

# Market Overview

as of: 26<sup>th</sup> August 2019

- **Copper:** Antofagasta Plc said that in order to offset the impact of lower copper prices it cut net cash costs by 22% year-on-year in the first half of 2019 to \$1.19 per pound. (*page 2*).
- **Precious metals:** China's central bank began to issue quotas again last week, but for lower amounts of gold than considered normal (*page 3*).
- **China:** China says it would impose additional tariffs of 5% or 10% on an over 5 000 products originating from the United States (*page 4*).
- **USA:** Powell's acknowledgment of economic risks and then Donald Trump tweeting that he'll respond soon to new Chinese tariffs spurred markets expectation for Fed rate cuts (*page 4*).

## Key market prices

	Close price	2w chng.
<b>LME (USD/t)</b>		
▼ Copper	5 675.00	-0.9%
▲ Nickel	15 755.00	0.8%
<b>LBMA (USD/troz)</b>		
▲ Silver	17.05	0.6%
▼ Gold (PM)	1 503.80	-0.1%
<b>FX</b>		
▼ EURUSD	1.1065	-1.2%
▲ EURPLN	4.3572	0.7%
▲ USDPLN	3.9371	1.7%
▲ USDCAD	1.3310	0.6%
▲ USDCLP	713.22	0.2%
<b>Stocks</b>		
▼ KGHM	75.64	-4.6%

Source: Bloomberg, KGHM Polska Miedź; (*more on page 8*)

## Important macroeconomic data

Release	For		
 Industrial prod. (yoy)	Jul	4.8%	▼
 GDP (yoy)	2Q	4.4%	▼
 CPI (yoy)	Jul	1.8%	▲
 GDP (sa, yoy)	2Q	1.1%	-
 GDP (yoy)	2Q	1.9%	▲

Source: Bloomberg, KGHM Polska Miedź; (*more on page 6*)

## Silver price increases mainly due to short covering on COMEX as well as new ETF inflows



Source: Bloomberg, KGHM Polska Miedź

## Market Risk Unit

marketrisk@kgm.com

## Base and precious metals | Other commodities

### Copper

**Antofagasta Plc said that in order to offset the impact of lower copper prices it cut net cash costs by 22% year-on-year in the first half of 2019 to \$1.19 per pound.**

#### Antofagasta Cuts Costs To Beat Copper Price Fall

According to Reuters, Chilean miner Antofagasta Plc delivered slightly better than expected half-year profit as it reined in costs to cope with lower copper prices. The copper producer posted core earnings of \$1.31 billion, up 44% on the year and just beating analysts' average forecast of \$1.29 billion as costs came in slightly lower than expected. The company said it was striving to offset the impact of lower copper prices, which have fallen 4% this year. Net cash costs fell 22% year-on-year in the first half to \$1.19 per pound, helped by an ongoing drive to make savings and boost productivity, as well as higher output, a rise in by-product revenues and a weaker Chilean peso, Antofagasta said. The company stuck to its full year output forecast, but said it expected copper production to decline in 2020 towards 2018 levels due to a reduction in grades at its Centinela mine. It anticipates the decline will be partially reversed in 2021. A report by ratings agency Fitch on Wednesday said growth in copper demand in China would only modestly recover from current levels as the car and consumer sectors, where a large portion of the metal is used, struggle for growth in 2020.

#### Other important information on copper market:

- As Reuters informs, Chile's Codelco, the world's top copper producer, said it had shut down its Ventanas smelter along Chile's central coast for maintenance. The state miner said in a brief statement the facility had been closed since 19th of August, but gave no details on the length of the shutdown, or the impact it might have on production. Codelco's Ventanas facility came under scrutiny last year after more than a hundred local residents sought medical treatment following a gas leak in the industrial zone where it operates. The company, which recently launched a plan to reduce emissions from its smelters, has denied responsibility in the incident.
- The global world refined copper market showed a 62,000 tonnes deficit in May, compared with a 124,000 tonnes deficit in April, the International Copper Study Group (ICSG) said in its latest monthly bulletin. For the first 5 months of the year, the market was in a 190,000 tonnes deficit compared with a 131,000 tonnes deficit in the same period a year earlier, the ICSG said. World refined copper output in May was 2.00 million tonnes, while consumption was 2.07 million tonnes. Bonded stocks of copper in China showed a 110,000 tonnes deficit in May compared with a 119,000 tonnes deficit in April.

