

Market Overview

as of: 6th March 2017



- Copper:** The market has been driven mostly by the news about strike in the biggest copper mine – Escondida – as well as more structural problems with the second biggest mine – Grasberg, in which Freeport cannot find a way to reach the long term agreement with the Indonesian government. The price has been trying to jump beyond 6000 USD/t but without any luck, mainly due to cathode and scrap availability (*page 2*).
- Precious metals:** In recent weeks gold prices remained in 1220 – 1260 price range as the U.S. dollar firmed after the release of minutes from the last FOMC meeting, which suggested a cautious approach to interest rate hikes. Fed policymakers said it may be appropriate to raise interest rates again "fairly soon" should jobs and inflation data come in line with expectations, however that wasn't enough for the gold to make a decisive move in either direction (*page 5*).
- US Dollar vs. industrial metals relationship:** Correlation between US dollar and industrial metals prices has been counterintuitively flipped in the recent months bringing the correlation coefficient into neutral territory, meaning no correlation. As a result, such a linear relationship breakdown was one of the reasons why metals in the local currencies hit multiyear highs (*page 7*).

Key market prices

	Close price	2w chng.
LME (USD/t)		
▼ Copper	5 910.00	-0.5%
- Nickel	10 900.00	0.0%
LBMA (USD/troz)		
▼ Silver	17.66	-1.9%
▼ Gold (PM)	1 226.50	-1.2%
FX		
▼ EUR/USD	1.0565	-0.8%
▼ EUR/PLN	4.3078	-0.5%
▲ USD/PLN	4.0955	0.6%
▲ USD/CAD	1.3419	2.3%
▲ USD/CLP	654.11	2.5%
Stocks		
▼ KGHM	127.60	-0.2%

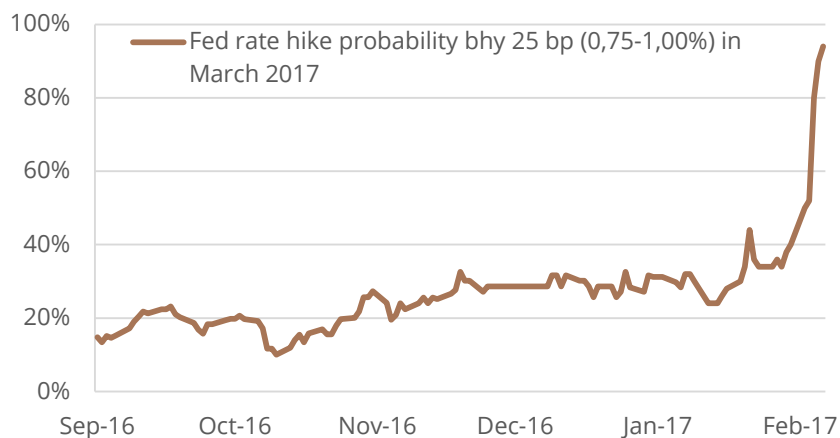
Source: Bloomberg, KGHM Polska Miedź; (*more on page 10*)

Important macroeconomic data

Release	For		
 Official manuf. PMI	Feb	51.6	▲
 GDP (yoy)	4Q	2.7%	-
 GDP (annlzd., qoq)	4Q	1.9%	-
 CPI estimate (yoy)	Feb	2.0%	▲
 Copper production (mt)	Jan	452 035	▼

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

According to the market expectation Fed is about to hike rate for the third time in the last decade in the coming FOMC meeting



Source: Bloomberg, KGHM Polska Miedź

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Base and precious metals | Other commodities

Copper

The market has been driven mostly by the news about strike in the biggest copper mine – Escondida – as well as more structural problems with the second biggest mine – Grasberg, in which Freeport cannot find a way to reach the long term agreement with the Indonesian government. The price has been trying to jump beyond 6000 USD/t but without any luck, mainly due to cathode and scrap availability.

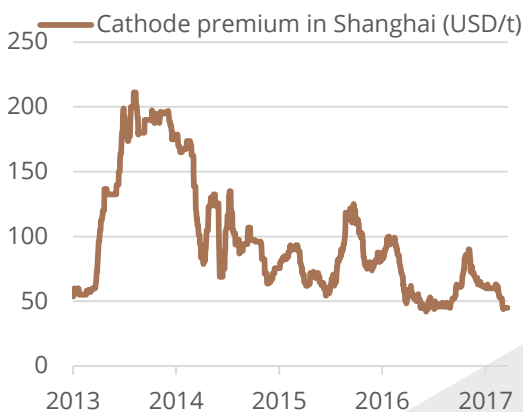
Copper physical premiums hit

Shanghai copper premiums are coming under further pressure as warehouse companies in Singapore are reducing and scrapping incentives, which could see further shipments into China, according to Metal Bulletin. Some warehousing companies in Singapore had offered incentives in the range of \$40-55 for copper cathode, depending on tonnage and storage length. However, several companies are no longer making these offers, sources told Metal Bulletin. Only a few customers with large tonnages can negotiate incentives or delivery costs now, Metal Bulletin's sources said. In warehouses, cathode was staying less than one month, not long enough for warehousing companies' to reach break-even point. As Metal Bulletin says in the article, the faking of Access World receipts makes warrants from other big warehousing companies popular. Banks are now pickier about this when issuing letters of credit. Incentives for Asian warehouses in locations other than Singapore remain about \$40 per tonne.

