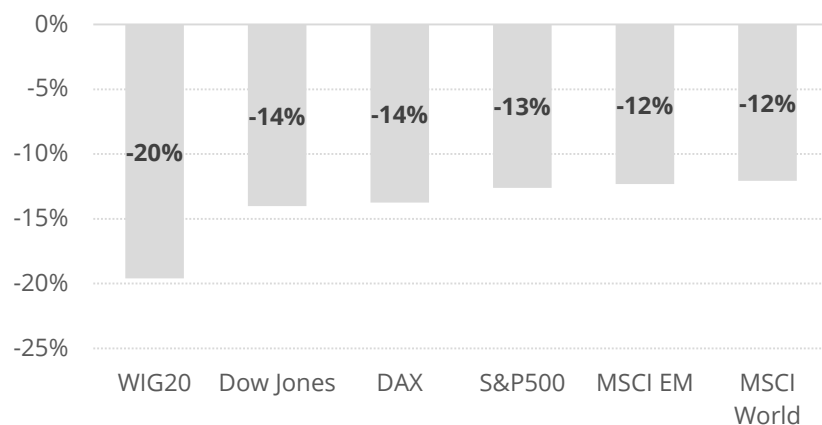


Market Overview

- **Copper:** Valuations on the market might encourage China Nonferrous Metals Industry Association and State Reserve Bureau to stockpile some of the non-ferrous metals in order to take the pressure off producers whose sales have been drying up because of the country's coronavirus outbreak (*page 2*).
- **Precious metals:** The recent rally in precious metals prices has been used by the miners to boost dividends in order to appease shareholders. Such a decision might influence future supply growth as well as availability of the yellow metal on the market. The recent market moves have also be used to hedge miner's future exposure as the gold price has jumped significantly higher than declared budget levels (*page 3*).
- **Coronavirus:** Coronavirus has hit the global economy harder than the trade war in 2019 but the general sentiment in Eurozone is starting to improve. The data come before Italy took a blow from the spread of the coronavirus so it is possible that the reversal of that positive economic surprise is coming in the next months (*page 6*).

Weekly decline of global equity markets after newly confirmed coronavirus cases in Italy



Source: Bloomberg, KGHM Polska Miedź

as of: 2 March 2020

Key market prices

	Close price	2w chng.
LME (USD/t)		
▼ Copper	5 573.00	-3.9%
▼ Nickel	12 160.00	-7.0%
LBMA (USD/troz)		
▼ Silver	17.19	-3.5%
▲ Gold (PM)	1 609.85	1.8%
FX		
▲ EURUSD	1.0977	1.3%
▲ EURPLN	4.3355	2.0%
▲ USDPLN	3.9255	0.2%
▲ USDCAD	1.3429	1.4%
▲ USDCLP	816.26	3.0%
Stocks		
▼ KGHM	70.54	-26.2%

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

Important macroeconomic data

Release	For		
 Official manuf. PMI	Feb	35.7	▼
 Philadelphia Fed outlook	Feb	36.7	▲
 Composite PMI	Feb	49.6	▼
 CPI (yoy)	Jan	1.4%	▲
 Retail sales (yoy)	Jan	5.7%	▼

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

Market Risk Unit

marketrisk@kgm.com

Base and precious metals | Other commodities

Copper

Valuations on the market might encourage China Nonferrous Metals Industry Association and State Reserve Bureau to stockpile some of the non-ferrous metals in order to take the pressure off producers whose sales have been drying up because of the country's coronavirus outbreak.

Freeport To Spend \$600M On East Java Smelter

PT Freeport Indonesia to spend US\$600 million in capex this year for the construction of a smelter in Gresik

Gold and copper miner PT Freeport Indonesia will spend US\$600 million in capital expenditure (capex) this year for the construction of a smelter in Gresik, East Java, as part of Indonesia's downstream efforts for the mining industry. Freeport Indonesia, which operates the world's second-largest copper mine Grasberg in Papua, estimates that it would require \$3 billion to develop the Gresik smelter. The facility would also produce 550,000 tons of copper cathodes alongside anode slime treatments, which can produce 40 tons of gold per year. Tony Wenas of Freeport Indonesia said the progress of Freeport Indonesia's Gresik smelter stands at 5 percent and assured that the smelter's construction would be finished on time at the end of 2022. Law No. 4/2009 on coal and mineral mining requires mining companies to build smelters so they will export refined mineral products instead of unprocessed minerals, hence drawing more value out of the country's mineral wealth. Smelter construction was one of stipulations agreed on by the central government and Freeport Indonesia for the miner to continue operating in the country. The government expects to see \$7.75 billion in mining investments this year, the highest projected amount between 2015 and 2024, fueled by a tidal wave of smelter development projects. Tony warned that the downstream industries must step up their performance to fully absorb the drastic increase of copper supply once the Gresik smelter was completed, as currently only 30 percent of PT Smelting's products were absorbed by local industries.

