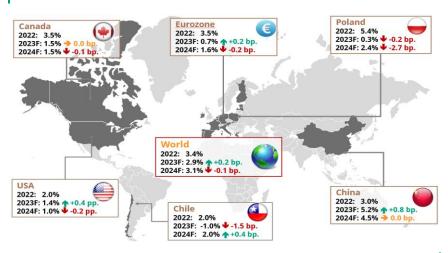


Market Overview

- Copper: Peru has been experiencing an escalation of civil unrest since early December, with key mines such as Las Bambas and Antapaccay being hit by protests. In Panama, First Quantum Mine is in a dispute with the government over tax issues, while in the Democratic Republic of the Congo, China's CMOC is in a dispute with state-owned mining company Gecaminess over royalties from their Tenke Fungurume project (page 2).
- Precious metals: For Barrick Gold, the significant increase in mineral resources provides a long-term basis for the potential growth of the current production profile from approximately 5.5 million ounces of gold-equivalent per year to approximately 6.5 million ounces per year by the end of this decade (page 4).
- IMF: For most economies, the priority remains achieving a sustained reduction in inflation toward target levels. Signs are apparent that monetary policy tightening is starting to cool demand and inflation, but the full impact is unlikely to be realized before 2024 (page 5).

IMF World Economic Outlook – January 2023



Source: IMF, KGHM Polska Miedź S.A.



Key market prices

| | | Close price | 2w chng. | | |
|----------------|-----------------|-------------|----------|--|--|
| | LME (USD/t) | | | | |
| \blacksquare | Copper | 8 905.00 | -4.7% | | |
| \blacksquare | Nickel | 27 710.00 | -4.7% | | |
| | LBMA (USD/troz) | | | | |
| \blacksquare | Silver | 22.12 | -6.8% | | |
| \blacksquare | Gold (PM) | 1 859.70 | -3.3% | | |
| | FX | | | | |
| \blacksquare | EURUSD | 1.0690 | -1.6% | | |
| | EURPLN | 4.7716 | 1.4% | | |
| | USDPLN | 4.4565 | 3.0% | | |
| | USDCAD | 1.3362 | 0.4% | | |
| \blacksquare | USDCLP | 796.27 | -0.8% | | |
| | Stocks | | | | |
| • | KGHM | 133.65 | -8.6% | | |

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

Important macroeconomic data

| | Release | For | |
|-------------|------------------------|-----|-----------|
| ★ }: | Caixin's manuf. PMI | Jan | 49.2 |
| | Fed upper rate | Feb | 4.75% 🔺 |
| | Manufacturing PMI | Jan | 47.5 🔺 |
| | PPI (yoy) | Dec | 24.6% |
| * | Copper production (mt) | Dec | 497 971 🔺 |

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

Market Risk Unit

marketrisk@kghm.com



Base and precious metals | Other commodities

Copper

Disruptions Raise The Chance Of Copper Supply Tightness

Peru has been experiencing an escalation of civil unrest since early December, with key mines such as Las Bambas and Antapaccay being hit by protests. In Panama, First Quantum Mine is in a dispute with the government over tax issues, while in the Democratic Republic of the Congo, China's CMOC is in a dispute with state-owned mining company Gecaminess over royalties from their Tenke Fungurume project.

According to Reuters production disruptions in major copper producing regions Latin America and Africa have raised the stakes for a tighter market this year, but analysts say it is too soon to downgrade forecasts for global supplies. Interruptions to supplies in Latin America combined with the easing of COVID measures in top consumer China fuelled a rally in copper prices last month, taking them to a seven-month high of \$9,550.50 a tonne. Peru, the world's second-largest copper producer, has seen social unrest escalate since early December, with key mines such as MMG's Las Bambas and Glencore's Antapaccay hit by road blockades and attacks by protesters. The Andean nation accounts for about 10% of global mined copper supplies at 22 million tonnes last year, according to U.S. Geological Survey. In Panama, First Quantum Mine is in a dispute with the government over taxes, while in Democratic Republic of Congo China's CMOC is in a stand-off with state-miner Gecaminess about royalties from their Tenke Fungurume project. Analysts typically factor in loss of production from disruptions at 5% of total mined copper supplies. Wood Mackenzie analyst Nick Pickens said the risks to supply from Latin America are high. "But we already have over a million tonnes worth of disruption built into our mine supply forecast." "There are concerns around Tenke in Congo. But even with disruptions, we do see copper supplies growing. " Mined copper supplies are expected to climb more than 5% this year to between 23 and 26 million tonnes this year due to new projects such as Anglo American's Quellaveco in Peru, leaving the market with a small surplus. "Peru is obviously a concern but so far production disruptions have not been that significant," said Macquarie analyst Alice Fox. "Logistics are impacting ability to transport supplies in and concentrates out, so the risks lie with the duration of the protests and road blockades but we note the government is working to clear these." However, analysts at Morgan Stanley, which also use a 5% disruption allowance, are convinced copper supplies will come under pressure this year. "For 2023, we have set (the disruption allowance) at 5.5%, rising to 6.5% for 2024 to account for what we think are heightened supply-side risks," they said in a note.



