

# Market Overview



as of: 8<sup>th</sup> May 2023


- **Copper:** The property, power and automobile sectors, which make up around two-thirds of copper consumption in China, are struggling with dismal sales that are curbing metal demand (*page 2*).
- **Precious metals:** Global demand for silver rose by 18% last year to a record high of 1.24 billion ounces, creating a huge supply deficit, the Silver Institute said, predicting more shortages in the years to come. The silver market was undersupplied by 237.7 million ounces in 2022 (*page 4*).
- **USA:** In the US momentum is slowing in household spending and the broader economy as financial conditions tighten and inflation persists. The Fed's industrial production report showed output at factories fell for the first time this year as companies show signs of ratcheting back investment plans amid higher borrowing costs (*page 5*).

## Key market prices

	Close price	2w chng.
<b>LME (USD/t)</b>		
▼ Copper	8 488.00	-3.7%
▼ Nickel	23 800.00	-2.2%
<b>LBMA (USD/troz)</b>		
▲ Silver	25.84	2.7%
▲ Gold (PM)	2 000.95	1.4%
<b>FX</b>		
▲ EURUSD	1.1014	0.3%
▼ EURPLN	4.5885	-0.3%
▼ USDPLN	4.1612	-0.9%
▼ USDCAD	1.3427	-0.8%
▲ USDCLP	800.54	1.1%
<b>Stocks</b>		
▼ KGHM	118.55	-3.4%

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

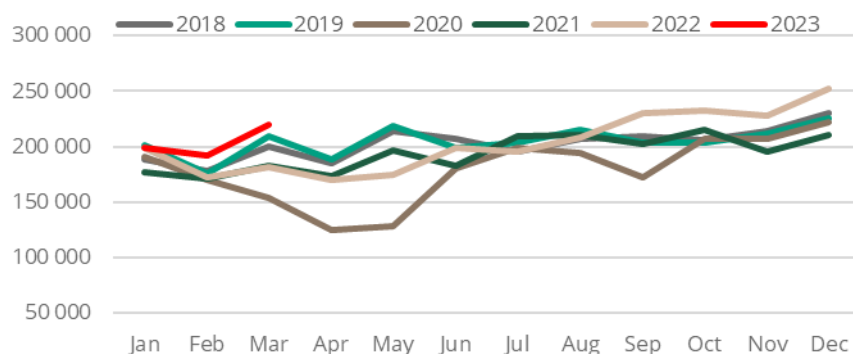
## Important macroeconomic data

Release	For		
 Official manuf. PMI	Apr	49.2	▼
 Manufacturing PMI	Apr	50.2	▼
 Industrial prod. (yoy)	Mar	-2.9%	▼
 Manufacturing PMI	Apr	45.8	▲
 Copper production (mt)	Mar	440 389	▲

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

**Copper production in Peru in the first quarter of 2023 recorded an increase of over 11% y/y**

Total copper production in Peru (tonnes)



Source: Ministry of Energy and Mining of Peru, KGHM Polska Miedź S.A.

## Market Risk Unit

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## Base and precious metals | Other commodities

### Copper

#### Doctor Copper Calls In Sick In China As Metal Makers Cut Production

**The property, power and automobile sectors, which make up around two-thirds of copper consumption in China, are struggling with dismal sales that are curbing metal demand.**

