

Market Overview



as of: 11th September 2023






- Copper:** The second largest copper-producing country lowered its economic growth forecasts for this and next year to 1.1% (from 2.5%) and 3.0% (from 3.4%), respectively. Peru has painfully experienced a decline in revenues from the mining of the red metal, resulting from weather problems, social unrest, a decline in investments and a collapse in prices (*page 2*).
- Precious metals:** The Peruvian Ministry of Energy and Mines (Minem) offers loans to artisanal gold miners. The main purpose of the loans is to enable the purchase of equipment that does not require the use of mercury in the metal processing. There are as many as 250,000 artisanal miners in Peru, producing a quarter of the country's gold exports, or 38.7 tons per year (*page 4*).
- Euro zone:** According to a survey of economists conducted under the auspices of the Fed in 2019, and considered by many to be still relevant today, the most important channel for transmitting the problems of the Chinese economy to the rest of the world is not direct trade, but rather risk assessment paths. Fears of a hard landing by China, if serious, increase financial volatility and impact the dollar, which may shift market sentiment towards risk-off and tighten lending conditions (*page 5*).

Key market prices

	Close price	2w chng.
LME (USD/t)		
▼ Copper	8 225.00	-1.9%
▼ Nickel	19 905.00	-4.8%
LBMA (USD/troz)		
▼ Silver	23.01	-4.9%
▲ Gold (PM)	1 927.80	0.6%
FX		
▼ EURUSD	1.0704	-1.0%
▲ EURPLN	4.6019	3.0%
▲ USDPLN	4.2958	3.7%
▲ USDCAD	1.3632	0.2%
▲ USDCLP	879.77	2.9%
Stocks		
▼ KGHM	110.30	-0.1%

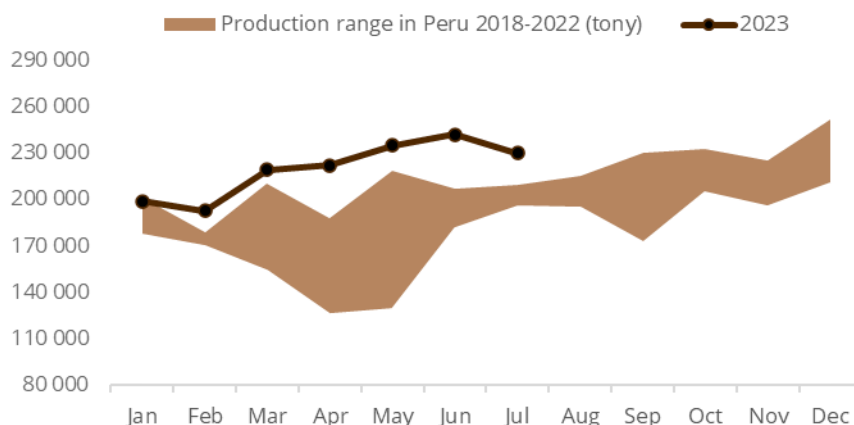
Source: Bloomberg, KGHM Polska Miedź S.A.; (*more on page 9*)

Important macroeconomic data

Release	For		
 Official manuf. PMI	Aug	49.7	▲
 NBP rate decision	Sep	6.00%	▼
 Manufacturing PMI	Aug	47.9	▲
 Manufacturing PMI	Aug	43.5	▼
 Copper production (mt)	Jul	434 089	▼

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

Peru's copper production has consistently remained above the range of the last five years



Source: Minem, KGHM Polska Miedź S.A.

Market Risk Unit

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Base and precious metals | Other commodities

Copper

Peru Slashes Growth Outlook Amid Falling Copper Investment

The second largest copper-producing country lowered its economic growth forecasts for this and next year to 1.1% (from 2.5%) and 3.0% (from 3.4%), respectively. Peru has painfully experienced a decline in revenues from the mining of the red metal, resulting from weather problems, social unrest, a decline in investments and a collapse in prices.

