

Market Overview

- Copper: Glencore joins the trend that has been noticeable recently among mining companies and announces the increase of the share buyback program. The second largest copper producer in Africa -Zambia - is planning another increase in mining fees next year (page 2).
- Precious metals: Barrick Gold buys London-listed Randgold, easing concerns about stagnant production and offering Randgold a reset for its languishing shares. Poland's central bank bought nine tonnes of gold this summer in the first such purchase by an EU member state this century (page 4).
- Trade war: On the last day of September, i.e. just before the deadline,
 United States and Canada signed USMCA deal (United States Mexico Canada Agreement), which is going to replace previous Nafta. Signing the agreement could be seen as a great opportunity to start negotiations with China (page 7).
- Fed: The Federal Reserve has recently raised its key interest rate for the third time this year and signaled one more hike in 2018, most likely in December. Additionally, the Fed removed language in its statement that referenced "accommodative" monetary policy, even after President Donald Trump last month complained about rising interest rates. (page 7).

Annual cathode premiums benchmark (USD/t) 120 110 100 90 80 Aurubis Codelco •••• Codelco 2019 Aurubis 2019 2012 2013 2014 2015 2016 2017 2018 2019 Source: Bloomberg, KGHM Polska Miedź



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Key	ma	rko	t nr	iras
IXC y	1110	IIIC	L PI	1003

		Close price	2w chng.
	LME (USD/t)		
•	Copper	6 182.50	-2.2%
•	Nickel	12 400.00	-4.5%
	LBMA (USD/troz)		
	Silver	14.64	2.2%
	Gold (PM)	1 203.80	0.1%
	FX		
\blacksquare	EURUSD	1.1506	-2.3%
	EURPLN	4.3117	0.1%
	USDPLN	3.7518	2.5%
	USDCAD	1.2936	0.0%
	USDCLP	670.40	0.6%
	Stocks		
•	KGHM	86.88	-4.4%
Source	: Bloomberg, KGHM Po	olska Miedź; (mor	e on page 12)

Important macroeconomic data									
	Release	For							
	Fed upper rate	Sep	2.25% 🔺						
	Retail sales (yoy)	Aug	1.8% 🔺						
*‡	Official manuf. PMI	Sep	50.8 ▼						
	Manufacturing PMI	Sep	50.5 🔻						
Source	Unemployment rate e: Bloomberg, KGHM Polska Mied	Sep dź; (more	3.7% ▼ e on <u>page 10</u>)						

Market Risk Unit

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Base and precious metals | Other commodities

Copper

Glencore joins the trend that has been noticeable recently among mining companies and announces the increase of the share buyback program. The second largest copper producer in Africa - Zambia - is planning another increase in mining fees next year.

The announced plan assumes buying shares worth in total 1bln USD

Glencore to boost share buyback program

Glencore Plc will double the size of its buyback plan by purchasing another \$1 billion of stock just 11 weeks after starting the program, adding to a growing number of moves by the world's biggest miners this year to return more money to investors. The announcement comes less than a week after No. 2 miner Rio Tinto Group unveiled a \$3.2 billion share buyback following an asset-sale spree. BHP Billiton Ltd. in August paid out a record dividend and pledged to hand shareholders most of the \$11 billion reaped from selling its U.S. shale assets.

Glencore Chief Executive Officer Ivan Glasenberg said in August that the world's biggest commodity trader was focusing on cutting debt and returning money to shareholders. The serial dealmaker noted there was little of interest for the Swiss miner and trader on the acquisition front. The second buyback this year comes earlier than many investors would have expected after the company suggested in August that it could extend the program in November or December, rather than waiting for full-year results in early 2019. Glencore has almost completed its first buyback, having bought \$940 million of its own stock after the shares fell to a 14- month low in September as part of a wider commodity sell off.

