

Market Overview



as of: 10th April 2023






- **Copper:** Power consumption data from Peru's private energy sector COES show that, following disruptions earlier in the year, activity at Peru's largest mines has stabilized since March. With no major transport problems and full commissioning of the Quellaveco project, Peruvian copper production in 2023 will increase compared to last year (page 2).
- **Precious metals:** Mexico's antitrust authority, Cofece, has approved Pan American Silver's acquisition of all issued and outstanding common shares of Yamana Gold, which has gold, silver and copper assets in Latin America (page 5).
- **Euro zone:** The Fed's preferred inflation index showed that while pressure on core prices eased in March, headline inflation rose 5% from a year ago, still more than double the Fed's 2% target (page 6).

Key market prices

	Close price	2w chng.
LME (USD/t)		
▼ Copper	8 836.00	-1.0%
▼ Nickel	22 500.00	-1.3%
LBMA (USD/troz)		
▲ Silver	24.94	7.6%
▲ Gold (PM)	2 001.90	0.4%
FX		
▲ EURUSD	1.0915	1.6%
▼ EURPLN	4.6862	-0.1%
▼ USDPLN	4.2932	-1.9%
▼ USDCAD	1.3478	-2.1%
▲ USDCLP	810.22	0.6%
Stocks		
▲ KGHM	116.45	1.3%

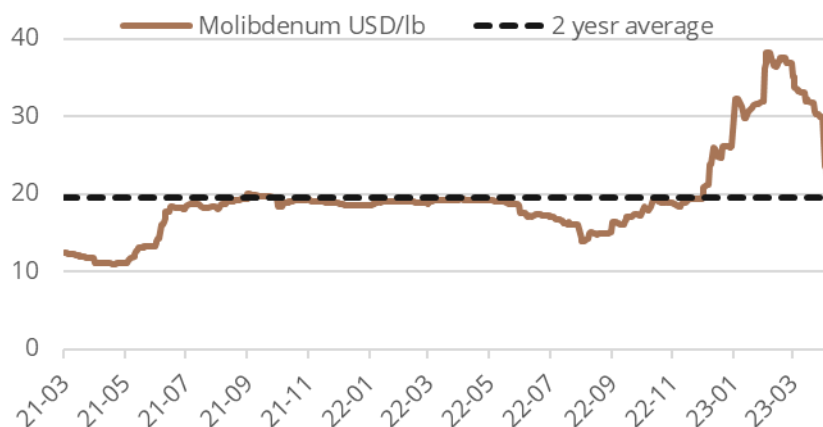
Source: Bloomberg, KGHM Polska Miedź S.A.; (more on page 9)

Important macroeconomic data

	Release	For	
	Caixin's manuf. PMI	Mar	50.0 ▼
	Manufacturing PMI	Mar	49.2 ▼
	Manufacturing PMI	Mar	48.3 ▼
	Manufacturing PMI	Mar	47.3 -
	Copper production (mt)	Feb	384 462 ▼

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

After a strong breakout at the turn of the year, molybdenum returned to a two-year average



Source: Bloomberg, KGHM Polska Miedź S.A.

Market Risk Unit

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Base and precious metals | Other commodities

Copper

Peru Copper Mines Aim for Output Boost In 2023 After Protest Impact Fades

Power consumption data from Peru's private energy sector COES show that, following disruptions earlier in the year, activity at Peru's largest mines has stabilized since March. With no major transport problems and full commissioning of the Quellaveco project, Peruvian copper production in 2023 will increase compared to last year.