The figure of \$40 per tonne was widely believed to be the bottom line for Shanghai copper premiums in the past because of the incentives available. Traders have the option to ship cargoes elsewhere if the Shanghai figure falls below \$40 per tonne; the incentive covers the cost of moving cargoes. China exported more copper last year when premiums were hovering around \$40 per tonne. This brought China's total copper exports for 2016 to 425,620 tonnes, a surge of 101% yoy. Demand for copper in Shanghai is poor after the Chinese New Year holiday because banks are tightening their credit policies. Metal Bulletin assessed that CIF Shanghai premiums had fallen to a six-month low of \$45-55 per tonne. As a result, stocks have accumulated significantly over the past month. Deliverable copper cathodes at Shanghai Futures Exchange approved warehouses rose by 18,071 tonnes or 6.51% week-on-week to 295,730 tonnes on Friday February 17; this was the fifth consecutive week of increases. SHFE stocks hit an all-time high last March of 394,777 tonnes before export activities started. Locations such as Singapore, Busan and Kaohsiung were major destinations for Chinese exports. Shanghai bonded stocks were assessed to be about 500,000-505,000 tonnes in early February, while market participants reported significant increases recently.

Source: Metal Bulletin

Physical premiums in Shanghai are said to be on multiyear lows



Source: Metal Bulletin, KGHM Polska Miedź

Other important information on copper market:

- *[Platts]* Chinese spot copper concentrate treatment and refining charges (TC/RCs) for clean ore continued to soften on ongoing concerns over the labor strike at Chile's Escondida copper mine. Spot TC/RCs were mostly heard at \$78-\$83/dmt and 7.8-8.3 cents respectively, down from 80-85/dmt and 8-8.5 cents/lb recently. A solution to the strike at Escondida, the world's largest copper mine, appears no closer, with the union demanding the BHP Billiton-controlled company agree to several conditions before talks can begin, a union spokesman said Monday. Workers went on strike February 9 after a month of negotiations ended without an agreement over a new pay contract.
- *[ICSG]* The refined global copper market recorded a 90,000 mt deficit between January and November, according to preliminary data released by the International Copper Study Group. This is compared with a deficit of 122,000 mt in the same period of 2015, and is up from a deficit of 64,000 mt for January to October reported last month. When making seasonal adjustments for world refined production and usage, the balance showed a 17,000 mt surplus for January to November, from 5,000 mt in the same period of 2015 and up from a 3,000 mt surplus for January-October. The refined balance showed a 9,000 mt deficit in November, up from a 49,000 mt surplus in October, while the seasonally adjusted refined balance showed a 40,000 mt surplus in November, down from a 63,000 mt surplus the previous month. World mine production was shown to have increased by 5% in the first 11 months of 2016 to 18.4 million mt, primarily due to a 41% increase in Peruvian concentrate that is benefitting from new and expanded capacity brought on stream in the last two years, according to ICSG. Production also increased in Canada, Indonesia and the US, as well as expanded capacity in Mexico, but fell by 4.3% in Chile, the world's largest producer, and a 5.5% decline in the Democratic Republic of Congo.
- *[Platts]* Heavy rains and flooding across Chile have slowed mining activity in the copper-rich north of the country, according to the government news, with the northern region of Antofagasta the worst affected. The ministry said that mines operations in areas affected by the weather conditions are operating partially. All the mining companies in the region have activated contingency plans. Mines in the Antofagasta region, which include Codelco's Chuquicamata, Ministro Hales and Radomiro Tomic mines, Freeport McMoRan's El Abra operation and the BHP Billiton-controlled Escondida pit, produced a total of 3.1 million mt of copper in 2015, representing 54% of Chile's total output. Production at the Escondida mine has been halted since February 9 when workers began a strike over pay. Major mines in central Chile, including Codelco's Andina and El Teniente divisions and Anglo American's Los Bronces, are operating normally although some roads and other transport infrastructure have been closed. The railroad that carries concentrates from Andina to the Port of Ventanas has been suspended while preventative measures have been taken the open pit at El Teniente.