While its rivals have been returning money from disposals, Glencore has been using cash from the business. The trader announced its original \$1 billion share buyback in July, after the company's shares came under pressure when it was hit by a U.S. Department of Justice probe. The buyback program will be extended to Feb. 20, the company said in a statement Tuesday. The U.S. probe extended a tough year for Glencore, mostly due to challenges linked to its business in the Democratic Republic of Congo, where it operates giant copper and cobalt mines.

Zambia to raise mine royalty in 10th tax change in 16 years

Zambia plans to increase mining royalties next year as Africa's second-biggest copper producer seeks to reduce its budget deficit. It's the 10th tax change miners have faced in the past 16 years. The royalty rate will rise by 1.5 percentage points across the board, Finance Minister Margaret Mwanakatwe told lawmakers in the capital Lusaka in her maiden budget speech on Friday. The current tax rates range from 4 percent to 6 percent depending on the copper price. The government also introduced a 10 percent charge if the metal climbs above \$7,500 a metric ton, she said. Facing large fiscal deficits and external borrowing



that led the International Monetary Fund to warn that Zambia is at high risk of debt distress, the government is once again turning to copper producers including Glencore Plc and Barrick Gold Corp. to boost revenue.

"As mineral resources are a depleting resource, it is vital to structure an effective fiscal regime for the mining sector to ensure that Zambians benefit from the mineral wealth our country is blessed with," Mwanakatwe said. Cobalt royalties will increase to 8 percent from 5 percent currently, according to the Zambia Revenue Authority. In addition, Zambia will introduce an import duty of 5 percent on copper and cobalt concentrates, the semi-processed forms of the metals, which would mainly impact miners in the Democratic Republic of Congo. There will be a 15 percent export duty for precious metals and gemstones, Mwanakatwe said. The government also plans to replace value added tax with a non-refundable sales tax, which will impact mining companies that are owed hundreds of millions of dollars in VAT refund arrears. Zambia will settle outstanding verified claims, the minister said. She didn't detail what the new sales tax rate will be, or if it would remain at the current 16 percent VAT rate.

Other important information on copper market:

- Codelco signed 2019 copper cathode supply contracts with European customers at a physical delivery premium of \$98 a ton over LME prices, according to a Bloomberg article. That's the highest level since 2015 and compares with \$88 a ton for 2018. Codelco signed also a copper supply contract with a Chinese client at a physical delivery premium of \$88 a ton over LME prices. Premium compares with \$75 per ton signed last year.
- Almost 24 hours after the Indonesian government and Freeport-McMoRan Inc. hailed a divestment deal at the giant Grasberg copper-and-gold mine, the company has revealed that the same sticking points it was facing this summer could yet scupper the agreement. In what has become a pattern, Indonesian officials suggested the finish line has been reached, only to have Freeport later disclose there's still work to be done on key issues. Among the biggest, according to a statement Friday, the Phoenix-based miner is still waiting for a guarantee of stable rights to mine Grasberg through 2041. It also needs an agreement on environmental practices, most crucially around its practice of disposing of tailings waste in the local river system. New Indonesian standards around that are "unattainable," Freeport said, reiterating previous comments. Market reaction to Thursday's news conference -- the second in three months hailing a divestment deal -- was muted. Freeport shares fell less than 1 percent on Thursday and were little changed early Friday as both copper and gold rose.
- China's Belt and Road Initiative to boost trade and infrastructure in 64 countries is expected to help boost copper demand in those nations to 6.5 million tonnes a year by 2027, a conference was told on Friday. That's a 22 percent increase from 2017 and about 10 percent higher than if China had not launched its initiative, according to data presented by Gu Liangmin,



Deputy Managing Director of China Minmetals UK. The increase is due to higher copper demand for power and transport infrastructure, such as power grids and railways, he told a presentation sponsored by the International Copper Association. The forecast also includes indirect impacts, such as more electrical appliances and home construction made possible by the additional infrastructure. Electricity consumption in the 64 countries is due to more than double from 1,600 kilowatt hours per capita per year in 2015 to 4,166 KWh by 2030, Gu said ahead of industry gathering London Metal Exchange Week kicking off Monday. The 64 countries accounted for 43.5 percent of global population and 16.1 pct of world GDP in 2016, he added. State-owned China Minmetals Corp bills itself as China's biggest and most international mining company and its UK unit is a trader in metals, minerals and metal fabricated products. Minmetals is the biggest shareholder of MMG Ltd, which owns the Las Bambas copper mine in Peru, among the 10 largest in the world.