Peru's copper miners hope to increase output in 2023 after recovering from the impact of major protests at the start of the year, industry executives said, despite simmering anti-government anger in the world's no. 2 producer of the red metal. The South American country saw a number of key mines reduce or temporarily halt production in January and February during the deadliest protests that have hit Peru in over 20 years, with the worst violence in the copper-rich Andean south. However, protests and blockades that snarled transport to and from mines have largely been lifted, despite ongoing public anger since the dramatic ouster late last year of leftist leader Pedro Castillo. Voters are still pushing for snap elections. "The southern (mining) corridor is operating normally, all the inventories of concentrates that the mines had are been sent to the coast," said Víctor Gobitz, president of mining sector body SNMPE and chief executive of Peru's top mine Antamina. Power data from Peru's private power sector body COES, analyzed by Reuters, shows activity at Peru's top mines has stabilized since early March following the disruptions earlier this year, which stalled production and shipments. That's a boost for mines, including Chinese state-owned MMG Ltd's Las Bambas, Glencore PLC's Antapaccay, Hudbay's Constancia, and Antamina, co-owned by Glencore, BHP Group Ltd, Teck Resources Ltd and Mitsubishi Corp. Gobitz said the easing of protests and new mines coming fully online like Anglo American's \$5.5 billion Quellaveco would push up overall copper production this year. "If we manage to resolve the issue of the mining corridor and the 100% effect of Quellaveco, then without a doubt Peru will produce more copper in 2023 than in 2022," he said. Peru produced some 2.44 million tonnes of copper last year, 4.8% more than in 2021 and very close to the maximum level before the global effects of the COVID-19 pandemic. Ratings agency Moody's said in a March report that most miners in Peru had survived relatively unscathed from the protests, though the impact would likely "delay mining company permits for projects already under construction." In southern Puno, the San Rafael de Minsur tin mine, the world's fourth largest, has slowly restarted operations since March 20 after a roughly 10-week halt due to protests. A Minsur spokesperson told Reuters the mine was "on track to be operating at full capacity, but it takes some time to get there. It will depend on there being no other interruptions."

Codelco Sees No Recovery In Copper Output Before 2030 Amid Overhaul

The state-owned mining company is in the middle of an extensive investment program to refurbish its mines, some of which have been operating continuously for more than a century. In addition, it is taking longer than expected to develop the reserves needed to maintain production levels in the coming decades.

Chile's Codelco is facing years of subpar output as the world's largest copper producer strives to complete a major overhaul of its aging mine operations, CEO Andres Sougarret said. Copper production at its mines fell 10.7% to 1.442 million mt in 2022. "This was a very difficult year ... we are facing serious operational challenges," the executive said. Most of the fall was due to technical disruptions at existing operations. Output was impacted by a wall collapse at its Ministro Hales pit, the collapse of an ore stockpile at Chuquicamata, and the freezing of El Teniente's water supply, among other problems. The company will permanently close its Ventanas smelter later this year following environmental criticisms. Production is expected to restart at its Chuquicamata smelter in the coming weeks following a major maintenance turnaround. The state-owned mining company is in the middle of a giant investment program to overhaul its mines, some of which have been in continuous operation for more than a century. However, developing the reserves required to maintain output for decades to come is taking longer than expected. Earlier this year, it fired the contractor preparing a new open pit at its Salvador unit, which would expand production, because of poor performance. Production could begin by the end of 2023, but it is expected to take several more years to reach its new capacity of 90,000 mt/year. Codelco expects to achieve a similar level of production in 2023 and recovery to its previous production of around 1.7 million mt/year will not come before 2030. "By the end of the decade we shall be reestablishing our productive capacity and with the aspiration to continue growing and developing our important mineral reserves," he said. The slide in production as well as lower metals prices and higher energy tariffs saw Codelco's profits for the year drop 63% to \$2.7 billion in 2022.

Other important information on copper market:

- China's leading copper smelters set the floor price for copper concentrate's treatment and refining charges (TCs and RCs) for the second quarter of 2023 at \$90/mt and 9.0 cents/lb, respectively. The details emerged from the March 30 quarterly meeting held by the China Smelters Purchase Team, a group of leading copper smelters in the country. The Q2 TCs and RCs are down \$3/mt and 3 cent/lb, respectively, from the previous quarter, but were in line with market expectations. While lower than the previous quarter, the Q2 floor price was still a historically high value, indicating expectations of supply outpacing demand in the next quarter. CSPT has set the floor price above \$90/mt and 9 cents/lb since the third quarter of 2022. The change in TC/RCs typically reflects the supply situation in the copper concentrate market. The Q2 floor price comes as unexpected supply disruptions throughout the first quarter caused spot TC

prices to average below \$80/mt, more than \$10/mt lower than the Q1 floor price set in December last year.