- *[Metal Bulletin]* Revenue from the London Metal Exchange fell 10% to HK\$1.56 billion (\$201 million) in 2016 amid a decline in trading fees, according to the financial report of parent company Hong Kong Exchanges and Clearing (HKEX). Trading fees – which is the largest contributor to revenue for the LME - fell 12% to HK\$1.23 billion last year due to an 8% drop in average daily volume of metals contracts traded, increased market making incentive rebates, new member incentive rebates introduced in the third quarter of 2015 and fee reductions for short-dated carry trades effective from September 2016. In August last year, the LME had announced a number of measures which included the fee reduction for short-dated carry trades and a cap on the cost of member and client position transfers in an attempt to soothe members' concerns over fee increases in 2015. Trading fees at the LME will remain unchanged in 2017, including the continuation of fee discounts for short-dated carries and position transfer caps as announced in August 2016. Average daily volume of metals contracts traded on the LME fell 8% to 618,627 lots in 2016. The LME's EBITDA was down 19% to HK\$963 million, while operating expenses rose 9% to HK\$597 million. The increase in expenses was principally due to increased headcount for strategic initiatives - including product development and the establishment of a commodities trading platform in China - higher premises costs for new offices in London and China, and also higher legal and professional fees incurred on strategic projects.
- Peru replaced China as the world's second biggest copper miner last year; and indeed by some margin, driven by major contributions from MMG's new Las Bambas mine and the expansion at Freeport McMoRan-controlled Cerro Verde. The expected production growth is estimated at a much slower pace in 2017, but its ranking on the world stage will not be threatened.
- *[Xinhua]* China's State Council issued a plan to expand its transport network during the 13th Five-year Plan (2016-2020). By 2020, the country will have 150,000 kilometers of railway lines, 5 million km of roads, 260 airports and 2,527 berths for vessels over 10,000 tonnes. The country also plans to expand its high-speed railway network to 30,000 km by 2020, connecting more than 80 percent of cities with a population of more than 1 million. Minister of Transport Li Xiaopeng said that the country would channel 15 trillion yuan (2.17 trillion U.S. dollars) into transport infrastructure projects during the five years up to 2020, including 3.5 trillion yuan for railways, 7.8 trillion yuan for roads and 500 billion yuan for water transport. The country's transport investment totaled 13.4 trillion yuan between 2011 and 2015, about 1.6 times that spent from 2006 to 2010.
- *[Daily Mail]* China's labor minister says Beijing will cut another 500,000 jobs this year from steel, coal and other heavy industries to reduce excess production capacity that's flooding markets and depressing global prices. The government will provide support for the laid-off workers to transfer to other jobs, start their own companies or retire. China is in the midst of a multi-year effort to shrink bloated industries including steel, coal, aluminum, cement and glass in which production exceeds demand. Some companies

are trying to export their surplus output, prompting complaints by the United States, Europe and other trading partners that they're threatening thousands of jobs. It is said that the government provided similar aid last year to 726,000 workers whose jobs in coal and steel were eliminated.

- First Quantum's copper output will rise in 2017-19 as the company ramps up at Sentinel mine. Management said that it's targeting copper output of 195,000 metric tons from its new Zambian operation in 2017, and 235,000 tons in 2019, compared with 139,600 tons in 2016. First Quantum also said that as of Dec. 31, the company had copper sales hedge for 510,075 tons at an average price of \$2.25 a pound in 2017. This could limit the upside to earnings growth if the increase in metal prices this year continues, given it was 17% below the spot price as of March 1.

Precious Metals

In recent weeks gold prices remained in 1220 – 1260 price range as the U.S. dollar firmed after the release of minutes from the last FOMC meeting, which suggested a cautious approach to interest rate hikes. Fed policymakers said it may be appropriate to raise interest rates again "fairly soon" should jobs and inflation data come in line with expectations, however that wasn't enough for the gold to make a decisive move in either direction.

LBMA silver price – an unwanted child

The London Bullion Market Association is set to launch a search for a new provider for its London silver benchmark, after CME Group and Thomson Reuters said that they'll be stepping down. CME Group and Thomson Reuters didn't offer specific reasons for their decision, but Thomson Reuters noted that coming European benchmark regulation prompted a review of the LBMA silver price administration arrangements.

The LBMA silver price is the global reference rate for the price of silver. It has been set by electronic auction, with the Thomson Reuters and CME Group providing it to the LBMA. New European legislation set for implementation in January 2018 will regulate the provision of, contribution to and use of a wide set of benchmarks, according to the London-based Financial Conduct Authority. According to market participants benchmark administering means that there is much work and cost, but for very modest commercial reward, plus the ever-present danger of legal action or reputational damage—whether guilty or not.

Thomson Reuters said that it, along with CME Group, will continue to operate and administer the auction until the LBMA can find a new provider. The two groups had been providing the silver benchmark since 2014. That is when the London Silver Market Fixing Ltd. announced it would no longer publish the London Silver Fixing—the global benchmark used by jewellers, miners and others to price their deals.

European benchmark regulation forces CME and Reuters to step down from publishing London silver price

Market participants don't believe that the decision by CME Group and Thomson Reuters will impact silver prices. Investors in terms of replacement for London's benchmark point out at Shanghai, which has the largest physical gold market in the world and has "earned its place as a hub for gold prices," has established its own "fixes" in the Yuan and has already been contracted to provide the benchmark prices for the Dubai Gold Exchange and could do so for others.

