

Market Overview



as of: 1st August 2022






- **Copper:** Codelco saw production fall 9.3% last quarter from a year prior, the latest example of supply-side challenges for metal markets. The company produced 371,000 metric tons in the second quarter, down from 409,000 tons a year earlier (*page 2*).
- **Precious metals:** Some investors want to remove Russian gold from their portfolios to avoid increasing reputational risk. However, a rapid selloff of gold from Russia would potentially disrupt that trade by undermining the principle that all bars in the London trading system are interchangeable regardless of their origin (*page 4*).
- **USA:** Policy makers, facing the hottest cost pressures in 40 years, lifted the target for the federal funds rate on Wednesday to a range of 2.25% to 2.5%. "While another unusually large increase could be appropriate at our next meeting," that will depend on the data between now and then, Powell said (*page 6*).

Key market prices

	Close price	2w chng.
LME (USD/t)		
▲ Copper	7 800.50	11.4%
▲ Nickel	22 050.00	15.4%
LBMA (USD/troz)		
▲ Silver	20.07	8.7%
▲ Gold (PM)	1 753.40	2.8%
FX		
▲ EURUSD	1.0198	1.4%
▼ EURPLN	4.7399	-1.5%
▼ USDPLN	4.6365	-3.3%
▼ USDCAD	1.2824	-1.6%
▼ USDCPL	911.42	-12.6%
Stocks		
▲ KGHM	115.45	18.0%

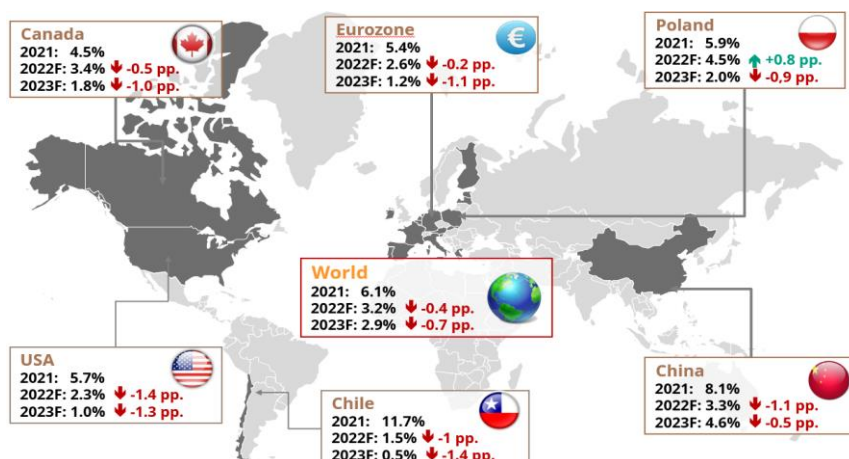
Source: Bloomberg, KGHM Polska Miedź S.A.; (*more on page 10*)

Important macroeconomic data

Release	For		
 Fed upper rate	Jul	2.50%	▲
 Manufacturing PMI	Jul	--	
 Official manuf. PMI	Jul	49.0	▼
 Copper production (mt)	Jun	462 172	▼
 PPI (yoy)	Jun	25.6%	▲

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

IMF World Economic Outlook – July 2022



Source: IMF, KGHM Polska Miedź S.A.

Market Risk Unit

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Base and precious metals | Other commodities

Copper

Codelco Copper Slump Underscores Global Mine Supply Challenges

Codelco saw production fall 9.3% last quarter from a year prior, the latest example of supply-side challenges for metal markets. The company produced 371,000 metric tons in the second quarter, down from 409,000 tons a year earlier.

Cochilco expects Chile's total production to decline by 3.4% annually

According to Bloomberg Codelco, the world's biggest copper supplier, saw production fall 9.3% last quarter from a year prior, the latest example of supply-side challenges for metal markets. The results delivered by Chile's state producer reflect a disappointing year of output for a nation that accounts for about a quarter of the world's mine supply. The South American country's copper commission projected a 3.4% annual drop in domestic production amid declining ore quality, water restrictions and union protests. Mines globally are grappling with logistical challenges exposed by the pandemic and exacerbated by Russia's invasion of Ukraine and Chinese lockdowns against the coronavirus -- all at a time of ballooning costs and lower prices. The Santiago-based firm produced 371,000 metric tons in the second quarter, down from 409,000 tons a year earlier. Its revenue tumbled along with a commodity rout spurred by recession fears. The Chilean government's copper commission, Cochilco, said that it expects prices of the metal to recover in the remainder of the year amid waning concerns over global inflation and Chinese measures against Covid-19. Still, it noted plenty of risk, including a sharper-than-expected global slowdown and consumer price surprises that could spur further monetary tightening. While the copper market is expected to swing to a small surplus as demand softens and new supply enters from the Democratic Republic of the Congo, longer-term prospects remain bright due to need for battery metals in the push toward cleaner energy. In the meantime, supply disappointments may help blunt softening consumption as economies slow. While Chile has the largest copper reserves, ore grades have been steadily falling, meaning mines need to move more rock to produce the same amount, pushing up costs. In June, Codelco endured protests at some operations after disclosing a plan to shut one of its smelters over contamination concerns. Earlier this month, it temporarily halted work on projects to review safety procedures after two fatal accidents. The state company recently approved a plan to resume work on a \$1 billion desalination plan in northern Chile as part of a goal of reducing continental water consumption by 60%.

