

Market Overview

 as of: 17th June 2019


- Copper:** Jiangxi Copper Corp. estimates that the imposed tariffs on consumer goods imported by the US from China may potentially reduce the demand for copper by 2.4% this year. However, the situation is perceived differently by the largest copper producer, Chilean Codelco (*page 2*).
- Precious metals:** While silver investment demand in the West continues to remain weak, in India silver purchase have exploded to record highs. Furthermore, even stronger Indian silver demand is expected in 2019 due distribution of the government money ahead of the President's election. Many Indians use it to purchase silver as an investment. On the physical gold market discounts in India widened to their biggest in five months as an upsurge in local prices dampened purchases, while China and Singapore saw demand rise from investors looking to hedge against a global slowdown (*page 4*).

Key market prices

	Close price	2w chng.
LME (USD/t)		
▲ Copper	5 805.50	0.2%
▲ Nickel	11 895.00	0.3%
LBMA (USD/troz)		
▲ Silver	15.03	2.2%
▲ Gold (PM)	1 351.25	2.6%
FX		
▲ EURUSD	1.1265	0.7%
▼ EURPLN	4.2554	-0.6%
▼ USDPLN	3.7727	-1.5%
▼ USDCAD	1.3385	-0.6%
▼ USDCLP	696.25	-1.9%
Stocks		
▲ KGHM	98.44	2.4%

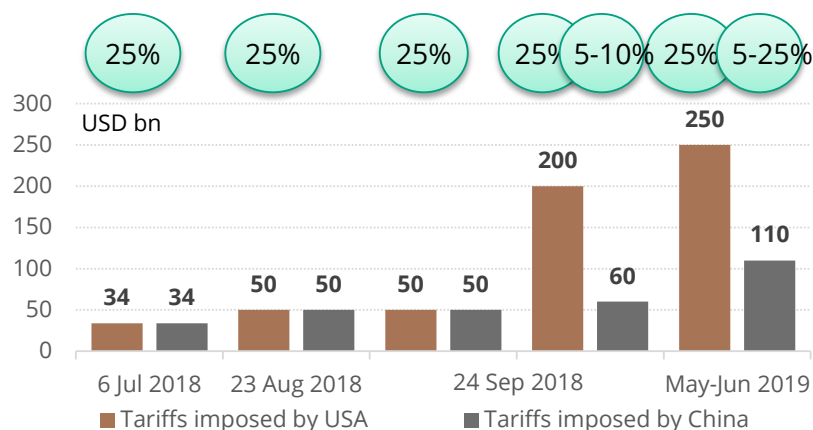
 Source: Bloomberg, KGHM Polska Miedź; (*more on page 8*)

Important macroeconomic data

	Release	For	
	BCCh rate decision	Jun	2.50% ▼
	Industrial prod. (yoy)	May	5.0% ▼
	Manufacturing PMI	May	48.8 ▼
	Non-farm payrolls chng.	May	75.0 ▼
	Caixin's manuf. PMI	May	50.2 -

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

What kind of impact will potential escalation of trade war will have on the refined copper market?



Source: Bloomberg, CNN, KGHM Polska Miedź

Market Risk Unit

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Base and precious metals | Other commodities

Copper

Jiangxi Copper Corp. estimates that the imposed tariffs on consumer goods imported by the US from China may potentially reduce the demand for copper by 2.4% this year. However, the situation is perceived differently by the largest copper producer, Chilean Codelco.

How will US tariffs affect copper consumption in 2019?

China's Jiangxi Copper Corp. fears the latest round of US import tariffs on Chinese consumer goods could potentially trim domestic copper demand by 2.4% this year. In a report on the copper market, Jiangxi Copper said products among the \$200 billion worth of goods, which are now subject to a 25% import tax in the US, account for 40% of China's copper consumption. Chinese exports to the US of air conditioners, electronic goods and cables accounted for 15%, 13% and 8%, respectively, of China's total exports of these products in 2018, according to the Jiangxi report. Jiangxi Copper has calculated that if \$200 billion of Chinese exports to the US are hit by the 25% tax, China's 2019 GDP will fall 0.22%. Market sources said domestic copper demand was weak currently, with new energy vehicles being the only growth area. Curbs on exports would further undermine copper demand.