- Chilean copper production fell to a six-year low in February, government data showed March 31. Mines produced 384,462 mt in the month, down 3.7% from February 2022 and the lowest monthly figure since 2017. It also marked an 11.8% decline from January. Production during the first two months of the year totaled 820,563 mt, down 1.1% from the same period in 2022. Mining companies in Chile have struggled in recent years to maintain production in face of falling ore grades, water shortages, and the aftereffects of the coronavirus pandemic. Production fell last year by 5.2% to 5.391 million mt, its lowest level in more than a decade. The last time monthly production fell this low was in March 2017 when workers paralyzed the BHP-operated Escondida mine, the world's largest copper operation, in a strike over pay. The Chilean Copper Commission has estimated that production will recover to 5.7 million mt this year as output at Escondida and Collahuasi, the country's two largest mines, recover, and Teck commissions its new QB2 mine.
- Global copper smelting activity fell in March due to weaker activity in China and the Americas, data from satellite surveillance of metal processing plants showed on Tuesday. The month started strong in China, the world's top refined copper producer, but a growing number of smelters became inactive, commodities broker Marex and SAVANT said in a statement. Earth-i, which specialises in observational data of Earth, tracks smelters representing 80% to 90% of global production. It sells data to fund managers, traders and miners, and also publishes a free monthly index of global copper smelter activity. Its global copper dispersion index, a measure of smelter activity, fell to 46.8 in March from 49.5 in February, the steepest month-on-month decline in 10 months. A measure of 50 points indicate that smelters are operating at the average level of the past 12 months. It also has a second index showing the percentage of active smelters. "China's GDP target of only 5% following the two sessions meeting has weighed on smelting activity," said Guy Wolf, Marex global head of analytics. The second quarter is a busy period for maintenance in China, setting up potential copper tightness in coming months, he added. The regional dispersion indices in North and South America fell sharply to averages of 31.5 and 44.6, respectively.

Precious Metals

Mexico okays Pan American Silver-Yamana Gold deal

Mexico's antitrust authority, Cofece, has approved Pan American Silver's acquisition of all issued and outstanding common shares of Yamana Gold, which has gold, silver and copper assets in Latin America.

Mexico's antitrust authority, Cofece, has approved Pan American Silver's acquisition of all issued and outstanding common shares of Yamana Gold, which has gold, silver and copper assets in Latin America. Pan American and Agnico Eagle Mines trumped in November Gold Fields' bid for Yamana with a joint \$4.8 billion bid. The two companies agreed to divide up the target miners assets with Agnico Eagle consolidating full ownership of the Canadian Malartic mine, one of North America's biggest gold operations. Pan American is keeping Yamana's Latin American assets. With the deal, the Vancouver, Canada-based precious metals miner increases its portfolio to 12 mining operations in Latin America, including Cerro Moro gold silver mine and the Mara copper project in Argentina; El Peñón gold-silver operation and Minera Florida gold mine in Chile; and the Jacobina gold complex in north-eastern Brazil. It will also increase its annual silver production by 50% to about 30 million ounces and double total gold output to 1.2 million ounces. "All required regulatory, shareholder and court approvals, including the final court order, have now been received and the arrangement is anticipated to be completed on or about March 31, 2023," Pan American Silver said in the statement. The company noted it was handing a cash dividend of \$0.10 per common share, payable on May 12, to its shareholders.

Global economies | Foreign exchange markets

Fed's Mester Says Rates Should Rise Above 5%, Stay for Some Time





The Fed's preferred inflation index showed that while pressure on core prices eased in March, headline inflation rose 5% from a year ago, still more than double the Fed's 2% target.









Federal Reserve Bank of Cleveland President Loretta Mester said policymakers should move their benchmark rate above 5% this year and hold rates at restrictive levels for some time to quell inflation, with the exact level depending on how quickly price pressures ease. To put inflation on a steady path to 2%, monetary policy needs to move "somewhat further into restrictive territory this year, with the fed funds rate moving above 5% and the real fed funds rate staying in positive territory for some time," Mester said in remarks prepared for an event Tuesday in New York with the Money Marketeters of New York University. Fed officials lifted interest rates by a quarter percentage point last month, bringing their policy benchmark to a target range of 4.75% to 5%, up from near zero a year earlier. Forecasts released at the same time showed the 18 officials expected rates to reach 5.1% by year-end, according to their median projection. Policymakers speaking since the meeting have said they are watching economic data to determine how much recent banking turmoil may tighten access to credit or slow the economy. Some have suggested the US central bank remains on course to raise interest rates at least one more time, in line with officials' latest quarterly forecasts. The final end point for interest rates will be determined by how long it takes for the economy to cool and for price pressures to ease, Mester said.

