

Market Overview

- **Copper:** The metal is often used as a marker for economic health. But in this case, a raw materials shortage that boosts prices would speak more to the baleful impact of the coronavirus on supply chains and global growth prospects (*page 2*).
- **Precious metals:** The action is so fierce that the existing supply of these bullion coins is not enough to meet demand. So, the United States Mint has to mint new ones to fill orders from distributors who have no inventory left yet still have customers clamoring for more (*page 4*).
- **Crude oil:** After falling to -40.32 USD per barrel, U.S. crude oil bounced back into positive territory. But a historic plunge below zero rattled investors and triggered the steepest drop in Asian stock markets in a month (*page 5*).
- **World:** The IMF predicts that the global economy will shrink by 3.0% in 2020, and the current coronavirus crisis will be the deepest since the Great Depression of the 1930s. The recovery is expected in 2021, but due to the expected limited economic activity it will be only partial (*page 6*).



as of: 27th April 2020

Key market prices

	Close price	2w chng.
LME (USD/t)		
▲ Copper	5 118.00	3.1%
▲ Nickel	12 073.00	5.4%
LBMA (USD/troz)		
▲ Silver	15.32	0.9%
▲ Gold (PM)	1 715.90	2.1%
FX		
▼ EURUSD	1.0800	-0.6%
▼ EURPLN	4.5330	-0.3%
▲ USDPLN	4.2142	1.4%
▲ USDCAD	1.4090	1.1%
▲ USDCLP	858.87	2.3%
Stocks		
▲ KGHM	72.80	5.0%

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

Important macroeconomic data

Release	For	
 GDP (yoy)	1Q	-6.8% ▼
 Industrial prod. (mom)	Mar	-5.4% ▼
 Composite PMI	Apr	13.5 ▼
 Composite PMI	Apr	27.4 ▼
 Retail sales (yoy)	Mar	-7.1% ▼

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

The day before the WTI futures contract for May delivery expired, it closed at -37.63 USD per barrel



Source: Bloomberg, KGHM Polska Miedź S.A.

Market Risk Unit

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Base and precious metals | Other commodities

Copper

The metal is often used as a marker for economic health. But in this case, a raw materials shortage that boosts prices would speak more to the baleful impact of the coronavirus on supply chains and global growth prospects.

Pandemic Leaves Copper Scrap Costing More Than Finished Metal

In recent weeks, the cost of scrap has been similar to or even more than the price of the refined copper, according to Shanghai Metals Market

China's copper market is tightening on two fronts. The availability of ore is shrinking as overseas mines curtail production, and the supply of a key substitute, copper scrap, is also drying up because of disruptions related to the coronavirus pandemic. In recent weeks, the cost of scrap has been similar to or even more than the price of the refined copper, according to Shanghai Metals Market. It's a rare occurrence in an industry where the difference is often measured in thousands of yuan a ton, and could help lift copper prices in the world's top consumer. The metal is often used as a marker for economic health because of its broad usage across construction, consumer goods and energy transmission. But in this case, a raw materials shortage that boosts prices would speak more to the baleful impact of the coronavirus on supply chains and global growth prospects. "The copper scrap market is especially tight, as we barely see any supplies from overseas right now," said Ma Zhijun, an analyst with Mysteel Global. "There is a very limited amount circulating in the domestic market." China is the world's biggest buyer of copper ore and its top smelter, leaving it vulnerable to the impact of the pandemic on mines in South America, and to disruptions to the production and trade of copper waste from places such as Europe and Southeast Asia. The scrap shortage comes as domestic demand for refined copper is gradually restored. Inventories are being drawn down and prices have been recovering from their 2016 lows since late March, amid policy support in China and unprecedented efforts globally to revive growth. Smelters have cut their fees to process copper blister, a semi-finished product, to record lows as they compete for raw materials, which is weighing on their profitability. Treatment charges fell to 1,050 yuan (\$148) a ton, matching December's trough in data going back to the beginning of 2017, according to Asian Metal Inc. Treatment charges for mined copper are also near a three-month low, which all points to possible cuts in output of the refined metal in a few weeks' time, said Ji Xianfei, an analyst with Guotai Junan Futures Co. To help ease supply tightness in the recent time China twice lifted aluminum/copper scrap import quotas. China Solid Waste and Chemicals Management Bureau, issued import allowances for 191,100 mt of aluminum scrap and 222,020 mt of copper scrap in the fifth batch and another 2,150 tonnes of high-grade copper scrap as well as 1,030 tonnes of aluminium scrap and 1,510 tonnes of steel scrap in the sixth batch of quotas. In total, China has now approved import quotas for 529,761

tonnes of copper scrap, 476,679 tonnes of aluminium scrap and 11,230 tonnes of steel scrap in 2020, according to Reuters calculations. The quotas are being closely watched amid signs that top metals consumer China, which tightened restrictions on scrap metal imports from July last year, could be leaving itself short of a key source of supply. China classes scrap metal as a solid waste, imports of which it aims to cut to zero by end-2020, but high-quality copper and aluminium scrap meeting new standards will be able to enter as a resource from July this year.