China's exports of air conditioners fell 12.5% year on year in April to 7.2 million units, data from the country's General Administration of Customs showed. This took January-April exports to 25.32 million units, down 10.2% year on year. According to state-run metals research agency Beijing Antaike, air conditioners used 1.638 million mt of refined copper in 2018 out of a total copper demand of 11.15 million mt. Therefore, a 2.4% decrease in copper demand this year would reduce copper demand by 267,600 mt, S&P Global Platts calculated. Brokerage Nanhua Futures noted the domestic downstream copper processing sector has been hit by the slowdown in Chinese and overseas economic growth this year. China-based market sources, however, said it would be hard for the US to find consumer goods products from elsewhere that could compete with low-priced Chinese goods.

However, the situation is perceived differently by the largest copper producer, Chilean Codelco. Copper demand "remains good," even as fears over the trade war's impact drive prices to a five-month low and risk deterring much-needed investment, according to the world's largest miner of the metal. Demand for the commodity used in pipes and wiring "hasn't been affected" and China keeps ordering copper, said Roberto Ecclefield, chief commercial officer at Codelco. The price rout will discourage mining companies from making investment decisions and that will likely tighten supply further, he said. "There won't be copper available long term if prices continue like this," Ecclefield said in an interview in New York. "At the current prices, many mines are in the red, all over the world."

The International Monetary Fund lately cut its outlook for China, saying the trade war is tilting the balance of risks to the downside. But the drop in prices of the metal isn't justified because supply is trailing demand, Ecclefield said.

The market is set to post a 189,000-ton deficit this year, according to the International Copper Study Group. Copper futures in New York settled at about \$2.65 a pound on Thursday, near the lowest since early January. Mining companies such as Santiago-based Codelco need prices of at least \$3 to activate large investments that will add new supply to the market, according to Ecclefield. Codelco estimates that global copper supply will start to decline in 2022, resulting in a gap of 4 million metric tons by 2028, Chief Executive Officer Nelson Pizarro said at a conference last week. The company sees supply rising 1.6% annually through 2021, trailing demand growth of 1.8% a year. Earlier this year, copper output was hurt by extreme weather events in Chile and Peru, the world's two largest producing nations.

Other important information on copper market:

- Spot copper treatment charges in China are set to extend declines from a six-year low as domestic smelting capacity ramps up and disruptions at mines overseas hurts supply. The fees, an indicator of smelters' margins, fell to \$62.50 a metric ton lately, the lowest since November 2012, according to Asian Metal Inc. data. Charges paid to process concentrate into refined copper slumped 32% this year. The fees will continue to be "under pressure" as Chinese smelters ramp up in the second half and on heightened global mine supply disruptions, said Li Li, an analyst at Jinrui Futures Co., a unit of Jiangxi Copper Co., the country's top smelter. Domestic plants have a break even point of about \$65, so the slump has already led to some smaller operations cutting output, she said. The copper market is heading for a deficit this year, hit by disruptions at operations including in Chile and Peru. Codelco, the world's largest miner of the metal, said there could be a shortfall of 4 million tons by 2028 as trade frictions compound companies' qualms about investing in new projects. Wood Mackenzie Ltd. warned in March that the copper concentrate market will tighten as Chinese smelters' capacity additions run ahead of mine supply. Treatment charges may fall below \$60 as China adds about 800,000 tons of refining capacity this year, Zhu Yi, an analyst at Bloomberg Intelligence, wrote in a note on May 29.
- Chile's central bank trimmed its estimate for the average price of copper for 2019-2021 to \$2.80 from \$2.90, citing the impacts of the U.S.-China trade war on its top export, the bank said in a report. The bank added in a report on its monetary policy that it expects inflation to converge to its goal of 3% next year. Bank surprised the market lately by slashing the benchmark interest rate 50 basis points to 2.5% and cutting its forecast for this year's economic growth in Chile.
- More than 3,000 unionized workers at Codelco's sprawling Chuquibambilla copper mine walked off the job early Friday morning (21.06) after failing to