"Precisely how much higher the federal funds rate will need to go from here and for how long policy will need to remain restrictive will depend on how much inflation and inflation expectations are moving down, and that will depend on how much demand is slowing, supply challenges are being resolved, and price pressures are easing," she said. The latest economic reports paint the picture of an economy that is moderating but still has more cooling to do to alleviate concerns about inflation. The Fed's preferred inflation gauge showed that while core price pressures eased in March, headline inflation rose 5% from a year ago, still more than double the Fed's 2% target. The March jobs report due Friday will also influence what officials do at the May 2-3 policy meeting. Mester said the US banking system is sound and that officials will be watching to see how much access to credit tightens as a result of recent stress in the banking sector, adjusting monetary policy if needed. "Going forward, Fed policymakers will continue to assess the magnitude and duration of these effects and their implications for the outlook for inflation and employment and, therefore, for appropriate monetary policy," Mester said.

Macroeconomic calendar

Important macroeconomic data releases

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
China 						
🔴🔴🔴	23-Mar	Caixin's manufacturing PMI	Mar	50.0 ▼	51.6	51.4 📉
🔴	23-Jul	Foreign reserves (USD bn)	Mar	3 184 ▲	3 133	3 158 📈
🔴🔴🔴	31-Mar	Official manufacturing PMI	Mar	51.9 ▼	52.6	51.6 📈
Poland 						
🔴🔴🔴	23-Mar	Manufacturing PMI	Mar	48.3 ▼	48.5	48.1 📈
🔴🔴🔴🔴	23-May	NBP base rate decision	Apr	6.75% -	6.75%	6.75% 🟡
🔴🔴🔴🔴	31-Mar	Consumer inflation CPI (yoy) - preliminary data	Mar	16.2% ▼	18.4%	16.0% 📈
US 						
🔴🔴🔴	23-Mar	Manufacturing PMI - final data	Mar	49.2 ▼	49.3	49.3 📉
🔴🔴	23-Mar	ISM Manufacturing	Mar	46.3 ▼	47.7	47.5 📉
🔴🔴	23-Apr	Durable goods orders - final data	Feb	-1.0% -	-1.0%	-1.0% 🟡
🔴🔴🔴	23-May	Composite PMI - final data	Mar	52.3 ▼	53.3	53.3 📉
🔴🔴🔴	23-May	PMI services - final data	Mar	52.6 ▼	53.8	53.8 📉
🔴🔴	23-Jul	Change in non-farm payrolls (ths)‡	Mar	236 ▼	326	230 📈
🔴🔴	23-Jul	Underemployment rate (U6)	Mar	6.7% ▼	6.8%	--
🔴🔴	23-Jul	Unemployment rate	Mar	3.5% ▼	3.6%	3.6% 📉
🔴	23-Jul	Average hourly earnings (yoy)	Mar	4.2% ▼	4.6%	4.3% 📉
🔴	27-Mar	Dallas Fed manufacturing activity	Mar	- 15.7 ▼	- 13.5	- 10.0 📉
🔴	28-Mar	Richmond Fed manufacturing index	Mar	- 5.0 ▲	- 16.0	- 10.0 📈
🔴🔴🔴🔴	30-Mar	GDP (annualized, qoq) -	4Q	2.6% ▼	2.7%	2.7% 📉
🔴🔴🔴🔴	31-Mar	Consumer spending inflation PCE (mom)‡	Feb	0.3% ▼	0.5%	0.4% 📉
🔴🔴🔴🔴	31-Mar	Consumer spending inflation PCE (yoy)	Feb	4.6% ▼	4.7%	4.7% 📉
🔴🔴	31-Mar	Personal income (sa, mom)	Feb	0.3% ▼	0.6%	0.2% 📈
🔴🔴	31-Mar	Personal spending (sa, mom)‡	Feb	0.2% ▼	2.0%	0.3% 📉
🔴🔴	31-Mar	University of Michigan confidence index - final data	Mar	62.0 ▼	63.4	63.3 📉
Eurozone 						
🔴🔴🔴	23-Mar	Manufacturing PMI - final data‡	Mar	47.3 -	47.3	47.1 📈
🔴🔴	23-Apr	Producer inflation PPI (yoy)‡	Feb	13.2% ▼	15.1%	13.3% 📉
🔴🔴🔴	23-May	Composite PMI - final data‡	Mar	53.7 -	53.7	54.1 📉
🔴🔴🔴	23-May	Services PMI - final data‡	Mar	55.0 -	55.0	55.6 📉
🔴	27-Mar	M3 money supply (yoy)	Feb	2.9% ▼	3.5%	3.2% 📉
🔴	30-Mar	Economic confidence‡	Mar	99.3 ▼	99.6	100 📉
🔴	30-Mar	Industrial confidence‡	Mar	- 0.2 ▼	0.4	0.5 📉
🔴	30-Mar	Consumer confidence - final data‡	Mar	- 19.2 ▼	- 19.1	--
🔴🔴🔴🔴	31-Mar	Core CPI (yoy) - preliminary data	Mar	5.7% ▲	5.6%	5.7% 🟡
🔴🔴🔴🔴	31-Mar	CPI estimate (yoy)	Mar	6.9% ▼	8.5%	7.1% 📉
🔴🔴	31-Mar	Unemployment rate‡	Feb	6.6% -	6.6%	6.6% 🟡

