

Market Overview



as of: 20th July 2020

- **Copper:** The latest copper data out of Chile suggest mines are navigating the pandemic without sacrificing production. The two biggest mines in the country, Escondida and Collahuasi churned out more copper in the second quarter than a year earlier despite operating with reduced staffing levels (*page 2*).
- **Precious metals:** Nigeria has for the first time refined its own gold from the recently legalized artisanal mining. Nigeria hopes changes it has made to gold mining regulation will earn the government \$500 million a year in royalties and taxes and create 250,000 jobs (*page 4*).
- **China:** The world's second-largest economy returned to growth in the second quarter amid relative success in containing the virus, much of that momentum relied on state-driven industry as consumers remain cautious. China needs increased exports to return to sustainable expansion (*page 5*).

Key market prices

	Close price	2w chng.
LME (USD/t)		
▲ Copper	6 454.50	5.6%
▲ Nickel	13 281.00	0.3%
LBMA (USD/troz)		
▲ Silver	19.16	5.0%
▲ Gold (PM)	1 807.35	1.1%
FX		
▲ EURUSD	1.1428	0.9%
▲ EURPLN	4.4827	0.3%
▼ USDPLN	3.9263	-0.8%
▲ USDCAD	1.3574	0.2%
▼ USDCLP	787.50	-1.7%
Stocks		
▲ KGHM	107.25	10.6%

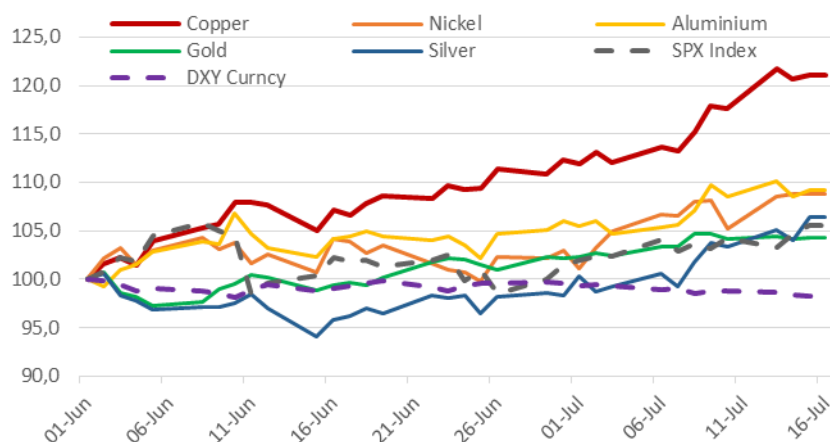
Source: Bloomberg, KGHM Polska Miedź S.A.; (*more on page 8*)

Important macroeconomic data

Release	For	
 GDP (yoy)	2Q	3.2% ▲
 Industrial prod. (mom)	Jun	5.4% ▲
 Trade balance	May	1 250 ▲
 Copper exports (\$)	Jun	2 670 ▲
 Retail sales (yoy)	May	-5.1% ▲

Source: Bloomberg, KGHM Polska Miedź S.A.; (*more on page 6*)

Recently, copper has clearly stood out from other market assets



Source: Bloomberg, KGHM Polska Miedź S.A.

Market Risk Unit

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Base and precious metals | Other commodities

Copper

The latest copper data out of Chile suggest mines are navigating the pandemic without sacrificing production. The two biggest mines in the country, Escondida and Collahuasi churned out more copper in the second quarter than a year earlier despite operating with reduced staffing levels.

