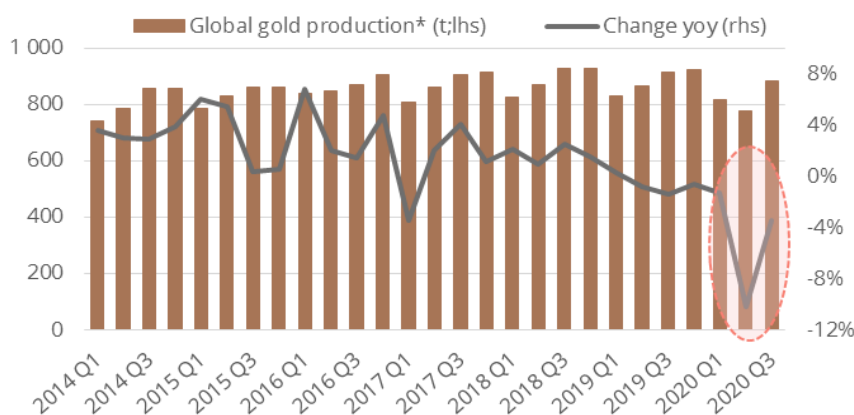


Market Overview

- **Copper:** Deliveries of copper concentrate from Australia to China in October were sharply reduced, falling by 54.2% from September, ie to 40,496 tons. It is also a decrease of 34.5% year on year and the lowest monthly result since April this year (*page 2*).
- **Precious metals:** According to LBMA expectations, in 2020 gold mining will reach 2,372 tons, which means a y / y decline by almost 4% and will be the first annual decline in 12 years. There have been only three annual declines in yellow metal production in the last 20 years - in 2004, 2006 and 2008 (*page 4*).
- **China:** The jump in demand for household appliances together with the increase in the production of cars and trucks means a change in the main factor stimulating the development of the Chinese economy. Even in the spring, it was a strong development of construction and infrastructure (*page 6*).

World gold production has been adversely affected by COVID-19



*BBG SGLDWDPO Index

Source: Bloomberg, KGHM Polska Miedź S.A.

as of: 7th December 2020

Key market prices

	Close price	2w chng.
LME (USD/t)		
▲ Copper	7 741.50	7.8%
▲ Nickel	16 020.00	0.9%
LBMA (USD/troz)		
▲ Silver	24.23	0.2%
▼ Gold (PM)	1 843.00	-1.7%
FX		
▲ EURUSD	1.2159	2.5%
▲ EURPLN	4.4732	0.1%
▼ USDPLN	3.6765	-2.4%
▼ USDCAD	1.2801	-2.1%
▼ USDCLP	752.03	-0.9%
Stocks		
▲ KGHM	175.40	23.1%

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

Important macroeconomic data

Release	For	
🇨🇳 Caixin's manuf. PMI	Nov	54.9 ▲
🇪🇺 Composite PMI	Nov	45.1 ▼
🇩🇪 Retail sales (yoy)	Oct	8.2% ▲
🇫🇷 Retail sales (yoy)	Oct	-2.1% ▼
🇮🇹 Manufacturing PMI	Nov	51.5 ▼

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

Market Risk Unit

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Base and precious metals | Other commodities

Copper

China Cuts Imports Of Australian Copper Concentrate By More Than Half In Oct

Deliveries of copper concentrate from Australia to China in October were sharply reduced, falling by 54.2% from September, ie to 40,496 tons. It is also a decrease of 34.5% year on year and the lowest monthly result since April this year.

In 2019, Australia was the fifth largest supplier of copper concentrate to China

China's imports of copper concentrate from Australia in October fell by more than half from the previous month, customs data showed, adding weight to speculation Beijing has placed an unofficial ban on shipments. Media reports early this month said the Chinese government had instructed companies not to purchase copper ore and concentrate - as well as at least six other commodities ranging from coal to lobster - from Australia from Nov. 6 because of souring relations between the two countries. Even in October, copper concentrate shipments from Australia were down sharply, plunging 54.2% from September to 40,496 tonnes. That was also down 34.5% year-on-year and the lowest monthly total since April. China's overall imports of copper concentrate were around 21% lower in October comparing to September's total above 2 million tonnes. Australia accounted for 4.8% of China's total copper concentrate imports in 2019, making it the fifth-biggest supplier after Chile, Peru, Mongolia and Mexico. It is also China's biggest iron ore supplier and one of its main suppliers of bauxite, the primary source of aluminium. Trade ties between the two countries have deteriorated since Australia in 2018 became the first country to publicly ban China's Huawei from its 5G network, and worsened after Canberra called for an enquiry into the origins of the novel coronavirus. Asked about Australian vessels waiting to deliver coal into Chinese ports, foreign ministry spokesman Zhao Lijian said a lot of coal imports failed to meet environmental standards.

Sandfire Approves Development Of Botswanan Copper Project

According to the baseline assumptions, in the first 10 years of operation, the mine is to produce approximately 30,000 tonnes of copper and 1.2 million ounces of silver per year. Initially, the mine's operational period was set at 12.5 years.