MMG Suspends Copper Output Guidance After Las Bambas Protests In Peru

MMG said Las Bambas production had fallen 60% in the second quarter to 32,042 tonnes of copper in concentrate compared with a year ago due to the protests.

Chinese miner MMG Ltd said it had suspended its copper production targets for the year following a 60% output drop due to a long protest at its Las Bambas mine in the Peruvian Andes, which significantly disrupted operations. MMG had previously expected to produce 300,000-320,000 tonnes of copper in concentrate during the year at Las Bambas. But during the first half of the year, it managed to produce only 101,000 tonnes, the company said. Las Bambas is one of the world's largest copper mines but it has been repeatedly disrupted by escalating protests since it opened in 2016, culminating in a 50-day operational shutdown earlier this year. Indigenous communities near the mine and along the dirt road it uses to transport copper onto a port have often staged protests against the mine, complaining that its immense wealth has not trickled down to them. In April, the neighboring communities of Fuerabamba and Huancuire both entered Las Bambas property and settled inside, causing the production halt. While MMG said the mine is currently operating at full capacity, tensions remain high after a recent truce with Fuerabamba and Huancuire expired without new agreements. MMG said Las Bambas production had fallen 60% in the second quarter to 32,042 tonnes of copper in concentrate compared with a year ago due to the protests.

Other important information on copper market:

- As Reuters informs miner and trader Glencore on Friday cut its full-year copper guidance, partly due to reduced output from its Katanga mine in the Democratic Republic of Congo (DRC). Total copper production fell by 15% to 510,2 kt in the first half of this year. Geotechnical problems at the Katanga open-pit mine led the London-listed miner to guide towards output of 1.06 million tonnes for the year, down from 1.11 million tonnes previously.
- According to Platts Chile's Codelco, the world's largest producer of copper, produced 736,000 mt of the metal during the first six months of the year, down 7.5% yoy. The fall reflects lower throughout and recoveries at its Chuquicamata (down 31,000mt) and El Teniente divisions (down 22,000 mt) and lower ore grades at Ministro Hales (down 24,000 mt). Copper sales also fell almost 10.0% to 799,000 mt including sales from third parties. Sales of molybdenum, a key by-product in Codelco's operations, fell 9.1% to 10,000 mt. As a result of the lower metals prices, copper and by-product sales, and higher input costs, the company's profits fell 35% to \$2.377 billion. Production costs also rose, direct costs rising 11.8% to \$1.51/lb. Despite the fall in the company's profits the company's contributions to the Chilean state in taxes and profits rose 7% during the first half to \$1.671 billion.

Precious Metals

Gold investors face bind over bars from Russia

Some investors want to remove Russian gold from their portfolios to avoid increasing reputational risk. However, a rapid selloff of gold from Russia would potentially disrupt that trade by undermining the principle that all bars in the London trading system are interchangeable regardless of their origin.

At least \$12 billion worth of Russian gold is stored in vaults in London, New York and Zurich