reach a labor deal earlier this week with Codelco, the world's top producer of the metal. Chuquicamata unions 1, 2, and 3 rejected a contract offer from the state miner on Wednesday, saying it did not meet key demands, including an adequate health care plan, fair treatment of workers and retirement benefits. The three unions represent 80% of the mine's workforce. Union leaders told reporters the strike kicked off with the first shift of the morning at 5 a.m. local time (0900 GMT). It was not immediately clear how the walkout was affecting production. Waving black and Chilean flags, a caravan of workers traveled the dusty desert roads before dawn from the regional hub of Calama to the doorstep of the mine to initiate the strike. Codelco has said its last proposal was the best it could offer "while still being responsible to the country, considering the transformation that both the company and the Chuquicamata division are undergoing." Codelco is seeking to transform the century-old deposit at Chuquicamata into an underground mine and part of a 10-year, \$39 billion overhaul of Codelco's key operations. It is seeking to maintain output despite rapidly falling ore grades at its deposits.

Precious Metals

While silver investment demand in the West continues to remain weak, in India silver purchase have exploded to record highs. Furthermore, even stronger Indian silver demand is expected in 2019 due distribution of the government money ahead of the President's election. Many Indians use it to purchase silver as an investment. On the physical gold market discounts in India widened to their biggest in five months as an upsurge in local prices dampened purchases, while China and Singapore saw demand rise from investors looking to hedge against a global slowdown.

U.S. silver exports to India explode

While silver investment demand in the West continues to remain weak, Indians are purchasing the white shiny metal hand over fist. You can say that U.S. silver exports to India have exploded to record highs. Furthermore, according to the Metals Focus Consultancy, they forecast even stronger Indian silver demand in 2019 due to rural Indians spending their "Cash Handouts" from the government to assist local economies ahead of the President's election. Many Indians use it to purchase silver as an investment. From March to August 2018, U.S. silver shipments totaled a paltry two metric tons in comparison to the 517 metric tons from September to February 2019. So, as we can see from the data above, there is extremely high demand for silver in India. Now, if we look at the total annual U.S. silver exports for the past several years, the change in Indian demand is even more striking. Total U.S. silver exports were 289 metric tons (mt) in 2016 and fell to 157 mt in 2017. Then due to the enormous increase in Indian silver demand, total U.S. silver exports surged to 604 mt in 2018, if we remove the "Indian component" it would have only been 205 mt. While it's true that this huge increase in Indian silver demand hasn't impacted the price yet, wait until the

economy and financial system start to really come apart over the next few years. Today, as the markets continue to sell off due to more Trade Wars, gold and silver are in the green. Even though gold is outperforming silver today, they are doing exactly as predicted during significant market downturns. And this is only the beginning of an even greater dislocation between the overall markets and precious metals in the years ahead.

Indian silver demand remains robust and is expected to be firm in 2019



Source: USGS Silver Mineral Industry Surveys, KGHM Polska Miedź

Buying picks up in China and Singapore, drops in India


Physical gold discounts in India widened to their biggest in five months as an upsurge in local prices dampened purchases, while China and Singapore saw demand rise from investors looking to hedge against a global slowdown.

According to Reuters physical gold discounts in India widened to their biggest in five months as an upsurge in local prices dampened purchases, while China and Singapore saw demand rise from investors looking to hedge against a global slowdown. Dealers in India, which is also the world’s second biggest bullion consumer, were offering a discount of \$7 an ounce over official domestic prices, the highest since mid-Jan. Premiums in top gold consumer China, still engaged in an exacerbated trade war with the United States, rose to \$10-\$12.50 an ounce over the global benchmark. “You can see some demand from Shanghai, because some people are buying gold as a safe-haven in the backdrop of trade-war uncertainties,” said Peter Fung from Wing Fung Precious Metals. However, sustained weakness of the yuan against the dollar extended a ceiling on demand, Fung added. Markets in Singapore also saw premiums rise to 60 cents to 80. “As a safe haven metal, physical gold demand is continuing to be supported by unresolved global uncertainties such as the U.S. trade disputes and the protests in Hong Kong,” See Hong Kong form BullionStar Singapore said. As economic turmoil perked up spot gold prices to a fresh 14-month high, demand in other major gold hubs suffered as a result. In Japan gold was being sold at par with the global benchmark prices. In Hong Kong too, spot price has put increasing pressure on demand and kept premiums nearly unmoved between 50 cents to \$1.20.