Australia-listed Sandfire Resources has approved commercial development of its Botswanan T3 Motheo Copper-Silver project which comes as copper prices have surged to around two-and-a-half year highs. The decision puts Sandfire on track

for first production in early 2023. The final investment decision has been made on a base case of 3.2 million mt/year processing capacity while there is an "advanced expansion opportunity" to take the project to 5.2 million mt/year. The base case would see the mine producing roughly 30,000 mt/year of contained copper and 1.2 million oz/year of contained silver for the first 10 years of operations, Sandfire said. It has a life of mine expectation of an initial 12.5 years. RBC Capital Markets said in a research note Dec. 1 that the production schedule and annual production rates are largely in line with their expectations. Copper prices have been buoyed by positive COVID-19 vaccine news and economic data recently but ANZ said in a research note Dec. 1 that the price gains have been larger than what would be expected from the positive sentiment. "Even though the backdrop remains positive, the rally across most metals including copper seems to have detached from fundamentals," ANZ said. Production from Sandfire's project will support an expected rise in copper production over the coming years.

Other important information on copper market:

- The global world refined copper market showed a 72,000 tonnes deficit in August, compared with a 125,000 tonnes deficit in July, the International Copper Study Group (ICSG) said in its latest monthly bulletin. The refined balance, after adjusting for bonded stocks of copper in China, showed a 52,000 tonnes deficit in August compared with a 112,000 tonnes deficit in July.
- Copper scrap suppliers are hesitating to ship material that meets new standards to China because of confusion over requirements and whether U.S. cargoes are subject to trade-war tariffs. Top metals consumer China last month said it would allow high-grade copper, aluminium and brass scrap that meets its new standards to enter without restrictions from Nov. 1. Such material is recategorised as a resource, meaning it is not subject to a ban on solid waste imports from next year. Three weeks after the new system was adopted, however, there are not too many shipments going to China under the name of recycled copper raw materials (the formal name of the high-grade copper scrap), according to David Chiao, president of the non-ferrous division at the Bureau of International Recycling.
- Chile's state miner Codelco, the world's top copper producer, increased output in October while privately-owned multinationals saw a decrease, Chilean copper commission Cochilco said on Wednesday. Codelco saw production rise 3.5% year-on-year in October to 159,900 tonnes and 2.9% in the first ten months of 2020, while BHP's Escondida, the world's largest mine, saw a drop in output of 7.6% to 99,900 tonnes, an accumulated increase of 1.3%, and Collahuasi, a joint-venture between Anglo American and Glencore, saw year-on-year production drop 17% in October to 42,200 tonnes, an increase of 18.7% YTD over 2020.
- China's spot copper concentrate treatment and refining charges slumped to five-year low at \$48.70/mt in the last week of November amid tight concentrate supply, Chinese sources said Dec. 2. Fees in November 2019 were in the range of \$56-\$62/mt, data by metal consultancy Shanghai Ganglian E-Commerce

showed. Tight concentrate supply has pressured down the TC/RCs, which are likely to fall further despite currently touching 5-year lows, Guohai Liangshi Futures in its weekly copper report said. China's 2020 copper in concentrate demand is seen rising 6.6% year on year to 7.25 million mt, consultancy Antaika data showed. The country relies heavily on imported copper concentrates amid limited local resources. Its copper in concentrate demand is seen surging to 15 million mt in 2025, and the country will need to step up co-operation with overseas miners to secure its requirements, according to the China Academy of Engineering. China imported 1.69 million mt copper ore and concentrates in October, down 21% month on month and down 12% year on year, with Chile supplying 628,800 mt of the total, latest customs data showed. Imports over January-October edged up 0.8% on year to 18.05 million mt, the data showed.

- Chile's Codelco is pushing the Ecuadorian government to sign a deal to develop a giant copper deposit in the country. The state-owned firm said in a statement it had written a letter to the Office of Ecuador's Attorney General requesting the start of "friendly talks" to fulfill an agreement signed with Ecuador's state mining company ENAMI on the Llurimagua. Codelco has spent \$40 million exploring the porphyry deposit since signing a strategic alliance with ENAMI in 2009. Following almost a decade of exploration, the companies identified 1.5 billion mt of mineral resources with an ore grade of 0.51% copper. Studies suggest the deposit, located 80 kilometers northeast of Quito, could produce 210,000 mt/year of copper over a mine life lasting at least three decades. In November 2019, the companies completed negotiations over the terms of a joint venture to develop the mine, in which Codelco would hold a 49% stake and act as operator, but little progress has been made over the last year amid the chaos caused by the coronavirus outbreak and a financial crisis in Ecuador. In August, the Ecuadorian government announced that it had hired an investment bank to realize a possible sale of the project to a private investor.

