

Market Overview

- **Base metals:** Zinc's monthly gain was the biggest in more than two years and copper had its best August since 2009, pushed by bets on tighter supplies and Chinese demand. Base metals are gaining as improving economic data and low borrowing costs stoke demand, even as the dollar heads for its first monthly gain in six (*page 2*).
- **Precious metals:** Gold prices in recent two weeks have reached highest peak in a year as investors bought safe-haven assets on worries that North Korea might launch more missiles after its sixth and largest nuclear test. Moreover according to analysts and investors rate hikes are not a concern now due to weak U.S. data and so the opportunity cost of holding non-yielding asset does not threaten gold (*page 3*).
- **Natural disasters:** In the shadow of human tragedies that happen on the path of hurricanes, investors and analysts try to predict the impact of these natural disasters on particular markets (*page 4*).

Metals on London Exchange (LME) have recently reached the levels not seen for the last three years



Source: Bloomberg, KGHM Polska Miedź

as of: 4th September 2017

Key market prices

	Close price	2w chng.
LME (USD/t)		
▲ Copper	6 776.00	5.0%
▲ Nickel	12 005.00	11.9%
LBMA (USD/troz)		
▲ Silver	17.50	2.0%
▲ Gold (PM)	1 320.40	1.9%
FX		
▲ EURUSD	1.1920	1.5%
▼ EURPLN	4.2457	-0.9%
▼ USDPLN	3.5693	-2.1%
▼ USDCAD	1.2390	-1.6%
▼ USDCPL	628.89	-2.5%
Stocks		
▲ KGHM	127.10	7.1%

Source: Bloomberg, KGHM Polska Miedź; (*more on page 7*)

Important macroeconomic data

Release	For		
 GDP (annlzd., qoq)	2Q	3.0%	▲
 Manufacturing PMI	Aug	57.4	-
 Copper production (mt)	Jul	473 544	▲
 Official manuf. PMI	Aug	51.7	▲
 Caixin's manuf. PMI	Aug	51.6	▲

Source: Bloomberg, KGHM Polska Miedź; (*more on page 5*)

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Base and precious metals | Other commodities

Base metals

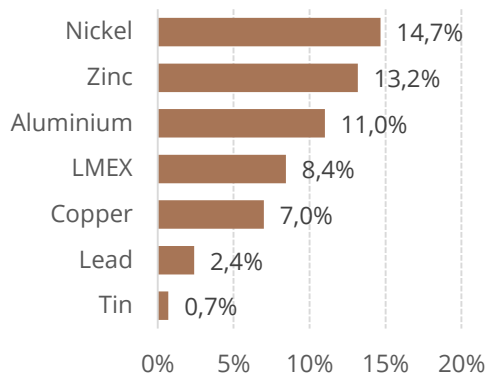
Zinc's monthly gain was the biggest in more than two years and copper had its best August since 2009, pushed by bets on tighter supplies and Chinese demand. Base metals are gaining as improving economic data and low borrowing costs stoke demand, even as the dollar heads for its first monthly gain in six.

Mighty month for base metals [source: Bloomberg]

The six-metal LME Index has recently closed at the highest since September 2014. Industrial metals have rallied this year amid burgeoning optimism about consumption in China, as well as the impact of supply-side reforms, especially for aluminum. Stronger-than-expected U.S. gross domestic product and employment figures are also lending support. According to the market participants the economic figures from the U.S., China and EU are all improving. On the top of that, short-term technical traders are also being drawn into the rally as prices break new highs, while bearish funds are also buying to stop out of their positions.

In a strong uptrend, metals may be primary beneficiaries when equity-market volatility recovers. Metals lead all commodities, as they should in a declining-dollar environment with demand exceeding supply, notably in industrials, according to Bloomberg Intelligence. Base metals, at steep discounts from historic highs, are gaining relative value vs. record-high financial assets.

