

Market Overview

as of: 14th March 2022

- Copper:** Located in DRC the Kamoakakula mine in 2021 produced 105.9 kt of copper in concentrate, exceeding both initial and elevated production guidance. In the fourth quarter, the production of copper in concentrate in Kamoakakula amounted to 54.5 kt, compared with 41.5 kt produced in the third quarter of 2021 (page 2).
- Nickel:** On March 7, the nickel price on the LME increased by 66% to \$ 48,078 a ton. After discussion, a special LME committee decided to allow the continuation of trade in this metal. Just after 6 a.m. on March 8, the nickel price surpassed 100,000. USD a ton. Now LME policymakers have realized they must suspend trade. At 8:15 the quotes were suspended, although below the record level, still at the level of 80,000 USD a ton (page 3).
- Energy:** The United States introduced a broad ban on Russian oil and gas imports on March 8, and the United Kingdom announced that it would withdraw from the country's black gold imports by the end of 2022. The European Union, which relies on Russia for 40% of its gas imports and 27% of its oil imports, is divided on this point (page 5).
- IMF - Russia:** A Russian default is no longer "an improbable event," IMF Managing Director Kristalina Georgieva told. "It's not that Russia doesn't have money, Russia cannot use this money," she said (page 7).

Key market prices

	Close price	2w chng.
LME (USD/t)		
▲ Copper	10 145.00	2.3%
▲ Nickel	48 226.00	95.2%
LBMA (USD/troz)		
▲ Silver	25.66	6.0%
▲ Gold (PM)	1 978.70	5.0%
FX		
▼ EURUSD	1.0990	-2.0%
▲ EURPLN	4.7924	2.8%
▲ USDPLN	4.3694	4.8%
▼ USDCAD	1.2720	-0.2%
▼ USDCPL	806.03	-0.2%
Stocks		
▲ KGHM	174.40	12.0%

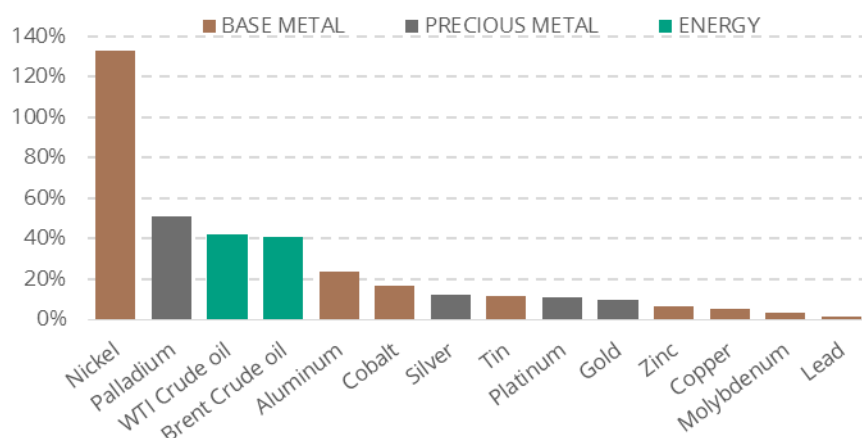
Source: Bloomberg, KGHM Polska Miedź S.A.; (more on page 11)

Important macroeconomic data

Release	For		
 GDP (yoy)	4Q	7.3%	-
 Caixin's manuf. PMI	Feb	50.4	▲
 CPI (yoy)	Feb	7.9%	▲
 GDP (sa, yoy)	4Q	4.6%	-
 Copper production (mt)	Jan	429 923	▼

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

Commodity performance from the beginning of 2022



Source: Reuters, KGHM Polska Miedź S.A.

Market Risk Unit

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Base and precious metals | Other commodities

Copper

Copper Output At Kamo-Kakula 105.9K mt; Exceeds Yearly Production Guidance

Located in DRC the Kamo-Kakula mine in 2021 produced 105.9 kt of copper in concentrate, exceeding both initial and elevated production guidance. In the fourth quarter, the production of copper in concentrate in Kamo-Kakula amounted to 54.5 kt, compared with 41.5 kt produced in the third quarter of 2021.

Canadian mining company Ivanhoe Mines' Kamo-Kakula copper mining complex in the Democratic Republic of Congo produced 105,9 kt of copper-in-concentrate in 2021, surpassing both the initial and increased production guidance ranges for the year. Fourth-quarter copper in concentrate production from Kamo-Kakula was 54,5 kt, up from the 41,5 kt produced in Q3 2021, Ivanhoe Mines said. Copper recoveries at the operation increased from an average of 81% in July to a record of 88.5% in December, while the concentrator is currently running over 15% higher than its design capacity of 3.8 million mt/year. At the end of February, Ivanhoe Mines said Kamo-Kakula's total high- and medium-grade ore surface stockpiles totaled about 4.65 million mt at an estimated grade of 4.58% copper. This comprised 1.52 million mt grading 5.60% copper from the Kakula mine, including 0.81 million mt grading 6.68% copper from the mine's high-grade center, and 0.18 million mt grading 4.05% copper from the Kansoko mine. Having exceeded the upper end of the increased guidance range of 92,500-100,000 mt during its maiden year of production from the concentrator plant, Ivanhoe Mines announced the 2022 production guidance at between 290,000-340,000 mt. This guidance considers the increase in production from start of the Phase 2 concentrator plant, which is on track to begin operations in April, and which will see a doubling of Kamo-Kakula's nameplate milling capacity throughput to 7.6 million mt/year of ore. Ivanhoe Mines said it is currently under way with a de-bottlenecking program, announced in February, to expand the processing capacity to a combined total of 9.2 mt/year of ore. "The de-bottlenecking program is projected to boost copper production to more than 450,000 mt/year by Q2 2023, positioning Kamo-Kakula as the world's fourth largest copper producer," it said.