Chile Is Finally Reining in Virus Cases

Infections in Chile continue to rise. But numbers in the past few weeks indicate that a tightening of restrictions is working

Copper bears beaten down by a dizzying 50% rally may be finding some solace in news out of Chile. The country that accounts for a quarter of global supply is finally reining in a surge in Covid-19 cases. Infections in Chile continue to rise. But numbers in the past few weeks indicate that a tightening of restrictions is working. While authorities have determined that the vast majority of mines are adhering to virus-fighting protocols, they plan to roll out a standard set of rules for the industry. Chile's national infection rate is coming down, but on a per capita basis is still among the highest in the world and cases continue to grow in some mining regions. State-owned Codelco said this week that daily cases at its mines had fallen 66% from mid-June levels. At the same time, unions that have been clamoring for a bigger say in Covid-19 protocols seem to be getting their wish. Seven umbrella groups representing about 80% of mine workers reached an agreement this week with the government to set up a "tripartite" working group. The association of mining companies is yet to agree to participate in the working group. And workers at two mines have voted to strike over wages. But there's still time to avert strikes at Antofagasta Plc's Zaldívar and Centinela mines given Chilean labor rules afford the option of government mediation. One of the unions at Codelco's Radomiro Tomic mine agreed to put off wage talks for a year to effectively push forward the risk of disruptions. The latest copper data out of Chile also suggest mines in the biggest-producing nation are navigating the pandemic without sacrificing production. In fact, the two biggest mines in the country -- BHP Group's Escondida and Anglo American Plc and Glencore Plc's Collahuasi -- both churned out more copper in the second quarter than a year earlier despite operating with reduced staffing levels. The industry is keeping a laser focus on short-term output by shelving non-essential items. Collahuasi's production rose 38% April through June, Anglo said in its quarterly production report. Escondida, the world's biggest copper mine, registered a 2% increase in mined production, according to shareholder Rio Tinto Group. Together, the two mines make up about 30% of Chilean copper output. Their results may ease some of the supply concern that helped send copper prices to the highest in a year.

Other important information on copper market:

- China's Yunnan Province will fund producers to buy copper, aluminum, tin, indium, lead, and zinc for reserves for one year, state-run researcher Beijing Antaika said on July 16. The Yunnan government set a reserve purchase volume of 110,000 mt copper cathode, 340,000 mt aluminum ingot, 40,000 mt tin ingot, 50 mt indium ingot, 240,000 mt zinc ingot, 70,000 mt lead ingot and 1,500 mt titanium and titanium alloy, the agency data showed. For producers that undertake copper, aluminum, lead, and zinc reserves, they would be funded 60% of the amount involved for buying the reserves, while those that undertake tin, indium and titanium, it would be 80%, Antaika data showed, noting the price of the metal reserves will be based on Shanghai spot prices on the reserve purchase day. The reserve purchase plan is aimed at stabilizing the economy, supporting producers' production and improving market sentiment post COVID-19, the agency said. According to Antaika, the coronavirus has delayed most of copper consumption, with China seen having a national copper surplus of 650,000 mt in 2020. Mainland copper demand in 2020 was seen rising just 1.2% year on year at 11.4 million mt. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec consequat lorem a nibh scelerisque blandit.
- Chile's copper exports have continued to rise despite the coronavirus pandemic, as demand from China offsets that of other key markets, the country's customs data showed. Shipments of copper concentrate reached 3.47 million mt during the second quarter, up 12.7% from the same period a year ago. Exports of refined copper cathode reached 666,757 mt, up 21.3% from year-ago levels. In both cases, more Chilean copper is being diverted to China. While China imported 350,104 mt of copper cathode during the quarter, up 63.6% from last year, exports to the US fell 5.3% to 109,755 mt. China imported 2.09 million mt of concentrate, up 46.7% from 2019, while exports to Japan and South Korea, the next two largest markets, fell 16.1% and 20.3%, respectively.
- The London Metal Exchange started on Thursday (9 July) to publish stocks of metal in its global storage network that could be put on warrant and traded on the exchange to increase market transparency, the exchange said in a release. The off-warrant stocks of aluminium in warehouses registered to issue LME warrants totalled 1,004,227 tonnes at the end of May, while those for copper stood at 161,374 tonnes.

Precious Metals

Nigeria has for the first time refined its own gold from the recently legalized artisanal mining. Nigeria hopes changes it has made to gold mining regulation will earn the government \$500 million a year in royalties and taxes and create 250,000 jobs.