Peru lowered its economic growth forecasts for 2023 and 2024 on Tuesday amid poor weather, lower private investment in mining, and anti-government protests earlier this year. The South American country's economy is expected to grow 1.1% this year, the economy ministry said in Peru's official gazette. That is down from a previous estimate of 2.5%, after data showed the economy shrank in the first half of 2023. That would mark the slowest annual growth since 2009, excluding coronavirus-dampened 2020. The Peruvian Fiscal Council warned the forecast could still be too optimistic and could see further adjustments. Next year, Peru's economy is expected to grow 3.0%, the ministry added, down from a previous estimate of 3.4%. The world's second-largest copper producer has taken a hit as prices of the metal fell from an average of \$4.00/lb last year to an estimated \$3.80/lb this year and \$3.60/lb next year. Though metals mining and production is expected to grow 7% this year, private investment - largely in mining - is expected to drop 4.5%, alongside a slowdown in Peru's construction and manufacturing sectors. Peru's fishing industry is also expected to be seriously hit by warmer seas due to the El Nino climate phenomenon, the ministry said. This has devastated production of the anchovy-based fertilizer fishmeal in which Peru leads globally. Warmer seas are also expected to bring heavy rains along the Pacific Ocean coastline, likely damaging agriculture and key infrastructure such as roads. That makes El Nino the largest immediate threat to Peru's economy, the government said. The ministry also pegged Peru's estimated fiscal deficit for this year at 2.4% of gross domestic product (GDP), up from the 1.7% of GDP recorded last year. Meanwhile, Peru's estimated current account deficit was lowered to 1.6% of GDP, down from the 2.1% of GDP previously expected. Finance Minister Alex Contreras, in a press conference on Tuesday, vowed that the government was working "intensely" to reverse the trend, and that inflation was slowing, with the annual rate set to dip to 4% by year's end. He added that companies from multiple countries including the U.S had shown interest in developing petrochemicals in Peru. The government has repeatedly denied the country entered a recession after the two consecutive quarterly contractions this year, citing methodological nuances.

Antamina's president says Peru should focus on brownfield projects

Brownfield projects are located in an areas of operating mines, have an environmental impact study, use less industrial water and can be implemented in two or three years.

The president of Antamina, Peru's largest copper mine, and of the Directive Council of the Peruvian Institute of Mining Engineers, Víctor Gobitz, proposed concentrating efforts on brownfield projects given that there are no new operational deposits in the country. At the launching of the PERUMIN 36 mining summit, Gobitz said that the lack of greenfield projects is in part due to the long wait times for obtaining exploration and environmental permits, the difficulties reaching agreements with local communities to access their lands and the country's poor road, port and electric infrastructure. "Brownfield projects are located within the same footprint of a mining operation, have an environmental impact study, use less industrial water and can be implemented in two or three years. This means that the development of 10% of this type of project would be equivalent to a new mine," the executive said. Antamina's president noted that some of the most important brownfield projects being developed in Peru are Chinalco's \$815-million Toromocho expansion project, Southern Copper's \$871-million Cuajone expansion project, Glencore's \$590-million Coroccohuayco integration project, Antamina's \$1.6-billion reposition project and the \$2.5 billion. When it comes to greenfield projects, Southern Copper's long-delayed \$1.4-billion Tía María project seems to be the most advanced one as it has an environmental license and a construction permit. In addition to this, its development would allow for the kickstart of the Paltitute dam, which is expected to store and provide fresh water to the Tambo Valley communities, even during dry periods. "Peru needs fresh investment to generate more jobs, taxes and economic growth. Due to the stoppage of the Tía María mining project, our country lost \$800 million in exports, considering its annual production greater than 100 thousand tons of copper and the price of the metal greater than \$8,000 per ton," Gobitz estimated.

Other important information on copper market:

- Copper production in Peru rose 17.7% year-over-year in July, the Andean country's ministry of energy and mines said, climbing to an output of 229,728 metric tons of the red metal in the month. The rise is thanks to the "optimal performance" of miner Marcobre, controlled by Peru's Minsur and Chile's Copec; as well as the Cerro Verde mine, which is operated by Freeport-McMoRan, the ministry said in a statement. From January to July, copper production rose 19.8% compared to the year-earlier period, the ministry added. The Peruvian government, which expects copper production this year to reach 2.8 million metric tons, has redoubled efforts to boost mining after a May report found the Democratic Republic of Congo could overtake Peru in the next few years.
- China's copper imports declined 5% in August from a year earlier, customs data showed, hit by a faltering economy and depressed demand while domestic

producers boosted output. Imports of unwrought copper and copper products, used widely in the construction, transport and power sectors, totalled 473,330 metric tons in August. The data includes anode, refined, alloy and semi-finished copper. China has been struggling with sluggish manufacturing activity and a deepening property slump, made worse by a debt crisis at its leading property developer Country Garden. Rising domestic output this year is also weighing on demand for imported copper. In August, China's refined copper output jumped 15.5% year-on-year to a record 989,000 tons, slightly exceeding expectations, according to local information provider Shanghai Metals Market (SMM). Strong domestic production boosted demand for raw materials, with imports of copper ore and concentrate rising to a record 2.7 million tons in August, up 10.9% from August 2022 and a record high. For the first eight months of 2023, China's unwrought copper and copper products imports fell 10% to 3.51 million tons compared with a year earlier.