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
Germany 						
🕒🕒🕒	23-Mar	Manufacturing PMI - final data‡	Mar	44.7 -	44.7	44.4 
🕒🕒🕒	23-May	Factory orders (wda, yoy)‡	Feb	-5.7% 	-12.0%	-9.3% 
🕒🕒🕒	23-May	Composite PMI - final data‡	Mar	52.6 -	52.6	52.6 
🕒🕒🕒🕒	23-Jun	Industrial production (wda, yoy)	Feb	0.6% 	-1.6%	-2.0% 
🕒🕒	27-Mar	IFO business climate	Mar	93.3 	91.1	91.0 
🕒🕒	29-Mar	GfK consumer confidence‡	Apr	-29.5 	-30.6	-30.0 
🕒🕒🕒🕒	30-Mar	Harmonized consumer inflation HICP (yoy) - preliminary data	Mar	7.8% 	9.3%	7.5% 
🕒🕒🕒🕒	30-Mar	Consumer inflation CPI (yoy) - preliminary data	Mar	7.4% 	8.7%	7.3% 
🕒🕒🕒	31-Mar	Retail sales (yoy)‡	Feb	-7.0% 	-3.9%	-5.1% 
🕒🕒	31-Mar	Unemployment rate	Mar	5.6% 	5.5%	5.5% 
France 						
🕒🕒🕒	23-Mar	Manufacturing PMI - final data‡	Mar	47.3 -	47.3	47.7 
🕒🕒🕒🕒	23-May	Industrial production (yoy)‡	Feb	1.3% 	-1.6%	-0.1% 
🕒🕒🕒	23-May	Composite PMI - final data‡	Mar	52.7 -	52.7	54.0 
🕒🕒🕒🕒	31-Mar	Harmonized consumer inflation HICP (yoy) - preliminary data	Mar	6.6% 	7.3%	6.5% 
🕒🕒🕒🕒	31-Mar	Consumer inflation CPI (yoy) - preliminary data	Mar	5.6% 	6.3%	5.5% 
Italy 						
🕒🕒🕒	23-Mar	Manufacturing PMI	Mar	51.1 	52.0	51.0 
🕒🕒🕒	23-May	Composite PMI	Mar	55.2 	52.2	53.2 
🕒🕒	30-Mar	Unemployment rate‡	Feb	8.0% -	8.0%	7.9% 
🕒🕒🕒🕒	31-Mar	Harmonized consumer inflation HICP (yoy) - preliminary data	Mar	8.2% 	9.8%	8.8% 
UK 						
🕒🕒🕒	23-Mar	Manufacturing PMI (sa) - final data‡	Mar	47.9 -	47.9	48.0 
🕒🕒🕒	23-May	Composite PMI - final data‡	Mar	52.2 -	52.2	52.2 
🕒🕒🕒🕒🕒	31-Mar	GDP (yoy) - final data	4Q	0.6% 	0.4%	0.4% 
🕒🕒🕒🕒	31-Mar	GDP (qoq) - final data	4Q	0.1% 	0.0%	0.0% 
Japan 						
🕒🕒🕒	23-Mar	Manufacturing PMI - final data‡	Mar	49.2 -	49.2	--
🕒🕒🕒	23-May	Composite PMI - final data‡	Mar	52.9 -	52.9	--
🕒🕒🕒🕒	31-Mar	Industrial production (yoy) - preliminary data	Feb	-0.6% 	-3.1%	-2.4% 
Chile 						
🕒🕒🕒🕒	23-Mar	Economic activity (yoy)‡	Feb	-0.5% 	0.1%	0.0% 
🕒🕒🕒🕒🕒	23-May	BCCh overnight rate target	Apr	11.25% -	11.25%	11.25% 
🕒🕒	23-May	Nominal wages (yoy)	Feb	11.2% 	11.1%	--
🕒🕒🕒	31-Mar	Total copper production (metric tons)	Feb	384 462 	435 939	--
🕒🕒🕒	31-Mar	Manufacturing (yoy)	Feb	-3.6% 	-1.6%	-1.5% 
Canada 						
🕒🕒🕒	23-Jun	Net change in employment (ths)	Mar	34.7 	21.8	7.5 
🕒🕒🕒🕒	31-Mar	GDP (yoy)	Jan	3.0% 	2.3%	2.9% 

