

Market Overview



as of: 17th July 2023

- **Copper:** After Chile passed a mining tax hike, copper mining companies are looking for additional incentives to continue investing in the production of the red metal. Among which are e.g. reduced energy costs and accelerated approval of required permits (*page 2*).
- **Nickel:** Nickel and some other metals consumed by the EV sector have come under pressure as investors focus on the expected excess of supply over demand in the coming years. For nickel, most of the increase in supply is in Indonesia, the world's largest nickel producer. In 2022, production in Indonesia increased by 48% y/y to over 1.2 million tons (*page 5*).
- **USA - China:** During a visit to Beijing, US Treasury Secretary Janet Yellen said she was looking for opportunities for healthy economic competition, one that is not about winner-take-all but one that, if handled fairly, can benefit both countries over time. Yellen's journey aims to build long-term channels of communication with the Chinese government's new economic team (*page 6*).

Key market prices

	Close price	2w chng.
LME (USD/t)		
▼ Copper	8 592.00	-0.7%
▲ Nickel	21 650.00	1.6%
LBMA (USD/troz)		
▼ Silver	24.23	-2.2%
▲ Gold (PM)	1 954.25	0.0%
FX		
▼ EURUSD	1.1010	-1.9%
▼ EURPLN	4.4257	-0.5%
▲ USDPLN	4.0377	1.9%
▲ USDCAD	1.3232	0.4%
▲ USDCLP	826.01	2.2%
Stocks		
▼ KGHM	120.40	-0.5%

Source: Bloomberg, KGHM Polska Miedź S.A.; (*more on page 10*)

Important macroeconomic data

Release	For		
 Manufacturing PMI	Jun	46.3	▼
 PPI (yoy)	Jun	-5.4%	▼
 Industrial prod. (yoy)	May	-2.3%	▼
 Manufacturing PMI	Jun	45.1	▼
 Copper exports (\$)	Jun	3 883	▲

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

FOMC members median in December 2022



Source: Bloomberg, KGHM Polska Miedź S.A.

Market Risk Unit

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Base and precious metals | Other commodities

Copper

Chile miners, facing higher taxes, seek faster permits, lower energy costs

After Chile passed a mining tax hike, copper mining companies are looking for additional incentives to continue investing in the production of the red metal. Among which are e.g. reduced energy costs and accelerated approval of required permits.

Now that Chile has passed an increase in mining royalties, copper miners are pushing for incentives to keep investing in production of the metal needed for the renewable energy revolution, with steps such as cuts in energy costs, speeded-up permit approvals and other incentives. Beginning in 2024, mining royalties will rise to a range of 8% to 26% of operating margin from the current range of 5% to 14%. There will also be a 1% ad valorem tax based on sales for miners that post a profit. Chile's Mining Council, which comprises large private firms, estimates this will ultimately boost the average tax rate of 44.7%, exceeding the top of the range of 38-to-44% in competing countries such as Peru and Australia. "We're hoping that this competitive disadvantage is somehow compensated with other public policy actions that encourage investment," said the association's head of studies, Jose Tomas Morel. The elevated royalty is the latest flashpoint between the mining industry in the world's No. 1 copper and No. 2 lithium producer and the leftist government of Gabriel Boric, who came to office promising to get the country's mining industry to help pay for expanded social programs. Industry lobbying did prompt a cut in the original royalty rise plan, and some miners have said they will continue to invest. With Chile's aging mines producing less copper, analysts noted that the more mining investment was needed to produce the government's desired revenue increase, even with the higher royalty. "The government is in talks with mining companies and other interested parties. Miners have yet to provide a detailed list of incentives they are seeking. Morel said the government should speed up and simplify the permitting process in which projects need hundreds of permits with each taking months to approve. He said the government should also help miners navigate thorny environmental and indigenous regulation issues which can lead to lengthy court cases. Energy costs are another concern. Chile's mining industry consumes about 15% of the country's total energy output, and the Chilean Copper Commission says energy represents about 11% of miners' costs. The industry would like the government to pass regulations cutting energy costs for miners. Boric's government hopes to boost total copper revenue for the state up to 0.45% of GDP or about \$1.35 billion a year, using the funds to boost programs such as child care, security, health care and education. Gustavo Lagos, a professor at the mining department at Catholic University in Santiago, said the new royalty might not hit its target since most new projects are focused on

compensating for declining production rather than adding supply. Chile's copper supply has fallen due to the natural decline in mineral grades of its oldest deposits, delays in project start-ups, accidents and other problems. Production in 2022 totaled 5.33 million metric tons, down from a record 5.83 million in 2018.