Chinese copper product makers are cutting their output for the second quarter, typically the peak demand season, because of a slower-than-expected recovery in domestic consumption after COVID-19 and sluggish exports. A slump in demand for the red metal highlights troubling signs that China's economy is failing to return to its pre-pandemic output. China is the world's biggest copper consumer and slowing demand there, combined with fears of a global recession, is likely to weigh on prices. Officials from six manufacturers who make copper plates, rods and strips that are used in appliances and vehicles told Reuters at an industry conference held by Shanghai Metals Market (SMM) this week that orders in the second quarter are down from a year ago, forcing them to cut offer prices and sell at a loss. A slump in copper product output would undermine a forecast from SMM, for China's copper consumption in 2023 to rise by 2.4% from a year earlier to 14.12 million tonnes. Finished copper product output rose in the first quarter by 7.8% from a year ago to 5.21 million tonnes, according to the National Bureau of Statistics. But, SMM data also shows operating rates at copper rod production lines in China have fallen to 64% by mid-April from 75% at the end of March, while rates for plate and strip manufacturing have slumped to 68% in mid-April from as high as 77% in March. The property, power and automobile sectors, which make up around two-thirds of copper consumption in China, are struggling with dismal sales that are curbing metal demand. China's automobile production in the first quarter fell 4.3% from a year earlier to 6.21 million units while sales were down 6.7% to 6.08 million units, data from the China Association of Automobile Manufacturers showed. Housing completions rose in the first quarter but new construction starts as measured by floor area fell 19.2% from a year earlier. Lackluster exports from China amid slowing global economic growth will also add to pressure on metal prices, Zeng Zhihua, a senior economist at the World Bank, told the conference. Around 40% of China's copper consumption is supported by exports, according to SMM. China's exports of copper cable and wire in the first quarter dropped 5.7% from a year ago while exports of household electronic appliances slid 2.8%, data from the General Administration of Customs showed. Copper tubing demand is a lone bright spot for the sector because of increases in air conditioning production, which accounts for about 15% of China's total copper use. China produced 17.67 million household air conditioning units in the first quarter of 2023, up 5.9% from a year ago, according to industry information provider China IOL. Wu Xiangling, a sales

manager at Mengyao, a copper product maker in Henan province whose clients include air conditioner makers Haier, Gree and Midea, said production has climbed to replenish low inventories as output fell during the pandemic but that will likely slow down.

### Other important information on copper market:

- China's refined copper imports reached 280,7 mt in March, up 13.8% month on month but down 13.2% year on year, data from the General Administration of Customs showed. A closed import arbitrage and tepid downstream demand kept Chinese copper cathode import premiums rangebound in April. Platts assessed Chinese copper import premiums at \$43/mt plus London Metal Exchange cash (CIF China, April 21, for LME-registered normal brands of electrolytically-refined cathode, down \$2/mt from a month ago. China's refined copper exports reached 47,2 mt in March, up 13.1% from a month earlier and 4.5% higher year on year, customs data showed.
- China's refined copper output reached 1.05 million mt in March, up 9% year on year, data from the National Bureau of Statistics showed. China's refined copper output is expected to see a slight increase in April compared to March, as production from new smelting plants would remain high and cold feedstock supply would remain adequate, sources said. China's refined copper output totaled 2.99 million mt in the first three months of 2023, up 10.4% on the year, according to the NBS data.
- 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. Earth-i, which specialises in observational data of Earth, tracks smelters representing 80% to 90% of global production. 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. The regional dispersion indices in North and South America fell sharply to averages of 31.5 and 44.6, respectively.

## Precious Metals

### Record demand pushes silver into new era of deficits

**Global demand for silver rose by 18% last year to a record high of 1.24 billion ounces, creating a huge supply deficit, the Silver Institute said, predicting more shortages in the years to come. The silver market was undersupplied by 237.7 million ounces in 2022.**

Global demand for silver rose by 18% last year to a record high of 1.24 billion ounces, creating a huge supply deficit, the Silver Institute said, predicting more shortages in the years to come. The silver market was undersupplied by 237.7 million ounces in 2022, the institute said in its latest World Silver Survey, calling this "possibly the most significant deficit on record". It said 2022's undersupply and a 51.1 million ounce shortfall in 2021 had wiped out cumulative surpluses from the previous decade and predicted further undersupply of 142.1 million ounces this year. "We are moving into a different paradigm for the market, one of ongoing deficits," said Philip Newman at consultants Metals Focus, which prepared the Silver Institute's data. But he said this wouldn't necessarily cause prices to shoot higher because while visible silver inventories are falling, huge amounts of metal held by individuals and investors can still fill supply gaps. Silver prices have drifted mostly lower since 2020 as interest rates rose, discouraging investment in precious metals. Silver should average \$21.30 an ounce this year, below last year's average of \$21.73, the institute said. Demand for silver rose to record highs from all major users -- jewellers, industry and buyers of silver bars and coins, according to the institute. Silver is used in many industries including electronics and solar panels, and demand is expanding as the world moves away from fossil fuels. India also imported huge amounts of silver last year, though demand there should cool somewhat in 2023, according to Newman. Over the longer term, Newman said, "there is not a great deal of movement (in silver supply), whereas on the demand side we generally have that doing quite well ... industrial demand in particular."