Other important information on copper market:

- China's copper cathode output jumped 5.8% in February from a month earlier, as major smelters ramped up production after maintenance, data from research house Antaika showed. A group of 22 copper smelters in China, accounting for some 83% of the country's total capacity, made 785,900 tonnes of copper cathodes last month, up from a revised January output of 751,700 tonnes and

3.5% higher than February 2021. Antaika said it expects copper output from these smelters to continue to rise to around 800,000 tonnes in March.

- Peruvian production of copper, tin and molybdenum rose on the year in January as miners brought new projects online, while zinc and lead output fell, the country's energy and mines ministry said. Copper output rose 13% to 199,255 mt in January from 176,737 mt in the same month a year ago due to the start-up of Mina Justa mine and gains at Antamina (+3.8%), Cerro Verde (+12%) and Las Bambas (+28%). Minsur boosted tin output by 15% to 2,4 kt, while molybdenum climbed 0.2% to 2,7 kt on gains at Southern Copper and Cerro Verde. Zinc production dropped 13.2% to 106,5 kt and lead was down 1.8% to 20,6 kt as Canada's Trevali Mining and local miner Buenaventura closed their units.
- Chilean copper production fell to its lowest level in almost five years in January, government data showed. Mines produced 429,9 kt of the red metal in January, down 7.5% from the same month last year and down 14.6% from the previous month of December 2021. The last time monthly production fell this low was in early 2017 when a strike halted production at the Escondida copper mine, the world's biggest. Chile is the world's largest producer of the metal, producing 5.685 million mt in 2021. Last month, the Chilean Copper Commission predicted that the South American country will produce 5.788 million mt this year, a 2.6% increase. But major producers including Anglo American and Antofagasta have warned that a decade-long drought is hitting water supplies at some operations. BHP halted production at its Cerro Colorado mine at the start of the year after a court ordered to stop pumping water from environmentally-sensitive upland wetlands.

Nickel

Trading Chaos That Broke the Nickel Market

On March 7, the nickel price on the LME increased by 66% to \$ 48,078 a ton. After discussion, a special LME committee decided to allow the continuation of trade in this metal. Just after 6 a.m. on March 8, the nickel price surpassed 100,000. USD a ton. Now LME policymakers have realized they must suspend trade. At 8:15 the quotes were suspended, although below the record level, still at the level of 80,000. USD a ton.

The LME decided to cancel all the trades that took place on the morning of March 8 — \$3.9 billion of them, according to a Bloomberg calculation

When the commodity's price went vertical last week, the metals industry plunged into turmoil not seen since the Tin Crisis of 1985. It was 5:42 a.m. on March 8 in London when the nickel market broke. Nickel prices usually move a few hundred dollars per ton in a day. For most of the past decade, they'd traded between \$10,000 and \$20,000. Yet the day before, the market had started to unravel, with prices rising by a stunning 66% to \$48,078. Just after 6 a.m. on March 8 the price of nickel passed \$100,000 a ton. For participants in commodities exchanges, a price rally is not necessarily good news. Miners, traders, and manufacturers often use the market to make short bets—that is, to make money when prices fall. And when those wagers move violently in the opposite direction,