Innovation In EVs Seen Denting Copper Demand Growth Potential

CRU Group lowered its estimate for copper usage in an average EV to 51-56 kgs between this year and 2030. That was down from its previous forecast of 65-66 kgs over the same period. Goldman Sachs estimated copper in an average EV would fall to 65 kgs per vehicle by 2030 compared with an estimate of 73 kgs last year.

New electric vehicles from Tesla and rivals are being engineered for efficiency in a way that cuts copper content, changes that could limit demand growth for the metal as the next-generation of EVs hits the road. The strong ramp-up in sales for EVs, led by growth in China, means copper demand will continue to grow for the remainder of the decade, but innovation in EVs has emerged as a limiting factor, according to two recent forecasts. Copper has been seen as a green-energy transition play, in part because of the wiring needed for electric cars. EVs can use as much as 80 kgs (176 pounds) of copper, four times the amount used in a typical combustion engine vehicle. In a report Goldman Sachs said EVs accounted for two-thirds of the global demand growth in copper last year. But EV and battery makers have found ways to cut weight and costs that also mean less copper is needed per vehicle, Goldman Sachs and consultancy CRU Group said separately. CRU Group lowered its estimate for copper usage in an average EV to 51-56 kgs between this year and 2030. That was down from its previous forecast of 65-66 kgs over the same period. Goldman Sachs estimated copper in an average EV would fall to 65 kgs per vehicle by 2030 compared with an estimate of 73 kgs last year. Both cited a chain of engineering changes intended to improve range, reduce weight and bolster efficiency of EVs that will have the cumulative effect of cutting copper content. The engineering changes include shifting to more compact batteries where cells do not have to be wired into modules, using thinner copper foil in battery cells and shifting to higher voltage systems that will require less wiring. In one example, Tesla expects that by moving to a 48-volt system for the secondary battery - the smaller battery used to power functions like lighting and wipers - in future EVs, it will be able to cut the need for copper to one quarter of current levels, Elon Musk told investors in May. Goldman Sachs called innovation in batteries and the potential shift to higher voltage systems like Tesla's "the main threat to copper's EV demand leverage." It expects copper demand for EVs to be 1 million metric tons this year and 2.8 million by 2030. Previously, it had projected 3.2 million metric tons of demand from EVs in 2030. However, a higher penetration rate of EVs is making up for the easing copper usage in each unit. CRU said it expected that EVs and plug-in hybrids would account for 42% of vehicles sold globally in 2030, up from a forecast of a third previously. CRU's analyst Robert Edwards said some of those

bullish on copper may have underestimated the potential for EV makers to roll out technologies that limit the use of the metal.

Peru Copper Miners Say Red Tape Snarling Red Metal Production Ramp-Up

Getting a mine operational in Peru can take 10-15 years, far from the world average of about eight years. There are some 230 "administrative processes" with various authorities to start building a mine, compared to around a dozen just 20 years ago.

Copper miners in Peru, already battling political uncertainty and regular protests, say they have another hurdle to revving up stalled production of the red metal: too much red tape. The South American country, the world's No. 2 copper producer, has seen output plateau in the last five years as political instability, revolving governments and flagging investment has let rival producer Congo almost overtake it. Mining investment is expected to drop by a fifth this year and company executives said that labyrinthine bureaucracy, worse than in other places, was jamming up new projects, a potential threat to copper output in the years ahead. "Getting a mine operational in Peru can take 10-15 years if you don't hit major hurdles, far from the world average of about eight years," Southern Copper Chief Financial Officer Raul Jacob told Reuters on the sidelines of a mining event in Lima. He added there were some 230 "administrative processes" with various authorities to start building a mine, compared to around a dozen just 20 years ago. "There are procedures that are repeated, the same information is delivered to different agencies that do not coordinate with each other... So what happens in practice is that all this prevents the project from moving forward." Peru's copper growing pains pose a challenge for the mining-driven economy and to global supply. The mining director at Peru's ministry of energy and mines, Jorge Soto, told Reuters work was being done to speed up processes with various state entities related to water use, the environment, resource protection and Indigenous communities. The government, keen to speed up output, announced this year an agreement with the World Bank to review mining red tape to bring processes more in line with places where projects move forward faster, including Chile, Canada and Mexico. Until that happens, mining executives said Peru's \$53 billion mining investment pipeline, largely copper, would only move forward slowly, despite government hopes that some \$7 billion of that being unlocked in 2023 and 2024. Gold miner Newmont Corp said last month it would delay investment in its \$2.5 billion Yanacocha Sulfuros project in Peru for at least two years to optimize its portfolio and increase shareholder returns. Southern Copper, meanwhile, has five projects worth some \$8.6 billion on its slate. Among them is Tia Maria, stalled for a decade due to local environmental concerns, and Los Chancas, stalled by illegal mining within its concession. Gobitz, Antamina's president, also cited political issues including deadly protests that roiled the country's Andean south at the start of the year, and the fact that since early 2022 Peru has seen six different mining ministers come and go.