CNIA Suggests Stockpiling As Virus Hits Demand

China to stockpile some non-ferrous metals to take the pressure off producers whose sales have been drying up because of the country's coronavirus outbreak

China Nonferrous Metals Industry Association (CNIA) said that China should stockpile some non-ferrous metals to take the pressure off producers whose sales have been drying up because of the country's coronavirus outbreak. While major smelters have managed to maintain "normal production", most copper and aluminum processors and downstream consumers have had their return to work delayed. The start of stockpiling "can effectively alleviate the increase in inventory" at metal producers and address falling prices and operational difficulties. It can also provide reserve supply for downstream industries which will need metal to resume work, he added. On a national level, such stockpiling activities in China have traditionally been carried out by the State Reserve Bureau. It was also suggested that China should suspend imports of sulphuric

acid, as some smelters have been forced to cut production because they have been running out of storage space for this by product, which they are having difficulty selling.

Other important information on copper market:

- Tongling Nonferrous Metals said that around 42% of China's copper processing sector had resumed operating at 60%-90% of normal levels as of February 20 after extending Lunar New Year shutdowns due to the coronavirus outbreak. The copper giant estimated a further 27% of the sector had resumed operations at 30%-60% of normal levels. However, the overall operating rate was lower than anticipated by the market as labor constraints continued to pose a challenge. It added that increased liquidity in China and overseas could support copper prices, but cautioned any rebound was unlikely to be sustained. China's copper demand is forecast to edge up 1.2% year on year to 11.4 million mt in 2020 by state-run metals researcher Beijing Antaika, and copper output to rise 3.8% to 9.3 million mt over the same period. The country's domestic copper surplus is seen narrowing to 650,000 mt in 2020 from 936,000 mt in 2019, Antaika said.
- Teck takes 9,000 mt hit to Q4 copper output from strike at Chile's Andacollo mine. The company produced 73,000 mt of copper during the final three months of last year, down 3% from the same period of 2018. Workers at the Andacollo mine went on strike for 52 days last October in one of the longest strikes in Chile's mining industry after discussions over a new collective contract ended without agreement. The union eventually returned to work December 5 after approving a new three-year deal. The Chilean mine is expected to produce 57,000-62,000 mt of copper this year, up from a total of 54,000 mt in 2019. Teck warned that cathode production is uncertain beyond this year. As a result, production of copper in concentrate is expected to average 55,000-60,000 mt through 2023. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec consequat lorem a nibh scelerisque blandit.
- The global world refined copper market showed a 33,000 tonnes surplus in November, compared with a 15,000 tonnes deficit in October, the International Copper Study Group (ICSG) said in its latest monthly bulletin. For the first 11 months of the year, the market was in a 385,000 tonnes deficit compared with a 408,000 tonnes deficit in the same period a year earlier, the ICSG said. World refined copper output in November was 2.02 million tonnes, while consumption was 1.99 million tonnes. Bonded stocks of copper in China showed a 23,000 tonnes surplus in November compared with a 57,000 tonnes deficit in October.

The recent rally in precious metals prices has been used by the miners to boost dividends in order to appease shareholders. Such a decision might influence future supply growth as well as availability of the yellow metal on the market. The recent market moves have also been used to hedge miner's future exposure as the gold price has jumped significantly higher than declared budget levels.

Gold miners fret about long-term supply even as they boost dividends

Dividends instead of investments?

Gold miners have largely been boosting dividends to appease long-suffering shareholders rather than funding fresh exploration projects needed to grow production, a strategy that executives are warning may pose long-term risk to the industry. The tension comes as gold prices are at the highest in seven years, near \$1,650 an ounce, a surge in part fueled by a flight to safe-haven assets amid rising global concern about the coronavirus. That has propelled earnings and prompted Newmont Corp, Barrick Gold and others to hike dividends and share repurchases, which shareholders have been demanding for years. But miners say a dearth of new exploration poses an existential risk to the industry as falling ore grades push production costs higher. Despite that worry, AngloGold Ashanti earlier this month approved a dividend of \$1.65 per share, up from 95 cents in 2018. Dushinsky said he expects gold prices to be supported as the number of new discoveries dwindles. The trend is likely to continue and could force more consolidation in an industry that has already seen several multibillion-dollar deals in the past year. "The price of gold where it is now gives the companies an opportunity to invest," said Kirkland Lake Gold Chief Executive Tony Makuch. "The problem is that you're at a period of time where a lot of the shareholders suffered from not seeing returns." Barrick earlier this month hiked its dividend by 40%. Newmont has said it would raise its annual dividend 79% to \$1.

