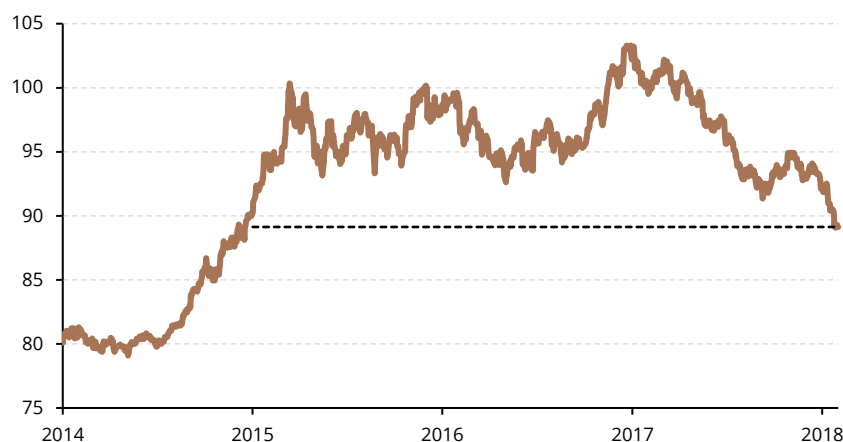


# Market Overview

 as of: 29<sup>th</sup> January 2018

- Copper:** Despite major disruptions in BHP's Escondida in first half of 2017, one of the world's top copper producer is on track to meet its production guidance in fiscal 2017-2018. In the light of upcoming contract renegotiations, Cochilco rises it's forecasted copper price in 2018 (*page 2*).
- Precious metals:** The silver market balance is expected swing into a slight market deficit again this year with both supply and demand reaching above 1 billion ounces, according to Silver Institute. Silver from above ground stocks will have to be drawn down in order to serve the shortfall. That will be a welcome development as above ground stocks rose 9% last year in the face of weak physical demand from the United States and Asia (*page 4*).
- Currency wars:** European Central Bank President Mario Draghi attacked the U.S. Treasury Secretary's comments on the dollar, saying he isn't playing by the rules. Speaking in Frankfurt, Draghi said recent euro-dollar moves are partly down to Steven Mnuchin's intervention at the World Economic Forum in Davos, at which he said a weaker greenback is good for U.S. trade (*page 7*).
- International Monetary Fund:** Global economic activity continues to firm up. Global output is estimated to have grown by 3.7 percent in 2017, which is 0.1 percentage point faster than projected in the fall and ½ percentage point higher than in 2016. The pickup in growth has been broad based, with notable upside surprises in Europe and Asia (*page 7*).

## Dollar index is on the lowest levels since the beginning of 2015








Source: Bloomberg, KGHM Polska Miedź

## Key market prices

	Close price	2w chng.
<b>LME (USD/t)</b>		
▲ Copper	7 063.50	0.6%
▲ Nickel	13 750.00	10.8%
<b>LBMA (USD/troz)</b>		
▲ Silver	17.40	1.8%
▲ Gold (PM)	1 353.15	1.4%
<b>FX</b>		
▲ EURUSD	1.2436	3.4%
▼ EURPLN	4.1477	-0.5%
▼ USDPLN	3.3299	-3.8%
▼ USDCAD	1.2321	-1.7%
▼ USDCLP	599.33	-1.7%
<b>Stocks</b>		
▲ KGHM	112.45	2.8%

 Source: Bloomberg, KGHM Polska Miedź; (*more on page 12*)

## Important macroeconomic data

Release	For	
 GDP (yoy)	4Q	6.8% -
 Industrial prod. (yoy)	Dec	6.2% ▲
 Industrial prod. (mom)	Dec	0.9% ▲
 Durable goods orders	Dec	2.9% ▲
 ZEW survey expectations	Jan	31.8 ▲

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

## Market Risk Unit

marketrisk@kgm.com

Grzegorz Laskowski

Michał Kamiński

Bartosz Jachnik

Wojciech Demski

## Base and precious metals | Other commodities

### Copper

**Despite major disruptions in BHP's Escondida in first half of 2017, one of the world's top copper producer is on track to meet its production guidance in fiscal 2017-2018. In the light of upcoming contract renegotiations, Cochilco rises its forecasted copper price in 2018.**