Brazil okays BHP's \$6.6 billion acquisition of OZ Minerals

If successful, BHP's acquisition of OZ Minerals will be the largest such deal in the Australian mining sector since BHP's \$12.1 billion purchase of Petrohawk Energy in 2011.

Brazilian regulators have cleared BHP's intended acquisition of Australian copper-gold producer OZ Minerals for A\$9.6 billion (\$6.6bn), bringing the world's no.1 miner closer to securing its biggest deal in more than a decade. OZ Minerals has a number of operations in Brazil, including the Santa Lúcia iron oxide coppergold mineral deposit, the Antas copper-gold mine, and CentroGold, one of the country's largest undeveloped gold projects. The transaction, unanimously backed by OZ Minerals' board in November, still requires the approval of Australia's regulatory bodies and the copper-gold miner shareholders. If successful, the deal would become the largest mining deal in Australia since BHP's \$12.1 billion purchase of Petrohawk Energy in 2011 and it would consolidate the company's position as one of the world's largest producers of copper. The metal is considered key for the world's clean energy transition, which is expected to boost demand by almost 60% over the next two decades. Since BHP first announced its intention of buying OZ Minerals in August last year, copper prices have shot up 20%, from \$3.55 per pound up to \$4.27. This has led some shareholders to indicate they will vote against the existing deal. "The reality of the situation is that the BHP offer now looks a little anaemic," David Franklyn of Argonaut Funds Management wrote on January 30. In his opinion, the Australian miner has one of the best exposures to the global copper market and sees "no reason to sell out cheaply to BHP." OZ Minerals shareholders will vote in early April on the A\$28.25-a-share bid, which represents a 49% premium increase on the miner's share price prior to BHP's initial offer.

Other important information on copper market:

Global copper smelting activity in January rose to the highest levels in a year as plants in top refined metal producer China boosted output, data from satellite surveillance of metal processing plants showed. January is traditionally a strong month for copper production in China, while favourable economics also provided a boost, according to a joint statement from commodities broker Marex and SAVANT. Earth-i, which specialises in observational data of the earth, tracks smelters representing 80% to 90% of global production. Its global copper dispersion index, a measure of smelter activity, rose to 50.1 in January, the highest since January last year and up from to 48.0 in December. Under the dispersion index, 50 points indicate that smelters are operating at the average level of the past 12 months. It also has a second index showing the percentage of active smelters. The global inactive capacity index was 9.4% in January, the lowest reading in 11 months.



Precious Metals

Barrick's gold reserves grow to 78 million oz. in 2022

For Barrick Gold, the significant increase in mineral resources provides a long-term basis for the potential growth of the current production profile from approximately 5.5 million ounces of gold-equivalent per year to approximately 6.5 million ounces per year by the end of this decade.

Barrick Gold grew attributable proven and probable gold reserves by 6.7 million oz. in 2022. Using a \$1,300/oz. price, reserves now stand at 78 million oz. of gold. In 2021, reserves were 69 million oz. using a \$1,200/oz. price. The largest increase occurred at Pueblo Viejo, where the completed prefeasibility study for the new Naranjo tailings storage facility added 6.5 million oz. of gold reserves. Mine life will be extended beyond 2040 and as a result, the 2022 reserves for the region increased to 27 million oz. from 21 million oz. in 2021. Barrick's profile as a copper producer is also growing. Exploration at the Lumwana and Jabal Sayid mines added 640 million lb. of copper to proven and probable reserves in 2022. This rise effectively doubled copper reserves. When all was tallied at the end of 2022, Barrick had gold reserves of 1.4 billion tonnes grading 1.67 g/t gold, copper reserves of 1.5 billion tonnes grading 0.38% copper, and silver reserves of 980 million tonnes at 5.39 g/t silver. President and CEO Mark Bristow said in a sector of diminishing reserves and resources, Barrick's strategy of investing in organic growth through exploration and mineral resource management has replenished and delivered significant value within the company's asset base. "While we continue to evaluate all new opportunities against our strategic filters, we have always believed that finding our ounces is better than buying them, and this year's resource and reserve statement showcases the unmatched potential of our organic growth pipeline," Bristow said in a statement. "The substantial growth in our mineral resources lays the longterm foundation to potentially grow our current attributable production profile of approximately 5.5 million gold-equivalent oz. per year to approximately 6.5 million gold-equivalent oz. per year by the end of this decade, which would include production from Reko Dig and the Lumwana super pit," said mineral resource management and evaluation executive Simon Bottoms.