Nigeria refines own gold

Nigeria has for the first time refined its own gold and purchased the refined product into a new gold reserve. The Central Bank of Nigeria (CBN) paid N268 million (around 690 000 USD) for the country's first artisanally-mined and refined gold. The 12.5kg gold bar was processed and refined according to the London Bullion Market Association (LBMA) standards required for the use of gold as a reserve instrument by the CBN. President Muhammadu Buhari launched the PAGMDI, a comprehensive artisanal and small-scale gold mining development programme in 2019. The initiative is to foster the formalisation and integration of artisanal gold mining activities into Nigeria's legal, economic, and institutional framework. The Governor of the CBN, Godwin Emefiele, said the development is a step toward the actualisation of economic diversification in Nigeria. He said Nigeria will no longer be analysed through the price of crude oil as gold is also valued in the international market in dollars. The Governor of Kebbi State, Atiku Bagudu said that Kebbi have people in the artisanal gold mining sector for decades but they have been doing so illegally, with health hazards to themselves and damage to the environment. Executive Secretary, Solid Minerals Development Fund (SMDF), Fatima Shinkafi, said the initiative would not only strengthen the national economy and impact on the individuals, but will also encourage private-sector-led investment. Nigeria hopes changes it has made to gold mining regulation will earn the government \$500 million a year in royalties and taxes and create 250,000 jobs, President Muhammadu Buhari said. The reforms have made artisanal mining legal and will create gold buying centres and tax trade of the precious metal, Buhari said in a statement. The extra revenues from gold could be a lifeline as the coronavirus pandemic and resulting global oil price crash cut off much of the state's income. In February, Nigeria licensed two gold refineries mainly to produce gold for the central bank to hold in its reserves but also for export. The country has largely untapped deposits of 44 minerals including gold, iron ore, coal, tin and zinc, in more than 500 locations, but mining makes up just 0.3% of the economy.

Global economies | Foreign exchange markets

China's Rebounding Economy Now Hinges on Global Recovery Too






The world's second-largest economy returned to growth in the second quarter amid relative success in containing the virus, much of that momentum relied on state-driven industry as consumers remain cautious. China needs increased exports to return to sustainable expansion.







In June industrial output rose 4.8% y o y -- matching estimates -- yet retail sales shrank 1.8%, much weaker than a projected

China's economic recovery is vulnerable to losing momentum as key trading partners from Japan to the U.S. struggle with resurgences of the deadly coronavirus and resort to fresh measures to control its spread. While the world's second-largest economy returned to growth in the second quarter amid relative success in containing the virus, much of that momentum relied on state-driven industry as consumers remain cautious. Gross domestic product expanded 3.2% in the three months to June from a year ago, reversing a 6.8% decline in the first quarter and beating the median forecast of 2.4%. Output in the first half was still down 1.6% on the same period in 2019. In an indication of the mixed recovery, industrial output rose 4.8% in June from a year earlier -- matching estimates -- yet retail sales shrank 1.8%, much weaker than a projected 0.5% increase. At the same time fixed-asset investment shrank 3.1% in the first half of the year, versus a forecast drop of 3.3%. Liu Aihua, spokeswoman for the National Bureau of Statistics in Beijing, told reporters that the continued spread of the virus globally will remain a key constraint on any domestic recovery. Exports and imports both rose in June, signaling a firmer footing at home and abroad. Still, data on global growth continues to disappoint. The U.K. economy's 1.8% expansion in May was much weaker than expected. While a ZEW gauge of current conditions in Germany improved in July, confidence for the next six months slipped. The Bank of Japan warned that the economy remains in an "extremely severe situation." Hopes for containing the virus are being strained as infections continue to spread around the world, including places like Australia and Hong Kong where it had been brought under control, pushing global cases above the 13.5 million mark. The virus continues to flare across the U.S., with Texas reporting a record Covid-19 deaths and almost 11,000 new cases, and California seeing near-record surges. None of which bodes especially well for. Private and external demand are the two biggest sources of uncertainty for the second half of the year. Private companies cut back on investment in the first six months. Simmering geopolitical tensions with the U.S. are another risk to both China's exports and manufacturing investment, while the risk of a second wave of the virus cannot be ruled out. "A bumpy and uneven reopening in other countries implies weaker external demand, which will likely become a drag on industrial activity growth in China," said Helen Qiao, chief Greater China economist at Bank of America.