Metals has faced on of the best months in the recent market environment



Source: Bloomberg, KGHM Polska Miedź

Other important information on copper market:

- [source: Mitsui] Chile, the largest copper-producing nation, churned out 5% more in July than same year-ago month on an uptick in both volume and ore quality, according to data released by its statistics bureau. Production was 473,544 metric tons of copper. The mining production index was up 4.7% YoY, the first increase this year and the highest increase since Jan. 2015.
- [source: Platts] Freeport-McMoRan has reached an agreement with the Indonesian government which will guarantee long-term rights for the company's copper-gold mining unit in the country and will see the government take a majority stake in the operation, according to the US miner. Under the terms of the deal, which will require definitive documentation and Freeport board and partner approvals, the Indonesian unit PT Freeport Indonesia will convert its existing Contract of Work to a special license (IUPK) which will provide PT-FI with long-term operating rights through 2041, the company said. The Indonesian government will also provide certainty of fiscal and legal terms during the term of the IUPK. In return, PT-FI will commit to construct a new smelter in Indonesia within five years, and Freeport "will

agree to divest its ownership in PT-FI at fair market value so that Indonesia interests own 51% of PT-FI's shares," Freeport said. Freeport currently holds a 90.64% stake in PT-FI.

Precious Metals

Gold prices in recent two weeks have reached highest peak in a year as investors bought safe-haven assets on worries that North Korea might launch more missiles after its sixth and largest nuclear test. Moreover according to analysts and investors rate hikes are not a concern now due to weak U.S. data and so the opportunity cost of holding non-yielding asset does not threaten gold.

Hummingbird mine on track to boost Mali's gold output

Hummingbird Resources said recently it had begun pre-production mining on schedule at its Yanfolila Gold Project in Mali and is on track to produce its first gold by the end of the year. In Mali, Africa's third largest gold producer after South Africa and Ghana, around a quarter of government revenues come from gold. In its first full year of production, Yanfolila will produce 132,000 ounces of gold and average production over the life of the mine will be 107,000 ounces per year. Hummingbird shares have almost doubled this year after successfully raised \$75 million in 2016 to begin mine construction. Yanfolila is expected to be one of the highest margin, lowest cost gold projects in West Africa, Hummingbird said.

ICE to take over London silver benchmark on Sept. 25

ICE Benchmark Administration, a unit of Intercontinental Exchange, expects to begin operating the London Bullion Market Association (LBMA) silver benchmark on Sept. 25, subject to regulatory approval, ICE reported recently. The LBMA selected ICE to run the LBMA Silver Price last month over a rival bid by the London Metal Exchange. ICE already operates the LBMA Gold Price benchmark, which is set via an electronic auction. The silver benchmark will also be set by auction and ICE said it would launch a London-settled silver futures contract on Sept. 5 to facilitate clearing.

Global economies | Foreign exchange markets

Do tropical hurricanes exert impact on financial and commodities markets?

In the shadow of human tragedies that happen on the path of hurricanes, investors and analysts try to predict the impact of these natural disasters on particular markets.

High insurers' losses and question marks regarding further tightening of US rates





Devastating tropical hurricanes are leaving a trail of destruction and tragedy across the Caribbean and southern parts of USA. Financial impact of this human tragedy will be seen in some of the markets, but most certainly in insurers' results. Hurricane Harvey is expected to be the second-costliest hurricane in US history when adjusted for inflation, but Irma could end up surpassing even the destruction wreaked by Hurricane Katrina on New Orleans in 2005. Morgan Stanley estimates that Harvey could cause between \$15bn and \$40bn of losses for insurers, and says that the market is pricing in a major hurricane hitting Miami that could cause another \$100bn of losses. Risk modelling companies estimate the insured losses from Irma to range from \$20bn to \$65bn. Economists point out that the impact of natural disasters tends to be fleeting and often more than counteracted by subsequent rebuilding efforts. Financial impact of the disaster situation could be at least temporarily spread to US rates. New York Fed president Bill Dudley indicated in a speech that he did not expect the hurricanes to affect the case for further monetary policy tightening. Nevertheless, the market-implied probability of another US interest rate increase this year is just 25 percent, down from more than 40 percent a month ago, which can be partially attributed to the hurricane situation.






The impact on commodities market considers mainly oil and energy and is expected as a short-term.

