

Market Overview

as of: 30 March 2020

- Copper:** Like other miners in Chile, Codelco has taken measures to mitigate the outbreak, reducing staffing levels and suspending construction at three major investment projects. Peru may be on track to record its first annual economic contraction in over two decades as the world's second largest copper producer is hammered by the impact of a global coronavirus pandemic hurting commodities demand (page 2).
- Precious metals:** In Ecuador the largest gold and copper mines would reduce the number of workers and scale back operations to a minimum. In London spot gold prices fell far below U.S. gold futures in a sign that the market is worried that air travel restrictions and precious metal refinery closures will hamper shipments of bullion to the United States (page 4).
- Crude oil:** Saudi Arabia held firm on its position in the price war with Russia, saying that the kingdom hasn't had any contacts with Moscow. Russian deputy oil minister Pavel Sorokin said crude at \$25 a barrel is "unpleasant" for Russia, but isn't a catastrophe (page 5).
- USA:** The package provides roughly \$500 billion in loans and other assistance for major companies, including \$62 billion for the airline sector, as well as cities and states struggling with virus-related financial burdens. It includes \$350 billion in aid for small businesses and offers \$1,200 direct payments to middle- and low-income American adults, plus \$500 for each child (page 6).

Key market prices

	Close price	2w chng.
LME (USD/t)		
▼ Copper	4 774.00	-8.4%
▼ Nickel	11 225.00	-4.7%
LBMA (USD/troz)		
▲ Silver	14.32	10.4%
▲ Gold (PM)	1 617.30	8.7%
FX		
▼ EURUSD	1.0977	-1.6%
▲ EURPLN	4.5246	3.0%
▲ USDPLN	4.1127	4.8%
▲ USDCAD	1.4056	0.7%
▼ USDCLP	836.05	-0.1%
Stocks		
▲ KGHM	58.10	12.7%

Source: Bloomberg, KGHM Polska Miedź; (more on page 12)

Important macroeconomic data

Release	For		
 NBP rate decision	Mar	1.00%	▼
 Composite PMI	Mar	40.5	▼
 Composite PMI	Mar	31.4	▼
 Philadelphia Fed outlook	Mar	-12.7	▼
 FAI (ytd, yoy)	Feb	-24.5%	

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

Gold to silver ratio hit record high



Source: Bloomberg, KGHM Polska Miedź Polska Miedź S.A.

Market Risk Unit

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Base and precious metals | Other commodities

Copper

Like other miners in Chile, Codelco has taken measures to mitigate the outbreak, reducing staffing levels and suspending construction at three major investment projects. Peru may be on track to record its first annual economic contraction in over two decades as the world's second largest copper producer is hammered by the impact of a global coronavirus pandemic hurting commodities demand.

Copper prices have fallen by around a quarter since the start of the year, reaching levels not seen since 2016

Codelco Warns Global Copper Demand Falling 'Day By Day'

Global demand for copper is falling as economies around the world batten down to slow the spread of the coronavirus, the world's largest producer of the metal warned. "This huge crisis has delivered a major blow to the price of copper, which has fallen to historic levels, while demand for the red metal is also declining day by day," said Codelco in its annual results. International copper prices have fallen by around a quarter since the start of the year, reaching levels not seen since 2016. Like other miners in Chile, Codelco has taken measures to mitigate the outbreak, reducing staffing levels and suspending construction at three major investment projects. But the company reiterated a commitment to keep its mines running and retain good financial health, "because the resources that [Codelco] generates will be more important than ever in helping to overcome the economic effects of the pandemic." Codelco produced 1.588 million mt of copper at its own mines last year, down 5.3% from 2018, reflecting flooding, technical problems and a strike at its Chuquicamata division during the first half of the year. Together with lower copper prices, this triggered a 17% fall in annual profits to \$1.384 billion. However, production surged 24% in the second half of the year to 879,000 mt, aided in part by the launch of an underground mine at Chuquicamata. Codelco managed to correct its course "in terms of production and costs during the second half of the year which had a positive impact on final results," it said in a statement, noting that profits surged above \$1.0 billion in the second half of last year from \$318 million in the first six months. The company's shipments of copper fell 7.4% year on year to 1.976 million mt, including copper purchased from third parties.