Precious Metals

Peruvian small-scale miners can now access government-backed loans

The Peruvian Ministry of Energy and Mines (Minem) offers loans to artisanal gold miners. The main purpose of the loans is to enable the purchase of equipment that does not require the use of mercury in the metal processing. There are as many as 250,000 artisanal miners in Peru, producing a quarter of the country's gold exports, or 38.7 tons per year.

The Peruvian Ministry of Energy and Mines (Minem) is offering credits to artisanal and small-scale miners who have gone through a formalization process or are in the midst of it with the goal of fostering a sustainable and environmentally friendly approach to their work. The credits are being offered through an initiative called planetGOLD, which is executed by the Minem and the Ministry of Environment with the technical assistance of the United Nations Development Programme. The main goal of the new loans is to allow miners to acquire mercury-free processing equipment. The financial products are also aimed at the development of alternative or complementary small businesses led by gold sorters, mostly women, that are registered with the General Directorate of Mining Formalization (DGFM). "These actions seek to promote business and financial development, as well as improve the value chain of small-scale and artisanal mining at the national level," the Minem noted in a media statement. "According to planet GOLD, there are as many as 250,000 artisanal and small-scale miners operating in Peru and they are responsible for about one-quarter of the country's gold exports or 38.7 tonnes each year. Most of the gold produced by artisanal miners in the region is extracted using mercury. It is estimated that close to 145 tonnes of the toxic metal are emitted by these operations every year. In addition to fostering mercury-free practices, planetGOLD also proposes strengthening the regulatory framework and providing miners with technical assistance, technology transfer, support for formalization and access to responsible markets.

Global economies | Foreign exchange markets

US Resilience to China Slowdown Questioned in Fed Risk Study





According to a survey of economists conducted under the auspices of the Fed in 2019, and considered by many to be still relevant today, the most important channel for transmitting the problems of the Chinese economy to the rest of the world is not direct trade, but rather risk assessment paths. Fears of a hard landing by China, if serious, increase financial volatility and impact the dollar, which may shift market sentiment towards risk-off and tighten lending conditions.








China's stumbling recovery this year has produced a string of reassurances that the impact on the US of even a sharp downturn in the world's second-largest economy will prove limited. Just last month, economists at Wells Fargo estimated that if China's total output dropped by a cumulative 12.5% over three years, US growth would dip 0.2 percentage point in 2025. A little-noticed study by the Federal Reserve published in 2019 offers a more cautionary perspective. Eight Fed economists at the time examined a scenario in which China's growth fell 4 percentage points short of projections in a year. They predicted a global flight to safety by investors would send the dollar surging about 7% and cause both long-term Treasury yields and equities to tumble. US growth could in time drop more than 1 percentage point. Anna Wong, one of the paper's authors and now chief US economist at Bloomberg Economics, says those projections would be just as valid today should China's growth — currently expected to reach 5.1% this year and 4.5% in 2024 — fall short to the same degree. Like other economists, Wong and her co-authors noted that trade with China represents only a modest proportion of American gross domestic product. But, given China's deepened integration into the broader global economy, they concluded that a significant downturn for the Asian giant would cause real damage to the US — largely through the vector of financial markets. "The most important channel for China spillovers is not through direct trade but rather a risk-sentiment channel," Wong said this week. "Fears of a China hard landing, if serious, raise financial volatility and drive the dollar up, which could turn financial assets into a risk-off mode, which in turn tightens global credit conditions." The 2019 paper didn't predict the likelihood of a downturn that triggered a risk-off reaction among investors, only the consequences should such a thing occur. Emerging-market countries that rely on China as an export market would feel the most pain from a drop in demand for their goods and commodities, the study showed. Bloomberg looks at why China's slowdown could send ripples around the world. Today, such a situation would add to strains at a time when the level of debt among developing nations is already elevated. After the Covid pandemic and a spike in food and energy costs triggered by Russia's invasion of Ukraine, distress among low-income countries is at its worst since the early 1980s, Harvard University economist Carmen Reinhart has calculated. Evidence of the potential for China woes to reverberate through global financial markets stems from an episode that

began in August 2015. Capital flight from China spurred a sudden depreciation of the yuan and precipitous drops for Chinese equities. The turmoil proved contagious, sending the US S&P 500 tumbling more than 11% over the space of little more than a week. Fed policymakers abandoned a plan to raise interest rates at the time, putting it off until the end of 2015. While the US central bank was expected to raise rates another four times the following year, continuing concerns about China contributed to an extended pause, with the next increase only coming in December 2016. Janet Yellen, who chaired the Fed back then and is now Treasury secretary, said last month that China's current slowdown a "risk factor" for the US. A major China shock today might have mitigating factors. Any resultant slide in global commodity prices would help ease US inflation, which remains well above its 2% target. And the Fed has plenty of scope to lower interest rates if needed, with its benchmark now exceeding 5%. Back in August 2015, the benchmark was near zero. In the end, the worst worries about China's economy in the 2015-16 episode proved unfounded, as it continued to clock around 7% expansion rates — leaving unanswered the question of what would happen in the case of an actual 4 percentage-point disappointment to growth.