#### **BHP 4Q copper output rises 20% on year on Los Colorados' ramp up**

**BHP's total copper production over second half of 2017 was over 17% year on year**

BHP Billiton posted a 20.1% year-on-year jump in copper production, comprising metal in concentrate and cathode, over October-December 2017 to 429,000 mt, supported mainly by a ramp-up at the Los Colorados Extension project and record material mined at Cerro Colorado, both in Chile, the company said Thursday. Compared to 404,100 mt of copper output across its projects in Chile, Peru and Australia in the previous quarter, BHP's harvest in the last three months of 2017 was 6.2% higher, the company said in its quarterly operational review. The strong performance in the December quarter lifted BHP's total copper production over July-December to 833,100 mt., up 17.1% year on year. The volume puts the global resources giant on track to meet its production guidance of 1.66 million-1.79 million mt of copper in fiscal 2017-2018 (July-June). The Los Colorados Extension project ramped up production in the December quarter following its launch in September, lifting Escondida's total copper-in-concentrate and copper cathode contribution to BHP to 314,600 mt. This was a 34.4% jump on the year and a 17.3% rise on the quarter. BHP holds a 57.5% stake in Escondida. Escondida's July-December copper production also jumped 29.1% from a year earlier to 582,800 mt, some 70% of BHP's total in the six-month period. The company expects to reap in 1.13 million-1.23 million mt of copper output from the Chilean mine in fiscal 2017-2018.

**Third concentrator build in Escondida mine lifted a daily throughput to 375 000 mt**

The Los Colorados Extension project enables Escondida, the world's largest copper mine, to operate three concentrators with a combined daily throughput capacity of around 375,000 mt, instead of just two concentrators previously with a combined 230,000 mt/day capacity. BHP recorded 9.1% year-on-year growth in copper cathode output from its wholly owned Pampa Norte operation in Chile in the second half of 2017 to 126,400 mt. It attributed the increase to record material mined at the operation's Cerro Colorado deposit and rapid ramp-up at the Spence mine's tank house after unplanned maintenance in the September 2017 quarter. Pampa Norte's copper cathode output rebounded 17.9% from the September quarter to 68,400 mt in October-December, while a yearly comparison recorded a 27.1% jump. Copper cathode production of BHP's Olympic Dam operation in South Australia remained subdued in the December quarter, as a result of the planned major smelter maintenance program that was completed end-2017. Output slipped to 12,200 mt over October-December, 71%

less than the previous quarter and a 67.2% decline from a year earlier. "Smelting operations [at Olympic Dam] have now resumed with the first anode cast from the flash furnace on December 23, 2017. Operations will continue to ramp up to full capacity in the March 2018 quarter," BHP said.

### Chile eyes resumption of projects as prices gain

The combination of higher prices and the prospect of a more investor-friendly government is making Chile's mining industry hopeful of a resumption of large projects after years of cost cutting. Companies could pull the trigger on five or six projects larger than \$1 billion in the biggest copper-producing nation during President Sebastian Pinera's four-year term that begins in March, according to Diego Hernandez, president of Chilean mining association Sonami. Signs of a pickup in Chilean mining activity started to appear in the second half of 2017 as copper prices rose to two-year highs. Mining employment increased and the pipeline of projects for the next decade grew for the first time in four years. Still, only one large project was given the green light last year, with BHP Billiton Ltd. approving the \$2.5 billion expansion of the Spence mine in August. "This time a year ago, no one was ready to invest billions in a mining project," Hernandez said. "But we will start seeing that now. Once we see one or two large investments, there will be a chain reaction and others will follow." The first projects to proceed probably will be those with environmental and community licenses. That's the case of Antofagasta Plc's expansion of its Centinela mine, Capstone Mining Corp.'s Santo Domingo project and Barrick Gold Corp. and Goldcorp Inc.'s Cerro Casale gold-copper venture. Other large projects that could get the nod during Pinera's term include Teck Resources Ltd.'s expansion of the Quebrada Blanca mine or Antofagasta's expansion of Los Pelambres. Antofagasta's board will review expansion projects at Pelambres and Centinela this year, Chief Executive Officer Ivan Arriagada said in an interview with El Mercurio last week.

