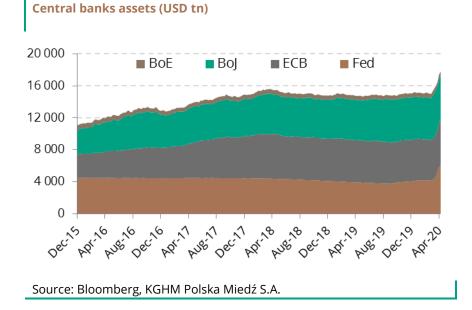


Market Overview

- Copper: Chile's copper commission Cochilco cut its 2020 price forecast for the red metal to \$2.40 per pound, 16% below its Jan price. Copper was set for its worst quarter since 2011 as the coronavirus outbreak shut down swathes of the global economy, generally reducing need for metals (*page 2*).
- Precious metals: Russian banks are facing problems exporting gold as there are also fewer cargo flights and transportation costs have doubled. In this situation with ought help form the central bank the will have to either refuse to buy gold from producers or to increase the amount in the vaults (page 4).
- Crude oil: According to OPEC+, total global oil cuts will amount to more than 20 million bpd, or 20 percent of global supply, effective May 1. However according to some banks, the cut in supply might not be enough to arrest the price decline, they say that Brent prices would fall to \$20 per barrel (*page 5*).
- USA: Total dollar credit extended to borrowers, excluding banks, climbed to a record \$12.1 trillion by last September, Bank for International Settlements data show. That's more than double the level a decade before. It amounted to almost 14% of global GDP; the ratio back in 2009 was under 10% (page 7).



as of: 13th April 2020

Key market prices

		Close price	2w chng.
	LME (USD/t)		
	Copper	4 963.50	4.2%
	Nickel	11 457.00	1.6%
	LBMA (USD/troz)		
	Silver	15.18	8.0%
	Gold (PM)	1 680.65	3.9%
	FX		
▼	EURUSD	1.0867	-1.5%
	EURPLN	4.5484	0.2%
	USDPLN	4.1566	1.5%
▼	USDCAD	1.3985	-1.2%
	USDCLP	839.49	0.5%
	Stocks		
	KGHM	69.34	20.8%
Source:	Bloomberg, KGHM Po	lska Miedź S.A.; (more on <u>page 11</u>

Important macroeconomic data								
	Release	For						
	Non-farm payrolls chng.	Mar	- 701 🔻					
*1	Official manuf. PMI	Mar	52.0 🔺					
	NBP rate decision	Apr	0.50% 🔻					
	Composite PMI	Mar	20.2 🔻					
	Industrial prod. (yoy)	Feb	-1.4% 🔺					
Source	e: Bloomberg, KGHM Polska Miedź S	5.A.; (more	e on <u>page 9</u>)					

Market Risk Unit marketrisk@kghm.com

Please see important disclosures at the end of this document (page 13)



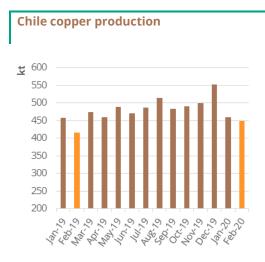
Base and precious metals | Other commodities

Copper

Chile's copper commission Cochilco cut its 2020 price forecast for the red metal to \$2.40 per pound, 16% below its Jan. Copper was set for its worst quarter since 2011 as the coronavirus outbreak shut down swathes of the global economy, generally reducing need for metals.

Virus-Hit Copper Heads For Worst Quarter Since 2011

Copper prices rose shortly after data showed an unexpected rebound in factory activity in China, but were set for their worst quarter since 2011 as the coronavirus outbreak shut down swathes of the global economy, reducing need for metals. Benchmark copper was down 22% over January-March. Other industrial metals were between 10% and 20% lower in the first quarter. Copper has steadied, helped by a stabilization of global equities market, a weakening of the U.S. dollar and the closure of some mines due to coronavirus lockdowns. But the hit to demand from coronavirus would dwarf its impact on supply, said Capital Economics analyst Kieran Clancy, Copper could fall as low as \$4,000 in the second quarter, he said. "It gets worse before it gets better, and the getting better part is dependent on these (virus) containment measures being lifted."