Peruvian export volumes of copper, zinc and gold all gained in July, while shipments of lead, tin, silver and molybdenum fell, government data showed Tuesday. Total metals export revenue rose 20.5% from a year earlier to \$2.23 billion in July, the central bank said Tuesday in a statement posted on its website. Copper shipments rose 21% to 193,200 mt from 159,400 mt a year earlier. Gold exports climbed 6% to 529,800 oz from 500,200 oz a year ago. Zinc shipments increased by 8.4% to 90,400 mt from 83,400 mt a year Earlier. Lead slumped 41.3% to 40,600 mt from 69,100 mt, while silver was down 9% to 500,000 oz from 600,000 oz, Tin shipments from Minsur's San Rafael mine plunged 40.4% to 900 mt from 1,500 mt. Molybdenum shipments slid 4% to 2,300 mt.

Precious Metals

Barrick Gold buys London-listed Randgold, easing concerns about stagnant production and offering Randgold a reset for its languishing shares. Poland's central bank bought nine tonnes of gold this summer in the first such purchase by an EU member state this century.

Barrick Gold buys London-listed Randgold for \$5.4bn

The biggest gold deal of the past three years may ease concerns about Barrick Gold Corporation's stagnant production and offer Randgold Resources a reset for its languishing shares. The question is whether the whole will really be greater than the sum of its parts. Canada's Barrick agreed on Monday to buy London-listed Randgold for about \$5.4bn, creating a global gold mining behemoth with a focus on Africa and the Americas.

Under Executive Chairman John Thornton, Barrick has been selling assets and stakes in mines to reduce costs and debt. While that effort was initially received well by investors, the move also has raised concern about the company's production pipeline, helping send its shares falling by about a half from a



February 2017 peak. For Randgold, the transaction offers a reset for its shares, which have slipped this year after previously outperforming its gold-mining peers. Under the all-share deal, Barrick shareholders will own about two-thirds of the new entity and Randgold investors the remainder. There is almost no premium for Randgold shareholders, but Barrick has agreed to a break fee of \$300m. Both sets of investors are expected to vote on the deal around Nov. 5.

"Randgold has a proven ability to operate successfully in some of the most challenging environments in the world," Barrick's Thornton said on a conference call. "The combined company will have five of the world's top 10 tier-one gold assets." Thornton last month outlined Barrick's plan to add more top-quality mines and to gradually shed anything of a lower caliber or that's not deemed to be "strategic." The combined company would have the lowest cash cost position among its peers, Barrick said. Barrick's gold production fell to 5.3 million ounces in 2017, from more than 8 million ounces a decade earlier, according to data compiled by Bloomberg. The company shed non-core assets outright, or sold stakes to partners, to repair its balance sheet, after its debt peaked at \$15.8bn in 2013.

Poland increases gold reserves

Poland's central bank bought nine tonnes of gold this summer, the Financial Times reported. It is the first such purchase by an EU member state this century, the paper said, citing a report of global advisory firm Macquarie Group. The National Bank of Poland (NBP) acquired gold in two batches: two tonnes in July and seven tonnes in August, according to IMF data cited by the paper.