Global economies | Foreign exchange markets

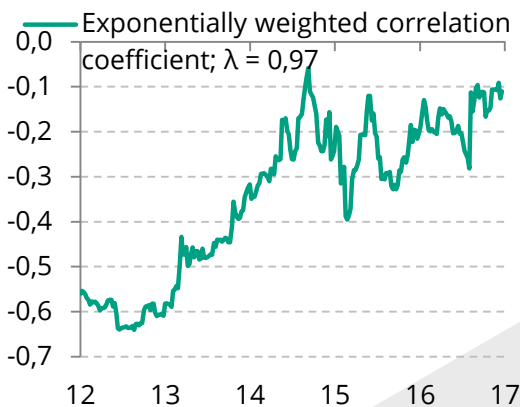
Dollar and its influence on metals' prices

Correlation between US dollar and industrial metals prices has been counterintuitively flipped in the recent months bringing the Pearson coefficient into neutral territory, meaning no correlation. As a result, such a linear relationship breakdown was one of the reasons why metals in the local currencies hit multiyear highs.

Currently, there is no statistical relationship between US dollar and industrial metal prices

The value of US dollar has always been important for metals markets' participants as global markets almost always discuss the metal prices quoted in dollars, despite the fact that production and consumption happen around the world. Mathematically the correlation should be simple - when dollar is rising against other currencies, the dollar price of metals is falling relative to the price of metals quoted in other currencies. However, in real world we've seen variety of events, muting or even turning such correlation from usually negative to positive. This has happened last November in a post-election Cu price rally and dollar surge against other currencies. Anyway, it didn't take long for markets to come back to natural situation of negative correlation and metal prices moved broadly inverse to dollar in the period from December 2016 until January 2017. Since then the relationship is different again and we can observe falling metal prices at the time of weakening US currency. According to Macquarie research team such odd results (both in November and now) are possible because of three reasons: the dollar is only one of many factors driving base metal prices, in case of market fundamentals dollar is losing its importance (yuan is no longer fixed against USD) and last, but not least, the dollar stopped to be safe-haven currency and became a risk-on currency.

Correlation between Dollar Index vs LME













Source: Bloomberg, KGHM Polska Miedź

The dollar strength will always influence dollar prices of metals. Historically it had particularly strong impact on gold price, but other metals prices were also influenced. Current situation shows that we are probably on a high end of dollar value, particularly after its post-election rally during Q4 2016. The anticipation that new administration will boost US growth by its stimulus policies and generally positive data coming from US economy encouraged investors to turn into USD, particularly in the environment of rising US yields and their differential against other countries. On historical basis dollar's value is now nearing its most recent peak in 2002. Fed's likely more hawkish stance can still move USD value little bit higher, which would pressure metals prices. However, according to Macquarie, the probability of another large appreciation in the near future is limited. Such opinion is backed by US administration, which officially stated concerns over USD value. One of the main campaign pledges - reduction of US trade deficit - needs a weaker dollar. The situation on US currency needs to be closely watched by commodity investors, as it will have the impact on dollar metal prices. Nevertheless, the size of this impact for most metals may be mitigated by greater economic optimism.