Źródło: Cochilco, KGHM Polska Miedź S.A.

Chile Copper Output Jumps 8.3% In February

Chile produced 451,580 mt of copper in February, up 8.3% from the same month of last year, government data showed. Statistics agency INE attributed the sharp rise in production to the impact of floods in northern Chile and lower ore grades, which hit mine output during the early part of 2019, as well as increased throughput at some major copper mines this year. Production during the first two months of the year reached 919,333 mt, up 4.8% from the same period of last year. The South American country is the world's largest producer of copper, with output reaching 5.835 million mt in 2019. In January, the Chilean Copper Commission, another government agency, predicted that copper production will reach 5.87 million mt this year and 5.912 million mt in 2021. However, production could be slowed this year by the impact of the coronavirus outbreak. Many mining companies in Chile have cut staffing levels to reduce the risk of contagion among employees while work on major construction projects, such as Teck's Quebrada Blanca 2 mine, has been suspended. Meanwhile, the sharp drop in copper prices could force some higher cost operations to close.

Other important information on copper market:

 South Africa's strict coronavirus lockdown has caused miners to divert copper from the country's ports to others in Africa, with Dar es Salaam the clear winner. Authorities in South Africa initially said ports would only process essential goods

Benchmark copper was down 22% over January-March while other industrial metals were between 10% and 20% lower in the first quarter



during a three-week nationwide lockdown that began on March 27. Recently the Department of Transport said ports remain open to all types of cargo. But miners in the copper belt - an area spanning northern Zambia and southern Democratic Republic of Congo - did not wait for that clarification before acting. Trucks from the copper belt were turned round midway through journeys to Durban and redirected to Tanzania's Dar es Salaam port, officials at two regional logistics companies said "Everybody is now looking at Dar as the reliable solution, because in South Africa it's not clear." Exports of copper cathodes and copper concentrate through Dar have increased by between 20% and 25%. Mozambique's Beira port and Namibia's Walvis Bay are also seeing more copper and cobalt export volumes than average.

- Chile's copper commission Cochilco cut its 2020 price forecast for the metal to \$2.40 per pound, 16% below its Jan. forecast. The commission expects 129,000ton surplus in copper market in 2020 and 65,000-ton surplus in 2021. It also estimates 1,2% (or 255,00 tons) drop in copper output this year with demand to fall 1.7% (or by 417,000 tons). For the next year Cochilco sees copper at \$2.90 per pound, down from \$2.95 Jan. est. and demand to grow 2.3%, driven mainly by China.
- First Quantum Minerals has halted operations at its Cobre Panama copper mine following an order from the government of the Central American country. The operation will be placed onto care and maintenance until local health authorities are satisfied that the quarantine conditions are appropriate. The company said that the order affects mining and operations and that it will revise downwards its previously issued production guidance of 285,000-300,000 mt of copper for this year. The company is seeking access to emergency labor regulations in order to suspend workers' contracts during the shutdown which would allow it to reduce costs to around \$4 million.\$6 million weekly.
- Rio Tinto has declared force majeure on copper cathode contracts for its Kennecott copper mine near Salt Lake City, in the US state of Utah, due to a 5.7magnitude earthquake which impacted operations, the miner told S&P Global Platts. Rio Tinto's official spokesman that "the mine, concentrator have fully resumed safe and stable operations," and Kennecott's smelter is expected to restart in the coming week or two. "We are working closely with our customers to minimize any disruption in supply," the spokesman added. Rio Tinto sells Kennecott copper cathode mostly to the North American market, and small tonnages go to China. Rio Tinto produced 186,800 mt of copper at the Kennecott mine last year, and it also produces gold and silver as byproducts.



Russia produced 10.1 million ounces (314 tons) of refined gold in 2019, of which 5.1 million ounces were bought by the central bank and 3.7 million ounces were exported

Precious Metals

Russian banks are facing problems exporting gold as there are also fewer cargo flights and transportation costs have doubled. In this situation with ought help form the central bank the will have to either refuse to buy gold from producers or to increase the amount in the vaults.