Central banks in countries such as Poland, Russia, Turkey and Kazakhstan have purchased 264 tonnes of gold this year, "by far the most at this stage of the year of any period in the last six years," Macquarie Group said, according to FT. While the price of gold has fallen by 10 percent this year, central banks may be purchasing the precious metal to diversify their reserves so as to be less dependent on the US dollar, FT reported. Poland's gold reserves, kept in the vaults of the Bank of England in London, amount to 112 tonnes, Rzeczpospolita said.

U.S. Mint nixes production of 2018 American Eagle palladium bullion coins

American Eagles platinum bullion total mintage for calendar year stops at 30,000. No American Eagle palladium bullion coins will be struck and issued by the U.S. Mint in 2018, bureau officials announced Sept. 27. The only American Eagles struck in palladium to be issued in 2018 are the 15,000 Proof 2018-W coins offered by the Mint Sept. 6. The bureau is still reconciling orders placed Sept. 6 that exhausted the number of coins offered within five minutes of their release. The Mint's Sept. 23 sales report indicates 14,881 of the 15,000 coins are sold.

Also, according to Mint spokesman Michael White, the 30,000 2018 American Eagle platinum bullion coins struck at the West Point Mint and sold to authorized



purchasers so far this year comprise the entire 2018 mintage for that bullion version.

The U.S. Mint first began accepting orders for the American Eagle platinum bullion coins on Feb. 12, 2018, when 20,000 coins were made available. The Mint reported a temporary sellout on Feb. 14 while additional production was executed. An additional 10,000 coins were offered to authorized purchasers on May 18 and sold out the same day. No additional platinum bullion coin production is scheduled. Although investment demand continues for the American Eagle platinum bullion coins, overall production has been sporadic, with limited mintages.

The U.S. Mint does not sell its bullion coins to the public. Instead, the Mint sells the coins through several authorized purchasers, who offer a two-way market buying and selling coins, which the Mint does not. The Mint sells the coins based on the closing PM spot price of the precious metal on a given day plus a small premium. The authorized purchasers may then sell the coins to investors or secondary market distributors at a small premium.



Global economies | Foreign exchange markets

USA signs USMCA agreement with Mexico and Canada

On the last day of September, i.e. just before the deadline, United States and Canada signed USMCA deal (United States – Mexico – Canada Agreement), which is going to replace previous Nafta. Signing the agreement could be seen as a great opportunity to start negotiations with China.

On the last day of September, i.e. just before the deadline, United States and Canada signed USMCA deal (United States – Mexico – Canada Agreement), which is going to replace previous Nafta. Signing of an agreement was announced as a success of president Trump's administration, but in the eyes of many analysts it was a purely political victory, since new deal does not differ significantly from the previous one. On the most critical issue—the retention of a dispute settlement mechanism that the US hated—Canada won a complete victory, in exchange for minor weakening of its absurd protections for dairy farmers. Mexico and Canada will escape car tariffs (which by Trump's words could have ruin their economies) by accepting export quotas that are far higher than their current exports and will take many years to exhaust. The other minor concession – longer protection for US drag company patents differ little from what Canada was willing to accept under the Trans-Pacific Partnership.

After the breakthrough with EU, Canada and Mexico, Trump's administration will be able to concentrate on solving the issue with China. Signing the USMCA agreement could be seen as a great opportunity to start negotiations with this county, and a preview of conflict end, but many point out different character of U.S.-China trade war.

Even some optimistic scenarios assume that Trump administration will max out tariffs on more than 500 billion USD in Chinese goods. Retaliatory measures introduced by Beijing could start to hurt the U.S. economy and stocks in the middle of 2019, which would put pressure on gearing up for his 2020 re-election race president. Market forecasts are assuming U.S. GDP slowdown in 2019 to 2.3% from 2.6% this year, and Chinese to 6.3% from 6.6% (Bloomberg forecasts median of over 60 institutions). Very sensitive for further news regarding trade war are emerging markets – this year stocks from Argentina to Turkey and India slump into bear market, and currencies of those countries slide to record lows on the backdrop of a strong dollar, rising U.S. interest rates and escalating trade disputes.

