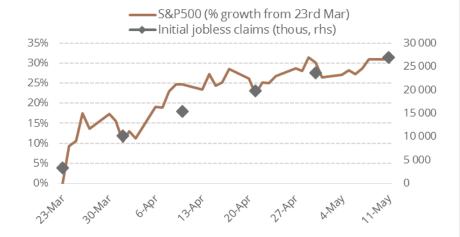


# **Market Overview**

- Copper: Chile's top copper mines ramped up production in March even as the coronavirus outbreak took hold, according to data recently released by state copper agency Cochilco, boosted by a sharp spike in output from state miner Codelco. Production at Codelco rose 14.8% year over year in March to 147,600 tones (page 2).
- Precious metals: The largest gold producer in the world successfully achieved higher profit in the first quarter of this year. It was possible due to the increased level of production and the increased demand caused by investors' willingness to put money into the safe heaven assets during the outbreak of coronavirus (page 4).
- China: The world's second-largest economy is on track for its worst performance in the post-Mao era, as the impact of shutdowns to curb the disease outbreak at home is compounded by a slump in global demand (also for Chinese products) as the pandemic spreads (page 5).

The recent increases in S&P500 index may be a big surprise in the situation of dynamically rising unemployment in the USA



Source: Bloomberg, KGHM Polska Miedź S.A.



### Key market prices

		Close price	2w chng.
	LME (USD/t)		
	Copper	5 227.50	1.2%
$\blacksquare$	Nickel	12 247.00	-0.1%
	LBMA (USD/troz)		
$\blacksquare$	Silver	14.98	-1.5%
$\blacksquare$	Gold (PM)	1 704.05	-0.6%
	FX		
•	EURUSD	1.0843	-0.1%
	EURPLN	4.5577	0.7%
	USDPLN	4.2065	0.9%
$\blacksquare$	USDCAD	1.3934	-0.8%
$\blacksquare$	USDCLP	836.27	-2.8%
	Stocks		
	KGHM	77.00	6.2%

Source: Bloomberg, KGHM Polska Miedź S.A.; (more on page 9)

#### Important macroeconomic data Release For Official manuf. PMI Apr 50.8 **V** Composite PMI Apr 27.0 V Unemployment rate Mar 7.4% CPI (yoy) Apr 3.4% Manufacturing (yoy) Mar 0.6%

Source: Bloomberg, KGHM Polska Miedź S.A.; (more on page 7)

### **Market Risk Unit**

marketrisk@kghm.com



## **Base and precious metals | Other commodities**

## Copper

Chile's top copper mines ramped up production in March even as the coronavirus outbreak took hold, according to data recently released by state copper agency Cochilco, boosted by a sharp spike in output from state miner Codelco. Production at Codelco rose 14.8% year over year in March to 147,600 tones.

Chile government estimates a total reduction in output of only 63,300 tonnes, or approximately 1% of the country's annual production

### **Chile's Top Miners Boost Production In March**

Chile's top copper mines ramped up production in March even as the coronavirus outbreak took hold, according to data recently released by state copper agency Cochilco, boosted by a sharp spike in output from state miner Codelco. Production at Codelco rose 14.8% year over year in March to 147,600 tonnes. Codelco's output jumped 4.2% to 386,600 tons in the first quarter, Cochilco said. BHP's Escondida, the world's largest copper mine, saw production in March climb 0.9% to 101,800 tons, the agency said. The massive Collahuasi copper mine in northern Chile, a joint venture between Anglo American Plc and Glencore, also saw its March production jump 6.8% over 2019 to 50,400. Chile's copper industry has maintained operations even as the coronavirus has ravaged the country's economy and shut down many other non-essential businesses. The plummeting global copper price, however, has slashed the value of that output, pressuring some small and medium-size miners. Chile mining minister Baldo Prokurica said the government estimates a total reduction in output of only 63,300 tonnes, or approximately 1% of the country's annual production. Codelco told that it was maintaining its production and shipments according to its 2020 plan despite disruption wrought by the coronavirus outbreak. The company declined to give an updated figure to the five cases of coronavirus it said it had confirmed among its workers at its Ministro Hales mine at the start of April. It said that the appropriate health authorities had been notified of all confirmed cases and quarantines had been observed.

#### **Peru Mines Set To Restart**

Peruvian miners are set to restart operations in coming days and ramp up to around 80% of normal production levels within a month. Pablo de la Flor, executive director of the National Society of Mining, Petroleum and Energy (SNMPE), said around 20 mining companies were ready to resume operations that were scaled back sharply during a nationwide lockdown since mid-March. "We are talking about 39 operations by 22 large mining companies," "These represent approximately 95% of (local) copper production, 65% of silver production, 62% of zinc production and 26% of gold production," he added. Peru's mining companies, which make up 60% of the country's exports, have been carrying out limited operations on essential or maintenance areas, according to government restrictions to avoid contagion of coronavirus. Peru's



government has said it wants to gradually restart key activities in May, to reduce the impact on the economy. The county has registered 54,817 confirmed cases of COVID-19 so far, one of the highest in the region. De la Flor said the energy ministry had approved a "sanitary protocol" that each firm in the sector will have to design and present for official approval, before resuming the exploitation, storage and transport of minerals. De la Flor said the almost paralysis of mining production and the fall in metal prices globally have had a "worrying" impact on local companies in the sector. "The combination of these factors is leading us to project a drop in the value of mining exports for the year of between 15 to 20%."

### Other important information on copper market:

Europe's biggest copper smelter Aurubis won European Union antitrust approval for its planned 380 million euro (\$412 million) acquisition of Belgian-Spanish metal recycling group Metallo. The European Commission said that the merger would not adversely affect competition in the copper recycling sector. Aurubis agreed in May 2019 to buy Metallo as part of an acquisition-led expansion into other metals alongside copper. Metallo processes about 220,000 tonnes of scrap and recycling materials a year at its Beerse plant in Belgium and another 95,000 tonnes its plant in Berango in Spain. Along with copper, Metallo produces a range of other metals including tin and lead. It processes difficult scraps with low metal content.



## **Precious Metals**

The largest gold producer in the world successfully achieved higher profit in the first quarter of this year. It was possible due to the increased level of production and the increased demand caused by investors' willingness to put money into the safe heaven assets during the outbreak of coronavirus.