Macroeconomic calendar

Important macroeconomic data releases

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
China 						
***	03-Jun	Caixin's manufacturing PMI	May	50.2 -	50.2	50.0
**	10-Jun	Trade balance (USD bn)‡	May	41.7	13.8	22.3
**	10-Jun	Exports (yoy)	May	1.1%	-2.7%	-3.9%
*	10-Jun	Foreign reserves (USD bn)	May	3 101	3 095	3 090
****	12-Jun	Consumer inflation CPI (yoy)	May	2.7%	2.5%	2.7%
**	12-Jun	Producer inflation PPI (yoy)	May	0.6%	0.9%	0.6%
*	12-Jun	New yuan loans (CNY bn)	May	1 180	1 020	1 300
****	14-Jun	Industrial production (yoy)	May	5.0%	5.4%	5.4%
**	14-Jun	Fixed assets investments (ytd, yoy)	May	5.6%	6.1%	6.1%
*	14-Jun	Retail sales (yoy)	May	8.6%	7.2%	8.1%
Poland 						
***	03-Jun	Manufacturing PMI	May	48.8	49.0	49.0
****	04-Jun	Consumer inflation CPI (yoy) - preliminary data	May	2.3%	2.2%	2.4%
*****	05-Jun	NBP base rate decision	Jun	1.50% -	1.50%	1.50%
**	13-Jun	Trade balance (EUR mn)	Apr	279	589	467
**	13-Jun	Exports (EUR mn)	Apr	19 440	19 654	19 474
**	13-Jun	Current account balance (EUR mn)	Apr	718	533	648
****	14-Jun	Consumer inflation CPI (yoy) - final data	May	2.4%	2.3%	2.3%
US 						
***	03-Jun	Manufacturing PMI - final data‡	May	50.5 -	50.5	50.6
**	03-Jun	ISM Manufacturing	May	52.1	52.8	53.0
**	04-Jun	Durable goods orders - final data‡	Apr	-2.1%	-2.8%	--
***	05-Jun	Composite PMI - final data‡	May	50.9 -	50.9	--
***	05-Jun	PMI services - final data	May	50.9	53.0	50.9
**	07-Jun	Change in non-farm payrolls (ths)‡	May	75.0	224	175
**	07-Jun	Underemployment rate (U6)	May	7.1%	7.3%	--
**	07-Jun	Unemployment rate	May	3.6% -	3.6%	3.6%
*	07-Jun	Average hourly earnings (yoy)	May	3.1%	3.2%	3.2%
****	12-Jun	Consumer inflation CPI (mom)	May	0.1%	0.3%	0.1%
****	12-Jun	Consumer inflation CPI (yoy)	May	1.8%	2.0%	1.9%
****	14-Jun	Industrial production (mom)‡	May	0.4%	-0.4%	0.2%
**	14-Jun	Retail sales (excluding autos, mom)‡	May	0.5% -	0.5%	0.4%
**	14-Jun	University of Michigan confidence index - preliminary data	Jun	97.9	100	98.0
*	14-Jun	Capacity utilization	May	78.1%	77.9%	78.0%