- According to Platts, the conflict between the Zambia's government and mining companies regarding royalties caused a reduction in copper production. On a year-to-date basis production has reduced to 467,627 mt compared to 512,186 mt in the same period last year. According to the Zambian mining chamber, this is not surprising given the investment restrictions imposed by mining companies due to increased fiscal burdens. According to forecasts, copper production this year was to increase to 890,000 tonnes compared to 770,000 tonnes last year, however, the current state of affairs puts these forecasts under a big question mark. The reduction in production also resulted in a decrease in tax revenues, which also means pressure on the government side and may encourage rapid resolution of the conflict.

## Precious Metals

**China's central bank began to issue quotas again last week, but for lower amounts of gold than considered normal.**

### China eases restrictions on gold imports

China has partially lifted restrictions on imports of gold, loosening curbs that had stopped an estimated 300-500 tonnes of the metal worth \$15-25 billion at current prices from entering the country since May. China's central bank had for several months curtailed or not granted import quotas to commercial banks responsible for most of the gold that enters the country, Reuters reported last week. Those measures had possibly been designed to reduce capital outflows and bolster the yuan, which has slumped to 11-year lows against the dollar as a trade dispute with the United States batters China's economy. The central bank began to issue quotas again last week, but for lower amounts of gold than considered normal, three people with direct knowledge of the matter in London and Asia said - without specifying exact amounts. It's a "partial lift" of the restrictions.

## Global economies | Foreign exchange markets

### China Strikes Back In Trade Dispute With U.S. With New Tariffs

**China says it would impose additional tariffs of 5% or 10% on an over 5 000 products originating from the United States.**

**China is reinstating tariffs on cars and auto parts originating from the United States**

According to Reuters, China unveiled on the 23<sup>rd</sup> retaliatory tariffs against about \$75 billion worth of U.S. goods, putting an additional 10% on top of existing rates. The latest salvo from China comes after the United States unveiled tariffs on an additional \$300 billion worth of Chinese goods, including consumer electronics, scheduled to go into effect in two stages on Sept. 1 and Dec. 15. China's commerce ministry said in a statement it would impose additional tariffs of 5% or 10% on an over 5 000 products originating from the United States including agricultural products such as soybeans, crude oil and small aircraft. China is also reinstating tariffs on cars and auto parts originating from the United States. "China's decision to implement additional tariffs was forced by the U.S.'s unilateralism and protectionism," the Chinese ministry said in a statement, adding that its retaliatory tariffs would also take effect in two stages on Sept. 1 and Dec. 15. White House trade adviser Peter Navarro told Fox Business News separately that trade negotiations with China would still go on behind closed doors.

### Fed Rate-Cut Odds Jump as Powell and Then Trump Roil Markets

**Powell's acknowledgment of economic risks and then Donald Trump tweeting that he'll respond soon to new Chinese tariffs spurred markets expectation for Fed rate cuts.**





**In the Treasury market the spread between 2- and 10-year yields flirted with inversion again, as both sank as low as 1.50%**








As Bloomberg informs, Traders jacked up their expectations for Federal Reserve rate cuts, initially inspired by Jerome Powell's acknowledgment of economic risks and then spurred on further by Donald Trump tweeting that he'll respond soon to new Chinese tariffs. January fed funds futures imply 65 basis points of reductions this year. Before Powell spoke, they suggested 59 basis points of easing. At the central bank's annual event in Jackson Hole, Powell said that the American economy, though in a favorable place, faces "significant risks." The U.S. president upstaged him within an hour, showing yet again that tweets can be just as powerful as carefully worded Fed speeches in the era of Trump. Trump said he'd respond this afternoon to China's threat of additional tariffs on \$75 billion of American goods including soybeans, automobiles and oil. He added that he "hereby ordered" American companies to start looking for alternatives to making products in China. It wasn't immediately clear what Trump meant, as the president doesn't have the legal authority to force such corporate decisions. In the Treasury market, yields were already falling before Trump spoke, but he accelerated the move. The spread between 2- and 10-year yields flirted with

inversion again, as both sank as low as 1.50%. Elsewhere in the yield curve, three-month and 10-year Treasuries got to the most inverted level since March 2007. Besides announcing an impending response to China, Trump doubled down on his view that the Fed and Powell aren't doing enough to prop up the economy. Powell made clear in his speech that the Fed answers only to Congress and the U.S. electorate. Bond market participants see the central bank adding to that, with almost 31 basis points of easing priced in for September meeting. Economic data and any escalation in the U.S.-China trade war will factor in.