Pessimists, in turn, are of the opinion that the trade war with China is only a prelude to a long-lasting and unavoidable conflict for the U.S. to remain a world leader, and signing the USMCA will allow the United States to direct full attention towards the Middle Kingdom. For Nafta, a key constraint was that 36 states have Canada as their top export market, while China – only five – so failing to complete a deal would have created a big political vulnerability. Even pessimists are



highlighting the fact, that the main potential brake on U.S.-China economic cold war is the business community, which has 250 bn USD invested in China and stands to lose a lot. Almost 69 percent of U.S. businesses operating in China oppose using tariffs as a weapon, while just 8.5 percent support them, a survey of 434 respondents in April and May by the American Chamber of Commerce in Shanghai showed.

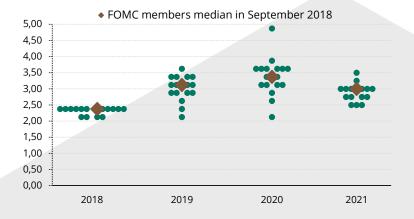
Fed raises interest rates and signals its 'accommodative' era is over

The Federal Reserve has recently raised its key interest rate for the third time this year and signaled one more hike in 2018, most likely in December. Additionally, the Fed removed language in its statement that referenced "accommodative" monetary policy, even after President Donald Trump last month complained about rising interest rates.

The decision, which had been widely expected, raised the federal funds rate by 25 basis points, to a range of 2% to 2.25%. It was the eighth time the Federal Open Market Committee has raised borrowing costs since late 2015. It held rates near zero after the Great Recession to speed up the economic recovery.

Accordingly, the Fed removed language in its statement that had characterized its policy as "accommodative." Still, Fed Chairman Jerome Powell said at a press conference that the Fed did not have a precise estimate of where accommodation ends. It maintained its forecast for three rate hikes next year, even after President Donald Trump last month complained about higher interest rates.

The Fed has hiked the Fed Funds interest rate for the third time this year to the level of 2,00-2,25%



Source: The Fed, Bloomberg, KGHM Polska Miedź

Short-term interest rates are most affected by Fed decisions, meaning rates on things like credit cards should rise soon after Wednesday. Mortgage rates are rising, but strong demand for housing has meant the impact is still minimal.



Savers should also see their interest rates increase, though banks tend to lift these slower than they do for borrowers. The Fed's statement again struck a bullish tone on the economy.

"Our economy is strong," Powell said. "Growth is running at a healthy clip, unemployment is low, the number of people working is steadily rising, and wages are up". Fed officials raised their forecast for gross domestic product next year by 0.1 percentage points, to 2.5%. And for the first time, they released a projection for growth in 2021, which stood at 1.8%.



