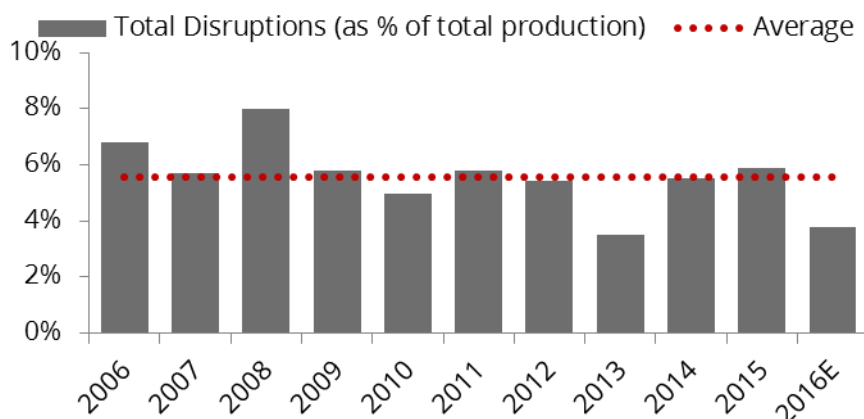


# Market Overview

 as of: 16<sup>th</sup> January 2017

- Copper:** Prices have been rising steadily in the recent fortnight with flows coming to the market, pushing the net long position to even higher levels, according to CFTC data. 2017 is said to be a comeback to "normal" (c5-6%) rates of production disruptions with a focus of several labor contracts to be negotiated (*page 2*).
- Precious metals:** In last two weeks of January gold made a correcting move down. The move was a normal gain – taking decision of investors that observed continuous growth of the price from middle December last year (*page 3*).
- Nickel:** The nickel market has been rebalancing in recent months, which was reflected in gradual decline of inventories. The market situation has been improving after few years of oversupply. Such market disparity was mainly caused by bullish nickel demand outlook, seen as one of the reasons why miners delayed the decisions of curtailing production. The recent strengthening in fundamentals has been heavily influenced by Indonesia's ore export ban, which has reduced ore supplies to Chinese consumers, forcing them to look for nickel units on international markets (*str. 4*).
- China:** Several questions about Chinese economic stability are likely to be in the investors' spotlight in the coming weeks, with most important about growth and labor market (*str. 6*).

## Copper disruptions were limited in 2016 mostly due to new Peruvian mines ramp-up outperformance



Source: Company reports, WoodMackenzie, KGHM Polska Miedź

## Key market prices

	Close price	2w chng.
<b>LME (USD/t)</b>		
▲ Copper	5 797.00	5.4%
▲ Nickel	10 115.00	1.0%
<b>LBMA (USD/troz)</b>		
▲ Silver	16.76	3.2%
▲ Gold (PM)	1 190.35	2.7%
<b>FX</b>		
▲ EUR/USD	1.0661	1.1%
▼ EUR/PLN	4.3730	-1.2%
▼ USD/PLN	4.1084	-1.7%
▼ USD/CAD	1.3135	-2.2%
▼ USD/CLP	663.01	-0.6%
<b>Stocks</b>		
▲ KGHM	109.00	17.9%

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

## Important macroeconomic data

Release	For		
🇨🇳 Caixin's manuf. PMI	Dec	51.9	▲
🇨🇳 Manufacturing PMI	Dec	54.3	▲
🇺🇸 Non-farm payrolls chng.	Dec	156	▼
🇪🇺 CPI estimate (yoy)	Dec	1.1%	▲
🇨🇳 PPI (yoy)	Dec	5.5%	▲

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

## Market Risk Unit

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## Base and precious metals | Other commodities

### Copper

**Prices have been rising steadily in the recent fortnight with flows coming to the market, pushing the net long position to even higher levels, according to CFTC data. 2017 is said to be a comeback to “normal” (c5-6%) rates of production disruptions with a focus of several labor contracts to be negotiated.**