Global economies | Foreign exchange markets

WEO - World Economic Outlook

For most economies, the priority remains achieving a sustained reduction in inflation toward target levels. Signs are apparent that monetary policy tightening is starting to cool demand and inflation, but the full impact is unlikely to be realized before 2024.

The global fight against inflation, Russia's war in Ukraine, and a resurgence of COVID-19 in China weighed on global economic activity in 2022, and the first two factors will continue to do so in 2023. Despite these headwinds, real GDP was surprisingly strong in the third quarter of 2022 in numerous economies, including the United States, the euro area, and major emerging market and developing economies. The sources of these surprises were in many cases domestic: stronger-than-expected private consumption and investment amid tight labor markets and greater-than-anticipated fiscal support. Households spent more to satisfy pent-up demand, particularly on services, partly by drawing down their stock of savings as economies reopened. Business investment rose to meet demand. On the supply side, easing bottlenecks and declining transportation costs reduced pressures on input prices and allowed for a rebound in previously constrained sectors, such as motor vehicles. Energy markets have adjusted faster than expected to the shock from Russia's invasion of Ukraine. In the fourth quarter of 2022, however, this uptick is estimated to have faded in most—though not all--major economies. US growth remains stronger than expected, with consumers continuing to spend from their stock of savings (the personal saving rate is at its lowest in more than 60 years, except for July 2005), unemployment near historic lows.

Economic activity in China slowed in the fourth quarter amid multiple large COVID-19 outbreaks. Renewed lockdowns accompanied the outbreaks until the relaxation of COVID-19 restrictions in November and December. Real estate investment continued to contract. The authorities have responded with additional monetary and fiscal policy easing, new vaccination targets for the elderly, and steps to support the completion of unfinished real estate projects. However, consumer and business sentiment remained subdued in late 2022. China's slowdown has reduced global trade growth and international commodity prices.

Signs are apparent that monetary policy tightening is starting to cool demand and inflation, but the full impact is unlikely to be realized before 2024. Global headline inflation appears to have peaked in the third quarter of 2022. Prices of fuel and nonfuel commodities have declined, lowering headline inflation, notably in the United States, the euro area, and Latin America. But underlying (core) inflation has not yet peaked in most economies and remains well above prepandemic levels. These developments have caused central banks to raise rates faster than expected, especially in the United States and the euro area, and to signal that rates will stay elevated for longer. With the peak in US headline



inflation and an acceleration in rate hikes by several non-US central banks, the dollar has weakened since September but remains significantly stronger than a year ago.

European economic growth in 2022 was more resilient than expected in the face of the large negative terms-of-trade shock from the war in Ukraine. This resilience partly reflects government support of about 1.2 percent of European Union GDP to households and firms hit by the energy crisis, as well as dynamism from economies reopening. Gas prices have declined by more than expected amid higher non-Russian pipeline and liquefied natural gas flows, compression of demand for gas, and a warmer-than-usual winter. Consumer confidence and business sentiment have worsened. With inflation at about 10 percent or above in several euro area countries and the United Kingdom, household budgets remain stretched. The accelerated pace of rate increases by the Bank of England and the European Central Bank is tightening financial conditions and cooling demand in the housing sector and beyond.