## Macroeconomic calendar

### Important macroeconomic data releases

Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>	
<b>China</b>							
⊛	12-Aug	New yuan loans (CNY bn)‡	Jul	1 060 ▼	1 664	1 275	📉
⊛⊛⊛⊛	14-Aug	Industrial production (yoy)	Jul	4.8% ▼	6.3%	6.0%	📉
⊛⊛	14-Aug	Fixed assets investments (ytd, yoy)	Jul	5.7% ▼	5.8%	5.8%	📉
⊛	14-Aug	Retail sales (yoy)	Jul	7.6% ▼	9.8%	8.6%	📉
<b>Poland</b>							
⊛⊛	13-Aug	Trade balance (EUR mn)‡	Jun	- 77.0 ▼	- 17.0	- 70.0	📉
⊛⊛	13-Aug	Exports (EUR mn)‡	Jun	18 068 ▼	19 606	18 530	📉
⊛⊛	13-Aug	Current account balance (EUR mn)‡	Jun	21.0 ▼	874	- 10.0	📈
⊛⊛⊛⊛⊛	14-Aug	GDP (yoy) - preliminary data	2Q	4.4% ▼	4.7%	4.5%	📉
⊛⊛⊛⊛⊛	14-Aug	GDP (qoq) - preliminary data‡	2Q	0.8% ▼	1.4%	0.9%	📉
⊛⊛⊛⊛	14-Aug	Consumer inflation CPI (yoy) - final data	Jul	2.9% -	2.9%	--	📊
⊛⊛⊛⊛	16-Aug	Core CPI (excluding food and energy, yoy)	Jul	2.2% ▲	1.9%	2.1%	📈
⊛⊛	20-Aug	Average gross salary (yoy)	Jul	7.4% ▲	5.3%	7.1%	📈
⊛	20-Aug	Employment (yoy)	Jul	2.7% ▼	2.8%	2.7%	📊
⊛⊛⊛⊛	21-Aug	Sold industrial production (yoy)‡	Jul	5.8% ▲	-2.6%	6.5%	📈
⊛⊛	21-Aug	Producer inflation PPI (yoy)‡	Jul	0.6% ▲	0.5%	0.5%	📈
⊛⊛⊛	22-Aug	Retail sales (yoy)	Jul	7.4% ▲	5.3%	7.8%	📈
⊛	23-Aug	M3 money supply (yoy)	Jul	9.9% ▲	9.3%	9.5%	📈
<b>US</b>							
⊛⊛⊛⊛	13-Aug	Consumer inflation CPI (mom)	Jul	0.3% ▲	0.1%	0.3%	📊
⊛⊛⊛⊛	13-Aug	Consumer inflation CPI (yoy)	Jul	1.8% ▲	1.6%	1.7%	📈
⊛⊛⊛⊛	15-Aug	Industrial production (mom)‡	Jul	-0.2% ▼	0.2%	0.1%	📉
⊛⊛	15-Aug	Philadelphia Fed business outlook	Aug	16.8 ▼	21.8	9.5	📈
⊛⊛	15-Aug	Retail sales (excluding autos, mom)‡	Jul	1.0% ▲	0.3%	0.4%	📈
⊛	15-Aug	Capacity utilization‡	Jul	77.5% ▼	77.8%	77.8%	📉
⊛⊛	16-Aug	University of Michigan confidence index - preliminary data	Aug	92.1 ▼	98.4	97.0	📉
⊛⊛⊛	22-Aug	Composite PMI - preliminary data	Aug	50.9 ▼	52.6	--	📉
⊛⊛⊛	22-Aug	Manufacturing PMI - preliminary data	Aug	49.9 ▼	50.4	50.5	📉
⊛⊛⊛	22-Aug	PMI services - preliminary data	Aug	50.9 ▼	53.0	52.8	📉
<b>Eurozone</b>							
⊛	13-Aug	ZEW survey expectations	Aug	-43.6 ▼	- 20.3	--	📉
⊛⊛⊛⊛⊛	14-Aug	GDP (sa, yoy) - preliminary data	2Q	1.1% -	1.1%	1.1%	📊
⊛⊛⊛⊛⊛	14-Aug	GDP (sa, qoq) - preliminary data	2Q	0.2% -	0.2%	0.2%	📊
⊛⊛⊛⊛	14-Aug	Industrial production (sa, mom)‡	Jun	-1.6% ▼	0.8%	-1.5%	📉
⊛⊛⊛⊛	14-Aug	Industrial production (wda, yoy)‡	Jun	-2.6% ▼	-0.8%	-1.5%	📉
⊛	16-Aug	Trade balance (EUR mn)	Jun	20.6 ▼	23.0	--	📉
⊛⊛⊛⊛	19-Aug	Consumer inflation CPI (yoy) - final data	Jul	1.0% ▼	1.1%	1.1%	📉
⊛⊛⊛⊛	19-Aug	Core CPI (yoy) - final data	Jul	0.9% -	0.9%	0.9%	📊
⊛⊛⊛	22-Aug	Composite PMI - preliminary data	Aug	51.8 ▲	51.5	51.2	📈
⊛⊛⊛	22-Aug	Manufacturing PMI - preliminary data	Aug	47.0 ▲	46.5	46.2	📈
⊛⊛⊛	22-Aug	Services PMI - preliminary data	Aug	53.4 ▲	53.2	53.0	📈
⊛	22-Aug	Consumer confidence - estimation	Aug	- 7.1 ▼	- 6.6	- 7.0	📉

Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>
<b>Germany</b> 						
⊕⊕⊕⊕	13-Aug	Harmonized consumer inflation HICP (yoy) - final data	Jul	1.1% ▬	1.1%	1.1% ○
⊕⊕⊕⊕	13-Aug	Consumer inflation CPI (yoy) - final data	Jul	1.7% ▬	1.7%	1.7% ○
⊕⊕⊕⊕⊕	14-Aug	GDP (yoy) - preliminary data‡	2Q	0.0% ▼	0.8%	-0.3% ▲
⊕⊕⊕⊕⊕	14-Aug	GDP (sa, qoq) - preliminary data	2Q	-0.1% ▼	0.4%	-0.1% ○
⊕⊕⊕	22-Aug	Composite PMI - preliminary data	Aug	51.4 ▲	50.9	50.6 ▲
⊕⊕⊕	22-Aug	Manufacturing PMI - preliminary data	Aug	43.6 ▲	43.2	43.0 ▲
<b>France</b> 						
⊕⊕⊕⊕	14-Aug	Harmonized consumer inflation HICP (yoy) - final data	Jul	1.3% ▬	1.3%	1.3% ○
⊕⊕⊕⊕	14-Aug	Consumer inflation CPI (yoy) - final data	Jul	1.1% ▬	1.1%	1.1% ○
⊕⊕⊕	22-Aug	Composite PMI - preliminary data	Aug	52.7 ▲	51.9	51.8 ▲
⊕⊕⊕	22-Aug	Manufacturing PMI - preliminary data	Aug	51.0 ▲	49.7	49.5 ▲
<b>Italy</b> 						
<i>No major data in the period</i>						
<b>UK</b> 						
⊕⊕	13-Aug	Unemployment rate (ILO, 3-months)	Jun	3.9% ▲	3.8%	3.8% ▲
⊕⊕⊕⊕	14-Aug	Consumer inflation CPI (yoy)	Jul	2.1% ▲	2.0%	1.9% ▲
<b>Japan</b> 						
⊕⊕⊕⊕	15-Aug	Industrial production (yoy) - final data	Jun	-3.8% ▲	-4.1%	--
⊕⊕⊕	22-Aug	Composite PMI - preliminary data	Aug	51.7 ▲	51.2	--
⊕⊕⊕	22-Aug	Manufacturing PMI - preliminary data	Aug	49.5 ▲	49.4	--
⊕⊕⊕⊕	23-Aug	Consumer inflation CPI (yoy)	Jul	0.5% ▼	0.7%	0.6% ◡
<b>Chile</b> 						
⊕⊕⊕⊕⊕	19-Aug	GDP (yoy)	2Q	1.9% ▲	1.6%	1.9% ○
<b>Canada</b> 						
⊕⊕⊕⊕	21-Aug	Consumer inflation CPI (yoy)	Jul	2.0% ▬	2.0%	1.7% ▲

