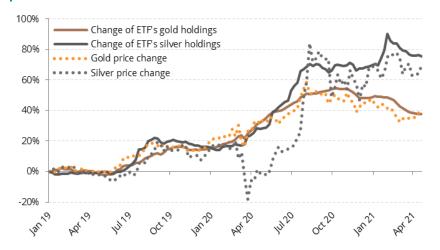


Market Overview

- Copper: The world's largest copper producer plans to spend enormous amounts of money in the next decade to modernize its mines to maintain current production levels. Other private investors are avoiding getting involved in projects in Chile as a result of increasing political uncertainty (page 2).
- Precious metals: Global demand for silver will rise to 1.025 billion ounces in 2021, its highest in eight years, as investors and industry ramp up purchases, the Silver Institute said, predicting that prices would rise (page 5).
- China/USA: The latest data puts China on course to grow well above its annual target of more than 6%, supporting the view that China and the U.S., where economists predict 6.2% growth, will both outperform other major nations this year (page 7).

Change in ETF's holdings vs change in the gold and silver price



Source: Bloomberg, KGHM Polska Miedź S.A.



Key market prices

		Close price	2w chng.
	LME (USD/t)		
	Copper	9 545.50	6.1%
•	Nickel	16 150.00	-2.9%
	LBMA (USD/troz)		
	Silver	26.13	3.6%
	Gold (PM)	1 781.80	2.3%
	FX		
	EURUSD	1.2066	1.5%
	EURPLN	4.5649	0.5%
•	USDPLN	3.7855	-0.9%
•	USDCAD	1.2489	-0.4%
•	USDCLP	705.41	-0.4%
	Stocks		
	KGHM	200.90	4.6%
Source:	Bloomberg, KGHM Po	lska Miedź S.A.: (more on page

Important macroeconomic data										
	Release	For								
*}	New yuan loans	Mar	2 730 🔺							
	Industrial prod. (yoy)	Mar	18.9% 🔺							
*1	GDP (yoy)	1Q	18.3% 🔺							
	Composite PMI	Apr	62.2							
\mathbb{C}	Manufacturing PMI	Apr	63.3 🔺							
Source: Bloomberg, KGHM Polska Miedź S.A.; (more on page 9)										

Market Risk Unit

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Base and precious metals | Other commodities

Copper

Codelco To Invest \$38 Billion By 2030 To Maintain Copper Output

The world's largest copper producer plans to spend enormous amounts of money in the next decade to modernize its mines to maintain current production levels. Other private investors are avoiding getting involved in projects in Chile as a result of increasing political uncertainty.

By 2030, 74% of Codelco's production will be provided by projects currently under construction

Chile's Codelco, the world's largest producer of copper, plans to invest \$38 billion over the next decade as it strives to maintain output around current levels. Speaking at the CRU World Copper Conference CEO Octavio Araneda said that around a third of planned investment will go towards structural projects under construction or in earlier stages of development, which will account for 74% of the company's production by 2030. "If we don't develop these projects, Codelco would suffer a tremendous fall in production by 2030," said Araneda. Major projects include the \$5.5 billion underground operation to replace the centuryold Chuquicamata open pit mine. Production at the underground operation, which began in 2019, is not expected to reach design capacity until 2025. Later this year Codelco plans to launch the \$1.5 billion Traspaso project to move the crushing operations at its Andina mine underground, making room for a new open pit at the site. Construction of the Rajo Inca mine, to extend and expand production at the Salvador division, is due to begin later this year following board approval in January. A \$3.2 billion portfolio of projects to extend the life of the El Teniente underground mine by half a century will be launched sequentially between 2022 and 2024. A feasibility study is underway in a \$2.7 billion project to double processing capacity to 150,000 mt/year at the Andina mine while a project to exploit sulfide resources at the Radomiro Tomic site is at the prefeasibility stage, using either traditional concentrator technology or hydrometallurgy. Codelco's huge investment plans come as private investors are shying away from committing to projects in Chile as a result of growing political uncertainty in the country, said Diego Hernandez, president of national mining association SONAMI. As well as legislative and presidential elections later this year, Chile is about to embark on a process to design a new constitution in response to the social unrest which rocked the country in 2019. Plans by opposition lawmakers to impose a new 3% royalty on copper and lithium production, approved in principle by the lower house last month, will further hinder development of the industry.