Macroeconomic calendar

Important macroeconomic data releases

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²	
China							
⊛	07-Jul	Foreign reserves (USD bn)	Jun	3 112 ▲	3 102	3 119	☹
⊛⊛⊛⊛	09-Jul	Consumer inflation CPI (yoy)	Jun	2.5% ▲	2.4%	2.5%	⊙
⊛⊛	09-Jul	Producer inflation PPI (yoy)	Jun	-3.0% ▲	-3.7%	-3.2%	▲
⊛	10-Jul	New yuan loans (CNY bn)‡	Jun	1 810 ▲	1 482	1 800	▲
⊛⊛	14-Jul	Trade balance (USD bn)	Jun	46.4 ▼	62.9	59.6	☹
⊛⊛	14-Jul	Exports (yoy)	Jun	0.5% ▲	-3.3%	-2.0%	▲
⊛⊛⊛⊛⊛	16-Jul	GDP (yoy)	2Q	3.2% ▲	-6.8%	2.4%	▲
⊛⊛⊛⊛⊛	16-Jul	GDP (sa, qoq)‡	2Q	11.5% ▲	-10.0%	9.6%	▲
⊛⊛⊛⊛	16-Jul	Industrial production (yoy)	Jun	4.8% ▲	4.4%	4.8%	⊙
⊛⊛	16-Jul	Fixed assets investments (ytd, yoy)	Jun	-3.1% ▲	-6.3%	-3.3%	▲
⊛	16-Jul	Retail sales (yoy)	Jun	-1.8% ▲	-2.8%	0.5%	☹
Poland							
⊛⊛⊛⊛⊛	14-Jul	NBP base rate decision	Jul	0.10% -	0.10%	0.10%	⊙
⊛⊛	14-Jul	Trade balance (EUR mn)‡	May	1 250 ▲	-48.0	176	▲
⊛⊛	14-Jul	Exports (EUR mn)‡	May	15 700 ▲	13 789	15 812	☹
⊛⊛	14-Jul	Current account balance (EUR mn)‡	May	2 455 ▲	1 156	837	▲
⊛⊛⊛⊛	15-Jul	Consumer inflation CPI (yoy) - final data	Jun	3.3% -	3.3%	--	
⊛⊛⊛⊛	16-Jul	Core CPI (excluding food and energy, yoy)	Jun	4.1% ▲	3.8%	4.1%	⊙
⊛⊛	17-Jul	Average gross salary (yoy)	Jun	3.6% ▲	1.2%	1.3%	▲
⊛	17-Jul	Employment (yoy)	Jun	-3.3% ▼	-3.2%	-3.9%	▲
US							
⊛⊛⊛	06-Jul	Composite PMI - final data	Jun	47.9 ▲	46.8	--	
⊛⊛⊛	06-Jul	PMI services - final data	Jun	47.9 ▲	46.7	46.9	▲
⊛⊛⊛⊛	14-Jul	Consumer inflation CPI (mom)	Jun	0.6% ▲	-0.1%	0.5%	▲
⊛⊛⊛⊛	14-Jul	Consumer inflation CPI (yoy)	Jun	0.6% ▲	0.1%	0.6%	⊙
⊛⊛⊛⊛	15-Jul	Industrial production (mom)	Jun	5.4% ▲	1.4%	4.3%	▲
⊛	15-Jul	Capacity utilization‡	Jun	68.6% ▲	65.1%	67.8%	▲
⊛⊛	16-Jul	Philadelphia Fed business outlook	Jul	24.1 ▼	27.5	20.0	▲
⊛⊛	16-Jul	Retail sales (excluding autos, mom)‡	Jun	7.3% ▼	12.1%	5.0%	▲
⊛⊛	17-Jul	University of Michigan confidence index - preliminary data	Jul	73.2 ▼	78.1	79.0	☹
Eurozone							
⊛⊛	06-Jul	Retail sales (yoy)	May	-5.1% ▲	-19.6%	-6.5%	▲
⊛⊛⊛⊛	14-Jul	Industrial production (sa, mom)‡	May	12.4% ▲	-18.2%	15.0%	☹
⊛⊛⊛⊛	14-Jul	Industrial production (wda, yoy)‡	May	-20.9% ▲	-28.7%	-18.9%	☹
⊛	14-Jul	ZEW survey expectations	Jul	59.6 ▲	58.6	--	
⊛⊛⊛⊛⊛	16-Jul	ECB main refinancing rate	Jul	0.00% -	0.00%	0.00%	⊙
⊛⊛⊛⊛⊛	16-Jul	ECB deposit facility rate	Jul	-0.5% -	-0.5%	-0.5%	⊙
⊛	16-Jul	Trade balance (EUR mn)	May	9.4 ▲	2.9	--	
⊛⊛⊛⊛	17-Jul	Consumer inflation CPI (yoy) - final data	Jun	0.3% -	0.3%	0.3%	⊙
⊛⊛⊛⊛	17-Jul	Core CPI (yoy) - final data	Jun	0.8% -	0.8%	0.8%	⊙
Germany							
⊛⊛⊛	06-Jul	Factory orders (wda, yoy)‡	May	-29.3% ▲	-36.9%	-24.0%	☹
⊛⊛⊛⊛	07-Jul	Industrial production (wda, yoy)‡	May	-19.3% ▲	-25.0%	-16.9%	☹
⊛⊛⊛⊛	14-Jul	Harmonized consumer inflation HICP (yoy) - final data	Jun	0.8% -	0.8%	0.8%	⊙