#### Important information on copper market:

- World top copper exporter Chile is seen producing 5.79 million tonnes in 2017, a 4.3% increase versus a year earlier, due to increased output at BHP Billiton's massive Escondida mine, state copper commission Cochilco said on Monday. Copper production in Chile is forecast to grow by an additional 3.4% in 2018, reaching nearly 6.0 million tonnes. Production fell 3.9% last year versus 2015 to 5.55 million tonnes, mainly due to reduced output at Escondida and the Anglo American Sur mine complex, according to Cochilco. Escondida, the world's biggest copper mine, suspended operations at one of its concentrator plants last year as it carried out an upgrade. Cochilco said it projected average copper prices of \$2.40 per pound in 2017, up from its prior view of \$2.20, citing expectations that planned increased fiscal spending in the United States will fan economic growth. It expects copper prices to average \$2.50 per pound in 2018.
- Peru will likely produce between 2.6 million to 2.7 million tonnes of copper this year, up from an estimated 2.2 million tonnes in all of 2016, according to the government statement. Peru probably surpassed China as the world's second biggest copper producer last year, though final data is still outstanding, said Deputy Mines Minister Guillermo Shinno. In January through November of 2016, Peru produced a record 2.15 million tonnes of copper, up 42% from the same period in 2015, thanks to surging output at MMG Ltd's Las Bambas mine and expanded operations at Freeport-McMoRan Inc's Cerro Verde deposit.
- Commodities had a resurgence in 2016, with the first annual advance since 2010. The gains will continue next year for many of the markets, at least that's what hedge funds are signaling. Money managers boosted their combined net-long position, or bets on prices gains, across 18 commodities by 9.7% in December, government data show. A year earlier, the funds were net-short, or wagering on declines. Investors last week added to bullish positions in cotton, cattle, crude oil and soybean meal, but aren't optimistic for corn, cocoa and wheat. After five straight years of losses, raw materials rebounded as supply gluts receded for metals and energy.

- MMG Limited said it recently entered into derivative instruments with respect to about 112,000 dry metric tonnes of copper sold under sales contracts for Sepon and Kinsevere in the fourth quarter of 2016 and the company's equity share of sales from Las Bambas between August and December 2016, at a net price of US\$2.6 per pound. Should the copper price rise materially between the hedging date and the final settlement date for such sales (which will settle in accordance with their applicable quotational periods between January and April 2017), MMG will not benefit from such rise to the extent these sales have been hedged. Conversely, should the copper price fall during the same period, MM will benefit from having secured its pricing at the current copper price. MMG said it will continue to monitor commodity prices and may consider hedging certain future sales of its products.
- London Metal Exchange business levels fell 7.7% in 2016 from the previous year, data published by the exchange showed on Monday January 9. Turnover last year fell to 156.5 million lots, equivalent to \$10.3 trillion and 3.5 billion tonnes of material, which the exchange attributed to difficult market conditions. "The second half of 2016 saw particularly low volatility and underlying market activity, which are likely to be the main causes for lower trading volumes," an LME representative told Metal Bulletin. "In addition, lower LME stocks in contracts such as aluminium correlates with a reduction in the volume of carry trades – particularly short-dated carries." Aluminium volumes – the most traded metal on the exchange – fell 10.3% to 56,082,746 lots from last year. Traders have blamed the drop in volumes on the 2015 fee increases following the exchange's takeover by Hong Kong Exchange & Clearing (HKEX). In other metals, copper business fell 5.6% year-on-year to 38,739,654 lots in 2016. Some market participants attributed the decline to high LME fees that pushed business onto other exchanges such as the CME. Against this backdrop, LME executives faced questions from disgruntled participants over why its volumes were falling while those of its competitors were growing. Tension between the exchange and its members reached a nadir in the summer of 2016 when talk of a rival member-backed platform surfaced. But while the proposed new platform has not been completely shelved, Metal Bulletin understands, relations between the exchange and its members are improving.

## Precious metals

**In last two weeks of January gold made a correcting move down. The move was a normal gain – taking decision of investors that observed continuous growth of the price form middle December last year.**

## Good News for Palladium and platinum markets

Palladium and platinum are commonly used for catalysts. Thus car market is prominent part of demand for both metals. European Union auto makers

posted their highest new car sales for the month of December on record, ending the third year of consecutive sales growth above forecasts for the year, according to monthly data published recently. New car registrations, a mirror of sales, rose 6.8% to 14.6 million vehicles in 2016, twice the pace of initial forecasts for the year. Demand remained robust across Europe's big five auto markets -- Germany, the United Kingdom, France, Italy and Spain, the European Automobile Manufacturers' Association, or ACEA, said. "This positive trend is a sign that despite political instability and economic uncertainty following key events in 2016, such as Brexit or the Italian referendum, consumer confidence has remained robust," ACEA said in a statement. Among the big five car markets in the EU, Italy and Spain grew the fastest, still recovering from the sharp decline in new car sales during the euro crisis. The growth in new car sales in the EU eased in December, rising 3% from the previous year to 1.14 million vehicles.