Record Copper Scrap Flows This Year Won't Plug Deficit

The market needs about 10.8 million tonnes of scrap this year compared with 9.3 million tonnes in 2019. Expect major refined metal inventory draws over the next 6 months. Citi sees a deficit of 521,000 tonnes.

Supplies of copper scrap will jump this year due to high prices, but are unlikely to come fast enough to meet robust demand, leaving shortages that are expected to trigger stock draws and further price gains. Copper prices around \$9,400 a tonne are close to \$9,617 hit in February, the highest since August 2011 and more than double the levels seen in March last year, when manufacturing activity crashed due to COVID lockdowns. Scrap typically accounts for about a third of global copper supplies, but quantities tend to vary according to prices. "Scrap supplies are unlikely to rise as quickly as the market needs, given logistical constraints and an 8-month lag between price strength and copper scrap coming to market for processing," said Citi analyst Max Layton. "The market needs about 10.8 million tonnes of scrap this year compared with 9.3 million tonnes in 2019. Expect major refined metal inventory draws over the next 6 months." Citi expects global demand for the metal to grow 6.5% this year to 24.75 million tonnes, and sees a deficit of 521,000 tonnes. Copper stocks held by producers, consumers and China's state stockpiler are significant, but difficult to monitor. For clues to draws, the market will watch stocks in London Metal Exchange-registered warehouses and those monitored by the Shanghai Futures Exchange, which currently total more than 360,000 tonnes. Stocks are expected to start falling as soon as May, when demand accelerates ahead of a pick-up in construction activity over the summer months, which is when prices are likely to start ramping up. Mine supply too is expected to rise this year, but also not at a fast enough pace to help make up the shortfall. "Neither mine or scrap supply increases will be sufficient to push the refined copper market into a surplus," said Bank of America analyst Michael Widmer. Widmer expects scrap supply to hit records this year due to high prices and an acceleration of manufacturing activity, and forecasts a copper market deficit at 315,000 tonnes.

Other important information on copper market:

- The global world refined copper market showed a 28,000 tonnes surplus in January, compared with a 1,000 tonnes deficit in December, the International Copper Study Group (ICSG) said. In the same period a year earlier ICSG reported a 34,000 tonnes deficit. World refined copper output in January was 2.10 million tonnes, while consumption was 2.07 million tonnes. Bonded stocks of copper in China showed a 31,000 tonnes surplus in January compared with a 3,000 tonnes deficit in December.
- Mining giant BHP has bumped up its fiscal 2020-2021 (July-June) copper production guidance on the back of better-than-expected performance at its Chilean Escondida mine, while flagging a challenging road ahead given rising COVID-19 cases in the region. The company's total copper production guidance for the 12-month period was raised to 1.54 million-1.66 million mt, from 1.51 million-1.65 million mt, driven by a lift in its Escondida output guidance



to 1.01 million-1.06 million mt, from 970,000-1.03 million mt, the company said April 21 in its quarterly report. The boost to copper guidance came on the back of production reaching 391,400 mt during the January-March quarter, which is down 8% year on year and 9% quarter on quarter.

- Los Pelambres will become the latest of Chile's giant copper mines to stop consuming fresh water as mining companies strive to reduce their environmental impact. Antofagasta PLC will invest around \$1 billion to expand the mine's desalination plant to meet 100% of the operation's water needs. "We want to stop using water from the Choapa River from 2025 and start operating principally with seawater or recycled water," CEO Ivan Arriagada said. The world's 10th largest copper mine by production, Los Pelambres produced 359,000 mt of the metal in 2020. The investment also includes a new system for transporting copper concentrate from the concentrator plant at Chancay to the Puerto Chungo loading facility. The new system will follow a route far from populated areas to reduce disturbances to local residents.
- Turquoise Hill Resources Ltd said that on April 15 the Oyu Tolgoi mine in Mongolia had partially resumed shipments to China, after the Canadian miner declared force majeure last. Turquoise Hill's force majeure was related to coronavirus-related restrictions at the Chinese-Mongolian border crossing. Oyu Tolgoi, the world's largest copper-gold-silver mine, was already at the center of a protracted dispute between Turquoise and its top shareholder, Rio Tinto, over funding for the underground expansion of the mine. Turquoise said that it continues to be in talks with Rio Tinto and the government of Mongolia, after reaching a binding agreement over the funding spat two weeks earlier. Rio owns 51% of Turquoise Hill, which owns 66% of the Oyu Tolgoi mine. The rest of the mine is owned by the government of Mongolia.
- Vale SA produced 76,500 tonnes of copper in the first quarter, down 19% in annual terms and 18.2% in quarterly terms, the company said. Vale warned that copper production, which was hit by coronavirus-related restrictions, was likely to come in at the lower end of its prior forecast of 360,000 to 380,000 mt.
- China's copper imports in March rose 25% from a year earlier, customs data showed recently, despite disruptions to shipments from top producer Chile. Arrivals of unwrought copper and products totalled 552,317 tonnes last month, the General Administration of Customs said. That was up from 441,926 tonnes in March 2020, when China's economy was starting to recover from the coronavirus pandemic, and up 34.7% from a 13-month low of 410,040 tonnes in February. Copper imports in the first quarter totalled 1.44 million tonnes, up 11.9% year-on-year. That is the highest first-quarter amount since at least 2008, according to Reuters data. Imports of copper concentrate, or partially processed copper ore, were 2.17 million tonnes in March, a record amount based on Reuters data. Imports were up 22% from 1.779 million tonnes a year earlier, and up 20.5% from 1.8 million tonnes in February. First-quarter shipments of concentrate, the supply of which is very tight globally, were up 7.4% year-on-year at 5.96 million tonnes.