Strength in gold prices has encouraged miners to hedge their future exposure

Gold miners profit from the strong gold price to forward sell

Resolute Mining Limited has taken advantage of strength in the gold price to extend its US dollar dominated gold hedge position for the first half of 2021 - forward selling 30,000 ounces of gold at an average price of US\$1,590 per ounce. Managing director and CEO John Welborn said: "Incremental expansion of our US dollar hedging position at levels which are significantly above our budgeted gold price, protects and supports Resolute's near-term cash flows." The hedging secures price certainty for a portion of the US dollar revenues generated from Resolute's African gold mines, the Syama Gold Mine in Mali and the Mako Gold Mine in Senegal. The sale will involve scheduled monthly deliveries of 5,000 ounces between January 2021 and June 2021. This extends Resolute's existing US dollar forward gold sales program, which consisted of 115,000 ounces of gold forward sold at an average price of US\$1,535 per ounce.

Golden Star Resources Ltd. announced that it has extended the discretionary gold price protection program (the "Hedging Program") previously announced in

August 2019. While the Hedging Program was initially established to provide gold price protection for the projected production from the Prestea Mine over a 12 month period commencing in August 2019, the Company has extended the Hedging Program to cover the projected production from the Prestea Mine through to the end of 2020. The Company has entered into zero cost collars on an additional 12,600 ounces with a floor price of \$1,500 per ounce and a ceiling of \$1,992 per ounce. The additional positions will mature at a rate of 4,200 ounces per month from October to December 2020. Together with the existing zero cost collars, the Company currently has gold price protection in place for 45,933 ounces at an average floor price of \$1,427 per ounce and an average ceiling price of \$1,816 per ounce.

Oceana Gold Corporation announced that it has entered into a forward gold sale arrangement with the support of members of the Company's current banking group whereby the Company will receive a pre-payment of \$78.5 million (approximately \$1,635 per ounce) on February 28, 2020, in exchange for delivering 48,000 gold ounces between September and December 2020. The advanced gold ounces sold represents just over 30% of expected gold production across that period and 13% of the Company's total 2020 full year production. Mick Wilkes, President and CEO of Oceana Gold said, "While we do not anticipate utilising gold prepayment arrangements as a standard practice going forward, it is an attractive option at today's high gold prices."

Global economies | Foreign exchange markets

Euro-Area confidence improved before coronavirus hit Italy

Coronavirus has hit the global economy harder than the trade war in 2019 but the general sentiment in Eurozone is starting to improve. The data come before Italy took a blow from the spread of the coronavirus so it is possible that the reversal of that positive economic surprise is coming in the next months.

Euro area economic confidence unexpectedly increased in February

As Bloomberg informs euro-area economic confidence unexpectedly increased in February, indicating the bloc was gaining momentum before Italy took a blow from the spread of the coronavirus. The European Commission's sentiment index rose for a fourth month in February, with improvements in industry, services and consumer optimism. While the results, along other reports, suggest a mild pickup after the economy's weak end to 2019, they may not fully reflect the current state of affairs. The virus outbreak that began in China is increasingly casting a pall over economic activity. With factories closed, air transport halted, and consumers confined to their homes, companies have grown more downbeat on their outlook. Credit Suisse cut its forecast for global economic growth this year to 2.2% from 2.6%. It sees the euro zone expanding just 0.5%. In Italy, the bloc's third-largest economy, several towns in the wealthy, industrialized north are under quarantine and public events have been canceled. The conducted Commission survey showed a second monthly gain in industry confidence, with a gauge for existing orders improving by the most in 2 1/2 years. Service providers expected demand to remain stable, while households' economic expectations jumped. Sentiment saw marked improvements in the Netherlands, France and Spain, as well as a small uptick in Germany. Much will depend on how the spread of the coronavirus will impact confidence in the weeks ahead. The epidemic has already triggered calls for more stimulative action by the European Central Bank, though with interest rates already negative and asset purchases underway, it's not clear how much more firepower it has left.