## Global economies | Foreign exchange markets

### US Economy Is Cooling Steadily




**In the US momentum is slowing in household spending and the broader economy as financial conditions tighten and inflation persists. The Fed's industrial production report showed output at factories fell for the first time this year as companies show signs of ratcheting back investment plans amid higher borrowing costs.**









The US economy moderated gradually as the first quarter drew to a close, with elevated inflation and borrowing costs restricting household spending and manufacturing activity. March retail sales slid by the most in four months. A drop in factory output exceeded expectations, though upward revisions to the prior two months allowed production to squeeze out a modest advance in the first quarter. Taken together with signs of moderating inflation, the latest batch of data is consistent with a steady cooling of economic activity late in the quarter rather than a more significant slump in light of stress in the banking sector. Traders still expect the Federal Reserve will opt for another quarter-point hike in rates at its next meeting, but some policymakers have recently hinted that they'd be open to a pause. Moreover, price pressures are only slowly dissipating, and the University of Michigan's survey of consumers showed year-ahead inflation expectations jumped in early April by the most in nearly two years amid higher gas prices. Household views of inflation over the near term tend to swing from month to month. Consumers expect prices will climb at an annual rate of 4.6% over the next year, up from 3.6% in March, according to the preliminary April reading. Nonetheless, they see costs rising 2.9% over the next five to 10 years, holding at that level for a fifth month. Fed officials "will look more at the fact that it's bouncing all over the place as a point that inflation expectations remain somewhat uncertain and that they can't take the glimmers of good news for granted," said Justin Weidner, an economist at Deutsche Bank AG. Also, the Fed focuses more on longer-term views and "typically looks through oil-price spikes," since they don't get passed through to core prices, Bloomberg economist Eliza Winger said in a note. Mid April report showed underlying consumer prices, which strip out food and energy, displayed hints of moderating in March, but are still rising at a brisk pace. While producer prices fell even more, higher oil prices stemming from OPEC+ supply cuts are poised to limit wholesale disinflation. The Commerce Department's retail sales report showed the value of purchases dropped 1%. Stripping out gasoline and autos, sales fell a more moderate 0.3%, a smaller decline than forecast. So-called control group sales — which are used to calculate gross domestic product and exclude food services, auto dealers, building materials stores and gasoline stations — also fell by less than expected. The data add to evidence that momentum is slowing in household spending and the broader economy as financial conditions tighten and inflation persists. The Fed's industrial production report showed output at factories fell for the first time this year as companies show signs of ratcheting back investment plans amid higher borrowing costs. When paired with softer consumer spending, that raises

the odds of recession. Still a bright spot in the larger picture is the labour market, as unemployment is historically low and employers are still adding jobs at a strong pace.