- Copper consumption in electric vehicles (EVs) and charging stations in China is expected to grow roughly fivefold by 2025 from last year's levels, a strategist from a Bank of China unit said recently. Fu Xiao, head of global commodities strategy at BOCI Global Commodities, said demand from copper-intensive EVs and charging in China should reach around 540,000 tonnes in 2025, up from 110,000 tonnes in 2020. It will accelerate from the mid-2020s, reaching 1 million tonnes in 2030 and 1.3 million tonnes in 2035, she added in a presentation at the CRU World Copper virtual conference. The BOCI forecast assumes 80 kg of copper is used in every EV and 6.8 kg used in each charging station. BOCI sees copper demand from China's renewable energy sector rising from 620,000 tonnes in 2020 to around 728,000 tonnes by 2030, Fu said. The renewable energy and EV sectors combined will use around 1.2 million tonnes by 2025, accounting for roughly 10% of China's total copper consumption, she added.
- China's major copper smelters lifted output in March by 17.1% year-on-year and 4.4% month-on-month as minimal maintenance meant higher production, state-backed research house Antaike said recently. The 22 smelters in its copper production survey churned out 792,800 tonnes of cathodes last month, up from a low base in coronavirus affected March 2020. A slight increase in maintenance this month will see April cathode output fall to around 780,000 tonnes, Antaike said.

Precious Metals

Silver will outshine gold as demand hits 8-year high

Global demand for silver will rise to 1.025 billion ounces in 2021, its highest in eight years, as investors and industry ramp up purchases, the Silver Institute said, predicting that prices would rise.

According to forecasts purchases of bars and coins would rise to a six-year high of 257 million ounces in 2021

Silver saw a long rally last year, and it looks to continue to gain value throughout this one. Global demand for silver will rise to 1.025 billion ounces in 2021, its highest in eight years, as investors and industry ramp up purchases, the Silver Institute said, predicting that prices would rise. The coronavirus outbreak has driven investors to move back to traditional safe haven resources. Gold has benefitted greatly from this, and silver has done just the same. The Silver Institute is certainly bullish in this context, and forecasts that purchases of bars and coins would rise to a six-year high of 257 million ounces in 2021. As the value of silver increases, so does the share price of exchange traded funds (ETFs) that invest in the commodity. Reuters reports that these have grown strongly so far this year, helping push prices to an eight-year high of \$30.03 an ounce on February 1. What many analysts say is that silver, when it is high demand, outperforms gold. "The outlook for the silver price in 2021 remains exceptionally encouraging, with the annual average price projected to rise to above \$30," the Silver Institute said. "Given silver's smaller market and the increased price volatility this can generate, we expect silver to comfortably outperform gold this year." Demand for silver is also fuelled by the great move to green energy. In a report published lately,