What about the impact on commodities? The analysts focus on oil and energy market, mainly because of the concentration of US petrochemical activity in the projected path of hurricanes. Other commodities should not see any significant shifts caused by this natural disaster. Goldman Sachs believes that although Irma will be a more powerful hurricane than Harvey with potentially greater destruction, the negative impact on oil demand will be smaller. This is because Texas, where Harvey hit, has twice the oil consumption per capita of Florida given the significant concentration of refining and petrochemical capacity on the US Gulf Coast. Combining the impacts of both hurricanes, the GS rough estimation is a negative demand hit in September of 900 kb/d, and 300 kb/d in October. However the history suggests that after a few months demand can rise to a level higher than would have been the case had there been no hurricane, which would translate into a positive demand shock. Sales of petrol in the south-east US is expected to rise spectacularly in the week before Irma's hit the coast, as many drivers will flee Florida and others may fill tanks in anticipation of shortages. When the storm blows through, fuel demand is expected to drop as residents take shelter indoors. Summing up, hurricane situations can sway some of the markets, but their negative impact is expected in a short term only.

Macroeconomic calendar

Important macroeconomic data releases

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
China 						
☉☉	27-Aug	Industrial profits (yoy)	Jul	16.5% ▼	19.1%	--
☉☉☉	31-Aug	Official manufacturing PMI	Aug	51.7 ▲	51.4	51.3 ▲
☉☉☉	01-Sep	Caixin's manufacturing PMI	Aug	51.6 ▲	51.1	51.0 ▲
Poland 						
☉	23-Aug	M3 money supply (yoy)	Jul	5.0% -	5.0%	5.0% ○
☉☉	24-Aug	Unemployment rate	Jul	7.1% -	7.1%	7.0% ▲
☉☉☉☉☉	31-Aug	GDP (yoy) - final data	2Q	3.9% -	3.9%	--
☉☉☉☉☉	31-Aug	GDP (qoq) - final data	2Q	1.1% -	1.1%	--
☉☉☉☉	31-Aug	Consumer inflation CPI (yoy) - preliminary data	Aug	1.8% ▲	1.7%	1.8% ○
☉☉☉	01-Sep	Manufacturing PMI	Aug	52.5 ▲	52.3	53.0 ▼
US 						
☉	22-Aug	Richmond Fed manufacturing index	Aug	14.0 -	14.0	10.0 ▲
☉☉☉	23-Aug	Composite PMI - preliminary data	Aug	56.0 ▲	54.6	--
☉☉☉	23-Aug	Manufacturing PMI - preliminary data	Aug	--	53.3	53.5
☉☉☉	23-Aug	PMI services - preliminary data	Aug	56.9 ▲	54.7	55.0 ▲
☉☉	25-Aug	Durable goods orders - preliminary data	Jul	-6.8% ▼	6.4%	-6.0% ▼
☉	28-Aug	Dallas Fed manufacturing activity	Aug	17.0 ▲	16.8	17.0 ○
☉	29-Aug	S&P/CaseShiller home price index‡	Jun	201 ▲	199	--
☉☉☉☉☉	30-Aug	GDP (annualized, qoq) -	2Q	3.0% ▲	2.6%	2.7% ▲
☉☉☉☉	31-Aug	Consumer spending inflation PCE (mom)	Jul	0.1% -	0.1%	0.1% ○
☉☉☉☉	31-Aug	Consumer spending inflation PCE (yoy)	Jul	1.4% ▼	1.5%	1.4% ○
☉☉	31-Aug	Personal income (sa, mom)	Jul	0.4% ▲	0.0%	0.3% ▲
☉☉	31-Aug	Personal spending (sa, mom)‡	Jul	0.3% ▲	0.2%	0.4% ▼
☉☉☉	01-Sep	Manufacturing PMI - final data	Aug	52.8 ▲	52.5	52.5 ▲
☉☉	01-Sep	Change in non-farm payrolls (ths)‡	Aug	156 ▼	189	180 ▼
☉☉	01-Sep	ISM Manufacturing	Aug	58.8 ▲	56.3	56.5 ▲
☉☉	01-Sep	Underemployment rate (U6)	Aug	8.6% -	8.6%	--
☉☉	01-Sep	Unemployment rate	Aug	4.4% ▲	4.3%	4.3% ▲
☉☉	01-Sep	University of Michigan confidence index - final data	Aug	96.8 ▼	97.6	97.5 ▼
☉	01-Sep	Average hourly earnings (yoy)	Aug	2.5% -	2.5%	2.6% ▼
Eurozone 						
☉	22-Aug	ZEW survey expectations	Aug	29.3 ▼	35.6	--
☉☉☉	23-Aug	Composite PMI - preliminary data	Aug	55.8 ▲	55.7	55.5 ▲
☉☉☉	23-Aug	Manufacturing PMI - preliminary data	Aug	--	56.6	56.3
☉☉☉	23-Aug	Services PMI - preliminary data	Aug	54.9 ▼	55.4	55.4 ▼
☉	23-Aug	Consumer confidence - estimation	Aug	-1.5 ▲	-1.7	-1.8 ▲
☉	28-Aug	M3 money supply (yoy)	Jul	4.5% ▼	5.0%	4.9% ▼
☉	30-Aug	Economic confidence‡	Aug	112 ▲	111	111 ▲
☉	30-Aug	Industrial confidence	Aug	5.1 ▲	4.5	4.7 ▲
☉	30-Aug	Consumer confidence - final data	Aug	-1.5 -	-1.5	-1.5 ○
☉	30-Aug	Business climate indicator‡	Aug	1.1 ▲	1.0	1.1 ▲
☉☉☉☉	31-Aug	Core CPI (yoy) - estimation	Aug	1.2% -	1.2%	1.2% ○
☉☉☉☉	31-Aug	CPI estimate (yoy)	Aug	1.5% ▲	1.3%	1.4% ▲
☉☉	31-Aug	Unemployment rate	Jul	9.1% -	9.1%	9.1% ○
☉☉☉	01-Sep	Manufacturing PMI - final data	Aug	57.4 -	57.4	57.4 ○