Precious Metals

How COVID-19 impacted activity on gold-producing mines

According to LBMA expectations, in 2020 gold mining will reach 2,372 tons, which means a y / y decline by almost 4% and will be the first annual decline in 12 years. There have been only three annual declines in yellow metal production in the last 20 years - in 2004, 2006 and 2008.

Turning to mine production, it's no surprise that South Africa and Peru registered a year-on-year contraction in their third quarter production of 12% and 7%, respectively, compared to the same period last year, due to the pandemic. Mine production in China was also severely impacted, by around 5%, due mainly to a slowdown in the artisan gold production, but the pandemic was not solely responsible, as the country's ongoing environmental crackdown has been limiting this sector's production over the last few years. On the other hand, and partially offsetting these losses, production grew in Australia, Papua New Guinea

and Canada. At a regional level, year-to-date production losses reached 8% in Latin America, as production contracted by 39 tonnes compared to the first nine months of 2019. Asia and Africa followed, as production decreased by 26 and 20 tonnes, respectively (4% in both regions). Considering 2020 as a whole, we expect gold output to reach 2,372 tonnes, representing a year-on-year drop of almost 4%, the first annual contraction in 12 years. It is important to note that during the last 20 years, there were only three annual production decreases – in 2004, 2006 and 2008 – all of them related to supply disruptions, mainly in the African continent. Gold physical demand recorded another poor performance in the third quarter, tumbling by 30% year-on-year to an estimated 562 tonnes. Jeweller fabrication remained the worst affected segment, with global offtake contracting by 23% to a total of 314 tonnes. Despite many markets re-emerging from the severe lockdown restrictions prevalent for most of Q2, demand remained poor across all the key regions. Countries continued to battle against the COVID-19 pandemic, which took a serious toll on the global economy, unemployment rates, household incomes and consumer demand. Jeweller offtake in the world's two largest gold-consuming markets, China and India, dropped by 7% and 21%, respectively, battered by weak economic conditions, along with a record high gold price.

Global economies | Foreign exchange markets

Red-Hot White-Goods Demand Stokes China Manufacturing

The jump in demand for household appliances together with the increase in the production of cars and trucks means a change in the main factor stimulating the development of the Chinese economy. Even in the spring, it was a strong development of construction and infrastructure.

China accounts for 60% of the world's production and 30% of the export of household appliances

Booming sales of fridges, toasters and microwaves to households across the locked-down world have helped propel China's mammoth manufacturing engine back to life. This jump in COVID-19 demand, along with rebounding production of cars and trucks, has revived manufacturing in the world's second-biggest economy, sharply boosting metals consumption in the top steel, copper and aluminium market. The manufacturing rebound marks a turnaround from the first half of the year, when the response to the pandemic that emerged in central China was a stimulative building and infrastructure boom. China is accounted for 60% of global white goods output and 30% of exports. China's factory activity jumped the fastest in nearly a decade in October, according to a private business survey. The official manufacturing Purchasing Manager's Index rose to a three-year high 52.1 in November. "The manufacturing sector is having a cyclical recovery, which could last one to two years," said analyst Tang Chuanlin at CITIC Securities, noting that some major Chinese steel mills have full order books from white-goods makers until May. China's output of fridges jumped by 25% from the same period last year and freezer output soared nearly 80%, according to National Bureau of Statistics data. Sales of all home appliances on a cross-border business-to-business marketplace under Alibaba Group tripled in the third quarter from a year earlier. Rebounding automobile purchases have been another metal-demand driver. Vehicle sales in China have jumped for seven straight months amid a broader economic recovery and as more customers opt for luxury upgrades rather. The Ministry of Industry and Information Technology said China's vehicle sales could return to annual growth for the first time since 2018 next year. Truck sales in the first 10 months of 2020 rocketed almost five-fold from a year earlier, as logistics firms scrambled to keep up with the pandemic's booming e-commerce demand and goods deliveries. The near-term outlook for both aluminium and copper is positive. High production, with low inventories driving copper prices to a more than seven-year high above \$7,500 a tonne and Shanghai aluminium prices hitting their highest in more than three years. China's plans for 5G networks, ultra-high-voltage power transmission, urban infrastructure and big-data centres are "good news" for aluminium. The market also expects U.S. President-elect Joe Biden's \$2 trillion plan to tackle climate change to lift demand for copper.




Pandemic Threatens To Leave A Legacy Of Deeper Inequality, Fed Officials Warn






The Fed's Lael Brainard said the pandemic creates difficulties for all, but causes disproportionate economic problems for weaker companies, sectors particularly affected by the pandemic and certain demographics, and that this threatens to perpetuate a K-shaped recovery path that is not a viable solution for the economy.