# Macroeconomic calendar

## Important macroeconomic data releases

Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>
<b>China</b> 						
🔴🔴	27-Apr	Industrial profits (yoy)	Mar	-19.2%	--	--
🔴🔴🔴	30-Apr	Official manufacturing PMI	Apr	49.2 ▼	51.9	51.4 🍷
🔴🔴🔴	04-May	Caixin's manufacturing PMI	Apr	49.5 ▼	50.0	50.0 🍷
🔴	07-May	Foreign reserves (USD bn)	Apr	3 205 ▲	3 184	3 194 🍃
<b>Poland</b> 						
🔴🔴🔴🔴	24-Apr	Sold industrial production (yoy)‡	Mar	-2.9% ▼	-1.0%	-2.2% 🍷
🔴🔴🔴	24-Apr	Retail sales (yoy)	Mar	4.8% ▼	10.8%	7.7% 🍷
🔴🔴	24-Apr	Producer inflation PPI (yoy)‡	Mar	10.1% ▼	18.2%	11.0% 🍷
🔴	25-Apr	M3 money supply (yoy)	Mar	6.5% ▼	7.4%	7.2% 🍷
🔴🔴	26-Apr	Unemployment rate	Mar	5.4% ▼	5.5%	5.4% 🟡
🔴🔴🔴🔴	28-Apr	Consumer inflation CPI (yoy) - preliminary data	Apr	14.7% ▼	16.1%	15.0% 🍷
🔴🔴🔴	02-May	Manufacturing PMI	Apr	46.6 ▼	48.3	47.9 🍷
<b>US</b> 						
🔴	24-Apr	Dallas Fed manufacturing activity	Apr	- 23.4 ▼	- 15.7	- 12.0 🍷
🔴	25-Apr	Richmond Fed manufacturing index	Apr	- 10.0 ▼	- 5.0	- 8.0 🍷
🔴🔴	26-Apr	Durable goods orders - preliminary data‡	Mar	3.2% ▲	-1.2%	0.7% 🍃
🔴🔴🔴🔴🔴	27-Apr	GDP (annualized, qoq) - estimation	1Q	1.1% ▼	2.6%	1.9% 🍷
🔴🔴🔴🔴	28-Apr	Consumer spending inflation PCE (mom)	Mar	0.3% -	0.3%	0.3% 🟡
🔴🔴🔴🔴	28-Apr	Consumer spending inflation PCE (yoy)‡	Mar	4.6% ▼	4.7%	4.6% 🟡
🔴🔴	28-Apr	Personal income (sa, mom)	Mar	0.3% -	0.3%	0.2% 🍃
🔴🔴	28-Apr	Personal spending (sa, mom)‡	Mar	0.0% ▼	0.1%	-0.1% 🍃
🔴🔴	28-Apr	University of Michigan confidence index - final data	Apr	63.5 -	63.5	63.5 🟡
🔴🔴🔴	01-May	Manufacturing PMI - final data	Apr	50.2 ▼	50.4	50.4 🍷
🔴🔴	01-May	ISM Manufacturing	Apr	47.1 ▲	46.3	46.8 🍃
🔴🔴🔴🔴🔴	03-May	FOMC base rate decision - upper bound (Fed)	May	5.25% ▲	5.00%	5.25% 🟡
🔴🔴🔴🔴🔴	03-May	FOMC base rate decision - lower bound (Fed)	May	5.00% ▲	4.75%	5.00% 🟡
🔴🔴🔴	03-May	Composite PMI - final data	Apr	53.4 ▼	53.5	53.5 🍷
🔴🔴🔴	03-May	PMI services - final data	Apr	53.6 ▼	53.7	53.7 🍷
🔴🔴	05-May	Change in non-farm payrolls (ths)‡	Apr	253 ▲	165	185 🍃
🔴🔴	05-May	Underemployment rate (U6)	Apr	6.6% ▼	6.7%	--
🔴🔴	05-May	Unemployment rate	Apr	3.4% ▼	3.5%	3.6% 🍷
🔴	05-May	Average hourly earnings (yoy)‡	Apr	4.4% ▲	4.3%	4.2% 🍃

Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>
<b>Eurozone</b> 						
☉	27-Apr	Economic confidence‡	Apr	99.3 ▲	99.2	99.9 ◓
☉	27-Apr	Industrial confidence‡	Apr	-2.6 ▼	-0.5	0.0 ◓
☉	27-Apr	Consumer confidence - final data	Apr	-17.5 =	-17.5	--
☉☉☉☉☉	28-Apr	GDP (sa, yoy) - estimation	1Q	1.3% ▼	1.8%	1.4% ◓
☉☉☉☉☉	28-Apr	GDP (sa, qoq) - estimation‡	1Q	0.1% ▲	-0.1%	0.2% ◓
☉☉☉☉	02-May	Core CPI (yoy) - preliminary data	Apr	5.6% ▼	5.7%	5.6% ○
☉☉☉☉	02-May	CPI estimate (yoy)	Apr	7.0% ▲	6.9%	6.9% ▲
☉☉☉	02-May	Manufacturing PMI - final data	Apr	45.8 ▲	45.5	45.5 ▲
☉	02-May	M3 money supply (yoy)	Mar	2.5% ▼	2.9%	2.4% ▲
☉☉	03-May	Unemployment rate	Mar	6.5% ▼	6.6%	6.6% ◓
☉☉☉☉☉	04-May	ECB main refinancing rate	May	3.75% ▲	3.50%	3.75% ○
☉☉☉☉☉	04-May	ECB deposit facility rate	May	3.3% ▲	3.0%	3.3% ○
☉☉☉	04-May	Composite PMI - final data	Apr	54.1 ▼	54.4	54.4 ◓
☉☉☉	04-May	Services PMI - final data	Apr	56.2 ▼	56.6	56.6 ◓
☉☉	04-May	Producer inflation PPI (yoy)‡	Mar	5.9% ▼	13.3%	5.8% ▲
☉☉	05-May	Retail sales (yoy)‡	Mar	-3.8% ▼	-2.4%	-3.3% ◓
<b>Germany</b> 						
☉☉	24-Apr	IFO business climate‡	Apr	93.6 ▲	93.2	93.5 ▲
☉☉	26-Apr	GfK consumer confidence‡	May	-25.7 ▲	-29.3	-28.0 ▲
☉☉☉☉☉	28-Apr	GDP (yoy) - preliminary data‡	1Q	0.2% =	0.2%	0.8% ◓
☉☉☉☉☉	28-Apr	GDP (sa, qoq) - preliminary data‡	1Q	0.0% ▲	-0.5%	0.2% ◓
☉☉☉☉	28-Apr	Harmonized consumer inflation HICP (yoy) - preliminary data	Apr	7.6% ▼	7.8%	7.8% ◓
☉☉☉☉	28-Apr	Consumer inflation CPI (yoy) - preliminary data	Apr	7.2% ▼	7.4%	7.3% ◓
☉☉	28-Apr	Unemployment rate	Apr	5.6% =	5.6%	5.6% ○
☉☉☉	02-May	Manufacturing PMI - final data	Apr	44.5 ▲	44.0	44.0 ▲
☉☉☉	02-May	Retail sales (yoy)‡	Mar	-6.5% ▼	-5.8%	-6.5% ○
☉☉☉	04-May	Composite PMI - final data	Apr	54.2 ▲	53.9	53.9 ▲
☉☉☉	05-May	Factory orders (wda, yoy)‡	Mar	-11.0% ▼	-6.0%	-3.1% ◓
<b>France</b> 						
☉☉☉☉☉	28-Apr	GDP (yoy) - preliminary data‡	1Q	0.8% ▲	0.4%	0.9% ◓
☉☉☉☉☉	28-Apr	GDP (qoq) - preliminary data‡	1Q	0.2% ▲	0.0%	0.2% ○
☉☉☉☉	28-Apr	Harmonized consumer inflation HICP (yoy) - preliminary data	Apr	6.9% ▲	6.7%	6.7% ▲
☉☉☉☉	28-Apr	Consumer inflation CPI (yoy) - preliminary data	Apr	5.9% ▲	5.7%	5.8% ▲
☉☉☉	02-May	Manufacturing PMI - final data	Apr	45.6 ▲	45.5	45.5 ▲
☉☉☉	04-May	Composite PMI - final data	Apr	52.4 ▼	53.8	53.8 ◓
☉☉☉☉	05-May	Industrial production (yoy)‡	Mar	-0.1% ▼	0.9%	1.1% ▲
<b>Italy</b> 						
☉☉☉☉☉	28-Apr	GDP (wda, yoy) - preliminary data	1Q	1.8% ▲	1.4%	1.4% ▲
☉☉☉☉☉	28-Apr	GDP (wda, qoq) - preliminary data	1Q	0.5% ▲	-0.1%	0.2% ▲
☉☉☉☉	02-May	Harmonized consumer inflation HICP (yoy) - preliminary data	Apr	8.8% ▲	8.1%	8.0% ▲
☉☉☉	02-May	Manufacturing PMI	Apr	46.8 ▼	51.1	49.5 ◓
☉☉	03-May	Unemployment rate‡	Mar	7.8% ▼	7.9%	8.0% ◓
☉☉☉	04-May	Composite PMI	Apr	55.3 ▲	55.2	55.5 ▲
<b>UK</b> 						
☉☉☉	02-May	Manufacturing PMI (sa) - final data	Apr	47.8 ▲	46.6	46.6 ▲
☉☉☉	04-May	Composite PMI - final data	Apr	54.9 ▲	53.9	53.9 ▲
<b>Japan</b> 						
☉☉☉☉	28-Apr	Industrial production (yoy) - preliminary data	Mar	-0.7% ▼	-0.5%	-1.2% ◓
☉☉☉	01-May	Manufacturing PMI - final data	Apr	49.5 =	49.5	--
<b>Chile</b> 						
☉☉☉	28-Apr	Total copper production (metric tons)	Mar	440 389 ▲	384 462	--
☉☉☉	28-Apr	Manufacturing (yoy)	Mar	-5.5% ▼	-3.6%	-5.7% ◓
☉☉☉☉	02-May	Economic activity (yoy)	Mar	-2.1% ▼	-0.5%	-1.7% ◓
☉☉	05-May	Nominal wages (yoy)	Mar	11.2% =	11.2%	--
<b>Canada</b> 						
☉☉☉☉☉	28-Apr	GDP (yoy)	Feb	2.5% ▼	3.0%	2.6% ◓

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

<sup>2</sup> Reading difference to consensus: ▲ = higher than consensus; ◓ = lower than consensus; ○ = equal to consensus.

mom = month-on-month; yoy = year-on-year; qoq = quarter on quarter; ytd year-to-date; sa = seasonally adjusted; wda = working days adjusted; ‡ = previous data after revision.