Coronavirus Threatens Copper Giant Peru's 21-Years Of Growth

Peru may be on track to record its first annual economic contraction in over two decades as the world's second largest copper producer is hammered by the impact of a global coronavirus pandemic hurting commodities demand. Around the country miners have been forced to slow or suspend operations with the government strictly curbing movement and activity with military presence on the streets to halt the virus with 416 confirmed cases so far. The government of

If the quarantine was extended up to 30 days, it could mean the economy contracts 3.5% this year

President Martin Vizcarra has decreed a state of emergency and a nightly curfew for 15 days, some of the most drastic measures among Latin American countries to fight the virus. Economists and analysts said that this could drag the country's \$220-billion economy into negative territory for the year, which would mark the first drop since 1998. If the quarantine was extended up to 30 days, it could mean the economy contracts 3.5% this year, a sharp drop from a government forecast of 4% growth made late last year. The biggest hit has come from tumbling copper prices which have fallen by around a fifth in the last two months as the virus has spread globally after initially emerging in China, the main buyer of Peruvian copper. Phase Consultores said that while things may improve in the second half of the year, the annual drop could be around 2.5%. The government has recognized its most recent forecasts are out-of-date and will likely release new ones soon. Vizcarra, announced this week a roughly \$4.55 billion package help protect the local economy. The central bank has also cut rates to the lowest level in a decade. Peru's economy, one of the region's most stable, does still have decent levels of foreign reserves, inflation remains in check and it has some of the lowest debt levels in the region.

Other important information on copper market:

- Codelco has halted work on three major investment projects as it strives to protect its employees from the coronavirus outbreak. The state-owned mining company said the Chuquicamata underground project, the Rajo Inca project at its Salvador division and the new Andina transfer system would be suspended for an initial period of 15 days, although this could be extended. Without the investment, Codelco management have warned that production would fall to less than half its current level in a matter of years.
- Excelsior Mining will temporarily suspend operations at its Gunnison copper mine in Arizona in response to the coronavirus pandemic. Excelsior CEO Stephen Twyerould said in a statement. "We will take advantage of the inherent flexibility of the in-situ mining method and preserve cash as we wait for this global crisis to abate." Excelsior announced earlier in March that it had finalized an offtake agreement to sell 100% of its copper cathode production in 2020 from the Gunnison copper project to Trafigura. The miner expects to produce 2.2 billion lb of pure copper cathode over an estimated mine life of 24 years at Gunnison.
- South Africa's main export terminals will be closed to mineral exports for a 21-day nationwide lockdown over coronavirus, disrupting copper supply chains linking major producer Zambia to Asian consumers.
- Copper market players raised concerns that Indian buyers may declare force majeure resulting in surplus shipments for the short-term after a three-week nationwide lockdown came into effect. There were already cargoes on the sea, but buyers said that they cannot take delivery of the shipments due to lockdown. "All private ports in India declared force majeure, and government ports are operating at a falling efficiency due to short of manpower and inadequate inland transportation," a source said.

- China Molybdenum said it would place its TFM copper and cobalt mine in Democratic Republic of Congo in isolation in response to the coronavirus, according to a note to employees seen by Reuters. "Only essential services will be organized to maintain the production tool. For that, essential staff will stay on the site and will not be in contact with the outside world," the note said.
- The global world refined copper market showed a 68,000 tonnes surplus in December, compared with a 49,000 tonnes deficit in November, the International Copper Study Group (ICSG) said in its latest monthly bulletin. For the first 12 months of the year, the market was in a 341,000 tonnes deficit compared with a 391,000 tonnes deficit in the same period a year earlier, the ICSG said. World refined copper output in December was 2.07 million tonnes, while consumption was 2.01 million tonnes. Bonded stocks of copper in China showed a 75,000 tonnes surplus in December compared with a 58,000 tonnes deficit in November.

Precious Metals

In Ecuador the largest gold and copper mines would reduce the number of workers and scale back operations to a minimum. In London spot gold prices fell far below U.S. gold futures in a sign that the market is worried that air travel restrictions and precious metal refinery closures will hamper shipments of bullion to the United States.

Ecuador's Largest Gold And Copper Mines Scale Back As Coronavirus Cases Rapidly Grow

Ecuador said that its largest gold and copper mines would reduce the number of workers and scale back operations to a minimum as the country registers a rapid growth of coronavirus infections. The Fruta del Norte gold mine, operated by Canadian company Lundin Gold Inc, and the Mirador copper mine, in the hands of Chinese consortium CRCC-Tongguan, began exporting minerals at the end of last year, income with which Ecuador projected significant revenues for its weak economy. "What they are doing is operating at the bare minimum, which means that no equipment stops and everything requires great care," Deputy Mines Minister Fernando Benalcázar said. The Fruta del Norte mine will temporarily suspend operations but maintain a limited workforce "to conduct care and maintenance activities and special projects in order to minimize the impacts of this temporary shutdown," Lundin Gold said in a statement.

The number of workers would be reduced from the current 1,080 to between 400 and 500 people, Benalcázar added. "Mirador is in a similar situation. They are working with 800 people out of the normal 2,400," the official said. Ecuador has adopted severe measures to prevent the spread of the virus such as a nighttime curfew, restriction on internal circulation, suspension of international flights and the partial closure of its land border. Ecuacorriente, a subsidiary of the Chinese consortium that operates Mirador, reported in

a statement that the company would implement various measures as the threat of the virus deepens, including prohibiting visitors to the mine with the exception of authorities and sanitation workers, suspending the transport of copper concentrate to ports, and an increase in medical personnel to attend to workers, among other prevention measures.