# Gold miner Newmont's profit surges on higher production, rise in bullion prices

Gold miner Newmont Corp's adjusted profit nearly doubled boosted by higher production and a surge in the prices of the precious metal, as investors rushed to the safe-haven asset amid market turmoil caused by the COVID-19 outbreak. The world's biggest gold miner said average realized price for gold in the first quarter rose to \$1,591 per ounce from \$1,300 an ounce last year, while attributable gold production rose 20% to 1.5 million ounce mainly due to new output from the Goldcorp mines that it acquired last year. Gold prices have risen around 12% this year, as investors shifted their investments to the metal after risk sentiment took a beating due to uncertainties in a coronavirus-hit global economy. This has helped shares of gold miners to outpace broader stock indexes this year, despite shutting down production due to the virus-led lockdowns across the globe. S&P/TSX's Global Gold index, which tracks producers of gold and related products, including companies that mine or process gold globally, has gained about 36% on an average in this quarter, compared to last year. Newmont's stock is up about 44% this year. Net income attributable to shareholders rose more than nine fold to \$822 million or \$1.02 per share in the first-quarter ended March 31, compared to last year, as the company benefited from the sale of some businesses. Excluding the one-time gains, Newmont's adjusted profit of \$326 million or \$0.40 per share. The company said all-in sustaining costs increased around 14% to \$1,030 per ounce for the quarter primarily due to higher gold CAS (Gold costs applicable to sales) per ounce, higher sustaining capital spend and care and maintenance costs associated with COVID-19.

The price of gold increased this year by about 12%, and Newmont's share prices moved up by 44%



# **Global economies | Foreign exchange markets**

# **China Considers Dropping numerical GDP growth target for** 2020

The world's second-largest economy is on track for its worst performance in the post-Mao era, as the impact of shutdowns to curb the disease outbreak at home is compounded by a slump in global demand (also for Chinese products) as the pandemic spreads.

Full-year economic growth will likely slow to 1.8%, estimate of economists surveyed by Bloomberg China's leaders are considering the option of not setting a numerical target for economic growth this year given the uncertainty caused by the global coronavirus pandemic. What may instead be unveiled at the upcoming National People's Congress later this month is a description of the goal for gross domestic product growth. Last year the target was a range of between 6% and 6.5%. The government work report, which usually contains the GDP target, is typically revised repeatedly in the lead up to the conference. The world's second-largest economy is on track for its worst performance in the post-Mao era, as the impact of shutdowns to curb the disease outbreak at home is compounded by a slump in global demand (also for Chinese products) as the pandemic spreads. That has left the leadership with the choice of setting an uncomfortably low growth target, an unrealistically high one, or skipping it altogether. Such a move would free up policy makers from the obligation to issue significant stimulus to meet a certain growth level as long as employment remains stable. While China has announced credit easing policies, tax breaks and additional spending plans, the efforts are still targeted and more moderate compared with other major economies.

The leadership's caution is driven by fears of another debt blowout after total borrowing ballooned after the global financial crisis. Full-year economic growth will likely slow to 1.8%, according to the median estimate of economists surveyed by Bloomberg. It'd be the first time for Chinese leaders not to issue a numerical growth target in at least two decades. Some economists, including central bank adviser Ma Jun, have publicly advocated scrapping the numerical goal because of the pressure it puts on policy makers. The nation's top leaders also softened their tone on the importance of meeting specific growth targets at a Politburo meeting last month.

# German constitutional court has asked ECB to explain adherence to the proportionality rule

The ruling that Germany's central bank must end the government bond purchases within three months unless the ECB can prove they are needed clouds the bloc's monetary policy outlook at a time when the coronavirus is hammering economic growth. The decision did not apply to the ECB's PEPP coronavirus pandemic-fighting programme, a 750 billion euro (\$812 billion) scheme unveiled in March at the height of a coronavirus-induced financial market rout. But the ruling raised concern about further expansions in ECB asset purchases. That manifested in a sharp selloff in Italian government bonds, while the euro



tumbled more than 0.5%. Amassing nearly 3 trillion euros of bonds since 2015, the ECB has long relied on asset purchases to support the euro zone economy through crises and the threat of deflation. ECB policymakers will discuss the ruling at a Governing Council. "The court ruling highlights that core countries not only face political hurdles to any form of liability sharing but also legal hurdles," said Richard McGuire, head of rates strategy at Rabobank. "The PSPP (long-term bond purchase programme) violates German law but I think the three-month deadline is important to clarify proportionality and the ECB can move on after that. In the meantime PEPP carries on as normal," said Societe Generale strategist Kenneth Broux. "It illustrates the difficulties versus the Fed for example; the Fed has no such constraints of U.S. states challenging QE (quantitative easing) there."