Analyst at ING said Nickel price to average \$21,000 in Q3 as supply soars

Nickel and other EV metals have been under pressure this year as investors focus on the looming supply surplus. For nickel, most of this supply is growing in Indonesia, the biggest producer in the world. Indonesia's production expanded by 48% in 2022 to over 1.2 million tonnes.

Nickel price has underperformed the market this year, making it the worst-performing metal in the London Metal Exchange (LME). The metal dropped to a low of \$19,937 this year, about 27% below the highest point in March. Nickel is one of the most important metals today as the world transitions from internal combustion engines (ICE) to electric vehicles (EV). It is widely used in the manufacture of batteries, which are the most important part of EVs. Demand for EVs is rising around the world. A recent report showed that the total number of EV sales will jump to over 14 million this year, with Tesla Model Y being the best-selling passenger car this year. Higher demand for EVs should be good for key metals used in their manufacturing, including lithium, copper, and nickel. However, recently, these metals have underperformed, mostly because of the rising supply. For nickel, most of this supply is growing in Indonesia, the biggest producer in the world. Indonesia's production expanded by 48% in 2022 to over 1.2 million tonnes. Nickel smelting is also rising in the country after the government banned the export of raw ore. As a result, smelters have jumped to about 62 from 15 in 2018. Other countries like Canada, Zimbabwe, Russia, and the Philippines are also boosting production. This trend is expected to move to a surplus this year since demand seem to be moderating. Analysts expect that nickel usage will jump to 3.13 million tons this year while production is expected to be 3.37 million. China's nickel imports have dropped to a multi-year low as the economic recovery stalls. Nickel and other EV metals have been under pressure this year as investors focus on the looming supply surplus.

Global economies | Foreign exchange markets

Yellen Says US-China Rivalry Not 'Winner-Take-All' Situation




US Treasury Secretary Janet Yellen said competition between the world's biggest economies is not a "winner-take-all" situation but that, with a fair set of rules, can benefit both countries over time. Yellen's trip is aimed at building longer-term communication channels with the Chinese government's new economic team rather achieving any substantive breakthroughs.






US Treasury Secretary Janet Yellen said competition between the world's biggest economies is not a "winner-take-all" situation, and called for both sides to manage their rivalry with a fair set of rules. Yellen's comments were delivered during a meeting with Chinese Premier Li Qiang as she made a long-anticipated trip to Beijing, aimed at finding some common ground between the two superpowers sparring on everything from trade to Taiwan's security. "We seek healthy economic competition that is not winner-take-all but that, with a fair set of rules, can benefit both countries over time," the Treasury chief told Li also struck a note of optimism, telling Yellen he believed bilateral ties would eventually see a "rainbow," after going through a period of "wind and rain." He also urged Chinese entrepreneurs to brace themselves for "hardships" and "look further to the horizon." Yellen's high-stakes visit comes as the US and China are locked in a tit-for-tat trade war that ramped up last year with US export controls on semiconductors and chipmaking equipment. The Biden administration is preparing an executive order curbing US outbound investment in China, which could cover certain investments in sensitive technologies including semiconductors, artificial intelligence and quantum computing. President Xi Jinping's government imposed controls on two critical minerals used in advanced technologies days before Yellen's arrival. The US Defense Department announced it was invoking the Defense Production Act to boost domestic mining and processing of gallium and germanium, Reuters reported, citing a Pentagon spokesperson. Yellen's trip is aimed at building longer-term communication channels with the Chinese government's new economic team rather achieving any substantive breakthroughs. Despite that, her talks began with two old guards of China's economy policy: retired Vice Premier Liu He and the People's Bank of China Governor Yi Gang. Besides discussing competition issues, Yellen emphasized the importance of Washington and Beijing "closely communicating on global macroeconomic and financial issues and working together on global challenges, including debt distress in low-income and emerging economies and climate finance," it said. The central bank's appointment of Pan Gongsheng as party chief raised expectations he could soon take over from Yi. Liu retired from his role earlier this year, although the South China Morning Post reported last month he still has an influential hand in economic matters. Yellen's talks with both men were "substantive," and covered the economic outlook in both their nations and globally, according to the Treasury department. Restarting such dialog is key given recent clouds over China's economy. Chinese authorities have