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
France 						
🔔🔔🔔	10-Jul	Industrial production (yoy)‡	May	-23.4% ▲	-35.0%	-24.0% ▲
🔔🔔🔔	16-Jul	Harmonized consumer inflation HICP (yoy) - final data	Jun	0.2% ▲	0.1%	0.1% ▲
🔔🔔🔔	16-Jul	Consumer inflation CPI (yoy) - final data	Jun	0.2% ▲	0.1%	0.1% ▲
Italy 						
🔔🔔🔔	10-Jul	Industrial production (wda, yoy)‡	May	-20.3% ▲	-43.4%	-30.7% ▲
🔔🔔🔔	15-Jul	Harmonized consumer inflation HICP (yoy) - final data	Jun	-0.4% -	-0.4%	-0.4% ○
UK 						
🔔🔔🔔	14-Jul	Industrial production (yoy)‡	May	-20.0% ▲	-23.8%	-20.4% ▲
🔔🔔🔔	15-Jul	Consumer inflation CPI (yoy)	Jun	0.6% ▲	0.5%	0.4% ▲
🔔🔔	16-Jul	Unemployment rate (ILO, 3-months)	May	3.9% -	3.9%	4.2% ◡
Japan 						
🔔🔔🔔	14-Jul	Industrial production (yoy) - final data	May	-26.3% ▼	-25.9%	--
Chile 						
🔔🔔🔔	07-Jul	Copper exports (USD mn)	Jun	2 670 ▲	2 567	--
🔔🔔	07-Jul	Nominal wages (yoy)	May	2.6% -	2.6%	--
🔔🔔🔔🔔	16-Jul	BCCh overnight rate target	Jul	0.50% -	0.50%	0.50% ○
Canada 						
🔔🔔🔔	10-Jul	Net change in employment (thrs)	Jun	953 ▲	290	700 ▲
🔔🔔🔔🔔	15-Jul	BoC base rate decision	Jul	0.25% -	0.25%	0.25% ○