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
Eurozone 						
☉☉☉	03-Jun	Manufacturing PMI - final data‡	May	47.7 -	47.7	47.7 ○
☉☉☉☉	04-Jun	Core CPI (yoy) - estimation	May	0.8% ▼	1.3%	0.9% ◡
☉☉☉☉	04-Jun	CPI estimate (yoy)	May	1.2% ▼	1.7%	1.3% ◡
☉☉	04-Jun	Unemployment rate	Apr	7.6% ▼	7.7%	7.7% ◡
☉☉☉	05-Jun	Composite PMI - final data‡	May	51.8 -	51.8	51.6 ◢
☉☉☉	05-Jun	Services PMI - final data‡	May	52.9 -	52.9	52.5 ◢
☉☉	05-Jun	Retail sales (yoy)‡	Apr	1.5% ▼	2.0%	1.5% ○
☉☉	05-Jun	Producer inflation PPI (yoy)	Apr	2.6% ▼	2.9%	3.1% ◡
☉☉☉☉☉☉	06-Jun	ECB main refinancing rate	Jun	0.00% -	0.00%	0.00% ○
☉☉☉☉☉☉	06-Jun	ECB deposit facility rate	Jun	-0.4% -	-0.4%	-0.4% ○
☉☉☉☉☉☉	06-Jun	GDP (sa, yoy) - final data	1Q	1.2% -	1.2%	1.2% ○
☉☉☉☉☉☉	06-Jun	GDP (sa, qoq) - final data	1Q	0.4% -	0.4%	0.4% ○
☉☉☉	06-Jun	Gross fixed capital (qoq)‡	1Q	1.1% ▼	1.4%	0.5% ◢
☉☉☉	06-Jun	Households consumption (qoq)‡	1Q	0.5% ▲	0.3%	0.6% ◡
☉☉☉☉	13-Jun	Industrial production (sa, mom)‡	Apr	-0.5% ▼	-0.4%	-0.5% ○
☉☉☉☉	13-Jun	Industrial production (wda, yoy)‡	Apr	-0.4% ▲	-0.7%	-0.6% ◢
Germany 						
☉☉☉	03-Jun	Manufacturing PMI - final data‡	May	44.3 -	44.3	44.3 ○
☉☉☉	05-Jun	Composite PMI - final data‡	May	52.6 -	52.6	52.4 ◢
☉☉☉	06-Jun	Factory orders (wda, yoy)‡	Apr	-5.3% ▲	-5.9%	-5.9% ◢
☉☉☉☉	07-Jun	Industrial production (wda, yoy)	Apr	-1.8% ▼	-0.9%	-0.4% ◡
☉☉☉☉	13-Jun	Harmonized consumer inflation HICP (yoy) - final data	May	1.3% -	1.3%	1.3% ○
☉☉☉☉	13-Jun	Consumer inflation CPI (yoy) - final data	May	1.4% -	1.4%	1.4% ○
France 						
☉☉☉	03-Jun	Manufacturing PMI - final data‡	May	50.6 -	50.6	50.6 ○
☉☉☉	05-Jun	Composite PMI - final data‡	May	51.2 -	51.2	51.3 ◡
☉☉☉☉	07-Jun	Industrial production (yoy)‡	Apr	1.1% ▲	-0.7%	1.0% ◢
☉☉☉☉	14-Jun	Harmonized consumer inflation HICP (yoy) - final data	May	1.1% -	1.1%	1.1% ○
☉☉☉☉	14-Jun	Consumer inflation CPI (yoy) - final data‡	May	0.9% -	0.9%	1.0% ◡
Italy 						
☉☉☉	03-Jun	Manufacturing PMI	May	49.7 ▲	49.1	48.5 ◢
☉☉	04-Jun	Unemployment rate - preliminary data	Apr	10.2% -	10.2%	10.3% ◡
☉☉☉	05-Jun	Composite PMI	May	49.9 ▲	49.5	49.3 ◢
☉☉☉☉	10-Jun	Industrial production (wda, yoy)‡	Apr	-1.5% ▲	-1.6%	-0.5% ◡
☉☉☉☉	14-Jun	Harmonized consumer inflation HICP (yoy) - final data	May	0.9% -	0.9%	0.9% ○
UK 						
☉☉☉	03-Jun	Manufacturing PMI (sa)	May	49.4 ▼	53.1	52.2 ◡
☉☉☉	05-Jun	Composite PMI	May	50.9 -	50.9	51.0 ◡
☉☉☉☉	10-Jun	Industrial production (yoy)	Apr	-1.0% ▼	1.3%	0.9% ◡
☉☉	11-Jun	Unemployment rate (ILO, 3-months)	Apr	3.8% -	3.8%	3.8% ○
Japan 						
☉☉☉	03-Jun	Manufacturing PMI - final data	May	49.8 ▼	50.2	--
☉☉☉	05-Jun	Composite PMI	May	50.7 ▼	50.8	--
☉☉☉☉☉	10-Jun	GDP (annualized, qoq) - final data	1Q	2.2% ▲	2.1%	2.2% ○