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

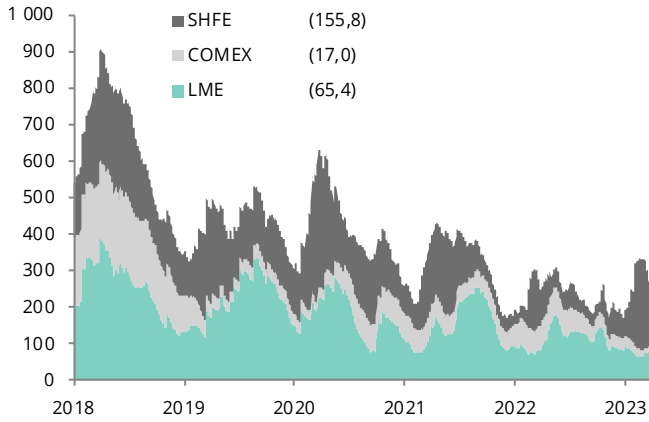
Key base & precious metal prices, exchange rates and other important market factors

(as of: 07-Apr-23)		Price change ¹				From year beginning ²		
	Price	2W	QTD	YTD	1Y	Average	Min	Max
LME (USD/t; Mo in USD/lbs)								
Copper	8 836.00	▼ -1.0%	▼ -1.1%	▲ 5.4%	▼ -14.1%	8 924.01	8 209.00	9 436.00
Molybdenum	20.66	▼ -31.7%	▼ -31.0%	▼ -20.9%	▲	32.76	20.66	38.28
Nickel	22 500.00	▼ -1.3%	▼ -2.6%	▼ -26.0%	▼ -32.8%	25 802.79	21 895.00	31 200.00
Aluminum	2 300.50	▲ 1.6%	▼ -1.5%	▼ -2.5%	▼ -31.2%	2 391.41	2 232.00	2 636.00
Tin	24 950.00	▲ 2.4%	▼ -4.3%	▲ 0.6%	▼ -43.7%	26 246.54	22 225.00	32 050.00
Zinc	2 810.50	▼ -3.1%	▼ -3.3%	▼ -7.1%	▼ -33.9%	3 109.33	2 810.50	3 509.00
Lead	2 128.00	▼ -0.3%	▼ -0.8%	▼ -8.9%	▼ -11.5%	2 139.65	2 034.00	2 331.00
LBMA (USD/troz)								
Silver	24.94	▲ 7.6%	▲ 4.4%	▲ 4.1%	▲ 2.3%	22.66	20.09	24.94
Gold ²	2 001.90	▲ 0.4%	▲ 1.1%	▲ 10.5%	▲ 3.6%	1 896.77	1 810.95	2 030.85
LPPM (USD/troz)								
Platinum ²	999.00	▲ 2.4%	▲ 1.8%	▼ -6.2%	▲ 4.4%	994.72	912.00	1 100.00
Palladium ²	1 445.00	▲ 1.9%	▼ -3.0%	▼ -19.2%	▼ -36.0%	1 557.81	1 361.00	1 802.00
FX³								
EURUSD	1.0915	▲ 1.6%	▲ 0.4%	▲ 2.3%	▼ 0.0%	1.0741	1.0500	1.0988
EURPLN	4.6862	▼ -0.1%	▲ 0.2%	▼ -0.1%	▲ 0.8%	4.7085	4.6688	4.7895
USDPLN	4.2932	▼ -1.9%	▼ 0.0%	▼ -2.5%	▲ 0.5%	4.3812	4.2739	4.4888
USDCAD	1.3478	▼ -2.1%	▼ -0.4%	▼ -0.5%	▲ 7.1%	1.3521	1.3312	1.3807
USDCNY	6.8679	▲ 0.0%	▼ -0.1%	▼ -0.4%	▲ 8.0%	6.8495	6.7010	6.9662