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

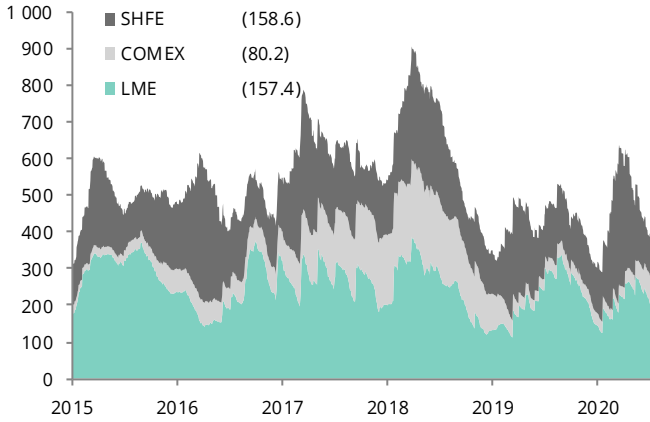
Key base & precious metal prices, exchange rates and other important market factors

<i>(as of: 17-Jul-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	6 454.50	▲ 5.6%	▲ 6.9%	▲ 4.8%	▲ 8.5%	5 572.73	4 617.50	6 545.00	
Molybdenum	7.17	▼ -4.0%	▼ -2.8%	▼ -22.1%	▼	8.86	7.15	10.90	
Nickel	13 281.00	▲ 0.3%	▲ 3.8%	▼ -5.1%	▼ -9.6%	12 544.89	11 055.00	14 290.00	
Aluminum	1 618.00	▲ 1.6%	▲ 1.0%	▼ -10.1%	▼ -11.5%	1 597.91	1 421.50	1 810.50	
Tin	17 400.00	▲ 1.5%	▲ 3.3%	▲ 3.3%	▼ -2.5%	16 148.43	13 400.00	17 775.00	
Zinc	2 188.00	▲ 7.4%	▲ 6.4%	▼ -4.6%	▼ -11.7%	2 052.95	1 773.50	2 466.50	
Lead	1 811.00	▲ 1.7%	▲ 1.3%	▼ -5.8%	▼ -10.3%	1 766.12	1 576.50	2 027.00	
LBMA (USD/troz)									
Silver	19.16	▲ 5.0%	▲ 7.4%	▲ 6.2%	▲ 19.5%	16.83	12.01	19.33	
Gold ²	1 807.35	▲ 1.1%	▲ 2.2%	▲ 18.7%	▲ 27.5%	1 659.65	1 474.25	1 812.10	
LPPM (USD/troz)									
Platinum ²	824.00	▼ -0.4%	▲ 1.2%	▼ -15.1%	▼ -2.4%	845.24	593.00	1 017.00	
Palladium ²	2 023.00	▲ 5.1%	▲ 6.2%	▲ 5.4%	▲ 33.3%	2 111.64	1 557.00	2 781.00	
FX ³									
EURUSD	1.1428	▲ 0.9%	▲ 2.1%	▲ 1.7%	▲ 1.9%	1.1049	1.0707	1.1456	
EURPLN	4.4827	▲ 0.3%	▲ 0.4%	▲ 5.3%	▲ 5.1%	4.4199	4.2279	4.6044	
USDPLN	3.9263	▼ -0.8%	▼ -1.4%	▲ 3.4%	▲ 3.5%	4.0032	3.7861	4.2654	
USDCAD	1.3574	▲ 0.2%	▼ -0.4%	▲ 4.5%	▲ 3.9%	1.3644	1.2970	1.4496	