cut interest rates and adopted measures to shore up the property market. Policymakers are also increasingly concerned about demographic issues including a declining population and a high youth unemployment rate. The trip marks the first major test of a policy Yellen outlined in April that's geared toward defending and securing US national security without trying to hold China back economically. During her roundtable with executives from companies including Boeing Co., Bank of America Corp. and Cargill Inc., Yellen spoke of the opportunity China's enormous middle class held for American businesses. But she also warned she was "troubled" by "punitive actions" China had taken against US firms in recent months. That turbulence, along with years of Covid controls that disrupted supply chains and a series of regulatory shocks that hit the private sector, has rocked investor confidence in China. Xi said it was necessary for China to implement new measures to attract foreign investment, the official Xinhua News Agency reported. Yellen said that US business leaders in Beijing had expressed concerns over China's "non-market tools," such as subsidies for state-owned enterprises and domestic firms. Despite all that, she reiterated her message that the US does not seek a wholesale separation of the two economies, stressing that it seeks to "diversify" rather than decouple from China. "A decoupling of the world's two largest economies would be destabilizing for the global economy, and it would be virtually impossible to undertake," she said.

Macroeconomic calendar

Important macroeconomic data releases

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
China 						
🔴🔴🔴	03-Jul	Caixin's manufacturing PMI	Jun	50.5 ▼	50.9	50.0 🟢
🔴	07-Jul	Foreign reserves (USD bn)	Jun	3 193 ▲	3 177	3 180 🟢
🔴🔴🔴🔴	10-Jul	Consumer inflation CPI (yoy)	Jun	0.0% ▼	0.2%	0.2% 🟡
🔴🔴	10-Jul	Producer inflation PPI (yoy)	Jun	-5.4% ▼	-4.6%	-5.0% 🟡
🔴	11-Jul	New yuan loans (CNY bn)‡	Jun	3 050 ▲	1 363	2 319 🟢
🔴🔴	13-Jul	Trade balance (USD bn)‡	Jun	70.6 ▲	66.3	74.9 🟡
🔴🔴	13-Jul	Exports (yoy)‡	Jun	-12.4% ▼	-7.1%	-10.0% 🟡
Poland 						
🔴🔴🔴	03-Jul	Manufacturing PMI	Jun	45.1 ▼	47.0	46.7 🟡
🔴🔴🔴🔴🔴	06-Jul	NBP base rate decision	Jul	6.75% -	6.75%	6.75% 🟡
🔴🔴🔴🔴	14-Jul	Consumer inflation CPI (yoy) - final data	Jun	11.5% -	11.5%	-- 🟡
🔴🔴	14-Jul	Trade balance (EUR mn)	May	1 111 ▲	209	843 🟢
🔴🔴	14-Jul	Exports (EUR mn)‡	May	28 221 ▲	26 408	28 180 🟢
🔴🔴	14-Jul	Current account balance (EUR mn)‡	May	1 392 ▲	529	665 🟢
US 						
🔴🔴🔴	03-Jul	Manufacturing PMI - final data	Jun	46.3 ▼	48.4	46.3 🟡
🔴🔴	03-Jul	ISM Manufacturing	Jun	46.0 ▼	46.9	47.1 🟡
🔴🔴	05-Jul	Durable goods orders - final data	May	1.8% ▲	1.7%	1.7% 🟢
🔴🔴🔴	06-Jul	Composite PMI - final data‡	Jun	53.2 -	53.2	53.0 🟢
🔴🔴🔴	06-Jul	PMI services - final data‡	Jun	54.4 -	54.4	54.1 🟢
🔴🔴	07-Jul	Change in non-farm payrolls (ths)‡	Jun	209 ▼	306	230 🟡