Global growth, estimated at 3.4 percent in 2022, is projected to fall to 2.9 percent in 2023 before rising to 3.1 percent in 2024. Compared with the October forecast, the estimate for 2022 and the forecast for 2023 are both higher by about 0.2 percentage point. Negative growth in global GDP or global GDP per capita is not expected. The decline in growth in 2023 from 2022 is driven by advanced economies. Growth is expected to pick up in China with the full reopening in 2023. The expected pickup in 2024 in both advance and emerging economies reflects gradual recovery from the effects of the war in Ukraine and subsiding inflation. Following the path of global demand, world trade growth is expected to decline in 2023 to 2.4 percent, despite an easing of supply bottlenecks, before rising to 3.4 percent in 2024. These forecasts are based on a number of assumptions, including on fuel and nonfuel commodity prices, which have generally been revised down since October, and on interest rates, which have been revised up. In 2023, oil prices are projected to fall by about 16 percent, while nonfuel commodity prices are expected to fall by, on average, 6.3 percent. Global interest rate assumptions are revised up, reflecting intensified actual and signaled policy tightening by major central banks since October. For advanced economies, growth is projected to decline sharply from 2.7 percent in 2022 to 1.2 percent in 2023 before rising to 1.4 percent in 2024, with a downward revision of 0.2 percentage point for 2024. In the United States, growth is projected to fall from 2.0 percent in 2022 to 1.4 percent in 2023 and 1.0 percent in 2024. Growth in the euro area is projected to bottom out at 0.7 percent in 2023 before rising to 1.6 percent in 2024.

For emerging market and developing economies, growth is projected to rise modestly, from 3.9 percent in 2022 to 4.0 percent in 2023 and 4.2 percent in 2024, with an upward revision of 0.3 percentage point for 2023 and a downward revision of 0.1 percentage point for 2024. Growth in emerging and developing Asia is expected to rise in 2023 and 2024 to 5.3 percent and 5.2 percent, respectively, after the deeper-than-expected slowdown in 2022 to 4.3 percent attributable to China's economy. China's real GDP slowdown in the fourth quarter of 2022 implies a 0.2 percentage point downgrade for 2022 growth



to 3.0 percent. Growth in China is projected to rise to 5.2 percent in 2023, reflecting rapidly improving mobility, and to fall to 4.5 percent in 2024 before settling at below 4 percent over the medium term amid declining business dynamism and slow progress on structural reforms.

Growth in India is set to decline from 6.8 percent in 2022 to 6.1 percent in 2023 before picking up to 6.8 percent in 2024. Growth in the ASEAN-5 countries (Indonesia, Malaysia, Philippines, Singapore, Thailand) is similarly projected to slow to 4.3 percent in 2023 and then pick up to 4.7 percent in 2024. Growth in emerging and developing Europe is projected to have bottomed out in 2022 at 0.7 percent and, since the October forecast, has been revised up for 2023 by 0.9 percentage point to 1.5 percent. In Latin America and the Caribbean, growth is projected to decline from 3.9 percent in 2022 to 1.8 percent in 2023, with an upward revision for 2023 of 0.1 percentage point since October. Growth in the Middle East and Central Asia is projected to decline from 5.3 percent in 2022 to 3.2 percent in 2023, with a downward revision of 0.4 percentage point since October.

About 84 percent of countries are expected to have lower headline (consumer price index) inflation in 2023 than in 2022. Global inflation is set to fall from 8.8 percent in 2022 (annual average) to 6.6 percent in 2023 and 4.3 percent in 2024—above pre-pandemic (2017–19) levels of about 3.5 percent. The projected disinflation partly reflects declining international fuel and nonfuel commodity prices due to weaker global demand. It also reflects the cooling effects of monetary policy tightening on underlying (core) inflation, which globally is expected to decline from 6.9 percent in the fourth quarter of 2022 (year over year) to 4.5 percent by the fourth quarter of 2023.

In advanced economies, annual average inflation is projected to decline from 7.3 percent in 2022 to 4.6 percent in 2023 and 2.6 percent in 2024—above target in several cases. In emerging market and developing economies, projected annual inflation declines from 9.9 percent in 2022 to 8.1 percent in 2023 and 5.5 percent in 2024, above the 4.9 percent pre-pandemic (2017–19) average. In low-income developing countries, inflation is projected to moderate from 14.2 percent in 2022 to 8.6 percent in 2024—still high, but close to the pre-pandemic average.

For most economies, the priority remains achieving a sustained reduction in inflation toward target levels.



