

# Market Overview

as of: 19<sup>th</sup> September 2016






- **Copper:** After falling down nearly to the bottom of the 2016 range (4600 USD/t), copper price has bounced back again and traded higher, towards 4800 USD/t. For some market participants the price looked very much immune to the positioning headwinds as shorts have been built heavily in the last weeks both in Comex as well as LME (*page 2*).
- **Physical metals trading:** The Federal Reserve Board recommended that Congress should limit Wall Street's ability to own physical commodities and engage in other aspects of merchant banking because of possible risks to the financial system (*page 3*).
- **Precious metals:** After September FOMC meeting investors are mostly interested in the outcome of US elections. The issue of rate hikes seems to be put on hold until December. (*page 3*).

## Key market prices

	Close price	2w chng.
<b>LME (USD/t)</b>		
▲ Copper	4 733.50	2.7%
▼ Nickel	9 650.00	-2.3%
<b>LBMA (USD/troz)</b>		
▲ Silver	18.91	0.9%
▼ Gold (PM)	1 308.35	-1.2%
<b>FX</b>		
▲ EUR/USD	1.1226	0.3%
▼ EUR/PLN	4.3244	-1.3%
▼ USD/PLN	3.8497	-1.7%
▲ USD/CAD	1.3213	1.6%
▼ USD/CLP	671.36	-1.3%
<b>Stocks</b>		
▼ KGHM	70.20	-4.0%

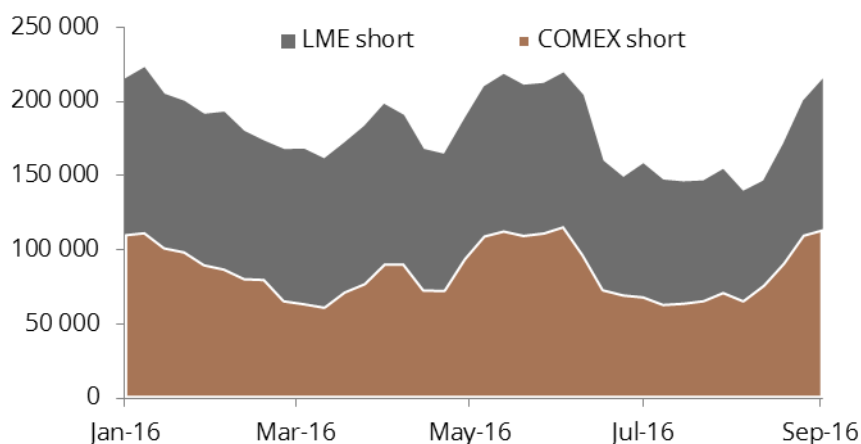
Source: Bloomberg, KGHM Polska Miedź; (*more on page 7*)

## Important macroeconomic data

Release	For	
 Industrial prod. (yoy)	Aug	6.3% ▲
 FAI (ytd, yoy)	Aug	8.1% -
 Industrial prod. (mom)	Aug	-0.4% ▼
 Industr. prod. (wda, yoy)	Jul	-0.5% ▼
 Composite PMI	Aug	53.6 ▲

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

## Shorts (number of futures and options contracts) have gained much in the recent weeks on the copper market



Source: Bloomberg, KGHM Polska Miedź

## Market Risk Unit

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## Base and precious metals | Other commodities

### Copper

**After falling down nearly to the bottom of the 2016 range (4600 USD/t), copper price has bounced back again and traded higher, towards 4800 USD/t. For some market participants the price looked very much immune to the positioning headwinds as shorts have been built heavily in the last weeks both in Comex as well as LME.**