Russian banks ask the central bank to resume gold buying as coronavirus hits exports

Russian banks have asked the central bank to resume buying gold for its reserves with exports of the precious metal hobbled by the coronavirus outbreak. The country is the world's third largest gold producer after China and Australia but the almost global grounding of passenger flights, which were used to transport the metal, has meant that banks who buy from producers before selling the metal on have to switch to a decreasing number of more expensive cargo flights or build up inventory. Russia's central bank suspended gold purchases on the domestic market from April 1, without giving a reason. However, analysts have suggested it is focusing on foreign currency sales to support the rouble, which has fallen in line with lower oil prices. Vasily Zablotsky, the head of the National Finance Association, a non-government lobby group of Russian banks, told Reuters that banks are "facing problems" exporting gold as there are also fewer cargo flights and transportation costs have doubled. In this situation "banks will have to either refuse to buy gold from producers or to increase the amount in the vaults," he said. Russia's central bank declined to comment on Tuesday but has said previously that a further decision on gold purchases would depend on how the situation on the financial markets develops. Russia produced 10.1 million ounces (314 tonnes) of refined gold in 2019, of which 5.1 million ounces were bought by the central bank and 3.7 million ounces were exported mainly to Britain and Switzerland, the top markets for global gold trade. The central bank reduced its gold purchases in 2019 to support exports but remained the largest buyer of gold produced in Russia. Its gold reserves stood at 73.6 million troy ounces with the value of \$120 billion as of March 1. The banks' lobby group also plans to ask the central bank to start accepting gold pledged as collateral for the refinancing of banks' debt and organise gold swap deals which provide rouble liquidity to the banking market, Zablotsky said. Russian gold miners are relatively unscathed so far, hoping that demand for Russian bars will remain healthy in London due to a number of suspended refineries in Switzerland. Even with high fares, it is hard to find the aircrafts.

Gold's supply squeeze should ease as Swiss refineries reopen

The supply shortages in the gold market will likely ease in the coming weeks as Swiss refineries start running again. Three major plants in the Swiss canton of Ticino, Europe's biggest gold-refining hub, have said they've received permission from local authorities to run their factories at a limited rate. The plants were shut for almost two weeks because of the coronavirus outbreak, which cut off a key

While general restrictions have been extended into another week, gold refiners said they were granted special permissions to resume work



source of bullion supply and made it harder for some investors to find gold bars. The difficulty of running gold factories and finding flights to ship them to New York and London has rattled the market at a time when investors are desperate to buy gold as a safe-haven asset. Refineries Valcambi and Argor-Heraeus released statements saying they've been granted approval to operate starting on 6th of April. Another refiner, owned by MKS PAMP, made a similar announcement. "It is our intention to support the decision of the authorities, guarantee the safety and health of our employees, and at the same time serve our partners as well as possible given the overall extraordinary situation," said Christoph Wild, CEO of Argor-Heraeus. While general restrictions in Ticino have been extended into another week, gold refiners said they were granted special permissions. PAMP and Valcambi will operate at less than 50% of capacity. Argor-Heraeus didn't specify its production levels, but said it will run at reduced levels.

Crude oil

According to OPEC+, total global oil cuts will amount to more than 20 million bpd, or 20 percent of global supply, effective May 1. However according to some banks, the cut in supply might not be enough to arrest the price decline, they say that Brent prices would fall to \$20 per barrel.