Macroeconomic calendar

Important macroeconomic data releases

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²	
China							
🔴🔴🔴	31-Aug	Official manufacturing PMI	Aug	49.7 ▲	49.3	49.2	🟢
🔴🔴🔴	01-Sep	Caixin's manufacturing PMI	Aug	51.0 ▲	49.2	49.0	🟢
🔴🔴	07-Sep	Trade balance (USD bn)‡	Aug	68.4 ▼	80.4	73.9	🔴
🔴🔴	07-Sep	Exports (yoy)‡	Aug	-8.8% ▲	-14.3%	-9.0%	🟢
🔴	07-Sep	Foreign reserves (USD bn)	Aug	3 160 ▼	3 204	3 184	🔴
🔴🔴🔴🔴	09-Sep	Consumer inflation CPI (yoy)	Aug	0.1% ▲	-0.3%	0.1%	🟡
🔴🔴	09-Sep	Producer inflation PPI (yoy)	Aug	-3.0% ▲	-4.4%	-2.9%	🔴
Poland							
🔴🔴🔴🔴🔴	31-Aug	GDP (yoy) - final data	2Q	-0.6% ▼	-0.5%	--	🔴
🔴🔴🔴🔴🔴	31-Aug	GDP (qoq) - final data	2Q	-2.2% ▲	-3.7%	--	🔴
🔴🔴🔴🔴	31-Aug	Consumer inflation CPI (yoy) - preliminary data	Aug	10.1% ▼	10.8%	10.0%	🟢
🔴🔴🔴	01-Sep	Manufacturing PMI	Aug	43.1 ▼	43.5	43.9	🔴
🔴🔴🔴🔴	06-Sep	NBP base rate decision	Sep	6.00% ▼	6.75%	6.50%	🔴
US							
🔴	28-Aug	Dallas Fed manufacturing activity	Aug	- 17.2 ▲	- 20.0	- 19.0	🟢
🔴🔴🔴🔴🔴	30-Aug	GDP (annualized, qoq) -	2Q	2.1% ▼	2.4%	2.4%	🔴
🔴🔴🔴🔴	31-Aug	Consumer spending inflation PCE (mom)	Jul	0.2% -	0.2%	0.2%	🟡
🔴🔴🔴🔴	31-Aug	Consumer spending inflation PCE (yoy)	Jul	4.2% ▲	4.1%	4.2%	🟡
🔴🔴	31-Aug	Personal income (sa, mom)	Jul	0.2% ▼	0.3%	0.3%	🔴
🔴🔴	31-Aug	Personal spending (sa, mom)‡	Jul	0.8% ▲	0.6%	0.7%	🟢
🔴🔴🔴	01-Sep	Manufacturing PMI - final data	Aug	47.9 ▲	47.0	47.0	🟢
🔴🔴	01-Sep	Change in non-farm payrolls (ths)‡	Aug	187 ▲	157	170	🟢
🔴🔴	01-Sep	ISM Manufacturing	Aug	47.6 ▲	46.4	47.0	🟢
🔴🔴	01-Sep	Underemployment rate (U6)	Aug	7.1% ▲	6.7%	--	🔴
🔴🔴	01-Sep	Unemployment rate	Aug	3.8% ▲	3.5%	3.5%	🟢
🔴	01-Sep	Average hourly earnings (yoy)	Aug	4.3% ▼	4.4%	4.3%	🟡
🔴🔴	05-Sep	Durable goods orders - final data	Jul	-5.2% -	-5.2%	-5.2%	🟡
🔴🔴🔴	06-Sep	Composite PMI - final data	Aug	50.2 ▼	50.4	50.4	🔴
🔴🔴🔴	06-Sep	PMI services - final data	Aug	50.5 ▼	51.0	51.0	🔴
Eurozone							
🔴	28-Aug	M3 money supply (yoy)	Jul	-0.4% ▼	0.6%	0.0%	🔴
🔴	30-Aug	Economic confidence	Aug	93.3 ▼	94.5	93.5	🔴
🔴	30-Aug	Industrial confidence‡	Aug	- 10.3 ▼	- 9.3	- 9.9	🔴
🔴	30-Aug	Consumer confidence - final data	Aug	- 16.0 -	- 16.0	--	🔴
🔴🔴🔴🔴	31-Aug	Core CPI (yoy) - preliminary data	Aug	5.3% ▼	5.5%	5.3%	🟡
🔴🔴🔴🔴	31-Aug	CPI estimate (yoy)	Aug	5.3% -	5.3%	5.1%	🟢
🔴🔴	31-Aug	Unemployment rate	Jul	6.4% -	6.4%	6.4%	🟡
🔴🔴🔴	01-Sep	Manufacturing PMI - final data	Aug	43.5 ▼	43.7	43.7	🔴
🔴🔴🔴	05-Sep	Composite PMI - final data	Aug	46.7 ▼	47.0	47.0	🔴
🔴🔴🔴	05-Sep	Services PMI - final data	Aug	47.9 ▼	48.3	48.3	🔴
🔴🔴	05-Sep	Producer inflation PPI (yoy)	Jul	-7.6% ▼	-3.4%	-7.6%	🟡
🔴🔴	06-Sep	Retail sales (yoy)‡	Jul	-1.0% -	-1.0%	-1.2%	🟢
🔴🔴🔴🔴🔴	07-Sep	GDP (sa, yoy) - final data	2Q	0.5% ▼	0.6%	0.6%	🔴
🔴🔴🔴🔴🔴	07-Sep	GDP (sa, qoq) - final data	2Q	0.1% ▼	0.3%	0.3%	🔴
🔴🔴🔴	07-Sep	Gross fixed capital (qoq)‡	2Q	0.3% -	0.3%	--	🔴
🔴🔴🔴	07-Sep	Households consumption (qoq)‡	2Q	0.0% -	0.0%	--	🔴