Two top Federal Reserve officials warned that the pandemic economic fallout could lead to greater inequality, and they urged greater government support to prevent divides from widening. "There is a great risk of the pandemic making them worse," Fed Chair Jerome H. Powell said, speaking before the Senate Banking Committee. He noted that women and minorities had been especially hurt by the crisis. "There's a real concern that if we don't act as quickly as possible to support those people, get them back to work, get the economy up and running as much as possible, that we'll leave behind a more unequal situation," he said. Lael Brainard, a member of the Federal Reserve Board of Governors. "While creating hardship for all, the pandemic has inflicted disproportionate economic pain on vulnerable businesses, sectors and demographic groups, which risks entrenching a K-shaped recovery that is weaker overall". Mr. Powell suggested that additional support could be needed from both the Fed and Congress to bridge the gap. He noted that the central bank intends to leave interest rates at rock bottom until the economy is healing, without working to pre-emptively choke off price gains — something that should pave the way for lower unemployment. Ms. Brainard was even more blunt. "It is vitally important to provide a lifeline to hard-hit households and businesses facing the harsh reality of a resurgent Covid second wave as a bridge to the time an effective vaccine will be widely available," she said in the prepared remarks.

Macroeconomic calendar

Important macroeconomic data releases

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
China 						
☹☹	27-Nov	Industrial profits (yoy)	Oct	28.2% ▲	10.1%	--
☹☹☹	30-Nov	Official manufacturing PMI	Nov	52.1 ▲	51.4	51.5 ▲
☹☹☹	01-Dec	Caixin's manufacturing PMI	Nov	54.9 ▲	53.6	53.5 ▲
Poland 						
☹☹☹	23-Nov	Retail sales (yoy)	Oct	-2.1% ▼	2.7%	-1.4% ◡
☹	24-Nov	M3 money supply (yoy)	Oct	17.0% -	17.0%	17.0% ○
☹☹	25-Nov	Unemployment rate	Oct	6.1% -	6.1%	6.1% ○
☹☹☹☹☹	30-Nov	GDP (yoy) - final data‡	3Q	-1.5% -	-1.5%	--
☹☹☹☹☹	30-Nov	GDP (qoq) - final data	3Q	7.9% ▲	7.7%	--
☹☹☹☹	01-Dec	Consumer inflation CPI (yoy) - preliminary data	Nov	3.0% ▼	3.1%	3.0% ○
☹☹☹	01-Dec	Manufacturing PMI	Nov	50.8 -	50.8	50.2 ▲
☹☹☹☹☹	02-Dec	NBP base rate decision	Dec	0.10% -	0.10%	0.10% ○
US 						
☹☹☹	23-Nov	Composite PMI - preliminary data	Nov	--	56.3	--
☹☹☹	23-Nov	Manufacturing PMI - preliminary data	Nov	--	53.4	53.0
☹☹☹	23-Nov	PMI services - preliminary data	Nov	--	56.9	55.0
☹	24-Nov	Richmond Fed manufacturing index	Nov	15.0 ▼	29.0	20.0 ◡
☹	24-Nov	S&P/CaseShiller home price index‡	Sep	233 ▲	230	--
☹☹☹☹☹	25-Nov	GDP (annualized, qoq) -	3Q	33.1% -	33.1%	33.1% ○
☹☹☹☹	25-Nov	Consumer spending inflation PCE (mom)	Oct	0.0% ▼	0.2%	0.0% ○
☹☹☹☹	25-Nov	Consumer spending inflation PCE (yoy)‡	Oct	1.4% ▼	1.6%	1.4% ○
☹☹	25-Nov	Durable goods orders - preliminary data‡	Oct	1.3% ▼	2.1%	0.8% ▲
☹☹	25-Nov	Personal income (sa, mom)‡	Oct	-0.7% ▼	0.7%	-0.1% ◡
☹☹	25-Nov	Personal spending (sa, mom)‡	Oct	0.5% ▼	1.2%	0.4% ▲
☹☹	25-Nov	University of Michigan confidence index - final data	Nov	76.9 ▼	77.0	77.0 ◡
☹	30-Nov	Dallas Fed manufacturing activity	Nov	12.0 ▼	19.8	14.3 ◡
☹☹☹	01-Dec	Manufacturing PMI - final data	Nov	56.7 -	56.7	56.7 ○
☹☹	01-Dec	ISM Manufacturing	Nov	57.5 ▼	59.3	58.0 ◡
☹☹☹	03-Dec	Composite PMI - final data	Nov	58.6 ▲	57.9	--
☹☹☹	03-Dec	PMI services - final data	Nov	58.4 ▲	57.7	57.5 ▲
☹☹	04-Dec	Change in non-farm payrolls (ths)‡	Nov	245 ▼	610	460 ◡
☹☹	04-Dec	Durable goods orders - final data	Oct	1.3% -	1.3%	1.3% ○
☹☹	04-Dec	Underemployment rate (U6)	Nov	12.0% ▼	12.1%	--
☹☹	04-Dec	Unemployment rate	Nov	6.7% ▼	6.9%	6.7% ○
☹	04-Dec	Average hourly earnings (yoy)‡	Nov	4.4% -	4.4%	4.2% ▲











Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
Eurozone 						
☉☉☉	23-Nov	Composite PMI - preliminary data	Nov	45.1 ▼	50.0	45.6 ◡
☉☉☉	23-Nov	Manufacturing PMI - preliminary data	Nov	--	54.8	53.2 ◡
☉☉☉	23-Nov	Services PMI - preliminary data	Nov	--	46.9	42.0 ◡
☉	26-Nov	M3 money supply (yoy)	Oct	10.5% ▲	10.4%	10.3% ◡
☉	27-Nov	Economic confidence‡	Nov	87.6 ▼	91.1	86.0 ◡
☉	27-Nov	Industrial confidence‡	Nov	-10.1 ▼	-9.2	-10.9 ◡
☉	27-Nov	Consumer confidence - final data	Nov	-17.6 =	-17.6	--
☉☉☉☉	01-Dec	Core CPI (yoy) - preliminary data	Nov	0.2% =	0.2%	0.2% ○
☉☉☉☉	01-Dec	CPI estimate (yoy)	Nov	-0.3% =	-0.3%	-0.2% ◡
☉☉☉	01-Dec	Manufacturing PMI - final data	Nov	53.8 ▲	53.6	53.6 ◡
☉☉	02-Dec	Unemployment rate‡	Oct	8.4% ▼	8.5%	8.4% ○
☉☉	02-Dec	Producer inflation PPI (yoy)‡	Oct	-2.0% ▲	-2.3%	-2.3% ◡
☉☉☉	03-Dec	Composite PMI - final data	Nov	45.3 ▲	45.1	45.1 ◡
☉☉☉	03-Dec	Services PMI - final data	Nov	41.7 ▲	41.3	41.3 ◡
☉☉	03-Dec	Retail sales (yoy)‡	Oct	4.3% ▲	2.5%	2.6% ◡
Germany 						
☉☉☉	23-Nov	Composite PMI - preliminary data	Nov	--	55.0	50.5 ◡
☉☉☉	23-Nov	Manufacturing PMI - preliminary data	Nov	--	58.2	56.0 ◡
☉☉☉☉☉	24-Nov	GDP (yoy) - final data	3Q	-3.9% ▲	-4.1%	-4.1% ◡
☉☉☉☉☉	24-Nov	GDP (sa, qoq) - final data	3Q	8.5% ▲	8.2%	8.2% ◡
☉☉	24-Nov	IFO business climate‡	Nov	90.7 ▼	92.5	90.2 ◡
☉☉	26-Nov	GfK consumer confidence‡	Dec	-6.7 ▼	-3.2	-4.9 ◡
☉☉☉☉	30-Nov	Harmonized consumer inflation HICP (yoy) - preliminary data	Nov	-0.7% ▼	-0.5%	-0.4% ◡
☉☉☉☉	30-Nov	Consumer inflation CPI (yoy) - preliminary data	Nov	-0.3% ▼	-0.2%	-0.2% ◡
☉☉☉	01-Dec	Manufacturing PMI - final data	Nov	57.8 ▼	57.9	57.9 ◡
☉☉	01-Dec	Unemployment rate	Nov	6.1% ▼	6.2%	6.3% ◡
☉☉☉	02-Dec	Retail sales (yoy)‡	Oct	8.2% ▲	7.0%	5.8% ◡
☉☉☉	03-Dec	Composite PMI - final data	Nov	51.7 ▼	52.0	52.0 ◡
☉☉☉	04-Dec	Factory orders (wda, yoy)‡	Oct	1.8% ▲	-1.1%	0.2% ◡
France 						
☉☉☉	23-Nov	Composite PMI - preliminary data	Nov	--	47.5	42.0 ◡
☉☉☉	23-Nov	Manufacturing PMI - preliminary data	Nov	--	51.3	49.9 ◡
☉☉☉☉☉	27-Nov	GDP (yoy) - final data	3Q	-3.9% ▲	-4.3%	-4.3% ◡
☉☉☉☉☉	27-Nov	GDP (qoq) - final data	3Q	18.7% ▲	18.2%	18.2% ◡
☉☉☉☉	27-Nov	Harmonized consumer inflation HICP (yoy) - preliminary data	Nov	0.2% ▲	0.1%	0.0% ◡
☉☉☉☉	27-Nov	Consumer inflation CPI (yoy) - preliminary data	Nov	0.2% ▲	0.0%	0.1% ◡
☉☉☉	01-Dec	Manufacturing PMI - final data	Nov	49.6 ▲	49.1	49.1 ◡
☉☉☉	03-Dec	Composite PMI - final data	Nov	40.6 ▲	39.9	39.9 ◡
Italy 						
☉☉☉☉	30-Nov	Harmonized consumer inflation HICP (yoy) - preliminary data	Nov	-0.3% ▲	-0.6%	-0.5% ◡
☉☉☉☉☉	01-Dec	GDP (wda, yoy) - final data	3Q	-5.0% ▼	-4.7%	-4.7% ◡
☉☉☉☉☉	01-Dec	GDP (wda, qoq) - final data	3Q	15.9% ▼	16.1%	16.1% ◡
☉☉☉	01-Dec	Manufacturing PMI	Nov	51.5 ▼	53.8	52.0 ◡
☉☉	02-Dec	Unemployment rate - preliminary data‡	Oct	9.8% ▲	9.7%	9.9% ◡
☉☉☉	03-Dec	Composite PMI	Nov	42.7 ▼	49.2	43.7 ◡
UK 						
☉☉☉	23-Nov	Manufacturing PMI (sa) - preliminary data	Nov	--	53.7	50.5 ◡
☉☉☉	23-Nov	Composite PMI - preliminary data	Nov	--	52.1	42.5 ◡
☉☉☉	01-Dec	Manufacturing PMI (sa) - final data	Nov	55.6 ▲	55.2	55.2 ◡
☉☉☉	03-Dec	Composite PMI - final data	Nov	49.0 ▲	47.4	47.4 ◡