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
Germany 						
***	23-Aug	Composite PMI - preliminary data	Aug	55.7 ▲	54.7	54.7 ▲
***	23-Aug	Manufacturing PMI - preliminary data	Aug	--	58.1	57.6
*****	25-Aug	GDP (yoy) - final data	2Q	0.8% -	0.8%	0.8% ○
*****	25-Aug	GDP (sa, qoq) - final data	2Q	0.6% -	0.6%	0.6% ○
**	25-Aug	IFO business climate	Aug	116 ▼	116	116 ▲
**	25-Aug	Exports (qoq)‡	2Q	0.7% ▼	1.6%	1.2% ◡
**	29-Aug	GfK consumer confidence	Sep	10.9 ▲	10.8	10.8 ▲
****	30-Aug	Harmonized consumer inflation HICP (yoy) - preliminary data	Aug	1.8% ▲	1.5%	1.7% ▲
****	30-Aug	Consumer inflation CPI (yoy) - preliminary data	Aug	1.8% ▲	1.7%	1.8% ○
***	31-Aug	Retail sales (yoy)‡	Jul	2.7% ▲	2.6%	2.9% ◡
**	31-Aug	Unemployment rate	Aug	5.7% -	5.7%	5.7% ○
***	01-Sep	Manufacturing PMI - final data	Aug	59.3 ▼	59.4	59.4 ◡
France 						
***	23-Aug	Composite PMI - preliminary data	Aug	55.6 -	55.6	55.4 ▲
***	23-Aug	Manufacturing PMI - preliminary data	Aug	--	54.9	54.5
*****	29-Aug	GDP (yoy) - preliminary data	2Q	1.7% ▼	1.8%	1.8% ◡
*****	29-Aug	GDP (qoq) - preliminary data	2Q	0.5% -	0.5%	0.5% ○
****	31-Aug	Harmonized consumer inflation HICP (yoy) - preliminary data	Aug	1.0% ▲	0.8%	1.0% ○
****	31-Aug	Consumer inflation CPI (yoy) - preliminary data	Aug	0.9% ▲	0.7%	0.9% ○
***	01-Sep	Manufacturing PMI - final data	Aug	55.8 -	55.8	55.8 ○
Italy 						
****	31-Aug	Harmonized consumer inflation HICP (yoy) - preliminary data	Aug	1.4% ▲	1.2%	1.3% ▲
**	31-Aug	Unemployment rate - preliminary data‡	Jul	11.3% ▲	11.2%	11.1% ▲
*****	01-Sep	GDP (wda, yoy) - final data	2Q	1.5% -	1.5%	1.5% ○
*****	01-Sep	GDP (wda, qoq) - final data	2Q	0.4% -	0.4%	0.4% ○
***	01-Sep	Manufacturing PMI	Aug	56.3 ▲	55.1	55.3 ▲
UK 						
*****	24-Aug	GDP (yoy) - preliminary data	2Q	1.7% -	1.7%	1.7% ○
*****	24-Aug	GDP (qoq) - preliminary data	2Q	0.3% -	0.3%	0.3% ○
***	01-Sep	Manufacturing PMI (sa)‡	Aug	56.9 ▲	55.3	55.0 ▲
Japan 						
***	23-Aug	Manufacturing PMI - preliminary data	Aug	--	52.1	--
****	25-Aug	Consumer inflation CPI (yoy)	Jul	0.4% -	0.4%	0.4% ○
****	31-Aug	Industrial production (yoy) - preliminary data	Jul	4.7% ▼	5.5%	5.2% ◡
***	01-Sep	Manufacturing PMI - final data	Aug	52.2 ▼	52.8	--