#### Important information on copper market:

- According to Metal Bulletin, LME volumes continued to fall in August, dropping 17.7% year-on-year with declines reported in average daily volumes (ADVs) for all metals. Metals market participants claim that the trend towards a decline had been exacerbated by the seasonally quieter holiday period as well as by the forced move of the open outcry trading floor to a disaster recovery site in Essex following structural issues at the new City of London premises. Total average daily volumes were 553,531 lots, with aluminium the most traded contract. Copper saw its ADV drop by 15.3% year-on-year to 136,606 lots in August. LMEminis, molybdenum and steel billet did not trade.
- Finance Minister Rodrigo Valdes has recently told lawmakers that the Chilean government is prepared to continue investing troubled copper producer Codelco as long as the company continues to reduce costs. As a consequence of a sharp drop in copper prices over the last 18 months, the state-owned mining company is struggling to keep up overdue investments at its largest mines. Unless the government delivers promised 4 bn USD, Codelco's production could fall by half within a decade. Last year, Chilean mining giant produced 1.732 million mt of copper, confirming its position as the world's largest producer of the metal. However, a fall in the copper price to around 2 USD/lb has limited the amount of funds available. Codelco posted a loss of 97 million USD for the first six months of the year, its first half yearly loss in its forty-year history. Last year, CEO Nelson Pizarro reduced spending at Codelco by more than 1 billion USD, aided by lower oil prices and stronger dollar. However, prices rose 7% during the first six months of the year to \$2.10/lb as the Chilean Peso recovered against the dollar. That means Codelco could face more losses if copper prices continue at current level. The government would announce its decision on how much capital to provide Codelco in November as it continues to discuss the company's requirements with the board.

## Physical metals trading

**The Federal Reserve Board recommended that Congress should limit Wall Street's ability to own physical commodities and engage in other aspects of merchant banking because of possible risks to the financial system.**

### Fed to limit Wall Street Merchant Banking

According to Reuters, the Federal Reserve asked the Congress to repeal permission granted in 1999 for Goldman Sachs Group Inc and Morgan Stanley to conduct activities like storing and transporting physical commodities that other banks cannot do. Some of the Fed members (like Daniel Tarullo) expressed their concerns about the commodity exemptions. The Fed said that existing rules allowing commodity investments raise safety and soundness concerns as well as competitive issues. Wall Street firms have been scaling back riskier parts of their commodities businesses in recent years due to public and political scrutiny over the role of banks in raw materials markets.

Last November, Morgan Stanley completed the sale of its physical oil business to commodity trading firm Castleton Commodities. In 2014, the bank sold its controlling stake in oil storage business TransMontaigne to NGL Energy Partners LP. In December 2014, Goldman sold its controversial Metro metals warehousing unit to Swiss private equity group Reuben Brothers.

A number of banking trade organizations, including the Clearing House, the American Bankers Association, SIFMA, Financial Services Roundtable and the Financial Services Forum, called the recommendations "unfortunate and ill-considered". They said regulators had not provided a cost-benefit analysis or justification for the changes.

Ability to own physical commodities by merchant banks might soon be over

"Unfortunate and ill-considered"

## Precious metals

**After September FOMC meeting investors are mostly interested in the outcome of US elections. The issue of rate hikes seems to be put on hold until December.**

### Anglo American Platinum tries to stimulate platinum demand fundamentals

Anglo American Platinum (Amplats) had invested in a small-scale gas-to-liquids technology company, which produces hydrogen as a by-product. The investment into Greyrock Energy is part of a strategy aimed at driving demand for platinum group metals (PGM) directly and indirectly through enabling the adoption of fuel cell electric vehicles, which require platinum-based catalysts. This investment forms part of Amplats' PGM investment program, which provides growth capital to companies that can demonstrate the commercial viability of products or technologies that use or enable the use of the

Specially dedicated program

company's metals. Greyrock's direct fuel production process converts flare gas, natural gas or natural gas liquids into pump-ready transportation fuels and environmentally beneficial blend stocks.