According to Reuters some investors want Russian gold off their books but it's not that easy to remove. A de facto ban on Russian bullion minted after Moscow's invasion of Ukraine -- instigated by the London market in early March -- does not apply to hundreds of tonnes of gold that has been sitting in commercial vaults since before the conflict started. Fund managers looking to sell the metal to avoid the deepening reputational risk of holding assets linked to Russia in their portfolios could trigger a costly scramble to replace it with non-Russian gold, according to bankers and investors. "This would only serve to damage investors. It doesn't damage the (Russian) regime," said Christopher Mellor at Invesco, whose fund has around 265 tonnes of gold, 35 tonnes of it produced in Russia. A rapid selloff of gold from Russia -- a top three supplier -- would potentially disrupt that trade by undermining the principle that all bars in the London trading system are interchangeable regardless of their origin. The Bank of England, which operates Britain's largest gold vault, said it considered Russian gold bars made before the conflict in Ukraine eligible to trade because they are still on the LBMA's accredited list, known as the Good Delivery List. Some banks told clients for whom they stored gold that they would have to pay extra to offload Russian bullion because it would breach their existing contracts. Twelve banks dominate trading in the London gold market and four of them -- JPMorg, HSBC, ICBC Standard Bank, and UBS -- operate vaults. Anyone trading bullion relies on their services, directly or indirectly, to settle trades. JPMorgan, HSBC, ICBC Standard and UBS declined to comment when asked about how they handled investor requests to sell their holdings of Russian gold. The LBMA, which is made up of gold refiners, traders and banks, is not a regulator, and relies on market participants to uphold its rules. The large quantity of Russian gold in the London market and Russia's rapidly emerging pariah status in the wake of the Ukraine invasion, however, put the banks in a difficult spot, according to lawyers and market experts. A spokesman for the LBMA said the association was "anecdotally" aware that some owners and traders of Russian gold have wanted to swap it out or not to deal with Russian gold in the future. Asked what the LBMA thought of this, the spokesman said that it "maintains a neutral stance provided the efficient operation of the market is unaffected." The spokesman declined to comment on bankers' efforts to prevent a sell-off of Russian gold. He said that the LBMA "does not distinguish between different types of good delivery gold". The bankers' actions appear to have worked. Good delivery gold bars minted in Russia before the invasion have not traded at a discount to the rest of the market, according to traders. Larger investors -- including some exchange traded funds

(ETFs) with Russian gold worth more than \$1 billion -- do not appear to have sold up. A widespread and rapid clearout of Russian gold from investor portfolios could push its price down by anywhere from \$1-\$40 an ounce compared to non-Russian gold, people in the industry said. At least \$12 billion worth of Russian gold is stored in vaults in London, New York and Zurich, according to a Reuters analysis of data from 11 large investment funds. The total amount is likely significantly larger but there are no publicly available figures to quantify it. If Russian gold traded at a discount of \$5 an ounce, the cost to funds of replacing \$12 billion worth of metal would be around \$34 million. A Reuters analysis of investment data shows that the share of Russian gold in eight large ETFs actually rose to 7% on average in mid-July from 6.5% in mid-March. Some gold market participants have pushed ahead with selling their Russian holdings. Britain's Royal Mint, for example, said it had Russian bars worth around \$40 million in its ETF and got rid of them by mid-March. Others are trying to reduce their Russian holdings over time, asking the banks which store their gold to gradually cut their allocation or refusing to accept Russian gold bars in new deliveries.

Global economies | Foreign exchange markets

Forecasts in mid-June showed officials expected to raise rates to about 3.4% this year and 3.8% in 2023

Fed Hikes by 75 Basis Points





Policy makers, facing the hottest cost pressures in 40 years, lifted the target for the federal funds rate on Wednesday to a range of 2.25% to 2.5%. “While another unusually large increase could be appropriate at our next meeting,” that will depend on the data between now and then, Powell said.

Federal Reserve officials raised interest rates by 75 basis points for the second straight month and Chair Jerome Powell said a similar move was possible again, while rejecting speculation that the US economy is in recession. Policy makers, facing the hottest cost pressures in 40 years, lifted the target for the federal funds rate on Wednesday to a range of 2.25% to 2.5%. That takes the cumulative June-July increase to 150 basis points -- the steepest since the price-fighting era of Paul Volcker in the early 1980s. “While another unusually large increase could be appropriate at our next meeting,” that will depend on the data between now and then, Powell said. The Fed will also slow the pace of increases at some point, Powell said. In addition, he said officials would set policy on a meeting-by-meeting basis rather than offer explicit guidance on the size of their next rate move, as he has done recently. Those comments sparked a rally in US stocks with Treasury yields tumbling along with the dollar. The latest increase puts rates near Fed policy makers’ estimates of neutral -- the level that neither speeds up nor slows down the economy. Forecasts in mid-June showed officials expected to raise rates to about 3.4% this year and 3.8% in 2023. Powell said those forecasts were the best current guide of where the Fed was heading this year and into 2023. The FOMC reiterated it “anticipates that ongoing increases in the target range will be appropriate,” and that it would adjust policy if risks emerge that could impede attaining its goals. The FOMC vote, which included two new members -- Vice Chair for Supervision Michael Barr and Boston Fed President Susan Collins -- was unanimous. Barr’s addition to the board earlier this month gave it a full complement of seven governors for the first time since 2013. Criticized for misjudging inflation and being slow to respond, officials are now forcefully raising interest rates to cool the economy, even if that risks tipping it into recession. The effects are particularly evident in the housing market, where sales have slowed. While Fed officials maintain that they can manage a so-called soft landing for the economy and avoid a steep downturn, a number of analysts say it will take a recession with mounting unemployment to significantly slow price gains. Powell said that he did not believe the economy was in recession, citing a “very strong labor market” as evidence. “Demand is still strong and the economy is still on track to continue to grow this year,” he said. Investors are now watching to see if the Fed slows the pace of rate increases at its next meeting in September, or if strong price gains pressure the central bank to continue with super-sized hikes. Traders saw a half-point hike at the Sept. 20-21 FOMC meeting as the most likely outcome, according to pricing in interest-rate futures contracts. They see rates peaking around 3.4% by year-end, followed by cuts in the second quarter of 2023. The US consumer price index rose by 9.1% in June from a year