Other important information on copper market:

- The Czech state agency for emergency reserves has said it is preparing to sell off just under 12 million mt of excess non-ferrous metals from its stocks this year, including 8.89 million mt of aluminum, 1.36 million mt of copper, and 1.43 million mt of zinc. The Czech government last year announced plans to offload most of its non-ferrous reserves, saying that its stockpiling was no longer judged strategically necessary. The sale was originally planned to go ahead in two stages with Koruna 600 million (\$23.7 million) planned to be raised this year and Koruna 1.6 billion raised from a second offer of metals to be made in 2021. It is not yet clear whether a follow up offer next year is still envisaged.
- Chile's Antofagasta recently cut capital expenditure for the year and said copper production would be at the lower end of its range of 725,000-755,000 tonnes due to the coronavirus pandemic. The London-listed miner announced it would suspend its Los Pelabres Expansion project for about four months and was operating with about two-thirds of its workforce at its mines in Chile. "Copper production, costs and capital expenditure guidance for 2020 is highly dependent on how the health emergency evolves over the coming months," Antofagasta said in a statement. Capital expenditure for the year would now amount to less than \$1.3 billion compared to an original plan of \$1.5 billion, the miner said. Other metals producers such as Glencore and Norsk Hydro have also moved to shore up their balance sheets by delaying dividend payments. Anglo American, Teck Resources and Freeport-McMoran are among those which have announced temporary closures of operations.
- Mines around the world are cutting output due to the coronavirus pandemic, leaving top metals consumer China fretting over supply as it recovers from the initial demand shock that the outbreak inflicted on its economy. China last year relied on imports for almost 80% of its copper concentrate, based on International Copper Study Group data. According to Tongling Nonferrous, copper mining in Peru and Chile was disrupted by the virus, and so were shipments which in resultant is expected to impact concentrate supply for smelters in mainland China over the next few months. China's April copper cathode output is likely to dip 0.36% from March to 741,000 mt, estimates from consultancy Shanghai Metal Market showed. China's March copper ore and concentrate imports fell to the lowest level since September 2019, to 1.78 million mt, customs data showed. Meanwhile, TC/RC refining charges for China were just \$61.20/mt and 6.12 cents/lb, respectively, lower than the

China Smelters Purchase Team's (CSPT) TC/RC floor of \$67/mt and 6.7 cents/lb for Q1.

- Copper inventories in warehouses tracked by the Shanghai Futures Exchange (ShFE) dropped for the sixth straight week on Friday the 24th of April, to 259,037 tonnes, the lowest level since Feb. 7, as many businesses restarted operations in top consumer China. Inventories of all other industrial metals also fell, with aluminium inventories hitting their lowest since February 28 at 458,403 tonnes, lead dropping to 7,074 tonnes, the lowest since end-October 2018.
- The global world refined copper market showed a 5,000 tonnes surplus in January, compared with a 54,000 tonnes surplus in December, the International Copper Study Group (ICSG) said. For the first month of the year, the market was in a 5,000 tonnes surplus compared with a 77,000 tonnes deficit in the same period a year earlier, the ICSG said. World refined copper output in January was 2.07 million tonnes, while consumption was 2.07 million tonnes. Bonded stocks of copper in China showed a 65,000 tonnes surplus in January compared with a 71,000 tonnes surplus in December.

Precious Metals

The action is so fierce that the existing supply of these bullion coins is not enough to meet demand. So, the United States Mint has to mint new ones to fill orders from distributors who have no inventory left yet still have customers clamoring for more.

US Mint: "US Precious Metals Coin Sales Skyrocket"

When we saw the last economic, the Financial Crisis and Great Recession, it took 11 yrs until precious metal bullion sales finally settled back to their pre-crisis levels

As the COVID-19 pandemic erupted, so too did demand for newly minted platinum, gold, and silver coins from the US Mint. In times of crisis and doubt, investors move some assets to safe-havens. The demand is so high it is currently stripping the Mint's supply. Sales of the American Eagle Platinum, America's official bullion coin, were the highest since the launch of the program in Y 1997, spiking from 9,300 oz in February to 31,200 oz in March. To date, Y 2020 sales have now exceeded annual sales going back to Y 1999. Gold sales are also strong. American Eagle Gold (22ct) and American Buffalo gold (24ct) is up from 7,000 oz and 1000 oz in February to 151,500 oz and 47,500 oz in March respectively, both gold bullion coins had their 3rd best month in 10 yrs. And American Eagle silver sales kept pace with its platinum and gold cousins. Sales jumped from 650,000 oz in February to 5,482,500 oz in March. They are the 7th highest in the history of the program, which began in Y 1986. Many bullion investors are individuals seeking a hedge to manage risk. They are not institutions as they do not have sophisticated financial instruments like derivatives at their disposal. What they do have is cash and access to precious metal bullion coins. Gold prices went from 1,471 in March to 1,726 in April. Silver prices went from 12.11 to 15.70 and platinum from 588 to 784 over the same frame. The action is so fierce that the existing supply of these bullion coins is not enough to meet demand. So, the