USDCLP	810.22	▲ 0.6%	▲ 2.6%	▼ -5.7%	▲ 2.0%	811.02	781.49	856.31
Money market								
3m LIBOR USD	5.198	▲ 0.10	▲ 0.01	▲ 0.43	▲ 4.21	4.938	4.782	5.223
3m EURIBOR	3.075	▲ 0.05	▲ 0.04	▲ 0.94	▲ 3.54	2.668	2.170	3.075
3m WIBOR	6.900	- 0.00	▲ 0.01	▼ -0.12	▲ 1.64	6.930	6.890	7.010
5y USD interest rate swap	3.568	▲ 0.07	▼ -0.07	▼ -0.46	▲ 0.81	3.842	3.437	4.408
5y EUR interest rate swap	2.905	▼ 0.00	▼ -0.14	▼ -0.33	▲ 1.78	3.028	2.672	3.479
5y PLN interest rate swap	5.368	▲ 0.03	▼ -0.13	▼ -0.79	▼ -0.34	5.505	5.040	6.125
Fuel								
WTI Cushing	80.70	▲ 16.4%	▲ 6.6%	▲ 0.5%	▼ -16.0%	76.25	66.74	81.31
Brent	85.38	▲ 15.3%	▲ 7.1%	▲ 0.5%	▼ -15.5%	81.61	71.87	87.23
Diesel NY (ULSD)	269.55	▼ -0.3%	▲ 0.8%	▼ -19.9%	▼ -23.0%	292.43	262.25	358.84
Others								
VIX	18.40	▼ -3.34	▼ -0.30	▼ -3.27	▼ -3.15	20.57	17.87	26.52
BBG Commodity Index	106.24	▲ 3.1%	▲ 0.7%	▼ -5.8%	▼ -15.0%	107.33	102.15	112.52
S&P500	4 105.02	▲ 3.4%	▼ -0.1%	▲ 6.9%	▼ -8.8%	4 006.43	3 808.10	4 179.76
DAX	15 597.89	▲ 4.3%	▼ -0.2%	▲ 12.0%	▲ 10.8%	15 221.75	14 181.67	15 653.58
Shanghai Composite	3 327.65	▲ 1.9%	▲ 1.7%	▲ 7.7%	▲ 2.8%	3 253.21	3 116.51	3 328.39
WIG 20	1 754.24	▲ 5.0%	▼ -0.2%	▼ -2.1%	▼ -15.5%	1 830.68	1 670.18	1 937.98
KGHM	116.45	▲ 1.3%	▼ -4.7%	▼ -8.1%	▼ -29.4%	132.11	113.30	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

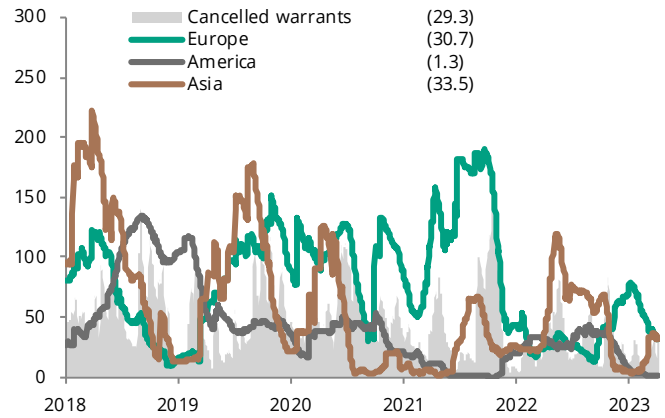
Source: Bloomberg, KGHM Polska Miedź

Copper: official exchange stocks (thousand tonnes)



