

# Market Overview

- Copper:** With the underground part of the Oyu Tolgoi complex is put into operation, between 2028 and 2036, production at this Mongolian copper mine is expected to increase to 480,000 tons annually. For comparison, in 2019 the extraction from the open pit alone amounted to 146,300 tons. Underground ore resources have an average copper content of 1.52%, which is over three times higher than the currently exploited opencast deposit (*page 2*).
- Precious metals:** Newmont has committed to a 30% reduction in carbon emissions by 2030 and zero net emissions by 2050. The company said it is studying solar and wind facility options at several mines, including Peñasquito in Mexico and Ahafo in Ghana, and ways to boost efficiencies across its operations (*page 5*).
- Fed:** At a recent meeting, Fed policymakers chaired by Jerome Powell voted to maintain bond purchases of at least \$ 120 billion per month. However, they did not announce changes in the structure of purchases towards longer maturities, as recommended by some economists. It was also not stated what inflation and unemployment rate would change the purchasing action (*page 6*).
- ECB:** The ECB unveiled plans to buy additional bonds worth half a trillion euro and give banks even more subsidies. A package that targets low-cost borrowing to governments, households and businesses brings the ECB closer than ever to directly shaping bond yields (*page 7*).






as of: 21<sup>st</sup> December 2020

## Key market prices

	Close price	2w chng.
<b>LME (USD/t)</b>		
▲ Copper	7 964.00	2.9%
▲ Nickel	17 551.00	9.6%
<b>LBMA (USD/troz)</b>		
▲ Silver	25.82	6.6%
▲ Gold (PM)	1 879.75	2.0%
<b>FX</b>		
▲ EURUSD	1.2259	0.8%
▼ EURPLN	4.4493	-0.5%
▼ USDPLN	3.6322	-1.2%
▼ USDCAD	1.2775	-0.2%
▼ USDCPL	723.44	-3.8%
<b>Stocks</b>		
▲ KGHM	185.90	6.0%

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

## Important macroeconomic data

Release	For		
 Exports (yoy)	Nov	21.1%	▲
 Composite PMI	Dec	55.7	▼
 Industrial prod. (yoy)	Nov	5.4%	▲
 Industr. prod. (wda, yoy)	Oct	-3.8%	▲
 Industrial prod. (yoy)	Oct	-5.5%	▲

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

Recently, the price of copper has broken the 2017-2018 highs, approaching the levels of 2012-2013.



Source: Bloomberg, KGHM Polska Miedź S.A.

## Market Risk Unit

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## Base and precious metals | Other commodities

### Copper

#### Rio Tinto To Produce Copper At Mongolia Oyu Tolgoi Underground Mine In 2022

**With the underground part of the Oyu Tolgoi complex is put into operation, between 2028 and 2036, production at this Mongolian copper mine is expected to increase to 480,000 tons annually. For comparison, in 2019 the extraction from the open pit alone amounted to 146,300 tons. Underground ore resources have an average copper content of 1.52%, which is over three times higher than the currently exploited opencast deposit.**

**By 2030, Oyu Tolgoi is set to become the fourth largest copper mine in the world**

Rio Tinto expects to be producing copper at the underground part of its giant Oyu Tolgoi copper and gold mine in Mongolia by October 2022, with a \$6.75 billion investment in the area, the diversified miner said. At peak production, Oyu Tolgoi is expected to operate in the first quartile of the copper cash cost curve and by 2030 is expected to be the fourth-largest copper mine in the world. Copper is often viewed as a barometer of global economic health. London Metal Exchange copper prices have recently surged to seven-year highs, testing \$8,000/mt Dec. 18, bolstered by government stimulus efforts boosting demand for copper for infrastructure and "green recovery" projects. Consultancy Roskill predicts that global copper consumption, including both demand for refined metal and scrap will grow to 38 million mt by 2030 from just under 30 million mt in 2020, an increase of 28%. Oyu Tolgoi is expected to produce 480,000 mt of copper per year on average from 2028 to 2036 from the open pit and underground, compared with 146,300 mt in 2019 from the open pit, it said. The mine's underground ore reserve has an average copper grade of 1.52%, which is more than three times higher than the open pit ore reserve, and contains 0.31 grams/mt of gold. "We now have a pathway to bring the underground project into production, which will unlock the most valuable part of Oyu Tolgoi," said Arnaud Soirat, Rio Tinto's chief executive of copper and diamonds. The size and quality of this Tier 1 asset provides additional expansion options, which could see production sustained for many decades, the company said. Definitive estimate work for Panel 0 of the underground project has been completed, Rio Tinto said. The project's Panel 1 and Panel 2 (which are required to support the ramp-up to 95,000 mt of ore per day) are currently subject to further studies, with initial recommendations expected by mid-2021, it said. Oyu Tolgoi is jointly owned by the Government of Mongolia (34%) and Turquoise Hill Resources (66%, of which Rio Tinto owns a controlling interest of 50.8%). Rio Tinto has been the manager of the Oyu Tolgoi project since 2010. The open-pit mine was completed in less than 24 months and production started in 2013. Since then, more than 240 million mt of ore have been milled, with over 1 million mt of copper in concentrate sold. More than \$11 billion has been invested in Oyu Tolgoi to date. Of this, \$4 billion has been spent on the underground project.