<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 Polska Miedź

## Key market data

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

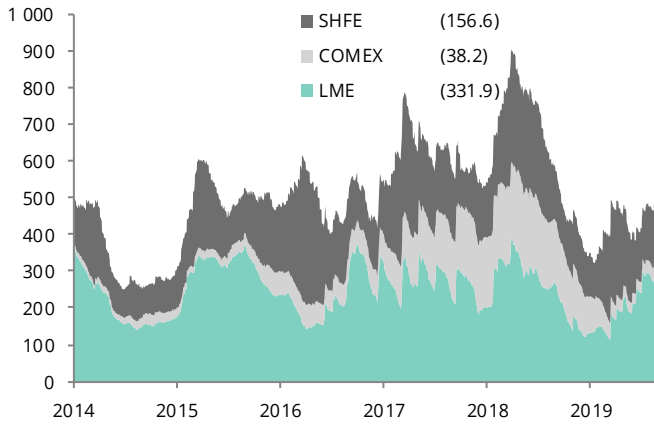
(as of: 23-Aug-19)		Price change <sup>1</sup>					From year beginning <sup>2</sup>		
	Price	2W	QTD	YTD	1Y	Average	Min	Max	
<b>LME (USD/t)</b>									
Copper	5 675.00	▼ -0.9%	▼ -5.0%	▼ -4.9%	▼ -4.0%	6 086.43	5 647.00	6 572.00	
Molybdenum	-	-	-	-	-	-	-	-	
Nickel	15 755.00	▲ 0.8%	▲ 24.4%	▲ 48.7%	▲ 19.9%	12 803.90	10 440.00	16 090.00	
Aluminum	1 746.00	▲ 0.2%	▼ -1.6%	▼ -6.6%	▼ -13.6%	1 813.18	1 719.50	1 923.00	
Tin	16 050.00	▼ -5.7%	▼ -14.7%	▼ -17.7%	▼ -15.8%	19 710.12	15 900.00	21 925.00	
Zinc	2 261.00	▲ 1.0%	▼ -12.4%	▼ -9.9%	▼ -7.4%	2 644.08	2 226.00	3 018.00	
Lead	2 082.50	▼ -1.0%	▲ 8.8%	▲ 3.7%	▲ 3.8%	1 971.08	1 768.00	2 154.00	
<b>LBMA (USD/troz)</b>									
Silver	17.05	▲ 0.6%	▲ 12.0%	▲ 10.2%	▲ 16.6%	15.47	14.38	17.45	
Gold <sup>2</sup>	1 503.80	▼ -0.1%	▲ 6.7%	▲ 17.3%	▲ 26.1%	1 340.52	1 269.50	1 515.65	
<b>LPPM (USD/troz)</b>									
Platinum <sup>2</sup>	851.00	▼ -0.7%	▲ 4.0%	▲ 7.2%	▲ 8.8%	835.51	782.00	914.00	
Palladium <sup>2</sup>	1 460.00	▲ 2.2%	▼ -4.2%	▲ 15.6%	▲ 59.6%	1 432.86	1 267.00	1 604.00	
<b>FX <sup>3</sup></b>									
EURUSD	1.1065	▼ -1.2%	▼ -2.8%	▼ -3.4%	▼ -4.4%	1.1270	1.1037	1.1535	
EURPLN	4.3572	▲ 0.7%	▲ 2.5%	▲ 1.3%	▲ 1.6%	4.2931	4.2406	4.3660	
USDPLN	3.9371	▲ 1.7%	▲ 5.5%	▲ 4.7%	▲ 6.2%	3.8088	3.7243	3.9408	