analysts at the Canadian bank CIBC said that they are bullish on silver and silver producers because it is needed in solar panels. The analysts expect to see significant growth in solar power demand.as the US and Europe seek to increase the share of renewable energy in power generation. The analysts noted that solar power currently accounts for only about 10 per cent of global generation, which means the sector has plenty of room to grow. The analysts expects solar power to double by 2025. The forecast from these analysts remains fairly bullish on the precious metal. In the report, the bank said that it sees silver prices averaging the year around \$32 an ounce. The restart of the global economy as the vaccination rollout is completed should also be good for silver. "The reopening trade suggests that there will be a lot of industrial demand going forward, and that of course is a major driver of where silver goes. Longer-term, we are bullish on silver, but we also recognise that you need to be very cautious as silver tends to be extraordinarily volatile." the FX Empire analysts warned. Analyst Crispus Nyaga at Investing.com says "demand is expected to rise because of the recent stimulus deal in the US. Further, recent numbers have shown that the manufacturing sector is doing well. Therefore, a strong manufacturing sector is usually a positive thing for silver because of its industrial qualities," he added.



Global economies | Foreign exchange markets

China Joins U.S. as Engine of Global Recovery With Record Growth

The latest data puts China on course to grow well above its annual target of more than 6%, supporting the view that China and the U.S., where economists predict 6.2% growth, will both outperform other major nations this year.

China's economy strengthened in the first quarter of the year as consumer spending rose more than expected, putting it on course to join the U.S. as twin engines for a global recovery in 2021. Gross domestic product climbed 18.3% in the first quarter from a year earlier, largely in line with the 18.5% predicted in a Bloomberg survey of economists. Retail sales beat expectations while industrial output growth moderated. The latest data puts China on course to grow well above its annual target of more than 6%, supporting the view that China and the U.S., where economists predict 6.2% growth, will both outperform other major nations this year. The recovery last year was led by strong investment in real estate and infrastructure spurring demand for industrial goods, while overseas orders for medical goods and electronic devices fueled exports. Consumer spending had lagged, but the latest figures showed a turnaround. Retail sales growth was 6.3% in March when calculated on a two-year average growth basis - which removes distortions created by last year's lockdowns. "We are seeing a bit more balanced recovery in the Chinese economy," Wang Tao, chief China economist at UBS AG, said in an interview with Bloomberg TV. "That early pickup in construction industry is going to give way to more household consumption," she added. Consumer spending at restaurants and sales of discretionary goods such as jewelry, alcohol and tobacco led the growth of retail sales in March. Industrial output rose 14.1% in March from a year earlier compared with economists' median projection of 18% Retail sales expanded 34.2% in March, beating expectations of a 28% gain Fixed-asset investment climbed 25.6% in the first quarter from a year ago The jobless rate was 5.3% at the end of March Based on two-year average growth, GDP rose 5% in the quarter, while infrastructure investment was up 2.3% The economy was also boosted by a jump in investment from overseas. Inbound investment into China rose almost 40% to \$45 billion in the first three months of 2021, according to data from the Ministry of Commerce. That was the highest for that period in comparable data back to 2002. Broadening out the recovery remains a work in progress with growth in the first quarter still reliant on the property sector. Fixed-asset investment in real estate rose 7.6% on a two-year average growth basis and infrastructure spending increased roughly in-line with pre-pandemic rates. Quarterly steel production of 271 million tons suggests that annual output is on course to top 1 billion tons for the second year running. Although Beijing has promised "no sharp turns" in monetary and fiscal support this year, some prominent economists have warned that premature tightening could still put the recovery at risk. The central bank has asked banks to curtail loan growth in coming months as it seeks to control



credit to curb asset bubbles. Alongside the investment data, data showing home prices grew at the fastest pace in seven months in March will likely prompt more action by Chinese policy makers to rein in the sector. "Considering the robust recovery, we certainly do not expect Beijing to step up easing measures, but it is also unlikely to make a sharp shift in its policy stance," Nomura economists led by Lu Ting wrote in a note. Authorities have learned lessons from a "forceful deleveraging campaign" in 2017-18, which led to bond defaults, a stock market selloff and weaker growth. "The economy is far from overheating," said Bruce Pang, head of macro and strategy research at China Renaissance Securities Hong Kong Ltd. "The consumer sector doesn't have a solid basis for overheating, and I don't think the central bank will take a faster turn for monetary policy." China has rapidly accelerated its vaccination campaign over the past month in a move that should help bolster spending on services. A recovery in major economies fueled by vaccine roll-outs and the Biden administration's massive fiscal stimulus is expected to sustain rapid growth in Chinese exports this year. "We expect the economy to continue to gain momentum in the second quarter, with a rotation in terms of the drivers of growth compared to last year," said Louis Kuijs, head of Asia Economics at Oxford Economics Ltd. in Hong Kong. "Less generous fiscal and monetary policy will weigh on infrastructure and real estate investment, while improved profitability and confidence should buoy corporate investment and consumption."