Macroeconomic calendar

Important macroeconomic data releases

| Weight Dat | | Event | For | Reading | 1 | Previous | Consensus | | |
|------------|--------|--|-----|---------|------------------|----------|-----------|---|--|
| | | China | | | | | *3 | | |
| 000 | 31-Jan | Official manufacturing PMI | Jan | 50.1 | A | 47.0 | 50.1 | 0 | |
| 000 | 01-Feb | Caixin's manufacturing PMI | Jan | 49.2 | | 49.0 | 49.8 | | |
| 0 | 07-Feb | Foreign reserves (USD bn) | Jan | 3 184 | | 3 128 | 3 155 | | |
| 0000 | 10-Feb | Consumer inflation CPI (yoy) | Jan | 2.1% | | 1.8% | 2.1% | 0 | |
| 00 | 10-Feb | Producer inflation PPI (yoy) | Jan | -0.8% | \blacksquare | -0.7% | -0.5% | | |
| 0 | 10-Feb | New yuan loans (CNY bn)‡ | Jan | 4 900 | | 1 398 | 4 200 | | |
| | | Poland | | | | | | | |
| 000 | 01-Feb | Manufacturing PMI | Jan | 47.5 | \blacktriangle | 45.6 | 46.4 | | |
| 00000 | 08-Feb | NBP base rate decision | Feb | 6.75% | - | 6.75% | 6.75% | O | |
| | | US | | | | | | | |
| 0 | 30-Jan | Dallas Fed manufacturing activity‡ | Jan | - 8.4 | \blacktriangle | - 20.0 | - 15.0 | | |
| 00000 | 01-Feb | FOMC base rate decision - upper bound (Fed) | Feb | 4.75% | | 4.50% | 4.75% | O | |
| 00000 | 01-Feb | FOMC base rate decision - lower bound (Fed) | Feb | 4.50% | | 4.25% | 4.50% | O | |
| 000 | 01-Feb | Manufacturing PMI - final data | Jan | 46.9 | | 46.8 | 46.8 | | |
| 00 | 01-Feb | ISM Manufacturing | Jan | 47.4 | \blacksquare | 48.4 | 48.0 | | |
| 00 | 02-Feb | Durable goods orders - final data | Dec | 5.6% | - | 5.6% | 5.6% | C | |
| 000 | 03-Feb | Composite PMI - final data | Jan | 46.8 | | 46.6 | 46.6 | | |
| 000 | 03-Feb | PMI services - final data | Jan | 46.8 | | 46.6 | 46.6 | | |
| 00 | 03-Feb | Change in non-farm payrolls (ths)‡ | Jan | 517 | | 260 | 189 | | |
| 00 | 03-Feb | Underemployment rate (U6) | Jan | 6.6% | | 6.5% | | | |
| 00 | 03-Feb | Unemployment rate | Jan | 3.4% | ▼ | 3.5% | 3.6% | | |
| 0 | 03-Feb | Average hourly earnings (yoy)‡ | Jan | 4.4% | ▼ | 4.8% | 4.3% | | |
| 00 | 10-Feb | University of Michigan confidence index - preliminary data | Feb | 66.4 | | 64.9 | 65.0 | | |
| | | Eurozone | | | | | | | |
| 0 | 30-Jan | Economic confidence‡ | Jan | 99.9 | A | 97.1 | 97.0 | | |
| 9 | 30-Jan | Industrial confidence‡ | Jan | 1.3 | | - 0.6 | - 0.9 | | |
| 9 | 30-Jan | Consumer confidence - final data | Jan | - 20.9 | - | - 20.9 | | | |
| 00000 | 31-Jan | GDP (sa, yoy) - estimation | 4Q | 1.9% | ▼ | 2.3% | 1.7% | | |
| 00000 | 31-Jan | GDP (sa, qoq) - estimation | 4Q | 0.1% | ▼ | 0.3% | -0.1% | | |
| 0000 | 01-Feb | Core CPI (yoy) - preliminary data | Jan | 5.2% | - | 5.2% | 5.1% | | |
| 0000 | 01-Feb | CPI estimate (yoy) | Jan | 8.5% | ▼ | 9.2% | 8.9% | | |
| 000 | 01-Feb | Manufacturing PMI - final data | Jan | 48.8 | - | 48.8 | 48.8 | | |
| 00 | 01-Feb | Unemployment rate‡ | Dec | 6.6% | - | 6.6% | 6.5% | | |
| 00000 | 02-Feb | ECB main refinancing rate | Feb | 3.00% | | 2.50% | 3.00% | | |
| 00000 | 02-Feb | ECB deposit facility rate | Feb | 2.5% | A | 2.0% | 2.5% | | |
| 000 | 03-Feb | Composite PMI - final data | Jan | 50.3 | A | 50.2 | 50.2 | 4 | |
| 000 | 03-Feb | Services PMI - final data | Jan | 50.8 | | 50.7 | 50.7 | | |
| 00 | 03-Feb | Producer inflation PPI (yoy)‡ | Dec | 24.6% | ▼ | 27.0% | 22.4% | | |
| | 06-Feb | Retail sales (yoy)‡ | Dec | | | -2.5% | -2.7% | | |