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
Germany 						
☉☉	29-Aug	GfK consumer confidence‡	Sep	-25.5 ▼	-24.6	-24.5 ◡
☉☉☉☉	30-Aug	Harmonized consumer inflation HICP (yoy) - preliminary data	Aug	6.4% ▼	6.5%	6.3% ◡
☉☉☉☉	30-Aug	Consumer inflation CPI (yoy) - preliminary data	Aug	6.1% ▼	6.2%	6.0% ◡
☉☉☉	31-Aug	Retail sales (yoy)‡	Jul	-2.4% ▼	0.9%	-1.4% ◡
☉☉	31-Aug	Unemployment rate‡	Aug	5.7% =	5.7%	5.7% ○
☉☉☉	01-Sep	Manufacturing PMI - final data	Aug	39.1 =	39.1	39.1 ○
☉☉☉	05-Sep	Composite PMI - final data	Aug	44.6 ▼	44.7	44.7 ◡
☉☉☉	06-Sep	Factory orders (wda, yoy)‡	Jul	-10.5% ▼	3.3%	-4.5% ◡
☉☉☉☉	07-Sep	Industrial production (wda, yoy)‡	Jul	-2.1% ▼	-1.5%	-2.1% ○
☉☉☉☉	08-Sep	Harmonized consumer inflation HICP (yoy) - final data	Aug	6.4% =	6.4%	6.4% ○
☉☉☉☉	08-Sep	Consumer inflation CPI (yoy) - final data	Aug	6.1% =	6.1%	6.1% ○
France 						
☉☉☉☉☉	31-Aug	GDP (yoy) - final data	2Q	1.0% ▲	0.9%	0.9% ◡
☉☉☉☉☉	31-Aug	GDP (qoq) - final data	2Q	0.5% =	0.5%	0.5% ○
☉☉☉☉	31-Aug	Harmonized consumer inflation HICP (yoy) - preliminary data	Aug	5.7% ▲	5.1%	5.4% ◡
☉☉☉☉	31-Aug	Consumer inflation CPI (yoy) - preliminary data	Aug	4.8% ▲	4.3%	4.6% ◡
☉☉☉	01-Sep	Manufacturing PMI - final data	Aug	46.0 ▼	46.4	46.4 ◡
☉☉☉	05-Sep	Composite PMI - final data	Aug	46.0 ▼	46.6	46.6 ◡
☉☉☉☉	08-Sep	Industrial production (yoy)	Jul	2.7% ▲	-0.3%	1.4% ◡
Italy 						
☉☉☉☉	31-Aug	Harmonized consumer inflation HICP (yoy) - preliminary data	Aug	5.5% ▼	6.3%	5.6% ◡
☉☉	31-Aug	Unemployment rate‡	Jul	7.6% ▲	7.5%	7.4% ◡
☉☉☉☉☉	01-Sep	GDP (wda, yoy) - final data	2Q	0.4% ▼	0.6%	0.6% ◡
☉☉☉☉☉	01-Sep	GDP (wda, qoq) - final data	2Q	-0.4% ▼	-0.3%	-0.3% ◡
☉☉☉	01-Sep	Manufacturing PMI	Aug	45.4 ▲	44.5	45.7 ◡
☉☉☉	05-Sep	Composite PMI	Aug	48.2 ▼	48.9	48.3 ◡
UK 						
☉☉☉	01-Sep	Manufacturing PMI (sa) - final data	Aug	43.0 ▲	42.5	42.5 ◡
☉☉☉	05-Sep	Composite PMI - final data	Aug	48.6 ▲	47.9	47.9 ◡
Japan 						
☉☉☉☉	31-Aug	Industrial production (yoy) - preliminary data	Jul	-2.5% ▼	0.0%	-1.4% ◡
☉☉☉	01-Sep	Manufacturing PMI - final data	Aug	49.6 ▼	49.7	--
☉☉☉	05-Sep	Composite PMI - final data	Aug	52.6 =	52.6	--
☉☉☉☉☉	08-Sep	GDP (annualized, qoq) - final data	2Q	4.8% ▼	6.0%	5.6% ◡
☉☉☉☉☉	08-Sep	GDP (qoq, sa) - final data	2Q	1.2% ▼	1.5%	1.4% ◡
Chile 						
☉☉☉	31-Aug	Total copper production (metric tons)	Jul	434 089 ▼	457 921	--
☉☉☉	31-Aug	Manufacturing (yoy)	Jul	-3.9% ▲	-5.2%	-3.2% ◡
☉☉☉☉	01-Sep	Economic activity (yoy)‡	Jul	1.8% ▲	-0.8%	0.8% ◡
☉☉☉☉☉	05-Sep	BCCh overnight rate target	Sep	9.50% ▼	10.25%	9.50% ○
☉☉☉	07-Sep	Copper exports (USD mn)	Aug	3 705 ▲	3 359	--
☉☉	07-Sep	Nominal wages (yoy)	Jul	9.4% ▼	10.3%	--
Canada 						
☉☉☉☉☉	01-Sep	GDP (yoy)	Jun	1.1% ▼	1.9%	1.4% ◡
☉☉☉☉☉	01-Sep	GDP (annualized, qoq)‡	2Q	-0.2% ▼	2.6%	1.2% ◡
☉☉☉☉☉	06-Sep	BoC base rate decision	Sep	5.00% =	5.00%	5.00% ○
☉☉☉	08-Sep	Capacity utilization‡	2Q	81.4% ▼	81.8%	82.5% ◡
☉☉☉	08-Sep	Net change in employment (ths)	Aug	39.9 ▲	-6.4	20.0 ◡