# **Macroeconomic calendar**

## Important macroeconomic data releases

Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus	
		China				*)	
00	27-Apr	Industrial profits (yoy)	Mar	-34.9%			
000	30-Apr	Official manufacturing PMI	Apr	50.8	52.0	51.0	
000	30-Apr	Caixin's manufacturing PMI	Apr	49.4	50.1	50.5	
00	07-May	Trade balance (USD bn)‡	Apr	45.3	19.9	8.7	
00	07-May	Exports (yoy)	Apr	3.5%	-6.6%	-11.0%	
٥	07-May	Foreign reserves (USD bn)	Apr	3 091	3 061	3 056	
		Poland					
0000	30-Apr	Consumer inflation CPI (yoy) - preliminary data	Apr	3.4%	4.6%	3.4%	
000	04-May	Manufacturing PMI	Apr	31.9	42.4	34.6	
		US					
0	27-Apr	Dallas Fed manufacturing activity	Apr	- 73.7 <b>V</b>	- 70.0	- 75.0	
0	28-Apr	Richmond Fed manufacturing index	Apr	- 53.0	2.0	- 41.0 👅	
0	28-Apr	S&P/CaseShiller home price index‡	Feb	220 🔺	219		
00000	29-Apr	FOMC base rate decision - upper bound (Fed)	Apr	0.25% =	0.25%	0.25%	
00000	29-Apr	FOMC base rate decision - lower bound (Fed)	Apr	0.00% =	0.00%	0.00%	
00000	29-Apr	GDP (annualized, qoq) - estimation	1Q	-4.8%	2.1%	-4.0%	
0000	30-Apr	Consumer spending inflation PCE (mom)	Mar	-0.1%	0.2%	-0.1%	
0000	30-Apr	Consumer spending inflation PCE (yoy)	Mar	1.7%	1.8%	1.6%	
00	30-Apr	Personal income (sa, mom)	Mar	-2.0%	0.6%	-1.7%	
00	30-Apr	Personal spending (sa, mom)	Mar	-7.5%	0.2%	-5.1%	
000	01-May	Manufacturing PMI - final data	Apr	36.1	36.9	36.7	
00	01-May	ISM Manufacturing	Apr	41.5	49.1	36.0	
00	04-May	Durable goods orders - final data	Mar	-14.7%	-14.4%	-14.4%	
000	05-May	Composite PMI - final data	Apr	27.0	27.4		
000	05-May	PMI services - final data	Apr	26.7	27.0	27.0	
00	08-May	Change in non-farm payrolls (ths)‡	Apr	-20 537	- 881	-22 000	
00	08-May	Underemployment rate (U6)	Apr	22.8%	8.7%		
00	08-May	Unemployment rate	Apr	14.7%	4.4%	16.0%	
0	08-May	Average hourly earnings (yoy)‡	Apr	7.9%	3.3%	3.3%	
		Eurozone				(0)	
0	29-Apr	M3 money supply (yoy)	Mar	7.5%	5.5%	5.5%	
0	29-Apr	Economic confidence‡	Apr	67.0	94.2	73.1	
0	29-Apr	Industrial confidence‡	Apr	- 30.4	- 11.2	- 25.0	
0	29-Apr	Consumer confidence - final data	Apr	- 22.7 =	- 22.7		
00000	30-Apr	ECB main refinancing rate	Apr	0.00% =	0.00%	0.00%	
00000	30-Apr	ECB deposit facility rate	Apr	-0.5% =	-0.5%	-0.5%	
00000	30-Apr	GDP (sa, yoy) - estimation	1Q	-3.3%	1.0%	-3.4%	
00000	30-Apr	GDP (sa, qoq) - estimation	1Q	-3.8%	0.1%	-3.8%	
0000	30-Apr	Core CPI (yoy) - preliminary data	Apr	0.9%	1.0%	0.7%	
0000	30-Apr	CPI estimate (yoy)	Apr	0.4%	0.7%	0.1%	
00	30-Apr	Unemployment rate	Mar	7.4%	7.3%	7.8%	
000	04-May	Manufacturing PMI - final data	Apr	33.4	33.6	33.6	
00	05-May	Producer inflation PPI (yoy)‡	Mar	-2.8%	-1.4%	-2.7%	
000	06-May	Composite PMI - final data	Apr	13.6	13.5	13.5	



Weight	Date	Event	For	Reading	1	Previous	Consensu	us ²
		Germany					_	
0000	29-Apr	Harmonized consumer inflation HICP (yoy) - preliminary data	Apr	0.8%	▼	1.3%	0.5%	
0000	29-Apr	Consumer inflation CPI (yoy) - preliminary data	Apr	0.8%	$\blacksquare$	1.4%	0.7%	
000	30-Apr	Retail sales (yoy)‡	Mar	-2.8%	$\blacksquare$	6.5%	-4.8%	
00	30-Apr	Unemployment rate	Apr	5.8%		5.0%	5.2%	
000	04-May	Manufacturing PMI - final data	Apr	34.5		34.4	34.4	
000	06-May	Composite PMI - final data	Apr	17.4		17.1	17.1	
000	06-May	Factory orders (wda, yoy)‡	Mar	-16.0%	$\blacksquare$	1.9%	-10.2%	
0000	07-May	Industrial production (wda, yoy)‡	Mar	-11.6%	$\blacksquare$	-1.8%	-8.9%	
		France						
00000	30-Apr	GDP (yoy) - preliminary data	1Q	-5.4%	▼	0.9%	-3.6%	_
00000	30-Apr	GDP (qoq) - preliminary data	1Q	-5.8%	$\blacksquare$	-0.1%	-4.0%	
0000	30-Apr	Harmonized consumer inflation HICP (yoy) - preliminary data	Apr	0.5%	$\blacksquare$	0.8%	0.1%	
0000	30-Apr	Consumer inflation CPI (yoy) - preliminary data	Apr	0.4%	$\blacksquare$	0.7%	0.2%	
000	04-May	Manufacturing PMI - final data	Apr	31.5	-	31.5	31.5	0
000	06-May	Composite PMI - final data	Apr	11.1	$\blacksquare$	11.2	11.2	
0000	07-May	Industrial production (yoy)‡	Mar	-17.3%	$\blacksquare$	-1.7%	-11.1%	
		Italy						
00000	30-Apr	GDP (wda, yoy) - preliminary data	1Q	-4.8%	▼	0.1%	-5.4%	
00000	30-Apr	GDP (wda, qoq) - preliminary data	1Q	-4.7%	$\blacksquare$	-0.3%	-5.4%	
0000	30-Apr	Harmonized consumer inflation HICP (yoy) - preliminary data	Apr	0.1%	-	0.1%	-0.3%	
00	30-Apr	Unemployment rate - preliminary data‡	Mar	8.4%	$\blacksquare$	9.3%	10.5%	
000	04-May	Manufacturing PMI	Apr	31.1	$\blacksquare$	40.3	30.0	
000	06-May	Composite PMI	Apr	10.9	$\blacksquare$	20.2	10.4	
		UK						
000	01-May	Manufacturing PMI (sa) - final data	Apr	32.6	▼	32.9	32.8	_
000	05-May	Composite PMI - final data	Apr	13.8		12.9	12.9	
00000	07-May	BoE base rate decision	May	0.10%	-	0.10%	0.10%	0
		Japan						
0000	30-Apr	Industrial production (yoy) - preliminary data	Mar	-5.2%		-5.7%	-7.4%	
000	01-May	Manufacturing PMI - final data	Apr	41.9	$\blacksquare$	43.7		
000	08-May	Composite PMI - final data	Apr	25.8	$\blacksquare$	27.8		
		Chile					*	
000	30-Apr	Total copper production (metric tons)	Mar	498 083	<b>A</b>	451 580		
000	30-Apr	Manufacturing (yoy)	Mar	0.6%	$\blacksquare$	3.7%	-2.4%	
			Max	-3.5%	$\blacksquare$	2.7%	-3.5%	0
0000	04-May	Economic activity (yoy)	Mar					
	•	Economic activity (yoy)  BCCh overnight rate target	May	0.50%	-	0.50%	0.50%	0
0000	04-May				- ▼	0.50% 2 641	0.50%	0
0000	04-May 07-May	BCCh overnight rate target	May	0.50%			0.50%	0
0000 00000 000	04-May 07-May 07-May	BCCh overnight rate target Copper exports (USD mn)	May Apr	0.50% 2 389	<b>V</b>	2 641	0.50%  	•
0000 00000 000	04-May 07-May 07-May	BCCh overnight rate target Copper exports (USD mn) Nominal wages (yoy)	May Apr	0.50% 2 389	<b>V</b>	2 641	0.50%	•

<sup>&</sup>lt;sup>1</sup> Reading difference to previous release: ▲ = higher than previous; ▼ = lower than previous; •= equal to previous.