9 / 12



| Weight | Date | Event | For | Reading ¹ | Previous | Consensus ² |
|--------|--------|---|-----|----------------------|----------|------------------------|
| | | Germany | | | | |
| 00000 | 30-Jan | GDP (yoy) - preliminary data‡ | 4Q | 0.5% | 1.3% | 0.8% |
| 00000 | 30-Jan | GDP (sa, qoq) - preliminary data‡ | 4Q | -0.2% | 0.5% | 0.0% |
| 000 | 31-Jan | Retail sales (yoy)‡ | Dec | -6.6% | -4.9% | -2.6% |
| 00 | 31-Jan | Unemployment rate | Jan | 5.5% = | 5.5% | 5.5% |
| 000 | 01-Feb | Manufacturing PMI - final data | Jan | 47.3 | 47.0 | 47.0 |
| 000 | 03-Feb | Composite PMI - final data | Jan | 49.9 🔺 | 49.7 | 49.7 |
| 000 | 06-Feb | Factory orders (wda, yoy)‡ | Dec | -10.1% 🔺 | -10.2% | -11.6% |
| 0000 | 07-Feb | Industrial production (wda, yoy)‡ | Dec | -3.9% | -0.5% | -1.6% |
| 0000 | 09-Feb | Harmonized consumer inflation HICP (yoy) - preliminary data | Jan | 9.2% | 9.6% | 10.0% |
| 0000 | 09-Feb | Consumer inflation CPI (yoy) - preliminary data | Jan | 8.7% | 8.6% | 8.9% |
| | | France | | | | |
| 0000 | 31-Jan | GDP (yoy) - preliminary data | 4Q | 0.5% | 1.0% | 0.5% |
| 00000 | 31-Jan | GDP (qoq) - preliminary data | 4Q | 0.1% | 0.2% | 0.0% |
| 0000 | 31-Jan | Harmonized consumer inflation HICP (yoy) - preliminary data | Jan | 7.0% 🔺 | 6.7% | 7.0% |
| 0000 | 31-Jan | Consumer inflation CPI (yoy) - preliminary data | Jan | 6.0% | 5.9% | 6.1% |
| 000 | 01-Feb | Manufacturing PMI - final data | Jan | 50.5 | 50.8 | 50.8 |
| 0000 | 03-Feb | Industrial production (yoy) | Dec | 1.4% | 0.7% | 0.8% |
| 000 | 03-Feb | Composite PMI - final data | Jan | 49.1 | 49.0 | 49.0 |
| | | Italy | | | | |
| 00000 | 31-Jan | GDP (wda, yoy) - preliminary data‡ | 4Q | 1.7% | 2.7% | 1.6% |
| 00000 | 31-Jan | GDP (wda, qoq) - preliminary data | 4Q | -0.1% | 0.5% | -0.2% |
| 00 | 31-Jan | Unemployment rate | Dec | 7.8% = | 7.8% | 7.8% |
| 0000 | 01-Feb | Harmonized consumer inflation HICP (yoy) - preliminary data | Jan | 10.9% | 12.3% | 10.7% |
| 000 | 01-Feb | Manufacturing PMI | Jan | 50.4 | 48.5 | 49.5 |
| 000 | 03-Feb | Composite PMI | Jan | 51.2 | 49.6 | 51.3 🕳 |
| 0000 | 10-Feb | Industrial production (wda, yoy)‡ | Dec | 0.1% | -3.4% | -1.7% |
| | | UK | | | | |
| 000 | 01-Feb | Manufacturing PMI (sa) - final data | Jan | 47.0 | 46.7 | 46.7 |
| 00000 | 02-Feb | BoE base rate decision | Feb | 40.0 | 35.0 | 40.0 |
| 000 | 03-Feb | Composite PMI - final data | Jan | 48.5 | 47.8 | 47.8 |
| 00000 | 10-Feb | GDP (yoy) - preliminary data | 4Q | 0.4% | 1.9% | 0.4% |
| 00000 | 10-Feb | GDP (qoq) - preliminary data‡ | 4Q | 0.0% | -0.2% | 0.0% |
| 0000 | 10-Feb | Industrial production (yoy)‡ | Dec | -4.0% 🔺 | -4.3% | -5.2% |
| | | Japan | | | | |
| 0000 | 31-Jan | Industrial production (yoy) - preliminary data | Dec | -2.8% | -0.9% | -3.6% |
| 000 | 01-Feb | Manufacturing PMI - final data | Jan | 48.9 = | 48.9 | |
| 000 | 03-Feb | Composite PMI - final data | Jan | 50.7 | 50.8 | |
| | | Chile | | | | |
| 000 | 31-Jan | Total copper production (metric tons) | Dec | 497 971 | 459 229 | |
| 000 | 31-Jan | Manufacturing (yoy) | Dec | -4.1% 🔺 | | -7.1% |
| 0000 | 01-Feb | Economic activity (yoy) | Dec | -1.0% | -2.5% | -2.0% |
| 000 | 07-Feb | Copper exports (USD mn) | Jan | 2 979 | 4 282 | |
| 0 | 07-Feb | Nominal wages (yoy)‡ | Dec | 10.8% = | 10.8% | |
| | | Canada | | | | * |
| 00000 | 31-Jan | GDP (yoy) | Nov | 2.8% | 3 70 | 2.7% |
| 000 | 10-Feb | Net change in employment (ths)‡ | Jan | 150 🛕 | 69.2 | 15.0 |