Covid-19 hit the economy harder than the trade war





Virus hits markets the way trade war did not








First came trade war, now a rapidly spreading global virus. It's the latter that has investors more nervous. Protectionism hurts economies, but gradually, mostly affecting prices and demand rather than availability. Yet closures in Chinese factories, and production squeezes, hit hard and fast. The People's Republic is the world's biggest goods exporter, accounting for 13% of global merchandise exports according to the World Trade Organization. It produces over 25% of computing and electrical exports. But there are more essential products to think of. China only accounts for 4% of global pharmaceutical exports, for example, but it's the biggest producer of many cheap drugs – about 80% of U.S. antibiotics come from China – and the sole provider of chemicals needed to make others. The auto trade in particular depends on a steady supply of items. Cars have tens of thousands of parts, and some have no easy substitutes. Fiat Chrysler and

Hyundai Motor have idled plants in Serbia and South Korea over missing Chinese parts, and other manufacturers have said they are down to a few weeks of supplies. Clusters of Covid-19 emerging in South Korea, Japan and Italy raise the risk that exports from these nations could also become scarce – leading to a compounding of supply chain problems. Supply chains are only as strong as their weakest link, and a whole lot more stress is probably coming. Markets haven't yet grasped how big this problem could be, but they are finally waking up to the fact that it is one.

Macroeconomic calendar

Important macroeconomic data releases

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²	
China							
⊗	20-Feb	New yuan loans (CNY bn)	Jan	3 340 ▲	1 140	3 100	▲
⊗⊗⊗	29-Feb	Official manufacturing PMI	Feb	35.7 ▼	50.0	45.0	●
Poland							
⊗⊗	19-Feb	Average gross salary (yoy)	Jan	7.1% ▲	6.2%	7.0%	▲
⊗	19-Feb	Employment (yoy)	Jan	1.1% ▼	2.6%	2.2%	●
⊗⊗⊗⊗	20-Feb	Sold industrial production (yoy)	Jan	1.1% ▼	3.8%	-0.4%	▲
⊗⊗	20-Feb	Producer inflation PPI (yoy)	Jan	0.8% ▼	1.0%	1.0%	●
⊗⊗⊗	21-Feb	Retail sales (yoy)	Jan	5.7% ▼	7.5%	6.1%	●
⊗	24-Feb	M3 money supply (yoy)	Jan	9.3% ▲	8.3%	8.8%	▲
⊗⊗	25-Feb	Unemployment rate	Jan	5.5% ▲	5.2%	5.5%	○
⊗⊗⊗⊗⊗	28-Feb	GDP (yoy) - final data‡	4Q	3.2% -	3.2%	--	
⊗⊗⊗⊗⊗	28-Feb	GDP (qoq) - final data	4Q	0.3% ▲	0.2%	--	
US							
⊗⊗	20-Feb	Philadelphia Fed business outlook	Feb	36.7 ▲	17.0	11.0	▲
⊗⊗⊗	21-Feb	Composite PMI - preliminary data	Feb	49.6 ▼	53.3	--	
⊗⊗⊗	21-Feb	Manufacturing PMI - preliminary data	Feb	--	51.9	51.5	
⊗⊗⊗	21-Feb	PMI services - preliminary data	Feb	49.4 ▼	53.4	53.4	●
⊗	24-Feb	Dallas Fed manufacturing activity	Feb	1.2 ▲	-0.2	0.0	▲
⊗	25-Feb	Richmond Fed manufacturing index	Feb	-2.0 ▼	20.0	10.0	●
⊗	25-Feb	S&P/CaseShiller home price index‡	Dec	219 ▲	219	--	
⊗⊗⊗⊗⊗	27-Feb	GDP (annualized, qoq) -	4Q	2.1% -	2.1%	2.1%	○
⊗⊗	27-Feb	Durable goods orders - preliminary data‡	Jan	-0.2% ▼	2.9%	-1.4%	▲
⊗⊗⊗⊗	28-Feb	Consumer spending inflation PCE (mom)	Jan	0.1% ▼	0.2%	0.2%	●
⊗⊗⊗⊗	28-Feb	Consumer spending inflation PCE (yoy)‡	Jan	1.6% ▲	1.5%	1.7%	●
⊗⊗	28-Feb	Personal income (sa, mom)‡	Jan	0.6% ▲	0.1%	0.4%	▲
⊗⊗	28-Feb	Personal spending (sa, mom)‡	Jan	0.2% ▼	0.4%	0.3%	●
⊗⊗	28-Feb	University of Michigan confidence index - final data	Feb	101 ▲	101	101	▲
Eurozone							
⊗	18-Feb	ZEW survey expectations	Feb	10.4 ▼	25.6	--	
⊗	20-Feb	Consumer confidence - estimation	Feb	-6.6 ▲	-8.1	-8.2	▲
⊗⊗⊗⊗	21-Feb	Consumer inflation CPI (yoy) - final data‡	Jan	1.4% ▲	1.3%	1.4%	○
⊗⊗⊗⊗	21-Feb	Core CPI (yoy) - final data	Jan	1.1% -	1.1%	1.1%	○
⊗⊗⊗	21-Feb	Composite PMI - preliminary data	Feb	--	51.3	51.0	
⊗⊗⊗	21-Feb	Manufacturing PMI - preliminary data	Feb	--	47.9	47.4	
⊗⊗⊗	21-Feb	Services PMI - preliminary data	Feb	--	52.5	52.3	
⊗	27-Feb	M3 money supply (yoy)‡	Jan	5.2% ▲	4.9%	5.3%	●
⊗	27-Feb	Economic confidence‡	Feb	104 ▲	103	103	▲
⊗	27-Feb	Industrial confidence‡	Feb	-6.1 ▲	-7.0	-7.2	▲
⊗	27-Feb	Consumer confidence - final data	Feb	-6.6 -	-6.6	--	