United States Mint has to mint new ones to fill orders from distributors who have no inventory left yet still have customers clamoring for more. As a result, the Mint is making bullion coins at a pace not seen since the Y 2008 Financial Crisis and the Great Recession. Making things complex; the Mint's facility in West Point, NY is currently idled due to a COVID-19 cases in the surrounding area. It makes the majority of precious metal bullion coins. Demand is expected to continue at least until we reach something resembling normal. When we saw the last economic, the Financial Crisis and Great Recession, it took 11 yrs until precious metal bullion sales finally settled back to their pre-crisis levels.

Crude oil

After falling to -40.32 USD per barrel, U.S. crude oil bounced back into positive territory. But a historic plunge below zero rattled investors and triggered the steepest drop in Asian stock markets in a month.

Crude Costs Money Again

International benchmark Brent crude, held around \$25.38 per barrel. That is still some 60% under January's peak

After WTI futures CLc1 turned negative for the first time ever on Monday [20th April], touching a low of minus \$40.32 a barrel before closing at minus \$37.63 a barrel, U.S. crude oil bounced back into positive territory on Tuesday [21st April]. But a historic plunge below zero rattled investors and triggered the steepest drop in Asian stock markets in a month. Traders could not give away West Texas Intermediate CLc1 overnight after a storage squeeze turned holders of the contracts expiring later on Tuesday to forced sellers. A \$39 rise leaves the price for May delivery at \$1.38 per barrel and investors unnerved about further dislocation. MSCI's broadest index of Asia-Pacific shares outside Japan lost 2%, as did the Nikkei, EuroSTOXX 50 futures and FTSE futures. E-mini futures for the S&P 500 fell 0.5%, while bonds and the dollar rose. "The (oil) price action was scary," said Kyle Rodda, market analyst at IG Markets in Melbourne. "It points to the fact that supply and demand has been destroyed." The collapse also came together with more signs of a slow and difficult recovery from the COVID-19 pandemic. The World Health Organization warned that any lifting of lockdowns to contain the spread of the novel coronavirus must be gradual, and if restrictions were to be relaxed too soon, there would be a resurgence of infections. Hong Kong's government said it will extend restrictions aimed at tackling the coronavirus for another two weeks. German Chancellor Angela Merkel cautioned that lockdown measures could be tightened again if fresh cases arise. And in the United States, a return to work is looking increasingly chaotic, as some states relax lockdowns while others urging caution. DBS strategists Philip Wee and Eugene Leow said in a note. "Weak oil prices and China's negative growth are reminders that the coronavirus has hurt demand." Stabilization the May contract just above zero and June prices at \$21 per barrel point to some relief. International benchmark Brent crude, held around \$25.38 per barrel. That is still some 60% under January's peak, highlighting the disruption to energy consumption and the long road back to solid global growth that underpins oil demand.

Global economies | Foreign exchange markets

Coronavirus 'Great Lockdown' To Shrink Global Economy By 3% In 2020

The IMF predicts that the global economy will shrink by 3.0% in 2020, and the current coronavirus crisis will be the deepest since the Great Depression of the 1930s. The recovery is expected in 2021, but due to the expected limited economic activity it will be only partial.

"It is very likely that this year the global economy will experience its worst recession since the Great Depression, surpassing" the IMF said

The global economy is expected to shrink by 3.0% during 2020 in a stunning coronavirus-driven collapse of activity that will mark the steepest downturn since the Great Depression of the 1930s, the International Monetary Fund said. The IMF, in its 2020 World Economic Outlook, predicted a partial rebound in 2021, with the world economy growing at a 5.8% rate, but said its forecasts were marked by "extreme uncertainty" and that outcomes could be far worse, depending on the course of the pandemic. "This recovery in 2021 is only partial as the level of economic activity is projected to remain below the level we had projected for 2021, before the virus hit," Under the Fund's best-case scenario, the world is likely to lose a cumulative \$9 trillion in output over two years - greater than the combined GDP of Germany and Japan. The IMF's forecasts assume that outbreaks of the novel coronavirus will peak in most countries during the second quarter and fade in the second half of the year, with business closures and other containment measures gradually unwound. A longer pandemic that lasts through the third quarter could cause a further 3% contraction in 2020 and a slower recovery in 2021, due to effects of bankruptcies and prolonged unemployment. A second outbreak in 2021 that forces more shutdowns could cause a reduction of 5 to 8 percentage points in the global gross domestic product baseline forecast for next year, keeping the world in recession for a second straight year. "It is very likely that this year the global economy will experience its worst recession since the Great Depression, surpassing that seen during the global financial crisis a decade ago," the IMF said in its report. "The Great Lockdown, as one might call it, is projected to shrink global growth dramatically."