earlier, topping forecasts and hitting a fresh four-decade high. The price gains are eroding earnings and sowing discontent with the economy, creating challenges for President Joe Biden and congressional Democrats ahead of the midterm elections. High inflation had briefly fueled speculation that the Fed would lift rates by a full percentage point this month. But those bets got dialed back after key readings on consumer expectations for future inflation were better than expected. Central banks across the globe are engaged in a battle against surging prices. Earlier this month the Bank of Canada hiked rates by a full percentage point and the European Central Bank surprised with a larger-than-expected half-point move, its first increase in more than a decade.

Macroeconomic calendar

Important macroeconomic data releases

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
China 						
☉☉	27-Jul	Industrial profits (yoy)	Jun	0.8% ▲	-6.5%	--
☉☉☉	31-Jul	Official manufacturing PMI	Jul	49.0 ▼	50.2	50.3 📉
Poland 						
☉☉☉☉	18-Jul	Core CPI (excluding food and energy, yoy)	Jun	9.1% ▲	8.5%	9.3% 📉
☉☉☉☉	20-Jul	Sold industrial production (yoy)‡	Jun	10.4% ▼	14.9%	11.5% 📉
☉☉	20-Jul	Average gross salary (yoy)	Jun	13.0% ▼	13.5%	13.3% 📉
☉☉	20-Jul	Producer inflation PPI (yoy)	Jun	25.6% ▲	24.7%	25.1% 📈
☉	20-Jul	Employment (yoy)	Jun	2.2% ▼	2.4%	2.2% 📊
☉☉☉	21-Jul	Retail sales (yoy)	Jun	19.9% ▼	23.6%	21.7% 📉
☉	22-Jul	M3 money supply (yoy)	Jun	6.5% ▼	7.6%	7.6% 📉
☉☉	25-Jul	Unemployment rate	Jun	4.9% ▼	5.1%	5.0% 📉
☉☉☉☉	29-Jul	Consumer inflation CPI (yoy) - preliminary data	Jul	15.5% -	15.5%	15.6% 📉
US 						
☉☉	21-Jul	Philadelphia Fed business outlook	Jul	-12.3 ▼	-3.3	0.8 📉
☉☉☉	22-Jul	Composite PMI - preliminary data	Jul	47.5 ▼	52.3	52.4 📉
☉☉☉	22-Jul	Manufacturing PMI - preliminary data	Jul	--	52.7	52.0 📉
☉☉☉	22-Jul	PMI services - preliminary data	Jul	47.0 ▼	52.7	52.7 📉
☉	25-Jul	Dallas Fed manufacturing activity	Jul	-22.6 ▼	-17.7	-18.5 📉
☉	26-Jul	Richmond Fed manufacturing index‡	Jul	0.0 ▲	-9.0	-14.0 📈
☉☉☉☉☉	27-Jul	FOMC base rate decision - upper bound (Fed)	Jul	2.50% ▲	1.75%	2.50% 📊
☉☉☉☉☉	27-Jul	FOMC base rate decision - lower bound (Fed)	Jul	2.25% ▲	1.50%	2.25% 📊
☉☉	27-Jul	Durable goods orders - preliminary data	Jun	1.9% ▲	0.8%	-0.4% 📈
☉☉☉☉☉	28-Jul	GDP (annualized, qoq) - estimation	2Q	-0.9% ▲	-1.6%	0.4% 📈
☉☉☉☉	29-Jul	Consumer spending inflation PCE (mom)	Jun	0.6% ▲	0.3%	0.5% 📈
☉☉☉☉	29-Jul	Consumer spending inflation PCE (yoy)	Jun	4.8% ▲	4.7%	4.7% 📈
☉☉	29-Jul	Personal income (sa, mom)‡	Jun	0.6% -	0.6%	0.5% 📈
☉☉	29-Jul	Personal spending (sa, mom)‡	Jun	1.1% ▲	0.3%	1.0% 📈
☉☉	29-Jul	University of Michigan confidence index - final data	Jul	51.5 ▲	51.1	51.1 📈
Eurozone 						
☉☉☉☉	19-Jul	Consumer inflation CPI (yoy) - final data‡	Jun	8.6% ▲	8.1%	8.6% 📊
☉☉☉☉	19-Jul	Core CPI (yoy) - final data	Jun	3.7% -	3.7%	3.7% 📊
☉	20-Jul	Consumer confidence - preliminary data‡	Jul	-27.0 ▼	-23.8	-24.9 📉
☉☉☉☉☉	21-Jul	ECB main refinancing rate	Jul	0.50% ▲	0.00%	0.25% 📈
☉☉☉☉☉	21-Jul	ECB deposit facility rate	Jul	0.0% ▲	-0.5%	-0.3% 📈
☉☉☉	22-Jul	Composite PMI - preliminary data	Jul	49.4 ▼	52.0	51.0 📉
☉☉☉	22-Jul	Manufacturing PMI - preliminary data	Jul	--	52.1	51.0 📉
☉☉☉	22-Jul	Services PMI - preliminary data	Jul	50.6 ▼	53.0	52.0 📉
☉	27-Jul	M3 money supply (yoy)‡	Jun	5.7% ▼	5.8%	5.4% 📈
☉	28-Jul	Economic confidence‡	Jul	99.0 ▼	104	102 📉
☉	28-Jul	Industrial confidence‡	Jul	3.5 ▼	7.0	5.4 📉
☉	28-Jul	Consumer confidence - final data	Jul	-27.0 -	-27.0	--
☉☉☉☉☉	29-Jul	GDP (sa, yoy) - estimation	2Q	4.0% ▼	5.4%	3.4% 📈
☉☉☉☉☉	29-Jul	GDP (sa, qoq) - estimation‡	2Q	0.7% ▲	0.5%	0.2% 📈
☉☉☉☉	29-Jul	CPI estimate (yoy)	Jul	8.9% ▲	8.6%	8.7% 📈