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

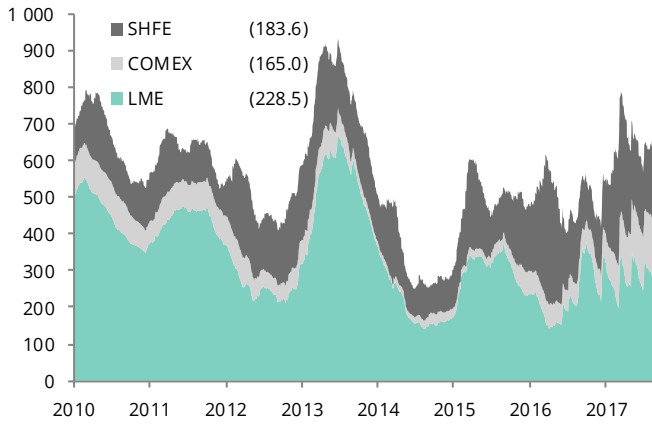
Key base & precious metal prices, exchange rates and other important market factors

<i>(as of: 01-Sep-17)</i>		Price change °					From year beginning ²		
	Price	2W	QTD	YTD	1Y	Average	Min	Max	
LME (USD/t)									
Copper	6 776.00	▲ 5.0%	▲ 14.7%	▲ 23.2%	▲ 46.7%	5 878.26	5 466.00	6 797.00	
Molybdenum	16 000.00	- 0.0%	- 0.0%	▲ 4.9%	▼ -3.0%	15 856.51	15 250.00	17 500.00	
Nickel	12 005.00	▲ 11.9%	▲ 29.4%	▲ 19.9%	▲ 23.1%	9 881.63	8 715.00	12 005.00	
Aluminum	2 113.50	▲ 0.4%	▲ 10.7%	▲ 23.3%	▲ 33.2%	1 903.49	1 701.00	2 113.50	
Tin	21 000.00	▲ 3.1%	▲ 4.0%	▼ -0.5%	▲ 9.7%	20 113.05	18 760.00	21 300.00	
Zinc	3 147.00	▲ 1.0%	▲ 14.3%	▲ 22.8%	▲ 35.1%	2 742.77	2 434.50	3 147.00	
Lead	2 369.00	▼ -0.8%	▲ 4.2%	▲ 19.3%	▲ 23.8%	2 245.10	2 007.00	2 457.00	
LBMA (USD/troz)									
Silver	17.50	▲ 2.0%	▲ 6.3%	▲ 7.8%	▼ -6.2%	17.12	15.22	18.56	
Gold ¹	1 320.40	▲ 1.9%	▲ 6.3%	▲ 13.9%	▲ 0.8%	1 243.74	1 151.00	1 320.40	
LPPM (USD/troz)									
Platinum ¹	999.00	▲ 1.4%	▲ 8.4%	▲ 10.1%	▼ -4.2%	956.46	891.00	1 033.00	
Palladium ¹	946.00	▲ 1.5%	▲ 12.5%	▲ 39.9%	▲ 42.0%	817.36	706.00	946.00	
FX ³									
EURUSD	1.1920	▲ 1.5%	▲ 4.5%	▲ 13.1%	▲ 6.9%	1.1054	1.0385	1.2048	
EURPLN	4.2457	▼ -0.9%	▲ 0.5%	▼ -4.0%	▼ -2.6%	4.2647	4.1737	4.4002	
USDPLN	3.5693	▼ -2.1%	▼ -3.7%	▼ -14.6%	▼ -8.8%	3.8662	3.5372	4.2271	
USDCAD	1.2390	▼ -1.6%	▼ -4.5%	-	-	1.3164	1.2390	1.3743	
USDCNY	6.5584	▼ -1.7%	▼ -3.3%	▼ -5.6%	▼ -1.7%	6.8301	6.5584	6.9640	