## Freeport Lower 2021 Copper Charges Signal Sixth Drop For Benchmark

**Agreed by Freeport-McMoRan Inc with four Chinese smelters, the 2021 copper processing premiums (TC / RC) are USD 59.50 per ton and 5.95 cents per pound. This is a 4% decline from this year's premium of \$ 62 / ton and 6.2 cents / pound.**

Freeport-McMoRan Inc has agreed copper treatment and refining charges (TC/RCs) for 2021 with four Chinese smelters at 4% below this year's terms signalling a sixth straight drop in the annual benchmark. Freeport agreed charges of \$59.50 per tonne and 5.95 cents per lb with China Copper, Jiangxi Copper, Tongling Nonferrous and Jinchuan Group, Javier Targhetta. The charges, paid by miners to smelters to process copper ore into refined metal, are weaker than the 2020 benchmark of \$62 a tonne and 6.2 cents per lb - also set by Freeport - amid tight concentrate supply and rising demand for feedstock in China. The first miner-smelter copper TC/RC settlement of the mating season usually serves as the benchmark for the year ahead and is referenced in supply contracts worldwide. Freeport's settlement with the Chinese smelters, which came later than normal as the coronavirus ruled out annual face-to-face negotiations in Shanghai in November, signals the lowest benchmark since a settlement of \$56 a tonne and 5.6 cents per lb for 2011. A Chinese smelter source, said the result was "better than expected," however, given where spot treatment charges are at the moment. Spot treatment charges in China, as assessed by Asian Metal, are languishing at \$50.50 a tonne, their lowest level in eight years. Jiangxi Copper confirmed the settlement. "Under the impact of tight supply of copper concentrate from mines and the expansion of domestic smelting capacity in recent years, TC/RCs have been decreasing year after year".

### Other important information on copper market:

- China's refined copper and lead output rose to monthly record highs in November, official data showed on Thursday, confirming a complete recovery in production from the coronavirus outbreak earlier this year. Refined copper output was up 0.7% year-on-year at 945,000 tonnes last month, while lead production was up 8.3% at 628,000 tonnes, the National Bureau of Statistics said. Those numbers beat the previous monthly highs for refined copper and lead output set in December 2019 and October 2020 respectively.
- A union of workers at Antofagasta's Centinela copper mine in Chile struck a labor agreement with the Chilean miner, a union leader said recently, averting the threat of a strike. Centinela produced 276,600 tons of copper in 2019.
- Zambia expects to produce 1 million tonnes of copper in 2021 thanks to growing demand for a metal that is used in electric vehicles, improving prices and more small mines coming into production, the government said on Monday. "We envisage hitting in excess of 1 million metric tonnes in 2021 from the planned 880,000 metric tonnes for this year," Mines Minister Richard Musukwa told Reuters. That would mark a 13.6% increase in output. Zambia, Africa's second-

biggest copper producer, is in dire need of hard currency after it became the continent's first pandemic-era sovereign default last month when it missed a coupon payment on one of its dollar-denominated bonds. Copper is Zambia's main foreign exchange earner. After plunging in March when the COVID-19 pandemic shut down the world economy, copper prices have surged to touch their highest levels since February 2013. Musukwa said Zambia's copper output in the year to September was 644,000 tonnes, a 19.3% rise on the same period last year. "Our projection is to continue increasing production and we have urged all players in the industry to focus on that." Separately, Zambia is also seeking to bolster its foreign currency reserves by buying gold - whose dollar value has shot up this year - from Canadian miner First Quantum's Zambia mine and from a mine controlled by state mining investment company.

- Democratic Republic of Congo will agree to Freeport-McMoRan Inc.'s sale of its undeveloped Kisanfu copper and cobalt project to China Molybdenum Co., Mines Minister Willy Kitobo Samsoni said in a text message Saturday. Kitobo said his ministry was required to sign off on the deal according to the country's mining code, which was revised in 2018. He would not share the terms of the agreement. Freeport tried to sell Kisanfu to CMOC when it was still under exploration in 2016 along with its \$2.65 billion stake in the Tenke Fungurume copper and cobalt mine. At the time, Freeport was asking \$50 million for Kisanfu, which is located between Tenke and Glencore Plc's massive Mutanda copper and cobalt project, according to its website.
- Peru's copper, zinc, tin and molybdenum rebounded in October as miners managed to restaff operations following the end of a COVID-19 lockdown, while precious metals and lead fell. Peruvian production of copper, zinc, tin and molybdenum rebounded in October as miners managed to restaff operations following a three-month COVID-19 lockdown. Copper output climbed 1.4% to 207,034 mt from 204,139 mt a year ago, the Energy & Mines Ministry said in a statement Dec. 8. Gains were led by Antamina (+39.3%), Chinalco's Toromocho (+28%) and Glencore's Los Quenuales unit (+4%), according to the ministry. Zinc production gained 8% to 142,181 mt in October as Antamina (+42.6%), Los Quenuales (+57.5%) and Nexa Resources' Milpo unit (+23.4%) boosted output, while molybdenum was up 9.2% to 2,857 mt. Tin producer Minsur, which brought online its \$180 million B2 tailings plant at San Rafael last year, produced 2,156 mt of tin, up 62%. Gold production dropped 28.2% to 7,580 kg from 10,561 kg a year ago, while silver was down 14.5% to 289,040 kg as output dropped at Newmont's Yanacocha unit, Canada's Pan American Silver and local firm Buenaventura. Lead dropped 15.6% to 22,504 mt. Peru, the hardest-hit country by COVID-19 in the region after Brazil, saw miners struggle to rehire healthy workers following lockdown. Peru's Mining Federation, which estimates 10,000 miners have been infected, plans a series of protests starting Dec. 9 to pressure for improved safety conditions.