Macroeconomic calendar

Important macroeconomic data releases

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
China 						
☆☆☆	01-Mar	Official manufacturing PMI	Feb	51.6 ▲	51.3	51.2 ▲
☆☆☆	01-Mar	Caixin's manufacturing PMI	Feb	51.7 ▲	51.0	50.8 ▲
Poland 						
☆☆	23-Feb	Unemployment rate	Jan	8.6% ▲	8.3%	8.7% ▼
☆☆☆☆☆	28-Feb	GDP (yoy) - final data	4Q	2.7% -	2.7%	--
☆☆☆☆☆	28-Feb	GDP (qoq) - final data	4Q	1.7% -	1.7%	--
☆☆☆	01-Mar	Manufacturing PMI	Feb	54.2 ▼	54.8	54.8 ▼
US 						
☆☆☆	21-Feb	Composite PMI - preliminary data	Feb	--	55.8	--
☆☆☆	21-Feb	Manufacturing PMI - preliminary data	Feb	54.3 ▼	55.0	55.4 ▼
☆☆☆	21-Feb	PMI services - preliminary data	Feb	--	55.6	55.8
☆☆	24-Feb	University of Michigan confidence index - final data	Feb	96.3 ▲	95.7	96.0 ▲
☆☆	27-Feb	Durable goods orders - preliminary data‡	Jan	1.8% ▲	-0.8%	1.6% ▲
☆	27-Feb	Dallas Fed manufacturing activity	Feb	24.5 ▲	22.1	19.4 ▲
☆☆☆☆☆	28-Feb	GDP (annualized, qoq) -	4Q	1.9% -	1.9%	2.1% ▼
☆	28-Feb	Richmond Fed manufacturing index	Feb	17.0 ▲	12.0	10.0 ▲
☆	28-Feb	S&P/CaseShiller home price index‡	Dec	193 ▲	192	--
☆☆☆☆	01-Mar	Consumer spending inflation PCE (mom)	Jan	0.3% ▲	0.1%	0.3% ○
☆☆☆☆	01-Mar	Consumer spending inflation PCE (yoy)	Jan	1.7% -	1.7%	1.7% ○
☆☆☆	01-Mar	Manufacturing PMI - final data	Feb	54.2 ▼	54.3	54.5 ▼
☆☆	01-Mar	ISM Manufacturing	Feb	57.7 ▲	56.0	56.2 ▲
☆☆	01-Mar	Personal income (sa, mom)	Jan	0.4% ▲	0.3%	0.3% ▲
☆☆	01-Mar	Personal spending (sa, mom)	Jan	0.2% ▼	0.5%	0.3% ▼
☆☆☆	03-Mar	Composite PMI - final data	Feb	54.1 ▼	54.3	--
☆☆☆	03-Mar	PMI services - final data	Feb	53.8 ▼	53.9	54.0 ▼
Eurozone 						
☆	20-Feb	Consumer confidence - estimation‡	Feb	-6.2 ▼	-4.8	-4.9 ▼
☆☆☆	21-Feb	Composite PMI - preliminary data	Feb	--	54.4	54.3
☆☆☆	21-Feb	Manufacturing PMI - preliminary data	Feb	55.5 ▲	55.2	55.0 ▲
☆☆☆	21-Feb	Services PMI - preliminary data	Feb	--	53.7	53.7
☆☆☆☆	22-Feb	Consumer inflation CPI (yoy) - final data‡	Jan	1.8% ▲	1.1%	1.8% ○
☆☆☆☆	22-Feb	Core CPI (yoy) - final data	Jan	0.9% -	0.9%	0.9% ○
☆	27-Feb	M3 money supply (yoy)	Jan	4.9% ▼	5.0%	4.8% ▲
☆	27-Feb	Economic confidence	Feb	108 ▲	108	108 ▼
☆	27-Feb	Industrial confidence	Feb	1.3 ▲	0.8	1.0 ▲
☆	27-Feb	Consumer confidence - final data	Feb	-6.2 -	-6.2	-6.2 ○
☆	27-Feb	Business climate indicator‡	Feb	0.8 ▲	0.8	0.8 ▲
☆☆☆	01-Mar	Manufacturing PMI - final data	Feb	55.4 ▼	55.5	55.5 ▼
☆☆☆☆	02-Mar	Core CPI (yoy) - estimation	Feb	0.9% -	0.9%	0.9% ○
☆☆☆☆	02-Mar	CPI estimate (yoy)	Feb	2.0% ▲	1.8%	2.0% ○
☆☆	02-Mar	Unemployment rate	Jan	9.6% -	9.6%	9.6% ○
☆☆	02-Mar	Producer inflation PPI (yoy)	Jan	3.5% ▲	1.6%	3.2% ▲
☆☆☆	03-Mar	Composite PMI - final data	Feb	56.0 -	56.0	56.0 ○
☆☆☆	03-Mar	Services PMI - final data	Feb	55.5 ▼	55.6	55.6 ▼
☆☆	03-Mar	Retail sales (yoy)‡	Jan	1.2% -	1.2%	1.5% ▼