IMF Managing Director Kristalina Georgieva said last week that some \$8 trillion in fiscal stimulus being poured in by governments to stave off collapse was not likely to be enough. She is expected to argue this week for more debt relief for the poorest countries. The global economy contracted 0.7% in 2009 - previously the worst downturn since the 1930s - according to IMF data. In January the IMF had predicted that the global economy would grow 3.3% in 2020 as U.S.-China trade tensions were starting to ease, with 3.4% growth seen for 2021.

Advanced economies now suffering the worst outbreaks of the virus will bear the brunt of the plunge in activity. The U.S. economy will contract 5.9% in 2020, with a rebound to 4.7% growth in 2021 under the Fund's best-case scenario. Euro zone economies will contract by 7.5% in 2020, with hard-hit Italy seeing its GDP fall 9.1% and contractions of 8.0% in Spain, 7.0% in Germany and 7.2% in France.

It predicted euro-area economies as a whole would match U.S. growth of 4.7% in 2021. China, where the coronavirus outbreak peaked in the first quarter and business activity is resuming with the help of large fiscal and monetary stimulus, will maintain positive growth of 1.2% in 2020, a reduction from 6% growth in the IMF's January forecast. China's economy is forecast to grow 9.2% in 2021, the IMF said. India's 2020 fiscal-year growth also is expected to stay in positive territory, but Latin American economies, which are still experiencing growing coronavirus outbreaks, will see a contraction of 5.2%. The Fund called for central bank liquidity swap lines to be extended to more emerging market countries, which face a double problem of locked-down activity and tightening financial conditions caused by a massive outflow of funds to safe-haven assets such as U.S. Treasuries. It said some countries may need to turn to temporary limits on capital outflows.

France Example Suggests Easing Lockdowns Will Lift Output By 20%





























Rough calculations done by Bloomberg Economics suggest the move from full lockdown to moderate containment could allow output gains of about 20%, with a further 10% boost achievable as mild social distancing becomes the norm. Additionally academic evidence, suggests that school closures matter a lot for the output because they affect labor supply.

Reopening Europe's schools and businesses shuttered by the coronavirus outbreak could lift economic output by 20%, according to a rough estimate by Bloomberg Economics. The view is based on a French estimate that about 35% of output is lost because of stringent restrictions on movement. Moving to this "moderate" scenario reduces the hit to activity to around 16%. A "mild" containment, where most activity returns to normal but restrictions on gatherings and international travel linger, lowers it to 5%. Countries across Europe have taken a variety of measures in response to the spread of the virus, though they're now considering how to get people back to work amid signs the crisis may be abating. In Germany, the region's largest economy, some smaller shops will be allowed to start serving customers again soon, and schools will gradually reopen in early May. "Our back-of-the-envelope calculations suggest the move from full lockdown to moderate containment could allow output gains of about 20%, with a further 10% boost achievable as mild social distancing becomes the norm," BE economists Jamie Rush and Maeva Cousin wrote. For the calculation, they combined the estimate by France's Insee with an Oxford University index categorizing countries' lockdowns. They assumed a linear relationship between the two. They also argue that lockdown scenarios with school closures are consistent with a hit to GDP of 15%, though the effect of locked classrooms can't be split out precisely. Academic evidence, however, suggests school closures matter a lot because they affect labor supply.