At one stage the difference between London spot gold price and U.S. gold futures was more than \$70

Gold Supply Fears Push Spot Prices Far Below U.S. Futures

London spot gold prices fell far below U.S. gold futures in a sign that the market is worried that air travel restrictions and precious metal refinery closures will hamper shipments of bullion to the United States. The promise of unlimited stimulus by the U.S. Federal Reserve sent gold prices soaring, but London's spot market has started lagging behind prices on the Comex futures exchange in New York. These prices normally trade within a few dollars of one another. At one stage the difference was more than \$70. The higher New York price reflected the perceived cost of taking metal from London to deliver against Comex futures contracts in the United States, traders and bankers said. London is home to thousands of tonnes of gold which underpin the world's largest hub for physical gold trading.

But if physical gold from London is needed to deliver against Comex futures contracts it has to be melted down from the 400 ounce bars used in London and recast as 100 ounce bars accepted by Comex. This has suddenly become more difficult as governments restrict movement of people and goods and after three major metals refineries in Switzerland suspended operations. The spread between offered buy and sell prices for spot gold -- normally below 50 cents -- also rose to as high as \$50 on some trading platforms. The difference between spot prices and U.S. futures was likely to remain in place until either refineries reopened and transport resumed or Comex changed its rules to allow 400 ounce bars to be used to settle its contracts, said a banker at a major gold-trading bank. "There's plenty of gold," they said. "But it's immobilised."

Crude Oil

Saudi Arabia held firm on its position in the price war with Russia, saying that the kingdom hasn't had any contacts with Moscow. Russian deputy oil minister Pavel Sorokin said crude at \$25 a barrel is "unpleasant" for Russia, but isn't a catastrophe.

Saudis Hold Firm on No Talks With Russia On Oil Output Cuts

Saudi Arabia held firm on its position in the price war with Russia, saying that the kingdom hasn't had any contacts with Moscow about oil production cuts or enlarging the OPEC+ alliance. The comments from the Saudi Energy Ministry dispelled speculation that Riyadh and Moscow may be seeking diplomatic talks. They came hours after the Russian deputy oil minister Pavel Sorokin said in Moscow that OPEC+ alone couldn't fix the market and "many more countries should participate in rebalancing." The kingdom's statement suggests that both Saudi Arabia and Russia are prepared for a long price war -- despite the howls of

Brent crude dipped below \$25 a barrel, more than 60% since the beginning of the year

protest from other members of the Organization of Petroleum Exporting Countries. Their dispute threatens to turn the industry into a Darwinian survival of the fittest that could put both rivals and allies out of business, including U.S. shale oil producers. Brent crude dipped below \$25 a barrel as the coronavirus pandemic threatens to wipe out a fifth of global oil demand.

Crude prices have fallen more than 60% since the beginning of the year. Despite a strong appeal by the American government to Saudi Arabia to end the price war, Riyadh has so far kept firm on its position. Russia has been sending mixed messages. In addition to his comments about bringing more countries together to rebalance the market, Sorokin also said the current oil-market turmoil shows his country was right to propose maintaining the existing OPEC+ output cuts until June, instead of cutting deeper as the Saudis had proposed. In an interview with RBC TV, Sorokin said crude at \$25 a barrel is “unpleasant” for Russia, but isn’t a catastrophe.

Global economies | Foreign exchange markets

Trump Signs \$2 Trillion Virus Bill, Largest Ever U.S. Stimulus

The package provides roughly \$500 billion in loans and other assistance for major companies, including \$62 billion for the airline sector, as well as cities and states struggling with virus-related financial burdens. It includes \$350 billion in aid for small businesses and offers \$1,200 direct payments to middle- and low-income American adults, plus \$500 for each child.

President Donald Trump signed the largest stimulus package in U.S. history on Friday, 27 of March, a \$2 trillion bill intended to rescue the coronavirus-battered economy. The hard-won plan will provide a massive injection of loans, tax breaks and direct payments to large corporations, small businesses and individuals whose revenue and income have plummeted under “social distancing” restrictions meant to slow the virus’ spread. The U.S. has become the worldwide epicenter of the epidemic, with more than 97,000 people infected, surpassing China. Stocks finished Friday in the red following a three-day rally. Traders cut positions ahead of the weekend despite passage of the stimulus bill. The S&P 500 fell 3.4% while the Dow dropped 4.1%. Trump urged Congress to quickly finalize the package, saying earlier that it would “deliver much-needed financial assistance to hardworking families and small businesses.” The prospect of a long-term blow to the economy has prompted Trump to consider easing federal guidelines, despite warnings from governors, public health experts and some members of his own administration they should stay in place for longer. Trump has repeatedly spoken of “re-opening” the country by Easter and on Thursday he told governors he would rank different areas of the country based on risk level in order to allow states to eventually relax quarantine and social distancing measures. The package provides roughly \$500 billion in loans and other assistance for major companies, including \$62 billion for the airline sector, as well as cities and states struggling with virus-related financial burdens. It includes