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²	
Germany							
☉☉	20-Feb	GfK consumer confidence	Mar	9.8 ▼	9.9	9.8	☉
☉☉☉	21-Feb	Composite PMI - preliminary data	Feb	--	51.2	50.7	☉
☉☉☉	21-Feb	Manufacturing PMI - preliminary data	Feb	--	45.3	44.8	☉
☉☉	24-Feb	IFO business climate‡	Feb	96.1 ▲	96.0	95.3	▲
☉☉☉☉☉	25-Feb	GDP (yoy) - final data	4Q	0.3% -	0.3%	0.3%	☉
☉☉☉☉☉	25-Feb	GDP (sa, qoq) - final data	4Q	0.0% -	0.0%	0.0%	☉
☉☉☉☉	28-Feb	Harmonized consumer inflation HICP (yoy) - preliminary data	Feb	1.7% ▲	1.6%	1.6%	▲
☉☉☉☉	28-Feb	Consumer inflation CPI (yoy) - preliminary data	Feb	1.7% -	1.7%	1.7%	☉
☉☉	28-Feb	Unemployment rate	Feb	5.0% -	5.0%	5.0%	☉
France							
☉☉☉☉	20-Feb	Harmonized consumer inflation HICP (yoy) - final data‡	Jan	1.7% -	1.7%	1.6%	▲
☉☉☉☉	20-Feb	Consumer inflation CPI (yoy) - final data	Jan	1.5% -	1.5%	1.5%	☉
☉☉☉	21-Feb	Composite PMI - preliminary data	Feb	--	51.1	51.0	☉
☉☉☉	21-Feb	Manufacturing PMI - preliminary data	Feb	--	51.1	50.7	☉
☉☉☉☉☉	28-Feb	GDP (yoy) - final data	4Q	0.9% ▲	0.8%	0.8%	▲
☉☉☉☉☉	28-Feb	GDP (qoq) - final data	4Q	-0.1% -	-0.1%	-0.1%	☉
☉☉☉☉	28-Feb	Harmonized consumer inflation HICP (yoy) - preliminary data	Feb	1.6% ▼	1.7%	1.6%	☉
☉☉☉☉	28-Feb	Consumer inflation CPI (yoy) - preliminary data	Feb	1.4% ▼	1.5%	1.5%	☉
Italy							
☉☉☉☉	21-Feb	Harmonized consumer inflation HICP (yoy) - final data	Jan	0.4% ▼	0.5%	0.5%	☉
☉☉☉☉	28-Feb	Harmonized consumer inflation HICP (yoy) - preliminary data	Feb	0.3% ▼	0.4%	0.4%	☉
UK							
☉☉	18-Feb	Unemployment rate (ILO, 3-months)	Dec	3.8% -	3.8%	3.8%	☉
☉☉☉☉	19-Feb	Consumer inflation CPI (yoy)	Jan	1.8% ▲	1.3%	1.6%	▲
☉☉☉	21-Feb	Manufacturing PMI (sa) - preliminary data	Feb	--	50.0	49.7	☉
☉☉☉	21-Feb	Composite PMI - preliminary data	Feb	--	53.3	52.8	☉
Japan							
☉☉☉☉☉	17-Feb	GDP (annualized, qoq) - preliminary data‡	4Q	-6.3% ▼	0.5%	-3.8%	☉
☉☉☉☉☉	17-Feb	GDP (qoq, sa) - preliminary data‡	4Q	-1.6% ▼	0.1%	-1.0%	☉
☉☉☉☉	17-Feb	Industrial production (yoy) - final data‡	Dec	-3.1% -	-3.1%	--	☉
☉☉☉☉	21-Feb	Consumer inflation CPI (yoy)	Jan	0.7% ▼	0.8%	0.7%	☉
☉☉☉	21-Feb	Composite PMI - preliminary data	Feb	--	50.1	--	☉
☉☉☉	21-Feb	Manufacturing PMI - preliminary data	Feb	--	48.8	--	☉
☉☉☉☉	28-Feb	Industrial production (yoy) - preliminary data	Jan	-2.5% ▲	-3.1%	-3.1%	▲
Chile							
☉☉☉	28-Feb	Total copper production (metric tons)	Jan	466 723 ▼	554 953	--	☉
☉☉☉	28-Feb	Manufacturing (yoy)	Jan	3.4% ▼	4.2%	1.7%	☉
Canada							
☉☉☉☉	19-Feb	Consumer inflation CPI (yoy)	Jan	2.4% ▲	2.2%	2.3%	▲
☉☉☉☉☉	28-Feb	GDP (yoy)‡	Dec	1.9% ▲	1.6%	1.6%	▲
☉☉☉☉☉	28-Feb	GDP (annualized, qoq)‡	4Q	0.3% ▼	1.1%	0.3%	☉