Source: Bloomberg, KGHM Polska Miedź



## Key market data

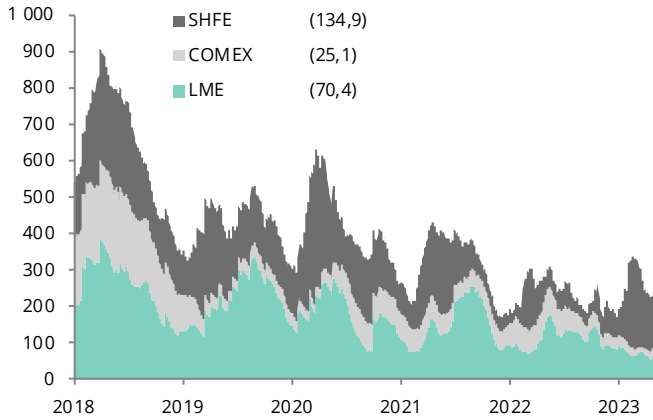
### Key base & precious metal prices, exchange rates and other important market factors

(as of: 05-May-23)		Price change <sup>1</sup>				From year beginning <sup>2</sup>		
	Price	2W	QTD	YTD	1Y	Average	Min	Max
<b>LME (USD/t; Mo in USD/lbs)</b>								
Copper	8 488.00	▼ -3.7%	▼ -5.0%	▲ 1.2%	▼ -11.0%	8 884.41	8 209.00	9 436.00
Molybdenum	21.01	▲ 3.7%	▼ -29.8%	▼ -19.6%	▲	30.06	17.86	38.28
Nickel	23 800.00	▼ -2.2%	▲ 3.0%	▼ -21.8%	▼ -21.2%	25 450.76	21 895.00	31 200.00
Aluminum	2 277.50	▼ -4.6%	▼ -2.5%	▼ -3.5%	▼ -21.9%	2 380.03	2 232.00	2 636.00
Tin	26 300.00	▼ -2.6%	▲ 0.9%	▲ 6.0%	▼ -35.5%	26 239.42	22 225.00	32 050.00
Zinc	2 630.00	▼ -4.0%	▼ -9.5%	▼ -13.1%	▼ -34.1%	3 027.05	2 609.00	3 509.00
Lead	2 104.00	▼ -4.5%	▼ -1.9%	▼ -9.9%	▼ -8.7%	2 142.09	2 034.00	2 331.00
<b>LBMA (USD/troz)</b>								
Silver	25.84	▲ 2.7%	▲ 8.2%	▲ 7.9%	▲ 12.8%	23.19	20.09	26.03
Gold <sup>2</sup>	2 000.95	▲ 1.4%	▲ 1.1%	▲ 10.4%	▲ 5.7%	1 918.81	1 810.95	2 048.45
<b>LPPM (USD/troz)</b>								
Platinum <sup>2</sup>	1 044.00	▼ -7.4%	▲ 6.4%	▼ -2.0%	▲ 5.2%	1 009.24	912.00	1 128.00
Palladium <sup>2</sup>	1 455.00	▼ -10.6%	▼ -2.3%	▼ -18.6%	▼ -34.8%	1 547.67	1 361.00	1 802.00
<b>FX<sup>3</sup></b>								
EURUSD	1.1014	▲ 0.3%	▲ 1.3%	▲ 3.3%	▲ 4.2%	1.0794	1.0500	1.1074
EURPLN	4.5885	▼ -0.3%	▼ -1.9%	▼ -2.2%	▼ -1.7%	4.6903	4.5868	4.7895
USDPLN	4.1612	▼ -0.9%	▼ -3.1%	▼ -5.5%	▼ -5.5%	4.3449	4.1541	4.4888
USDCAD	1.3427	▼ -0.8%	▼ -0.8%	▼ -0.9%	▲ 4.7%	1.3518	1.3312	1.3807
USDCNY	6.9094	▲ 0.3%	▲ 0.5%	▲ 0.2%	▲ 3.8%	6.8591	6.7010	6.9662