\$350 billion in aid for small businesses and offers \$1,200 direct payments to middle- and low-income American adults, plus \$500 for each child. Hospitals would receive \$117 billion in assistance, as many become overwhelmed with virus patients. Unemployment insurance would also grow to \$600 per week, on top of existing state benefits. The size of the package far surpasses the \$800 billion measure signed by former President Barack Obama following the 2008 financial crisis. Combined with Federal Reserve measures, it would provide around \$6 trillion in stimulus to the economy, but the plan might not be enough to stave off an economic recession or another spike in unemployment. Even before it passed, leaders in Congress said another round of stimulus would almost surely be needed. "This is not going to be the last bill," House Speaker Nancy Pelosi said Wednesday on PBS. The package came together over several days of marathon talks between Treasury Secretary Steven Mnuchin, Senate Majority Leader Mitch McConnell and Senate Minority Leader Charles Schumer. The Senate passed the bill on with an overwhelming 96-0 vote.

The House passed it by voice vote. "This is a proud moment for our country," McConnell said at the White House, where he joined Trump. Democrats had demanded transparency measures on the \$500 billion corporate assistance fund and they ultimately won language requiring the Treasury Department and Federal Reserve to publish who receives loans every seven days. The bill was held up for days until the language was added, sparking a round of partisan squabbling in Washington. Leaders also included conditions to the aid, including the ability of the Treasury Department to take equity stakes in companies that require cash assistance.

Boris Johnson Tests Positive For Coronavirus

British Prime Minister Boris Johnson has tested positive for coronavirus and is self-isolating but will still lead the government's response to the outbreak via video-conference.

Mnuchin Says Surge in U.S. Unemployment Claims 'Not Relevant'

Treasury Secretary Steven Mnuchin said the surge in Americans filing for unemployment benefits is "not relevant." "The president is protecting those people," Mnuchin said the \$2.2 trillion aid package the Senate passed will provide assistance to laid-off workers through unemployment insurance and cash sent directly to families. The legislation will also provide small businesses with support will encourage them to re-hire workers. Mnuchin said he talks as many as 30 times a day with Fed Chairman Jerome Powell to coordinate the U.S. governments response to the outbreak. The Treasury Secretary said he's approved all of the Fed's requests for lending facilities. "We both have the same objective to protect American workers and companies," Mnuchin said

Fed to Launch Multitrillion Dollar Helicopter Credit Drop

Call it Helicopter Credit. The Federal Reserve is poised to spray trillions of dollars into the U.S. economy once a massive aid package to fight the coronavirus and its aftershocks is signed into law. These actions are unprecedented, going beyond anything it did during the 2008 financial crisis in a sign of the extraordinary challenge facing the nation. "The Fed has effectively shifted from lender of last resort for banks to a commercial banker of last resort for the broader economy," said JPMorgan Chase & Co. chief U.S. economist Michael Feroli. The coming rain of credit -- historic in both size and scope -- will be made possible by \$454 billion set aside in the aid package for Treasury to backstop lending by the Fed. That's money the central bank can leverage to provide massive amounts of financing to a broad swathe of U.S. borrowers. "Effectively one dollar of loss absorption of backstop from Treasury is enough to support \$10 worth of loans." Fed Chairman Jerome Powell said in a rare nationally-televised interview. "When it comes to this lending we're not going to run out of ammunition." He told NBC's "Today" show that the Fed was trying to create a bridge over what may well be a substantial decline in the economy in the second quarter, to a resumption of growth sometime in the latter half of the year. "It's very hard to say precisely when that will be," he said. "It will really depend on the spread of the virus. The virus is going to dictate the timetable here." While the Fed can help by keeping interest rates low and ensuring the flow of credit, "the immediate relief" for Americans will come from the Congressional aid package, Powell said.

Combined with an unlimited quantitative easing program, the Fed's souped-up lending facilities are set to push the central bank's balance sheet up sharply from an already record high \$4.7 trillion, to \$9-\$10 trillion. The first order of business for the Fed will probably be to beef up some of the emergency lending facilities it's already rolled out, particularly the ones for corporations which were limited by the amount of money that was available from Treasury. The central bank is then expected to establish its so-called Main Street Business Lending Program to provide help to smaller firms. "Very quickly we hope to stand up a very broad-based lending facility that could be leveraged up to \$2 or \$3 trillion," Senator Pat Toomey told reporters Wednesday. "We're hoping it's a mechanism to keep businesses alive for a few weeks or months until our economy can resume."

In his "Today" show interview Thursday, Powell said the Fed was "already helping state and local governments" -- an apparent reference to the inclusion of some municipal debt in the central bank's commercial paper and money market financing facilities. It was the late economist Milton Friedman who floated the idea of a helicopter drop of money into an economy fighting a severe recession. Former Fed Chairman Ben Bernanke later described that approach more prosaically as a broad-based tax cut financed by the central bank. This is different. Rather than the Fed financing the federal government, Congress is providing money to absorb any losses the central bank may incur on its emergency loans -- some of which will be going to riskier borrowers. And unlike helicopter money, the ramped up lending is aimed not at stimulating the economy but rather at preventing a credit crunch that could make the recession











































































worse. "This is helicopter credit," said Wrightson ICAP chief economist Lou Crandall. "They're still in the fireman role rather than the stimulus role."