## Precious Metals

### Newmont to spend \$500 million over 5 years on climate initiatives

**Newmont has committed to a 30% reduction in carbon emissions by 2030 and zero net emissions by 2050. The company said it is studying solar and wind facility options at several mines, including Peñasquito in Mexico and Ahafo in Ghana, and ways to boost efficiencies across its operations.**

Top gold producer Newmont Corp said it would spend \$500 million over five years to meet climate change targets as the miner accelerates efforts to reduce greenhouse gas emissions at its operations. Investors are putting pressure on gold miners, to report transparently and take concrete steps to curb greenhouse gas emissions after a rally in prices this year drew closer attention to the sector's footprint. Newmont last month committed to a 30% reduction in carbon emissions by 2030, and net zero emissions by 2050. The company said it is studying solar and wind installations at several mines, including Peñasquito in Mexico and Ahafo in Ghana, and ways to boost efficiencies across its operations. Newmont earlier forecast higher production of the precious metal next year at lower costs. Prices for safe haven gold have surged nearly 23% this year as global economies reeled under lockdowns designed to curb the spread of the coronavirus outbreak. Newmont forecast 2021 gold output of 6.5 million ounces, up from the 6 million ounces it expects to report this year. Output through 2023 is forecast between 6.2 million and 6.7 million ounces, rising to as much as 7 million ounces through 2025. Spending is forecast to increase sharply to \$1.8 billion driven by expansions in Ghana and Peru. All-in sustaining cost, a closely watched industry benchmark, is expected to be around \$970 per ounce of gold mined next year, below this year's forecast of \$1,015 per ounce. The cost is expected to further decrease through 2025.

## Global economies | Foreign exchange markets

### Fed to Maintain Bond Buys Until 'Substantial' Economy Gains

**At a recent meeting, Fed policymakers chaired by Jerome Powell voted to maintain bond purchases of at least \$ 120 billion per month. However, they did not announce changes in the structure of purchases towards longer maturities, as recommended by some economists. It was also not stated what inflation and unemployment rate would change the purchasing action.**

The Federal Reserve strengthened its commitment to support the U.S. economy, promising to maintain its massive asset purchase program until it sees "substantial further progress" in employment and inflation. At their final meeting of a year, policy makers led by Chair Jerome Powell voted to maintain monthly bond purchases of at least \$120 billion and scrapped their previous pledge to keep buying "over coming months." They didn't announce changes to the composition of purchases in their statement, declining to shift them toward longer-term maturities as some economists had recommended. Powell declined to specifically define what inflation and unemployment rates would trigger a future change in the buying campaign. He added the point at which the economy might meet these conditions was "some ways off." Ten year Treasury yields rose after the statement was released to trade at about 0.94% - up from about 0.91% just before. Stocks turned positive as Powell spoke. The Federal Open Market Committee said "economic activity and employment have continued to recover but remain well below their levels at the beginning of the year." Its quarterly projections for the economy showed some improvement compared with September. The committee unanimously kept the federal funds target rate in a range of zero to 0.25%, and a majority of Fed officials continued to forecast that their benchmark lending rate would be held near zero at least through 2023. Powell said the next several months will be challenging. He added that now that the light at the end of the tunnel can be seen it would be bad to see people losing their business because they couldn't last another few months. He vowed that the Fed would continue to use all its tools to keep supporting the economy. The FOMC "expects it will be appropriate to maintain this target range until labor market conditions have reached levels consistent with the committee's assessments of maximum employment and inflation has risen to 2% and is on track to moderately exceed 2% for some time," policy makers said. U.S. central bankers are still far away from their goals, and Powell has repeatedly called on Congress to pass another round of fiscal stimulus to help the economy through the winter as the pandemic continues to rage. The unemployment rate stood at 6.7% in November, while inflation remains below 2%. Even so, financial markets have been buoyed by investors counting on steady growth next year as more people are vaccinated, low interest rates and maybe another round of fiscal stimulus. The S&P 500 index set a record high earlier this month, while yield spreads on corporate bonds are trading around pre-pandemic lows. Despite the

ebullience in markets, non-farm payroll growth slowed to 245,000 in November -- less than half the gain in October -- and employment is still down roughly 10 million compared with before the virus struck. U.S. retail sales dropped by more than forecast in November and the prior month was revised to a decline, the first drops since March and April.