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

² Reading difference to consensus: ▲ = higher than consensus; ▼ = lower than consensus; ☉ = equal to consensus.

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

Source: Bloomberg, KGHM Polska Miedź

Key market data

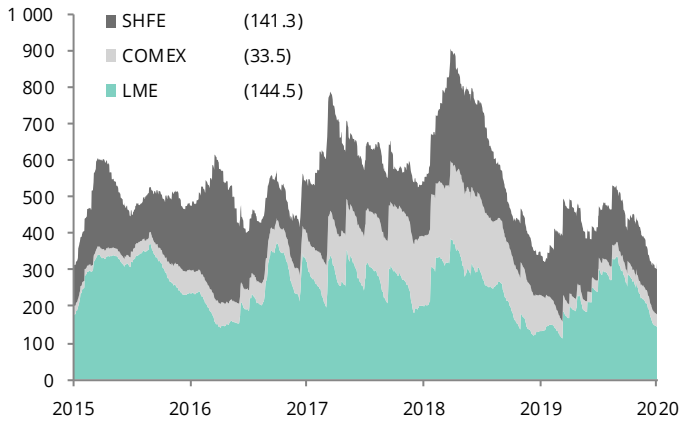
Key base & precious metal prices, exchange rates and other important market factors

<i>(as of: 03-Jan-20)</i>		Price change ¹					From year beginning ²		
	Price	3W	QTD	YTD	1Y	Average	Min	Max	
LME (USD/t; Mo in USD/lbs)									
Copper	6 077.00	▼ -1.3%	▼ -1.3%	▼ -1.3%	▲ 4.6%	6 121.25	6 077.00	6 165.50	
Molybdenum	9.32	▲ 1.5%	▲ 1.3%	-	-	9.26	9.20	9.32	
Nickel	13 740.00	▼ -2.4%	▼ -1.9%	▼ -1.9%	▲ 28.2%	13 907.50	13 740.00	14 075.00	
Aluminum	1 758.00	▼ -0.3%	▼ -2.3%	▼ -2.3%	▼ -3.7%	1 765.00	1 758.00	1 772.00	
Tin	16 750.00	▼ -2.5%	▼ -0.6%	▼ -0.6%	▼ -14.1%	16 950.00	16 750.00	17 150.00	
Zinc	2 284.00	▲ 0.7%	▼ -0.4%	▼ -0.4%	▼ -7.9%	2 291.50	2 284.00	2 299.00	
Lead	1 889.50	▲ 0.9%	▼ -1.8%	▼ -1.8%	▼ -2.8%	1 896.75	1 889.50	1 904.00	
LBMA (USD/troz)									
Silver	18.21	▲ 7.0%	▲ 0.9%	▲ 0.9%	▲ 17.2%	18.07	17.93	18.21	
Gold ²	1 548.75	▲ 4.8%	▲ 1.7%	▲ 1.7%	▲ 20.0%	1 537.93	1 527.10	1 548.75	
LPPM (USD/troz)									
Platinum ²	983.00	▲ 5.5%	▲ 1.2%	▲ 1.2%	▲ 23.8%	985.00	983.00	987.00	
Palladium ²	1 977.00	▲ 0.7%	▲ 3.0%	▲ 3.0%	▲ 55.8%	1 961.50	1 946.00	1 977.00	
FX ³									
EURUSD	1.1147	▲ 0.0%	▼ -0.8%	▼ -0.8%	▼ -1.8%	1.1170	1.1147	1.1193	
EURPLN	4.2569	▼ -0.2%	▼ 0.0%	▼ 0.0%	▼ -1.1%	4.2570	4.2569	4.2571	
USDPLN	3.8213	▼ -0.3%	▲ 0.6%	▲ 0.6%	▲ 1.0%	3.8107	3.8000	3.8213	