Russia approve biggest-ever oil cut amid coronavirus pandemic

OPEC and allies led by Russia agreed to a record cut in output to prop up oil prices amid the coronavirus pandemic and said they had an unprecedented deal with fellow oil nations, including the United States, to curb global oil supply by 20%. Measures to slow the spread of the coronavirus have destroyed demand for fuel and driven down oil prices, straining budgets of oil producers and hammering the U.S. shale industry, which is more vulnerable to low prices due to its higher costs. The group, known as OPEC+, said it had agreed to reduce output by 9.7 million barrels per day (bpd) for May and June, after four days of talks and following pressure from U.S. The biggest oil cut ever is more than four times deeper than the previous record cut in 2008. Producers will slowly relax curbs after June, although reductions in production will stay in place until April 2022. OPEC+ said in a draft statement it expected total global oil cuts to amount to more than 20 million bpd, or 20 percent of global supply, effective May 1. Effective oil output cuts would include contributions from non-members, steeper voluntary cuts by some OPEC+ members and strategic stocks purchases by the world's largest consumers. Non-members Brazil, Canada, Norway and the United States would contribute 3.7 million bpd. Gulf members of the Organization of the Petroleum Exporting Countries will be cutting output more steeply than agreed. The International Energy Agency (IEA) would soon announce purchases into stocks by its members to the tune of 3 million bpd in the next couple of months. Canada and Norway had signaled a willingness to cut and the United States, where legislation makes it hard to act in tandem with cartels such as OPEC, said its output would fall steeply by itself this year because of low prices. The OPEC+

OPEC+ had agreed to reduce output by 9.7 million barrels per day (bpd), the biggest oil cut ever is more than four times deeper than the previous record cut in 2008



deal had been delayed by Mexico. However in the end after assurance of president Trump that Washington would help this neighboring country by picking up "some of the slack" and being reimbursed later Mexico balked at the production cuts it was asked to make. A previous agreement by OPEC+ to cut production this year fell apart because of a dispute between Russia and Saudi Arabia, triggering a price war that brought a flood of supply just as demand for fuel was crushed by the coronavirus pandemic. Global oil demand is estimated to have fallen by a third as more than 3 billion people are locked down in their homes due to the outbreak. An 10-15% cut in supply might not be enough to arrest the price decline, banks Goldman Sachs and UBS predicts, saying Brent prices would fall back to \$20 per barrel from \$70 at the start of the year.



Global economies | Foreign exchange markets

Fed said it was establishing a temporary repurchase agreement facility to allow foreign central banks to swap any Treasury securities they hold for cash Fed takes on role of world's central bank by pumping out dollars

Total dollar credit extended to borrowers, excluding banks, climbed to a record \$12.1 trillion by last September, Bank for International Settlements data show. That's more than double the level a decade before. It amounted to almost 14% of global GDP; the ratio back in 2009 was under 10%.

The Federal Reserve is acting as central banker to the world by seeking to provide the global financial system with the dollar liquidity it needs to avoid seizing up. In its latest measure to combat the economic fallout from the coronarvirus pandemic, the Fed said it was establishing a temporary repurchase agreement facility to allow foreign central banks to swap any Treasury securities they hold for cash. That's yet another step beyond the actions it took in the 2008 financial crisis. The Fed is trying to prevent a liquidity squeeze amid a worldwide rush into dollars for global economy that is heavily dependent on the greenback as its linchpin. A lot of borrowing and commerce and investing is done in dollars. It is said that when you have a dollar crunch, it can turn a recession or contraction in activity into a financial crisis very quickly because the dollar shortage can trigger defaults and deleveraging.

Emerging-market borrowers are especially at risk. Encouraged by low U.S. interest rates, they've loaded up on a dollar-denominated debt in recent years. They now face a squeeze as their exports plummet due to economic shutdowns worldwide to combat the coronavirus contagion. A significantly stronger dollar can also hurt the U.S. by tightening financial conditions and making American exports more expensive on world markets.

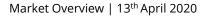
Investors rushed for the currency this month, pushing the premium paid to swap funding exposure from euros into the dollar to multiyear highs. While the shortage of dollars has since eased, strains remain in emerging markets. Unlike the currency swap lines the Fed already has in place with selected central banks -- and which it employed in the financial crisis -- the new repo facility will be open to most foreign central banks and foreign monetary authorities with an account at the New York Fed. The New York Fed says it has over 200 account holders, with the vast majority held by foreign central banks and monetary authorities. The new facility though does lack something the currency swaps provide. While it allows foreign central banks to liquefy their holdings of Treasuries and obtain dollars, it does not add to their reserves. Rather, it just changes their composition. The repo program should help smaller emerging markets that need to raise dollars to intervene to prevent freefalls in their currencies. It should also lead to less forced selling of Treasuries by those foreign central banks and thus support the Fed's efforts to restore some semblance of order to the U.S. government debt market. The Fed nodded to that reasoning in its statement announcing the new program. The facility reduces the need for central banks to



sell their Treasury securities outright and into illiquid markets, helping stabilize trading in the world's most secure and important asset.

