

# Market Overview

as of: 18<sup>th</sup> November 2019

- Copper:** Last year, Chile was responsible for a third of global copper production. Hence, the scale of social unrest in this country, which translates into a decrease in copper production, will have an impact on supply in global markets. The International Copper Study Group had raised its estimated deficit for the market this year to 320,000 metric tons in October. The current social unrest is reflected in the devaluation of the Chilean peso to the dollar, the exchange rate reached 800 USDCLP (*page 2*).
- Precious metals:** Mixed signals are coming from the gold market. In the period from January to September this year the amount of gold deposited in Turkey increased by 67.3%. In India, the market conditions allowed gold dealers to charge premiums again. In contrary, gold consumption in China during first 9 months of this year fell by 9.58% yoy (*page 3*).
- USA - China:** Both sides have agreed to cancel additional tariffs in different phases, as both sides make progress in their negotiations (*page 5*).
- IMF:** The risk that manufacturing crisis could spill over to the larger services sector is a main reason for the forecast cutting (*page 5*).

## Key market prices

	Close price	2w chng.
<b>LME (USD/t)</b>		
▼ Copper	5 812.00	-0.6%
▼ Nickel	14 990.00	-9.7%
<b>LBMA (USD/troz)</b>		
▼ Silver	16.87	-7.2%
▼ Gold (PM)	1 466.90	-2.8%
<b>FX</b>		
▼ EURUSD	1.1034	-1.1%
▲ EURPLN	4.2807	0.6%
▲ USDPLN	3.8848	2.0%
▲ USDCAD	1.3231	0.6%
▲ USDCLP	801.83	9.1%
<b>Stocks</b>		
▲ KGHM	94.70	6.5%

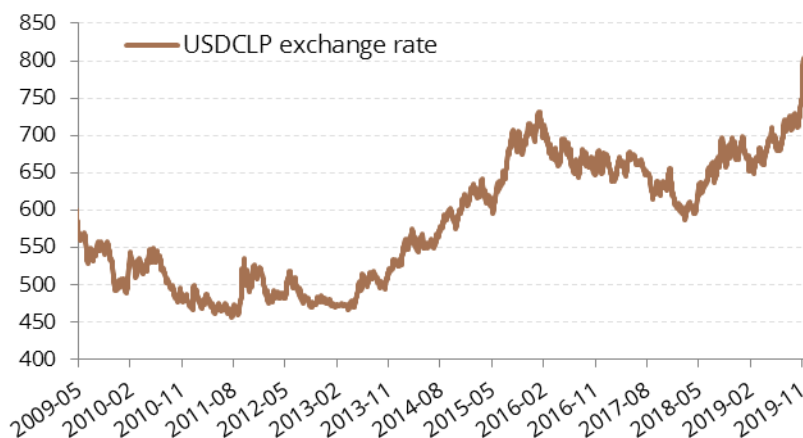
Source: Bloomberg, KGHM Polska Miedź; (*more on page 8*)

## Important macroeconomic data

Release	For		
 GDP (yoy)	3Q	3.9%	▼
 Industrial prod. (yoy)	Oct	4.7%	▼
 Industrial prod. (mom)	Oct	-0.8%	▼
 Industr. prod. (wda, yoy)	Sep	-1.7%	▲
 GDP (sa, yoy)	3Q	1.0%	▲

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

## The Chilean currency weakened, breaking through CLP 800 per 1 USD



Source: Bloomberg, KGHM Polska Miedź

## Market Risk Unit

marketrisk@kgm.com

## Base and precious metals | Other commodities

### Copper

**Last year, Chile was responsible for a third of global copper production. Hence, the scale of social unrest in this country, which translates into a decrease in copper production, will have an impact on supply in global markets. The International Copper Study Group had raised its estimated deficit for the market this year to 320,000 metric tons in October. The current social unrest is reflected in the devaluation of the Chilean peso to the dollar, the exchange rate reached 800 USDCLP.**