### **ECB's Lagarde bags hard-won deal, but battle with hawks has only begun**

**The ECB unveiled plans to buy additional bonds worth half a trillion euro and give banks even more subsidies. A package that targets low-cost borrowing to governments, households and businesses brings the ECB closer than ever to directly shaping bond yields.**

European Central Bank President Christine Lagarde brokered a difficult compromise to secure backing for a new pandemic-fighting package of measures, but her battle to convince sceptics among her colleagues and investors has only just begun. The ECB unveiled plans to buy an additional half trillion euros worth of bonds and give banks even larger subsidies for keeping credit flowing, in a bid to support the euro zone economy. The package, aimed at keeping borrowing costs low for governments, households and firms, takes the ECB closer than ever to outright targeting of specific levels in bond yields. But conversations with five sources on or close to the ECB's Governing Council suggest that the Dec. 9-10 meeting was tense and that disagreements on the new round of bond purchases had started even before it. The ECB had kicked off discussions with an envelope of 750 billion euros for bond purchases but cut it down to 500 billion euros before the meeting after receiving pushback. Policymakers disagreed on the economic outlook, the size of the bond buys and the terms of the subsidised loans to banks. Lagarde intervened to orchestrate an agreement on the policy tools, offering concessions to dissenters rather than sidelining them as her predecessor Mario Draghi did on occasion, the sources said. In one case, Lagarde helped win dissenters over by emphasising that the 500 billion euros envelope would not need to be spent in full if financing conditions remained easy. Lagarde also said the envelope could be increased. But that would require a new decision by the Governing Council, making the hurdle implicitly higher. Austrian central bank governor Robert Holzmann also said that he did not expect the ECB to use the entire amount. Policymakers were also at odds on the size of the TLTRO program, an increasingly controversial facility whereby banks are paid to borrow from the ECB as long as they don't shrink their loan books. Policy hawks were opposing to increase the maximum amount banks will be entitled to borrow from 50% to 60% of their eligible loans, but Lagarde managed to clinch a compromise half way at 55%, the sources said. Winning agreement on the package may, however, prove the first of many challenges for the ECB president. First, some sceptics of the deal maintained their reservations, saying in private that this was an implicit form of "yield-curve control" and needed to end as soon as the pandemic was over. Even TLTRO, until recently one of the ECB's most consensual tools, is now becoming a target of

criticism as it effectively subsidises banks and eases pressure on them to get back into shape or merge. Second, by making bond purchases conditional on the level of borrowing costs rather than committing to them whatever happens, the ECB may be inviting markets to test its resolve. This kind of tentative language had been a source of frequent criticism of the euro zone's central bank during the early part of the 2010-12 debt crisis but was swept aside by Mario Draghi soon after his pledge to do "whatever it takes" to save the euro.



## Macroeconomic calendar

### Important macroeconomic data releases

Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>
<b>China</b> 						
☆☆	07-Dec	Trade balance (USD bn)	Nov	75.4 ▲	58.4	53.8 ▲
☆☆	07-Dec	Exports (yoy)	Nov	21.1% ▲	11.4%	12.0% ▲
☆	07-Dec	Foreign reserves (USD bn)	Nov	3 178 ▲	3 128	3 150 ▲
☆☆☆☆	09-Dec	Consumer inflation CPI (yoy)	Nov	-0.5% ▼	0.5%	0.0% ▼
☆☆	09-Dec	Producer inflation PPI (yoy)	Nov	-1.5% ▲	-2.1%	-1.8% ▲
☆	09-Dec	New yuan loans (CNY bn)	Nov	1 430 ▲	690	1 450 ▼
☆☆☆☆	15-Dec	Industrial production (yoy)	Nov	7.0% ▲	6.9%	7.0% ○
☆☆	15-Dec	Fixed assets investments (ytd, yoy)	Nov	2.6% ▲	1.8%	2.6% ○
☆	15-Dec	Retail sales (yoy)	Nov	5.0% ▲	4.3%	5.0% ○
<b>Poland</b> 						
☆☆	14-Dec	Trade balance (EUR mn)	Oct	1 732 ▲	1 238	1 085 ▲
☆☆	14-Dec	Exports (EUR mn)	Oct	22 965 ▲	21 109	22 249 ▲
☆☆	14-Dec	Current account balance (EUR mn)	Oct	2 241 ▲	1 072	1 185 ▲
☆☆☆☆	15-Dec	Consumer inflation CPI (yoy) - final data	Nov	3.0% -	3.0%	--
☆☆☆☆	16-Dec	Core CPI (excluding food and energy, yoy)	Nov	4.3% ▲	4.2%	4.2% ▲
☆☆	17-Dec	Average gross salary (yoy)	Nov	4.9% ▲	4.7%	4.6% ▲
☆	17-Dec	Employment (yoy)	Nov	-1.2% ▼	-1.0%	-1.5% ▲
☆☆☆☆	18-Dec	Sold industrial production (yoy)	Nov	5.4% ▲	1.0%	3.4% ▲
☆☆	18-Dec	Producer inflation PPI (yoy)	Nov	-0.2% ▲	-0.4%	-0.2% ○
<b>US</b> 						
☆☆☆☆	10-Dec	Consumer inflation CPI (mom)	Nov	0.2% ▲	0.0%	0.1% ▲
☆☆☆☆	10-Dec	Consumer inflation CPI (yoy)	Nov	1.2% -	1.2%	1.1% ▲
☆☆	11-Dec	University of Michigan confidence index - preliminary data	Dec	81.4 ▲	76.9	76.0 ▲
☆☆☆☆	15-Dec	Industrial production (mom)‡	Nov	0.4% ▼	0.9%	0.3% ▲
☆	15-Dec	Capacity utilization‡	Nov	73.3% ▲	73.0%	73.0% ▲
☆☆☆☆	16-Dec	FOMC base rate decision - upper bound (Fed)	Dec	0.25% -	0.25%	0.25% ○
☆☆☆☆	16-Dec	FOMC base rate decision - lower bound (Fed)	Dec	0.00% -	0.00%	0.00% ○
☆☆	16-Dec	Composite PMI - preliminary data	Dec	55.7 ▼	58.6	--
☆☆	16-Dec	Manufacturing PMI - preliminary data	Dec	56.5 ▼	56.7	55.8 ▲
☆☆	16-Dec	PMI services - preliminary data	Dec	55.3 ▼	58.4	55.9 ▼
☆☆	16-Dec	Retail sales (excluding autos, mom)‡	Nov	-0.9% ▼	-0.1%	0.1% ▼
☆☆	17-Dec	Philadelphia Fed business outlook	Dec	11.1 ▼	26.3	20.0 ▼

Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>
<b>Eurozone</b>						
🔴🔴🔴🔴	08-Dec	GDP (sa, yoy) - final data	3Q	-4.3% ▲	-4.4%	-4.4% 🟢
🔴🔴🔴🔴	08-Dec	GDP (sa, qoq) - final data	3Q	12.5% ▼	12.6%	12.6% 🟡
🔴🔴🔴	08-Dec	Gross fixed capital (qoq)‡	3Q	13.4% ▲	-16.0%	13.7% 🟡
🔴🔴🔴	08-Dec	Households consumption (qoq)	3Q	14.0% ▲	-12.4%	13.2% 🟢
🔴	08-Dec	ZEW survey expectations	Dec	54.4 ▲	32.8	--
🔴🔴🔴🔴	10-Dec	ECB main refinancing rate	Dec	0.00% -	0.00%	0.00% 🟡
🔴🔴🔴🔴	10-Dec	ECB deposit facility rate	Dec	-0.5% -	-0.5%	-0.5% 🟡
🔴🔴🔴🔴	14-Dec	Industrial production (sa, mom)‡	Oct	2.1% ▲	0.1%	2.0% 🟢
🔴🔴🔴🔴	14-Dec	Industrial production (wda, yoy)‡	Oct	-3.8% ▲	-6.3%	-4.2% 🟢
🔴🔴🔴	16-Dec	Composite PMI - preliminary data	Dec	49.8 ▲	45.3	45.7 🟢
🔴🔴🔴	16-Dec	Manufacturing PMI - preliminary data	Dec	55.5 ▲	53.8	53.0 🟢
🔴🔴🔴	16-Dec	Services PMI - preliminary data	Dec	47.3 ▲	41.7	42.0 🟢
🔴🔴	16-Dec	Labour costs (yoy)‡	3Q	1.6% ▼	3.6%	--
🔴	16-Dec	Trade balance (EUR mn)	Oct	30.0 ▲	24.8	--
🔴🔴🔴🔴	17-Dec	Consumer inflation CPI (yoy) - final data	Nov	-0.3% -	-0.3%	-0.3% 🟡
🔴🔴🔴🔴	17-Dec	Core CPI (yoy) - final data	Nov	0.2% -	0.2%	0.2% 🟡
<b>Germany</b>						
🔴🔴🔴🔴	07-Dec	Industrial production (wda, yoy)‡	Oct	-3.0% ▲	-6.7%	-4.6% 🟢
🔴🔴🔴🔴	11-Dec	Harmonized consumer inflation HICP (yoy) - final data	Nov	-0.7% -	-0.7%	--
🔴🔴🔴🔴	11-Dec	Consumer inflation CPI (yoy) - final data	Nov	-0.3% -	-0.3%	--
🔴🔴🔴	16-Dec	Composite PMI - preliminary data	Dec	52.5 ▲	51.7	50.5 🟢
🔴🔴🔴	16-Dec	Manufacturing PMI - preliminary data	Dec	58.6 ▲	57.8	56.5 🟢
🔴🔴	18-Dec	IFO business climate‡	Dec	92.1 ▲	90.9	90.0 🟢
<b>France</b>						
🔴🔴🔴🔴	10-Dec	Industrial production (yoy)‡	Oct	-4.2% ▲	-5.9%	-5.5% 🟢
🔴🔴🔴🔴	15-Dec	Harmonized consumer inflation HICP (yoy) - final data	Nov	0.2% -	0.2%	0.2% 🟡
🔴🔴🔴🔴	15-Dec	Consumer inflation CPI (yoy) - final data	Nov	0.2% -	0.2%	0.2% 🟡
🔴🔴🔴	16-Dec	Composite PMI - preliminary data	Dec	49.6 ▲	40.6	43.0 🟢
🔴🔴🔴	16-Dec	Manufacturing PMI - preliminary data	Dec	51.1 ▲	49.6	50.1 🟢
<b>Italy</b>						
🔴🔴🔴🔴	11-Dec	Industrial production (wda, yoy)‡	Oct	-2.1% ▲	-4.9%	-4.3% 🟢
🔴🔴🔴🔴	15-Dec	Harmonized consumer inflation HICP (yoy) - final data	Nov	-0.3% -	-0.3%	-0.3% 🟡
<b>UK</b>						
🔴🔴🔴🔴	10-Dec	Industrial production (yoy)	Oct	-5.5% ▲	-6.3%	-6.4% 🟢
🔴🔴	15-Dec	Unemployment rate (ILO, 3-months)	Oct	4.9% ▲	4.8%	5.1% 🟡
🔴🔴🔴🔴	16-Dec	Consumer inflation CPI (yoy)	Nov	0.3% ▼	0.7%	0.6% 🟡
🔴🔴🔴	16-Dec	Manufacturing PMI (sa) - preliminary data	Dec	57.3 ▲	55.6	56.0 🟢
🔴🔴🔴	16-Dec	Composite PMI - preliminary data	Dec	50.7 ▲	49.0	51.5 🟡
🔴🔴🔴🔴	17-Dec	BoE base rate decision	Dec	0.10% -	0.10%	0.10% 🟡
🔴🔴🔴🔴	17-Dec	BoE asset purchase target (GBP bn)	Dec	875 -	875	875 🟡
<b>Japan</b>						
🔴🔴🔴🔴	08-Dec	GDP (annualized, qoq) - final data	3Q	22.9% ▲	21.4%	21.4% 🟢
🔴🔴🔴🔴	08-Dec	GDP (qoq, sa) - final data	3Q	5.3% ▲	5.0%	5.0% 🟢
🔴🔴🔴🔴	14-Dec	Industrial production (yoy) - final data	Oct	-3.0% ▲	-3.2%	--
🔴🔴🔴	16-Dec	Composite PMI - preliminary data	Dec	48.0 ▼	48.1	--
🔴🔴🔴	16-Dec	Manufacturing PMI - preliminary data	Dec	49.7 ▲	49.0	--
🔴🔴🔴	18-Dec	Consumer inflation CPI (yoy)	Nov	-0.9% ▼	-0.4%	-0.8% 🟡
<b>Chile</b>						
🔴🔴🔴🔴	07-Dec	BCCh overnight rate target	Dec	0.50% -	0.50%	0.50% 🟡
🔴🔴🔴	07-Dec	Copper exports (USD mn)	Nov	3 572 ▲	3 211	--