### India plans a major tax increase on gold and other precious metals

The Indian government plans a proposal that includes a major increase in the tax on gold and other precious metals so as to give the GST (Goods and Services Tax) Council leeway to keep the proposed nationwide tax below 20%, reports The Hindu as quoted by Gem Konnect. The proposal is based on the recommendations of last year's panel headed by Chief Economic Advisor Arvind Subramanian. The panel had suggested taxing gold and other precious metals at rates ranging between 2%-6%. Precious metals are currently taxed at between 1%-1.6%. Meanwhile, about 70% of goods and services get taxed at an average rate of 27% by state governments. To protect their revenues, states have sought that the proposed standard GST rate be fixed at 20%.





#### Precious metals taxed at 1%-1.6%

### Lower gold exports from Switzerland

Gold exports from Switzerland totaled 160 mt in August, down 7% from 172 mt a year earlier, Swiss federal customs data showed Tuesday. The figure is 17% lower than 192 mt in July, the largest flow out of the country this year. August is also the lowest monthly export total since April. The world's largest refiner and exporter of gold, total exports from Switzerland now stand at 1,197 mt for the year to date, up 3% from 1,160 mt in the same period of 2015. In a marked change from the traditional flow of physical gold from west to east, the UK continues to be the largest destination for Switzerland's gold this year at 84.6 mt in August, up 6% from July.