# **Key market data**

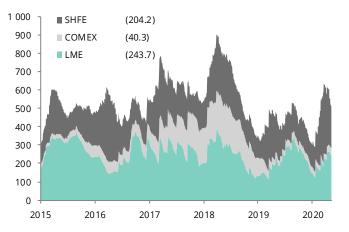
Key base & precious metal prices, exchange rates and other important market factors

Mar   Mar	(as of: 08-May-20)					Price	cha	nge¹			From	year beginn	ning <sup>2</sup>
Copper		Price		2W				_		1Y			
Molybdenum  Nickel  12 247.00  V − 0.1%  A − 0.0%  V − 1.2%  V − 1.2%  A − 1.9%  A −	LME (USD/t; Mo in USD/lbs)												
Nickel 12 247.00	Copper	5 227.50		1.2%		9.0%	•	-15.1%	_	-14.5%	5 476.01	4 617.50	6 300.50
Aluminum 1 450.00	Molybdenum	9.09		6.3%		7.8%	_	-1.2%	-		9.32	7.90	10.90
Tin 15 298.00	Nickel	12 247.00	_	-0.1%		9.0%	_	-12.5%		4.6%	12 462.85	11 055.00	14 290.00
Zinc	Aluminum	1 450.00	_	-1.5%	•	-2.6%	_	-19.4%	_	-17.9%	1 623.50	1 421.50	1 810.50
Lead         1 619.50         ∆ 0.7%         ▼ -5.4%         ▼ -15.8%         ▼ -12.7%         1 789.17         1 583.00         2 027.00           LBMA (USD/troz)         14.98         ▼ -1.5%         ∆ 7.5%         ▼ -10.0%         ∆ 32.5%         1 611.78         1 474.25         1 741.92           Cold²         1 704.05         ▼ -0.6%         ∆ 5.9%         ∆ 11.9%         ∆ 32.5%         1 611.78         1 474.25         1 741.92           LPPM (USD/troz)           Palladium²         758.00         ▼ -0.8%         ¾ 4.3%         ▼ -21.9%         ▼ -10.9%         859.80         593.00         1 017.00         Palladium²           Palladium²         1 810.00         ▼ -0.8%         ▼ -21.5%         ▼ -5.7%         ¼ 42.1%         2 211.69         1 557.00         2 7810.00           EURUSD         1 .0843         ▼ -0.1%         ▼ -1.0%         ▼ -3.5%         ▼ -3.1%         1 .0979         1.070         1.1456           EURUSD         1 .0843         ▼ -0.1%         ▼ -1.0%         ▼ -3.5%         ▼ -3.1%         1 .0979         1.070         1.1456           EURUSD         1 .0843         ▼ -0.1%         № 1.0.0%         № -3.5%         ₹ -3.1%         1.0979         <	Tin	15 298.00	_	-1.4%		6.2%	_	-9.2%	_	-21.4%	15 940.73	13 400.00	17 775.00
Silver	Zinc	2 000.00		5.7%		7.1%	_	-12.8%	_	-26.6%	2 064.03	1 773.50	2 466.50
Silver	Lead	1 619.50		0.7%	_	-5.4%	_	-15.8%	_	-12.7%	1 789.17	1 583.00	2 027.00
LPPM (USD/troz)         1 704.05         ▼ -0.6%         \$ 5.9%         \$ 11.9%         \$ 32.5%         \$ 1611.78         \$ 1474.25         \$ 1741.90           LPPM (USD/troz)         758.00         ▼ -0.8%         \$ 2.1.5%         ▼ -21.5%         ▼ -10.9%         859.80         593.00         \$ 1017.00         PA1.00         PA1.00         PA1.00         PA1.00         ▼ -21.5%         ▼ -21.5%         ▼ -10.9%         859.80         593.00         \$ 1017.00         PA1.00         PA1.00         PA1.00         ▼ -1.9%         ▼ -10.9%         859.80         593.00         \$ 1017.00         PA1.00         PA1.00         ▼ -1.9%         ▼ -1.9%         ▼ -1.9%         ¥ -21.9%         ¥ -21.169         \$ 1.0070         \$ 1.0070         \$ 1.0070         \$ 1.0070         \$ 1.0070         \$ 1.0070         \$ 1.1456         \$ 1.0070         \$ 1.0070         \$ 1.1456         \$ 1.0070         \$ 1.1456         \$ 1.0070         \$ 1.1456         \$ 1.0070         \$ 1.1450         \$ 1.0070         \$ 1.1456         \$ 1.0070         \$ 1.1450         \$ 1.0070         \$ 1.1450         \$ 1.0070         \$ 1.1450         \$ 1.0070         \$ 1.1450         \$ 1.0070         \$ 1.1450         \$ 1.0070         \$ 1.1450         \$ 1.0070         \$ 1.0070         \$ 1.0070         \$ 1.0070         \$ 1.0070	LBMA (USD/troz)												
Platinum²	Silver	14.98	_	-1.5%		7.5%	_	-17.0%		1.1%	16.37	12.01	18.78
Platinum²   758.00	Gold <sup>2</sup>	1 704.05	_	-0.6%		5.9%		11.9%		32.5%	1 611.78	1 474.25	1 741.90
Palladium² 1810.00 ▼ -6.8% ▼ -21.5% ▼ -5.7% ▲ 42.1% 2211.69 1557.00 2781.00 FX³  EURUSD 1.0843 ▼ -0.1% ▼ -1.0% ▼ -3.5% ▼ -3.1% 1.0979 1.0707 1.1456	LPPM (USD/troz)												
EURUSD 1.0843	Platinum²	758.00	_	-0.8%		4.3%	_	-21.9%	_	-10.9%	859.80	593.00	1 017.00
EURUSD 1.0843	Palladium <sup>2</sup>	1 810.00	_	-6.8%	•	-21.5%	•	-5.7%		42.1%	2 211.69	1 557.00	2 781.00
EURPLN 4.5577	FX <sup>3</sup>												
USDPLN 4.2065	EURUSD	1.0843	_	-0.1%	•	-1.0%	_	-3.5%	_	-3.1%	1.0979	1.0707	1.1456
USDCAD  1.3934	EURPLN	4.5577		0.7%		0.1%		7.0%		6.0%	4.3896	4.2279	4.6044
USDCNY 7.0742 ▼ -0.2% ▼ -0.1% ▲ 1.6% ▲ 3.6% 7.0092 6.8598 7.1121 USDCLP 836.27 ▼ -2.8% ▼ -1.2% ▲ 12.3% ▲ 22.2% 817.12 748.74 867.83 Money market  3m LIBOR USD 0.435 ▼ -0.41 ▼ -1.02 ▼ -1.47 ▼ -2.10 1.372 0.435 1.900 3m EURIBOR -0.246 ▼ -0.02 ▲ 0.12 ▲ 0.14 ▲ 0.06 -0.364 -0.489 -0.161 3m WIBOR 0.680 ▼ -0.01 ▼ -0.49 ▼ -1.03 ▼ -1.04 1.380 0.680 1.710 5y USD interest rate swap 0.354 ▼ -0.11 ▼ -0.17 ▼ -1.37 ▼ -1.93 0.972 0.334 1.693 5y EUR interest rate swap -0.302 ▼ -0.07 ▼ -0.07 ▼ -0.19 ▼ -0.31 0.253 -0.453 -0.090 5y EUR interest rate swap 0.655 ▲ 0.12 ▼ -0.21 ▼ -1.13 ▼ -1.46 1.290 0.515 2.050 1	USDPLN	4.2065		0.9%		1.4%		10.8%		9.5%	3.9999	3.7861	4.2654