Macroeconomic calendar

Important macroeconomic data releases

Weight	Date	Event	For	Reading	1	Previous	Consens	us ²
		China					*)
٥	12-Apr	New yuan loans (CNY bn)‡	Mar	2 730		1 359	2 300	
00	13-Apr	Trade balance (USD bn)‡	Mar	13.8	•	77.5	52.0	
00	13-Apr	Exports (yoy)	Mar	30.6%	•	154.9%	38.0%	
00000	16-Apr	GDP (yoy)	1Q	18.3%		6.5%	18.5%	
00000	16-Apr	GDP (sa, qoq)‡	1Q	0.6%	•	3.2%	1.4%	
0000	16-Apr	Industrial production (yoy)	Mar	14.1%			18.0%	
00	16-Apr	Fixed assets investments (ytd, yoy)	Mar	25.6%	•	35.0%	26.0%	
٥	16-Apr	Retail sales (yoy)	Mar	34.2%			28.0%	
		Poland						
00	13-Apr	Trade balance (EUR mn)‡	Feb	883	•	979	1 141	
00	13-Apr	Exports (EUR mn)‡	Feb	21 322		19 545	20 484	
00	13-Apr	Current account balance (EUR mn)‡	Feb	1 619	•	3 341	1 602	
0000	15-Apr	Consumer inflation CPI (yoy) - final data	Mar	3.2%	-	3.2%		
0000	16-Apr	Core CPI (excluding food and energy, yoy)	Mar	3.9%	A	3.7%	3.9%	0
0000	21-Apr	Sold industrial production (yoy)	Mar	18.9%		2.7%	13.1%	
00	21-Apr	Average gross salary (yoy)	Mar	8.0%		4.5%	5.3%	
00	21-Apr	Producer inflation PPI (yoy)‡	Mar	3.9%		2.2%	3.6%	
0	21-Apr	Employment (yoy)	Mar	-1.3%		-1.7%	-1.2%	
000	22-Apr	Retail sales (yoy)	Mar	17.1%		-2.7%	12.5%	
0	23-Apr	M3 money supply (yoy)	Mar	14.4%	•	16.3%	14.1%	
		US						
0000	13-Apr	Consumer inflation CPI (mom)	Mar	0.6%		0.4%	0.5%	
0000	13-Apr	Consumer inflation CPI (yoy)	Mar	2.6%		1.7%	2.5%	
0000	15-Apr	Industrial production (mom)‡	Mar	1.4%		-2.6%	2.5%	
00	15-Apr	Philadelphia Fed business outlook‡	Apr	50.2		44.5	41.5	
00	15-Apr	Retail sales (excluding autos, mom)‡	Mar	8.4%		-2.5%	5.0%	
0	15-Apr	Capacity utilization‡	Mar	74.4%		73.4%	75.6%	•
00	16-Apr	University of Michigan confidence index - preliminary data	Apr	86.5		84.9	89.0	
000	23-Apr	Composite PMI - preliminary data	Apr	62.2		59.7		
000	23-Apr	Manufacturing PMI - preliminary data	Apr	60.6		59.1	61.0	•
000	23-Apr	PMI services - preliminary data	Apr	63.1		60.4	61.5	
		Eurozone						0
00	12-Apr	Retail sales (yoy)‡	Feb	-2.9%		-5.2%	-5.3%	
٥	13-Apr	ZEW survey expectations	Apr	66.3	•	74.0		
0000	14-Apr	Industrial production (sa, mom)	Feb	-1.0%	▼	0.8%	-1.3%	
0000	14-Apr	Industrial production (wda, yoy)	Feb	-1.6%	•	0.1%	-1.4%	•
0000	16-Apr	Consumer inflation CPI (yoy) - final data‡	Mar	1.3%	A	0.9%	1.3%	0
0000	16-Apr	Core CPI (yoy) - final data	Mar	0.9%	-	0.9%	0.9%	0
٥	16-Apr	Trade balance (EUR mn)	Feb	17.7	A	6.3		
00000	22-Apr	ECB main refinancing rate	Apr	0.00%	-	0.00%	0.00%	0
00000	22-Apr	ECB deposit facility rate	Apr	-0.5%	-	-0.5%	-0.5%	0
٥	22-Apr	Consumer confidence - estimation	Apr	- 8.1	A	- 10.8	- 11.0	
000	23-Apr	Composite PMI - preliminary data	Apr	53.7	A	53.2	52.9	
000	23-Apr	Manufacturing PMI - preliminary data	Apr	63.3		62.5	62.0	