<sup>1</sup> Reading difference to previous release: ▲ = higher than previous; ▼ = lower than previous; == equal to previous.

<sup>2</sup> 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

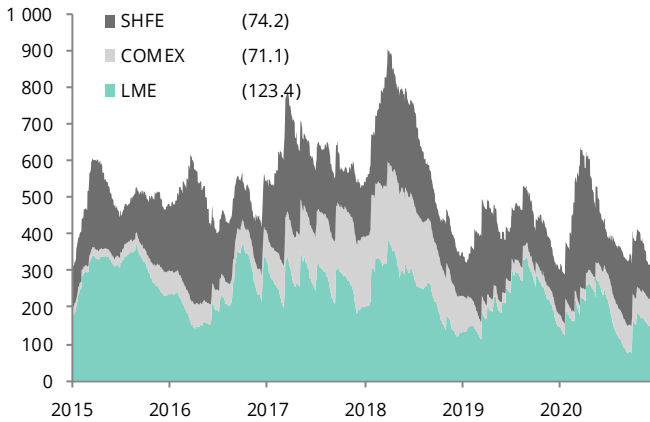
### Key base & precious metal prices, exchange rates and other important market factors

<i>(as of: 18-Dec-20)</i>		Price change <sup>1</sup>					From year beginning <sup>2</sup>		
	Price	2W	QTD	YTD	1Y	Average	Min	Max	
<b>LME (USD/t; Mo in USD/lbs)</b>									
Copper	7 964.00	▲ 2.9%	▲ 20.5%	▲ 29.4%	▲ 29.3%	6 135.00	4 617.50	7 964.00	
Molybdenum	9.26	▲ 1.4%	▲ 13.6%	▲ 0.7%	▼	8.65	7.00	10.90	
Nickel	17 551.00	▲ 9.6%	▲ 22.0%	▲ 25.4%	▲ 25.1%	13 701.50	11 055.00	17 650.00	
Aluminum	2 049.00	▲ 1.1%	▲ 18.0%	▲ 13.8%	▲ 16.1%	1 695.63	1 421.50	2 051.50	
Tin	20 255.00	▲ 6.3%	▲ 16.0%	▲ 20.2%	▲ 17.1%	17 069.23	13 400.00	20 255.00	
Zinc	2 835.00	▲ 3.1%	▲ 17.5%	▲ 23.6%	▲ 22.0%	2 252.66	1 773.50	2 841.50	
Lead	2 040.50	▲ 0.7%	▲ 13.3%	▲ 6.1%	▲ 7.6%	1 821.95	1 576.50	2 117.50	
<b>LBMA (USD/troz)</b>									
Silver	25.82	▲ 6.6%	▲ 8.8%	▲ 43.1%	▲ 52.4%	20.39	12.01	28.89	
Gold <sup>2</sup>	1 879.75	▲ 2.0%	▼ -0.4%	▲ 23.4%	▲ 27.3%	1 767.38	1 474.25	2 067.15	
<b>LPPM (USD/troz)</b>									
Platinum <sup>2</sup>	1 038.00	▼ -2.1%	▲ 17.4%	▲ 6.9%	▲ 11.3%	879.75	593.00	1 060.00	
Palladium <sup>2</sup>	2 331.00	▼ -0.8%	▼ -0.2%	▲ 21.4%	▲ 20.8%	2 189.68	1 557.00	2 781.00	
<b>FX <sup>3</sup></b>									
EURUSD	1.2259	▲ 0.8%	▲ 4.7%	▲ 9.1%	▲ 10.3%	1.1396	1.0707	1.2259	
EURPLN	4.4493	▼ -0.5%	▼ -1.7%	▲ 4.5%	▲ 4.4%	4.4425	4.2279	4.6330	
USDPLN	3.6322	▼ -1.2%	▼ -6.0%	▼ -4.4%	▼ -5.1%	3.9043	3.6254	4.2654	
USDCAD	1.2775	▼ -0.2%	▼ -4.2%	▼ -1.6%	▼ -2.6%	1.3432	1.2718	1.4496	