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 Polska Miedź

Key market data

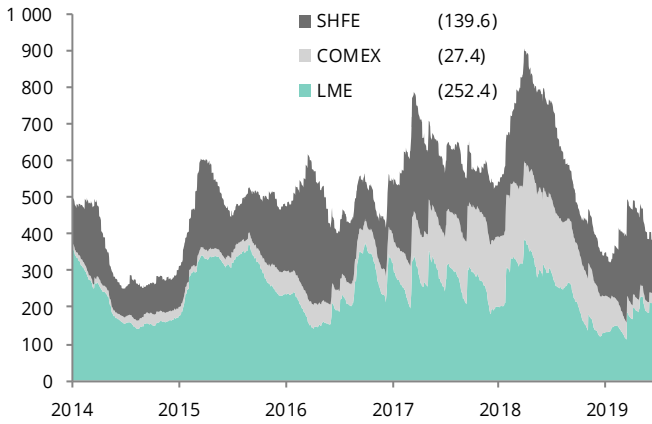
Key base & precious metal prices, exchange rates and other important market factors

(as of: 14-Jun-19)		Price change ¹					From year beginning ²		
	Price	2W	QTD	YTD	1Y	Average	Min	Max	
LME (USD/t)									
Copper	5 805.50	▲ 0.2%	▼ -10.5%	▼ -2.7%	▼ -19.3%	6 185.69	5 770.00	6 572.00	
Molybdenum	-	-	-	-	-	-	-	-	
Nickel	11 895.00	▲ 0.3%	▼ -8.6%	▲ 12.3%	▼ -22.0%	12 327.32	10 440.00	13 610.00	
Aluminum	1 737.50	▼ -1.5%	▼ -8.6%	▼ -7.1%	▼ -23.7%	1 832.08	1 720.50	1 923.00	
Tin	19 550.00	▲ 2.9%	▼ -9.4%	▲ 0.3%	▼ -7.0%	20 554.30	18 860.00	21 925.00	
Zinc	2 575.00	▼ -1.5%	▼ -14.2%	▲ 2.6%	▼ -20.0%	2 745.10	2 462.00	3 018.00	
Lead	1 882.00	▲ 5.1%	▼ -6.9%	▼ -6.3%	▼ -23.6%	1 966.89	1 768.00	2 154.00	
LBMA (USD/troz)									
Silver	15.03	▲ 2.2%	▼ -0.5%	▼ -2.8%	▼ -12.3%	15.24	14.38	16.08	
Gold ²	1 351.25	▲ 2.6%	▲ 4.3%	▲ 5.4%	▲ 3.7%	1 299.61	1 269.50	1 351.25	
LPPM (USD/troz)									
Platinum ²	806.00	▲ 0.8%	▼ -5.2%	▲ 1.5%	▼ -11.3%	834.23	782.00	914.00	
Palladium ²	1 447.00	▲ 8.0%	▲ 4.1%	▲ 14.6%	▲ 43.3%	1 401.68	1 267.00	1 604.00	
FX³									
EURUSD	1.1265	▲ 0.7%	▲ 0.3%	▼ -1.6%	▼ -4.0%	1.1296	1.1123	1.1535	
EURPLN	4.2554	▼ -0.6%	▼ -1.1%	▼ -1.0%	▼ -0.5%	4.2967	4.2554	4.3402	
USDPLN	3.7727	▼ -1.5%	▼ -1.7%	▲ 0.3%	▲ 4.3%	3.8029	3.7243	3.8696	
USDCAD	1.3385	▼ -0.6%	▲ 0.2%	▼ -1.9%	▲ 2.6%	1.3346	1.3095	1.3600	
USDCNY	6.9255	▲ 0.3%	▲ 3.2%	▲ 0.7%	▲ 8.2%	6.7783	6.6872	6.9311	