Money market         Money market           3m LIBOR USD         0.435         ▼ -0.41         ▼ -1.2%         ▼ -1.47         ▼ -2.10         1.372         0.435         1.900           3m EURIBOR         -0.246         ▼ -0.02         № 0.12         № 0.14         0.06         -0.364         -0.489         -0.161           3m WIBOR         0.680         ▼ -0.01         ▼ -0.49         ▼ -1.03         ▼ -1.04         1.380         0.680         1.710           5y USD interest rate swap         0.354         ▼ -0.11         ▼ -0.17         ▼ -1.37         ▼ -1.93         0.972         0.334         1.693           5y EUR interest rate swap         -0.302         ▼ -0.07         ▼ -0.07         ▼ -0.19         ▼ -0.31         -0.253         -0.453         -0.090           5y EUR interest rate swap         0.655         № 0.12         ▼ -0.21         ▼ -1.13         ▼ -1.46         1.290         0.515         2.050           Fuel           WTI Cushing         24.48         № 91.5%         № 19.5%         ▼ -59.9%         ▼ -60.3%         37.18         -37.63         63.27           Brent         28.62         56.7%         № 33.3%         ▼ -56.9%         ▼ -59.5%         42.34         17.32 <td>USDCAD</td> <td>1.3934</td> <td>_</td> <td>-0.8%</td> <td>•</td> <td>-1.8%</td> <td></td> <td>7.3%</td> <td></td> <td>3.3%</td> <td>1.3631</td> <td>1.2970</td> <td>1.4496</td>	USDCAD	1.3934	_	-0.8%	•	-1.8%		7.3%		3.3%	1.3631	1.2970	1.4496
Money market           3m LIBOR USD         0.435         ▼ -0.41         ▼ -1.02         ▼ -1.47         ▼ -2.10         1.372         0.435         1.900           3m EURIBOR         -0.246         ▼ -0.02         0.12         0.14         0.06         -0.364         -0.489         -0.161           3m WIBOR         0.680         ▼ -0.01         ▼ -0.49         ▼ -1.03         ▼ -1.04         1.380         0.680         1.710           5y USD interest rate swap         0.354         ▼ -0.11         ▼ -0.17         ▼ -1.37         ▼ -1.93         0.972         0.334         1.693           5y EUR interest rate swap         -0.302         ▼ -0.07         ▼ -0.07         ▼ -0.19         ▼ -0.31         -0.253         -0.453         -0.090           5y PLN interest rate swap         0.655         0.12         ▼ -0.21         ▼ -1.13         ▼ -1.46         1.290         0.515         2.050           Fuel           WTI Cushing         24.48         9 91.5%         19.5%         ▼ -59.9%         ▼ -60.3%         37.18         -37.63         63.27           Brent         28.62         56.7%         33.3%         ▼ -59.9%         ▼ -59.5%         42.34         17.32         69	USDCNY	7.0742	_	-0.2%	•	-0.1%		1.6%		3.6%	7.0092	6.8598	7.1121
3m LIBOR USD       0.435       ▼ -0.41       ▼ -1.02       ▼ -1.47       ▼ -2.10       1.372       0.435       1.900         3m EURIBOR       -0.246       ▼ -0.02       ▲ 0.12       ▲ 0.14       ▲ 0.06       -0.364       -0.489       -0.161         3m WIBOR       0.680       ▼ -0.01       ▼ -0.49       ▼ -1.03       ▼ -1.04       1.380       0.680       1.710         5y USD interest rate swap       0.354       ▼ -0.11       ▼ -0.17       ▼ -1.37       ▼ -1.93       0.972       0.334       1.693         5y EUR interest rate swap       -0.302       ▼ -0.07       ▼ -0.07       ▼ -0.19       ▼ -0.31       -0.253       -0.453       -0.090         5y PLN interest rate swap       0.655       ▲ 0.12       ▼ -0.21       ▼ -1.13       ▼ -1.46       1.290       0.515       2.050         Fuel         WTI Cushing       24.48       № 91.5%       ▲ 19.5%       ▼ -59.9%       ▼ -60.3%       37.18       -37.63       63.27         Brent       28.62       56.7%       ▲ 33.3%       ▼ -59.9%       ▼ -59.5%       42.34       17.32       69.02         Others         VIX       27.98       ▼ -5.31       ▼ -25.56       4 14.20	USDCLP	836.27	_	-2.8%	•	-1.2%		12.3%		22.2%	817.12	748.74	867.83
3m EURIBOR       -0.246       ▼ -0.02       △ 0.12       △ 0.14       △ 0.06       -0.364       -0.489       -0.161         3m WIBOR       0.680       ▼ -0.01       ▼ -0.49       ▼ -1.03       ▼ -1.04       1.380       0.680       1.710         5y USD interest rate swap       0.354       ▼ -0.11       ▼ -0.17       ▼ -1.37       ▼ -1.93       0.972       0.334       1.693         5y EUR interest rate swap       -0.302       ▼ -0.07       ▼ -0.07       ▼ -0.19       ▼ -0.31       -0.253       -0.453       -0.090         5y PLN interest rate swap       0.655       △ 0.12       ▼ -0.21       ▼ -1.13       ▼ -1.46       1.290       0.515       2.050         Fuel         WTI Cushing       24.48       △ 91.5%       △ 19.5%       ▼ -59.9%       ▼ -60.3%       37.18       -37.63       63.27         Brent       28.62       △ 56.7%       △ 33.3%       ▼ -56.9%       ▼ -59.5%       42.34       17.32       69.02         Others         VIX       27.98       ▼ -5.31       ▼ -25.56       △ 14.20       △ 8.88       33.78       12.10       82.69         S&P500       2 929.80       △ 1.8%       △ 13.4%       ▼ -9.3% <td< td=""><td>Money market</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	Money market												
3m WIBOR       0.680       ▼ -0.01       ▼ -0.49       ▼ -1.03       ▼ -1.04       1.380       0.680       1.710         5y USD interest rate swap       0.354       ▼ -0.11       ▼ -0.17       ▼ -1.37       ▼ -1.93       0.972       0.334       1.693         5y EUR interest rate swap       -0.302       ▼ -0.07       ▼ -0.07       ▼ -0.19       ▼ -0.31       -0.253       -0.453       -0.090         5y PLN interest rate swap       0.655       0.12       ▼ -0.21       ▼ -1.13       ▼ -1.46       1.290       0.515       2.050         Fuel         WTI Cushing       24.48       № 91.5%       № 19.5%       ▼ -59.9%       ▼ -60.3%       37.18       -37.63       63.27         Brent       28.62       № 56.7%       № 33.3%       ▼ -59.9%       ▼ -59.5%       42.34       17.32       69.02         Others         VIX       27.98       ▼ -5.31       ▼ -25.56       14.20       № 8.88       33.78       12.10       82.69         BBG Commodity Index       62.32       № 4.6%       0.7%       ▼ -23.0%       ▼ -20.7%       69.50       59.48       81.64         S&P500       2 929.80       1.8%       13.4%       ▼ -9.3%       2	3m LIBOR USD	0.435	_	-0.41	$\blacksquare$	-1.02	•	-1.47	$\blacksquare$	-2.10	1.372	0.435	1.900