USDCNY	6.5400	▲ 0.1%	▼ -3.7%	▼ -6.1%	▼ -6.7%	6.9118	6.5298	7.1671	
USDCLP	723.44	▼ -3.8%	▼ -7.8%	▼ -2.8%	▼ -3.8%	794.69	723.44	867.83	
<b>Money market</b>									
3m LIBOR USD	0.236	▲ 0.01	▲ 0.00	▼ -1.67	▼ -1.69	0.661	0.205	1.900	
3m EURIBOR	-0.537	▼ -0.01	▼ -0.04	▼ -0.15	▼ -0.14	-0.424	-0.546	-0.161	
3m WIBOR	0.210	▼ -0.01	▼ -0.01	▼ -1.50	▼ -1.49	0.673	0.210	1.710	
5y USD interest rate swap	0.451	▼ -0.03	▲ 0.11	▼ -1.28	▼ -1.27	0.593	0.243	1.693	
5y EUR interest rate swap	-0.461	▼ 0.00	▼ -0.03	▼ -0.35	▼ -0.30	-0.342	-0.500	-0.090	
5y PLN interest rate swap	0.760	▼ -0.01	▲ 0.25	▼ -1.02	▼ -0.97	0.848	0.443	2.050	
<b>Fuel</b>									
WTI Cushing	49.10	▲ 6.1%	▲ 22.1%	▼ -19.6%	▼ -19.8%	38.96	-37.63	63.27	
Brent	52.00	▲ 6.8%	▲ 27.0%	▼ -21.7%	▼ -23.2%	41.96	17.32	69.02	
Diesel NY (ULSD)	151.55	▲ 8.3%	▲ 32.2%	▼ -25.2%	▼ -25.3%	123.75	60.67	206.01	
<b>Others</b>									
VIX	21.57	▲ 0.78	▼ -4.80	▲ 7.79	▲ 9.07	29.45	12.10	82.69	
BBG Commodity Index	77.32	▲ 4.1%	▲ 9.1%	▼ -4.4%	▼ -3.8%	69.69	59.48	81.64	
S&P500	3 709.41	▲ 0.3%	▲ 10.3%	▲ 14.8%	▲ 15.7%	3 201.60	2 237.40	3 722.48	
DAX	13 630.51	▲ 2.5%	▲ 6.8%	▲ 2.9%	▲ 3.2%	12 308.95	8 441.71	13 789.00	
Shanghai Composite	3 394.90	▼ -1.4%	▲ 5.5%	▲ 11.3%	▲ 12.5%	3 118.05	2 660.17	3 451.94	
WIG 20	1 952.54	▲ 0.2%	▲ 14.0%	▼ -9.2%	▼ -8.5%	1 786.35	1 305.73	2 200.10	
KGHM	185.90	▲ 6.0%	▲ 57.5%	▲ 94.5%	▲ 92.6%	106.64	49.40	189.35	

° change over: 2W = two weeks; QTD = quarter-to-day; YTD = year-to-date; 1Y = one year. <sup>1</sup> based on daily closing prices. <sup>2</sup> latest quoted price. <sup>3</sup> central banks' fixing rates (Bank of China HK for USD/CNY). <sup>4</sup>