they can be hit with huge margin calls. Nickel's 250% price spike in little more than 24 hours plunged the industry into chaos, triggering billions of dollars in losses for traders who bet the wrong way and leading the London Metal Exchange to suspend trading for the first time in three decades. It marked the first major market failure since Russia's invasion of Ukraine jolted global markets, showing how the removal of one of the world's largest exporters of resources from the financial system in the space of weeks is having ripple effects across the world. The spike was driven in large part by a short squeeze centered on Chinese tycoon Xiang Guangda, who had amassed a big wager that nickel prices would fall through his company Tsingshan Holding Group Co. In a squeeze, rising prices put traders betting on a drop in an ever-tougher financial position, forcing them or brokers and banks doing business on their behalf to buy the asset, a trade known as short covering that can drive prices even higher. Others in the market may also push up prices in anticipation of that short covering. The wild rise of nickel drew comparisons to the short squeezes in stocks such as GameStop Corp. that gripped retail investors for much of last year. The difference is that nickel is a commodity that touches the entire global economy. It's also one of the most important raw materials needed in making batteries for electric vehicles. Xiang isn't just a financial trader making paper bets on price moves. He's in the physical nickel business. He went on to pioneer new methods for producing nickel and stainless steel that upended the markets and made his Tsingshan the world's largest producer of both. Why bet against nickel when you have a nickel business? Xiang wanted to increase Tsingshan's production dramatically by producing so-called nickel matte for electric vehicle batteries. The company had plans to produce 850,000 tons of nickel in 2022, an increase of 40% in a year. But the obvious consequence of so much nickel hitting the market, he believed, would be a fall in its price. Not everyone shared his pessimism about prices. Some hedge funds were buying nickel contracts in a bet on the electric vehicle boom. For a while, it was unclear which view of the market would prevail. Most analysts sided with Xiang, at least in the medium term, believing that nickel production—led by Tsingshan and its competitors in Indonesia—would outpace demand. Everything changed when Russia invaded Ukraine. Russia is the world's third-largest producer of nickel and its largest exporter of refined nickel metal—the type deliverable on the LME. While Russia's nickel exports haven't been targeted by sanctions, U.S. and European buyers have nonetheless sought alternatives to Russian sources. Nickel's price moved sharply higher in the week after Russia's invasion. For Xiang's big short position, that was painful. Remember, when prices move up, traders like Xiang who have sold futures contracts face margin calls; they must put up more cash to cover potential losses. While investors who sell stocks short want the price to drop, in commodity markets many producers, traders, and users take short positions as a hedge against losses on the physical commodities they hold in inventories. In theory, any price changes on the futures market should offset price changes in the value of the inventories—as long as the traders can meet their margin calls. It's not clear to what extent Xiang saw his position as merely a hedge or as a speculative bet. In late February and early March, Tsingshan, which had sales of 352 billion yuan (\$56 billion) last year, paid its margin calls on time. Then on March 7, nickel's

price began its parabolic ascent, surging from \$30,000 a ton to more than \$50,000. The company paid at least some of its margin calls early on Monday but its obligations dwarfed its available cash and bank credit. As the price rose through the London day after offices in Asia had closed, Tsingshan started struggling to pay. By then, the entire nickel industry was in crisis. The LME convened its “special committee,” a small group of metals and legal experts with the power to issue emergency rules for the market. They held a hurried call on Monday evening, but decided to allow the nickel market to continue trading. The LME’s special committee held another call at about 6 a.m. Now they recognized that they had to suspend trading. At 8:15 a.m., the screens stopped flashing, the price was frozen, below the record high but still at \$80,000 a ton. Many producers, traders, and users of nickel with short positions on the LME were facing margin calls many times larger than they were prepared for. The LME made a near-unprecedented decision. It decided to cancel all the trades that took place on Tuesday morning (March 8) — \$3.9 billion of them, according to a Bloomberg calculation. Exchanges sometimes cancel trades when technology glitches or “fat fingers” cause one-off mistakes. But it’s extremely unusual for an exchange to cancel whole sessions of trading after the fact. Crucially, the decision meant traders wouldn’t need to pay margin calls on the basis of the \$80,000 nickel price. Effectively, it rewound the market to the moment when prices closed on Monday (March 7) at \$48,078. Even at that level, clients of LME brokers had failed to pay some \$500 million of margin calls in relation to their short positions on the exchange. Tsingshan accounted for about half that amount. LME’s Chamberlain defended canceling the trades. “Our fundamental responsibility is market stability,” he told Bloomberg TV. “The prices that were being seen during that Asian session were becoming disconnected from, I believe, physical reality.”

Energy

Countries and companies shun Russian crude over Ukraine invasion

The United States introduced a broad ban on Russian oil and gas imports on March 8, and the United Kingdom announced that it would withdraw from the country's black gold imports by the end of 2022. The European Union, which relies on Russia for 40% of its gas imports and 27% of its oil imports, is divided on this point.

JP Morgan estimated around 70% of Russian seaborne oil was struggling to find buyers

As Reuters informs, Russian gas flows to Europe remain stable, but Moscow is starting to face problems in selling its crude oil and oil products as Western sanctions over Russia's invasion of Ukraine and voluntary actions by buyers start to bite. JP Morgan estimated around 70% of Russian seaborne oil was struggling to find buyers, despite record discounts offered for Russian benchmark Urals. The United States imposed a wide ban on Russian oil and gas imports on March 8, and Britain said it would phase out imports of Russian oil by the end of 2022. The European Union, which relies on Russia for 40% of gas and 27% of crude oil imports, is split on whether to follow the United States and Britain. The European

Commission has promised to present a plan by the end of May to make the EU independent of Russian fossil fuels. Canada has said it would ban Russian crude oil imports, and that it was also looking into banning refined oil products. Canada has not imported any Russian crude oil since 2019, but it imported naphtha, diesel and gasoline in 2021. While political debates continue, some buyers appear to be shunning Russian oil anyway to avoid reputational damage or possible legal troubles. Following are actions announced by major European energy companies:

PKN Orlen Poland's largest refiner told Reuters it was continuing to buy Russian crude for its refineries in Poland, Lithuania and the Czech Republic to meet region's energy needs, but was prepared for "any scenario", including a complete suspension of supplies from the East. PKN Orlen has a deal to buy 200,000-337,000 barrels per day from Saudi Aramco, with deliveries starting this year. It is in the process of buying its Polish rival Lotos. The company estimates that post merger the crude from Saudi Aramco would cover up to 45% of total oil demand from the entire ORLEN Group, in Poland, Lithuania and the Czech Republic. SHELL the world's largest petroleum trader said on March 8 that it would stop buying Russian crude and phase out its involvement in all Russian hydrocarbons. The British oil (BP) on Feb. 28 cancelled all fuel oil loadings from the Russian Black Sea port of Taman, as Western sanctions made Russian products less attractive.