#### Chile's Exports Sink to Lowest Since 2017 on Unrest

Exports from the world's largest copper producer, Chile dropped to the lowest in more than two years in October as the nation grappled with the worst civil unrest in a generation. Exports fell to \$2.5 billion from \$3.2 billion the year earlier. Chile's largest copper mines and ports suffered disruptions as miners and stevedores joined anti-government protests, downing tools and blocking roads. The last time copper exports were this low was April 2017, after a 33-day strike at BHP Group's Escondida copper mine, the world's largest, slashed output. Those same workers held stoppages again in the past few weeks. Output at Antofagasta Plc's biggest mine Los Pelambres was also disrupted for days after a mob broke into the mine, burned equipment and blocked access roads. The Collahuasi union, an association between Anglo American and Glencore, announced a march outside the mine but output would not be hit, according to a union leader. BHP operations, which include the vast Escondida mine, continued to operate, according to sources. Anglo American said its mines El Soldado and Los Bronces were experiencing delays and access issues due to roadblocks, but it was still functioning normally. The Mining Federation, which represents several private mines, said some mines including Los Bronces had experienced stoppages amid the call for a general strike. Caserones, owned by Japanese-run Lumina Copper, has maintained minimal operations, the firm said. About 5,000 of the 9,000 workers in Codelco's northern mines downed tools, paralyzing operations. Seven of the 21 ports that are on strike exports copper. The recent disruptions in Chile, which produced just under a third of the world's copper last year, will further tighten supplies of the metal. The International Copper Study Group had raised its estimated deficit for the market this year to 320,000 metric tons in October. The market will probably post a surplus next year. Chile's peso continued to plunge against dollar, it fell to over 800 pesos to the dollar.

**About 5,000 of the 9,000 workers in Codelco's northern mines downed tools, paralyzing operations**

### Other important information on copper market:

- Peru's production of copper, zinc, molybdenum and precious metals all dropped in September, while lead and tin rose, the government said. Copper output declined 2.9% to 203,762 mt from 209,830 mt a year ago as protests hampered operations at China Minmetals' Las Bambas mine. Zinc production led by Antamina slid 0.8% to 119,125 mt, while molybdenum was down 16.8% to 2,537 mt. Gold production fell 8.8% to 10,667 kg as output declined at mines operated by Newmont and Barrick. Silver dropped 5.8% to 331,048 kg. Lead rose 13% to 27,819 mt, while tin output at Peru's lone producer, Minsur, gained 5.8% to 1,716 mt.
- Global refined copper production increased in October, mainly due to strong smelting activity in China, according to an index based on satellite surveillance of copper plants. Britain-based Earth-i, which specializes in geospatial data, launched its SAVANT service last month, which tracks 100 smelters accounting for 80-90% of global production. This rose to an average of 89.7 in October, up 3.2 points from a month earlier. The index represents the percentage of smelters globally that are active. "The rebound started in the latter part of September, driven by a sharp acceleration in Chinese smelting activity towards the end of the month," a statement said. Activity was not as strong in the second half of October due to reduced smelting in North and South America and Asia excluding China, it added. "The latest readings suggest Chinese smelting activity is currently more robust than other regions, which might suggest optimism is beginning to grow that an end to the trade war could be in sight."

## Precious Metals

**Mixed signals are coming from the gold market. In the period from January to September this year the amount of gold deposited in Turkey increased by 67.3%. In India, the market conditions allowed gold dealers to charge premiums again. In contrary, gold consumption in China during first 9 months of this year fell by 9.58% y o y.**

- China's gold consumption fell to 768.31 tons during the first three quarters of the year, down 9.6 percent year on year, the latest data showed. Demand for gold jewelry, gold bars and gold coins all went down during the period, with sales dipping 2.9 percent, 26.5 percent and nearly 40 percent, respectively, according to data from the China Gold Association. Gold consumption for industrial uses dropped by 3.28 percent to 79.21 tons. In the third quarter alone, sales of gold jewelry plunged 12.05 percent year on year, bucking the upward trend in the first half.

- In Turkey gold price per gram surged by 14.1% as it hit TL 267.4 in the first nine months of this year, compared to TL 231.9 in the same period year before, according to the Banking Regulation and Supervision Agency (BDDK). In the same period, the dollar/lira exchange rate declined by 6.6%, through the measures taken by the economy administration. The decline in the exchange rate pushed the rise of gold in investor portfolios. Gold deposit accounts in Turkey skyrocketed by 67.3% in the January-September period, reaching TL 64.5 billion from TL 38.5 billion in the same period last year. What is important to mention, Turkey, which made its highest monthly gold purchase ever with 41.8 tons in August, has been named the largest gold purchaser in the world with 71.4 tons in the third quarter, according to the World Gold Council (WGC) report.
- According Reuters, physical gold demand climbed in India, with sellers charging premiums for the first time in five-and-a-half months as jewelers took advantage of a price dip and lower imports squeezed supply. Dealers charged a premium of up to \$1.50 an ounce over official domestic prices, compared with discounts of up to \$2 an ounce previously. India's gold imports in October fell a third from a year earlier, dropping a fourth straight month. "Anticipating a correction in prices, jewelers were not buying for the last few months. Now they have to buy (to restock) after Diwali sales," said a Mumbai-based dealer with a bullion-importing bank.