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

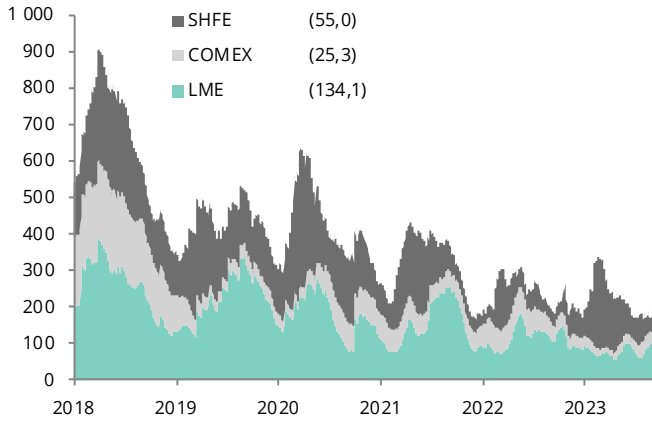
Key base & precious metal prices, exchange rates and other important market factors

(as of: 08-Sep-23)		Price change ¹				From year beginning ²		
	Price	2W	QTD	YTD	1Y	Average	Min	Max
LME (USD/t; Mo in USD/lbs)								
Copper	8 225.00	▼ -1.9%	▲ 0.2%	▼ -1.9%	▲ 4.0%	8 615.37	7 910.00	9 436.00
Molybdenum	24.53	▼ -1.6%	▲ 10.2%	▼ -6.1%	▲	26.45	17.86	38.28
Nickel	19 905.00	▼ -4.8%	▼ -1.1%	▼ -34.6%	▼ -7.0%	23 199.94	19 685.00	31 200.00
Aluminum	2 132.50	▲ 0.4%	▲ 1.7%	▼ -9.7%	▼ -5.5%	2 276.35	2 068.50	2 636.00
Tin	25 335.00	▲ 0.3%	▼ -8.5%	▲ 2.2%	▲ 16.8%	26 541.82	22 225.00	32 050.00
Zinc	2 406.00	▲ 1.3%	▲ 1.8%	▼ -20.5%	▼ -24.6%	2 712.71	2 224.00	3 509.00
Lead	2 285.00	▲ 4.9%	▲ 8.6%	▼ -2.1%	▲ 21.0%	2 134.69	1 989.00	2 331.00
LBMA (USD/troz)								
Silver	23.01	▼ -4.9%	▲ 2.4%	▼ -3.9%	▲ 23.5%	23.43	20.09	26.03
Gold ²	1 927.80	▲ 0.6%	▲ 0.8%	▲ 6.4%	▲ 12.8%	1 932.08	1 810.95	2 048.45
LPPM (USD/troz)								
Platinum ²	900.00	▼ -5.2%	▲ 0.3%	▼ -15.5%	▲ 3.0%	988.34	887.00	1 128.00
Palladium ²	1 207.00	▼ -2.1%	▼ -3.7%	▼ -32.5%	▼ -42.2%	1 433.39	1 200.00	1 802.00
FX³								
EURUSD	1.0704	▼ -1.0%	▼ -1.5%	▲ 0.4%	▲ 6.9%	1.0849	1.0500	1.1255
EURPLN	4.6019	▲ 3.0%	▲ 3.4%	▼ -1.9%	▼ -2.6%	4.5800	4.4135	4.7895
USDPLN	4.2958	▲ 3.7%	▲ 4.6%	▼ -2.4%	▼ -9.1%	4.2226	3.9451	4.4888
USDCAD	1.3632	▲ 0.2%	▲ 3.0%	▲ 0.6%	▲ 3.9%	1.3452	1.3128	1.3807