Global economies | Foreign exchange markets

IMF No Longer Sees Russia Debt Default as Improbable Event

A Russian default is no longer “an improbable event,” IMF Managing Director Kristalina Georgieva told. “It’s not that Russia doesn’t have money, Russia cannot use this money,” she said.





Russia has \$117 million worth of coupons on dollar bonds coming due on March 16

The International Monetary Fund joined a growing chorus that’s warning of a risk that Russia will default on its debt obligations as the nation suffers a deep recession caused by sanctions in response to its invasion of Ukraine. A Russian default is no longer “an improbable event,” IMF Managing Director Kristalina Georgieva told reporters Thursday. “It’s not that Russia doesn’t have money, Russia cannot use this money,” she said, adding that unprecedented sanctions against the nation will make it difficult for the country to convert its IMF reserve assets, known as special drawing rights, into currency. Fitch Ratings this week said a bond default by Russia is “imminent” as a result of measures ushered in since the war broke out. Trading on credit-default swaps, used to insure against non-payment, has skyrocketed and suggest that there’s a 71% chance of default within a year and 81% within five years. Investors and traders have been trying to understand whether credit-default swaps could be settled if Russia repays its foreign debt in rubles after President Vladimir Putin signed a decree over the weekend allowing the government and Russian companies to do so. Russia has \$117 million worth of coupons on dollar bonds coming due on March 16 that could eventually trigger swaps if paid in local currency. While it’s too early to quantify the war’s damage and reconstruction costs for Ukraine, and the IMF will need to wait for the end of fighting to make an assessment, it’s already clear that they will be massive, Georgieva said. Russia’s invasion has resulted in about \$100 billion worth of Ukrainian assets and infrastructure being lost or destroyed, President Volodymyr Zelenskiy’s chief economic adviser, Oleg Ustenko, said earlier on Thursday (March 10). The IMF on Wednesday (March 9) announced \$1.4 billion in emergency financing for Ukraine will be used to help pay salaries, pensions and fund basic services. Russia is moving into a “deep recession,” with the ruble’s plunge driving up inflation and severely denting the purchasing power of the Russian population, Georgieva said. Georgieva said that while IMF members are highly concerned about the war, there’s been no discussion at the board about suspending Russia’s membership at the fund. The country would need to be excluded on the basis of a violation of its economic obligations based on the IMF’s articles of agreement; to this point, the nation is meeting its obligations, she said. The IMF doesn’t have any loan programs with Russia, and its Moscow office isn’t operational, nor does the institution have a representative in the Russian capital, Georgieva said. The IMF is likely to cut its projection for global growth for this year when it presents the next update to its World Economic Outlook ahead of the lender’s spring meetings next month, Georgieva said. The fund had already cut its projection for 2022 to 4.4% in January as the Covid-19 pandemic enters its third year, citing weaker prospects for the U.S. and

China along with persistent inflation. The war will have global spillovers, including through higher commodity prices such as wheat, corn, metals and fertilizer, and an impact on real incomes via inflation, the IMF chief said. That's particularly dangerous for families living in poverty, for whom food and fuel are a higher proportion of expenses, she said. The pressure from higher oil and gas prices is likely to make financial conditions tighten faster and more than previously expected, a situation that's particularly troubling for emerging markets, Georgieva said.