Fed Hires BlackRock for Agency CMBS, Corporate Debt Programs

The Federal Reserve tapped BlackRock Inc. to shepherd several debt-buying programs as the U.S. central bank works to revive an economy reeling from the spread of coronavirus. BlackRock, the world's largest asset manager, will serve as an investment adviser and manage assets for three separate programs in the Fed's initiative, the Fed said Tuesday. Those include the central bank's plans to buy newly issued credit from large corporations as well as existing investment-grade bonds and credit ETFs. BlackRock will also be involved in purchasing agency commercial mortgage-backed securities on behalf of the New York Fed, as it works toward the central bank's stimulus efforts. The efforts will be overseen by BlackRock's Financial Markets Advisory business, a unit that consults with regulators and other government entities.

Macroeconomic calendar

Important macroeconomic data releases

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
China 						
☆☆	16-Mar	Fixed assets investments (ytd, yoy)	Feb	-24.5%	--	-2.0% 
Poland 						
☆☆☆☆	16-Mar	Core CPI (excluding food and energy, yoy)	Feb	3.6% 	3.1%	3.4% 
☆☆	16-Mar	Trade balance (EUR mn)	Jan	330 	224	795 
☆☆	16-Mar	Exports (EUR mn)	Jan	19 267 	17 220	19 563 
☆☆	16-Mar	Current account balance (EUR mn)	Jan	2 265 	990	2 682 
☆☆☆☆☆	17-Mar	NBP base rate decision	Mar	1.00% 	1.50%	--
☆☆	18-Mar	Average gross salary (yoy)	Feb	7.7% 	7.1%	7.0% 
☆	18-Mar	Employment (yoy)	Feb	1.1% 	1.1%	1.1% 
☆☆☆☆	19-Mar	Sold industrial production (yoy)	Feb	4.9% 	1.1%	2.0% 
☆☆	19-Mar	Producer inflation PPI (yoy)‡	Feb	0.1% 	0.9%	0.3% 
☆☆☆	20-Mar	Retail sales (yoy)	Feb	9.6% 	5.7%	6.3% 
☆	23-Mar	M3 money supply (yoy)	Feb	9.4% 	9.3%	8.7% 
☆☆	24-Mar	Unemployment rate	Feb	5.5% 	5.5%	5.5% 
US 						
☆☆☆☆	17-Mar	Industrial production (mom)‡	Feb	0.6% 	-0.5%	0.4% 
☆☆	17-Mar	Retail sales (excluding autos, mom)‡	Feb	-0.4% 	0.6%	0.1% 
☆	17-Mar	Capacity utilization‡	Feb	77.0% 	76.6%	77.1% 
☆☆	19-Mar	Philadelphia Fed business outlook	Mar	-12.7 	36.7	8.0 
☆☆☆	24-Mar	Composite PMI - preliminary data	Mar	40.5 	49.6	--
☆☆☆	24-Mar	Manufacturing PMI - preliminary data	Mar	49.2 	50.7	43.5 
☆☆☆	24-Mar	PMI services - preliminary data	Mar	39.1 	49.4	42.0 
☆	24-Mar	Richmond Fed manufacturing index	Mar	2.0 	-2.0	-13.0 
☆☆	25-Mar	Durable goods orders - preliminary data‡	Feb	1.2% 	0.1%	-0.9% 
☆☆☆☆☆	26-Mar	GDP (annualized, qoq) -	4Q	2.1% 	2.1%	2.1% 
☆☆☆☆	27-Mar	Consumer spending inflation PCE (mom)‡	Feb	0.2% 	0.2%	0.2% 
☆☆☆☆	27-Mar	Consumer spending inflation PCE (yoy)‡	Feb	1.8% 	1.7%	1.7% 
☆☆	27-Mar	Personal income (sa, mom)	Feb	0.6% 	0.6%	0.4% 
☆☆	27-Mar	Personal spending (sa, mom)	Feb	0.2% 	0.2%	0.2% 
☆☆	27-Mar	University of Michigan confidence index - final data	Mar	89.1 	95.9	90.0 
Eurozone 						
☆☆	17-Mar	Labour costs (yoy)	4Q	2.4% 	2.6%	--
☆	17-Mar	ZEW survey expectations	Mar	-49.5 	10.4	--
☆☆☆☆	18-Mar	Consumer inflation CPI (yoy) - final data	Feb	1.2% 	1.2%	1.2% 
☆☆☆☆	18-Mar	Core CPI (yoy) - final data	Feb	1.2% 	1.2%	1.2% 
☆	18-Mar	Trade balance (EUR mn)	Jan	1.3 	23.1	--
☆	23-Mar	Consumer confidence - estimation	Mar	-11.6 	-6.6	-13.0 
☆☆☆	24-Mar	Composite PMI - preliminary data	Mar	31.4 	51.6	38.8 
☆☆☆	24-Mar	Manufacturing PMI - preliminary data	Mar	44.8 	49.2	39.0 
☆☆☆	24-Mar	Services PMI - preliminary data	Mar	28.4 	52.6	39.5 
☆	26-Mar	M3 money supply (yoy)	Feb	5.5% 	5.2%	5.2% 