USDCAD	1.2988	▼ -1.2%	-	-	▼ -3.8%	1.2990	1.2988	1.2992	
USDCNY	6.9663	▼ -0.4%	▲ 0.0%	▲ 0.0%	▲ 1.4%	6.9653	6.9643	6.9663	
USDCLP	754.16	▼ -1.6%	▲ 0.7%	▲ 0.7%	▲ 8.2%	751.45	748.74	754.16	
Money market									
3m LIBOR USD	1.874	▼ -0.02	▼ -0.03	▼ -0.03	▼ -0.92	1.887	1.874	1.900	
3m EURIBOR	-0.384	▲ 0.01	▼ 0.00	▼ 0.00	▼ -0.08	-0.382	-0.384	-0.379	
3m WIBOR	1.710	▲ 0.01	-	-	▼ -0.01	1.710	1.710	1.710	
5y USD interest rate swap	1.610	▼ -0.08	▼ -0.12	▼ -0.12	▼ -0.81	1.651	1.610	1.693	
5y EUR interest rate swap	-0.181	▲ 0.00	▼ -0.07	▼ -0.07	▼ -0.33	-0.164	-0.181	-0.146	
5y PLN interest rate swap	1.748	▲ 0.08	▼ -0.03	▼ -0.03	▼ -0.31	1.766	1.748	1.785	
Fuel									
WTI Cushing	63.05	▲ 4.7%	▲ 3.3%	▲ 3.3%	▲ 33.9%	62.12	61.18	63.05	
Brent	68.96	▲ 2.8%	▲ 3.8%	▲ 3.8%	▲ 26.3%	67.79	66.62	68.96	
Diesel NY (ULSD)	206.01	▲ 2.8%	▲ 1.6%	▲ 1.6%	▲ 18.3%	203.94	201.86	206.01	
Others									
VIX	14.02	▲ 1.88	▲ 0.24	▲ 0.24	▼ -11.43	13.25	12.47	14.02	
BBG Commodity Index	81.37	▲ 1.5%	▲ 0.6%	▲ 0.6%	▲ 5.1%	81.18	81.00	81.37	
S&P500	3 234.85	▲ 1.4%	▲ 0.1%	▲ 0.1%	▲ 32.1%	3 246.35	3 234.85	3 257.85	
DAX	13 219.14	▼ -1.4%	▼ -0.2%	▼ -0.2%	▲ 26.9%	13 302.54	13 219.14	13 385.93	
Shanghai Composite	3 083.79	▲ 3.3%	▲ 1.1%	▲ 1.1%	▲ 25.1%	3 084.49	3 083.79	3 085.20	
WIG 20	2 173.97	▲ 2.9%	▲ 1.1%	▲ 1.1%	▼ -3.3%	2 187.04	2 173.97	2 200.10	
KGHM	96.12	▼ -2.0%	▲ 0.6%	▲ 0.6%	▲ 11.6%	97.01	96.12	97.90	

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

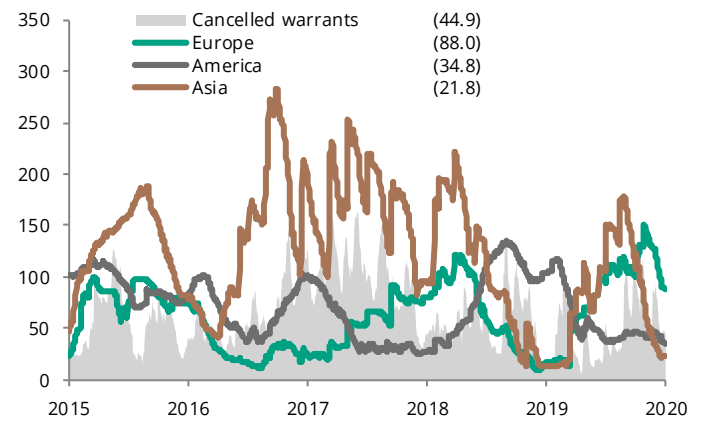
Source: Bloomberg, KGHM Polska Miedź

Copper: official exchange stocks (thousand tonnes)