Macroeconomic calendar

Important macroeconomic data releases

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
China 						
⊕⊕⊕	01-Mar	Official manufacturing PMI	Feb	50.2 ▲	50.1	49.8 ▲
⊕⊕⊕	01-Mar	Caixin's manufacturing PMI	Feb	50.4 ▲	49.1	49.1 ▲
⊕	07-Mar	Foreign reserves (USD bn)	Feb	3 214 ▼	3 222	3 225 ▼
⊕⊕⊕⊕	09-Mar	Consumer inflation CPI (yoy)	Feb	0.9% -	0.9%	0.9% ○
⊕⊕	09-Mar	Producer inflation PPI (yoy)	Feb	8.8% ▼	9.1%	8.6% ▲
⊕	11-Mar	New yuan loans (CNY bn)	Feb	1 230 ▼	3 980	1 450 ▼
Poland 						
⊕⊕⊕⊕⊕	28-Feb	GDP (yoy) - final data	4Q	7.3% -	7.3%	--
⊕⊕⊕⊕⊕	28-Feb	GDP (qoq) - final data	4Q	1.7% -	1.7%	--
⊕⊕⊕	01-Mar	Manufacturing PMI	Feb	54.7 ▲	54.5	54.8 ▼
⊕⊕⊕⊕⊕	08-Mar	NBP base rate decision	Mar	3.50% ▲	2.75%	3.25% ▲
US 						
⊕	28-Feb	Dallas Fed manufacturing activity	Feb	14.0 ▲	2.0	4.3 ▲
⊕⊕⊕	01-Mar	Manufacturing PMI - final data	Feb	57.3 ▼	57.5	57.5 ▼
⊕⊕	01-Mar	ISM Manufacturing	Feb	58.6 ▲	57.6	58.0 ▲
⊕⊕⊕	03-Mar	Composite PMI - final data	Feb	55.9 ▼	56.0	56.0 ▼
⊕⊕⊕	03-Mar	PMI services - final data	Feb	56.5 ▼	56.7	56.7 ▼
⊕⊕	03-Mar	Durable goods orders - final data	Jan	1.6% -	1.6%	1.6% ○
⊕⊕	04-Mar	Change in non-farm payrolls (ths)‡	Feb	678 ▲	481	423 ▲
⊕⊕	04-Mar	Underemployment rate (U6)	Feb	7.2% ▲	7.1%	--
⊕⊕	04-Mar	Unemployment rate	Feb	3.8% ▼	4.0%	3.9% ▼
⊕	04-Mar	Average hourly earnings (yoy)‡	Feb	5.1% ▼	5.5%	5.8% ▼
⊕⊕⊕⊕	10-Mar	Consumer inflation CPI (mom)	Feb	0.8% ▲	0.6%	0.8% ○
⊕⊕⊕⊕	10-Mar	Consumer inflation CPI (yoy)	Feb	7.9% ▲	7.5%	7.9% ○
⊕⊕	11-Mar	University of Michigan confidence index - preliminary data	Mar	59.7 ▼	62.8	61.0 ▼
Eurozone 						
⊕⊕⊕	01-Mar	Manufacturing PMI - final data	Feb	58.2 ▼	58.4	58.4 ▼
⊕⊕⊕⊕	02-Mar	Core CPI (yoy) - preliminary data	Feb	2.7% ▲	2.3%	2.6% ▲
⊕⊕⊕⊕	02-Mar	CPI estimate (yoy)	Feb	5.8% ▲	5.1%	5.6% ▲
⊕⊕⊕	03-Mar	Composite PMI - final data	Feb	55.5 ▼	55.8	55.8 ▼
⊕⊕⊕	03-Mar	Services PMI - final data	Feb	55.5 ▼	55.8	55.8 ▼
⊕⊕	03-Mar	Unemployment rate	Jan	6.8% ▼	7.0%	6.9% ▼
⊕⊕	03-Mar	Producer inflation PPI (yoy)‡	Jan	30.6% ▲	26.3%	27.3% ▲
⊕⊕	04-Mar	Retail sales (yoy)‡	Jan	7.8% ▲	2.1%	9.2% ▼
⊕⊕⊕⊕⊕	08-Mar	GDP (sa, yoy) - final data	4Q	4.6% -	4.6%	4.6% ○
⊕⊕⊕⊕⊕	08-Mar	GDP (sa, qoq) - final data	4Q	0.3% -	0.3%	0.3% ○
⊕⊕⊕	08-Mar	Gross fixed capital (qoq)	4Q	3.5% ▲	-0.9%	0.5% ▲
⊕⊕⊕	08-Mar	Households consumption (qoq)‡	4Q	-0.6% ▼	4.5%	-0.4% ▼
⊕⊕⊕⊕⊕	10-Mar	ECB main refinancing rate	Mar	0.00% -	0.00%	0.00% ○
⊕⊕⊕⊕⊕	10-Mar	ECB deposit facility rate	Mar	-0.5% -	-0.5%	-0.5% ○