### Other important information on copper market:

- Chile's state copper commission, Cochilco, on Wednesday raised its estimated 2018 average price for the metal to \$3.06 per pound from its previous forecast of \$2.95 per pound, pointing to the potential for global supply disruptions in the coming year. Cochilco Vice President Sergio Hernandez cited a "perception of vulnerability" that he attributed to the large number of anticipated labor negotiations in Chile, the world's top copper producer, and in neighboring Peru. That, in combination with new Chinese environmental regulations on smelters to counter pollution and curbs on scrap copper imports by the country, is likely to make prices rise more quickly than originally anticipated, he said. "There are between 20 and 25 collective negotiations expected (locally). If some of them lead to significant strikes that would have a positive impact on prices," Hernandez said. Given the potential for supply issues, Cochilco predicted a global copper supply deficit of 175,000 tonnes in 2018, versus 67,000 in 2017. Cochilco expects Chile to produce 5.74 million tonnes this year, up 4.9 percent from the 2017, when a strike at BHP's

reduced output. Production would rise slightly to 5.91 million tonnes in 2019, the agency said in a statement. Chile's largest producer of copper is state-miner Codelco, the world's top copper producer.

- China's refined copper output jumped by 16.7 percent year on year to a record high in December, as smelters looked to churn out as much metal as possible ahead of a fall in treatment charges for copper concentrate. The world's biggest copper consumer produced 865,000 tonnes of refined copper last month, beating the previous high of 833,000 tonnes set in December 2014, according to data from the National Bureau of Statistics released on Monday. The December volume was up 10 percent from November, according to the data. Annual refined copper output also hit a record at 8.89 million tonnes. The new monthly peak casts doubt on whether smelters have actually cut production to comply with winter curbs on industrial output. Copper has not been as affected as other metals such as aluminium in this regard, and China's major primary copper smelters are located outside the northern regions subject to the restrictions.
- The global world refined copper market showed a 2,000 tonnes deficit in October, compared with a 113,000 tonnes deficit in September, the International Copper Study Group (ICSG) said in its latest monthly bulletin. For the first 10 months of the year, the market was in a 175,000 tonnes deficit compared with a 143,000 tonnes deficit in the same period a year earlier, the ICSG said. World refined copper output in October was 1.97 million tonnes, while consumption was 1.99 million tonnes. Bonded stocks of copper in China showed a 12,000 tonnes deficit in October compared with a 128,000 tonnes deficit in September.

## Precious Metals

**The silver market balance is expected swing into a slight market deficit again this year with both supply and demand reaching above 1 billion ounces, according to Silver Institute. Silver from above ground stocks will have to be drawn down in order to serve the shortfall. That will be a welcome development as above ground stocks rose 9% last year in the face of weak physical demand from the United States and Asia.**

### India's Gold Bar imports up, silver down in December

The Indian silver bar imports tumbled by almost one-fifth during December 2017. The imports dropped by 19.69% when matched with the imports during December 2016. The import data for raw materials for gems and jewellery industry for the month of December last year suggests notable jump in India's gold bar imports. The trade data released by the apex body Gems and Jewellery Export Promotion Council (GJEPC) also suggests modest growth in imports during the initial three quarters of the current fiscal. Meantime, silver bar imports declined during the month.

**Silver bars down, while gold bars' imports significantly higher in December**

The cumulative gold bar imports by the country during the initial nine months (Apr '17 to Dec '17) of the current fiscal year too recorded modest increase over the previous year. The imports were up by nearly 9% year-on-year during the first three quarters of this fiscal. The silver bar imports during the first nine months of the current fiscal year totaled INR 262.19 crores (USD 40.68 Million). The imports during this period were down slightly when compared with the imports of INR 264.88 crores (USD 39.52 Million) during Apr-Nov '16.

**The silver market is again expected to swing into small deficit this year**

### Silver Institute: 2018 Silver Trends

Silver demand from industrial applications, the largest component of silver offtake representing 60% in 2017, is expected to continue to grow this year. Due to silver's unrivaled electrical conductivity, it will continue to play a vital role in major industry sectors that are moving towards increased electrification, such as automotive. Although silver is used in small quantities in some applications, the diversity is large, and the continued rising volumes of applications are expected to again have a positive impact on silver consumption from industrial products this year.