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; O = 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

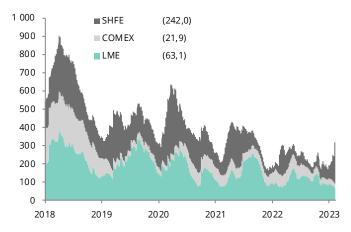
| (as of: 10-Feb-23) | | Price change ¹ | | | | | | From year beginning ² | | | | |
|----------------------------|-------------------|---------------------------|--------|----------------|--------|---|--------|----------------------------------|--------|-------------------------|-----------|-----------|
| | Price | | 2W | | QTD | | YTD | | 1Y | Average | Min | Max |
| LME (USD/t; Mo in USD/lbs) | _ | | | | | | | | | | | |
| Copper | 8 905.00 | • | -4.7% | | 6.2% | | 6.2% | | -12.9% | 8 998.81 | 8 209.00 | 9 436.00 |
| Molybdenum | 36.49 | | 15.1% | | 39.6% | | 39.6% | | | 32.93 | 29.76 | 38.28 |
| Nickel | 27 710.00 | • | -4.7% | • | -8.9% | • | -8.9% | | 15.2% | 28 181.90 | 26 475.00 | 31 200.00 |
| Aluminum | 2 435.00 | • | -6.2% | | 3.2% | | 3.2% | | -26.5% | 2 493.12 | 2 242.50 | 2 636.00 |
| Tin | 27 550.00 | _ | -14.0% | | 11.1% | | 11.1% | • | -38.0% | 28 078.45 | 25 050.00 | 32 050.00 |
| Zinc | 3 119.00 | _ | -11.1% | | 3.1% | | 3.1% | • | -16.6% | 3 278.12 | 2 977.00 | 3 509.00 |
| Lead | 2 096.00 | _ | -5.0% | \blacksquare | -10.2% | • | -10.2% | • | -8.9% | 2 182.34 | 2 063.00 | 2 331.00 |
| LBMA (USD/troz) | _ | | | | | | | | | | | |
| Silver | 22.12 | _ | -6.8% | \blacksquare | -7.6% | • | -7.6% | • | -5.3% | 23.51 | 22.12 | 24.44 |
| Gold ² | 1 859.70 | _ | -3.3% | | 2.6% | | 2.6% | | 1.3% | 1 894.81 | 1 834.00 | 1 932.45 |
| LPPM (USD/troz) | _ | | | | | | | | | | | |
| Platinum ² | 966.00 | • | -4.4% | • | -9.3% | • | -9.3% | • | -5.9% | 1 035.93 | 966.00 | 1 100.00 |
| Palladium ² | 1 553.00 | _ | -5.4% | \blacksquare | -13.1% | • | -13.1% | _ | -32.2% | 1 704.76 | 1 553.00 | 1 802.00 |
| FX ³ | | | | | | | | | | | | |
| EURUSD | 1.0690 | _ | -1.6% | | 0.2% | | 0.2% | _ | -6.5% | 1.0784 | 1.0500 | 1.0988 |
| EURPLN | 4.7716 | | 1.4% | | 1.7% | | 1.7% | | 6.3% | 4.7078 | 4.6688 | 4.7716 |
| USDPLN | 4.4565 | | 3.0% | | 1.2% | | 1.2% | | 13.6% | 4.3595 | 4.2803 | 4.4565 |
| USDCAD | 1.3362 | | 0.4% | • | -1.3% | _ | -1.3% | | 5.4% | 1.3413 | 1.3312 | 1.3658 |
| USDCNY | 6.8145 | | 0.3% | • | -1.2% | _ | -1.2% | | 7.2% | 6.7857 | 6.7010 | 6.9150 |
| USDCLP | 796.27 | _ | -0.8% | • | -7.4% | _ | -7.4% | _ | -3.0% | 817.70 | 781.49 | 856.31 |
| Money market | | | | | | | | | | | | |
| 3m LIBOR USD | 4.869 | | 0.04 | | 0.10 | | 0.10 | | 4.47 | 4.817 | 4.782 | 4.873 |
| 3m EURIBOR | 2.621 | | 0.13 | | 0.49 | | 0.49 | | 3.15 | 2.414 | 2.170 | 2.621 |
| 3m WIBOR | 6.930 | _ | -0.01 | • | -0.09 | • | -0.09 | | 3.65 | 6.942 | 6.910 | 7.010 |
| 5y USD interest rate swap | 3.973 | | 0.30 | • | -0.05 | • | -0.05 | | 1.94 | 3.713 | 3.497 | 3.973 |
| 5y EUR interest rate swap | 2.980 | | 0.09 | • | -0.26 | _ | -0.26 | | 2.31 | 2.869 | 2.672 | 3.045 |
| 5y PLN interest rate swap | 5.478 | | 0.19 | • | -0.68 | _ | -0.68 | | 1.35 | 5.346 | 5.040 | 5.988 |
| Fuel | | | | | | | | | | | | |
| WTI Cushing | - 79.72 | | 0.1% | • | -0.7% | • | -0.7% | _ | -11.3% | 77.70 | 72.84 | 81.31 |
| Brent | 85.87 | | 0.3% | | 1.1% | | 1.1% | _ | -8.6% | 82.92 | 76.41 | 87.23 |
| Diesel NY (ULSD) | 285.83 | | -12.5% | | -15.1% | _ | -15.1% | _ | -1.2% | 315.09 | 277.75 | 358.84 |
| Others | | · | | | | · | | · | | | | |
| VIX | 20.53 | | 2.02 | • | -1.14 | _ | -1.14 | _ | -3.38 | 19.91 | 17.87 | 22.90 |
| BBG Commodity Index | 108.68 | _ | -2.6% | * | -3.7% | _ | -3.7% | _ | -0.7% | 110.01 | 106.68 | 112.52 |
| S&P500 | 4 090.46 | <u> </u> | 0.5% | | 6.5% | | 6.5% | × | | 4 007.62 | 3 808.10 | 4 179.76 |
| DAX | 15 307.98 | | 1.0% | | 9.9% | _ | 9.9% | _ | -1.2% | 15 059.56 | 14 181.67 | 15 523.42 |
| Shanghai Composite | 3 260.67 | - | -0.1% | | 5.5% | | 5.5% | _ | -6.5% | 3 217.06 | 3 116.51 | 3 285.67 |
| WIG 20 | 1 848.04 | * | -3.3% | | 3.1% | | 3.1% | _ | -16.5% | 1 895.71 | 1 824.82 | 1 937.98 |
| 1110 20 | | | | | | | | | | 143.67 1 based on da | | |

