🟢
🟢🟢🟢🟢	14-Feb	Consumer inflation CPI (yoy)	Jan	6.4% ▼	6.5%	6.2%	🟢
🟢🟢🟢🟢	15-Feb	Industrial production (mom)‡	Jan	0.0% ▲	-1.0%	0.5%	🔴
🔴🔴	15-Feb	Retail sales (excluding autos, mom)‡	Jan	2.3% ▲	-0.9%	0.9%	🟢
🟢	15-Feb	Capacity utilization‡	Jan	78.3% ▼	78.4%	79.1%	🔴
🔴🔴	16-Feb	Philadelphia Fed business outlook	Feb	- 24.3 ▼	- 8.9	- 7.5	🔴
🟢🟢🟢	21-Feb	Composite PMI - preliminary data	Feb	50.2 ▲	46.8	47.5	🟢
🟢🟢🟢	21-Feb	Manufacturing PMI - preliminary data	Feb	47.8 ▲	46.9	47.2	🟢
🟢🟢🟢	21-Feb	PMI services - preliminary data	Feb	50.5 ▲	46.8	47.3	🟢
🟢🟢🟢🟢🟢	23-Feb	GDP (annualized, qoq) -	4Q	2.7% ▼	2.9%	2.9%	🔴
🟢🟢🟢🟢	24-Feb	Consumer spending inflation PCE (mom)‡	Jan	0.6% ▲	0.4%	0.4%	🟢
🟢🟢🟢🟢	24-Feb	Consumer spending inflation PCE (yoy)‡	Jan	4.7% ▲	4.6%	4.3%	🟢
🔴🔴	24-Feb	Personal income (sa, mom)‡	Jan	0.6% ▲	0.3%	1.0%	🔴
🔴🔴	24-Feb	Personal spending (sa, mom)‡	Jan	1.8% ▲	-0.1%	1.4%	🟢
🔴🔴	24-Feb	University of Michigan confidence index - final data	Feb	67.0 ▲	66.4	66.4	🟢
Eurozone							
🟢🟢🟢🟢🟢	14-Feb	GDP (sa, yoy) - preliminary data	4Q	1.9% -	1.9%	1.9%	🟢
🟢🟢🟢🟢🟢	14-Feb	GDP (sa, qoq) - preliminary data	4Q	0.1% -	0.1%	0.1%	🟢
🟢🟢🟢🟢	15-Feb	Industrial production (sa, mom)‡	Dec	-1.1% ▼	1.4%	-0.8%	🔴
🟢🟢🟢🟢	15-Feb	Industrial production (wda, yoy)‡	Dec	-1.7% ▼	2.8%	-0.7%	🔴
🟢	15-Feb	Trade balance (EUR mn)	Dec	- 8.8 ▲	- 11.7	--	
🟢	20-Feb	Consumer confidence - preliminary data‡	Feb	- 19.0 ▲	- 20.7	- 19.0	🟢
🟢🟢🟢	21-Feb	Composite PMI - preliminary data	Feb	52.3 ▲	50.3	50.7	🟢
🟢🟢🟢	21-Feb	Manufacturing PMI - preliminary data	Feb	48.5 ▼	48.8	49.3	🔴
🟢🟢🟢	21-Feb	Services PMI - preliminary data	Feb	53.0 ▲	50.8	51.0	🟢
🟢	21-Feb	ZEW survey expectations	Feb	29.7 ▲	16.7	--	
🟢🟢🟢🟢	23-Feb	Consumer inflation CPI (yoy) - final data‡	Jan	8.6% ▼	9.2%	8.6%	🟢
🟢🟢🟢🟢	23-Feb	Core CPI (yoy) - final data‡	Jan	5.3% -	5.3%	5.2%	🟢