Macroeconomic calendar

Important macroeconomic data releases

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
China						
⊗⊗	14-Apr	Trade balance (USD bn)‡	Mar	19.9 ▼	47.2	20.0 ◡
⊗⊗	14-Apr	Exports (yoy)	Mar	-6.6%	--	-13.9% ◡
⊗⊗⊗⊗⊗	17-Apr	GDP (yoy)	1Q	-6.8% ▼	6.0%	-6.0% ◡
⊗⊗⊗⊗⊗	17-Apr	GDP (sa, qoq)	1Q	-9.8% ▼	1.5%	-12.0% ◡
⊗⊗⊗⊗	17-Apr	Industrial production (yoy)	Mar	-1.1%	--	-6.2% ◡
⊗⊗	17-Apr	Fixed assets investments (ytd, yoy)	Mar	-16.1% ▲	-24.5%	-15.0% ◡
⊗	17-Apr	Retail sales (yoy)	Mar	-15.8%	--	-10.0% ◡
Poland						
⊗⊗	14-Apr	Trade balance (EUR mn)‡	Feb	525 ▲	480	300 ◡
⊗⊗	14-Apr	Exports (EUR mn)‡	Feb	19 463 ▲	19 362	19 485 ◡
⊗⊗	14-Apr	Current account balance (EUR mn)‡	Feb	659 ▼	2 348	722 ◡
⊗⊗⊗⊗	15-Apr	Consumer inflation CPI (yoy)	Mar	4.6% ▼	4.7%	4.4% ◡
⊗⊗⊗⊗	16-Apr	Core CPI (excluding food and energy, yoy)	Mar	3.6% -	3.6%	3.4% ◡
⊗⊗	20-Apr	Average gross salary (yoy)	Mar	6.3% ▼	7.7%	6.5% ◡
⊗	20-Apr	Employment (yoy)	Mar	0.3% ▼	1.1%	0.8% ◡
⊗⊗⊗⊗	21-Apr	Sold industrial production (yoy)‡	Mar	-2.3% ▼	4.8%	-3.3% ◡
⊗⊗	21-Apr	Producer inflation PPI (yoy)‡	Mar	-0.5% ▼	0.2%	-0.5% ◡
⊗⊗⊗	22-Apr	Retail sales (yoy)	Mar	-7.1% ▼	9.6%	-0.6% ◡
⊗	23-Apr	M3 money supply (yoy)	Mar	11.8% ▲	9.4%	9.6% ◡
⊗⊗	24-Apr	Unemployment rate	Mar	5.4% ▼	5.5%	5.6% ◡
US						
⊗⊗⊗⊗	15-Apr	Industrial production (mom)‡	Mar	-5.4% ▼	0.5%	-4.0% ◡
⊗⊗	15-Apr	Retail sales (excluding autos, mom)	Mar	-4.5% ▼	-0.4%	-5.0% ◡
⊗	15-Apr	Capacity utilization	Mar	72.7% ▼	77.0%	74.0% ◡
⊗⊗	16-Apr	Philadelphia Fed business outlook	Apr	-56.6 ▼	-12.7	-32.0 ◡
⊗⊗⊗	23-Apr	Composite PMI - preliminary data	Apr	27.4 ▼	40.9	--
⊗⊗⊗	23-Apr	Manufacturing PMI - preliminary data	Apr	36.9 ▼	48.5	35.0 ◡
⊗⊗⊗	23-Apr	PMI services - preliminary data	Apr	27.0 ▼	39.8	30.0 ◡
⊗⊗	24-Apr	Durable goods orders - preliminary data‡	Mar	-14.4% ▼	1.1%	-12.0% ◡
⊗⊗	24-Apr	University of Michigan confidence index - final data	Apr	71.8 ▲	71.0	68.0 ◡
Eurozone						
⊗⊗⊗⊗	16-Apr	Industrial production (sa, mom)	Feb	-0.1% ▼	2.3%	-0.1% ◡
⊗⊗⊗⊗	16-Apr	Industrial production (wda, yoy)‡	Feb	-1.9% ▼	-1.7%	-1.9% ◡
⊗⊗⊗⊗	17-Apr	Consumer inflation CPI (yoy) - final data‡	Mar	0.7% ▼	1.2%	0.7% ◡
⊗⊗⊗⊗	17-Apr	Core CPI (yoy) - final data	Mar	1.0% -	1.0%	1.0% ◡
⊗	20-Apr	Trade balance (EUR mn)	Feb	23.0 ▲	1.3	--
⊗	21-Apr	ZEW survey expectations	Apr	25.2 ▲	-49.5	--
⊗	22-Apr	Consumer confidence - estimation	Apr	-22.7 ▼	-11.6	-20.0 ◡
⊗⊗⊗	23-Apr	Composite PMI - preliminary data	Apr	13.5 ▼	29.7	25.0 ◡
⊗⊗⊗	23-Apr	Manufacturing PMI - preliminary data	Apr	33.6 ▼	44.5	38.0 ◡
⊗⊗⊗	23-Apr	Services PMI - preliminary data	Apr	11.7 ▼	26.4	22.8 ◡