There are some doubts though about how widely the program will be used. The Fed is charging 25 basis points over the interest rate on excess reserves -- currently 0.1% -- to buy back U.S. Treasuries. It is hard to know which monetary authorities would opt for the program rather than first trying to sell at market without the extra cost. The Fed is having to take on the mantle of world central banker because of the dollar's dominant role in the world economy and the critical importance of the Treasury debt market to the global financial system. Even though the U.S. was the epicenter of the 2008-09 crisis, the dollar's role has strengthened since then, in part because the euro's position has faded due to the ongoing problems of the currency bloc. Total dollar credit extended to borrowers, excluding banks, climbed to a record \$12.1 trillion by last September, Bank for International Settlements data show. That's more than double the level a decade before. It amounted to almost 14% of global GDP; the ratio back in 2009 was under 10%.

Prior to the latest crisis, some policy makers had warned that the world was becoming dangerously dependent on the U.S. currency. Having the dollar as the world's reserve currency is often described as an "exorbitant privilege" for the U.S. because it allows the world's largest economy to raise money on international capital markets at lower interest rates than otherwise. But it has downsides as well, because it tends to push up the value of the greenback, hurting the competitiveness of U.S. exports -- a key point of concern for President Donald Trump. "We are responsible for the dollar for better, for worse," Truman said. "The dollar is the dominant liquidity of the global financial system."





Macroeconomic calendar

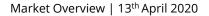
Important macroeconomic data releases

Neight	Date	Event	For	Reading ¹	Previous	Consensus
		China				*2
000	31-Mar	Official manufacturing PMI	Mar	52.0 🔺	35.7	44.8
000	01-Apr	Caixin's manufacturing PMI	Mar	50.1 🔺	40.3	45.0 🥌
9	07-Apr	Foreign reserves (USD bn)	Mar	3 061 🔻	3 107	3 098 🚽
0000	10-Apr	Consumer inflation CPI (yoy)	Mar	4.3% 🔻	5.2%	4.9%
00	10-Apr	Producer inflation PPI (yoy)	Mar	-1.5% 🔻	-0.4%	-1.1%
0	10-Apr	New yuan loans (CNY bn)	Mar	2 850 🔺	906	1 800 🥌
		Poland				
000	01-Apr	Manufacturing PMI	Mar	42.4 🔻	48.2	45.1
00000	08-Apr	NBP base rate decision	Apr	0.50% 🔻	1.00%	1.00%
		US				
0	30-Mar	Dallas Fed manufacturing activity	Mar	- 70.0 🔻	1.2	- 10.0 🗨
0	31-Mar	S&P/CaseShiller home price index‡	Jan	219 🔻	219	219
000	01-Apr	Manufacturing PMI - final data	Mar	48.5 🔻	49.2	48.0
00	01-Apr	ISM Manufacturing	Mar	49.1 🔻	50.1	44.5
00	02-Apr	Durable goods orders - final data	Feb	1.2% =	1.2%	1.2%
000	03-Apr	Composite PMI - final data	Mar	40.9 🔺	40.5	
000	03-Apr	PMI services - final data	Mar	39.8 🔺	39.1	38.5 4
00	03-Apr	Change in non-farm payrolls (ths)‡	Mar	- 701 🔻	275	- 100 🗨
00	03-Apr	Underemployment rate (U6)	Mar	8.7% 🔺	7.0%	
0	03-Apr	Unemployment rate	Mar	4.4% 🔺	3.5%	3.8%
)	03-Apr	Average hourly earnings (yoy)	Mar	3.1% 🔺	3.0%	3.0%
00	09-Apr	University of Michigan confidence index - preliminary data	Apr	71.0 🔻	89.1	75.0
0000	10-Apr	Consumer inflation CPI (mom)	Mar	-0.4% 🔻	0.1%	-0.3%
0000	10-Apr	Consumer inflation CPI (yoy)	Mar	1.5% 🔻	2.3%	1.6%
		Eurozone				
>	30-Mar	Economic confidence‡	Mar	94.5 🔻	103	91.6
>	30-Mar	Industrial confidence‡	Mar	- 10.8 🔻	- 6.2	- 12.6
)	30-Mar	Consumer confidence - final data	Mar	- 11.6 =	- 11.6	
0000	31-Mar	Core CPI (yoy) - preliminary data	Mar	1.0% 🔻	1.2%	1.1%
0000	31-Mar	CPI estimate (yoy)	Mar	0.7% 🔻	1.2%	0.8%
000	01-Apr	Manufacturing PMI - final data	Mar	44.5 🔻	44.8	44.6
0	01-Apr	Unemployment rate	Feb	7.3% 🔻	7.4%	7.4%
0	02-Apr	Producer inflation PPI (yoy)‡	Feb	-1.3% 🔻	-0.7%	-0.8%
000	03-Apr	Composite PMI - final data	Mar	29.7 🔻	31.4	31.4
000	03-Apr	Services PMI - final data	Mar	26.4 🔻	28.4	28.2
0	03-Apr	Retail sales (yoy)‡	Feb	3.0% 🔺	2.2%	1.6%
		Germany				
0000	30-Mar	Harmonized consumer inflation HICP (yoy) - preliminary data	Mar	1.3% 🔻	1.7%	1.3%
0000	30-Mar	Consumer inflation CPI (yoy) - preliminary data	Mar	1.4% 🔻	1.7%	1.3%
0	31-Mar	Unemployment rate	Mar	5.0% =	5.0%	5.1%
000	01-Apr	Manufacturing PMI - final data	Mar	45.4 🔻	45.7	45.5
000	01-Apr	Retail sales (yoy)‡	Feb	6.4% 🔺	2.1%	1.5%
000	03-Apr	Composite PMI - final data	Mar	35.0 🔻	37.2	36.8
000	06-Apr	Factory orders (wda, yoy)‡	Feb	1.5% 🔺	-0.8%	-0.2%



Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
		France				
0000	31-Mar	Harmonized consumer inflation HICP (yoy) - preliminary data	Mar	0.7% 🔻	1.6%	1.0% 🕳
0000	31-Mar	Consumer inflation CPI (yoy) - preliminary data	Mar	0.6% 🔻	1.4%	1.0% 🕳
000	01-Apr	Manufacturing PMI - final data	Mar	43.2 🔺	42.9	42.9 🦰
000	03-Apr	Composite PMI - final data	Mar	28.9 🔻	30.2	30.1 🕳
0000	10-Apr	Industrial production (yoy)	Feb	-1.4% 🔺	-2.8%	-2.5% 🦱
		Italy				
0000	31-Mar	Harmonized consumer inflation HICP (yoy) - preliminary data	Mar	0.1% 🔻	0.2%	-0.1% 🔴
000	01-Apr	Manufacturing PMI	Mar	40.3 🔻	48.7	41.0 🕳
00	01-Apr	Unemployment rate - preliminary data	Feb	9.7% 🔻	9.8%	10.0% 🕳
000	03-Apr	Composite PMI	Mar	20.2 🔻	50.7	25.0 🕳
0000	09-Apr	Industrial production (wda, yoy)‡	Feb	-2.4% 🔻	-0.2%	-2.3% 🕳
		UK				
00000	31-Mar	GDP (yoy) - final data	4Q	1.1% =	1.1%	1.1% O
00000	31-Mar	GDP (qoq) - final data	4Q	0.0% =	0.0%	0.0% 🔘
000	01-Apr	Manufacturing PMI (sa) - final data	Mar	47.8 🔻	48.0	47.0 🦰
000	03-Apr	Composite PMI - final data	Mar	36.0 🔻	37.1	36.0 🔘
0000	09-Apr	Industrial production (yoy)‡	Feb	-2.8% =	-2.8%	-3.0% 🦱
		Japan				•
0000	31-Mar	Industrial production (yoy) - preliminary data	Feb	-4.7% 🔻	-2.3%	-4.8% 🔴
000	01-Apr	Manufacturing PMI - final data	Mar	44.8 =	44.8	
000	03-Apr	Composite PMI - final data	Mar	36.2 🔺	35.8	
		Chile				*
00000	31-Mar	BCCh overnight rate target	Mar	0.50% 🔻	1.00%	0.50% 🔘
000	31-Mar	Total copper production (metric tons)	Feb	451 580 🔻	466 723	
000	31-Mar	Manufacturing (yoy)	Feb	3.7% 🔺	3.4%	3.5% 🦱
0000	01-Apr	Economic activity (yoy)	Feb	2.7% 🔺	1.5%	2.6% 🦱
000	07-Apr	Copper exports (USD mn)	Mar	2 641 🔺	2 484	
00	07-Apr	Nominal wages (yoy)	Feb	4.5% 🔻	4.7%	
		Canada				*
00000	31-Mar	GDP (yoy)	Jan	1.8% 🔻	1.9%	1.9% 🕳
000	09-Apr	Net change in employment (ths)	Mar	-1011 🔻	30.3	- 500 🕳