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
Germany 						
🔊🔊🔊	21-Feb	Composite PMI - preliminary data	Feb	51.1 ▲	49.9	50.3 ◀
🔊🔊🔊	21-Feb	Manufacturing PMI - preliminary data	Feb	46.5 ▼	47.3	48.1 ▶
🔊🔊🔊🔊	22-Feb	Harmonized consumer inflation HICP (yoy) - final data	Jan	9.2% -	9.2%	9.2% ○
🔊🔊🔊🔊	22-Feb	Consumer inflation CPI (yoy) - final data	Jan	8.7% -	8.7%	8.7% ○
🔊🔊	22-Feb	IFO business climate‡	Feb	91.1 ▲	90.1	91.2 ▶
🔊🔊🔊🔊🔊	24-Feb	GDP (yoy) - final data	4Q	0.3% ▼	0.5%	0.5% ▶
🔊🔊🔊🔊🔊	24-Feb	GDP (sa, qoq) - final data	4Q	-0.4% ▼	-0.2%	-0.2% ▶
🔊🔊	24-Feb	GfK consumer confidence‡	Mar	-30.5 ▲	-33.8	-30.5 ○
France 						
🔊🔊🔊🔊	17-Feb	Harmonized consumer inflation HICP (yoy) - final data	Jan	7.0% -	7.0%	7.0% ○
🔊🔊🔊🔊	17-Feb	Consumer inflation CPI (yoy) - final data	Jan	6.0% -	6.0%	6.0% ○
🔊🔊🔊	21-Feb	Composite PMI - preliminary data	Feb	51.6 ▲	49.1	49.8 ▶
🔊🔊🔊	21-Feb	Manufacturing PMI - preliminary data	Feb	47.9 ▼	50.5	51.0 ▶
Italy 						
🔊🔊🔊🔊	22-Feb	Harmonized consumer inflation HICP (yoy) - final data	Jan	10.7% ▼	10.9%	10.9% ▶
UK 						
🔊🔊	14-Feb	Unemployment rate (ILO, 3-months)	Dec	3.7% -	3.7%	3.7% ○
🔊🔊🔊🔊	15-Feb	Consumer inflation CPI (yoy)	Jan	10.1% ▼	10.5%	10.3% ▶
🔊🔊🔊	21-Feb	Manufacturing PMI (sa) - preliminary data	Feb	49.2 ▲	47.0	47.5 ▶
🔊🔊🔊	21-Feb	Composite PMI - preliminary data	Feb	53.0 ▲	48.5	49.0 ▶
Japan 						
🔊🔊🔊🔊🔊	14-Feb	GDP (annualized, qoq) - preliminary data‡	4Q	0.6% ▲	-1.0%	2.0% ▶
🔊🔊🔊🔊🔊	14-Feb	GDP (qoq, sa) - preliminary data‡	4Q	0.2% ▲	-0.3%	0.5% ▶
🔊🔊🔊🔊	14-Feb	Industrial production (yoy) - final data	Dec	-2.4% ▲	-2.8%	--
🔊🔊🔊	21-Feb	Composite PMI - preliminary data	Feb	50.7 -	50.7	--
🔊🔊🔊	21-Feb	Manufacturing PMI - preliminary data	Feb	47.4 ▼	48.9	--
🔊🔊🔊	24-Feb	Consumer inflation CPI (yoy)	Jan	4.3% ▲	4.0%	4.3% ○
Chile 						
<i>No major data in the period</i>						
Canada 						
🔊🔊🔊🔊	21-Feb	Consumer inflation CPI (yoy)	Jan	5.9% ▼	6.3%	6.1% ▶

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

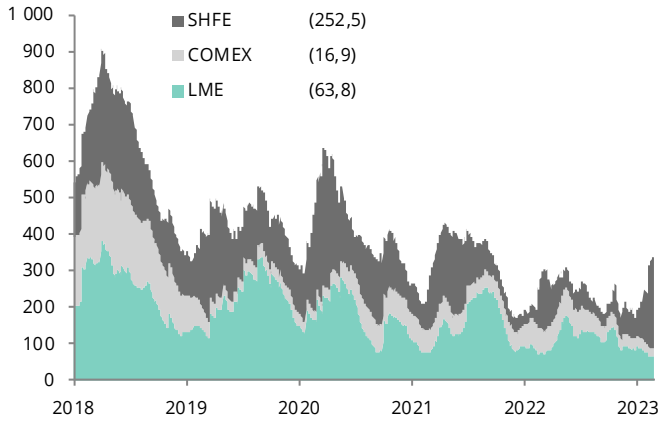
Key base & precious metal prices, exchange rates and other important market factors