USDCAD	1.3310	▲ 0.6%	▲ 1.7%	▼ -2.4%	▲ 1.9%	1.3298	1.3038	1.3600	
USDCNY	7.0956	▲ 0.5%	▲ 3.3%	▲ 3.2%	▲ 3.2%	6.8255	6.6872	7.0956	
USDCLP	713.22	▲ 0.2%	▲ 4.9%	▲ 2.7%	▲ 8.0%	680.63	649.22	721.70	
<b>Money market</b>									
3m LIBOR USD	2.144	▼ -0.03	▼ -0.18	▼ -0.66	▼ -0.17	2.512	2.124	2.804	
3m EURIBOR	-0.412	▼ -0.01	▼ -0.07	▼ -0.10	▼ -0.09	-0.329	-0.423	-0.306	
3m WIBOR	1.720	-	0.00	-	0.00	▲ 0.01	1.720	1.720	
5y USD interest rate swap	1.366	▼ -0.06	▼ -0.40	▼ -1.20	▼ -1.49	2.176	1.363	2.715	
5y EUR interest rate swap	-0.479	▼ -0.04	▼ -0.25	▼ -0.68	▼ -0.75	-0.054	-0.553	0.222	
5y PLN interest rate swap	1.595	▼ -0.04	▼ -0.27	▼ -0.52	▼ -0.82	1.948	1.440	2.240	
<b>Fuel</b>									
WTI Cushing	54.11	▼ -1.5%	▼ -7.5%	▲ 19.2%	▼ -21.4%	57.15	46.54	66.40	
Brent	58.31	▲ 0.1%	▼ -9.5%	▲ 9.7%	▼ -21.4%	65.00	53.83	73.89	
Diesel NY (ULSD)	180.31	▲ 0.8%	▼ -7.2%	▲ 7.2%	▼ -17.1%	193.81	170.01	212.40	
<b>Others</b>									
VIX	19.87	▼ -1.22	▲ 4.79	▼ -5.55	▲ 7.46	15.80	12.01	25.45	
BBG Commodity Index	76.07	▼ -1.0%	▼ -4.5%	▼ -0.8%	▼ -8.5%	79.75	75.97	83.06	
S&P500	2 847.11	▼ -1.3%	▼ -3.2%	▲ 13.6%	▼ -0.3%	2 838.90	2 447.89	3 025.86	
DAX	11 611.51	▼ -0.6%	▼ -6.3%	▲ 10.0%	▼ -6.1%	11 779.77	10 416.66	12 629.90	
Shanghai Composite	2 897.43	▲ 2.9%	▼ -2.7%	▲ 16.2%	▲ 6.3%	2 902.60	2 464.36	3 270.80	
WIG 20	2 103.68	▼ -0.3%	▼ -9.6%	▼ -7.6%	▼ -9.4%	2 298.64	2 064.12	2 414.41	
KGHM	75.64	▼ -4.6%	▼ -26.9%	▼ -14.9%	▼ -12.8%	96.92	74.78	112.00	