## Macroeconomic calendar

### Important macroeconomic data releases

Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>	
<b>China</b>							
⊕	07-Sep	Foreign reserves (USD bn)	Aug	3 185 ▼	3 201	3 190	☹
⊕⊕	08-Sep	Trade balance (USD bn)	Aug	52.1 ▼	52.3	58.9	☹
⊕⊕	08-Sep	Exports (yoy)	Aug	-2.8% ▲	-4.4%	-4.0%	☺
⊕⊕⊕⊕	09-Sep	Consumer inflation CPI (yoy)	Aug	1.3% ▼	1.8%	1.7%	☹
⊕⊕	09-Sep	Producer inflation PPI (yoy)	Aug	-0.8% ▲	-1.7%	-0.9%	☺
⊕⊕⊕⊕	13-Sep	Industrial production (yoy)	Aug	6.3% ▲	6.0%	6.2%	☺
⊕⊕	13-Sep	Fixed assets investments (ytd, yoy)	Aug	8.1% -	8.1%	7.9%	☺
⊕	13-Sep	Retail sales (yoy)	Aug	10.6% ▲	10.2%	10.2%	☺
⊕	14-Sep	New yuan loans (CNY bn)	Aug	949 ▲	464	750	☺
<b>Poland</b>							
⊕⊕⊕⊕⊕	07-Sep	NBP base rate decision	Sep	1.50% -	1.50%	1.50%	⊖
⊕⊕⊕⊕⊕	12-Sep	Consumer inflation CPI (yoy) - final data	Aug	-0.8% -	-0.8%	--	⊖
⊕⊕⊕⊕⊕	13-Sep	Core CPI (excluding food and energy, yoy)	Aug	-0.4% -	-0.4%	-0.4%	⊖
⊕⊕	13-Sep	Trade balance (EUR mn)	Jul	- 313 ▼	404	- 52.0	☹
⊕⊕	13-Sep	Exports (EUR mn)	Jul	13 519 ▼	15 218	13 780	☹
⊕⊕	13-Sep	Current account balance (EUR mn)	Jul	- 802 ▼	- 203	- 438	☹
⊕	14-Sep	M3 money supply (yoy)	Aug	10.0% ▼	10.7%	10.7%	☹
⊕⊕	16-Sep	Average gross salary (yoy)	Aug	4.7% ▼	4.8%	5.0%	☹
⊕	16-Sep	Employment (yoy)	Aug	3.1% ▼	3.2%	3.2%	☹
<b>US</b>							
⊕⊕⊕⊕	15-Sep	Industrial production (mom)‡	Aug	-0.4% ▼	0.6%	-0.2%	☹
⊕⊕	15-Sep	Philadelphia Fed business outlook	Sep	12.8 ▲	2.0	1.0	☺
⊕⊕	15-Sep	Retail sales (excluding autos, mom)‡	Aug	-0.1% ▲	-0.4%	0.2%	☹
⊕	15-Sep	Capacity utilization	Aug	75.5% ▼	75.9%	75.7%	☹
⊕⊕⊕⊕	16-Sep	Consumer inflation CPI (mom)	Aug	0.2% ▲	0.0%	0.1%	☺
⊕⊕⊕⊕	16-Sep	Consumer inflation CPI (yoy)	Aug	1.1% ▲	0.8%	1.0%	☺
⊕⊕	16-Sep	University of Michigan confidence index - preliminary data	Sep	89.8 -	89.8	90.6	☹
<b>Eurozone</b>							
⊕⊕⊕	05-Sep	Composite PMI - final data	Aug	52.9 ▼	53.3	53.3	☹
⊕⊕⊕	05-Sep	Services PMI - final data	Aug	52.8 ▼	53.1	53.1	☹
⊕⊕	05-Sep	Retail sales (yoy)‡	Jul	2.9% ▲	1.7%	1.8%	☺
⊕⊕⊕⊕⊕	06-Sep	GDP (sa, yoy) - final data	2Q	1.6% -	1.6%	1.6%	⊖
⊕⊕⊕⊕⊕	06-Sep	GDP (sa, qoq) - final data	2Q	0.3% -	0.3%	0.3%	⊖
⊕⊕⊕	06-Sep	Gross fixed capital (qoq)‡	2Q	0.0% ▼	0.4%	-0.1%	☺
⊕⊕⊕	06-Sep	Households consumption (qoq)	2Q	0.2% ▼	0.6%	0.3%	☹
⊕⊕⊕⊕⊕	08-Sep	ECB main refinancing rate	Sep	0.00% -	0.00%	0.00%	⊖
⊕⊕⊕⊕⊕	08-Sep	ECB deposit facility rate	Sep	-0.4% -	-0.4%	-0.4%	⊖
⊕	13-Sep	ZEW survey expectations	Sep	5.4 ▲	4.6	--	☺
⊕⊕⊕⊕	14-Sep	Industrial production (sa, mom)‡	Jul	-1.1% ▼	0.8%	-1.0%	☹
⊕⊕⊕⊕	14-Sep	Industrial production (wda, yoy)‡	Jul	-0.5% ▼	0.7%	-0.8%	☺
⊕⊕⊕⊕	15-Sep	Consumer inflation CPI (yoy) - final data	Aug	0.2% -	0.2%	0.2%	⊖
⊕⊕⊕⊕	15-Sep	Core CPI (yoy) - final data	Aug	0.8% -	0.8%	0.8%	⊖
⊕	15-Sep	Trade balance (EUR mn)	Jul	25.3 ▼	29.2	29.6	☹
⊕⊕	16-Sep	Labour costs (yoy)‡	2Q	1.0% ▼	1.6%	--	☹

Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>	
<b>Germany</b>							
☆☆☆	05-Sep	Composite PMI - final data	Aug	53.3 ▼	54.4	54.4	☹
☆☆☆	06-Sep	Factory orders (wda, yoy)‡	Jul	-0.7% ▲	-3.0%	-0.2%	☹
☆☆☆☆	07-Sep	Industrial production (wda, yoy)‡	Jul	-1.2% ▼	0.9%	0.2%	☹
☆☆☆☆	13-Sep	Harmonized consumer inflation HICP (yoy) - final data	Aug	0.3% -	0.3%	0.3%	⊙
☆☆☆☆	13-Sep	Consumer inflation CPI (yoy) - final data	Aug	0.4% -	0.4%	0.4%	⊙
<b>France</b>							
☆☆☆	05-Sep	Composite PMI - final data	Aug	51.9 ▲	51.6	51.6	☺
☆☆☆☆	09-Sep	Industrial production (yoy)‡	Jul	-0.1% ▲	-1.1%	1.0%	☹
☆☆☆☆	14-Sep	Harmonized consumer inflation HICP (yoy) - final data	Aug	0.4% -	0.4%	0.4%	⊙
☆☆☆☆	14-Sep	Consumer inflation CPI (yoy) - final data	Aug	0.2% -	0.2%	0.2%	⊙
<b>Italy</b>							
☆☆☆	05-Sep	Composite PMI	Aug	51.9 ▼	52.2	52.0	☹
☆☆☆☆	13-Sep	Industrial production (wda, yoy)‡	Jul	-0.3% ▲	-0.9%	-0.9%	☺
☆☆☆☆	14-Sep	Harmonized consumer inflation HICP (yoy) - final data	Aug	-0.1% ▼	0.0%	0.0%	☹
<b>UK</b>							
☆☆☆	05-Sep	Composite PMI‡	Aug	53.6 ▲	47.6	50.8	☺
☆☆☆☆	07-Sep	Industrial production (yoy)‡	Jul	2.1% ▲	1.4%	1.9%	☺
☆☆☆☆	13-Sep	Consumer inflation CPI (yoy)	Aug	0.6% -	0.6%	0.7%	☹
☆☆	14-Sep	Unemployment rate (ILO, 3-months)	Jul	4.9% -	4.9%	4.9%	⊙
☆☆☆☆☆	15-Sep	BoE base rate decision	Sep	0.25% -	0.25%	0.25%	⊙
☆☆☆☆	15-Sep	BoE asset purchase target (GBP bn)	Sep	435 -	435	435	⊙
<b>Japan</b>							
☆☆☆	05-Sep	Composite PMI	Aug	49.8 ▼	50.1	--	
☆☆☆☆☆	08-Sep	GDP (annualized, qoq) - final data	2Q	0.7% ▲	0.2%	0.2%	☺
☆☆☆☆☆	08-Sep	GDP (qoq, sa) - final data	2Q	0.2% ▲	0.0%	0.0%	☺
☆☆☆☆	14-Sep	Industrial production (yoy) - final data	Jul	-4.2% ▼	-3.8%	--	
<b>Chile</b>							
☆☆☆☆	05-Sep	Economic activity (yoy)‡	Jul	0.5% ▼	1.0%	0.9%	☹
☆☆☆	07-Sep	Copper exports (USD mn)	Aug	2 082 ▼	2 112	--	
☆☆	07-Sep	Nominal wages (yoy)	Jul	4.9% ▼	5.5%	5.3%	☹
☆☆☆☆	08-Sep	Consumer inflation CPI (yoy)	Aug	3.4% ▼	4.0%	3.4%	⊙
☆☆☆☆☆	15-Sep	BCCh overnight rate target	Sep	3.50% -	3.50%	3.50%	⊙
<b>Canada</b>							
☆☆☆☆☆	07-Sep	BoC base rate decision	Sep	0.50% -	0.50%	0.50%	⊙
☆☆☆	08-Sep	Capacity utilization‡	2Q	80.0% ▼	81.4%	79.6%	☺
☆☆☆	09-Sep	Net change in employment (ths)	Aug	26.2 ▲	-31.2	14.0	☺

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

<sup>2</sup> 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

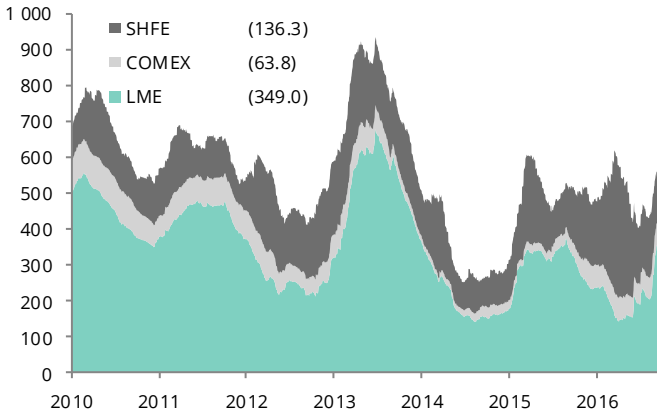
(as of: 16-Sep-16)