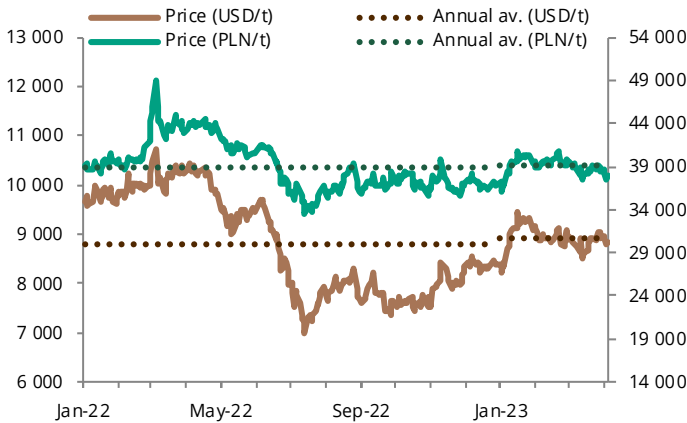
Note: Latest values in brackets. Source: Bloomberg, KGHM

Copper: official LME stocks (thousand tonnes)



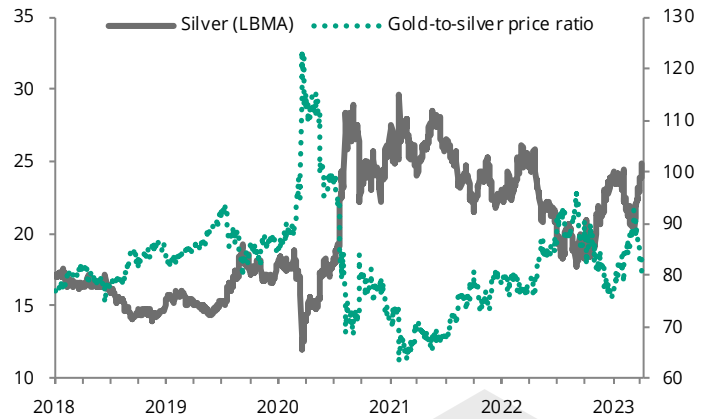
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



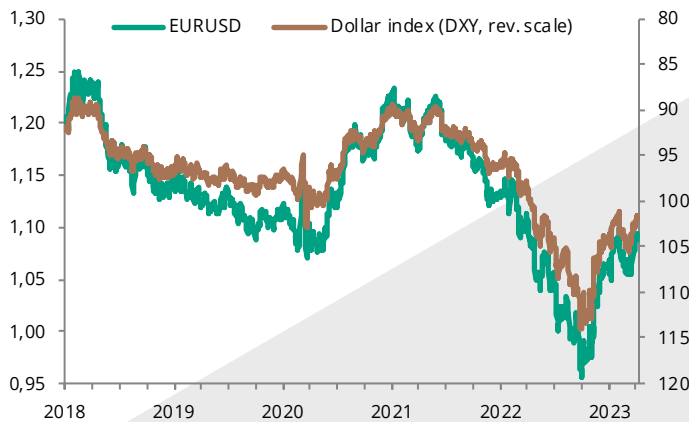
Source: Bloomberg, KGHM Polska Miedź

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



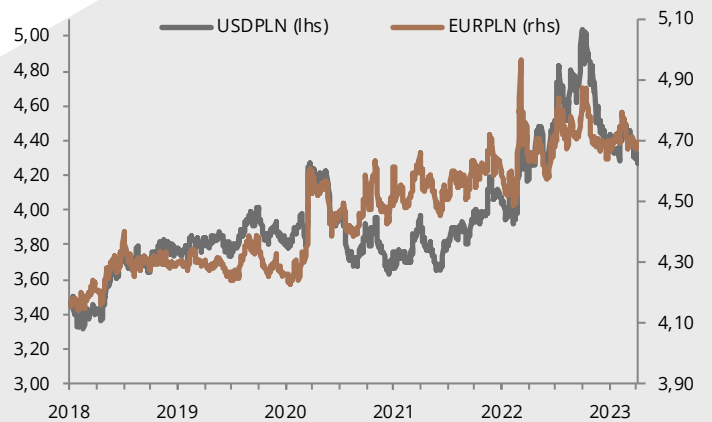
Source: Bloomberg, KGHM Polska Miedź

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:
27 March - 9 April 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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