5y USD interest rate swap       0.354       ▼ -0.11       ▼ -0.17       ▼ -1.37       ▼ -1.93       0.972       0.334       1.693         5y EUR interest rate swap       -0.302       ▼ -0.07       ▼ -0.07       ▼ -0.19       ▼ -0.31       -0.253       -0.453       -0.090         5y PLN interest rate swap       0.655       ▲ 0.12       ▼ -0.21       ▼ -1.13       ▼ -1.46       1.290       0.515       2.050         Fuel         WTI Cushing       24.48       ▲ 91.5%       ▲ 19.5%       ▼ -59.9%       ▼ -60.3%       37.18       -37.63       63.27         Brent       28.62       ▲ 56.7%       ▲ 33.3%       ▼ -56.9%       ▼ -59.5%       42.34       17.32       69.02         Diesel NY (ULSD)       84.18       ▲ 38.8%       ▼ -18.4%       ▼ -58.5%       ▼ -58.8%       133.15       60.67       206.01         Others         VIX       27.98       ▼ -5.31       ▼ -25.56       ▲ 14.20       ▲ 8.88       33.78       12.10       82.69         BBG Commodity Index       62.32       ▲ 4.6%       ▲ 0.7%       ▼ -23.0%       ▼ -20.7%       69.50       59.48       81.64         S&P500       2 929.80       ▲ 1.8%       ▲ 13.4%	3m EURIBOR	-0.246	_	-0.02		0.12		0.14		0.06	-0.364	-0.489	-0.161
5y EUR interest rate swap       -0.302       ▼ -0.07       ▼ -0.07       ▼ -0.19       ▼ -0.31       -0.253       -0.453       -0.090         5y PLN interest rate swap       0.655       ▲ 0.12       ▼ -0.21       ▼ -1.13       ▼ -1.46       1.290       0.515       2.050         Fuel         WTI Cushing       24.48       ▲ 91.5%       ▲ 19.5%       ▼ -59.9%       ▼ -60.3%       37.18       -37.63       63.27         Brent       28.62       ▲ 56.7%       ▲ 33.3%       ▼ -56.9%       ▼ -59.5%       42.34       17.32       69.02         Diesel NY (ULSD)       84.18       ▲ 38.8%       ▼ -18.4%       ▼ -58.5%       ▼ -58.8%       133.15       60.67       206.01         Others         VIX       27.98       ▼ -5.31       ▼ -25.56       ▲ 14.20       ▲ 8.88       33.78       12.10       82.69         BBG Commodity Index       62.32       ▲ 4.6%       ▲ 0.7%       ▼ -23.0%       ▼ -20.7%       69.50       59.48       81.64         S&P500       2 929.80       ▲ 1.8%       ▲ 13.4%       ▼ -9.3%       ▲ 2.1%       2 973.78       2 237.40       3 386.15         DAX       10 904.48       ▲ 2.3%       ▲ 9.7%	3m WIBOR	0.680	_	-0.01	$\blacksquare$	-0.49	•	-1.03	$\blacksquare$	-1.04	1.380	0.680	1.710
Fuel         WTI Cushing       24.48       91.5%       19.5%       -59.9%       -60.3%       37.18       -37.63       63.27         Brent       28.62       56.7%       33.3%       -56.9%       -59.5%       42.34       17.32       69.02         Diesel NY (ULSD)       84.18       38.8%       -18.4%       -58.5%       -58.8%       133.15       60.67       206.01         Others         VIX       27.98       -5.31       -25.56       14.20       8.88       33.78       12.10       82.69         BBG Commodity Index       62.32       4.6%       0.7%       -23.0%       -20.7%       69.50       59.48       81.64         S&P500       2 929.80       1.8%       13.4%       -9.3%       2.1%       2 973.78       2 237.40       3 386.15         DAX       10 904.48       2.3%       9.7%       -17.7%       -8.9%       11 713.17       8 441.71       13 789.00         Shanghai Composite       2 895.34       2.8%       5.3%       -5.1%       1.6%       2 906.04       2 660.17       3 115.57         WIG 20       1 606.50       0.9%       6.2%       -25.3%       -26.3%       1 817.84       1 305.73	5y USD interest rate swap	0.354	_	-0.11	$\blacksquare$	-0.17	•	-1.37	$\blacksquare$	-1.93	0.972	0.334	1.693
Fuel         WTI Cushing       24.48       ▲ 91.5%       ▲ 19.5%       ▼ -59.9%       ▼ -60.3%       37.18       -37.63       63.27         Brent       28.62       ▲ 56.7%       ▲ 33.3%       ▼ -56.9%       ▼ -59.5%       42.34       17.32       69.02         Diesel NY (ULSD)       84.18       ▲ 38.8%       ▼ -18.4%       ▼ -58.5%       ▼ -58.8%       133.15       60.67       206.01         Others         VIX       27.98       ▼ -5.31       ▼ -25.56       ▲ 14.20       ▲ 8.88       33.78       12.10       82.69         BBG Commodity Index       62.32       ▲ 4.6%       ▲ 0.7%       ▼ -23.0%       ▼ -20.7%       69.50       59.48       81.64         S&P500       2 929.80       ▲ 1.8%       ▲ 13.4%       ▼ -9.3%       ▲ 2.1%       2 973.78       2 237.40       3 386.15         DAX       10 904.48       ▲ 2.3%       ▲ 9.7%       ▼ -17.7%       ▼ -8.9%       11 713.17       8 441.71       13 789.00         Shanghai Composite       2 895.34       ▲ 2.8%       ▲ 5.3%       ▼ -5.1%       ▲ 1.6%       2 906.04       2 660.17       3 115.57         WIG 20       1 606.50       ▲ 0.9%       ▲ 6.2%       ▼ -25.3%	5y EUR interest rate swap	-0.302	_	-0.07	$\blacksquare$	-0.07	•	-0.19	•	-0.31	-0.253	-0.453	-0.090