	Price	Price change °					From year beginning ²		
		2W	QTD	YTD	1Y	Average	Min	Max	
<b>LME (USD/t)</b>									
Copper	4 733.50	▲ 2.7%	▼ -1.9%	▲ 0.7%	▼ -11.8%	4 721.84	4 310.50	5 103.00	
Molybdenum	16 250.00	▼ -1.5%	▼ -4.4%	▲ 35.4%	▲ 29.0%	14 111.39	11 750.00	17 000.00	
Nickel	9 650.00	▼ -2.3%	▲ 2.5%	▲ 11.4%	▼ -2.4%	9 142.11	7 710.00	10 900.00	
Aluminum	1 560.00	▼ -2.0%	▼ -4.6%	▲ 3.5%	▼ -2.9%	1 567.42	1 453.00	1 690.50	
Tin	19 125.00	▼ -0.9%	▲ 12.1%	▲ 31.0%	▲ 22.6%	16 894.25	13 235.00	19 900.00	
Zinc	2 203.00	▼ -6.2%	▲ 4.8%	▲ 37.7%	▲ 30.0%	1 935.98	1 453.50	2 363.50	
Lead	1 936.00	▼ -0.2%	▲ 8.8%	▲ 7.4%	▲ 13.8%	1 768.96	1 597.00	1 959.00	
<b>LBMA (USD/troz)</b>									
Silver	18.91	▲ 0.9%	▲ 3.0%	▲ 36.8%	▲ 28.1%	16.99	13.58	20.71	
Gold ¹	1 308.35	▼ -1.2%	▼ -0.9%	▲ 23.2%	▲ 17.1%	1 256.51	1 077.00	1 366.25	
<b>LPPM (USD/troz)</b>									
Platinum ¹	1 012.00	▼ -3.8%	▲ 1.3%	▲ 16.1%	▲ 5.4%	1 000.86	814.00	1 182.00	
Palladium ¹	656.00	▼ -2.1%	▲ 11.4%	▲ 19.9%	▲ 9.0%	585.06	470.00	730.00	
<b>FX ³</b>									
EUR/USD	1.1226	▲ 0.3%	▲ 1.1%	▲ 3.1%	▼ -0.8%	1.1159	1.0742	1.1569	
EUR/PLN	4.3244	▼ -1.3%	▼ -2.3%	▲ 1.5%	▲ 2.8%	4.3621	4.2355	4.4987	
USD/PLN	3.8497	▼ -1.7%	▼ -3.3%	▼ -1.3%	▲ 3.7%	3.9094	3.7193	4.1475	
USD/CAD	1.3213	▲ 1.6%	▲ 1.6%	▼ -4.5%	▲ 0.2%	1.3221	1.2544	1.4589	
USD/CNY	6.6747	▼ -0.1%	▲ 0.4%	▲ 2.8%	▲ 4.9%	6.5770	6.4536	6.7045	
USD/CLP	671.36	▼ -1.3%	▲ 1.5%	▼ -5.5%	▼ -1.3%	681.17	645.22	730.31	
<b>Money market</b>									
3m LIBOR USD	0.857	▲ 0.02	▲ 0.20	▲ 0.24	▲ 0.51	0.677	0.612	0.857	
3m EURIBOR	-0.301	-	0.00	▼ -0.02	▼ -0.17	▼ -0.26	-0.304	-0.132	
3m WIBOR	1.710	-	0.00	-	0.00	▼ -0.01	▼ -0.01	1.691	
5y USD interest rate swap	1.220	▲ 0.01	▲ 0.24	▼ -0.52	▼ -0.32	1.216	0.928	1.709	
5y EUR interest rate swap	-0.116	▲ 0.01	▼ -0.06	▼ -0.45	▼ -0.51	-0.009	-0.183	0.309	
5y PLN interest rate swap	1.960	▲ 0.10	▲ 0.17	▼ -0.03	▼ -0.15	1.867	1.735	2.118	
<b>Fuel</b>									
WTI Cushing	43.03	▼ -3.2%	▼ -11.0%	▲ 16.2%	▼ -8.3%	41.16	26.21	51.23	
Brent	44.93	▼ -2.0%	▼ -7.2%	▲ 25.7%	▼ -5.6%	41.95	26.39	51.33	
Diesel NY (ULSD)	138.63	▼ -0.5%	▼ -6.0%	▲ 28.9%	▼ -7.4%	127.95	86.44	156.18	
<b>Others</b>									
VIX	15.37	▲ 3.39	▼ -0.26	▼ -2.84	▼ -5.77	16.56	11.34	28.14	
BBG Commodity Index	83.24	▲ 0.3%	▼ -6.3%	▲ 6.0%	▼ -6.5%	82.00	72.88	89.94	
S&P500	2 139.16	▼ -1.9%	▲ 1.9%	▲ 4.7%	▲ 7.5%	2 059.35	1 829.08	2 190.15	
DAX	10 276.17	▼ -3.8%	▲ 6.2%	▼ -4.3%	▲ 0.5%	9 968.01	8 752.87	10 752.98	
Shanghai Composite	3 002.85	▼ -2.1%	▲ 2.5%	▼ -15.2%	▼ -2.7%	2 952.14	2 655.66	3 361.84	
WIG 20	1 734.26	▼ -1.9%	▼ -0.9%	▼ -6.7%	▼ -21.2%	1 818.43	1 674.57	1 999.93	
KGHM	70.20	▼ -4.0%	▲ 6.4%	▲ 10.6%	▼ -22.0%	68.18	52.29	80.20	