USDCLP	628.89	▼ -2.5%	▼ -5.2%	▼ -5.8%	▼ -7.3%	657.51	626.68	679.05	
Money market									
3m LIBOR USD	1.316	▲ 0.00	▲ 0.02	▲ 0.32	▲ 0.48	1.182	0.999	1.318	
3m EURIBOR	-0.329	- 0.00	▲ 0.00	▼ -0.01	▼ -0.03	-0.329	-0.332	-0.319	
3m WIBOR	1.730	- 0.00	- 0.00	- 0.00	▲ 0.02	1.730	1.730	1.730	
5y USD interest rate swap	1.798	▼ -0.03	▼ -0.16	▼ -0.18	▲ 0.59	1.942	1.759	2.239	
5y EUR interest rate swap	0.168	▼ -0.04	▼ -0.12	▲ 0.09	▲ 0.29	0.191	0.078	0.326	
5y PLN interest rate swap	2.313	▼ 0.00	▼ -0.05	▼ -0.09	▲ 0.49	2.404	2.165	2.625	
Fuel									
WTI Cushing	47.29	▼ -2.5%	▲ 2.7%	▼ -12.0%	▲ 9.6%	49.24	42.31	54.10	
Brent	52.41	▼ -0.1%	▲ 8.7%	▼ -5.4%	▲ 16.1%	51.57	44.21	56.46	
Diesel NY (ULSD)	177.05	▲ 10.1%	▲ 19.8%	▲ 4.3%	▲ 29.4%	155.46	135.85	178.19	
Others									
VIX	10.13	▼ -4.13	▼ -1.05	▼ -3.91	▼ -3.35	11.45	9.36	16.04	
BBG Commodity Index	84.98	▲ 2.1%	▲ 2.9%	▼ -2.9%	▲ 3.5%	84.59	79.36	89.36	
S&P500	2 476.55	▲ 2.1%	▲ 2.2%	▲ 10.6%	▲ 14.1%	2 386.58	2 257.83	2 480.91	
DAX	12 142.64	▼ -0.2%	▼ -1.5%	▲ 5.8%	▲ 15.3%	12 198.39	11 509.84	12 888.95	
Shanghai Composite	3 367.12	▲ 3.0%	▲ 5.5%	▲ 8.5%	▲ 9.9%	3 197.43	3 052.79	3 367.12	
WIG 20	2 527.62	▲ 7.1%	▲ 9.9%	▲ 29.8%	▲ 43.5%	2 267.09	1 989.64	2 531.31	
KGHM	127.10	▲ 7.1%	▲ 14.9%	▲ 37.4%	▲ 77.1%	118.41	94.00	135.50	

° 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

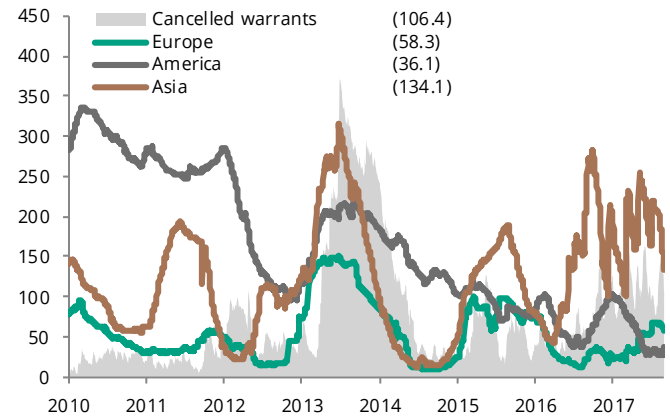
Source: Bloomberg, KGHM

Copper: official exchange stocks (thousand tonnes)