WTI Cushing       24.48       ▲ 91.5%       ▲ 19.5%       ▼ -59.9%       ▼ -60.3%       37.18       -37.63       63.27         Brent       28.62       ▲ 56.7%       ▲ 33.3%       ▼ -56.9%       ▼ -59.5%       42.34       17.32       69.02         Diesel NY (ULSD)       84.18       ▲ 38.8%       ▼ -18.4%       ▼ -58.5%       ▼ -58.8%       133.15       60.67       206.01         Others         VIX       27.98       ▼ -5.31       ▼ -25.56       ▲ 14.20       ▲ 8.88       33.78       12.10       82.69         BBG Commodity Index       62.32       ▲ 4.6%       ▲ 0.7%       ▼ -23.0%       ▼ -20.7%       69.50       59.48       81.64         S&P500       2 929.80       ▲ 1.8%       ▲ 13.4%       ▼ -9.3%       ▲ 2.1%       2 973.78       2 237.40       3 386.15         DAX       10 904.48       ▲ 2.3%       ▲ 9.7%       ▼ -17.7%       ▼ -8.9%       11 713.17       8 441.71       13 789.00         Shanghai Composite       2 895.34       ▲ 2.8%       ▲ 5.3%       ▼ -5.1%       ▲ 1.6%       2 906.04       2 660.17       3 115.57         WIG 20       1 606.50       ▲ 0.9%       ▲ 6.2%       ▼ -25.3%       ▼ -26.3%       1 817.84 <td>5y PLN interest rate swap</td> <td>0.655</td> <td></td> <td>0.12</td> <td><math>\blacksquare</math></td> <td>-0.21</td> <td>•</td> <td>-1.13</td> <td><math>\blacksquare</math></td> <td>-1.46</td> <td>1.290</td> <td>0.515</td> <td>2.050</td>	5y PLN interest rate swap	0.655		0.12	$\blacksquare$	-0.21	•	-1.13	$\blacksquare$	-1.46	1.290	0.515	2.050
Brent 28.62	Fuel												
Diesel NY (ULSD)       84.18       ▲ 38.8%       ▼ -18.4%       ▼ -58.5%       ▼ -58.8%       133.15       60.67       206.01         Others         VIX       27.98       ▼ -5.31       ▼ -25.56       ▲ 14.20       ▲ 8.88       33.78       12.10       82.69         BBG Commodity Index       62.32       ▲ 4.6%       ▲ 0.7%       ▼ -23.0%       ▼ -20.7%       69.50       59.48       81.64         S&P500       2 929.80       ▲ 1.8%       ▲ 13.4%       ▼ -9.3%       ▲ 2.1%       2 973.78       2 237.40       3 386.15         DAX       10 904.48       ▲ 2.3%       ▲ 9.7%       ▼ -17.7%       ▼ -8.9%       11 713.17       8 441.71       13 789.00         Shanghai Composite       2 895.34       ▲ 2.8%       ▲ 5.3%       ▼ -5.1%       ▲ 1.6%       2 906.04       2 660.17       3 115.57         WIG 20       1 606.50       ▲ 0.9%       ▲ 6.2%       ▼ -25.3%       ▼ -26.3%       1 817.84       1 305.73       2 200.10	WTI Cushing	24.48		91.5%		19.5%	•	-59.9%	$\blacksquare$	-60.3%	37.18	-37.63	63.27
Others         VIX       27.98       ▼ -5.31       ▼ -25.56       ▲ 14.20       ▲ 8.88       33.78       12.10       82.69         BBG Commodity Index       62.32       ▲ 4.6%       ▲ 0.7%       ▼ -23.0%       ▼ -20.7%       69.50       59.48       81.64         S&P500       2 929.80       ▲ 1.8%       ▲ 13.4%       ▼ -9.3%       ▲ 2.1%       2 973.78       2 237.40       3 386.15         DAX       10 904.48       ▲ 2.3%       ▲ 9.7%       ▼ -17.7%       ▼ -8.9%       11 713.17       8 441.71       13 789.00         Shanghai Composite       2 895.34       ▲ 2.8%       ▲ 5.3%       ▼ -5.1%       ▲ 1.6%       2 906.04       2 660.17       3 115.57         WIG 20       1 606.50       ▲ 0.9%       ▲ 6.2%       ▼ -25.3%       ▼ -26.3%       1 817.84       1 305.73       2 200.10	Brent	28.62		56.7%		33.3%	•	-56.9%	$\blacksquare$	-59.5%	42.34	17.32	69.02
VIX       27.98       ▼ -5.31       ▼ -25.56       ▲ 14.20       ▲ 8.88       33.78       12.10       82.69         BBG Commodity Index       62.32       ▲ 4.6%       ▲ 0.7%       ▼ -23.0%       ▼ -20.7%       69.50       59.48       81.64         S&P500       2 929.80       ▲ 1.8%       ▲ 13.4%       ▼ -9.3%       ▲ 2.1%       2 973.78       2 237.40       3 386.15         DAX       10 904.48       ▲ 2.3%       ▲ 9.7%       ▼ -17.7%       ▼ -8.9%       11 713.17       8 441.71       13 789.00         Shanghai Composite       2 895.34       ▲ 2.8%       ▲ 5.3%       ▼ -5.1%       ▲ 1.6%       2 906.04       2 660.17       3 115.57         WIG 20       1 606.50       ▲ 0.9%       ▲ 6.2%       ▼ -25.3%       ▼ -26.3%       1 817.84       1 305.73       2 200.10	Diesel NY (ULSD)	84.18		38.8%	$\blacksquare$	-18.4%	•	-58.5%	•	-58.8%	133.15	60.67	206.01
BBG Commodity Index 62.32	Others												
S&P500       2 929.80       ▲ 1.8%       ▲ 13.4%       ▼ -9.3%       ▲ 2.1%       2 973.78       2 237.40       3 386.15         DAX       10 904.48       ▲ 2.3%       ▲ 9.7%       ▼ -17.7%       ▼ -8.9%       11 713.17       8 441.71       13 789.00         Shanghai Composite       2 895.34       ▲ 2.8%       ▲ 5.3%       ▼ -5.1%       ▲ 1.6%       2 906.04       2 660.17       3 115.57         WIG 20       1 606.50       ▲ 0.9%       ▲ 6.2%       ▼ -25.3%       ▼ -26.3%       1 817.84       1 305.73       2 200.10	VIX	27.98	•	-5.31	•	-25.56		14.20		8.88	33.78	12.10	82.69
DAX       10 904.48       △       2.3%       △       9.7%       ▼ -17.7%       ▼ -8.9%       11 713.17       8 441.71       13 789.00         Shanghai Composite       2 895.34       △       2.8%       △       5.3%       ▼ -5.1%       △       1.6%       2 906.04       2 660.17       3 115.57         WIG 20       1 606.50       △       0.9%       △       6.2%       ▼ -25.3%       ▼ -26.3%       1 817.84       1 305.73       2 200.10	BBG Commodity Index	62.32		4.6%		0.7%	•	-23.0%	•	-20.7%	69.50	59.48	81.64
Shanghai Composite       2 895.34       ▲ 2.8%       ▲ 5.3%       ▼ -5.1%       ▲ 1.6%       2 906.04       2 660.17       3 115.57         WIG 20       1 606.50       ▲ 0.9%       ▲ 6.2%       ▼ -25.3%       ▼ -26.3%       1 817.84       1 305.73       2 200.10	S&P500	2 929.80		1.8%		13.4%	•	-9.3%		2.1%	2 973.78	2 237.40	3 386.15
WIG 20 1 606.50 ▲ 0.9% ▲ 6.2% ▼ -25.3% ▼ -26.3% 1 817.84 1 305.73 2 200.10	DAX	10 904.48		2.3%		9.7%	•	-17.7%	•	-8.9%	11 713.17	8 441.71	13 789.00
	Shanghai Composite	2 895.34		2.8%		5.3%	•	-5.1%		1.6%	2 906.04	2 660.17	3 115.57
KGHM 77.00 ▲ 6.2% ▲ 28.7% ▼ -19.4% ▼ -16.9% 79.05 49.40 101.00	WIG 20	1 606.50		0.9%		6.2%	•	-25.3%	•	-26.3%	1 817.84	1 305.73	2 200.10
	KGHM	77.00		6.2%		28.7%	•	-19.4%	•	-16.9%	79.05	49.40	101.00