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²	
Germany 							
★★★★	16-Apr	Harmonized consumer inflation HICP (yoy) - final data	Mar	1.3%	-	1.3%	1.3% 
★★★★	16-Apr	Consumer inflation CPI (yoy) - final data	Mar	1.4%	-	1.4%	1.4% 
★★★	23-Apr	Composite PMI - preliminary data	Apr	17.1	▼	35.0	28.5 
★★★	23-Apr	Manufacturing PMI - preliminary data	Apr	34.4	▼	45.4	39.0 
★★	23-Apr	GfK consumer confidence‡	May	-23.4	▼	2.3	-1.8 
★★	24-Apr	IFO business climate‡	Apr	74.3	▼	85.9	79.7 
France 							
★★★★	15-Apr	Harmonized consumer inflation HICP (yoy) - final data	Mar	0.8%	▲	0.7%	0.7% 
★★★★	15-Apr	Consumer inflation CPI (yoy) - final data‡	Mar	0.7%	-	0.7%	0.6% 
★★★	23-Apr	Composite PMI - preliminary data	Apr	11.2	▼	28.9	24.5 
★★★	23-Apr	Manufacturing PMI - preliminary data	Apr	31.5	▼	43.2	37.0 
Italy 							
★★★★	15-Apr	Harmonized consumer inflation HICP (yoy) - final data	Mar	0.1%	-	0.1%	0.1% 
UK 							
★★	21-Apr	Unemployment rate (ILO, 3-months)	Feb	4.0%	▲	3.9%	3.9% 
★★★★	22-Apr	Consumer inflation CPI (yoy)	Mar	1.5%	▼	1.7%	1.5% 
★★★	23-Apr	Manufacturing PMI (sa) - preliminary data	Apr	32.9	▼	47.8	42.0 
★★★	23-Apr	Composite PMI - preliminary data	Apr	12.9	▼	36.0	29.5 
Japan 							
★★★★	17-Apr	Industrial production (yoy) - final data	Feb	-5.7%	▼	-4.7%	-- 
★★★	23-Apr	Composite PMI - preliminary data	Apr	27.8	▼	36.2	-- 
★★★	23-Apr	Manufacturing PMI - preliminary data	Apr	43.7	▼	44.8	-- 
★★★★	24-Apr	Consumer inflation CPI (yoy)	Mar	0.4%	-	0.4%	0.4% 
Chile 							
<i>No major data in the period</i>							
Canada 							
★★★★★	15-Apr	BoC base rate decision	Apr	0.25%	-	0.25%	0.25% 
★★★★	22-Apr	Consumer inflation CPI (yoy)	Mar	0.9%	▼	2.2%	1.1% 

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

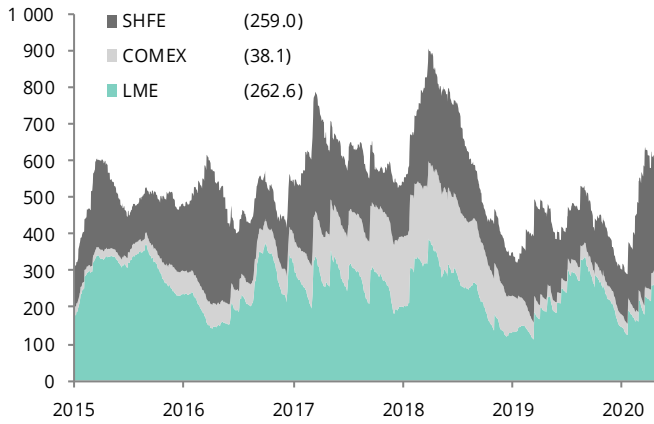
Key base & precious metal prices, exchange rates and other important market factors