(as of: 24-Feb-23)		Price change ¹				From year beginning ²		
	Price	2W	QTD	YTD	1Y	Average	Min	Max
LME (USD/t; Mo in USD/lbs)								
Copper	8 807.00	▼ -1.1%	▲ 5.0%	▲ 5.0%	▼ -11.8%	8 987.29	8 209.00	9 436.00
Molybdenum	36.94	▲ 1.2%	▲ 41.4%	▲ 41.4%	▲	34.01	29.76	38.28
Nickel	24 850.00	▼ -10.3%	▼ -18.3%	▼ -18.3%	▼ -4.8%	27 626.28	24 850.00	31 200.00
Aluminum	2 307.00	▼ -5.3%	▼ -2.3%	▼ -2.3%	▼ -34.4%	2 461.56	2 242.50	2 636.00
Tin	25 925.00	▼ -5.9%	▲ 4.5%	▲ 4.5%	▼ -43.4%	27 710.90	25 050.00	32 050.00
Zinc	3 021.00	▼ -3.1%	▼ -0.1%	▼ -0.1%	▼ -17.7%	3 227.56	2 977.00	3 509.00
Lead	2 066.00	▼ -1.4%	▼ -11.5%	▼ -11.5%	▼ -12.8%	2 157.94	2 034.00	2 331.00
LBMA (USD/troz)								
Silver	21.09	▼ -4.6%	▼ -11.9%	▼ -11.9%	▼ -16.7%	23.02	21.09	24.44
Gold ²	1 810.95	▼ -2.6%	▼ -0.1%	▼ -0.1%	▼ -6.5%	1 879.97	1 810.95	1 932.45
LPPM (USD/troz)								
Platinum ²	928.00	▼ -3.9%	▼ -12.9%	▼ -12.9%	▼ -15.7%	1 010.26	912.00	1 100.00
Palladium ²	1 394.00	▼ -10.2%	▼ -22.0%	▼ -22.0%	▼ -48.0%	1 650.74	1 394.00	1 802.00
FX³								
EURUSD	1.0570	▼ -1.1%	▼ -0.9%	▼ -0.9%	▼ -5.3%	1.0753	1.0500	1.0988
EURPLN	4.7245	▼ -1.0%	▲ 0.7%	▲ 0.7%	▲ 2.1%	4.7219	4.6688	4.7895
USDPLN	4.4630	▲ 0.1%	▲ 1.4%	▲ 1.4%	▲ 8.1%	4.3870	4.2803	4.4888
USDCAD	1.3622	▲ 1.9%	▲ 0.6%	▲ 0.6%	▲ 6.2%	1.3427	1.3312	1.3658
USDCNY	6.9601	▲ 2.1%	▲ 0.9%	▲ 0.9%	▲ 10.0%	6.8112	6.7010	6.9601
USDCLP	802.93	▲ 0.8%	▼ -6.6%	▼ -6.6%	▲ 2.0%	812.01	781.49	856.31
Money market								
3m LIBOR USD	4.953	▲ 0.08	▲ 0.19	▲ 0.19	▲ 4.45	4.841	4.782	4.958
3m EURIBOR	2.698	▲ 0.08	▲ 0.57	▲ 0.57	▲ 3.23	2.481	2.170	2.703
3m WIBOR	6.940	▲ 0.01	▼ -0.08	▼ -0.08	▲ 3.39	6.941	6.910	7.010
5y USD interest rate swap	4.296	▲ 0.32	▲ 0.27	▲ 0.27	▲ 2.34	3.823	3.497	4.296
5y EUR interest rate swap	3.265	▲ 0.29	▲ 0.03	▲ 0.03	▲ 2.71	2.940	2.672	3.265
5y PLN interest rate swap	5.970	▲ 0.49	▼ -0.19	▼ -0.19	▲ 1.85	5.468	5.040	6.080
Fuel								
WTI Cushing	76.32	▼ -4.3%	▼ -4.9%	▼ -4.9%	▼ -18.3%	77.56	72.84	81.31
Brent	82.61	▼ -3.8%	▼ -2.8%	▼ -2.8%	▼ -16.6%	82.91	76.41	87.23
Diesel NY (ULSD)	278.50	▼ -2.6%	▼ -17.3%	▼ -17.3%	▼ -4.0%	306.26	269.06	358.84
Others								
VIX	21.67	▲ 1.14	- 0.00	- 0.00	▼ -8.65	20.11	17.87	22.90
BBG Commodity Index	105.55	▼ -2.9%	▼ -6.4%	▼ -6.4%	▼ -8.4%	109.29	105.55	112.52
S&P500	3 970.04	▼ -2.9%	▲ 3.4%	▲ 3.4%	▼ -7.4%	4 020.94	3 808.10	4 179.76
DAX	15 209.74	▼ -0.6%	▲ 9.2%	▲ 9.2%	▲ 8.2%	15 153.53	14 181.67	15 533.64
Shanghai Composite	3 267.16	▲ 0.2%	▲ 5.8%	▲ 5.8%	▼ -4.7%	3 234.79	3 116.51	3 306.52
WIG 20	1 807.31	▼ -2.2%	▲ 0.9%	▲ 0.9%	▼ -0.6%	1 881.18	1 796.87	1 937.98
KGHM	124.00	▼ -7.2%	▼ -2.2%	▼ -2.2%	▼ -12.9%	140.60	124.00	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

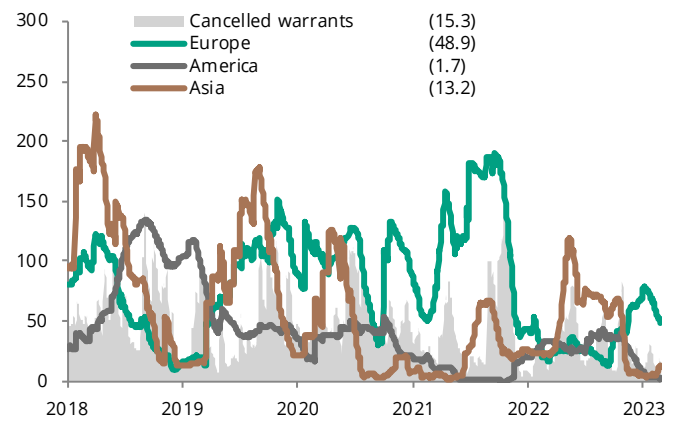
Source: Bloomberg, KGHM Polska Miedź

Copper: official exchange stocks (thousand tonnes)