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
Germany 						
☉☉	19-Mar	IFO business climate - preliminary data‡	Mar	87.7 ▼	96.0	--
☉☉☉	24-Mar	Composite PMI - preliminary data	Mar	37.2 ▼	50.7	41.0 ◡
☉☉☉	24-Mar	Manufacturing PMI - preliminary data	Mar	45.7 ▼	48.0	39.9 ◢
☉☉	25-Mar	IFO business climate - final data	Mar	86.1 ▼	87.7	--
☉☉	26-Mar	GfK consumer confidence‡	Apr	2.7 ▼	8.3	7.5 ◡
France 						
☉☉☉	24-Mar	Composite PMI - preliminary data	Mar	30.2 ▼	52.0	38.1 ◡
☉☉☉	24-Mar	Manufacturing PMI - preliminary data	Mar	42.9 ▼	49.8	40.6 ◢
Italy 						
☉☉☉☉	16-Mar	Harmonized consumer inflation HICP (yoy) - final data	Feb	0.2% ▼	0.3%	0.3%
UK 						
☉☉	17-Mar	Unemployment rate (ILO, 3-months)	Jan	3.9% ▲	3.8%	3.8% ◢
☉☉☉☉☉	19-Mar	BoE base rate decision	Mar	0.10% ▼	0.25%	--
☉☉☉	24-Mar	Manufacturing PMI (sa) - preliminary data	Mar	48.0 ▼	51.7	45.0 ◢
☉☉☉	24-Mar	Composite PMI - preliminary data	Mar	37.1 ▼	53.0	45.0 ◡
☉☉☉☉	25-Mar	Consumer inflation CPI (yoy)	Feb	1.7% ▼	1.8%	1.7% ◉
☉☉☉☉☉	26-Mar	BoE base rate decision	Mar	0.10% -	0.10%	0.10% ◉
Japan 						
☉☉☉☉	17-Mar	Industrial production (yoy) - final data	Jan	-2.3% ▲	-2.5%	--
☉☉☉☉	19-Mar	Consumer inflation CPI (yoy)	Feb	0.4% ▼	0.7%	0.5% ◡
☉☉☉	24-Mar	Composite PMI - preliminary data	Mar	35.8 ▼	47.0	--
☉☉☉	24-Mar	Manufacturing PMI - preliminary data	Mar	44.8 ▼	47.8	--
Chile 						
☉☉☉☉☉	16-Mar	BCCh overnight rate target	Mar	1.00% ▼	1.75%	--
☉☉☉☉☉	18-Mar	GDP (yoy)	4Q	-2.1% ▼	3.3%	-1.8% ◡
Canada 						
☉☉☉☉	18-Mar	Consumer inflation CPI (yoy)	Feb	2.2% ▼	2.4%	2.1% ◢
☉☉☉☉☉	27-Mar	BoC base rate decision	Mar	0.25% ▼	0.75%	--

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

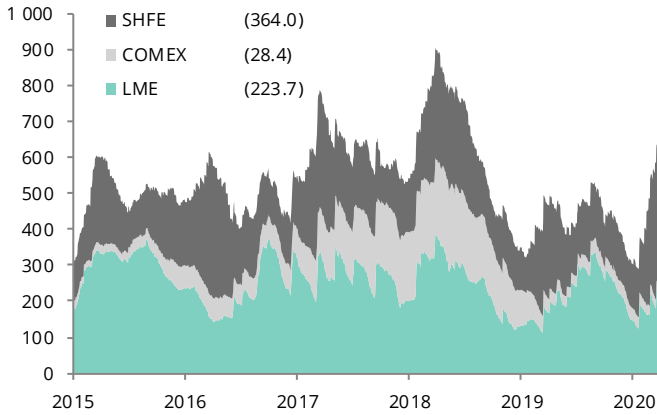
Key base & precious metal prices, exchange rates and other important market factors