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²	
Germany							
☆☆☆	21-Feb	Composite PMI - preliminary data	Feb	--	54.8	54.8	
☆☆☆	21-Feb	Manufacturing PMI - preliminary data	Feb	57.0 ▲	56.4	56.0	▲
☆☆	22-Feb	IFO business climate‡	Feb	111 ▲	110	110	▲
☆☆☆☆☆	23-Feb	GDP (yoy) - final data	4Q	1.2% -	1.2%	1.2%	○
☆☆☆☆☆	23-Feb	GDP (sa, qoq) - final data	4Q	0.4% -	0.4%	0.4%	○
☆☆	23-Feb	GfK consumer confidence	Mar	10.0 ▼	10.2	10.1	▼
☆☆	23-Feb	Exports (qoq)‡	4Q	1.8% ▲	-0.3%	1.4%	▲
☆☆☆☆	01-Mar	Harmonized consumer inflation HICP (yoy) - preliminary data	Feb	2.2% ▲	1.9%	2.1%	▲
☆☆☆☆	01-Mar	Consumer inflation CPI (yoy) - preliminary data	Feb	2.2% ▲	1.9%	2.1%	▲
☆☆☆	01-Mar	Manufacturing PMI - final data	Feb	56.8 ▼	57.0	57.0	▼
☆☆	01-Mar	Unemployment rate	Feb	5.9% -	5.9%	5.9%	○
☆☆☆	03-Mar	Composite PMI - final data	Feb	56.1 -	56.1	56.1	○
☆☆☆	03-Mar	Retail sales (yoy)‡	Jan	2.3% ▲	0.4%	0.7%	▲
France							
☆☆☆☆	21-Feb	Harmonized consumer inflation HICP (yoy) - final data	Jan	1.6% -	1.6%	1.6%	○
☆☆☆☆	21-Feb	Consumer inflation CPI (yoy) - final data‡	Jan	1.3% -	1.3%	1.4%	▼
☆☆☆	21-Feb	Composite PMI - preliminary data	Feb	--	54.1	53.8	
☆☆☆	21-Feb	Manufacturing PMI - preliminary data	Feb	52.3 ▼	53.6	53.5	▼
☆☆☆☆☆	28-Feb	GDP (yoy) - preliminary data	4Q	1.2% ▲	1.1%	1.1%	▲
☆☆☆☆☆	28-Feb	GDP (qoq) - preliminary data	4Q	0.4% -	0.4%	0.4%	○
☆☆☆☆	28-Feb	Harmonized consumer inflation HICP (yoy) - preliminary data	Feb	1.4% ▼	1.6%	1.7%	▼
☆☆☆☆	28-Feb	Consumer inflation CPI (yoy) - preliminary data	Feb	1.2% ▼	1.3%	1.5%	▼
☆☆☆	01-Mar	Manufacturing PMI - final data	Feb	52.2 ▼	52.3	52.3	▼
☆☆☆	03-Mar	Composite PMI - final data	Feb	55.9 ▼	56.2	56.2	▼
Italy							
☆☆☆☆	22-Feb	Harmonized consumer inflation HICP (yoy) - final data‡	Jan	1.0% -	1.0%	0.7%	▲
☆☆☆☆	28-Feb	Harmonized consumer inflation HICP (yoy) - preliminary data	Feb	1.6% ▲	1.0%	1.3%	▲
☆☆☆	01-Mar	Manufacturing PMI	Feb	55.0 ▲	53.0	53.5	▲
☆☆	02-Mar	Unemployment rate - preliminary data‡	Jan	11.9% -	11.9%	12.0%	▼
☆☆☆☆☆	03-Mar	GDP (wda, yoy) - final data	4Q	1.0% ▼	1.1%	1.1%	▼
☆☆☆☆☆	03-Mar	GDP (wda, qoq) - final data	4Q	0.2% -	0.2%	0.2%	○
☆☆☆	03-Mar	Composite PMI	Feb	54.8 ▲	52.8	53.1	▲
UK							
☆☆☆☆☆	22-Feb	GDP (yoy) - preliminary data‡	4Q	2.0% -	2.0%	2.2%	▼
☆☆☆☆☆	22-Feb	GDP (qoq) - preliminary data	4Q	0.7% ▲	0.6%	0.6%	▲
☆☆☆	01-Mar	Manufacturing PMI (sa)‡	Feb	54.6 ▼	55.7	55.8	▼
☆☆☆	03-Mar	Composite PMI ‡	Feb	53.8 ▼	55.4	55.6	▼
Japan							
☆☆☆	21-Feb	Manufacturing PMI - preliminary data	Feb	--	52.7	--	
☆☆☆☆	28-Feb	Industrial production (yoy) - preliminary data	Jan	3.2% -	3.2%	4.3%	▼
☆☆☆	01-Mar	Manufacturing PMI - final data	Feb	53.3 ▼	53.5	--	
☆☆☆☆	03-Mar	Consumer inflation CPI (yoy)	Jan	0.4% ▲	0.3%	0.4%	○
☆☆☆	03-Mar	Composite PMI	Feb	52.2 ▼	52.3	--	
Chile							
☆☆☆	28-Feb	Total copper production (metric tons)‡	Jan	452 035 ▼	517 257	--	
☆☆☆	28-Feb	Manufacturing (yoy)‡	Jan	-1.1% ▼	0.5%	0.1%	▼

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

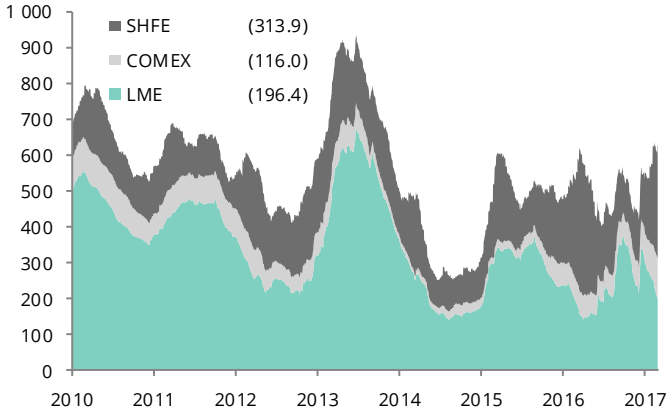
(as of: 03-Mar-17)