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
Germany 						
🔊🔊🔊	22-Jul	Composite PMI - preliminary data	Jul	48.0 ▼	51.3	50.2 🟡
🔊🔊🔊	22-Jul	Manufacturing PMI - preliminary data	Jul	--	52.0	50.7 🟡
🔊🔊	25-Jul	IFO business climate‡	Jul	88.6 ▼	92.2	90.1 🟡
🔊🔊	27-Jul	GfK consumer confidence‡	Aug	-30.6 ▼	-27.7	-28.9 🟡
🔊🔊🔊🔊	28-Jul	Harmonized consumer inflation HICP (yoy) - preliminary data	Jul	8.5% ▲	8.2%	8.1% 🟡
🔊🔊🔊🔊	28-Jul	Consumer inflation CPI (yoy) - preliminary data	Jul	7.5% ▼	7.6%	7.4% 🟡
🔊🔊🔊🔊🔊	29-Jul	GDP (yoy) - preliminary data‡	2Q	1.5% ▼	3.9%	1.8% 🟡
🔊🔊🔊🔊🔊	29-Jul	GDP (sa, qoq) - preliminary data‡	2Q	0.0% ▼	0.8%	0.1% 🟡
🔊🔊	29-Jul	Unemployment rate	Jul	5.4% ▲	5.3%	5.4% 🟡
France 						
🔊🔊🔊	22-Jul	Composite PMI - preliminary data	Jul	50.6 ▼	52.5	51.1 🟡
🔊🔊🔊	22-Jul	Manufacturing PMI - preliminary data	Jul	--	51.4	51.0 🟡
🔊🔊🔊🔊	29-Jul	GDP (yoy) - preliminary data‡	2Q	4.2% ▼	4.8%	3.7% 🟡
🔊🔊🔊🔊	29-Jul	GDP (qoq) - preliminary data	2Q	0.5% ▲	-0.2%	0.2% 🟡
🔊🔊🔊🔊	29-Jul	Harmonized consumer inflation HICP (yoy) - preliminary data	Jul	6.8% ▲	6.5%	6.7% 🟡
🔊🔊🔊🔊	29-Jul	Consumer inflation CPI (yoy) - preliminary data	Jul	6.1% ▲	5.8%	6.0% 🟡
Italy 						
🔊🔊🔊🔊	29-Jul	GDP (wda, yoy) - preliminary data	2Q	4.6% ▼	6.2%	3.7% 🟡
🔊🔊🔊🔊	29-Jul	GDP (wda, qoq) - preliminary data	2Q	1.0% ▲	0.1%	0.3% 🟡
🔊🔊🔊	29-Jul	Harmonized consumer inflation HICP (yoy) - preliminary data	Jul	8.4% ▼	8.5%	8.8% 🟡
UK 						
🔊🔊	19-Jul	Unemployment rate (ILO, 3-months)	May	3.8% =	3.8%	3.8% 🟡
🔊🔊🔊	20-Jul	Consumer inflation CPI (yoy)	Jun	9.4% ▲	9.1%	9.3% 🟡
🔊🔊🔊	22-Jul	Manufacturing PMI (sa) - preliminary data	Jul	--	52.8	52.0 🟡
🔊🔊🔊	22-Jul	Composite PMI - preliminary data	Jul	52.8 ▼	53.7	52.4 🟡
Japan 						
🔊🔊🔊	22-Jul	Consumer inflation CPI (yoy)	Jun	2.4% ▼	2.5%	2.4% 🟡
🔊🔊🔊	22-Jul	Composite PMI - preliminary data	Jul	50.6 ▼	53.0	-- 🟡
🔊🔊🔊	22-Jul	Manufacturing PMI - preliminary data	Jul	--	52.7	-- 🟡
🔊🔊🔊	29-Jul	Industrial production (yoy) - preliminary data	Jun	-3.1% =	-3.1%	-7.0% 🟡
Chile 						
🔊🔊🔊	29-Jul	Total copper production (metric tons)	Jun	462 172 ▼	480 275	-- 🟡
🔊🔊🔊	29-Jul	Manufacturing (yoy)	Jun	-2.5% ▼	3.5%	-2.6% 🟡
Canada 						
🔊🔊🔊	20-Jul	Consumer inflation CPI (yoy)	Jun	8.1% ▲	7.7%	8.4% 🟡
🔊🔊🔊	29-Jul	GDP (yoy)‡	May	5.6% ▲	5.1%	5.4% 🟡