Germany 15-Apr Harmonized consumer inflation HICP (yoy) - final data Mar 2.0% = 2.0% 15-Apr Consumer inflation CPI (yoy) - final data Mar 1.7% = 1.7% 23-Apr Composite PMI - preliminary data Apr 56.0 ▼ 57.3 23-Apr Manufacturing PMI - preliminary data Apr 66.4 ▼ 66.6 France 15-Apr Harmonized consumer inflation HICP (yoy) - final data Mar 1.4% = 1.4% 15-Apr Consumer inflation CPI (yoy) - final data Mar 1.1% = 1.1% 23-Apr Composite PMI - preliminary data Apr 51.7 ▲ 50.0 23-Apr Manufacturing PMI - preliminary data Apr 59.2 ▼ 59.3 Italy	2.0%
15-Apr Consumer inflation CPI (yoy) - final data Mar 1.7% - 1.7% 23-Apr Composite PMI - preliminary data Apr 56.0 57.3 23-Apr Manufacturing PMI - preliminary data Apr 66.4 66.6 France France 0000 15-Apr Harmonized consumer inflation HICP (yoy) - final data Mar 1.4% - 1.4% 0000 15-Apr Consumer inflation CPI (yoy) - final data Mar 1.1% - 1.1% 0000 23-Apr Composite PMI - preliminary data Apr 51.7 △ 50.0 000 23-Apr Manufacturing PMI - preliminary data Apr 59.2 ▼ 59.3 Italy Ita	1.7% • 57.0 • 65.8 • 1.4% • 1.1% • 49.4
23-Apr Composite PMI - preliminary data Apr 56.0 ▼ 57.3 23-Apr Manufacturing PMI - preliminary data Apr 66.4 ▼ 66.6 France 15-Apr Harmonized consumer inflation HICP (yoy) - final data Mar 1.4% - 1.4% 15-Apr Consumer inflation CPI (yoy) - final data Mar 1.1% - 1.1% 23-Apr Composite PMI - preliminary data Apr 51.7 △ 50.0 33-Apr Manufacturing PMI - preliminary data Apr 59.2 ▼ 59.3 Italy	57.0 65.8 1.4% • 1.1% • 49.4
23-Apr Manufacturing PMI - preliminary data Apr 66.4 ▼ 66.6 France 15-Apr Harmonized consumer inflation HICP (yoy) - final data Mar 1.4% - 1.4% 15-Apr Consumer inflation CPI (yoy) - final data Mar 1.1% - 1.1% 23-Apr Composite PMI - preliminary data Apr 51.7 △ 50.0 33-Apr Manufacturing PMI - preliminary data Apr 59.2 ▼ 59.3 Italy	1.4% O 1.1% O 49.4
France OOOO 15-Apr Harmonized consumer inflation HICP (yoy) - final data Mar 1.4% - 1.4% OOO 15-Apr Consumer inflation CPI (yoy) - final data Mar 1.1% - 1.1% OOO 23-Apr Composite PMI - preliminary data Apr 51.7 ▲ 50.0 OOO 23-Apr Manufacturing PMI - preliminary data Apr 59.2 ▼ 59.3 Italy	1.4% O 1.1% O 49.4
15-Apr Harmonized consumer inflation HICP (yoy) - final data Mar 1.4% = 1.4% 15-Apr Consumer inflation CPI (yoy) - final data Mar 1.1% = 1.1% 23-Apr Composite PMI - preliminary data Apr 51.7 △ 50.0 23-Apr Manufacturing PMI - preliminary data Apr 59.2 ▼ 59.3 Italy	1.1% O 49.4
●●●● 15-Apr Consumer inflation CPI (yoy) - final data Mar 1.1% - 1.1% ●●● 23-Apr Composite PMI - preliminary data Apr 51.7 ▲ 50.0 ●●● 23-Apr Manufacturing PMI - preliminary data Apr 59.2 ▼ 59.3 Italy	1.1% O 49.4
23-Apr Composite PMI - preliminary data Apr 51.7 ▲ 50.0 33-Apr Manufacturing PMI - preliminary data Apr 59.2 ▼ 59.3 Italy	49.4
23-Apr Manufacturing PMI - preliminary data Apr 59.2 ▼ 59.3 Italy	
Italy	59.0 🔷
•	55.0
•••• 13-Apr Industrial production (wda. vov)‡ Feb -0.6% -2.1%	
- F	-2.1%
15-Apr Harmonized consumer inflation HICP (yoy) - final data Mar 0.6% = 0.6%	0.6%
UK	
○○○○ 13-Apr Industrial production (yoy)‡ Feb -3.5% ▲ -4.3%	-4.5%
○○ 20-AprUnemployment rate (ILO, 3-months)Feb4.9%▼5.0%	5.0%
21-Apr Consumer inflation CPI (yoy) Mar 0.7% ▲ 0.4%	0.8%
23-Apr Manufacturing PMI (sa) - preliminary data Apr 60.7 ▲ 58.9	59.0
23-Apr Composite PMI - preliminary data Apr 60.0 ▲ 56.4	58.1
Japan	
□□□□ 19-Apr Industrial production (yoy) - final data Feb -2.0% ▲ -2.6%	
○○○ 23-Apr Consumer inflation CPI (yoy) Mar -0.2% ▲ -0.4%	-0.2%
23-Apr Composite PMI - preliminary data Apr 50.2 ▲ 49.9	
23-Apr Manufacturing PMI - preliminary data Apr 53.3 ▲ 52.7	
Chile	*
No major data in the period	
Canada	*
21- Apr BoC base rate decision Apr 0.25% - 0.25%	0.25%
OOOO 21-Apr Consumer inflation CPI (yoy) Mar 2.2% ▲ 1.1%	