## Nickel

### The future trends of the nickel market

**The nickel market has been rebalancing in recent months, which was reflected in gradual decline of inventories. The market situation has been improving after few years of oversupply. Such market disparity was mainly caused by bullish nickel demand outlook, seen as one of the reasons why miners delayed the decisions of curtailing production. The recent strengthening in fundamentals has been heavily influenced by Indonesia's ore export ban, which has reduced ore supplies to Chinese consumers, forcing them to look for nickel units on international markets.**

**Price will be driven mostly by supply side developments in the coming weeks**

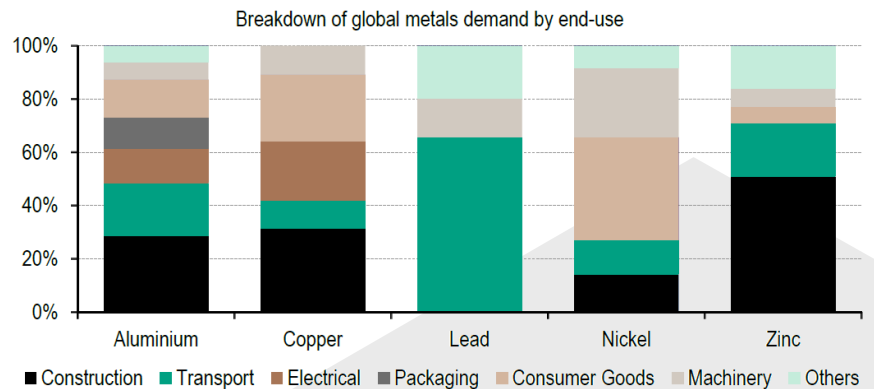
Situation on the supply side seems to be the key to short-term situation on the nickel market. The importance of the supply side could have been observed very recently, when the prices dropped by 6.7% within few hours after the announcement that Indonesia would remove the export ban on ores. The country accounted for around one-third of global nickel mine production just before the ban was implemented in 2014. The reason behind the governmental ban was to stop exports of unprocessed raw materials and increase investment in downstream production facilities. Lack of export license resulted in dramatic fall of the supply from Indonesian mines (at the moment Indonesia accounts for 11% of global production) and ultimately helped to rebalance the global market (the global nickel market is around 2mt). That's why recent decision to remove the ban has caused significant reaction of market participants. However whole case lacks detail. The first announcements suggest that smelters will be only allowed to export ores grading less than 1.7%, subject to the construction of downstream processing facilities and application to the government. Basing on that it is still unclear how much nickel will actually be allowed to leave the country and if the volumes will be substantial enough to change fundamentals.

**Transportation which is crucial in industrial metals will drive nickel demand in the mid- to long-term**

In the mid- and long-term changes in demand shall drive market fundamentals. The key segment for future nickel demand is transportation. The automotive industry is going through a period of profound change, with electrified vehicles set to be making further inroads in the coming years. By 2030, global electrified vehicle sales could hit 21mt, equivalent to one-fifth of total global light vehicle sales. This is important fact for nickel because the metal stands to benefit from increased usage of nickel containing lithium-ion batteries. Importantly for nickel, lithium-nickel-cobalt-aluminum oxide (NCA) and lithium-nickel-manganese-cobalt oxide (NCM) batteries have become a staple of the automotive industry. Basing on current forecast regarding automotive production coming from the industry, batteries could account for around 250kt of nickel demand by 2030 in a conservative scenario. This should support fundamentals medium-term.

The short-term nickel price may be driven mostly by the supply side, including the development of situation in Indonesia (the real effect of releasing the export ban). In mid- to long-term the fundamentals of the market are better. The positive impact of changes in automotive sector for the nickel consumption and the gap on supply side resulted from technical complexities and high capex of new projects (which was particularly difficult for producers in low prices environment), shall, according to Bank of America Merrill Lynch analysts, result in gradual increase of nickel price in next years.

**Transport plays crucial role among the base metals complex**



Source: Industry reports, BofA Merrill Lynch, KGHM Polska Miedź

## Global economies | Foreign exchange markets

### China: key questions for 2017

**Several questions about Chinese economic stability are likely to be in the investors' spotlight in the coming weeks, with most important about growth and labor market.**

#### Key questions for 2017 for China

Among the key themes for 2017 Gavekal Dragonomics enlisted the following questions:

- Will China be as boring as consensus forecasts imply?
- Will the central bank hike benchmark interest rates?
- Will the housing market correct sharply?
- Will the labor market hold up?

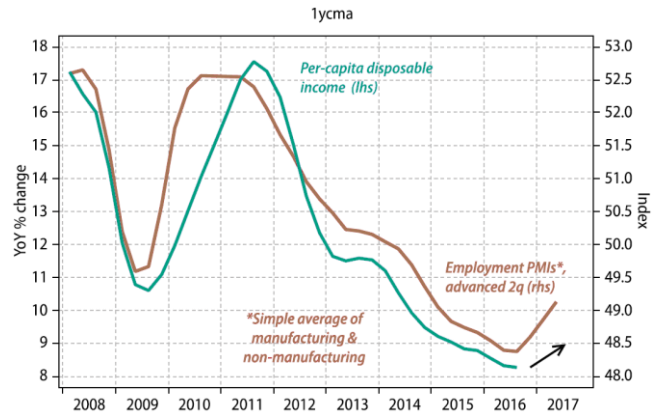
Regarding economic growth, not only did China not derail the world economy in 2016, but the stimulus to the housing market helped global commodity prices recover. Currently, economists are raising their forecasts for 2017 because it seems growth looks remarkably stable. The general view seems to be that while China has problems, they are not going to blow up this year, when the government's top priority is a stable backdrop for the Communist Party Congress.