USDCLP	800.54	▲ 1.1%	▲ 1.4%	▼ -6.9%	▼ -6.8%	809.52	781.49	856.31
<b>Money market</b>								
3m LIBOR USD	5.337	▲ 0.08	▲ 0.14	▲ 0.57	▲ 3.97	5.010	4.782	5.337
3m EURIBOR	3.280	▲ 0.02	▲ 0.24	▲ 1.15	▲ 3.70	2.785	2.170	3.288
3m WIBOR	6.900	- 0.00	▲ 0.01	▼ -0.12	▲ 0.56	6.924	6.890	7.010
5y USD interest rate swap	3.520	▼ -0.22	▼ -0.11	▼ -0.50	▲ 0.43	3.793	3.418	4.408
5y EUR interest rate swap	2.963	▼ -0.25	▼ -0.08	▼ -0.28	▲ 1.45	3.045	2.672	3.479
5y PLN interest rate swap	5.225	▼ -0.43	▼ -0.28	▼ -0.94	▼ -1.35	5.508	5.040	6.125
<b>Fuel</b>								
WTI Cushing	71.34	▼ -8.4%	▼ -5.7%	▼ -11.1%	▼ -34.1%	76.45	66.74	83.26
Brent	75.63	▼ -7.9%	▼ -5.1%	▼ -11.0%	▼ -32.5%	81.59	71.87	88.37
Diesel NY (ULSD)	231.97	▼ -6.6%	▼ -13.3%	▼ -31.1%	▼ -54.0%	282.30	223.48	358.84
<b>Others</b>								
VIX	17.19	▲ 0.42	▼ -1.51	▼ -4.48	▼ -14.01	19.91	15.78	26.52
BBG Commodity Index	102.96	▼ -2.5%	▼ -2.4%	▼ -8.7%	▼ -22.2%	106.86	101.54	112.52
S&P500	4 136.25	▲ 0.1%	▲ 0.7%	▲ 7.7%	▼ -0.3%	4 033.58	3 808.10	4 179.76
DAX	15 961.02	▲ 0.5%	▲ 2.1%	▲ 14.6%	▲ 14.8%	15 345.48	14 181.67	15 961.02
Shanghai Composite	3 334.50	▲ 1.0%	▲ 1.9%	▲ 7.9%	▲ 8.7%	3 268.51	3 116.51	3 393.33
WIG 20	1 912.37	▲ 0.6%	▲ 8.7%	▲ 6.7%	▲ 8.3%	1 841.61	1 670.18	1 948.07
KGHM	118.55	▼ -3.4%	▼ -3.0%	▼ -6.5%	▼ -11.1%	129.92	113.30	153.80

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

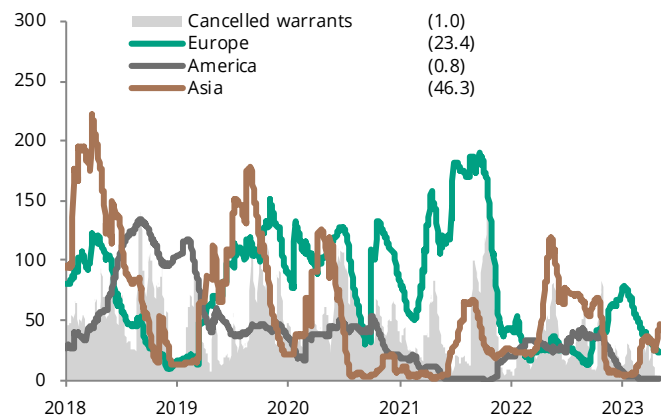
Source: Bloomberg, KGHM Polska Miedź

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



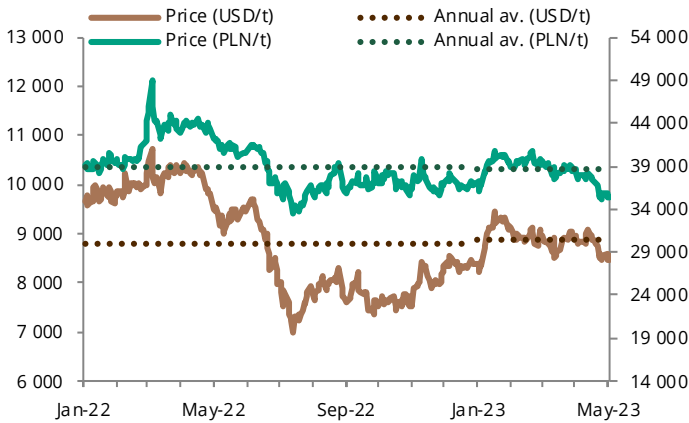
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