° 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

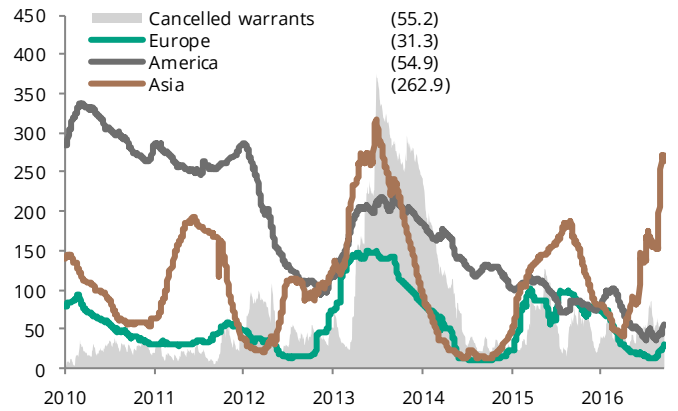
Source: Bloomberg, KGHM

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



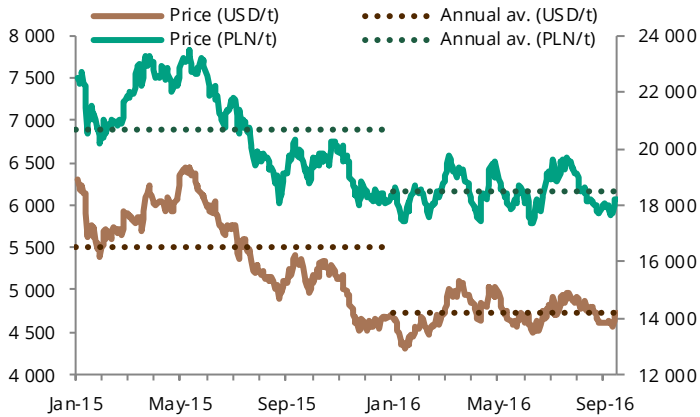
Note: Latest values in brackets. Source: Bloomberg, KGHM