## Global economies | Foreign exchange markets

### China Says It Has Agreed With U.S. To Cancel Tariffs In Phases

**Both sides have agreed to cancel additional tariffs in different phases, as both sides make progress in their negotiations.**

**For China Tariff cancellation is an important condition for any agreement**

China and the United States have agreed to cancel in phases the tariffs, the Chinese commerce ministry said, without specifying a timetable. An interim U.S.-China trade deal is widely expected to include a U.S. pledge to scrap tariffs scheduled for Dec. 15 on about \$156 billion worth of Chinese imports. Tariff cancellation was an important condition for any agreement, ministry spokesman Gao Feng said, adding that both must simultaneously cancel some tariffs on each other's goods to reach a "phase one" trade deal. The proportion of tariffs cancelled for both sides to reach a "phase one" deal must be the same, but the number to be cancelled can be negotiated, he added, without elaborating. Both sides have agreed to cancel additional tariffs in different phases, as both sides make progress in their negotiations. A source previously told Reuters that Chinese negotiators wanted the United States to drop 15% tariffs on about \$125 billion worth of Chinese goods that took effect on Sept. 1. They also sought relief from earlier 25% tariffs on about \$250 billion of imports, ranging from machinery and semiconductors to furniture. A deal may be signed soon by U.S. President Donald Trump and Chinese President Xi Jinping at a yet-to-be determined location.

### IMF Cuts Euro Zone Growth Forecasts





**The risk that manufacturing crisis could spill over to the larger services sector is a main reason for the forecast cutting.**








**As the main reason for the slowdown, the IMF points to a slowdown in Germany and stagnation in Italy**

Euro zone economic growth is set to slow more than expected as the bloc's manufacturing crisis could spill over to the larger services sector under global trade tensions, the International Monetary Fund said. The IMF said the 19-country euro zone would grow by 1.2% this year, revising down its earlier estimates from April of 1.3% growth for the bloc. That is a significant slowdown compared to last year's 1.9% expansion. The bloc's economy would grow by 1.4% in 2020 and 2021, the IMF said, cutting its previous estimate of 1.5% growth in both years. The slowdown is mostly due to anemic growth in Germany, and stagnation in Italy. Germany is now expected to grow by only 0.5% this year, slower than the 0.8% the IMF had predicted in April. The IMF also cut its growth forecast for France, the bloc's second-largest economy. The country is now expected to grow by 1.2% this year, instead of the 1.3% previously forecast.