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

² Reading difference to consensus: ◡ = higher than consensus; ◢ = lower than consensus; ○ = equal to consensus.

mom = month-on-month; yoy = year-on-year; qoq = quarter on quarter; ytd year-to-date; sa = seasonally adjusted; wda = working days adjusted; ‡ = previous data after revision.

Source: Bloomberg, KGHM Polska Miedź

Japan 							
🕒🕒🕒🕒	30-Nov	Industrial production (yoy) - preliminary data	Oct	-3.2%	▲	-9.0%	-4.6% 
🕒🕒🕒	01-Dec	Manufacturing PMI - final data	Nov	49.0	▲	48.3	--
🕒🕒🕒	03-Dec	Composite PMI - final data	Nov	48.1	▲	47.0	--
Chile 							
🕒🕒🕒	30-Nov	Total copper production (metric tons)	Oct	492 761	▲ 	484 768	--
🕒🕒🕒	30-Nov	Manufacturing (yoy)	Oct	6.2%	▲	5.3%	4.7% 
🕒🕒🕒🕒	01-Dec	Economic activity (yoy)‡	Oct	-1.2%	▲	-4.8%	0.6% 
🕒🕒	04-Dec	Nominal wages (yoy)	Oct	4.0%	▲	3.6%	--
Canada 							
🕒🕒🕒🕒🕒	01-Dec	GDP (yoy)‡	Sep	-3.9%	▲	-4.5%	-2.9% 
🕒🕒🕒🕒🕒	01-Dec	GDP (annualized, qoq)‡	3Q	40.5%	▲	-38.1%	47.9% 
🕒🕒🕒	04-Dec	Net change in employment (ths)	Nov	62.1	▼	83.6	20.0 

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; ○ = 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

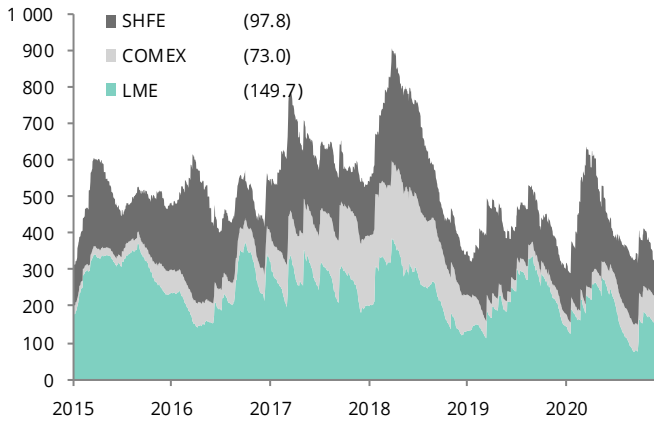
Key base & precious metal prices, exchange rates and other important market factors