Macroeconomic calendar

Important macroeconomic data releases

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
		China				*1
00	27-Sep	Industrial profits (yoy)	Aug	9.2%	16.2%	
000	30-Sep	Official manufacturing PMI	Sep	50.8	51.3	51.2
000	30-Sep	Caixin's manufacturing PMI	Sep	50.0	50.6	50.5
00000	07-Oct	Reserve requirement ratio	Oct	14.5%	15.5%	
0	07-Oct	Foreign reserves (USD bn)	Sep	3 087	3 110	3 105
		Poland				
0	24-Sep	M3 money supply (yoy)	Aug	7.5% 🔺	7.3%	7.5%
00	25-Sep	Unemployment rate	Aug	5.8%	5.9%	5.9%
0000	01-Oct	Consumer inflation CPI (yoy) - preliminary data	Sep	1.8%	2.0%	1.9%
000	01-Oct	Manufacturing PMI	Sep	50.5	51.4	51.3
00000	03-Oct	NBP base rate decision	Oct	1.50% =	1.50%	1.50%
		US				
٥	24-Sep	Dallas Fed manufacturing activity	Sep	28.1	30.9	31.0
٥	25-Sep	Richmond Fed manufacturing index	Sep	29.0	24.0	20.0
٥	25-Sep	S&P/CaseShiller home price index‡	Jul	214 🔺	213	
00000	26-Sep	FOMC base rate decision - upper bound (Fed)	Sep	2.25%	2.00%	2.25%
00000	26-Sep	FOMC base rate decision - lower bound (Fed)	Sep	2.00%	1.75%	2.00%
00000	27-Sep	GDP (annualized, qoq) -	2Q	4.2% =	4.2%	4.2%
00	27-Sep	Durable goods orders - preliminary data	Aug	4.5%	-1.7%	2.0%
0000	28-Sep	Consumer spending inflation PCE (mom)	Aug	0.0%	0.2%	0.1%
0000	28-Sep	Consumer spending inflation PCE (yoy)	Aug	2.0% =	2.0%	2.0%
00	28-Sep	Personal income (sa, mom)	Aug	0.3% =	0.3%	0.4%
00	28-Sep	Personal spending (sa, mom)	Aug	0.3%	0.4%	0.3%
00	28-Sep	University of Michigan confidence index - final data	Sep	100	101	101 🕳
000	01-Oct	Manufacturing PMI - final data	Sep	55.6 =	55.6	55.6
00	01-Oct	ISM Manufacturing	Sep	59.8	61.3	60.0
000	03-Oct	Composite PMI - final data	Sep	53.9	53.4	
000	03-Oct	PMI services - final data	Sep	53.5	52.9	53.0
00	04-Oct	Durable goods orders - final data	Aug	4.4%	4.5%	4.5%
00	05-Oct	Change in non-farm payrolls (ths)‡	Sep	134 🔻	270	185 🕳
00	05-Oct	Underemployment rate (U6)	Sep	7.5%	7.4%	
00	05-Oct	Unemployment rate	Sep	3.7%	3.9%	3.8%
٥	05-Oct	Average hourly earnings (yoy)	Sep	2.8%	2.9%	2.8%