<i>(as of: 24-Apr-20)</i>		Price change ¹					From year beginning ²		
	Price	2W	QTD	YTD	1Y	Average	Min	Max	
LME (USD/t; Mo in USD/lbs)									
Copper	5 118.00	▲ 3.1%	▲ 6.7%	▼ -16.9%	▼ -19.7%	5 511.97	4 617.50	6 300.50	
Molybdenum	8.33	▲ 2.2%	▼ -1.2%	▼ -9.5%	-	9.35	7.90	10.90	
Nickel	12 073.00	▲ 5.4%	▲ 7.5%	▼ -13.8%	▼ -1.6%	12 506.61	11 055.00	14 290.00	
Aluminum	1 473.00	▲ 3.1%	▼ -1.1%	▼ -18.2%	▼ -20.5%	1 642.76	1 421.50	1 810.50	
Tin	15 200.00	▲ 0.2%	▲ 5.5%	▼ -9.8%	▼ -22.7%	16 012.18	13 400.00	17 775.00	
Zinc	1 864.00	▼ -1.1%	▼ -0.2%	▼ -18.7%	▼ -35.1%	2 080.11	1 773.50	2 466.50	
Lead	1 601.00	▼ -5.0%	▼ -6.5%	▼ -16.8%	▼ -15.8%	1 809.45	1 589.00	2 027.00	
LBMA (USD/troz)									
Silver	15.32	▲ 0.9%	▲ 9.9%	▼ -15.1%	▲ 3.0%	16.52	12.01	18.78	
Gold ²	1 715.90	▲ 2.1%	▲ 6.6%	▲ 12.7%	▲ 34.0%	1 601.82	1 474.25	1 741.90	
LPPM (USD/troz)									
Platinum ²	763.00	▲ 3.8%	▲ 5.0%	▼ -21.4%	▼ -13.1%	870.53	593.00	1 017.00	
Palladium ²	2 005.00	▼ -7.4%	▼ -13.1%	▲ 4.4%	▲ 41.4%	2 248.71	1 557.00	2 781.00	
FX ³									
EURUSD	1.0800	▼ -0.6%	▼ -1.4%	▼ -3.9%	▼ -2.9%	1.0994	1.0707	1.1456	
EURPLN	4.5330	▼ -0.3%	▼ -0.4%	▲ 6.4%	▲ 5.5%	4.3722	4.2279	4.6044	
USDPLN	4.2142	▲ 1.4%	▲ 1.6%	▲ 11.0%	▲ 9.4%	3.9787	3.7861	4.2654	
USDCAD	1.4090	▲ 1.1%	▼ -0.7%	▲ 8.5%	▲ 4.4%	1.3583	1.2970	1.4496	
USDCNY	7.0815	▲ 0.4%	▼ 0.0%	▲ 1.7%	▲ 5.0%	7.0026	6.8598	7.1121	
USDCLP	858.87	▲ 2.3%	▲ 1.5%	▲ 15.3%	▲ 27.7%	814.01	748.74	867.83	
Money market									
3m LIBOR USD	0.887	▼ -0.33	▼ -0.56	▼ -1.02	▼ -1.70	1.461	0.741	1.900	
3m EURIBOR	-0.192	▲ 0.03	▲ 0.17	▲ 0.19	▲ 0.12	-0.376	-0.489	-0.161	
3m WIBOR	0.690	▼ -0.01	▼ -0.48	▼ -1.02	▼ -1.03	1.459	0.690	1.710	
5y USD interest rate swap	0.451	▼ -0.13	▼ -0.07	▼ -1.28	▼ -1.91	1.041	0.445	1.693	
5y EUR interest rate swap	-0.236	▼ -0.03	▼ 0.00	▼ -0.13	▼ -0.27	-0.248	-0.453	-0.090	
5y PLN interest rate swap	0.565	▼ -0.14	▼ -0.30	▼ -1.22	▼ -1.56	1.377	0.560	2.050	
Fuel									
WTI Cushing	16.04	▼ -28.4%	▼ -21.7%	▼ -73.7%	▼ -75.4%	39.41	-37.63	63.27	
Brent	20.63	▼ -23.7%	▼ -3.9%	▼ -68.9%	▼ -72.0%	44.56	17.32	69.02	
Diesel NY (ULSD)	63.92	▼ -34.6%	▼ -38.1%	▼ -68.5%	▼ -69.5%	140.65	63.92	206.01	
Others									
VIX	35.93	▼ -5.24	▼ -17.61	▲ 22.15	▲ 22.68	33.85	12.10	82.69	
BBG Commodity Index	60.24	▼ -5.0%	▼ -2.6%	▼ -25.5%	▼ -25.8%	70.58	59.48	81.64	
S&P500	2 836.74	▲ 2.7%	▲ 9.8%	▼ -12.2%	▼ -3.1%	2 985.72	2 237.40	3 386.15	
DAX	10 336.09	▼ -2.2%	▲ 4.0%	▼ -22.0%	▼ -15.8%	11 819.77	8 441.71	13 789.00	
Shanghai Composite	2 808.53	▲ 0.9%	▲ 2.1%	▼ -7.9%	▼ -10.1%	2 911.23	2 660.17	3 115.57	
WIG 20	1 601.91	▼ -0.9%	▲ 5.9%	▼ -25.5%	▼ -32.1%	1 842.05	1 305.73	2 200.10	
KGHM	72.80	▲ 5.0%	▲ 21.7%	▼ -23.8%	▼ -30.5%	79.50	49.40	101.00	

[°] 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

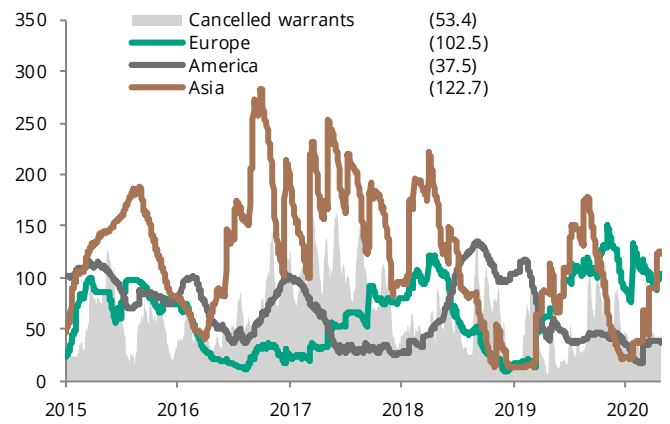
Source: Bloomberg, KGHM Polska Miedź

Copper: official exchange stocks (thousand tonnes)