(as of: 04-Dec-20)		Price change ¹					From year beginning ²		
	Price	2W	QTD	YTD	1Y	Average	Min	Max	
LME (USD/t; Mo in USD/lbs)									
Copper	7 741.50	▲ 7.8%	▲ 17.1%	▲ 25.8%	▲ 32.2%	6 066.24	4 617.50	7 741.50	
Molybdenum	9.13	▼ -1.6%	▲ 12.0%	▼ -0.8%	▼	8.62	7.00	10.90	
Nickel	16 020.00	▲ 0.9%	▲ 11.4%	▲ 14.4%	▲ 21.7%	13 558.84	11 055.00	16 373.00	
Aluminum	2 027.50	▲ 2.2%	▲ 16.7%	▲ 12.6%	▲ 15.5%	1 681.84	1 421.50	2 051.50	
Tin	19 060.00	▲ 0.9%	▲ 9.1%	▲ 13.1%	▲ 12.8%	16 960.86	13 400.00	19 120.00	
Zinc	2 748.50	▼ -1.4%	▲ 13.9%	▲ 19.9%	▲ 21.9%	2 229.44	1 773.50	2 809.50	
Lead	2 026.50	▲ 2.0%	▲ 12.5%	▲ 5.4%	▲ 7.1%	1 812.14	1 576.50	2 117.50	
LBMA (USD/troz)									
Silver	24.23	▲ 0.2%	▲ 2.1%	▲ 34.2%	▲ 43.6%	20.22	12.01	28.89	
Gold ²	1 843.00	▼ -1.7%	▼ -2.3%	▲ 21.0%	▲ 24.9%	1 763.64	1 474.25	2 067.15	
LPPM (USD/troz)									
Platinum ²	1 060.00	▲ 10.9%	▲ 19.9%	▲ 9.2%	▲ 19.2%	873.47	593.00	1 060.00	
Palladium ²	2 350.00	▲ 0.6%	▲ 0.6%	▲ 22.4%	▲ 27.0%	2 183.72	1 557.00	2 781.00	
FX ³									
EURUSD	1.2159	▲ 2.5%	▲ 3.9%	▲ 8.2%	▲ 9.6%	1.1364	1.0707	1.2159	
EURPLN	4.4732	▲ 0.1%	▼ -1.2%	▲ 5.0%	▲ 4.6%	4.4423	4.2279	4.6330	
USDPLN	3.6765	▼ -2.4%	▼ -4.9%	▼ -3.2%	▼ -4.7%	3.9147	3.6707	4.2654	
USDCAD	1.2801	▼ -2.1%	▼ -4.0%	▼ -1.4%	▼ -2.8%	1.3460	1.2801	1.4496	
USDCNY	6.5315	▼ -0.5%	▼ -3.8%	▼ -6.2%	▼ -7.3%	6.9283	6.5315	7.1671	
USDCLP	752.03	▼ -0.9%	▼ -4.1%	▲ 1.0%	▼ -5.6%	796.90	748.74	867.83	
Money market									
3m LIBOR USD	0.226	▲ 0.02	▼ -0.01	▼ -1.68	▼ -1.66	0.680	0.205	1.900	
3m EURIBOR	-0.532	▼ 0.00	▼ -0.03	▼ -0.15	▼ -0.14	-0.419	-0.532	-0.161	
3m WIBOR	0.220	- 0.00	- 0.00	▼ -1.49	▼ -1.49	0.692	0.220	1.710	
5y USD interest rate swap	0.481	▲ 0.04	▲ 0.14	▼ -1.25	▼ -1.12	0.599	0.243	1.693	
5y EUR interest rate swap	-0.457	▲ 0.01	▼ -0.03	▼ -0.35	▼ -0.27	-0.336	-0.490	-0.090	
5y PLN interest rate swap	0.770	▲ 0.16	▲ 0.26	▼ -1.01	▼ -0.89	0.852	0.443	2.050	
Fuel									
WTI Cushing	46.26	▲ 9.8%	▲ 15.0%	▼ -24.2%	▼ -20.8%	38.62	-37.63	63.27	
Brent	48.71	▲ 9.9%	▲ 18.9%	▼ -26.7%	▼ -24.1%	41.62	17.32	69.02	
Diesel NY (ULSD)	139.93	▲ 8.8%	▲ 22.0%	▼ -31.0%	▼ -27.7%	122.86	60.67	206.01	
Others									
VIX	20.79	▼ -2.91	▼ -5.58	▲ 7.01	▲ 6.27	29.75	12.10	82.69	
BBG Commodity Index	74.30	▲ 0.2%	▲ 4.9%	▼ -8.1%	▼ -4.9%	69.46	59.48	81.64	
S&P500	3 699.12	▲ 4.0%	▲ 10.0%	▲ 14.5%	▲ 18.7%	3 180.93	2 237.40	3 699.12	
DAX	13 298.96	▲ 1.2%	▲ 4.2%	▲ 0.4%	▲ 1.9%	12 264.16	8 441.71	13 789.00	
Shanghai Composite	3 444.58	▲ 2.0%	▲ 7.0%	▲ 12.9%	▲ 18.8%	3 106.25	2 660.17	3 451.94	
WIG 20	1 947.68	▲ 7.0%	▲ 13.7%	▼ -9.4%	▼ -6.9%	1 778.71	1 305.73	2 200.10	
KGHM	175.40	▲ 23.1%	▲ 48.6%	▲ 83.5%	▲ 95.2%	103.39	49.40	175.40	

° 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

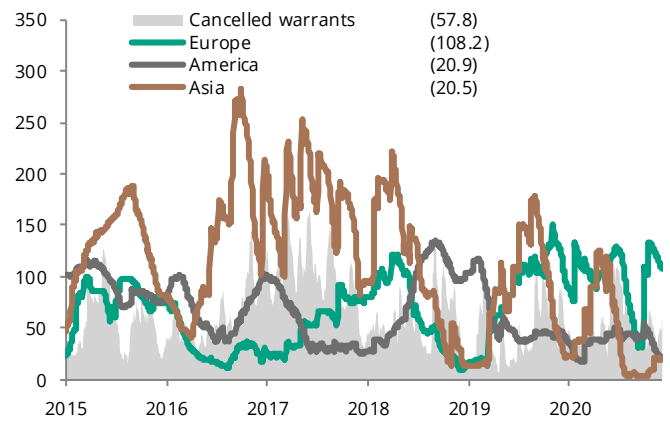
Source: Bloomberg, KGHM Polska Miedź

Copper: official exchange stocks (thousand tonnes)