USDCLP	696.25	▼ -1.9%	▲ 2.2%	▲ 0.2%	▲ 9.7%	674.57	649.22	709.80	
Money market									
3m LIBOR USD	2.402	▼ -0.08	▼ -0.20	▼ -0.41	▲ 0.07	2.620	2.402	2.804	
3m EURIBOR	-0.318	▲ 0.01	▼ -0.01	▼ -0.01	▲ 0.00	-0.310	-0.323	-0.306	
3m WIBOR	1.720	-	0.00	-	0.00	1.720	1.720	1.720	
5y USD interest rate swap	1.811	▼ -0.02	▼ -0.47	▼ -0.76	▼ -1.14	2.387	1.811	2.715	
5y EUR interest rate swap	-0.167	▼ -0.07	▼ -0.18	▼ -0.37	▼ -0.50	0.062	-0.167	0.222	
5y PLN interest rate swap	1.823	▼ -0.09	▼ -0.12	▼ -0.29	▼ -0.67	2.032	1.823	2.240	
Fuel									
WTI Cushing	52.51	▼ -1.4%	▼ -12.7%	▲ 15.6%	▼ -21.5%	57.50	46.54	66.40	
Brent	62.89	▲ 1.3%	▼ -6.8%	▲ 18.3%	▼ -16.4%	66.11	53.83	73.89	
Diesel NY (ULSD)	182.07	▲ 0.9%	▼ -7.9%	▲ 8.2%	▼ -15.6%	196.45	170.01	212.40	
Others									
VIX	15.28	▼ -3.58	▲ 1.57	▼ -10.14	▲ 3.16	15.86	12.01	25.45	
BBG Commodity Index	77.83	▲ 0.5%	▼ -4.0%	▲ 1.5%	▼ -12.8%	80.31	76.49	83.06	
S&P500	2 886.98	▲ 5.2%	▲ 1.9%	▲ 15.2%	▲ 3.8%	2 791.98	2 447.89	2 945.83	
DAX	12 096.40	▲ 2.6%	▲ 4.9%	▲ 14.6%	▼ -7.7%	11 620.32	10 416.66	12 412.75	
Shanghai Composite	2 881.97	▼ -0.3%	▼ -6.8%	▲ 15.6%	▼ -5.3%	2 898.01	2 464.36	3 270.80	
WIG 20	2 286.46	▲ 2.2%	▼ -1.1%	▲ 0.4%	▲ 2.1%	2 316.00	2 163.94	2 414.41	
KGHM	98.44	▲ 2.4%	▼ -8.0%	▲ 10.8%	▲ 6.9%	98.64	86.12	112.00	

^o 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

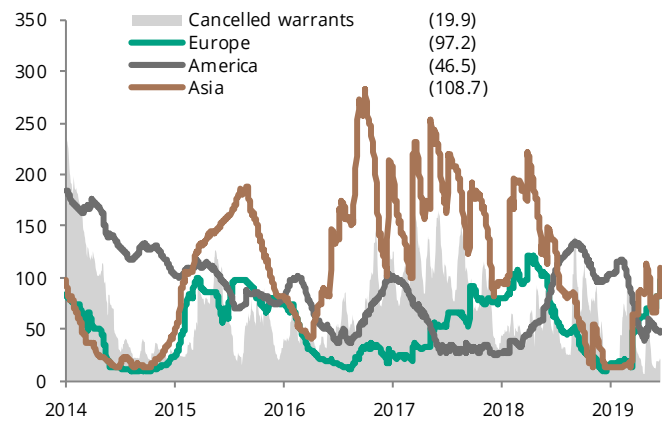
Source: Bloomberg, KGHM Polska Miedź

Copper: official exchange stocks (thousand tonnes)