In the policy rates area, China's domestic interest rates broke a long decline to suddenly rise in the last quarter of 2016, driven by the combination of higher inflation, a global bond-market selloff, and, finally, the December rate hike by the US Federal Reserve. However, given China's stability-driven government a hike in benchmark interest rates might be far too aggressive move.

Housing sales had a powerful upturn in 2016 on the back of an unprecedented boom in mortgage lending and a government drive to reduce inventories of unsold housing. Last year's boom almost guarantees that 2017 will look worse in comparison, and the data in YoY terms could be particularly bad in Q1. But the high base might mean a decline of about 10% in housing sales and a slowdown rather than decline in construction and investment.

The labor market was not a big economic problem in 2016, as continued layoffs in industry were offset by rapid job creation in services. The troubled coal and steel sectors are on pace to shed a combined 670,000 jobs in 2016, up from the 570,000 net loss in 2015. These heavy industries have been losing workers since 2014 as demand for their products peaked and profitability suffered. But with commodity prices off their lows and construction-driven industrial demand holding up, job losses in these sectors are unlikely to accelerate in 2017. The government's restructuring plan for coal and steel still calls for more layoffs in coming years, but the pressure to meet these policy targets should lessen now that the plan's initial phase is over.





**China's job market is set to improve in coming months**






Source: Gavekal Dragonomics, KGHM Polska Miedź

## Macroeconomic calendar

### Important macroeconomic data releases

Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>	
<b>China</b>							
☉☉☉	17-Mar	Caixin's manufacturing PMI	Dec	51.9 ▲	50.9	50.9	▲
☉	17-Jul	Foreign reserves (USD bn)	Dec	3 011 ▼	3 052	3 010	▲
☉☉☉☉	17-Oct	Consumer inflation CPI (yoy)	Dec	2.1% ▼	2.3%	2.2%	◡
☉☉	17-Oct	Producer inflation PPI (yoy)	Dec	5.5% ▲	3.3%	4.6%	▲
☉	17-Dec	New yuan loans (CNY bn)	Dec	1 040 ▲	795	677	▲
☉☉	13-Jan	Trade balance (USD bn)‡	Dec	40.8 ▼	43.2	47.6	◡
☉☉	13-Jan	Exports (yoy)‡	Dec	-6.1% ▼	-1.5%	-4.0%	◡
<b>Poland</b>							
☉☉☉	17-Feb	Manufacturing PMI	Dec	54.3 ▲	51.9	52.0	▲
☉☉☉☉☉	17-Nov	NBP base rate decision	Jan	1.50% -	1.50%	1.50%	○
☉☉☉☉	13-Jan	Consumer inflation CPI (yoy) - final data	Dec	0.8% -	0.8%	--	
☉☉	13-Jan	Trade balance (EUR mn)‡	Nov	102 ▲	- 128	100	▲
☉☉	13-Jan	Exports (EUR mn)‡	Nov	15 943 ▲	15 327	15 430	▲
☉☉	13-Jan	Current account balance (EUR mn)‡	Nov	- 427 ▲	- 531	- 319	◡
☉	13-Jan	M3 money supply (yoy)	Dec	9.6% ▼	9.7%	9.6%	○
<b>US</b>							
☉☉☉	17-Mar	Manufacturing PMI - final data‡	Dec	54.3 -	54.3	54.2	▲
☉☉	17-Mar	ISM Manufacturing‡	Dec	54.7 ▲	53.5	53.8	▲
☉☉☉	17-May	Composite PMI - final data‡	Dec	54.1 -	54.1	--	
☉☉☉	17-May	PMI services - final data‡	Dec	53.9 -	53.9	53.4	▲
☉☉	17-Jun	Change in non-farm payrolls (ths)‡	Dec	156 ▼	204	175	◡
☉☉	17-Jun	Underemployment rate (U6)	Dec	9.2% ▼	9.3%	--	
☉☉	17-Jun	Unemployment rate	Dec	4.7% ▲	4.6%	4.7%	○
☉	17-Jun	Average hourly earnings (yoy)	Dec	2.9% ▲	2.5%	2.8%	▲
☉☉	17-Jun	Durable goods orders - final data‡	Nov	-4.5% ▲	-4.8%	-4.6%	▲
☉☉	13-Jan	Retail sales (excluding autos, mom)‡	Dec	0.2% ▼	0.3%	0.5%	◡
☉☉	13-Jan	University of Michigan confidence index - preliminary data	Jan	98.1 ▼	98.2	98.5	◡
<b>Eurozone</b>							
☉☉☉	17-Feb	Manufacturing PMI - final data‡	Dec	54.9 -	54.9	54.9	○
☉☉☉	17-Apr	Composite PMI - final data‡	Dec	54.4 -	54.4	53.9	▲
☉☉☉	17-Apr	Services PMI - final data‡	Dec	53.7 -	53.7	53.1	▲
☉☉☉☉	17-Apr	Core CPI (yoy) - estimation	Dec	0.9% ▲	0.8%	0.8%	▲
☉☉☉☉	17-Apr	CPI estimate (yoy)	Dec	1.1% ▲	0.6%	1.0%	▲
☉☉	17-May	Producer inflation PPI (yoy)	Nov	0.1% ▲	-0.4%	-0.1%	▲
☉☉	17-Jun	Retail sales (yoy)‡	Nov	2.3% ▼	3.0%	1.9%	▲
☉	17-Jun	Economic confidence‡	Dec	108 ▲	107	107	▲
☉	17-Jun	Industrial confidence	Dec	0.1 ▲	- 1.1	- 0.4	▲
☉	17-Jun	Consumer confidence - final data	Dec	- 5.1 -	- 5.1	- 5.1	○
☉	17-Jun	Business climate indicator‡	Dec	0.8 ▲	0.4	0.5	▲
☉☉	17-Sep	Unemployment rate‡	Nov	9.8% ▲	9.7%	9.8%	○
☉☉☉☉	17-Dec	Industrial production (sa, mom)‡	Nov	1.5% ▲	0.1%	0.6%	▲
☉☉☉☉	17-Dec	Industrial production (wda, yoy)‡	Nov	3.2% ▲	0.8%	1.6%	▲



Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>	
<b>Germany</b>							
☆☆☆	17-Feb	Manufacturing PMI - final data‡	Dec	55.6 -	55.6	55.5	▲
☆☆	17-Mar	Unemployment rate	Dec	6.0% -	6.0%	6.0%	○
☆☆☆☆	17-Mar	Harmonized consumer inflation HICP (yoy) - preliminary data	Dec	1.7% ▲	0.7%	1.3%	▲
☆☆☆☆	17-Mar	Consumer inflation CPI (yoy) - preliminary data	Dec	1.7% ▲	0.8%	1.4%	▲
☆☆☆	17-Apr	Composite PMI - final data‡	Dec	55.2 -	55.2	54.8	▲
☆☆☆	17-Jun	Factory orders (wda, yoy)	Nov	3.0% ▼	6.3%	3.6%	●
☆☆☆	17-Jun	Retail sales (yoy)‡	Nov	3.2% ▲	-0.6%	1.2%	▲
☆☆☆☆	17-Sep	Industrial production (wda, yoy)‡	Nov	2.2% ▲	1.6%	1.9%	▲
<b>France</b>							
☆☆☆	17-Feb	Manufacturing PMI - final data‡	Dec	53.5 -	53.5	53.5	○
☆☆☆☆	17-Mar	Harmonized consumer inflation HICP (yoy) - preliminary data	Dec	0.8% ▲	0.7%	0.9%	●
☆☆☆☆	17-Mar	Consumer inflation CPI (yoy) - preliminary data	Dec	0.6% ▲	0.5%	0.8%	●
☆☆☆	17-Apr	Composite PMI - final data‡	Dec	53.1 -	53.1	52.8	▲
☆☆☆☆	17-Oct	Industrial production (yoy)	Nov	1.8% ▲	-1.8%	-0.2%	▲
☆☆☆☆	17-Dec	Harmonized consumer inflation HICP (yoy) - final data	Dec	0.8% -	0.8%	0.8%	○
☆☆☆☆	17-Dec	Consumer inflation CPI (yoy) - final data	Dec	0.6% -	0.6%	0.6%	○
<b>Italy</b>							
☆☆☆	17-Feb	Manufacturing PMI	Dec	53.2 ▲	52.2	52.3	▲
☆☆☆	17-Apr	Composite PMI	Dec	52.9 ▼	53.4	53.0	●
☆☆☆☆	17-Apr	Harmonized consumer inflation HICP (yoy) - preliminary data	Dec	0.5% ▲	0.1%	0.3%	▲
☆☆	17-Sep	Unemployment rate - preliminary data‡	Nov	11.9% ▲	11.8%	11.6%	▲
☆☆☆☆	17-Dec	Industrial production (wda, yoy)	Nov	3.2% ▲	1.3%	1.9%	▲
<b>UK</b>							
☆☆☆	17-Mar	Manufacturing PMI (sa)‡	Dec	56.1 ▲	53.5	53.3	▲
☆☆☆	17-May	Composite PMI‡	Dec	56.7 ▲	55.3	55.0	▲
☆☆☆☆	17-Nov	Industrial production (yoy)‡	Nov	2.0% ▲	-0.9%	0.7%	▲
<b>Japan</b>							
☆☆☆	17-Apr	Manufacturing PMI - final data‡	Dec	52.4 -	52.4	--	
☆☆☆	17-May	Composite PMI	Dec	52.8 ▲	52.0	--	
<b>Chile</b>							
☆☆☆☆	17-May	Economic activity (yoy)	Nov	0.8% ▲	-0.4%	1.5%	●
☆☆	17-May	Nominal wages (yoy)	Nov	4.9% ▼	5.1%	5.0%	●
☆☆☆☆	17-Jun	Consumer inflation CPI (yoy)	Dec	2.7% ▼	2.9%	3.0%	●
☆☆☆	17-Sep	Copper exports (USD mn)	Dec	2 943 ▲	2 424	--	
<b>Canada</b>							
☆☆☆	17-Jun	Net change in employment (ths)	Dec	53.7 ▲	10.7	- 2.5	▲