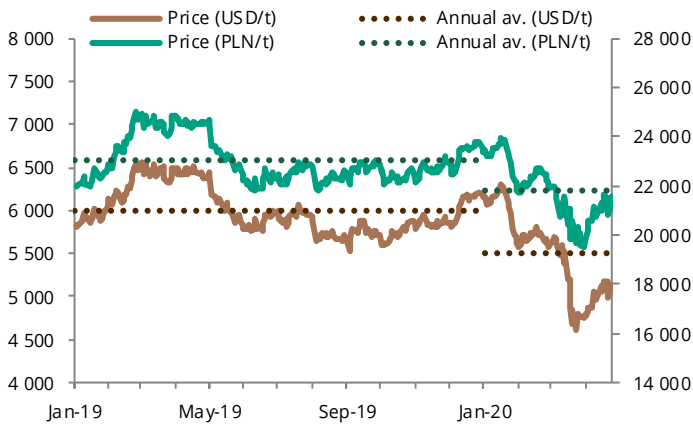
Note: Latest values in brackets. Source: Bloomberg, KGHM

Copper: official LME stocks (thousand tonnes)



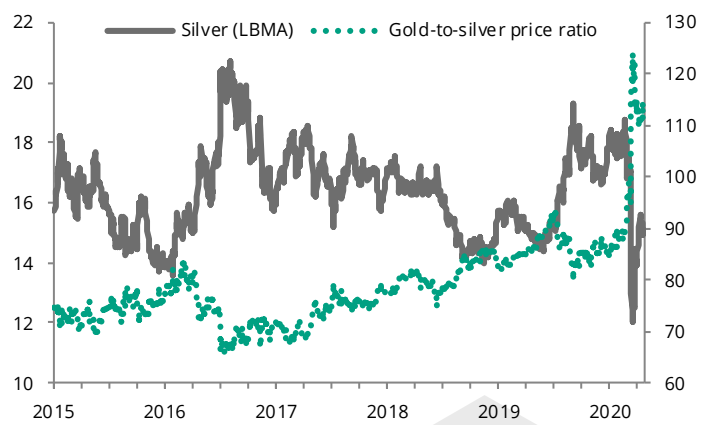
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



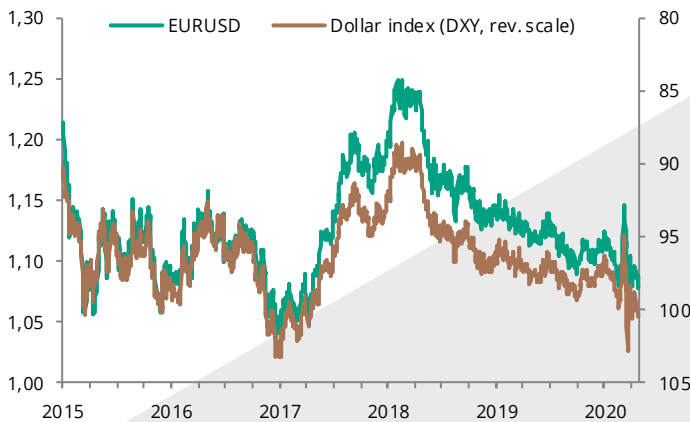
Source: Bloomberg, KGHM Polska Miedź

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



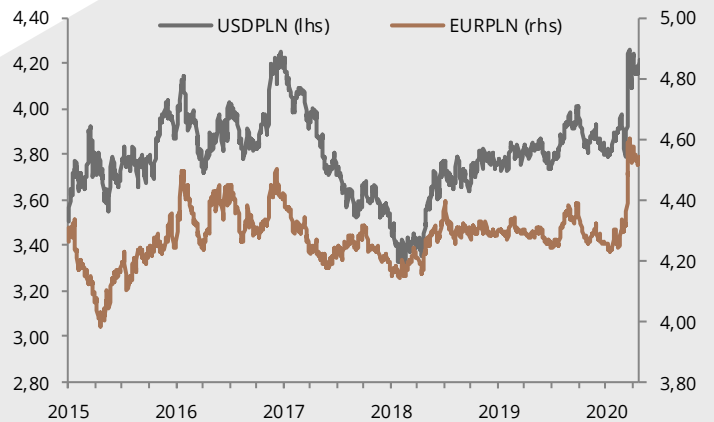
Source: Bloomberg, KGHM Polska Miedź

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: **13th - 26th April 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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