USDCNY	7.3439	▲ 0.8%	▲ 1.2%	▲ 6.5%	▲ 5.6%	7.0221	6.7010	7.3439
USDCLP	879.77	▲ 2.9%	▲ 9.6%	▲ 2.4%	▼ -0.7%	815.31	781.49	879.77
Money market								
3m LIBOR USD	5.672	▲ 0.01	▲ 0.13	▲ 0.90	▲ 2.44	5.284	4.782	5.684
3m EURIBOR	3.800	▲ 0.01	▲ 0.22	▲ 1.67	▲ 2.96	3.211	2.170	3.826
3m WIBOR	6.010	▼ -0.66	▼ -0.89	▼ -1.01	▼ -1.15	6.859	6.010	7.010
5y USD interest rate swap	4.219	- 0.00	- 0.00	▲ 0.20	▲ 0.73	3.821	3.418	4.408
5y EUR interest rate swap	3.247	▼ -0.01	▼ -0.02	▲ 0.01	▲ 0.87	3.130	2.672	3.479
5y PLN interest rate swap	4.160	▼ -0.57	▼ -0.84	▼ -2.00	▼ -2.09	5.221	4.160	6.125
Fuel								
WTI Cushing	87.51	▲ 8.7%	▲ 23.9%	▲ 9.0%	▲ 4.8%	76.18	66.74	87.54
Brent	97.03	▼ -3.3%	▼ -20.2%	▼ -2.2%	▲ 37.4%	112.61	93.29	137.67
Diesel NY (ULSD)	3.70	▲ 8.3%	▼ -8.6%	▲ 31.3%	▲ 65.4%	3.93	2.85	5.08
Others								
VIX	13.84	▼ -1.84	▲ 0.25	▼ -7.83	▼ -9.77	17.51	12.91	26.52
BBG Commodity Index	106.08	▲ 0.6%	▲ 4.5%	▼ -6.0%	▼ -8.7%	105.16	97.96	112.52
S&P500	4 457.49	▲ 1.2%	▲ 0.2%	▲ 16.1%	▲ 11.3%	4 208.42	3 808.10	4 588.96
DAX	15 744.75	▲ 0.7%	▼ -2.5%	▲ 13.1%	▲ 22.0%	15 659.55	14 181.67	16 469.75
Shanghai Composite	3 116.72	▲ 1.7%	▼ -2.7%	▲ 0.9%	▼ -3.7%	3 239.46	3 064.08	3 395.00
WIG 20	1 943.99	▼ -2.8%	▼ -5.6%	▲ 8.5%	▲ 32.0%	1 947.31	1 670.18	2 193.56
KGHM	110.30	▼ -0.1%	▼ -1.9%	▼ -13.0%	▲ 28.6%	121.99	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

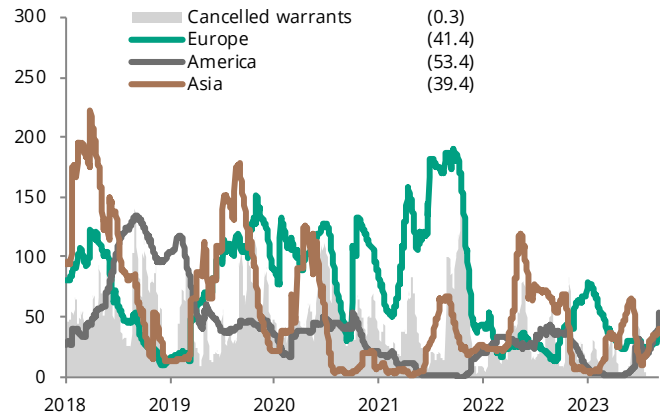
Source: Bloomberg, KGHM Polska Miedź

Copper: official exchange stocks (thousand tonnes)