🔴🔴	07-Jul	Underemployment rate (U6)	Jun	6.9% ▲	6.7%	-- 🟡
🔴🔴	07-Jul	Unemployment rate	Jun	3.6% ▼	3.7%	3.6% 🟡
🔴	07-Jul	Average hourly earnings (yoy)‡	Jun	4.4% -	4.4%	4.2% 🟢
🔴🔴🔴🔴	12-Jul	Consumer inflation CPI (mom)	Jun	0.2% ▲	0.1%	0.3% 🟡
🔴🔴🔴🔴	12-Jul	Consumer inflation CPI (yoy)	Jun	3.0% ▼	4.0%	3.1% 🟡
🔴🔴	14-Jul	University of Michigan confidence index - preliminary data	Jul	72.6 ▲	64.4	65.5 🟢
Eurozone 						
🔴🔴🔴	03-Jul	Manufacturing PMI - final data‡	Jun	43.4 -	43.4	43.6 🟡
🔴🔴🔴	05-Jul	Composite PMI - final data‡	Jun	49.9 -	49.9	50.3 🟡
🔴🔴🔴	05-Jul	Services PMI - final data‡	Jun	52.0 -	52.0	52.4 🟡
🔴🔴	05-Jul	Producer inflation PPI (yoy)‡	May	-1.5% ▼	0.9%	-1.3% 🟡
🔴🔴	06-Jul	Retail sales (yoy)‡	May	-2.9% -	-2.9%	-2.7% 🟡
🔴	11-Jul	ZEW survey expectations	Jul	-12.2 ▼	-10.0	-- 🟡
🔴🔴🔴🔴	13-Jul	Industrial production (sa, mom)	May	0.2% ▼	1.0%	0.3% 🟡
🔴🔴🔴🔴	13-Jul	Industrial production (wda, yoy)	May	-2.2% ▼	0.2%	-1.2% 🟡
🔴	14-Jul	Trade balance (EUR mn)	May	-0.3 ▲	-11.7	-- 🟡
Germany 						
🔴🔴🔴	03-Jul	Manufacturing PMI - final data‡	Jun	40.6 -	40.6	41.0 🟡
🔴🔴🔴	05-Jul	Composite PMI - final data‡	Jun	50.6 -	50.6	50.8 🟡
🔴🔴🔴	06-Jul	Factory orders (wda, yoy)‡	May	-4.3% ▲	-9.3%	-9.7% 🟢
🔴🔴🔴🔴	07-Jul	Industrial production (wda, yoy)‡	May	0.7% ▼	1.7%	0.5% 🟢
🔴🔴🔴🔴	11-Jul	Harmonized consumer inflation HICP (yoy) - final data	Jun	6.8% -	6.8%	6.8% 🟡
🔴🔴🔴🔴	11-Jul	Consumer inflation CPI (yoy) - final data	Jun	6.4% -	6.4%	6.4% 🟡

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
France 						
👍👍👍	03-Jul	Manufacturing PMI - final data‡	Jun	46.0 -	46.0	45.5 🟢
👍👍👍👍	05-Jul	Industrial production (yoy)‡	May	2.6% 🟢	1.7%	0.6% 🟢
👍👍👍	05-Jul	Composite PMI - final data‡	Jun	47.2 -	47.2	47.3 🟡
👍👍👍👍	13-Jul	Harmonized consumer inflation HICP (yoy) - final data	Jun	5.3% -	5.3%	5.3% 🟡
👍👍👍👍	13-Jul	Consumer inflation CPI (yoy) - final data	Jun	4.5% -	4.5%	4.5% 🟡
Italy 						
👍👍👍	03-Jul	Manufacturing PMI	Jun	43.8 ▼	45.9	45.3 🟡
👍👍👍	05-Jul	Composite PMI	Jun	49.7 ▼	52.0	51.0 🟡
👍👍👍👍	11-Jul	Industrial production (wda, yoy)‡	May	-3.7% 🟢	-7.4%	-4.5% 🟢
UK 						
👍👍👍	03-Jul	Manufacturing PMI (sa) - final data‡	Jun	46.5 -	46.5	46.2 🟢
👍👍👍	05-Jul	Composite PMI - final data‡	Jun	52.8 -	52.8	52.8 🟡
👍👍	11-Jul	Unemployment rate (ILO, 3-months)	May	4.0% 🟢	3.8%	3.8% 🟢
👍👍👍👍	13-Jul	Industrial production (yoy)‡	May	-2.3% ▼	-1.6%	-2.3% 🟡
Japan 						
👍👍👍	03-Jul	Manufacturing PMI - final data‡	Jun	49.8 -	49.8	--
👍👍👍	05-Jul	Composite PMI - final data‡	Jun	52.1 -	52.1	--
👍👍👍👍	14-Jul	Industrial production (yoy) - final data	May	4.2% ▼	4.7%	--
Chile 						
👍👍👍👍	03-Jul	Economic activity (yoy)	May	-2.0% ▼	-1.1%	-1.7% 🟡
👍👍	06-Jul	Nominal wages (yoy)	May	10.1% ▼	10.8%	--
👍👍👍	07-Jul	Copper exports (USD mn)	Jun	3 883 🟢	3 460	--
Canada 						
👍👍👍	07-Jul	Net change in employment (ths)	Jun	59.9 🟢	- 17.3	20.0 🟢
👍👍👍👍👍	12-Jul	BoC base rate decision	Jul	5.00% 🟢	4.75%	5.00% 🟡