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

<sup>2</sup> Reading difference to consensus: ▲ = higher than consensus; ● = lower than consensus; ○ = equal to consensus.

mom = month-on-month; yoy = year-on-year; qoq = quarter on quarter; ytd year-to-date; sa = seasonally adjusted; wda = working days adjusted; ‡ = previous data after revision.

Source: Bloomberg, KGHM

## Key market data

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

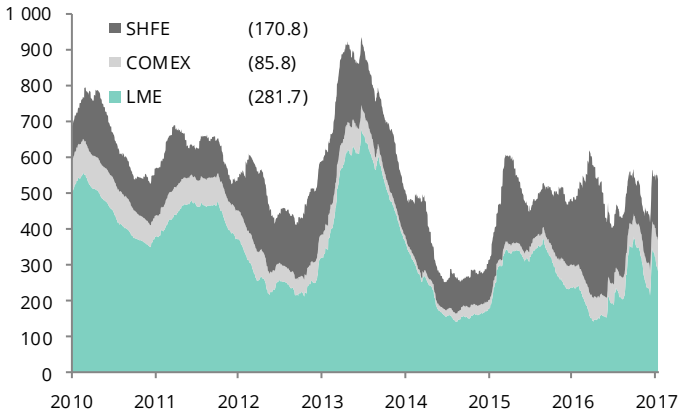
(as of: 13-Jan-17)