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

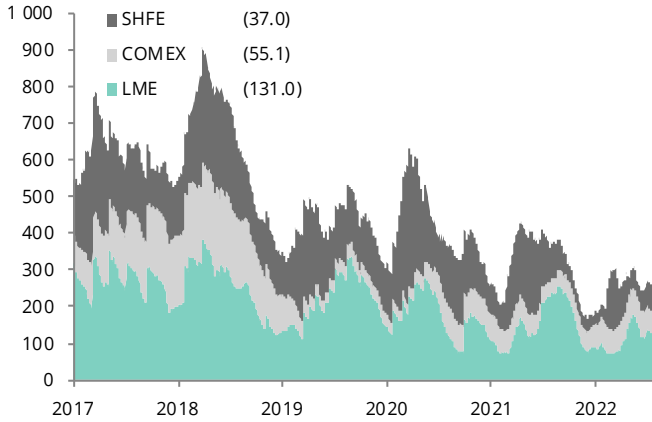
Key base & precious metal prices, exchange rates and other important market factors

(as of: 29-Jul-22)		Price change ¹					From year beginning ²		
	Price	2W	QTD	YTD	1Y	Average	Min	Max	
LME (USD/t; Mo in USD/lbs)									
Copper	7 800.50	▲ 11.4%	▼ -5.4%	▼ -19.5%	▼ -20.2%	9 435.39	7 000.00	10 730.00	
Molybdenum	15.15	▼ -6.7%	▼ -12.2%	▼ -18.9%	▼	18.40	15.15	19.33	
Nickel	22 050.00	▲ 15.4%	▼ -4.5%	▲ 5.4%	▲ 11.5%	26 793.41	19 100.00	45 795.00	
Aluminum	2 452.00	▲ 5.7%	▲ 2.3%	▼ -12.6%	▼ -4.1%	2 983.11	2 320.50	3 984.50	
Tin	24 405.00	▲ 3.4%	▼ -9.8%	▼ -38.4%	▼ -31.7%	38 017.64	23 600.00	50 050.00	
Zinc	3 351.00	▲ 14.7%	▲ 3.1%	▼ -7.7%	▲ 12.3%	3 725.08	2 921.00	4 530.00	
Lead	2 023.00	▲ 5.1%	▲ 6.1%	▼ -13.1%	▼ -15.6%	2 226.08	1 891.00	2 513.00	
LBMA (USD/troz)									
Silver	20.07	▲ 8.7%	▼ -1.7%	▼ -13.1%	▼ -21.2%	22.70	18.27	26.18	
Gold ²	1 753.40	▲ 2.8%	▼ -3.5%	▼ -3.7%	▼ -4.1%	1 853.89	1 700.70	2 039.05	
LPPM (USD/troz)									
Platinum ²	889.00	▲ 4.5%	▼ -2.0%	▼ -7.6%	▼ -17.2%	976.44	831.00	1 151.00	
Palladium ²	2 093.00	▲ 12.3%	▲ 10.9%	▲ 8.6%	▼ -21.5%	2 178.93	1 810.00	3 015.00	
FX ³									
EURUSD	1.0198	▲ 1.4%	▼ -1.8%	▼ -10.0%	▼ -14.1%	1.0823	1.0005	1.1464	
EURPLN	4.7399	▼ -1.5%	▲ 1.3%	▲ 3.1%	▲ 3.3%	4.6564	4.4879	4.9647	
USDPLN	4.6365	▼ -3.3%	▲ 3.4%	▲ 14.2%	▲ 20.1%	4.3077	3.9218	4.8284	
USDCAD	1.2824	▼ -1.6%	▼ -0.5%	▲ 1.2%	▲ 3.0%	1.2747	1.2451	1.3138	
USDCNY	6.7445	▼ -0.2%	▲ 0.7%	▲ 6.1%	▲ 4.5%	6.5224	6.3093	6.7893	