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

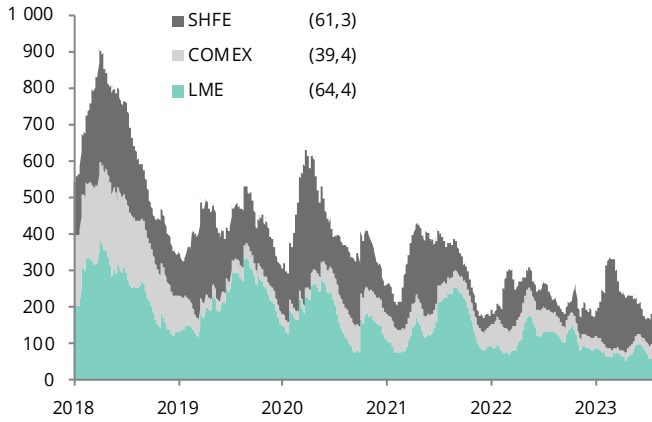
Key base & precious metal prices, exchange rates and other important market factors

<i>(as of: 28-Jul-23)</i>		Price change ¹					From year beginning ²		
	Price	2W	QTD	YTD	1Y	Average	Min	Max	
LME (USD/t; Mo in USD/lbs)									
Copper	8 592.00	▼ -0.7%	▲ 4.7%	▲ 2.4%	▲ 11.4%	8 665.77	7 910.00	9 436.00	
Molybdenum	22.58	▲ 0.2%	▲ 1.4%	▼ -13.6%	▲	26.82	17.86	38.28	
Nickel	21 650.00	▲ 1.6%	▲ 7.6%	▼ -28.8%	▲ 0.7%	23 740.31	19 745.00	31 200.00	
Aluminum	2 161.50	▼ -2.9%	▲ 3.1%	▼ -8.4%	▼ -12.1%	2 303.93	2 086.00	2 636.00	
Tin	28 755.00	▼ -0.9%	▲ 3.8%	▲ 15.9%	▲ 18.5%	26 640.42	22 225.00	32 050.00	
Zinc	2 485.00	▲ 3.0%	▲ 5.2%	▼ -17.9%	▼ -23.4%	2 772.83	2 224.00	3 509.00	
Lead	2 157.00	▲ 2.0%	▲ 2.5%	▼ -7.6%	▲ 7.2%	2 125.85	1 989.00	2 331.00	
LBMA (USD/troz)									
Silver	24.23	▼ -2.2%	▲ 7.8%	▲ 1.2%	▲ 25.4%	23.41	20.09	26.03	
Gold ²	1 954.25	▲ 0.0%	▲ 2.2%	▲ 7.8%	▲ 11.4%	1 933.79	1 810.95	2 048.45	
LPPM (USD/troz)									
Platinum ²	933.00	▼ -4.5%	▲ 4.0%	▼ -12.4%	▲ 4.8%	1 000.69	897.00	1 128.00	
Palladium ²	1 241.00	▼ -2.1%	▼ -1.0%	▼ -30.6%	▼ -40.0%	1 472.01	1 200.00	1 802.00	
FX ³									
EURUSD	1.1010	▼ -1.9%	▲ 1.3%	▲ 3.2%	▲ 8.8%	1.0842	1.0500	1.1255	
EURPLN	4.4257	▼ -0.5%	▼ -0.6%	▼ -5.6%	▼ -7.7%	4.6021	4.4224	4.7895	
USDPLN	4.0377	▲ 1.9%	▼ -1.7%	▼ -8.3%	▼ -14.0%	4.2456	3.9451	4.4888	
USDCAD	1.3232	▲ 0.4%	▼ -0.1%	▼ -2.3%	▲ 3.1%	1.3443	1.3128	1.3807	