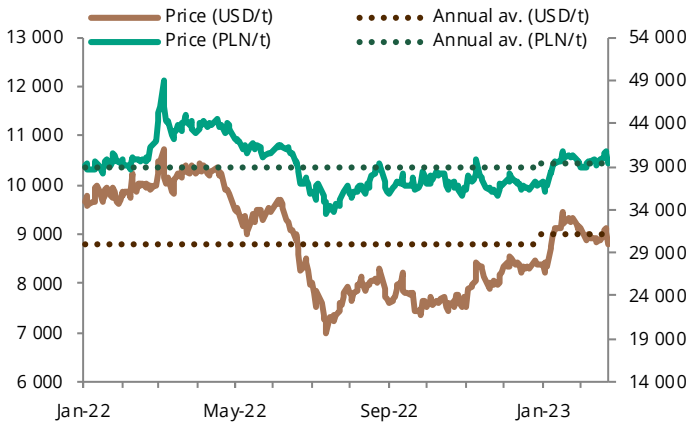
Note: Latest values in brackets. Source: Bloomberg, KGHM

Copper: official LME stocks (thousand tonnes)



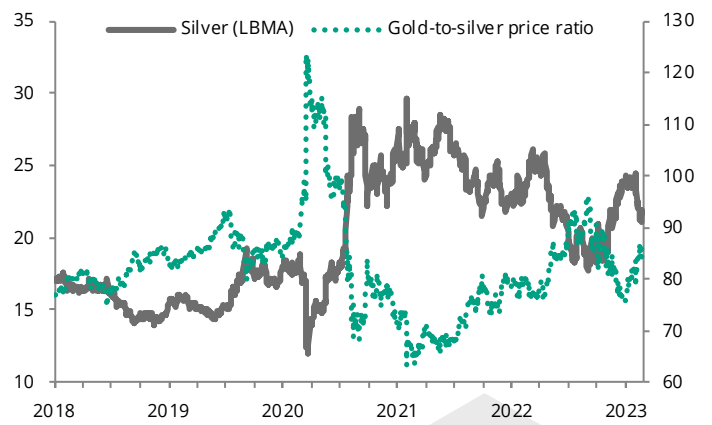
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



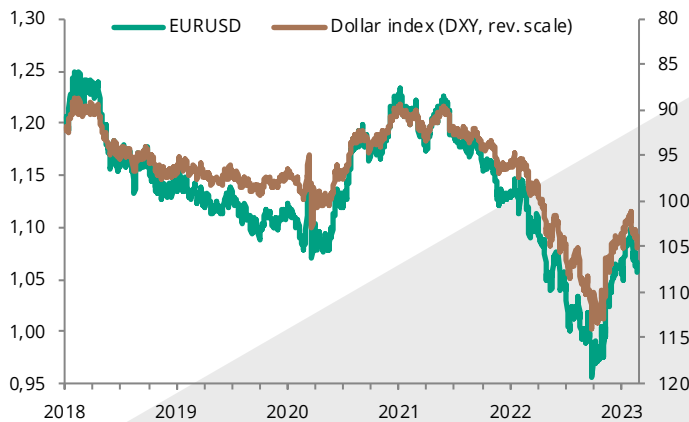
Source: Bloomberg, KGHM Polska Miedź

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



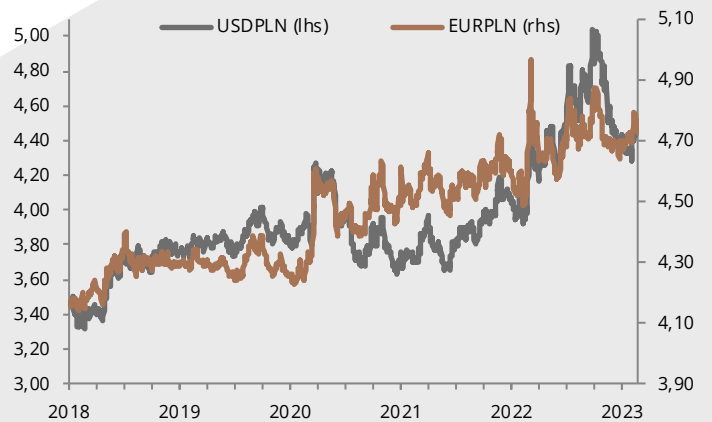
Source: Bloomberg, KGHM Polska Miedź

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:
13 – 26 February 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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