<sup>°</sup> 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

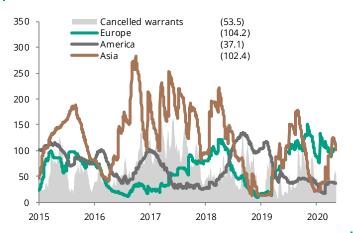


### Copper: official exchange stocks (thousand tonnes)



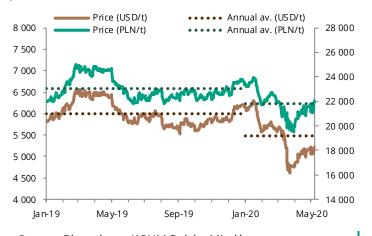
Note: Latest values in brackets. Source: Bloomberg, KGHM

### **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

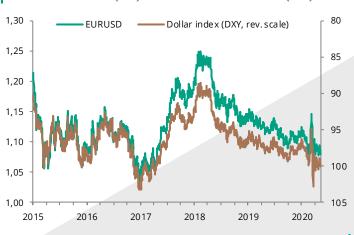
Source: Bloomberg, KGHM Polska Miedź

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

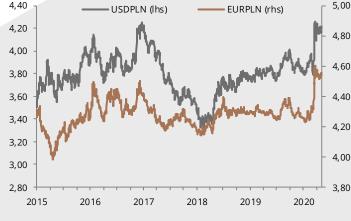


Source: Bloomberg, KGHM Polska Miedź

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



## PLN: NBP-fixing based rate vs. USD (lhs) and EUR (rhs) 4,40 EURPLN (rhs) 4.20



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: **27**<sup>th</sup> **April – 10**<sup>th</sup> **May 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

#### **DISCLAIMER**

This document reflects the market view of the staff of KGHM Polska Miedz (Polish Copper)'s Market Risk Unit employees on the economy, commodity as well as financial markets. Although, according to the our best of our knowledge, all the facts presented in this publication come from or are based on reliable sources, we do not guarantee their correctness. Moreover, they may be incomplete or shortened. All the opinions and forecasts are backed by diligently-performed analyses valid as of the publishing date and may be subject to change. KGHM Polska Miedz (Polish Copper) S.A. is not obligated to announce any subsequent change of these opinions or forecasts. This document's purpose is solely informative and must not be interpreted as an offer or advice with regards to the purchase/sale of any mentioned financial instrument, nor it is part of such offer or advice.

Re-printing or using this publication or its in whole or part requires prior written consent from KGHM. To acquire that such consent please contact the Communication Department KGHM Polska Miedz SA.

In case of questions or comments please contact us:

KGHM Polska Miedz (Polish Copper) S.A.

Departament Ryzyka Finansowego i Rynkowego (Financial and Market Risk Department)

Wydzial Ryzyka Rynkowego (Market Risk Unit)

ul. M. Sklodowskiej-Curie 48

59-301 Lubin, Poland