USDCNY	7.1485	▲ 0.1%	▼ -1.5%	▲ 3.6%	▲ 5.9%	6.9709	6.7010	7.2537	
USDCLP	826.01	▲ 2.2%	▲ 2.9%	▼ -3.9%	▼ -10.3%	807.11	781.49	856.31	
Money market									
3m LIBOR USD	5.634	▲ 0.06	▲ 0.09	▲ 0.87	▲ 2.85	5.211	4.782	5.634	
3m EURIBOR	3.725	▲ 0.06	▲ 0.15	▲ 1.59	▲ 3.46	3.094	2.170	3.725	
3m WIBOR	6.720	▼ -0.11	▼ -0.18	▼ -0.30	▼ -0.29	6.902	6.720	7.010	
5y USD interest rate swap	4.219	- 0.00	- 0.00	▲ 0.20	▲ 1.48	3.821	3.418	4.408	
5y EUR interest rate swap	3.218	▼ -0.09	▼ -0.04	▼ -0.02	▲ 1.88	3.104	2.672	3.479	
5y PLN interest rate swap	4.680	▲ 0.08	▼ -0.32	▼ -1.48	▼ -1.12	5.340	4.370	6.125	
Fuel									
WTI Cushing	80.42	▲ 6.6%	▲ 13.8%	▲ 0.2%	▼ -16.6%	74.92	66.74	83.26	
Brent	110.93	▼ -3.2%	▼ -8.7%	▲ 11.8%	▲ 33.4%	114.42	97.69	137.67	
Diesel NY (ULSD)	3.61	▼ -6.2%	▼ -10.8%	▲ 28.0%	▲ 38.2%	4.01	2.85	5.08	
Others									
VIX	13.33	▼ -0.01	▼ -0.26	▼ -8.34	▼ -9.00	17.94	12.91	26.52	
BBG Commodity Index	107.23	▲ 2.5%	▲ 5.7%	▼ -4.9%	▼ -10.9%	105.09	97.96	112.52	
S&P500	4 582.23	▲ 1.7%	▲ 3.0%	▲ 19.3%	▲ 12.5%	4 156.32	3 808.10	4 582.23	
DAX	16 469.75	▲ 2.3%	▲ 2.0%	▲ 18.3%	▲ 24.0%	15 622.71	14 181.67	16 469.75	
Shanghai Composite	3 275.93	▲ 1.2%	▲ 2.3%	▲ 6.0%	▼ -0.2%	3 253.68	3 116.51	3 395.00	
WIG 20	2 189.24	▲ 2.9%	▲ 6.3%	▲ 22.2%	▲ 31.3%	1 924.59	1 670.18	2 189.58	
KGHM	120.40	▼ -0.5%	▲ 7.1%	▼ -5.0%	▲ 10.4%	123.60	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

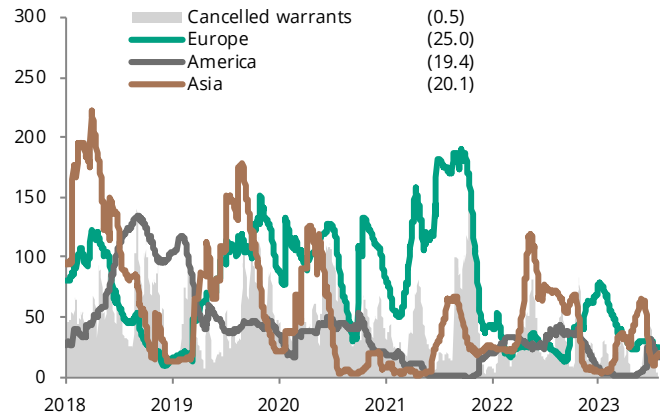
Source: Bloomberg, KGHM Polska Miedź

Copper: official exchange stocks (thousand tonnes)