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

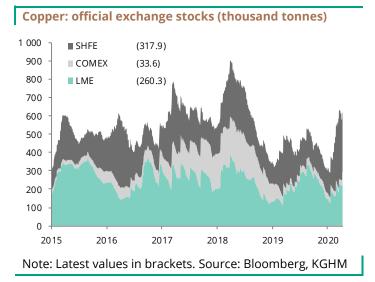


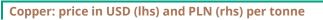
Key market data

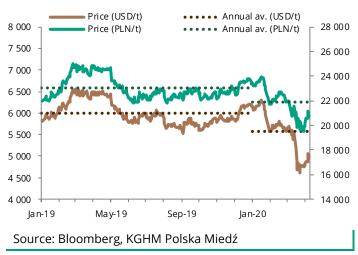
as of: 10-Apr-20)					Price	cha	nge ¹			From	om year beginning ²		
	Price		2W		QTD		YTD		1Y	Average	Min	Max	
LME (USD/t; Mo in USD/lbs)													
Copper	4 963.50		4.2%		3.5%	▼	-19.4%	▼	-22.8%	5 564.42	4 617.50	6 300.	
Molybdenum	8.15		3.2%	▼	-3.3%	▼	-11.4%	-		9.49	7.90	10	
Nickel	11 457.00		1.6%		2.0%	▼	-18.2%	▼	-12.0%	12 580.73	11 055.00	14 290	
Aluminum	1 428.50	\bullet	-4.4%	▼	-4.1%	▼	-20.6%	▼	-22.7%	1 665.27	1 421.50	1 810	
Tin	15 171.00		6.1%		5.3%	▼	-10.0%	▼	-27.4%	16 120.37	13 400.00	17 775	
Zinc	1 884.00		2.6%		0.9%	▼	-17.8%	▼	-36.8%	2 102.87	1 773.50	2 466	
Lead	1 684.50	\bullet	-0.6%	▼	-1.6%	▼	-12.4%	▼	-13.3%	1 829.92	1 589.00	2 027	
BMA (USD/troz)													
Silver	15.18		8.0%		8.9%	▼	-15.9%		0.1%	16.68	12.01	18	
Gold ²	1 680.65		3.9%		4.5%		10.4%		29.4%	1 587.77	1 474.25	1 683	
.PPM (USD/troz)	_												
Platinum ²	735.00		1.2%		1.1%	▼	-24.3%	▼	-18.2%	883.76	593.00	1 017	
Palladium ²	2 166.00	\bullet	-3.4%	▼	-6.1%		12.8%		57.1%	2 272.01	1 557.00	2 781	
X ³													
EURUSD	1.0867	\bullet	-1.5%	▼	-0.8%	▼	-3.3%	▼	-3.5%	1.1010	1.0707	1.14	
EURPLN	4.5484		0.2%	▼	-0.1%		6.8%		6.2%	4.3516	4.2279	4.60	
USDPLN	4.1566		1.5%		0.2%		9.5%		9.5%	3.9536	3.7861	4.26	
USDCAD	1.3985	\bullet	-1.2%	▼	-1.4%		7.7%		4.5%	1.3514	1.2970	1.44	
USDCNY	7.0360	\bullet	-0.9%	▼	-0.7%		1.0%		4.7%	6.9921	6.8598	7.1	
USDCLP	839.49		0.5%	▼	-0.8%		12.7%		26.6%	808.63	748.74	867	
/loney market													
3m LIBOR USD	1.219	\bullet	-0.21	▼	-0.23	▼	-0.69	▼	-1.38	1.511	0.741	1.9	
3m EURIBOR	-0.220		0.13		0.14		0.16		0.09	-0.395	-0.489	-0.2	
3m WIBOR	0.700	\bullet	-0.47	▼	-0.47	▼	-1.01	▼	-1.02	1.555	0.700	1.1	
5y USD interest rate swap	0.563		0.02		0.04	▼	-1.17	▼	-1.78	1.119	0.503	1.0	
5y EUR interest rate swap	-0.206		0.04		0.03	▼	-0.10	▼	-0.22	-0.252	-0.453	-0.0	
5y PLN interest rate swap	0.700	\bullet	-0.16	▼	-0.17	▼	-1.08	▼	-1.32	1.485	0.700	2.0	
uel													
WTI Cushing	22.76		13.3%		11.1%	▼	-62.7%	▼	-64.2%	43.42	18.99	63	
Brent	26.29		19.3%		22.4%	▼	-60.4%	▼	-62.8%	47.68	20.44	69	
Diesel NY (ULSD)	96.39	•	-6.1%	▼	-6.6%	▼	-52.4%	▼	-53.4%	148.91	94.11	206	
Others													
VIX	41.67	\bullet	-15.41	▼	-11.87		27.89		28.65	32.86	12.10	82	
BBG Commodity Index	63.48		2.3%		2.6%	▼	-21.5%	▼	-22.8%	71.88	59.48	81	
S&P500	2 789.82		6.2%		7.9%	▼	-13.6%	▼	-3.4%	3 011.78	2 237.40	3 386	
DAX	10 564.74		7.6%		6.3%	▼	-20.3%	▼	-11.5%	11 992.77	8 441.71	13 789	
Shanghai Composite	2 796.63		1.8%		1.7%	▼	-8.3%	▼	-12.3%	2 924.49	2 660.17	3 115	
WIG 20	1 615.72		9.3%		6.8%	▼	-24.9%	▼	-32.0%	1 871.19	1 305.73	2 200	
KGHM	69.34		20.8%		15.9%		-27.5%		-37.4%	80.45	49.40	101	