USDCNY	6.9924	▼ -0.4%	▼ -1.0%	▲ 0.4%	▲ 1.6%	7.0334	6.8598	7.1671	
USDCLP	787.50	▼ -1.7%	▼ -3.5%	▲ 5.8%	▲ 15.5%	811.73	748.74	867.83	
Money market									
3m LIBOR USD	0.271	▼ -0.01	▼ -0.03	▼ -1.64	▼ -2.01	0.999	0.266	1.900	
3m EURIBOR	-0.443	▼ 0.00	▼ -0.02	▼ -0.06	▼ -0.07	-0.363	-0.489	-0.161	
3m WIBOR	0.250	▼ -0.01	▼ -0.01	▼ -1.46	▼ -1.47	1.026	0.250	1.710	
5y USD interest rate swap	0.325	▼ -0.01	▼ 0.00	▼ -1.40	▼ -1.43	0.759	0.315	1.693	
5y EUR interest rate swap	-0.352	▼ 0.00	▲ 0.00	▼ -0.24	▼ -0.07	-0.272	-0.453	-0.090	
5y PLN interest rate swap	0.543	▼ -0.05	▲ 0.01	▼ -1.24	▼ -1.28	1.044	0.485	2.050	
Fuel									
WTI Cushing	40.59	▼ -0.1%	▲ 3.4%	▼ -33.5%	▼ -26.6%	37.02	-37.63	63.27	
Brent	43.12	▲ 1.5%	▲ 5.5%	▼ -35.1%	▼ -30.5%	40.99	17.32	69.02	
Diesel NY (ULSD)	122.01	▼ -1.9%	▲ 3.2%	▼ -39.8%	▼ -34.2%	124.80	60.67	206.01	
Others									
VIX	25.68	▼ -2.26	▼ -4.75	▲ 11.90	▲ 12.15	32.49	12.10	82.69	
BBG Commodity Index	66.49	▲ 0.5%	▲ 2.3%	▼ -17.8%	▼ -15.7%	67.65	59.48	81.64	
S&P500	3 224.73	▲ 1.4%	▲ 4.0%	▼ -0.2%	▲ 7.7%	3 009.18	2 237.40	3 386.15	
DAX	12 919.61	▲ 1.5%	▲ 4.9%	▼ -2.5%	▲ 5.7%	11 826.49	8 441.71	13 789.00	
Shanghai Composite	3 214.13	▼ -3.6%	▲ 7.7%	▲ 5.4%	▲ 10.8%	2 945.39	2 660.17	3 450.59	
WIG 20	1 796.04	▼ -1.2%	▲ 2.1%	▼ -16.5%	▼ -22.6%	1 792.54	1 305.73	2 200.10	
KGHM	107.25	▲ 10.6%	▲ 18.0%	▲ 12.2%	▲ 12.3%	82.68	49.40	107.75	