¹ Reading difference to previous release: ▲ = higher than previous; ▼ = lower than previous; •= equal to previous.



Key market data

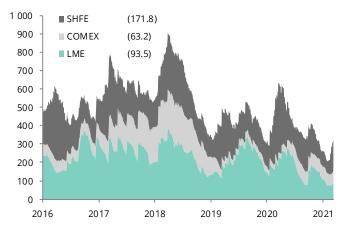
Key base & precious metal prices, exchange rates and other important market factors

(as of: 23-Apr-21)	Price change ¹								From year beginning ²				
,	Price			1Y	Average	Max							
LME (USD/t; Mo in USD/lbs)					•						Min		
Copper	9 545.50		6.1%		7.9%		23.3%		86.4%	8 628.37	7 755.50	9 614.50	
Molybdenum	11.10	_	-0.7%		0.5%		10.7%			11.28	9.95	12.50	
Nickel	16 150.00	_	-2.9%		0.3%	•	-2.4%		34.5%	17 320.87	15 907.00	19 689.00	
Aluminum	2 373.50		5.5%		7.3%		20.0%		61.1%	2 134.65	1 951.50	2 373.50	
Tin	27 707.00	_	-1.3%		1.9%		34.9%		82.5%	25 936.50	20 965.00	30 995.00	
Zinc	2 802.50	_	-0.2%		0.3%		2.9%		51.1%	2 760.01	2 539.00	2 894.50	
Lead	2 021.00		3.2%		3.3%		2.5%		23.8%	2 010.79	1 896.00	2 158.50	
LBMA (USD/troz)	_												
Silver	26.13		3.6%		8.9%	\blacksquare	-1.4%		70.7%	26.11	24.00	29.59	
Gold ²	1 781.80		2.3%		5.4%	\blacksquare	-5.8%		2.6%	1 787.13	1 683.95	1 943.20	
LPPM (USD/troz)	_												
Platinum ²	1 244.00		3.4%		5.2%		15.7%		62.6%	1 168.91	1 016.00	1 294.00	
Palladium ²	2 910.00		10.1%		10.9%		22.8%		46.2%	2 467.58	2 258.00	2 910.00	
FX ³	_												
EURUSD	1.2066		1.5%		2.9%	\blacksquare	-1.7%		12.0%	1.2028	1.1725	1.2338	
EURPLN	4.5649		0.5%	\blacksquare	-2.0%	\blacksquare	-1.1%		0.5%	4.5505	4.4773	4.6603	
USDPLN	3.7855	_	-0.9%	\blacksquare	-4.6%		0.7%	•	-10.1%	3.7859	3.6656	3.9676	
USDCAD	1.2489	_	-0.4%	\blacksquare	-0.7%	\blacksquare	-1.9%	•	-11.2%	1.2636	1.2455	1.2828	
USDCNY	6.4963	_	-0.9%	\blacksquare	-0.9%	\blacksquare	-0.5%	•	-8.1%	6.4940	6.4283	6.5718	
USDCLP	705.41	_	-0.4%	•	-3.6%	\blacksquare	-0.8%	•	-17.6%	721.11	696.18	741.40	
Money market	_												
3m LIBOR USD	0.181	•	-0.01	\blacksquare	-0.01	\blacksquare	-0.06	•	-0.81	0.198	0.173	0.241	
3m EURIBOR	-0.539		0.01	\blacksquare	0.00		0.01	•	-0.38	-0.542	-0.556	-0.530	
3m WIBOR	0.210	-	0.00	-	0.00	-	0.00	•	-0.48	0.210	0.210	0.210	