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
Germany						
🔔🔔🔔	01-Mar	Harmonized consumer inflation HICP (yoy) - preliminary data	Feb	5.5% ▲	5.1%	5.4% ▲
🔔🔔🔔	01-Mar	Consumer inflation CPI (yoy) - preliminary data	Feb	5.1% ▲	4.9%	5.1% ○
🔔🔔	01-Mar	Manufacturing PMI - final data	Feb	58.4 ▼	58.5	58.5 ▼
🔔🔔	02-Mar	Unemployment rate	Feb	5.0% ▼	5.1%	5.1% ▼
🔔🔔	03-Mar	Composite PMI - final data	Feb	55.6 ▼	56.2	56.2 ▼
🔔🔔	07-Mar	Factory orders (wda, yoy)‡	Jan	7.3% ▲	5.9%	5.8% ▲
🔔🔔	07-Mar	Retail sales (yoy)‡	Jan	10.3% ▲	1.0%	9.5% ▲
🔔🔔🔔	08-Mar	Industrial production (wda, yoy)‡	Jan	1.8% ▲	-2.7%	-1.7% ▲
France						
🔔🔔	01-Mar	Manufacturing PMI - final data	Feb	57.2 ▼	57.6	57.6 ▼
🔔🔔	03-Mar	Composite PMI - final data	Feb	55.5 ▼	57.4	57.4 ▼
🔔🔔🔔	04-Mar	Industrial production (yoy)‡	Jan	-1.5% ▼	0.0%	-3.2% ▲
Italy						
🔔🔔🔔	01-Mar	Harmonized consumer inflation HICP (yoy) - preliminary data	Feb	6.2% ▲	5.1%	5.5% ▲
🔔🔔	01-Mar	Manufacturing PMI	Feb	58.3 -	58.3	58.0 ▲
🔔🔔	03-Mar	Composite PMI	Feb	53.6 ▲	50.1	53.6 ○
🔔🔔	03-Mar	Unemployment rate‡	Jan	8.8% ▼	9.0%	9.0% ▼
🔔🔔🔔🔔	04-Mar	GDP (wda, yoy) - final data‡	4Q	6.2% -	6.2%	6.4% ▼
🔔🔔🔔🔔	04-Mar	GDP (wda, qoq) - final data	4Q	0.6% -	0.6%	0.6% ○
🔔🔔🔔	09-Mar	Industrial production (wda, yoy)‡	Jan	-2.6% ▼	4.8%	3.2% ▼
UK						
🔔🔔	01-Mar	Manufacturing PMI (sa) - final data	Feb	58.0 ▲	57.3	57.3 ▲
🔔🔔	03-Mar	Composite PMI - final data	Feb	59.9 ▼	60.2	60.2 ▼
🔔🔔🔔	11-Mar	Industrial production (yoy)	Jan	2.3% ▲	0.4%	1.9% ▲
Japan						
🔔🔔🔔	28-Feb	Industrial production (yoy) - preliminary data	Jan	-0.9% ▼	2.7%	0.1% ▼
🔔🔔	01-Mar	Manufacturing PMI - final data	Feb	52.7 ▼	52.9	--
🔔🔔	03-Mar	Composite PMI - final data	Feb	45.8 ▲	44.6	--
🔔🔔🔔🔔	09-Mar	GDP (annualized, qoq) - final data	4Q	4.6% ▼	5.4%	5.6% ▼
🔔🔔🔔🔔	09-Mar	GDP (qoq, sa) - final data	4Q	1.1% ▼	1.3%	1.4% ▼
Chile						
🔔🔔	28-Feb	Total copper production (metric tons)	Jan	429 923 ▼	503 605	--
🔔🔔	28-Feb	Manufacturing (yoy)	Jan	2.6% ▲	2.3%	4.0% ▼
🔔🔔🔔	01-Mar	Economic activity (yoy)	Jan	9.0% ▼	10.1%	10.7% ▼
🔔🔔	07-Mar	Copper exports (USD mn)	Feb	3 836 ▼	3 870	--
🔔	07-Mar	Nominal wages (yoy)	Jan	7.5% ▲	6.8%	--
Canada						
🔔🔔🔔🔔	01-Mar	GDP (yoy)	Dec	3.9% ▲	3.8%	3.8% ▲
🔔🔔🔔🔔	01-Mar	GDP (annualized, qoq)‡	4Q	6.7% ▲	5.5%	6.5% ▲
🔔🔔🔔🔔	02-Mar	BoC base rate decision	Mar	0.50% ▲	0.25%	0.50% ○
🔔🔔	11-Mar	Capacity utilization	4Q	82.9% ▲	81.4%	81.9% ▲
🔔🔔	11-Mar	Net change in employment (ths)	Feb	337 ▲	- 200	128 ▲

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

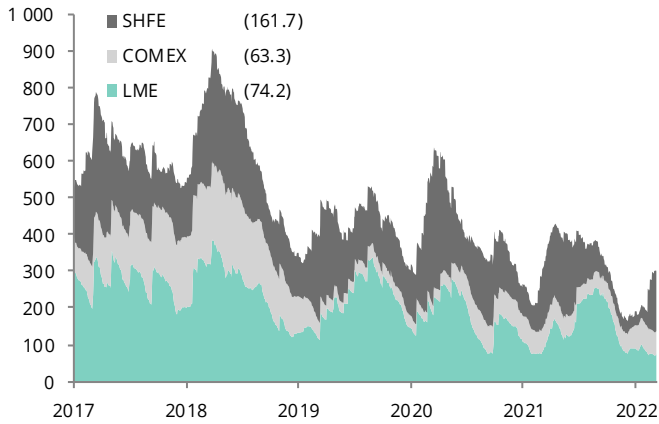
Key base & precious metal prices, exchange rates and other important market factors