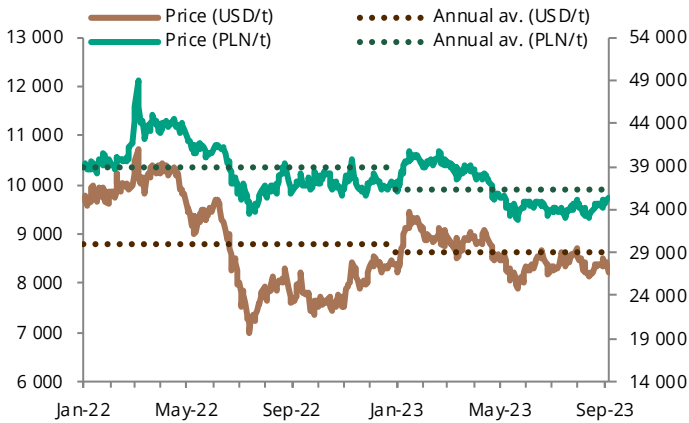
Note: Latest values in brackets. Source: Bloomberg, KGHM

Copper: official LME stocks (thousand tonnes)



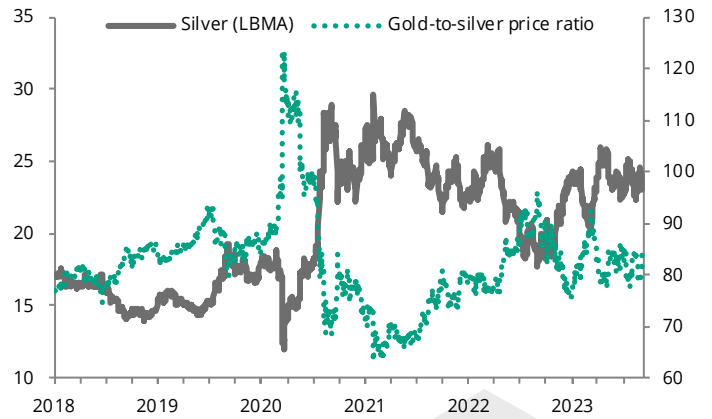
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



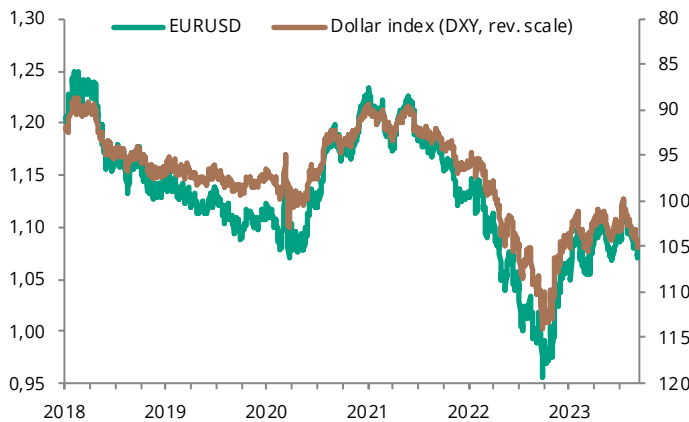
Source: Bloomberg, KGHM Polska Miedź

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



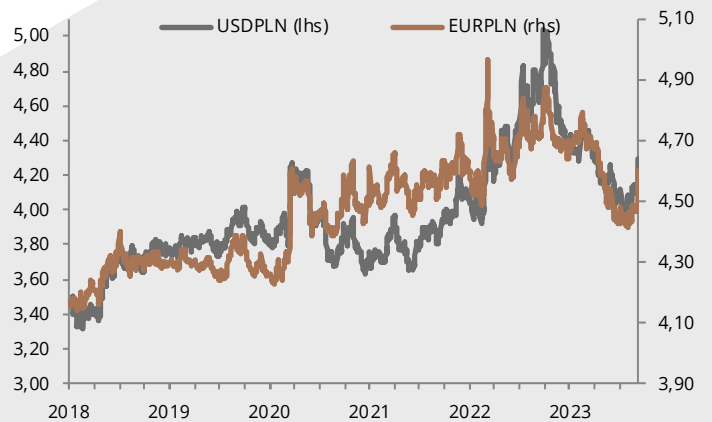
Source: Bloomberg, KGHM Polska Miedź

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:
28 August – 10 September 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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