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

Source: Bloomberg, KGHM Polska Miedź

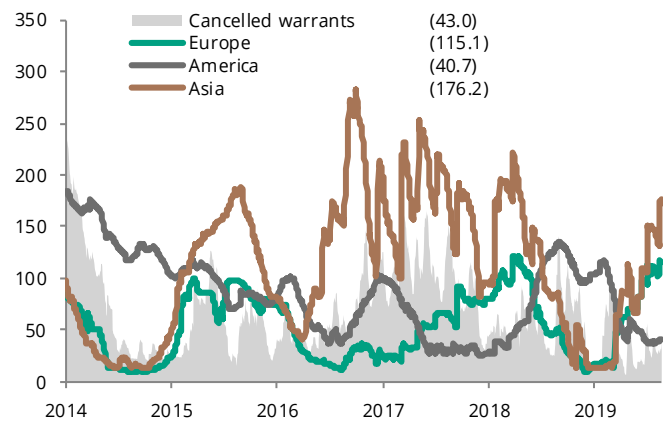


**Copper: official exchange stocks (thousand tonnes)**



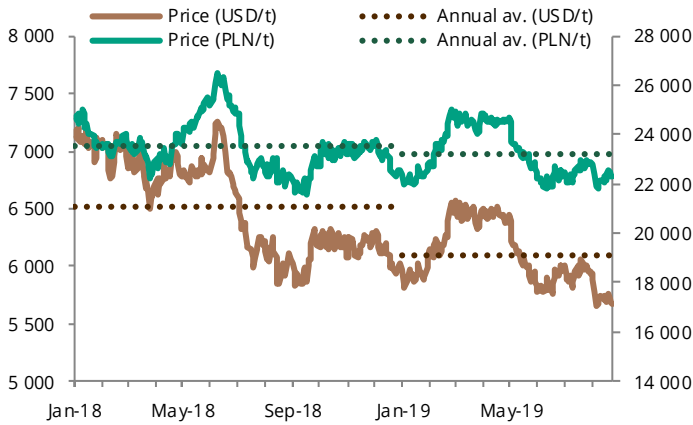
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



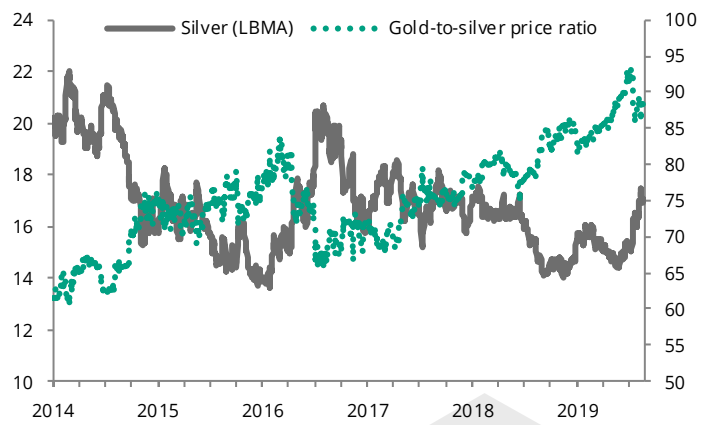
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



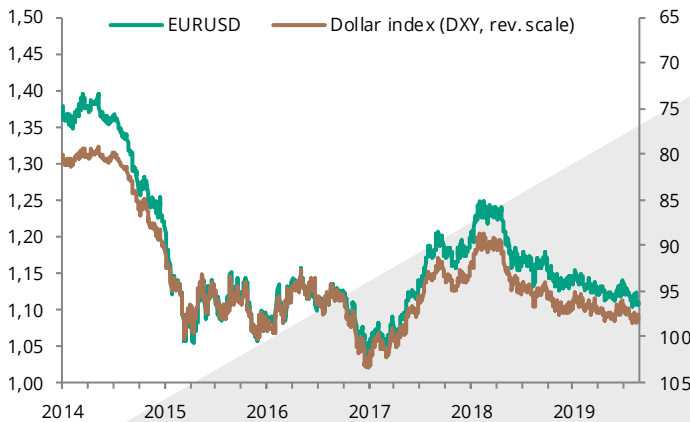
Source: Bloomberg, KGHM Polska Miedź

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



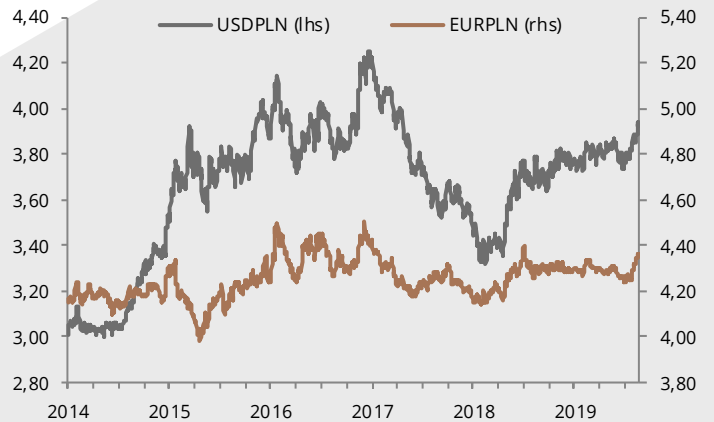
Source: Bloomberg, KGHM Polska Miedź

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



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:  
**12<sup>th</sup> – 25<sup>th</sup> August 2019.**

- 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](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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