# Macroeconomic calendar

## Important macroeconomic data releases

Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>
<b>China</b> 						
⊛	07-Nov	Foreign reserves (USD bn)‡	Oct	3 105 ▲	3 092	3 100 ▲
⊛⊛	08-Nov	Trade balance (USD bn)‡	Oct	42.8 ▲	39.2	40.1 ▲
⊛⊛	08-Nov	Exports (yoy)	Oct	-0.9% ▲	-3.2%	-3.9% ▲
⊛⊛⊛⊛	09-Nov	Consumer inflation CPI (yoy)	Oct	3.8% ▲	3.0%	3.4% ▲
⊛⊛	09-Nov	Producer inflation PPI (yoy)	Oct	-1.6% ▼	-1.2%	-1.5% ▼
⊛	11-Nov	New yuan loans (CNY bn)‡	Oct	661 ▼	1 691	800 ▼
⊛⊛⊛⊛	14-Nov	Industrial production (yoy)	Oct	4.7% ▼	5.8%	5.4% ▼
⊛⊛	14-Nov	Fixed assets investments (ytd, yoy)	Oct	5.2% ▼	5.4%	5.4% ▼
⊛	14-Nov	Retail sales (yoy)	Oct	7.2% ▼	7.8%	7.8% ▼
<b>Poland</b> 						
⊛⊛⊛	04-Nov	Manufacturing PMI	Oct	45.6 ▼	47.8	48.1 ▼
⊛⊛⊛⊛⊛	06-Nov	NBP base rate decision	Nov	1.50% -	1.50%	1.50% ○
⊛⊛	13-Nov	Trade balance (EUR mn)‡	Sep	468 ▲	- 104	8.0 ▲
⊛⊛	13-Nov	Exports (EUR mn)‡	Sep	19 279 ▲	17 594	19 293 ▼
⊛⊛	13-Nov	Current account balance (EUR mn)‡	Sep	171 ▲	- 657	- 220 ▲
⊛⊛⊛⊛⊛	14-Nov	GDP (yoy) - preliminary data‡	3Q	3.9% ▼	4.6%	4.0% ▼
⊛⊛⊛⊛⊛	14-Nov	GDP (qoq) - preliminary data	3Q	1.3% ▲	0.8%	1.1% ▲
⊛⊛⊛⊛	14-Nov	Consumer inflation CPI (yoy) - final data	Oct	2.5% -	2.5%	--
⊛⊛⊛⊛	15-Nov	Core CPI (excluding food and energy, yoy)	Oct	2.4% -	2.4%	2.4% ○
<b>US</b> 						
⊛⊛	04-Nov	Durable goods orders - final data‡	Sep	-1.2% -	-1.2%	-1.1% ▼
⊛⊛⊛	05-Nov	Composite PMI - final data	Oct	50.9 ▼	51.2	--
⊛⊛⊛	05-Nov	PMI services - final data	Oct	50.6 ▼	51.0	51.0 ▼
⊛⊛	08-Nov	University of Michigan confidence index - preliminary data	Nov	95.7 ▲	95.5	95.5 ▲
⊛⊛⊛⊛	13-Nov	Consumer inflation CPI (mom)	Oct	0.4% ▲	0.0%	0.3% ▲
⊛⊛⊛⊛	13-Nov	Consumer inflation CPI (yoy)	Oct	1.8% ▲	1.7%	1.7% ▲
⊛⊛⊛⊛	15-Nov	Industrial production (mom)‡	Oct	-0.8% ▼	-0.3%	-0.4% ▼
⊛⊛	15-Nov	Retail sales (excluding autos, mom)	Oct	0.2% ▲	-0.1%	0.4% ▼
⊛	15-Nov	Capacity utilization	Oct	76.7% ▼	77.5%	77.0% ▼
<b>Eurozone</b> 						
⊛⊛⊛	04-Nov	Manufacturing PMI - final data‡	Oct	45.9 -	45.9	45.7 ▲
⊛⊛	05-Nov	Producer inflation PPI (yoy)	Sep	-1.2% ▼	-0.8%	-1.2% ○
⊛⊛⊛	06-Nov	Composite PMI - final data‡	Oct	50.6 -	50.6	50.2 ▲
⊛⊛⊛	06-Nov	Services PMI - final data‡	Oct	52.2 -	52.2	51.8 ▲
⊛⊛	06-Nov	Retail sales (yoy)‡	Sep	3.1% ▲	2.7%	2.4% ▲
⊛	12-Nov	ZEW survey expectations	Nov	- 1.0 ▲	- 23.5	--
⊛⊛⊛⊛	13-Nov	Industrial production (sa, mom)	Sep	0.1% ▼	0.4%	-0.2% ▲
⊛⊛⊛⊛	13-Nov	Industrial production (wda, yoy)	Sep	-1.7% ▲	-2.8%	-2.3% ▲
⊛⊛⊛⊛⊛	14-Nov	GDP (sa, yoy) - preliminary data‡	3Q	1.2% -	1.2%	1.1% ▲
⊛⊛⊛⊛⊛	14-Nov	GDP (sa, qoq) - preliminary data	3Q	0.2% -	0.2%	0.2% ○
⊛⊛⊛⊛	15-Nov	Consumer inflation CPI (yoy) - final data	Oct	0.7% -	0.7%	0.7% ○
⊛⊛⊛⊛	15-Nov	Core CPI (yoy) - final data	Oct	1.1% -	1.1%	1.1% ○
⊛	15-Nov	Trade balance (EUR mn)‡	Sep	18.7 ▲	14.3	--

Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>
<b>Germany</b> 						
🔴🔴🔴	04-Nov	Manufacturing PMI - final data‡	Oct	42.1 -	42.1	41.9 🟢
🔴🔴🔴	06-Nov	Composite PMI - final data‡	Oct	48.9 -	48.9	48.6 🟢
🔴🔴🔴	06-Nov	Factory orders (wda, yoy)‡	Sep	-5.4% 🟡	-6.5%	-6.3% 🟢
🔴🔴🔴🔴	07-Nov	Industrial production (wda, yoy)‡	Sep	-4.3% 🔴	-3.9%	-4.4% 🟢
🔴🔴🔴🔴	13-Nov	Harmonized consumer inflation HICP (yoy) - final data	Oct	0.9% -	0.9%	0.9% 🟡
🔴🔴🔴🔴	13-Nov	Consumer inflation CPI (yoy) - final data	Oct	1.1% -	1.1%	1.1% 🟡
🔴🔴🔴🔴🔴	14-Nov	GDP (yoy) - preliminary data‡	3Q	1.0% 🟡	-0.1%	0.8% 🟢
🔴🔴🔴🔴🔴	14-Nov	GDP (sa, qoq) - preliminary data‡	3Q	0.1% 🟡	-0.2%	-0.1% 🟢
<b>France</b> 						
🔴🔴🔴	04-Nov	Manufacturing PMI - final data‡	Oct	50.7 -	50.7	50.5 🟢
🔴🔴🔴	06-Nov	Composite PMI - final data‡	Oct	52.6 -	52.6	52.6 🟡
🔴🔴🔴🔴	08-Nov	Industrial production (yoy)‡	Sep	0.1% 🟡	-1.3%	0.3% 🔴
🔴🔴🔴🔴	14-Nov	Harmonized consumer inflation HICP (yoy) - final data	Oct	0.9% -	0.9%	0.9% 🟡
🔴🔴🔴🔴	14-Nov	Consumer inflation CPI (yoy) - final data‡	Oct	0.8% -	0.8%	0.7% 🟢
<b>Italy</b> 						
🔴🔴🔴	04-Nov	Manufacturing PMI	Oct	47.7 🔴	47.8	47.7 🟡
🔴🔴🔴	06-Nov	Composite PMI	Oct	50.8 🟡	50.6	50.2 🟢
🔴🔴🔴🔴	11-Nov	Industrial production (wda, yoy)‡	Sep	-2.1% 🔴	-1.7%	-2.1% 🟡
🔴🔴🔴🔴	15-Nov	Harmonized consumer inflation HICP (yoy) - final data	Oct	0.2% -	0.2%	0.2% 🟡
<b>UK</b> 						
🔴🔴🔴	05-Nov	Composite PMI	Oct	50.0 🟡	49.3	49.5 🟢
🔴🔴🔴🔴🔴	07-Nov	BoE base rate decision	Nov	0.75% -	0.75%	0.75% 🟡
🔴🔴🔴🔴	07-Nov	BoE asset purchase target (GBP bn)	Nov	435 -	435	435 🟡
🔴🔴🔴🔴🔴	11-Nov	GDP (yoy) - preliminary data	3Q	1.0% 🔴	1.3%	1.1% 🔴
🔴🔴🔴🔴🔴	11-Nov	GDP (qoq) - preliminary data	3Q	0.3% 🟡	-0.2%	0.4% 🔴
🔴🔴🔴🔴	11-Nov	Industrial production (yoy)	Sep	-1.4% 🟡	-1.8%	-1.2% 🔴
🔴🔴	12-Nov	Unemployment rate (ILO, 3-months)	Sep	3.8% 🔴	3.9%	3.9% 🔴
🔴🔴🔴🔴	13-Nov	Consumer inflation CPI (yoy)	Oct	1.5% 🔴	1.7%	1.6% 🔴
<b>Japan</b> 						
🔴🔴🔴	06-Nov	Composite PMI - final data	Oct	49.1 🔴	51.5	--
🔴🔴🔴🔴🔴	14-Nov	GDP (annualized, qoq) - preliminary data‡	3Q	0.2% 🔴	1.8%	0.9% 🔴
🔴🔴🔴🔴🔴	14-Nov	GDP (qoq, sa) - preliminary data‡	3Q	0.1% 🔴	0.4%	0.2% 🔴
🔴🔴🔴🔴	15-Nov	Industrial production (yoy) - final data	Sep	1.3% 🟡	1.1%	--
<b>Chile</b> 						
🔴🔴🔴🔴	04-Nov	Economic activity (yoy)	Sep	3.0% 🔴	3.7%	3.5% 🔴
🔴🔴🔴	07-Nov	Copper exports (USD mn)‡	Oct	2 515 🔴	2 786	--
🔴🔴	07-Nov	Nominal wages (yoy)	Sep	4.4% 🔴	5.1%	4.9% 🔴
<b>Canada</b> 						
🔴🔴🔴	08-Nov	Net change in employment (ths)	Oct	- 1.8 🔴	53.7	15.0 🔴