**Copper: official LME stocks (thousand tonnes)**



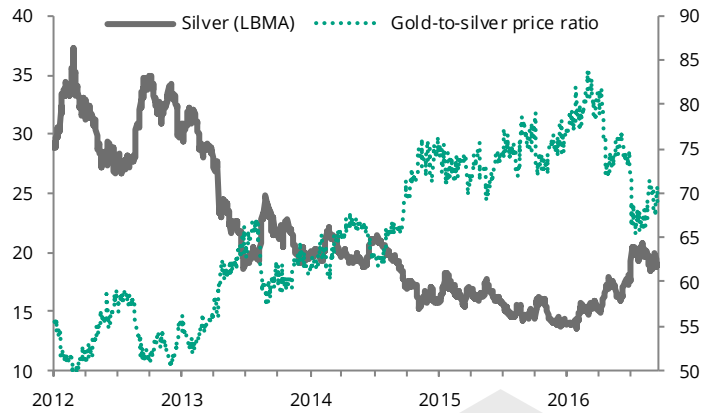
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



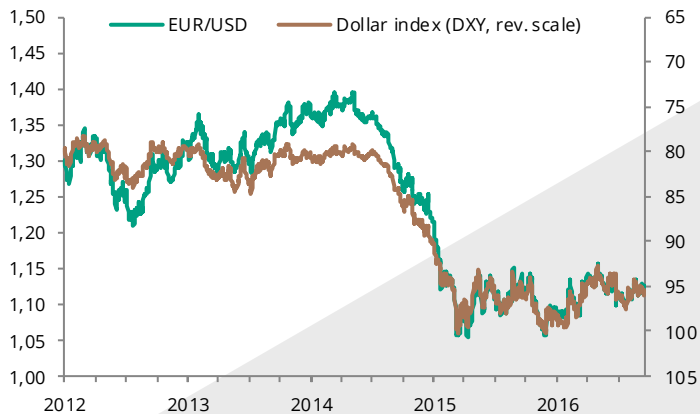
Source: Bloomberg, KGHM

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



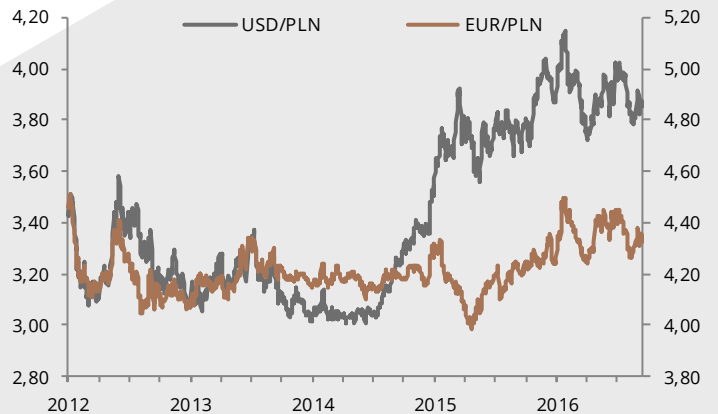
Source: Bloomberg, KGHM

**USD: dollar index (lhs) and ECB-based EUR/USD (rhs)**



Source: Bloomberg, KGHM

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



Source: Bloomberg, KGHM



## Legal note

This document has been prepared based on the below listed reports, among others, published in the following period:  
**5<sup>th</sup> – 18<sup>th</sup> September 2016.**

- 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, ▪ SNL Metals & Mining.

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, a także systemów: Bloomberg oraz Thomson Reuters.

Official metals prices are available on following websites:

- base metals: [www.lme.com/dataprices\\_products.asp](http://www.lme.com/dataprices_products.asp) (charge-free logging)
- silver and gold: [www.lbma.org.uk/pricing-and-statistics](http://www.lbma.org.uk/pricing-and-statistics)
- platinum and palladium: [www.lppm.com/statistics.aspx](http://www.lppm.com/statistics.aspx)

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