<i>(as of: 11-Mar-22)</i>		Price change ¹					From year beginning ²		
	Price	2W	QTD	YTD	1Y	Average	Min	Max	
LME (USD/t; Mo in USD/lbs)									
Copper	10 145.00	▲ 2.3%	▲ 4.7%	▲ 4.7%	▲ 11.9%	9 933.82	9 565.00	10 730.00	
Molybdenum	19.26	▲ 2.8%	▲ 3.1%	▲ 3.1%	▲	19.01	18.69	19.26	
Nickel	48 226.00	▲ 95.2%	▲ 130.5%	▲ 130.5%	▲ 193.5%	25 600.06	20 480.00	48 241.00	
Aluminum	3 472.00	▲ 3.5%	▲ 23.7%	▲ 23.7%	▲ 60.8%	3 224.12	2 815.50	3 984.50	
Tin	44 025.00	▼ -2.6%	▲ 11.1%	▲ 11.1%	▲ 42.0%	43 640.20	39 400.00	50 050.00	
Zinc	3 835.00	▲ 5.4%	▲ 5.6%	▲ 5.6%	▲ 37.8%	3 690.45	3 535.00	4 248.00	
Lead	2 361.00	▲ 0.1%	▲ 1.4%	▲ 1.4%	▲ 22.0%	2 341.43	2 199.00	2 513.00	
LBMA (USD/troz)									
Silver	25.66	▲ 6.0%	▲ 11.1%	▲ 11.1%	▼ -2.3%	23.71	22.24	26.18	
Gold ²	1 978.70	▲ 5.0%	▲ 8.7%	▲ 8.7%	▲ 14.8%	1 860.63	1 788.15	2 039.05	
LPPM (USD/troz)									
Platinum ²	1 057.00	▲ 0.2%	▲ 9.9%	▲ 9.9%	▼ -12.5%	1 035.33	931.00	1 151.00	
Palladium ²	2 766.00	▲ 19.2%	▲ 43.5%	▲ 43.5%	▲ 17.5%	2 313.73	1 854.00	3 015.00	
FX ³									
EURUSD	1.0990	▼ -2.0%	▼ -3.0%	▼ -3.0%	▼ -8.2%	1.1270	1.0892	1.1464	
EURPLN	4.7924	▲ 2.8%	▲ 4.2%	▲ 4.2%	▲ 4.6%	4.6027	4.4879	4.9647	
USDPLN	4.3694	▲ 4.8%	▲ 7.6%	▲ 7.6%	▲ 14.1%	4.0859	3.9218	4.5722	
USDCAD	1.2720	▼ -0.2%	▲ 0.3%	▲ 0.3%	▲ 1.3%	1.2680	1.2474	1.2867	
USDCNY	6.3393	▲ 0.3%	▼ -0.3%	▼ -0.3%	▼ -2.4%	6.3426	6.3093	6.3830	
USDCLP	806.03	▼ -0.2%	▼ -4.6%	▼ -4.6%	▲ 10.6%	812.38	787.05	852.03	
Money market									
3m LIBOR USD	0.826	▲ 0.30	▲ 0.62	▲ 0.62	▲ 0.64	0.402	0.216	0.826	
3m EURIBOR	-0.502	▲ 0.03	▲ 0.07	▲ 0.07	▲ 0.04	-0.539	-0.576	-0.491	
3m WIBOR	4.220	▲ 0.63	▲ 1.68	▲ 1.68	▲ 4.01	3.228	2.590	4.220	
5y USD interest rate swap	2.033	▲ 0.07	▲ 0.66	▲ 0.66	▲ 1.15	1.784	1.445	2.033	
5y EUR interest rate swap	0.679	▲ 0.06	▲ 0.66	▲ 0.66	▲ 1.01	0.353	0.031	0.679	
5y PLN interest rate swap	4.950	▲ 0.81	▲ 1.21	▲ 1.21	▲ 3.84	4.105	3.780	4.950	
Fuel									
WTI Cushing	109.33	▲ 18.1%	▲ 42.0%	▲ 42.0%	▲ 65.6%	92.21	76.99	123.70	
Brent	116.59	▲ 19.4%	▲ 50.5%	▲ 50.5%	▲ 68.1%	96.34	79.83	133.89	
Diesel NY (ULSD)	357.26	▲ 25.0%	▲ 49.1%	▲ 49.1%	▲ 82.6%	294.40	241.70	458.23	
Others									
VIX	30.75	▲ 3.16	▲ 13.53	▲ 13.53	▲ 8.84	26.12	16.91	36.45	
BBG Commodity Index	126.39	▲ 12.5%	▲ 27.5%	▲ 27.5%	▲ 46.5%	111.07	100.58	132.63	
S&P500	4 204.31	▼ -4.1%	▼ -11.8%	▼ -11.8%	▲ 6.7%	4 456.64	4 170.70	4 793.54	
DAX	13 628.11	▼ -6.4%	▼ -14.2%	▼ -14.2%	▼ -6.5%	15 064.76	12 831.51	16 271.75	
Shanghai Composite	3 309.75	▼ -4.1%	▼ -9.1%	▼ -9.1%	▼ -3.7%	3 476.49	3 256.39	3 632.33	
WIG 20	2 033.49	▲ 3.2%	▼ -10.3%	▼ -10.3%	▲ 2.0%	2 170.01	1 817.45	2 411.11	
KGHM	174.40	▲ 12.0%	▲ 25.1%	▲ 25.1%	▼ -9.0%	152.63	135.05	178.20	