The strong increase in demand for small and large scale solar panels across the globe has boosted the demand for silver in photovoltaic applications in recent years, reaching an estimated 92 Moz (million ounces) in 2017. Silver Institute expects the growth to continue this year and set another record for silver demand, driven by large scale solar capacity additions and continued strong demand uptake from individual households, particularly in China.

Jewelry demand is expected to continue its steady increase in 2018, expanding consumption by another 4%, following a rise of 1% in 2017. Silver demand from the jewelry sector accounts for approximately one-fifth of total silver demand. Many would argue that silver's features lend themselves better than gold to fashionable jewelry because of silver's color neutrality, which provides more versatility for many fashion-conscious consumers.

Coin demand almost halved to 73 Moz in 2017. Much of the weakness was concentrated in the United States where a buoyant stock market and parabolic increases in cryptocurrencies diverted some capital away from physical precious metals. With equity and bonds in "expensive" territory and Bitcoin's stratospheric increase taking a breather during the beginning of 2018, we expect some investment to flow back into precious metals, benefiting silver bar and coin demand this year.

Silver exchange-traded-products (ETP) holdings achieved a record high at 670 Moz at the end of 2017. Since their introduction in 2002, silver ETPs have recorded a small decline in total annual holdings only twice, indicating the stickiness of their nature among investors (this is in part since a relatively high proportion of silver ETP investors are individuals rather than institutions). Although growth has been somewhat stable since 2012, drawdowns of silver ETPs are far and few between. Silver Institute expects ETP holdings to rise an approximate 3% this year.

Indian silver imports reported a strong year in 2017, almost doubling to 183 Moz compared to the previous year. The strong increase is a combination of healthy jewelry demand and a shift from business conducted previously in cash to more formal channels. The implementation of the Goods-and-Services-Tax (GST) has had a positive effect on that development. Indeed, silver demand from jewelry, silverware, coins and medallion retailers, who prefer a more transparent business model, substantially rose last year in India. In 2018 we expect silver demand from jewelry fabricators to remain strong, pushing imports to approximately 180 Moz.

### **Silver Supply**

Global mine supply fell 1% in 2016, the first annual decline following 14 years of consecutive growth. In 2017 that trend continued with mine output expected to contract by a further 2% to 870 Moz. Production disruptions out of South America, along with a decline in capital expenditure among the primary producers in the past five years, is expected to constrain output again this year. However, the strong recovery in base metal prices will provide some support to output in 2018, particularly from by-product producers capitalizing on the trend.

Silver generated from scrap supply improved slightly last year on stronger recycling waste generated from the manufacturing process. Scrap supply has been in a strong decline since 2011 due to a contracting pool of near market silverware, jewelry and coins. Scrap is expected to stabilize around 150 Moz this year, which equates to around 15% of total supply.

## Global economies | Foreign exchange markets

### Currency wars: Draghi hits back at Steven Mnuchin in global currency “war of words”

**European Central Bank President Mario Draghi attacked the U.S. Treasury Secretary’s comments on the dollar, saying he isn’t playing by the rules. Speaking in Frankfurt, Draghi said recent euro- dollar moves are partly down to Steven Mnuchin’s intervention at the World Economic Forum in Davos, at which he said a weaker greenback is good for U.S. trade.**

#### ECB President shocked with comments made by Trump’s administration

The remarks breach a pledge by IMF members, Draghi said. “The exchange rate has moved in part because of endogenous reasons, namely the improvement in the economy, in part due to exogenous reasons that have to do with communication. But not by the ECB, but by someone else. This someone else’s communication doesn’t comply with the agreed terms of references.” The euro strengthened after Draghi’s comments, touching \$1.2537, the strongest level since December 2014. Draghi’s riposte came as President Donald Trump arrived in Switzerland for the WEF gathering. Mnuchin said that he’s in favor of freely floating currencies. International Monetary Fund Managing Director Christine Lagarde had earlier called for Mnuchin to explain his remarks and reminded him that the dollar’s value is set by the market. For good measure she added that now is not the time for a currency war.