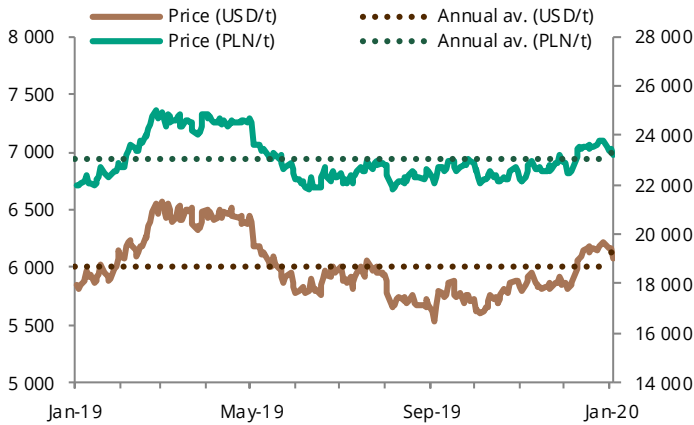
Note: Latest values in brackets. Source: Bloomberg, KGHM

Copper: official LME stocks (thousand tonnes)



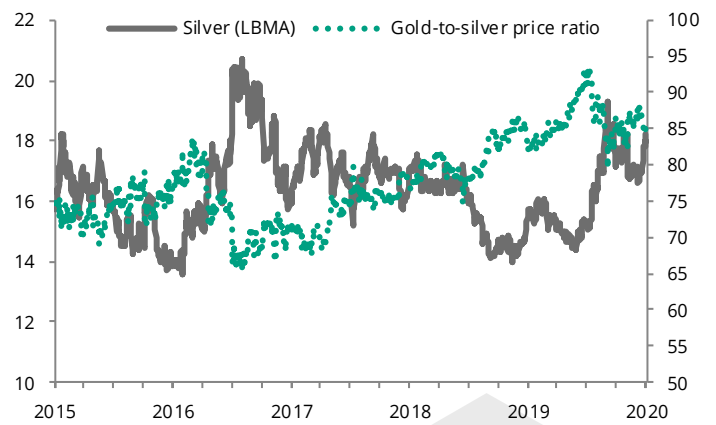
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



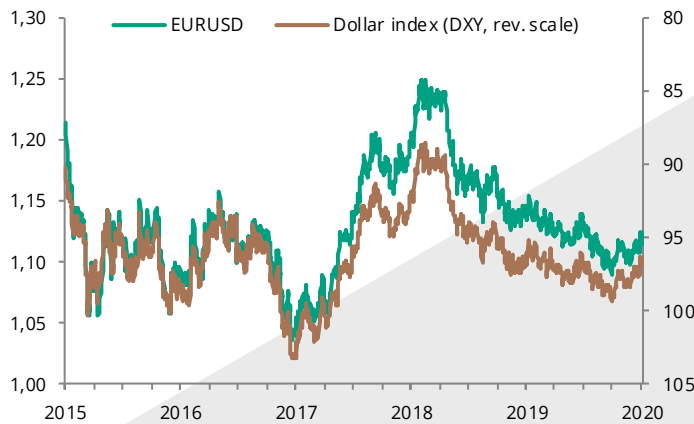
Source: Bloomberg, KGHM Polska Miedź

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



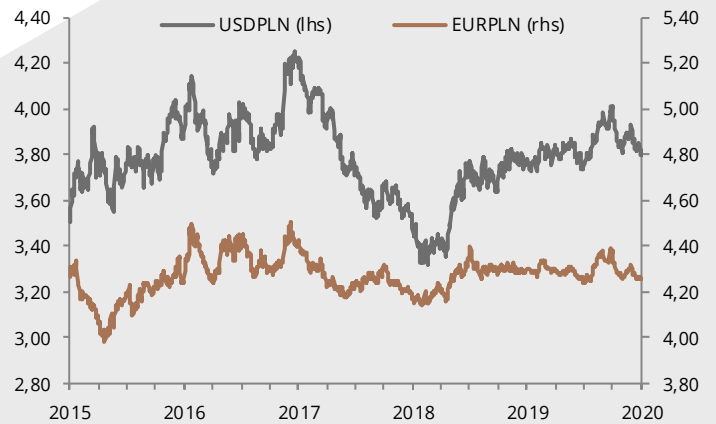
Source: Bloomberg, KGHM Polska Miedź

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



Source: Bloomberg, KGHM Polska Miedź

PLN: NBP-fixing based rate vs. USD (lhs) and EUR (rhs)



Source: Bloomberg, KGHM Polska Miedź

Legal note

This document has been prepared based on the below listed reports, among others, published in the following period:
16 December 2019 – 05 January 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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