° 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

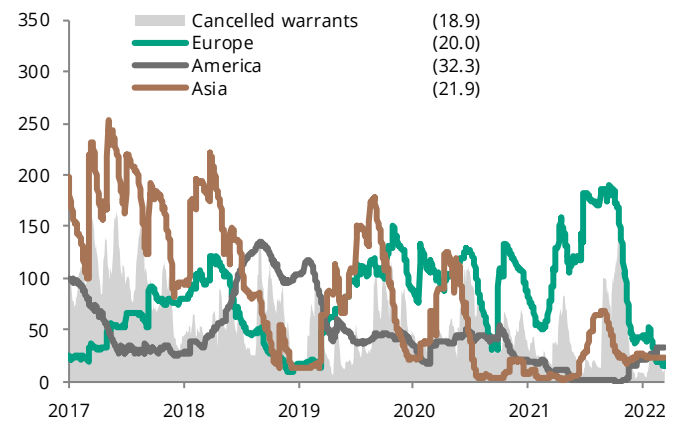
Source: Bloomberg, KGHM Polska Miedź

Copper: official exchange stocks (thousand tonnes)



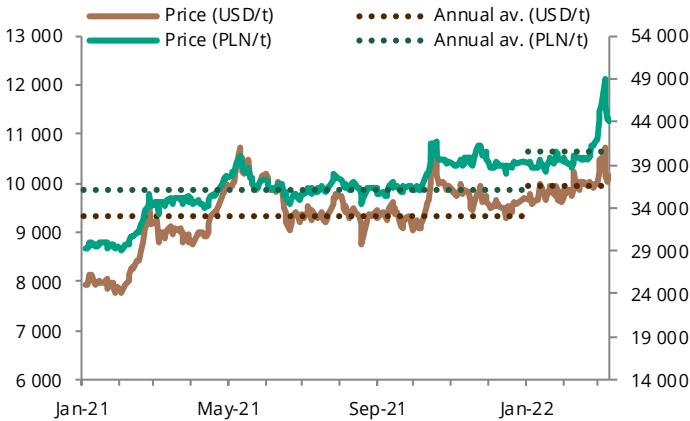
Note: Latest values in brackets. Source: Bloomberg, KGHM

Copper: official LME stocks (thousand tonnes)



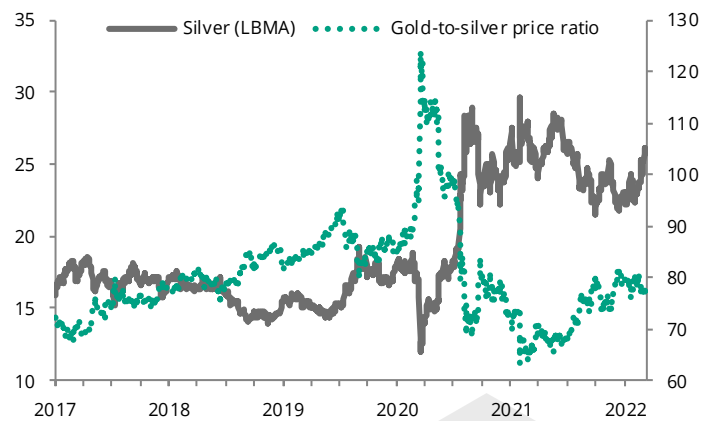
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



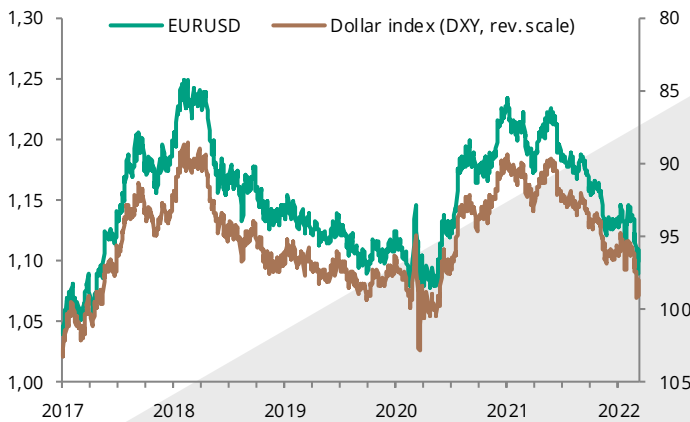
Source: Bloomberg, KGHM Polska Miedź

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



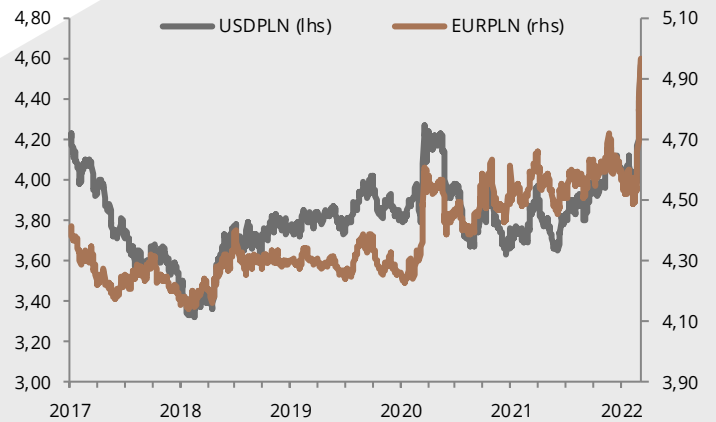
Source: Bloomberg, KGHM Polska Miedź

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 February – 13 March 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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