° 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

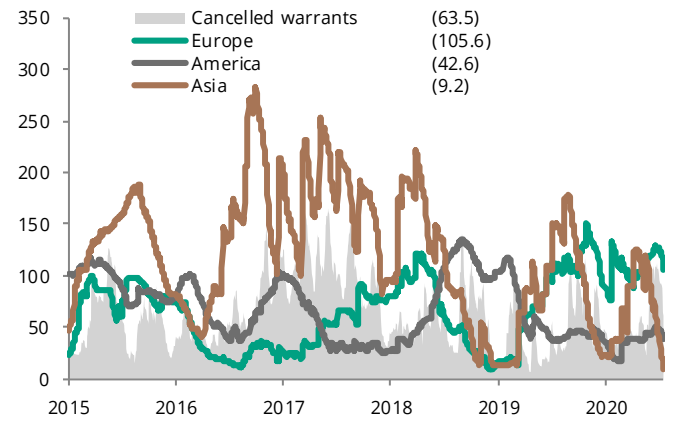
Source: Bloomberg, KGHM Polska Miedź

Copper: official exchange stocks (thousand tonnes)



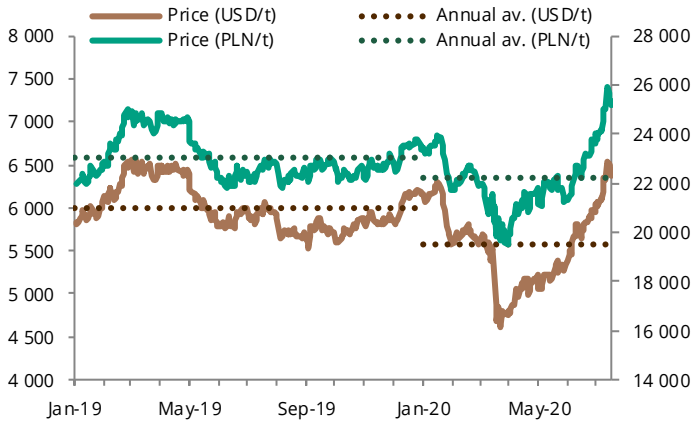
Note: Latest values in brackets. Source: Bloomberg, KGHM

Copper: official LME stocks (thousand tonnes)



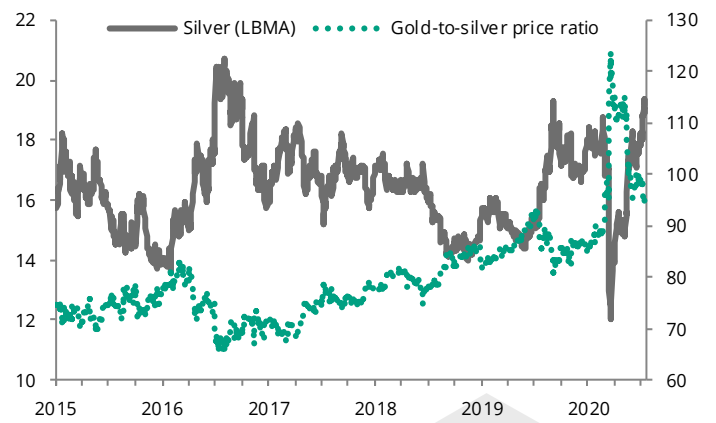
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



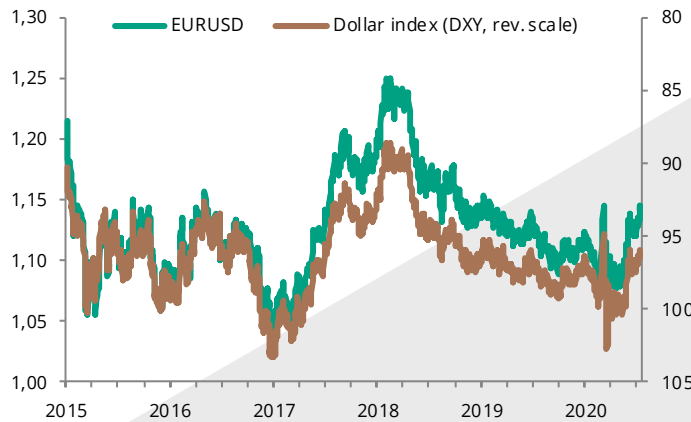
Source: Bloomberg, KGHM Polska Miedź

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



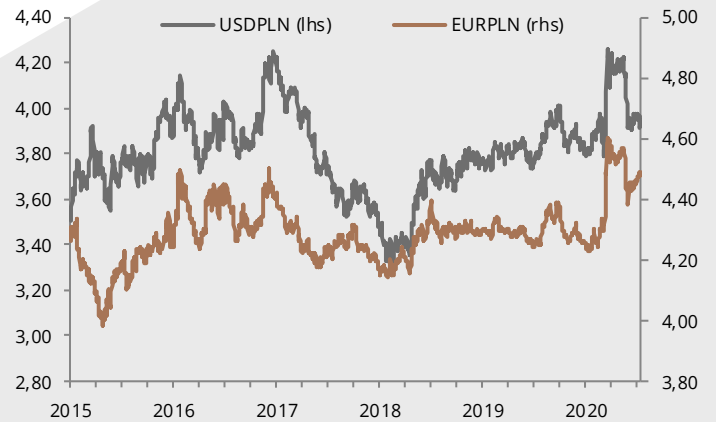
Source: Bloomberg, KGHM Polska Miedź

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:
6 – 19 July 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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