#### Fears of currency war spurring at World Economic Forum in Davos

“The dollar is of all currencies a floating currency and one where value is determined by markets and geared by the fundamentals of U.S. policy,” Lagarde said in a Bloomberg Television interview. Mnuchin’s words have dominated much of the Davos conversation, spurring warnings that a currency war would be damaging for the global economy. Among those who’ve raised the alarm are Jacob Frenkel, chairman of JPMorgan Chase International. “We should prevent it at all costs,” he said. “A currency war in the monetary sphere is the mirror image of protectionism in the real sphere” Draghi also noted on Thursday that several members of the ECB’s Governing Council expressed alarm about Mnuchin’s comments and U.S. policy. “This concern was broader than simply the exchange rate, it was about the overall status of international relations right now. There is also an additional concern. If all this was to lead to an unwanted tightening of monetary policy which is not warranted then we would have to think about our monetary policy strategy.” He referenced the promise of IMF member countries to “refrain from competitive devaluations” of currencies and to avoid targeting “our exchange rates for competitive purposes.”

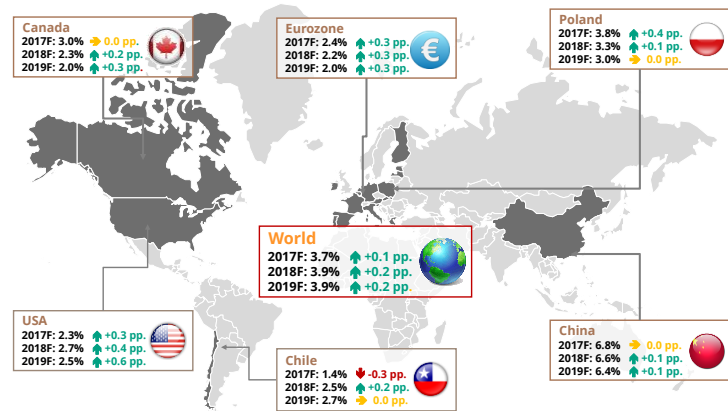
### IMF: Brighter prospects, optimistic mkts & challenges ahead

**Global economic activity continues to firm up. Global output is estimated to have grown by 3.7 percent in 2017, which is 0.1 percentage point faster than projected in the fall and ½ percentage point higher than in 2016. The**

**pickup in growth has been broad based, with notable upside surprises in Europe and Asia.**

Global growth forecasts for 2018 and 2019 have been revised upward by 0.2 percentage point to 3.9 percent. The revision reflects increased global growth momentum and the expected impact of the recently approved U.S. tax policy changes.

**IMF outlook shows synchronized growth, both in developed and emerging economies – dynamics of GDP revised upwards**



Source: IMF WEO, KGHM Polska Miedź

The U.S. tax policy changes are expected to stimulate activity, with the short-term impact in the United States mostly driven by the investment response to the corporate income tax cuts. The effect on U.S. growth is estimated to be positive through 2020, cumulating to 1.2% through that year, with a range of uncertainty around this central scenario. Due to the temporary nature of some of its provisions, the tax policy package is projected to lower growth for a few years from 2022 onwards. The effects of the package on output in the United States and its trading partners contribute about half of the cumulative revision to global growth over 2018–19.


































Risks to the global growth forecast appear broadly balanced in the near term, but remain skewed to the downside over the medium term. On the upside, the cyclical rebound could prove stronger in the near term as the pickup in activity and easier financial conditions reinforce each other. On the downside, rich asset valuations and very compressed term premiums raise the possibility of a financial market correction, which could dampen growth and confidence. A possible trigger is a faster-than-expected increase in advanced economy core inflation and interest rates as demand accelerates. If global sentiment remains strong and inflation muted, then financial conditions could remain loose into the medium term, leading to a buildup of financial vulnerabilities in advanced and emerging market economies alike. Inward-looking policies, geopolitical tensions, and political uncertainty in some countries also pose downside risks.










The current cyclical upswing provides an ideal opportunity for reforms. Shared priorities across all economies include implementing structural reforms to boost potential output and making growth more inclusive. In an environment of financial market optimism, ensuring financial resilience is imperative. Weak inflation suggests that slack remains in many advanced economies and monetary policy should continue to remain accommodative. However, the improved growth momentum means that fiscal policy should increasingly be designed with an eye on medium-term goals—ensuring fiscal sustainability and bolstering potential output. Multilateral cooperation remains vital for securing the global recovery.