5y USD interest rate swap	0.915	•	-0.06	\blacksquare	-0.14		0.49		0.46	0.760	0.416	1.093	
5y EUR interest rate swap	-0.294		0.03		0.02		0.16	•	-0.11	-0.369	-0.485	-0.257	
5y PLN interest rate swap	1.298		0.04		0.02		0.69		0.71	0.995	0.583	1.330	
Fuel	_												
WTI Cushing	62.18		4.8%		5.1%		28.2%		294.8%	58.76	47.62	66.09	
Brent	65.42		4.5%		4.8%		27.8%		225.8%	61.57	50.02	69.39	
Diesel NY (ULSD)	187.35		3.6%		5.8%		26.8%		159.5%	176.74	146.07	196.50	
Others	_												
VIX	17.33		0.64	\blacksquare	-2.07	\blacksquare	-5.42	•	-24.05	21.98	16.25	37.21	
BBG Commodity Index	88.40		5.2%		5.9%		13.3%		45.5%	83.64	78.64	88.40	
S&P500	4 180.17		1.2%		5.2%		11.3%		49.4%	3 919.77	3 700.65	4 185.47	
DAX	15 279.62		0.3%		1.8%		11.4%		45.3%	14 330.47	13 432.87	15 459.75	
Shanghai Composite	3 474.17		0.7%		0.9%		0.0%		22.4%	3 505.84	3 357.74	3 696.17	
WIG 20	1 986.63		0.6%		2.5%		0.1%		22.2%	1 971.61	1 876.85	2 074.11	
KGHM	200.90		4.6%		5.6%		9.8%		172.2%	192.57	166.70	215.90	

[°] 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

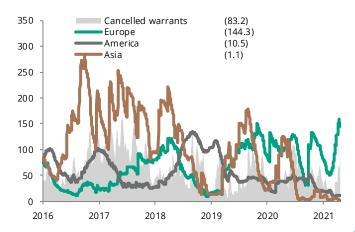


Copper: official exchange stocks (thousand tonnes)



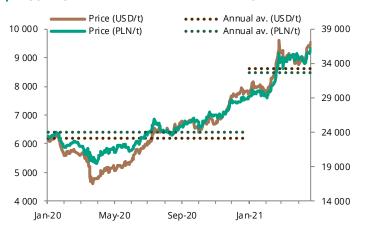
Note: Latest values in brackets. Source: Bloomberg, KGHM

Copper: official LME stocks (thousand tonnes)



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

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



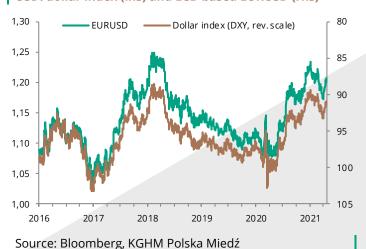
Source: Bloomberg, KGHM Polska Miedź

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



Source: Bloomberg, KGHM Polska Miedź

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



PLN: NBP-fixing based rate vs. USD (lhs) and EUR (rhs) 4,40 5,00 USDPLN (lhs) 4,20 4,80 4,00 4,60 3,80 3,60 4.40 3,40 4,20 3,20 4,00 3,00 2,80 3,80 2020 2016 2017 2018 2019 2021



Legal note

This document has been prepared based on the below listed reports, among others, published in the following period: 12 - 25 April 2021.

- 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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