<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 Polska Miedź

## Key market data

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

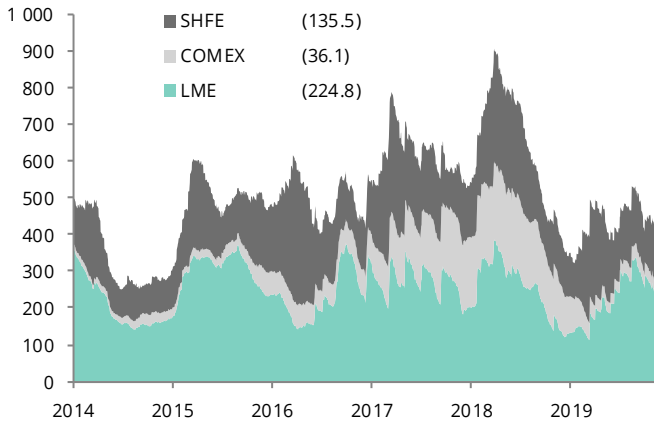
(as of: 15-Nov-19)		Price change <sup>1</sup>					From year beginning <sup>2</sup>		
	Price	2W	QTD	YTD	1Y	Average	Min	Max	
<b>LME (USD/t; Mo in USD/lbs)</b>									
Copper	5 812.00	▼ -0.6%	▲ 1.5%	▼ -2.6%	▼ -6.1%	6 000.56	5 537.00	6 572.00	
Molybdenum	8.79	▼ -5.0%	▼ -25.4%	-	-	11.67	8.45	12.70	
Nickel	14 990.00	▼ -9.7%	▼ -14.7%	▲ 41.5%	▲ 32.2%	13 929.55	10 440.00	18 625.00	
Aluminum	1 741.00	▼ -2.6%	▲ 2.2%	▼ -6.9%	▼ -9.2%	1 794.59	1 697.00	1 923.00	
Tin	16 275.00	▼ -1.1%	▲ 1.4%	▼ -16.5%	▼ -16.4%	18 888.27	15 710.00	21 925.00	
Zinc	2 427.00	▼ -6.1%	▲ 2.1%	▼ -3.3%	▼ -8.6%	2 580.26	2 211.00	3 018.00	
Lead	2 004.00	▼ -7.9%	▼ -3.9%	▼ -0.2%	▲ 3.1%	2 010.72	1 768.00	2 267.00	
<b>LBMA (USD/troz)</b>									
Silver	16.87	▼ -7.2%	▼ -2.2%	▲ 9.1%	▲ 19.4%	16.09	14.38	19.31	
Gold <sup>2</sup>	1 466.90	▼ -2.8%	▼ -1.2%	▲ 14.5%	▲ 21.0%	1 382.74	1 269.50	1 546.10	
<b>LPPM (USD/troz)</b>									
Platinum <sup>2</sup>	883.00	▼ -6.8%	▼ -1.9%	▲ 11.2%	▲ 6.0%	856.54	782.00	977.00	
Palladium <sup>2</sup>	1 725.00	▼ -4.0%	▲ 3.0%	▲ 36.6%	▲ 52.7%	1 496.11	1 267.00	1 804.00	
<b>FX<sup>3</sup></b>									
EURUSD	1.1034	▼ -1.1%	▲ 1.3%	▼ -3.6%	▼ -2.4%	1.1209	1.0889	1.1535	
EURPLN	4.2807	▲ 0.6%	▼ -2.1%	▼ -0.4%	▼ -0.4%	4.3011	4.2406	4.3891	
USDPLN	3.8848	▲ 2.0%	▼ -2.9%	▲ 3.3%	▲ 2.0%	3.8370	3.7243	4.0154	