USDCLP	911.42	▼ -12.6%	▼ -0.9%	▲ 7.9%	▲ 18.8%	843.24	777.10	1 042.97	
Money market									
3m LIBOR USD	2.788	▲ 0.05	▲ 0.50	▲ 2.58	▲ 2.66	1.250	0.216	2.806	
3m EURIBOR	0.232	▲ 0.16	▲ 0.43	▲ 0.80	▲ 0.78	-0.372	-0.576	0.267	
3m WIBOR	7.010	▲ 0.01	▼ -0.04	▲ 4.47	▲ 6.80	5.199	2.590	7.140	
5y USD interest rate swap	2.712	▼ -0.33	▼ -0.36	▲ 1.34	▲ 1.89	2.542	1.445	3.637	
5y EUR interest rate swap	1.338	▼ -0.28	▼ -0.45	▲ 1.32	▲ 1.70	1.103	0.031	2.377	
5y PLN interest rate swap	5.650	▼ -0.86	▼ -1.25	▲ 1.91	▲ 4.32	5.573	3.780	7.870	
Fuel									
WTI Cushing	98.62	▲ 1.1%	▼ -6.8%	▲ 28.1%	▲ 34.0%	101.86	76.99	123.70	
Brent	107.97	▼ -1.0%	▼ -6.1%	▲ 39.4%	▲ 43.9%	106.81	79.83	133.89	
Diesel NY (ULSD)	362.72	▼ -3.0%	▼ -7.0%	▲ 51.4%	▲ 65.7%	373.10	241.70	534.54	
Others									
VIX	21.33	▼ -2.90	▼ -7.38	▲ 4.11	▲ 3.63	26.27	16.91	36.45	
BBG Commodity Index	121.83	▲ 7.4%	▲ 4.1%	▲ 22.8%	▲ 24.9%	121.02	100.58	136.61	
S&P500	4 130.29	▲ 6.9%	▲ 9.1%	▼ -13.3%	▼ -6.5%	4 229.01	3 666.77	4 793.54	
DAX	13 484.05	▲ 4.8%	▲ 5.5%	▼ -15.1%	▼ -13.8%	14 204.14	12 401.20	16 271.75	
Shanghai Composite	3 253.24	▲ 0.8%	▼ -4.3%	▼ -10.6%	▼ -4.6%	3 296.84	2 886.43	3 632.33	
WIG 20	1 721.11	▲ 6.2%	▲ 1.5%	▼ -24.1%	▼ -24.0%	1 954.96	1 613.98	2 411.11	
KGHM	115.45	▲ 18.0%	▼ -2.9%	▼ -17.2%	▼ -42.4%	143.43	97.80	182.20	

^o 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

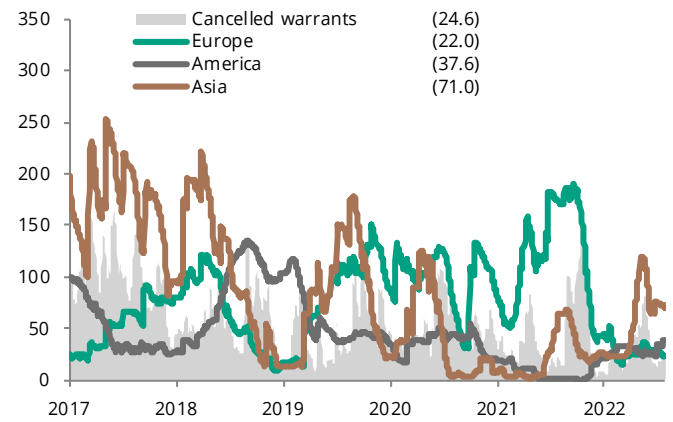
Source: Bloomberg, KGHM Polska Miedź

Copper: official exchange stocks (thousand tonnes)