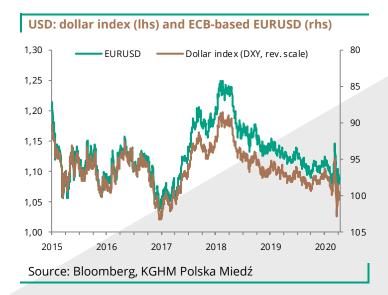
° change over: 2W = two weeks; QTD = quarter-to-day; YTD = year-to-date; 1Y = one year. ¹ based on daily closing prices. ² latest quoted price. ³ central banks' fixing rates (Bank of China HK for USD/CNY). ⁴. Source: Bloomberg, KGHM Polska Miedź



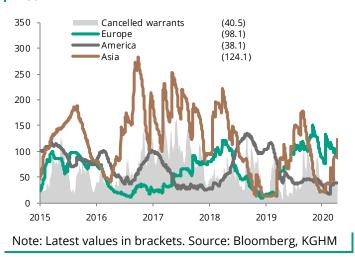




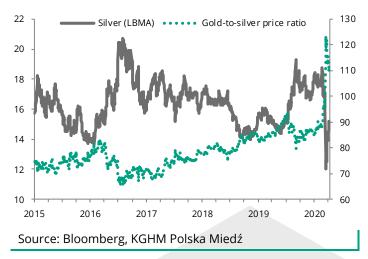




Copper: official LME stocks (thousand tonnes)



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



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





Legal note

This document has been prepared based on the below listed reports, among others, published in the following period: **30 March – 12 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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