	Price	Price change <sup>o</sup>						From year beginning <sup>2</sup>		
		2W	QTD	YTD	1Y	Average	Min	Max		
<b>LME (USD/t)</b>										
Copper	5 797.00	▲ 5.4%	▲ 5.4%	▲ 5.4%	▲ 32.8%	5 631.61	5 500.50	5 797.00		
Molybdenum	15 250.00	- 0.0%	- 0.0%	- 0.0%	▲ 28.2%	15 250.00	15 250.00	15 250.00		
Nickel	10 115.00	▲ 1.0%	▲ 1.0%	▲ 1.0%	▲ 21.1%	10 201.67	9 975.00	10 450.00		
Aluminum	1 790.50	▲ 4.5%	▲ 4.5%	▲ 4.5%	▲ 21.1%	1 737.33	1 701.00	1 790.50		
Tin	21 175.00	▲ 0.4%	▲ 0.4%	▲ 0.4%	▲ 59.8%	21 196.11	21 105.00	21 300.00		
Zinc	2 720.00	▲ 6.1%	▲ 6.1%	▲ 6.1%	▲ 83.6%	2 638.72	2 530.00	2 733.00		
Lead	2 221.00	▲ 11.9%	▲ 11.9%	▲ 11.9%	▲ 36.3%	2 101.11	2 007.00	2 221.00		
<b>LBMA (USD/troz)</b>										
Silver	16.76	▲ 3.2%	▲ 3.2%	▲ 3.2%	▲ 19.5%	16.56	15.95	16.91		
Gold <sup>1</sup>	1 190.35	▲ 2.7%	▲ 2.7%	▲ 2.7%	▲ 9.4%	1 178.86	1 151.00	1 205.05		
<b>LPPM (USD/troz)</b>										
Platinum <sup>1</sup>	971.00	▲ 7.1%	▲ 7.1%	▲ 7.1%	▲ 16.3%	964.56	929.00	981.00		
Palladium <sup>1</sup>	746.00	▲ 10.4%	▲ 10.4%	▲ 10.4%	▲ 53.8%	744.22	706.00	760.00		
<b>FX <sup>3</sup></b>										
EUR/USD	1.0661	▲ 1.1%	▲ 1.1%	▲ 1.1%	▼ -2.1%	1.0538	1.0385	1.0679		
EUR/PLN	4.3730	▼ -1.2%	▼ -1.2%	▼ -1.2%	▲ 0.3%	4.3788	4.3684	4.4002		
USD/PLN	4.1084	▼ -1.7%	▼ -1.7%	▼ -1.7%	▲ 2.7%	4.1561	4.1084	4.2271		
USD/CAD	1.3135	▼ -2.2%	▼ -2.2%	▼ -2.2%	▼ -8.6%	1.3232	1.3130	1.3438		
USD/CNY	6.9005	▼ -0.6%	▼ -0.6%	▼ -0.6%	▲ 4.7%	6.9211	6.8767	6.9640		
USD/CLP	663.01	▼ -0.6%	▼ -0.6%	▼ -0.6%	▼ -8.7%	669.14	663.01	673.36		
<b>Money market</b>										
3m LIBOR USD	1.023	▲ 0.03	▲ 0.03	▲ 0.03	▲ 0.40	1.014	0.999	1.023		
3m EURIBOR	-0.327	▼ -0.01	▼ -0.01	▼ -0.01	▼ -0.18	-0.323	-0.327	-0.319		
3m WIBOR	1.730	- 0.00	- 0.00	- 0.00	▲ 0.03	1.730	1.730	1.730		
5y USD interest rate swap	1.949	▼ -0.03	▼ -0.03	▼ -0.03	▲ 0.52	1.930	1.875	1.966		
5y EUR interest rate swap	0.080	▲ 0.01	▲ 0.01	▲ 0.01	▼ -0.16	0.096	0.080	0.121		
5y PLN interest rate swap	2.440	▲ 0.04	▲ 0.04	▲ 0.04	▲ 0.61	2.483	2.390	2.550		
<b>Fuel</b>										
WTI Cushing	52.37	▼ -2.5%	▼ -2.5%	▼ -2.5%	▲ 67.9%	52.64	50.82	53.99		
Brent	55.14	▼ -0.5%	▼ -0.5%	▼ -0.5%	▲ 85.0%	55.07	52.88	56.42		
Diesel NY (ULSD)	163.14	▼ -3.9%	▼ -3.9%	▼ -3.9%	▲ 72.5%	164.09	158.51	167.82		
<b>Others</b>										
VIX	11.23	▼ -2.81	▼ -2.81	▼ -2.81	▼ -12.72	11.64	11.23	12.85		
BBG Commodity Index	88.54	▲ 1.2%	▲ 1.2%	▲ 1.2%	▲ 18.8%	87.29	86.07	88.54		
S&P500	2 274.64	▲ 1.6%	▲ 1.6%	▲ 1.6%	▲ 18.4%	2 270.31	2 257.83	2 276.98		
DAX	11 629.18	▲ 1.3%	▲ 1.3%	▲ 1.3%	▲ 18.7%	11 588.46	11 521.04	11 646.17		
Shanghai Composite	3 112.76	▲ 0.3%	▲ 0.3%	▲ 0.3%	▲ 3.5%	3 146.24	3 112.76	3 171.24		
WIG 20	2 015.89	▲ 3.5%	▲ 3.5%	▲ 3.5%	▲ 13.4%	2 011.33	1 989.64	2 030.64		
KGHM	109.00	▲ 17.9%	▲ 17.9%	▲ 17.9%	▲ 94.3%	100.62	94.00	109.00		