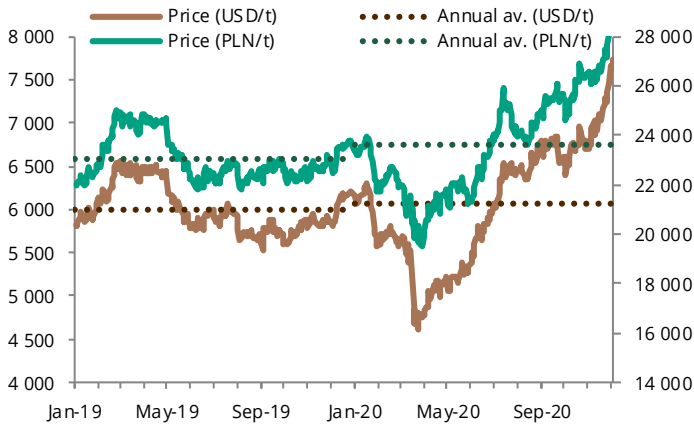
Note: Latest values in brackets. Source: Bloomberg, KGHM

Copper: official LME stocks (thousand tonnes)



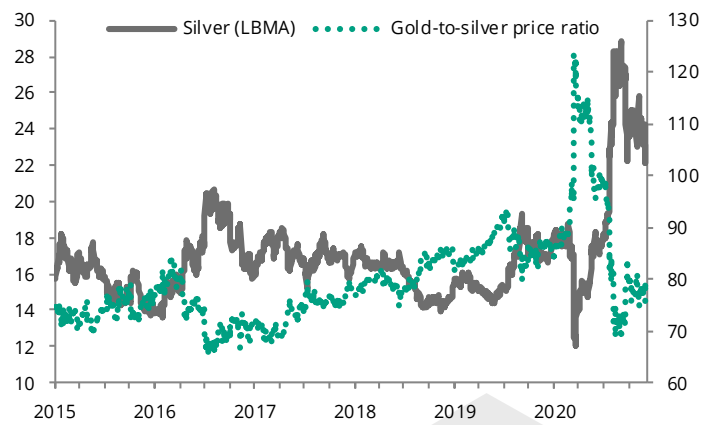
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



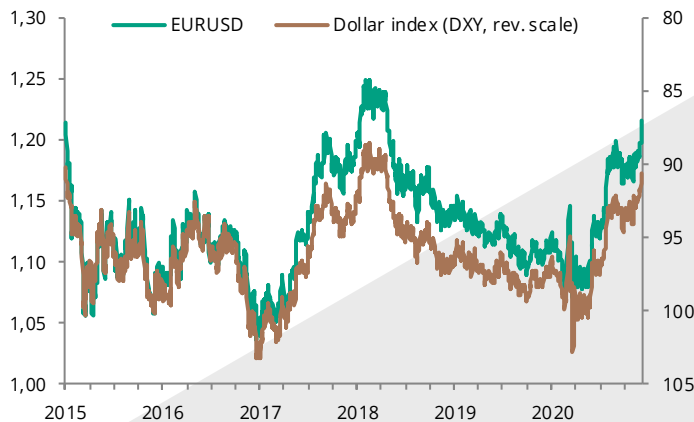
Source: Bloomberg, KGHM Polska Miedź

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



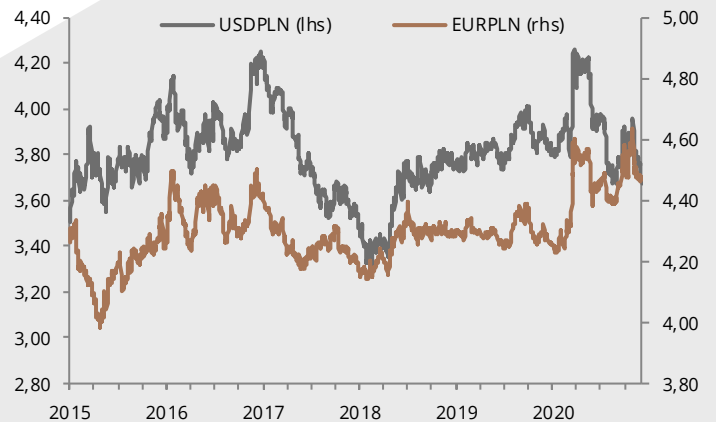
Source: Bloomberg, KGHM Polska Miedź

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

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This document has been prepared based on the below listed reports, among others, published in the following period:
23 November – 6 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 (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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