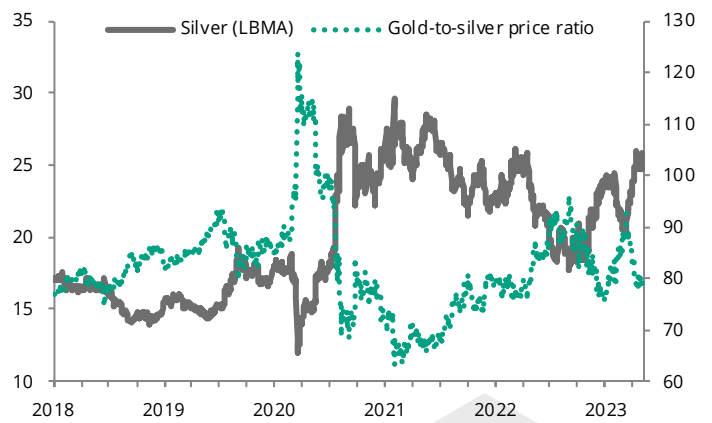
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



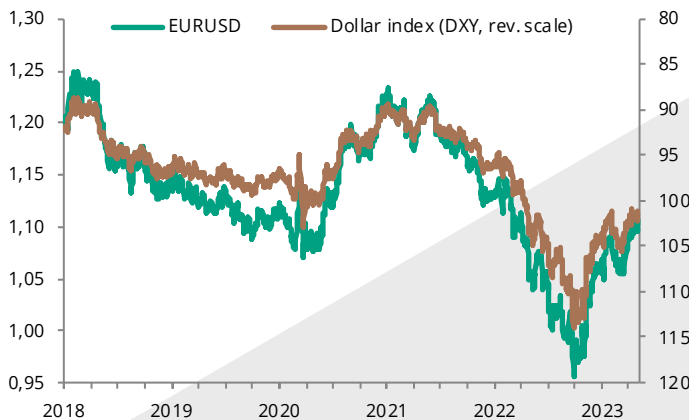
Source: Bloomberg, KGHM Polska Miedź

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



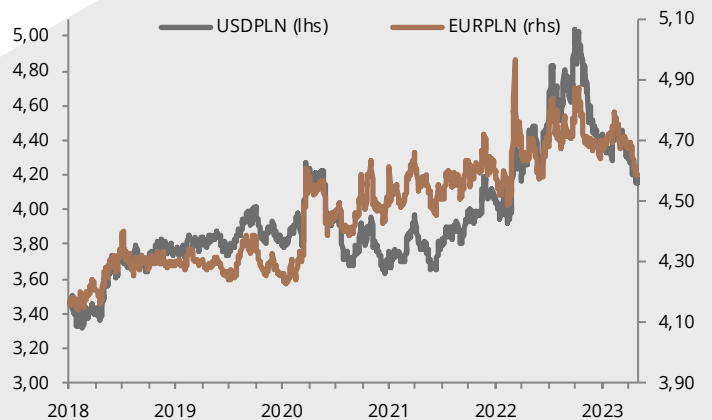
Source: Bloomberg, KGHM Polska Miedź

**USD: dollar index (lhs) and ECB-based EURUSD (rhs)**



Source: Bloomberg, KGHM Polska Miedź

**PLN: NBP-fixing based rate vs. USD (lhs) and EUR (rhs)**



Source: Bloomberg, KGHM Polska Miedź

## Legal note

This document has been prepared based on the below listed reports, among others, published in the following period:  
**10 April – 7 May 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](http://www.lme.com/dataprices_products.asp) (charge-free logging)
- silver and gold: [www.lbma.org.uk/pricing-and-statistics](http://www.lbma.org.uk/pricing-and-statistics)
- platinum and palladium: [www.lppm.com/statistics.aspx](http://www.lppm.com/statistics.aspx)

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