<i>(as of: 27-Mar-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	4 774.00	▼ -8.4%	▼ -22.4%	▼ -22.4%	▼ -25.2%	5 664.23	4 617.50	6 300.50
Molybdenum	8.81	▼ -3.7%	▼ -4.2%	▼ -4.2%	-	9.75	8.81	10.90
Nickel	11 225.00	▼ -4.7%	▼ -19.8%	▼ -19.8%	▼ -12.2%	12 769.77	11 055.00	14 290.00
Aluminum	1 506.00	▼ -8.2%	▼ -16.3%	▼ -16.3%	▼ -20.6%	1 696.06	1 506.00	1 810.50
Tin	14 355.00	▼ -6.8%	▼ -14.8%	▼ -14.8%	▼ -33.1%	16 339.68	13 400.00	17 775.00
Zinc	1 848.50	▼ -4.3%	▼ -19.4%	▼ -19.4%	▼ -37.3%	2 136.91	1 773.50	2 466.50
Lead	1 690.00	▲ 0.3%	▼ -12.1%	▼ -12.1%	▼ -15.9%	1 851.22	1 589.00	2 027.00
LBMA (USD/troz)								
Silver	14.32	▲ 10.4%	▼ -20.7%	▼ -20.7%	▼ -5.8%	17.00	12.01	18.78
Gold ²	1 617.30	▲ 8.7%	▲ 6.2%	▲ 6.2%	▲ 24.9%	1 581.81	1 474.25	1 683.65
LPPM (USD/troz)								
Platinum ²	742.00	▲ 9.6%	▼ -23.6%	▼ -23.6%	▼ -11.8%	906.27	593.00	1 017.00
Palladium ²	2 253.00	▲ 44.7%	▲ 17.3%	▲ 17.3%	▲ 66.6%	2 284.42	1 557.00	2 781.00
FX ³								
EURUSD	1.0977	▼ -1.6%	▼ -2.3%	▼ -2.3%	▼ -2.1%	1.1028	1.0707	1.1456
EURPLN	4.5246	▲ 3.0%	▲ 6.2%	▲ 6.2%	▲ 5.2%	4.3185	4.2279	4.6044
USDPLN	4.1127	▲ 4.8%	▲ 8.3%	▲ 8.3%	▲ 7.7%	3.9173	3.7861	4.2654
USDCAD	1.4056	▲ 0.7%	▲ 8.2%	▲ 8.2%	▲ 4.7%	1.3425	1.2970	1.4496
USDCNY	7.0960	▲ 1.5%	▲ 1.9%	▲ 1.9%	▲ 5.3%	6.9794	6.8598	7.1121
USDCLP	836.05	▼ -0.1%	▲ 12.3%	▲ 12.3%	▲ 22.3%	801.78	748.74	867.83
Money market								
3m LIBOR USD	1.450	▲ 0.56	▼ -0.46	▼ -0.46	▼ -1.14	1.532	0.741	1.900
3m EURIBOR	-0.353	▲ 0.06	▲ 0.03	▲ 0.03	▼ -0.04	-0.407	-0.489	-0.349
3m WIBOR	1.170	▼ -0.43	▼ -0.54	▼ -0.54	▼ -0.55	1.633	1.170	1.710
5y USD interest rate swap	0.508	▼ -0.09	▼ -1.22	▼ -1.22	▼ -1.75	1.212	0.508	1.693
5y EUR interest rate swap	-0.233	▲ 0.02	▼ -0.12	▼ -0.12	▼ -0.24	-0.257	-0.453	-0.090
5y PLN interest rate swap	0.890	▼ -0.37	▼ -0.89	▼ -0.89	▼ -1.02	1.598	0.745	2.050
Fuel								
WTI Cushing	21.51	▼ -25.1%	▼ -64.8%	▼ -64.8%	▼ -63.7%	46.41	18.99	63.27
Brent	24.54	▼ -12.1%	▼ -63.1%	▼ -63.1%	▼ -63.5%	51.27	24.54	69.02
Diesel NY (ULSD)	107.10	▲ 1.4%	▼ -47.2%	▼ -47.2%	▼ -45.7%	156.03	95.54	206.01
Others								
VIX	65.54	▼ -17.15	▲ 51.76	▲ 51.76	▲ 51.11	30.42	12.10	82.69
BBG Commodity Index	62.71	▲ 0.2%	▼ -22.5%	▼ -22.5%	▼ -22.7%	73.32	59.48	81.64
S&P500	2 541.47	▲ 6.5%	▼ -21.3%	▼ -21.3%	▼ -9.7%	3 070.88	2 237.40	3 386.15
DAX	9 632.52	▲ 10.2%	▼ -27.3%	▼ -27.3%	▼ -15.7%	12 286.52	8 441.71	13 789.00
Shanghai Composite	2 772.20	▼ -0.6%	▼ -9.1%	▼ -9.1%	▼ -7.4%	2 947.44	2 660.17	3 115.57
WIG 20	1 475.90	▲ 10.0%	▼ -31.4%	▼ -31.4%	▼ -36.2%	1 920.22	1 305.73	2 200.10
KGHM	58.10	▲ 12.7%	▼ -39.2%	▼ -39.2%	▼ -44.8%	83.06	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