USDCAD	1.3231	▲ 0.6%	▼ -0.1%	▼ -3.0%	▲ 0.2%	1.3278	1.3038	1.3600	
USDCNY	7.0094	▼ -0.3%	▼ -1.9%	▲ 1.9%	▲ 1.0%	6.8914	6.6872	7.1789	
USDCLP	801.83	▲ 9.1%	▲ 10.5%	▲ 15.4%	▲ 16.7%	692.73	649.22	801.83	
<b>Money market</b>									
3m LIBOR USD	1.903	▼ -0.01	▼ -0.18	▼ -0.91	▼ -0.74	2.383	1.891	2.804	
3m EURIBOR	-0.404	▼ -0.01	▲ 0.01	▼ -0.10	▼ -0.09	-0.352	-0.448	-0.306	
3m WIBOR	1.710	-	0.00	▼ -0.01	▼ -0.01	1.719	1.710	1.720	
5y USD interest rate swap	1.607	▲ 0.03	▲ 0.11	▼ -0.96	▼ -1.48	2.002	1.254	2.715	
5y EUR interest rate swap	-0.225	▲ 0.02	▲ 0.18	▼ -0.42	▼ -0.55	-0.134	-0.553	0.222	
5y PLN interest rate swap	1.805	▲ 0.05	▲ 0.16	▼ -0.31	▼ -0.69	1.882	1.440	2.240	
<b>Fuel</b>									
WTI Cushing	57.72	▲ 2.1%	▲ 6.8%	▲ 27.1%	▲ 2.2%	56.75	46.54	66.40	
Brent	63.93	▲ 2.5%	▲ 6.8%	▲ 20.2%	▼ -2.8%	63.96	53.83	73.89	
Diesel NY (ULSD)	195.68	▲ 0.1%	▲ 2.6%	▲ 16.3%	▼ -5.7%	193.54	170.01	212.40	
<b>Others</b>									
VIX	12.05	▼ -0.78	▼ -4.19	▼ -13.37	▼ -7.93	15.66	12.01	25.45	
BBG Commodity Index	79.09	▼ -1.9%	▲ 1.7%	▲ 3.1%	▼ -4.5%	79.47	75.97	83.06	
S&P500	3 120.46	▲ 1.4%	▲ 4.8%	▲ 24.5%	▲ 14.3%	2 879.83	2 447.89	3 120.46	
DAX	13 241.75	▲ 0.8%	▲ 6.5%	▲ 25.4%	▲ 16.6%	11 971.56	10 416.66	13 289.46	
Shanghai Composite	2 891.34	▼ -2.8%	▼ -0.5%	▲ 15.9%	▲ 8.4%	2 915.95	2 464.36	3 270.80	
WIG 20	2 233.87	▼ -1.3%	▲ 2.8%	▼ -1.9%	▲ 1.4%	2 265.46	2 051.44	2 414.41	
KGHM	94.70	▲ 6.5%	▲ 18.4%	▲ 6.5%	▲ 5.2%	92.83	73.76	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