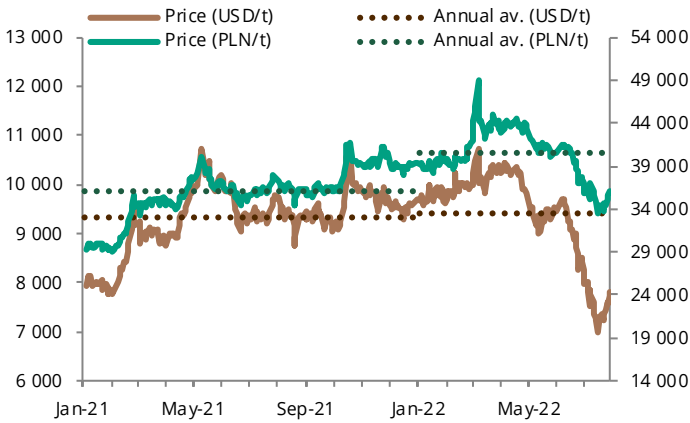
Note: Latest values in brackets. Source: Bloomberg, KGHM

Copper: official LME stocks (thousand tonnes)



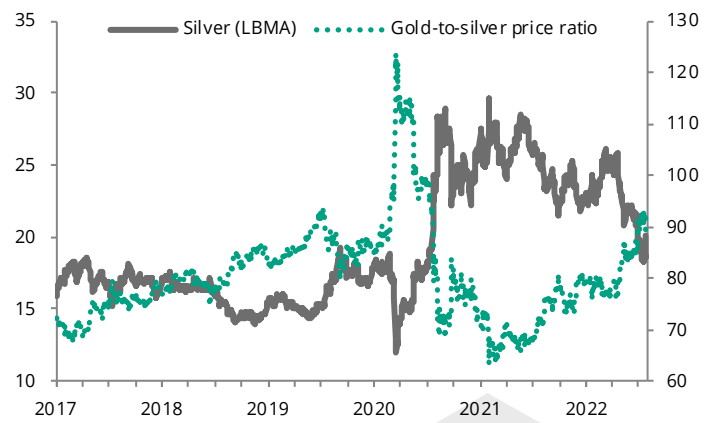
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



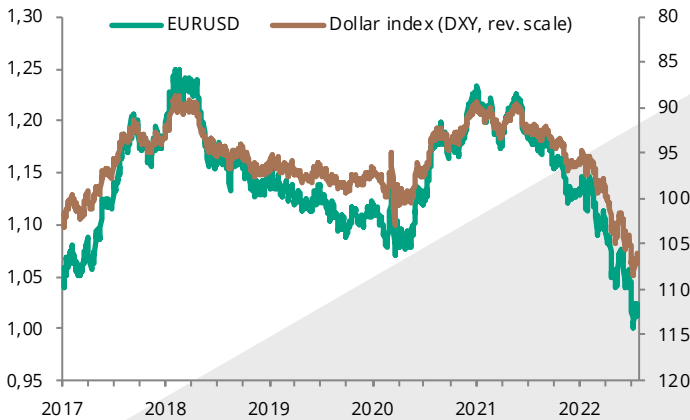
Source: Bloomberg, KGHM Polska Miedź

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



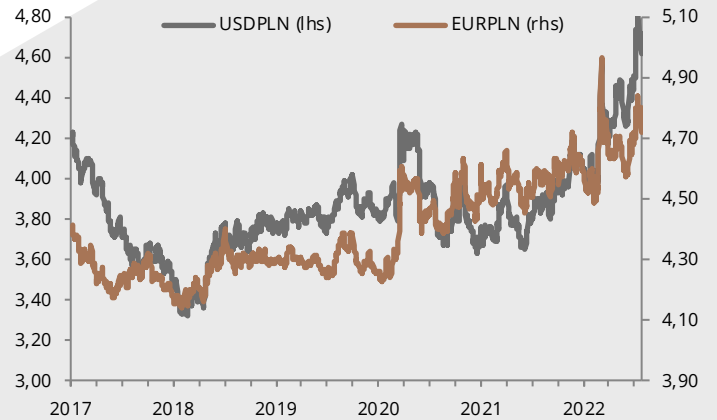
Source: Bloomberg, KGHM Polska Miedź

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:
18 - 31 July 2022.

- 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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