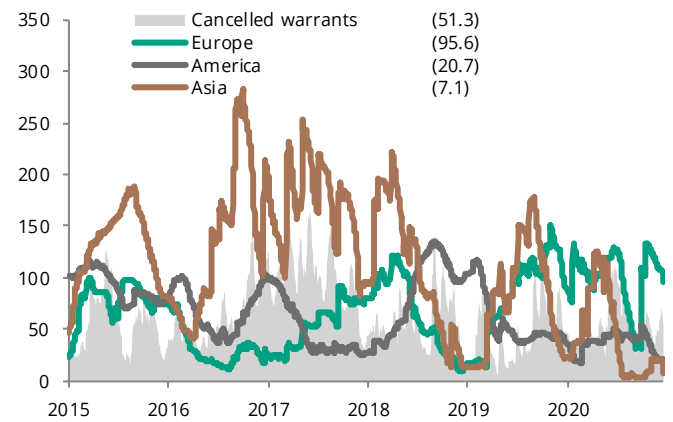
Source: Bloomberg, KGHM Polska Miedź

**Copper: official exchange stocks (thousand tonnes)**



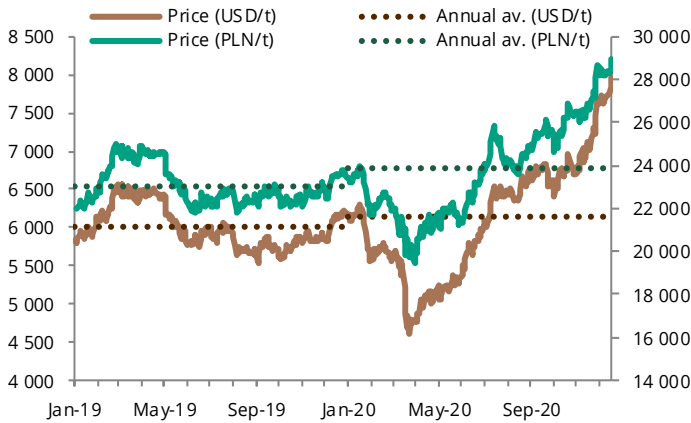
Note: Latest values in brackets. Source: Bloomberg, KGHM

**Copper: official LME stocks (thousand tonnes)**



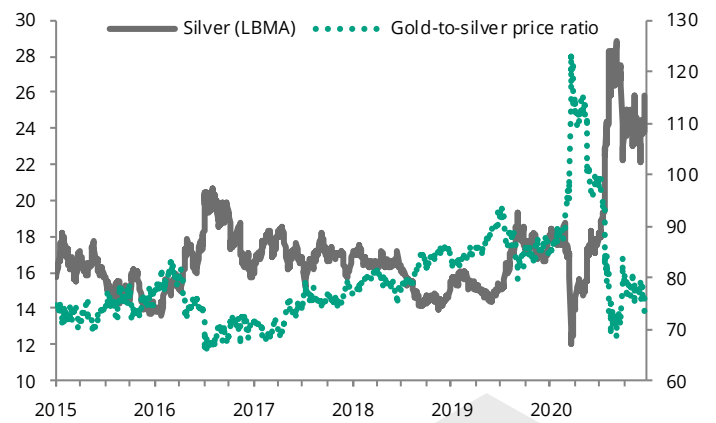
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



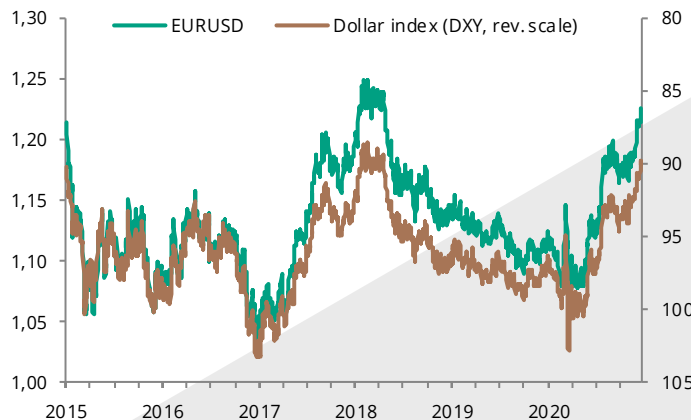
Source: Bloomberg, KGHM Polska Miedź

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



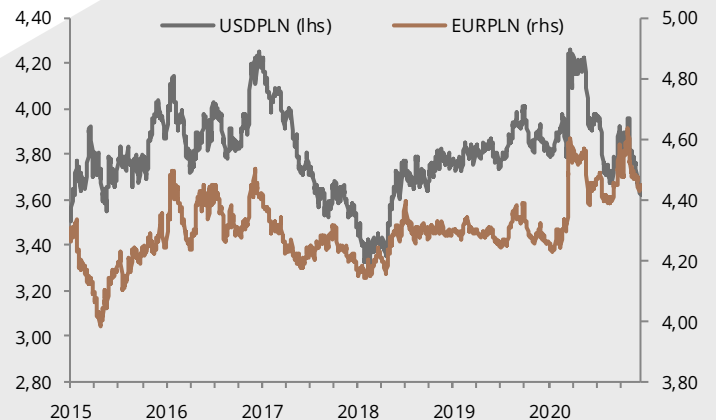
Source: Bloomberg, KGHM Polska Miedź

**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:  
**7- 20 December 2020.**

- 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](http://www.lme.com/dataprices_products.asp) (charge-free logging)
- silver and gold: [www.lbma.org.uk/pricing-and-statistics](http://www.lbma.org.uk/pricing-and-statistics)
- platinum and palladium: [www.lppm.com/statistics.aspx](http://www.lppm.com/statistics.aspx)

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