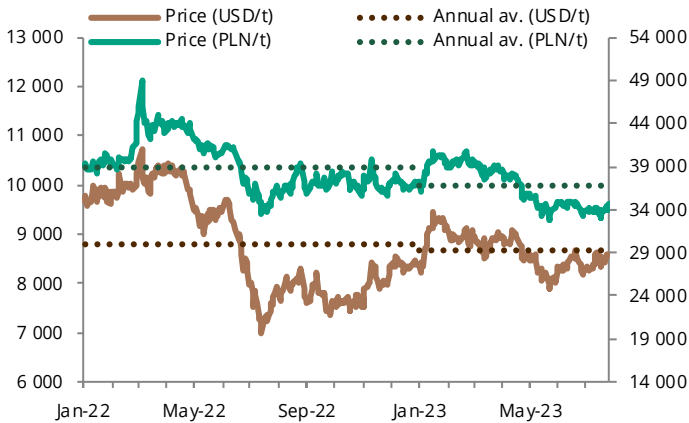
Note: Latest values in brackets. Source: Bloomberg, KGHM

Copper: official LME stocks (thousand tonnes)



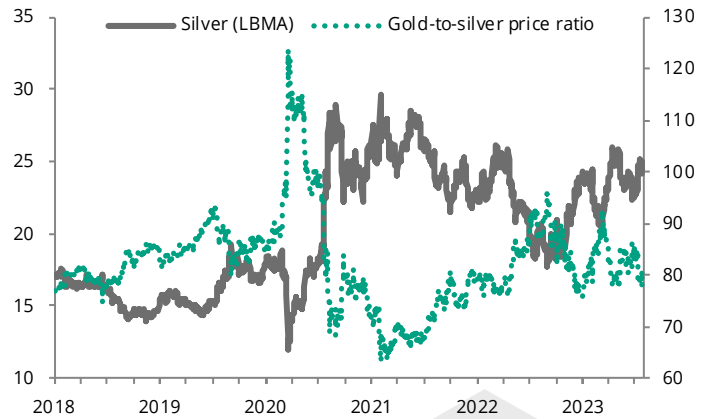
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



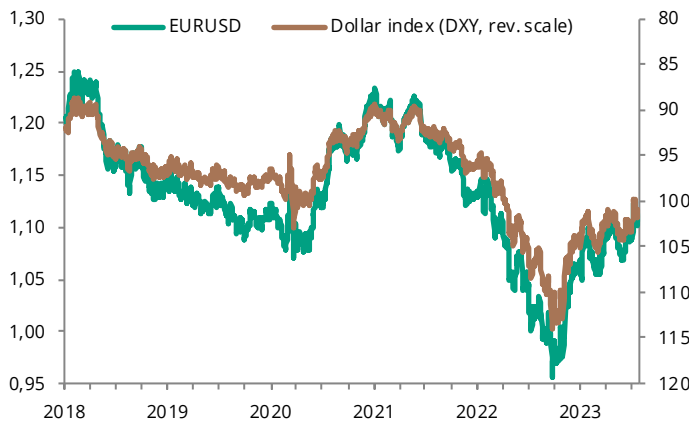
Source: Bloomberg, KGHM Polska Miedź

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



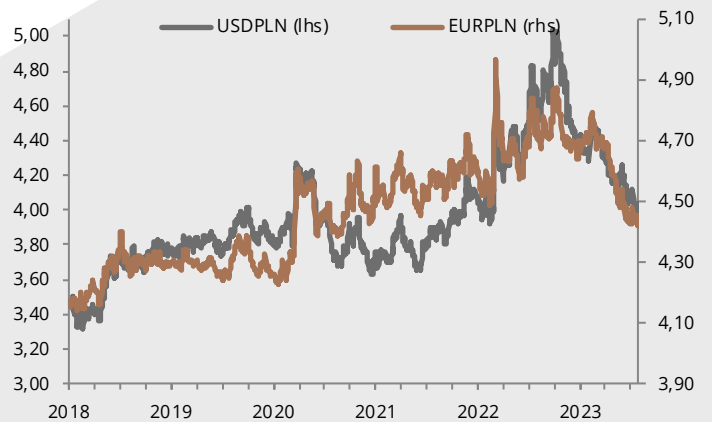
Source: Bloomberg, KGHM Polska Miedź

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:
3 – 16 July 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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