Weight	Date	Event	For	Reading ¹	Previous	Consensus
		Eurozone				1
٥	27-Sep	M3 money supply (yoy)	Aug	3.5%	4.0%	3.9%
٥	27-Sep	Economic confidence	Sep	111	112	111
٥	27-Sep	Industrial confidence‡	Sep	4.7	5.6	5.1
٥	27-Sep	Consumer confidence - final data	Sep	- 2.9 =	- 2.9	- 2.9
٥	27-Sep	Business climate indicator‡	Sep	1.2 =	1.2	1.2
0000	28-Sep	Core CPI (yoy) - estimation	Sep	0.9%	1.0%	1.1%
0000	28-Sep	CPI estimate (yoy)	Sep	2.1%	2.0%	2.1%
000	01-Oct	Manufacturing PMI - final data	Sep	53.2	53.3	53.3
00	01-Oct	Unemployment rate	Aug	8.1%	8.2%	8.1%
00	02-Oct	Producer inflation PPI (yoy)‡	Aug	4.2%	4.3%	3.8%
000	03-Oct	Composite PMI - final data	Sep	54.1	54.2	54.2
000	03-Oct	Services PMI - final data	Sep	54.7 =	54.7	54.7
00	03-Oct	Retail sales (yoy)‡	Aug	1.8%	1.0%	1.7%
		Germany				
00	24-Sep	IFO business climate‡	Sep	104	104	103
0000	27-Sep	Harmonized consumer inflation HICP (yoy) - preliminary data	Sep	2.2%	1.9%	1.9%
0000	27-Sep	Consumer inflation CPI (yoy) - preliminary data	Sep	2.3%	2.0%	2.0%
00	27-Sep	GfK consumer confidence	Oct	10.6	10.5	10.5
00	28-Sep	Unemployment rate	Sep	5.1%	5.2%	5.2%
000	01-Oct	Manufacturing PMI - final data	Sep	53.7 =	53.7	53.7
000	01-Oct	Retail sales (yoy)‡	Aug	1.6%	0.9%	1.6%
000	03-Oct	Composite PMI - final data	Sep	55.0	55.3	55.3
000	05-Oct	Factory orders (wda, yoy)‡	Aug	-2.1%	-0.8%	-3.0%
		France	Ü			
0000	28-Sep	Harmonized consumer inflation HICP (yoy) - preliminary data	Sep	2.5%	2.6%	2.6%
0000	28-Sep	Consumer inflation CPI (yoy) - preliminary data	Sep	2.2%	2.3%	2.3%
000	01-Oct	Manufacturing PMI - final data	Sep	52.5 =	52.5	52.5
000	03-Oct	Composite PMI - final data	Sep	54.0	53.6	53.6
		Italy	'			
0000	28-Sep	Harmonized consumer inflation HICP (yoy) - preliminary data	Sep	1.6% =	1.6%	1.7%
000	01-Oct	Manufacturing PMI	Sep	50.0	50.1	50.2
00	01-Oct	Unemployment rate - preliminary data‡	Aug	9.7%	10.2%	10.5%
000	03-Oct	Composite PMI	Sep	52.4	51.7	51.8
		UK	·			
00000	28-Sep	GDP (yoy) - final data	2Q	1.2%	1.3%	1.3%
00000	28-Sep	GDP (qoq) - final data	2Q	0.4% =	0.4%	0.4%
000	01-Oct	Manufacturing PMI (sa)‡	Sep	53.8	53.0	52.5
000	03-Oct	Composite PMI	Sep	54.1		53.9
		Japan				
0000	28-Sep	Industrial production (yoy) - preliminary data	Aug	0.6%	2.2%	1.5%
000	01-Oct	Manufacturing PMI - final data	Sep	52.5		
000	03-Oct	Composite PMI	Sep	50.7		
		Chile	F			*
000	28-Sep	Total copper production (metric tons)	Aug	465 910 ▼	487 771	
000	28-Sep	Manufacturing (yoy)‡	Aug	4.0%	-1.6%	1.6%
0000 Reading	. 05-Oct	Economic activity (yoy)	Aug I = lower	3.2%	3.3% us: == equal to	3.4%