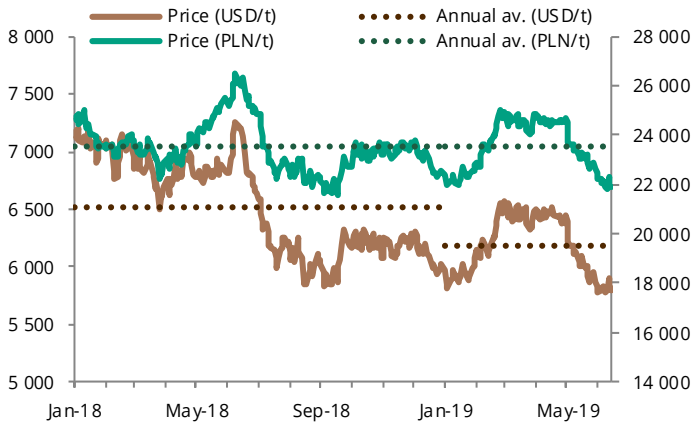
Note: Latest values in brackets. Source: Bloomberg, KGHM

Copper: official LME stocks (thousand tonnes)



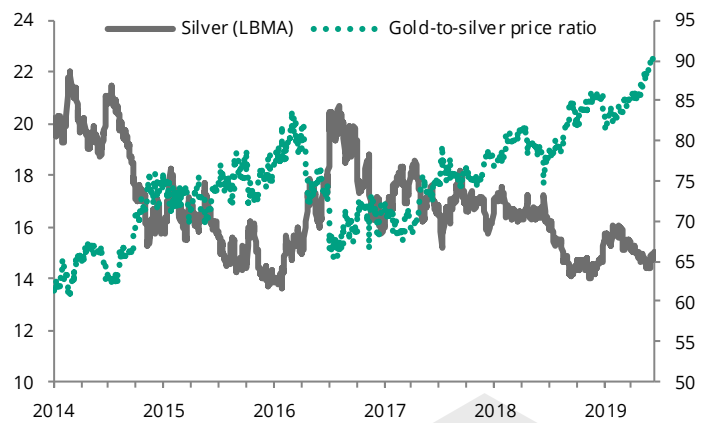
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



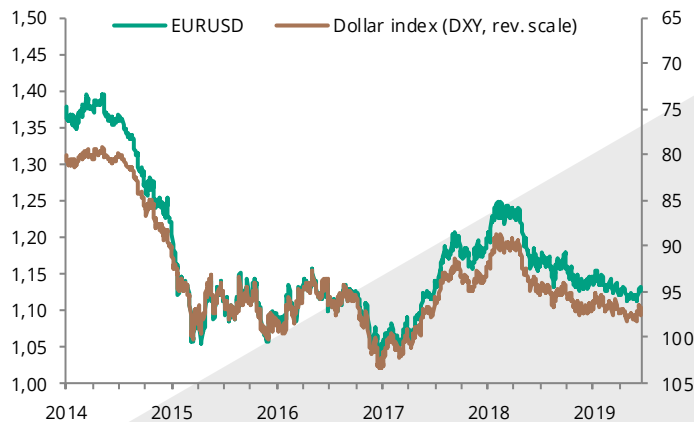
Source: Bloomberg, KGHM Polska Miedź

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



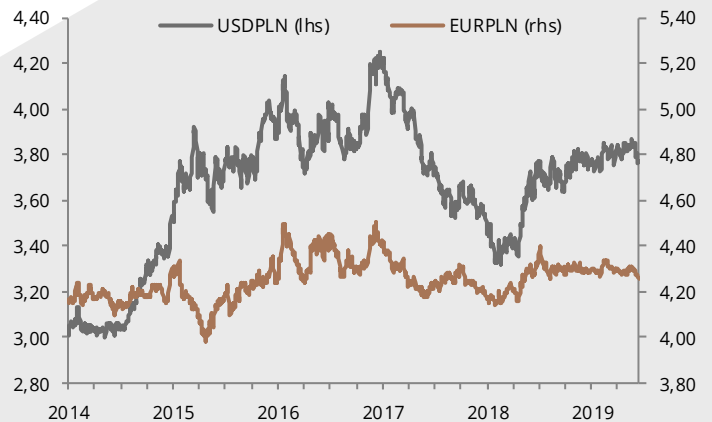
Source: Bloomberg, KGHM Polska Miedź

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:
3rd – 17th June 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 (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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