	Price	Price change °					From year beginning ²		
		2W	QTD	YTD	1Y	Average	Min	Max	
LME (USD/t)									
Copper	5 910.00	▼ -0.5%	▲ 7.4%	▲ 7.4%	▲ 22.4%	5 846.84	5 500.50	6 145.00	
Molybdenum	15 250.00	- 0.0%	- 0.0%	- 0.0%	▲ 25.0%	15 250.00	15 250.00	15 250.00	
Nickel	10 900.00	- 0.0%	▲ 8.9%	▲ 8.9%	▲ 24.1%	10 337.73	9 380.00	11 045.00	
Aluminum	1 909.00	▲ 2.3%	▲ 11.4%	▲ 11.4%	▲ 19.1%	1 829.88	1 701.00	1 934.00	
Tin	19 425.00	▼ -1.7%	▼ -7.9%	▼ -7.9%	▲ 17.0%	20 084.20	18 760.00	21 300.00	
Zinc	2 796.00	▼ -1.0%	▲ 9.1%	▲ 9.1%	▲ 52.7%	2 783.06	2 530.00	2 971.00	
Lead	2 247.50	▼ -0.9%	▲ 13.2%	▲ 13.2%	▲ 22.7%	2 277.56	2 007.00	2 442.00	
LBMA (USD/troz)									
Silver	17.66	▼ -1.9%	▲ 8.7%	▲ 8.7%	▲ 18.0%	17.38	15.95	18.34	
Gold ¹	1 226.50	▼ -1.2%	▲ 5.8%	▲ 5.8%	▼ -1.9%	1 214.48	1 151.00	1 257.20	
LPPM (USD/troz)									
Platinum ¹	987.00	▼ -2.3%	▲ 8.8%	▲ 8.8%	▲ 5.0%	989.93	929.00	1 033.00	
Palladium ¹	756.00	▼ -4.7%	▲ 11.8%	▲ 11.8%	▲ 44.3%	762.09	706.00	793.00	
FX ³									
EUR/USD	1.0565	▼ -0.8%	▲ 0.2%	▲ 0.2%	▼ -3.1%	1.0625	1.0385	1.0808	
EUR/PLN	4.3078	▼ -0.5%	▼ -2.6%	▼ -2.6%	▼ -0.4%	4.3358	4.2864	4.4002	
USD/PLN	4.0955	▲ 0.6%	▼ -2.0%	▼ -2.0%	▲ 2.9%	4.0798	3.9835	4.2271	
USD/CAD	1.3419	▲ 2.3%	▼ -0.1%	▼ -0.1%	▲ 0.1%	1.3169	1.3004	1.3438	
USD/CNY	6.8999	▲ 0.5%	▼ -0.6%	▼ -0.6%	▲ 5.6%	6.8837	6.8450	6.9640	
USD/CLP	654.11	▲ 2.5%	▼ -2.0%	▼ -2.0%	▼ -5.0%	652.35	638.35	673.36	
Money market									
3m LIBOR USD	1.102	▲ 0.05	▲ 0.10	▲ 0.10	▲ 0.47	1.039	0.999	1.102	
3m EURIBOR	-0.329	- 0.00	▼ -0.01	▼ -0.01	▼ -0.12	-0.327	-0.330	-0.319	
3m WIBOR	1.730	- 0.00	- 0.00	- 0.00	▲ 0.06	1.730	1.730	1.730	
5y USD interest rate swap	2.125	▲ 0.11	▲ 0.15	▲ 0.15	▲ 0.87	1.988	1.872	2.125	
5y EUR interest rate swap	0.191	▲ 0.06	▲ 0.12	▲ 0.12	▲ 0.23	0.134	0.078	0.198	
5y PLN interest rate swap	2.510	▼ -0.09	▲ 0.11	▲ 0.11	▲ 0.70	2.536	2.390	2.625	
Fuel									
WTI Cushing	53.33	▼ -0.1%	▼ -0.7%	▼ -0.7%	▲ 54.3%	52.97	50.82	54.10	
Brent	55.00	▼ -0.2%	▼ -0.7%	▼ -0.7%	▲ 50.3%	55.15	52.88	56.46	
Diesel NY (ULSD)	158.24	▼ -2.0%	▼ -6.8%	▼ -6.8%	▲ 43.0%	161.79	156.91	167.82	
Others									
VIX	10.96	▼ -0.53	▼ -3.08	▼ -3.08	▼ -5.74	11.58	10.58	12.92	
BBG Commodity Index	87.19	▼ -1.0%	▼ -0.4%	▼ -0.4%	▲ 13.4%	87.94	86.07	89.36	
S&P500	2 383.12	▲ 1.4%	▲ 6.4%	▲ 6.4%	▲ 19.6%	2 307.90	2 257.83	2 395.96	
DAX	12 027.36	▲ 2.3%	▲ 4.8%	▲ 4.8%	▲ 23.3%	11 706.97	11 509.84	12 067.19	
Shanghai Composite	3 218.31	▲ 0.5%	▲ 3.7%	▲ 3.7%	▲ 12.5%	3 178.34	3 101.30	3 261.22	
WIG 20	2 232.98	▲ 2.0%	▲ 14.6%	▲ 14.6%	▲ 19.0%	2 105.28	1 989.64	2 256.01	
KGHM	127.60	▼ -0.2%	▲ 38.0%	▲ 38.0%	▲ 73.6%	120.22	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