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



Key market data

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

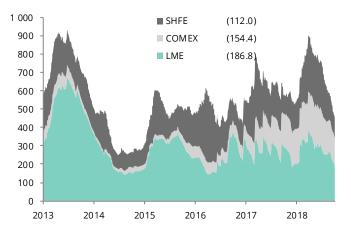
(as of: 05-Oct-18) Price cha					inge ¹			From year beginning ²				
	Price		2W		QTD		YTD		1Y	Average	Min	Max
LME (USD/t)												
Copper	6 182.50	•	-2.2%		0.0%	_	-13.6%	•	-5.0%	6 631.65	5 823.00	7 262.50
Molybdenum	26 000.00	-	0.0%	-	0.0%		62.5%		62.5%	23 322.16	16 000.00	26 000.00
Nickel	12 400.00	•	-4.5%	\blacksquare	-0.6%		1.1%		17.4%	13 635.31	12 205.00	15 750.00
Aluminum	2 140.00		5.2%		6.4%	•	-4.5%		0.8%	2 156.78	1 967.00	2 602.50
Tin	18 950.00	•	-0.2%	-	0.0%	•	-4.7%	•	-10.8%	20 447.76	18 675.00	22 105.00
Zinc	2 645.00		4.5%		2.8%	•	-20.1%	•	-21.0%	3 011.12	2 287.00	3 618.00
Lead	1 971.00	•	-2.9%	\blacksquare	-1.5%	_	-21.0%	•	-22.6%	2 328.20	1 970.00	2 683.00
LBMA (USD/troz)	_											
Silver	14.64		2.2%		2.3%	_	-13.2%	•	-12.2%	16.06	14.13	17.52
Gold ²	1 203.80		0.1%		1.4%	_	-7.2%	•	-5.5%	1 280.22	1 178.40	1 354.95
LPPM (USD/troz)	_											
Platinum ²	824.00	_	-0.7%		1.1%	•	-11.1%	•	-9.6%	896.31	772.00	1 020.00
Palladium²	1 061.00		0.3%	\blacksquare	-3.0%		0.5%		14.1%	990.52	849.00	1 129.00
FX ³												
EURUSD	1.1506	_	-2.3%	\blacksquare	-0.6%	•	-4.1%	•	-2.0%	1.1932	1.1321	1.2493
EURPLN	4.3117		0.1%		0.9%		3.4%		0.3%	4.2504	4.1423	4.3978
USDPLN	3.7518		2.5%		2.1%		7.8%		2.8%	3.5642	3.3173	3.7871
USDCAD	1.2936		0.0%	\blacksquare	-0.1%		3.1%		3.1%	1.2876	1.2288	1.3310
USDCNY	6.8688		0.2%	-	0.0%		5.6%		3.2%	6.5221	6.2690	6.9348
USDCLP	670.40		0.6%		1.3%		9.0%		6.3%	629.71	588.28	698.43
Money market	_											
3m LIBOR USD	2.408		0.03		0.01		0.71		1.06	2.205	1.696	2.410
3m EURIBOR	-0.318		0.00	-	0.00		0.01		0.01	-0.324	-0.329	-0.317
3m WIBOR	1.720	-	0.00	-	0.00	-	0.00	\blacksquare	-0.01	1.708	1.700	1.720
5y USD interest rate swap	3.187		0.10		0.12		0.94		1.16	2.829	2.283	3.187
5y EUR interest rate swap	0.455		0.06		0.07		0.14		0.22	0.362	0.224	0.509
5y PLN interest rate swap	2.585		0.05		0.06		0.09		0.14	2.472	2.280	2.740
Fuel	_											
WTI Cushing	74.34		1.7%		1.5%		23.0%		46.4%	67.09	59.19	76.41
Brent	84.20		4.3%		1.5%		26.0%		47.5%	72.65	62.33	86.09
Diesel NY (ULSD)	239.05		4.6%		1.8%		15.8%		33.9%	211.09	183.32	243.40
Others	_											
VIX	14.82		2.62		2.70		3.78		5.63	15.10	9.15	37.32
BBG Commodity Index	86.90		2.4%		2.0%	•	-1.4%		2.7%	87.12	82.14	91.57
S&P500	2 885.57	•	-1.2%	\blacksquare	-1.0%		7.9%		13.1%	2 765.95	2 581.00	2 930.75
DAX	12 111.90	•	-1.9%	\blacksquare	-1.1%	•	-6.2%	\blacksquare	-6.6%	12 567.27	11 787.26	13 559.60
Shanghai Composite	2 821.35		0.9%	-	0.0%	•	-14.7%	•	-15.8%	3 054.62	2 651.79	3 559.47
WIG 20	2 264.20	•	-0.7%	\blacksquare	-0.9%	•	-8.0%	•	-8.1%	2 307.69	2 098.75	2 630.37
KGHM	86.88	_	-4.4%		-2.5%		-21.9%		-27.8%	95.71	82.56	115.00

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

Source: Bloomberg, KGHM

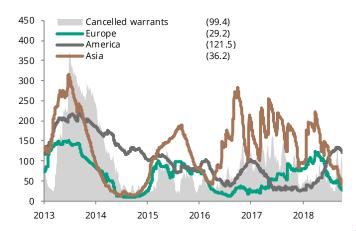


Copper: official exchange stocks (thousand tonnes)



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)





Legal note

This document has been prepared based on the below listed reports, among others, published in the following period: **24**th **September - 7**th **October 2018.**

- 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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