° 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

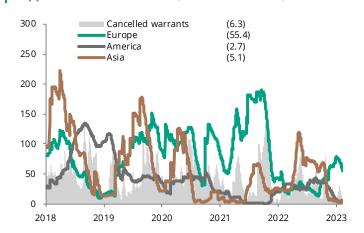


Copper: official exchange stocks (thousand tonnes)



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



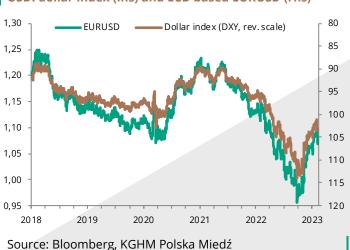
Source: Bloomberg, KGHM Polska Miedź

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

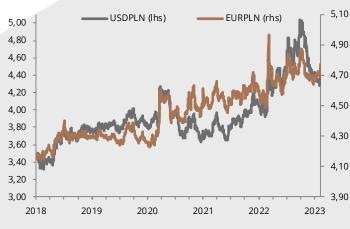


Source: Bloomberg, KGHM Polska Miedź

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



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: **30 January – 12 February 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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In case of questions or comments please contact us:

KGHM Polska Miedz (Polish Copper) S.A.

Departament Ryzyka Finansowego i Rynkowego (Financial and Market Risk Department)

Wydzial Ryzyka Rynkowego (Market Risk Unit)

ul. M. Sklodowskiej-Curie 48

59-301 Lubin, Poland