<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>

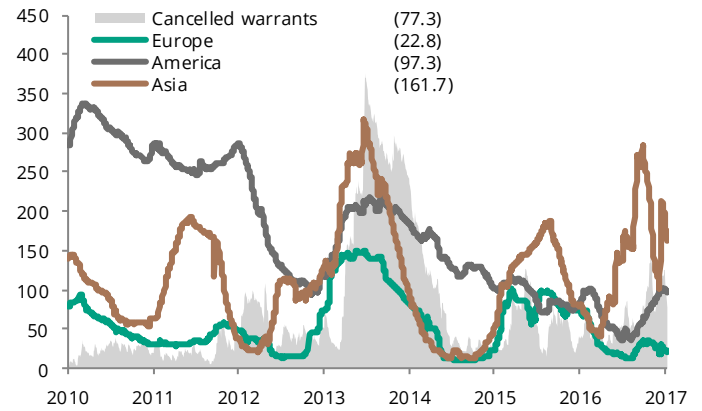
Source: Bloomberg, KGHM

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



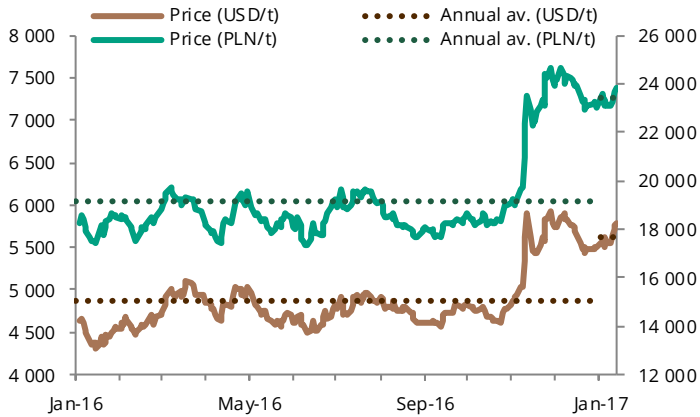
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



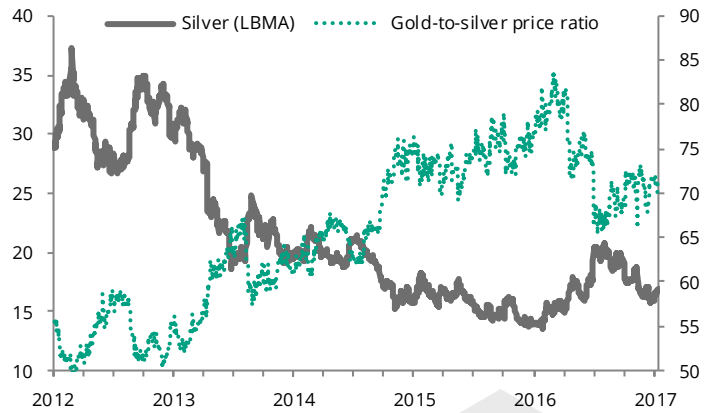
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



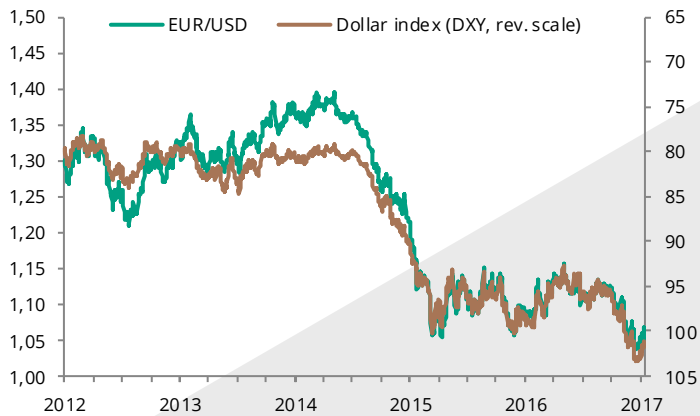
Source: Bloomberg, KGHM

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



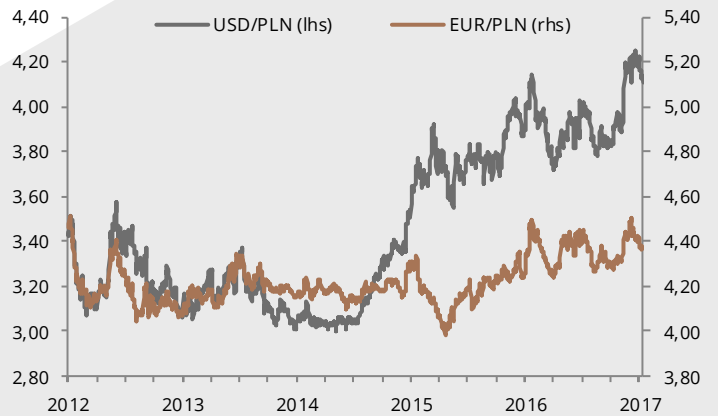
Source: Bloomberg, KGHM

**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: **2<sup>nd</sup> – 15<sup>th</sup> January 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, ▪ SNL Metals & Mining.

Moreover, additional information published here was acquired in direct conversations with market dealers, from financial institution reports and from the following websites: ▪ [thebulliondesk.com](http://thebulliondesk.com), ▪ [lbma.org.uk](http://lbma.org.uk), ▪ [lme.co.uk](http://lme.co.uk), ▪ [metalbulletin.com](http://metalbulletin.com), ▪ [nbp.pl](http://nbp.pl), a także systemów: Bloomberg oraz Thomson Reuters.

Official metals prices are available on following websites:

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

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