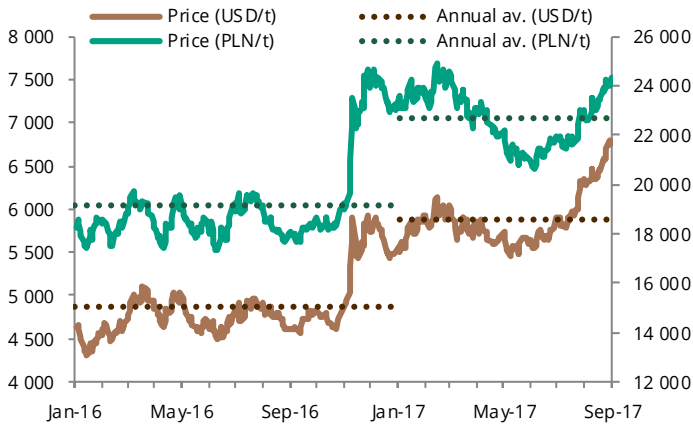
Note: Latest values in brackets. Source: Bloomberg, KGHM

Copper: official LME stocks (thousand tonnes)



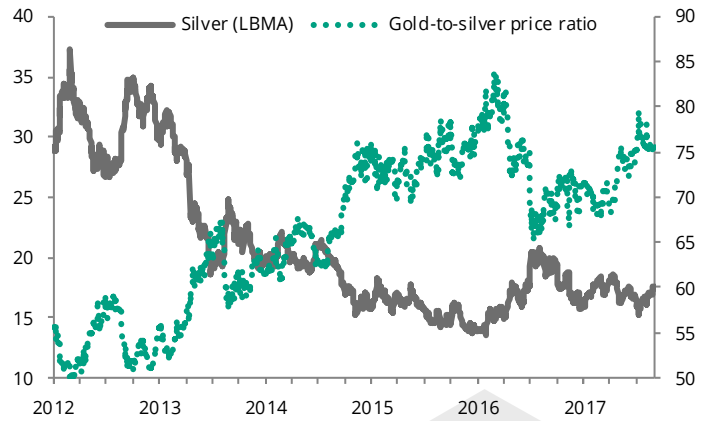
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



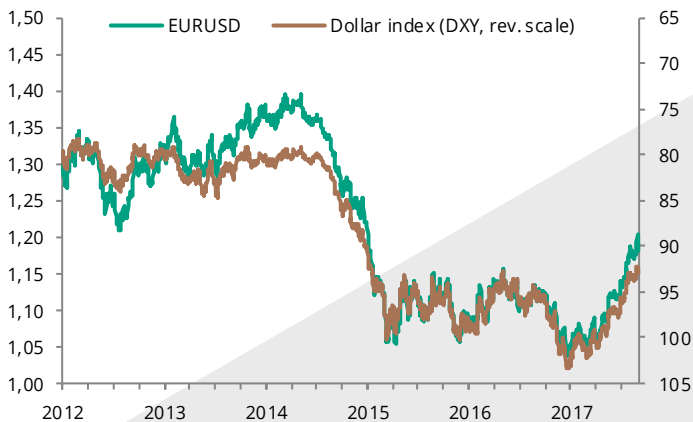
Source: Bloomberg, KGHM Polska Miedź

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



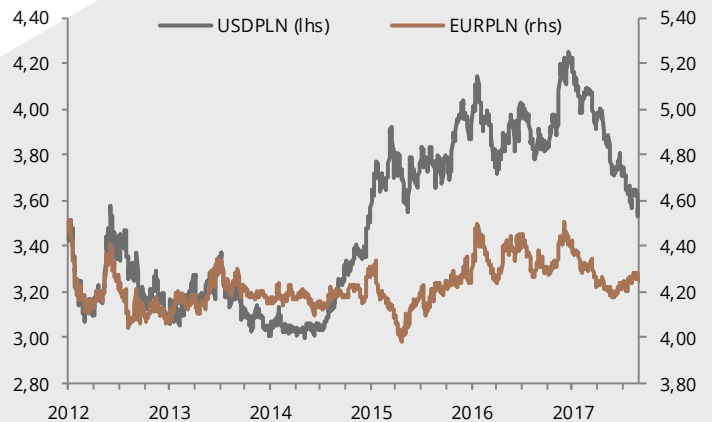
Source: Bloomberg, KGHM Polska Miedź

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



Source: Bloomberg, KGHM Polska Miedź

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



Source: Bloomberg, KGHM Polska Miedź

Legal note

This document has been prepared based on the below listed reports, among others, published in the following period:
21st August – 3rd September 2017.

- 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.

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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