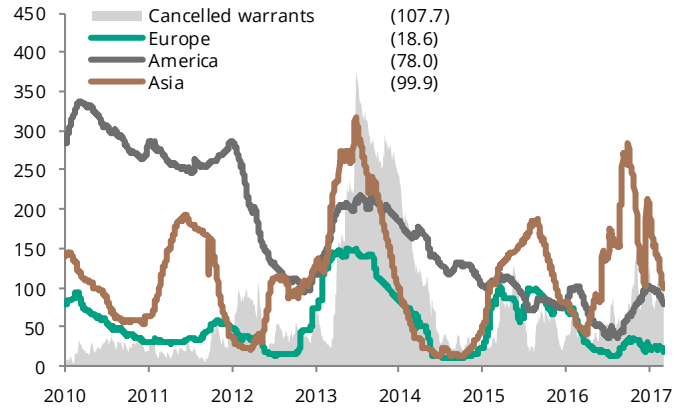
Source: Bloomberg, KGHM

Copper: official exchange stocks (thousand tonnes)



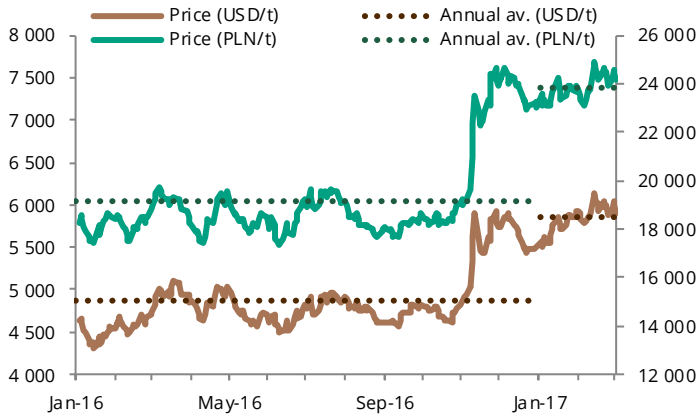
Note: Latest values in brackets. Source: Bloomberg, KGHM

Copper: official LME stocks (thousand tonnes)



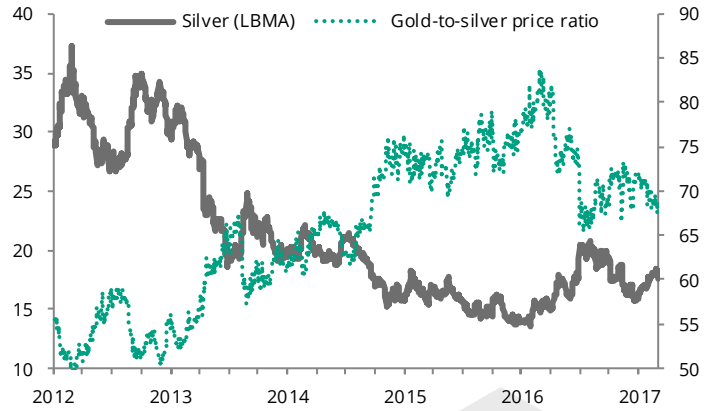
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



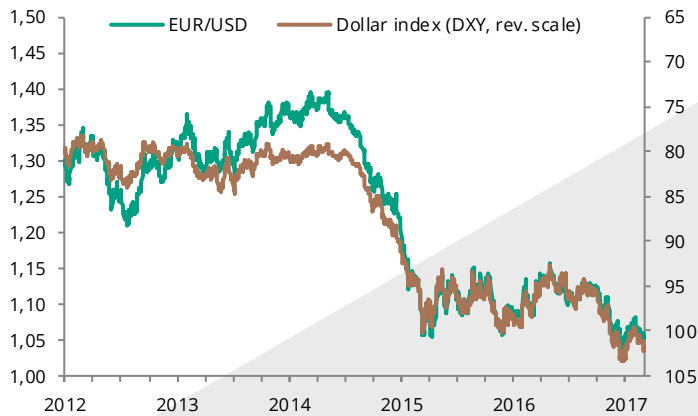
Source: Bloomberg, KGHM

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



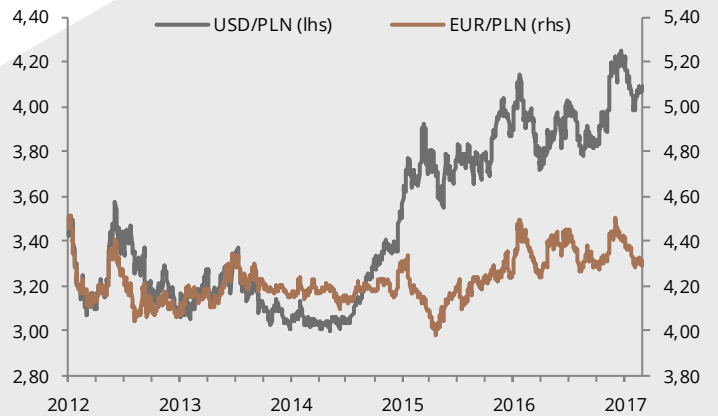
Source: Bloomberg, KGHM

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:
20th February – 5th March 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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