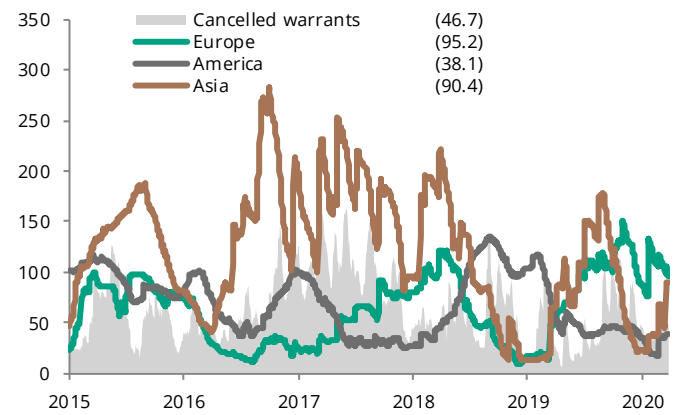
Source: Bloomberg, KGHM Polska Miedź

Copper: official exchange stocks (thousand tonnes)



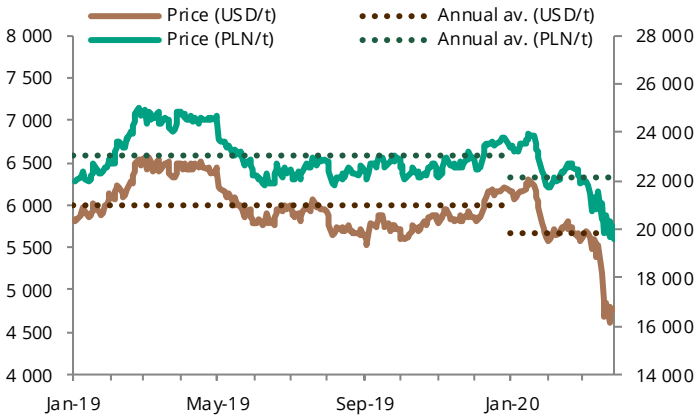
Note: Latest values in brackets. Source: Bloomberg, KGHM

Copper: official LME stocks (thousand tonnes)



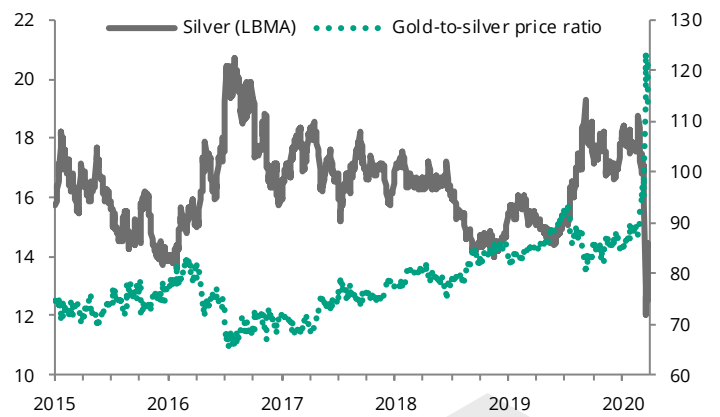
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



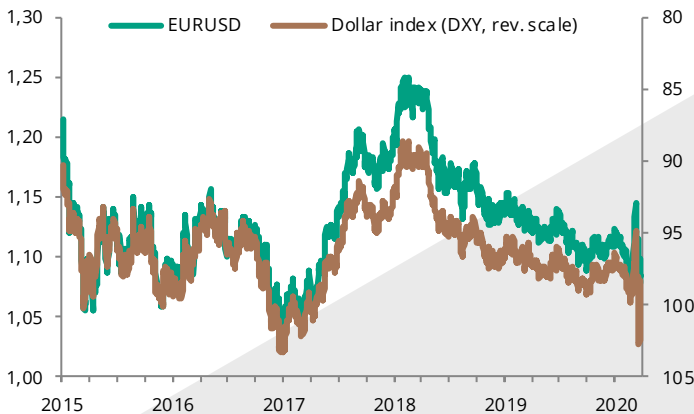
Source: Bloomberg, KGHM Polska Miedź

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



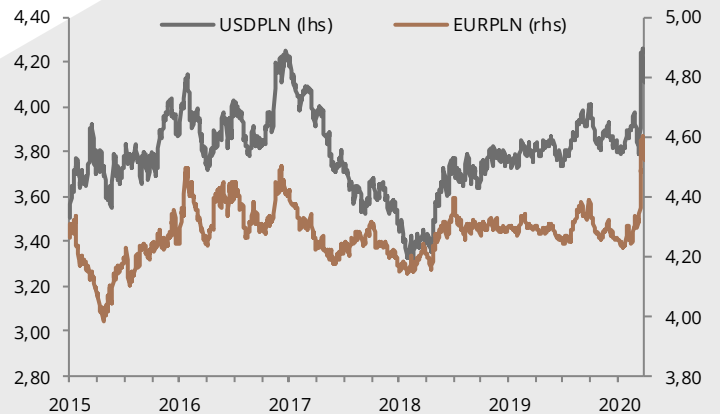
Source: Bloomberg, KGHM Polska Miedź

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:
16 -29 March 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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