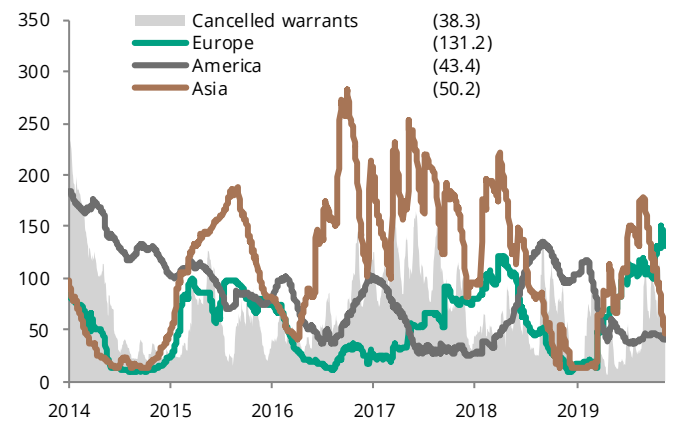


**Copper: official exchange stocks (thousand tonnes)**



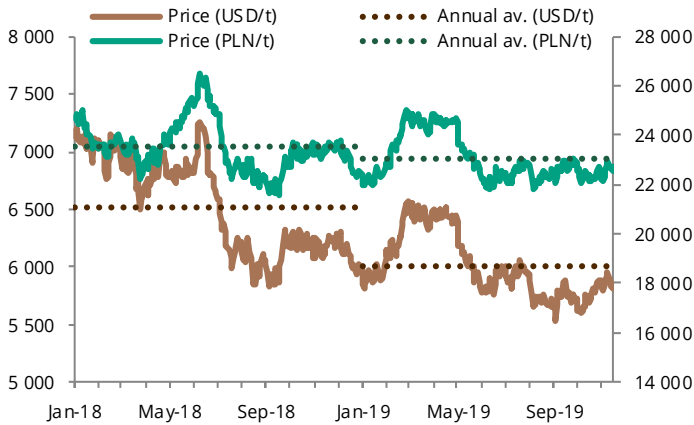
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



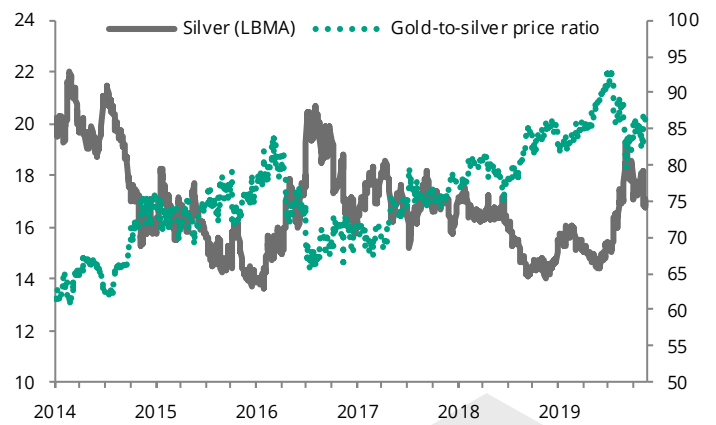
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



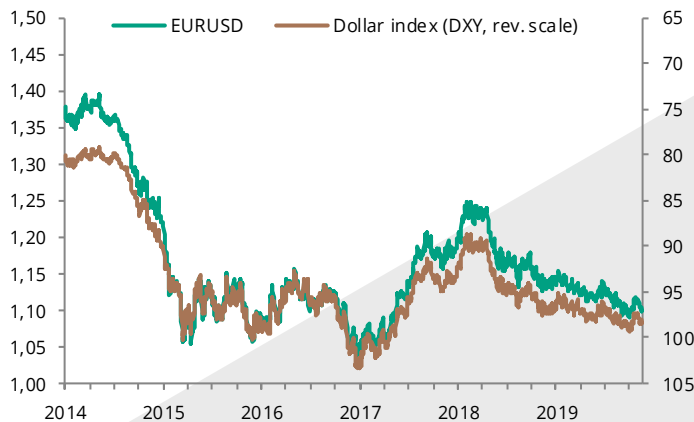
Source: Bloomberg, KGHM Polska Miedź

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



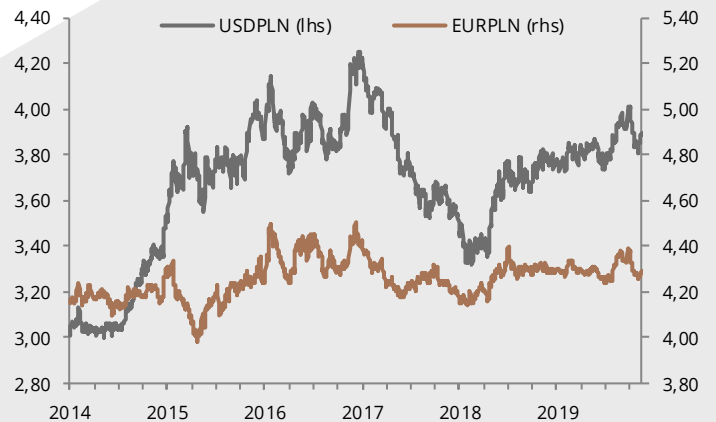
Source: Bloomberg, KGHM Polska Miedź

**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:  
**4<sup>th</sup> – 17<sup>th</sup> November 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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