# Macroeconomic calendar

## Important macroeconomic data releases

Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>
<b>China</b> 						
☆☆☆☆☆	18-Jan	GDP (yoy)	4Q	6.8% -	6.8%	6.7% 
☆☆☆☆☆	18-Jan	GDP (sa, qoq)‡	4Q	1.6% ▼	1.8%	1.7% 
☆☆☆☆	18-Jan	Industrial production (yoy)	Dec	6.2% ▲	6.1%	6.1% 
☆☆	18-Jan	Fixed assets investments (ytd, yoy)	Dec	7.2% -	7.2%	7.1% 
☆	18-Jan	Retail sales (yoy)‡	Dec	9.4% ▼	10.2%	10.2% 
☆☆	26-Jan	Industrial profits (yoy)	Dec	10.8% ▼	14.9%	--
<b>Poland</b> 						
☆☆☆☆	15-Jan	Consumer inflation CPI (yoy) - final data	Dec	2.1% ▲	2.0%	--
☆☆	15-Jan	Trade balance (EUR mn)‡	Nov	109 ▼	321	500 
☆☆	15-Jan	Exports (EUR mn)‡	Nov	18 243 ▲	17 927	17 846 
☆☆	15-Jan	Current account balance (EUR mn)‡	Nov	233 ▼	297	636 
☆☆☆☆	16-Jan	Core CPI (excluding food and energy, yoy)	Dec	0.9% -	0.9%	0.8% 
☆☆	17-Jan	Average gross salary (yoy)	Dec	7.3% ▲	6.5%	7.1% 
☆	17-Jan	Employment (yoy)	Dec	4.6% ▲	4.5%	4.5% 
☆☆☆☆	19-Jan	Sold industrial production (yoy)	Dec	2.7% ▼	9.1%	3.5% 
☆☆☆	19-Jan	Retail sales (yoy)	Dec	6.0% ▼	10.2%	8.6% 
☆☆	19-Jan	Producer inflation PPI (yoy)	Dec	0.3% ▼	1.8%	0.6% 
☆	23-Jan	M3 money supply (yoy)	Dec	4.6% ▲	4.5%	4.4% 
☆☆	24-Jan	Unemployment rate	Dec	6.6% ▲	6.5%	6.5% 
<b>US</b> 						
☆☆☆☆	17-Jan	Industrial production (mom)‡	Dec	0.9% ▲	-0.1%	0.5% 
☆	17-Jan	Capacity utilization‡	Dec	77.9% ▲	77.2%	77.4% 
☆☆	18-Jan	Philadelphia Fed business outlook‡	Jan	22.2 ▼	27.9	25.0 
☆☆	19-Jan	University of Michigan confidence index - preliminary data	Jan	94.4 ▼	95.9	97.0 
☆	23-Jan	Richmond Fed manufacturing index	Jan	14.0 ▼	20.0	19.0 
☆☆☆	24-Jan	Composite PMI - preliminary data	Jan	--	54.1	--
☆☆☆	24-Jan	Manufacturing PMI - preliminary data	Jan	--	55.1	55.0
☆☆☆	24-Jan	PMI services - preliminary data	Jan	--	53.7	54.3
☆☆☆☆☆	26-Jan	GDP (annualized, qoq) - estimation	4Q	2.6% ▼	3.2%	3.0% 
☆☆	26-Jan	Durable goods orders - preliminary data‡	Dec	2.9% ▲	1.7%	0.8% 
<b>Eurozone</b> 						
☆	15-Jan	Trade balance (EUR mn)	Nov	26.3 ▲	18.9	--
☆☆☆☆	17-Jan	Consumer inflation CPI (yoy) - final data‡	Dec	1.4% ▼	1.5%	1.4% 
☆☆☆☆	17-Jan	Core CPI (yoy) - final data	Dec	0.9% -	0.9%	0.9% 
☆	23-Jan	ZEW survey expectations	Jan	31.8 ▲	29.0	--
☆	23-Jan	Consumer confidence - estimation	Jan	1.3 ▲	0.5	0.6 
☆☆☆	24-Jan	Composite PMI - preliminary data	Jan	--	58.1	57.9
☆☆☆	24-Jan	Manufacturing PMI - preliminary data	Jan	--	60.6	60.3
☆☆☆	24-Jan	Services PMI - preliminary data	Jan	--	56.6	56.4
☆☆☆☆☆	25-Jan	ECB main refinancing rate	Jan	0.00% -	0.00%	0.00% 
☆☆☆☆☆	25-Jan	ECB deposit facility rate	Jan	-0.4% -	-0.4%	-0.4% 
☆	26-Jan	M3 money supply (yoy)	Dec	4.6% ▼	4.9%	4.9% 

Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>
<b>Germany</b> 						
⊕⊕⊕⊕	16-Jan	Harmonized consumer inflation HICP (yoy) - final data	Dec	1.6% -	1.6%	1.6% ○
⊕⊕⊕⊕	16-Jan	Consumer inflation CPI (yoy) - final data	Dec	1.7% -	1.7%	1.7% ○
⊕⊕⊕	24-Jan	Composite PMI - preliminary data	Jan	--	58.9	58.5
⊕⊕⊕	24-Jan	Manufacturing PMI - preliminary data	Jan	--	63.3	63.0
⊕⊕	25-Jan	IFO business climate	Jan	118 ▲	117	117 ●
⊕⊕	25-Jan	GfK consumer confidence	Feb	11.0 ▲	10.8	10.8 ●
<b>France</b> 						
⊕⊕⊕	24-Jan	Composite PMI - preliminary data	Jan	--	59.6	59.2
⊕⊕⊕	24-Jan	Manufacturing PMI - preliminary data	Jan	--	58.8	58.6
<b>Italy</b> 						
⊕⊕⊕⊕	16-Jan	Harmonized consumer inflation HICP (yoy) - final data	Dec	1.0% -	1.0%	1.0% ○
<b>UK</b> 						
⊕⊕⊕⊕	16-Jan	Consumer inflation CPI (yoy)	Dec	3.0% ▼	3.1%	3.0% ○
⊕⊕	24-Jan	Unemployment rate (ILO, 3-months)	Nov	4.3% -	4.3%	4.3% ○
⊕⊕⊕⊕⊕	26-Jan	GDP (yoy) - estimation	4Q	1.5% ▼	1.7%	1.4% ●
⊕⊕⊕⊕⊕	26-Jan	GDP (qoq) - estimation	4Q	0.5% ▲	0.4%	0.4% ●
<b>Japan</b> 						
⊕⊕⊕⊕	18-Jan	Industrial production (yoy) - final data	Nov	3.6% ▼	3.7%	--
⊕⊕⊕	24-Jan	Manufacturing PMI - preliminary data	Jan	--	54.0	--
⊕⊕⊕⊕	26-Jan	Consumer inflation CPI (yoy)	Dec	1.0% ▲	0.6%	1.1% ●
<b>Chile</b> 						
<i>No major data in the period</i>						
<b>Canada</b> 						
⊕⊕⊕⊕⊕	17-Jan	BoC base rate decision	Jan	1.25% ▲	1.00%	1.25% ○
⊕⊕⊕⊕	26-Jan	Consumer inflation CPI (yoy)	Dec	1.9% ▼	2.1%	1.9% ○

<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

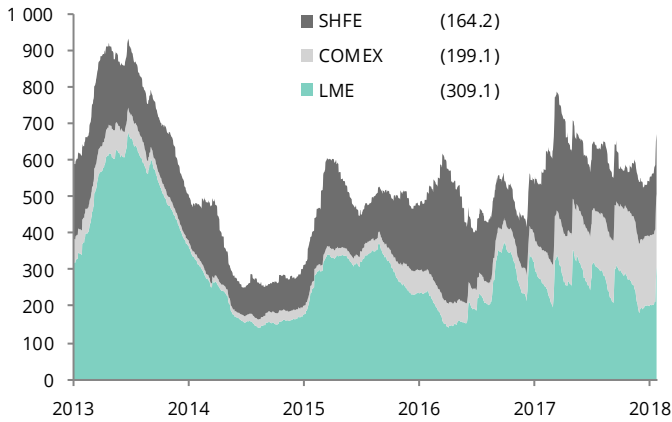
### Key base & precious metal prices, exchange rates and other important market factors

<i>(as of: 26-Jan-18)</i>		Price change <sup>1</sup>					From year beginning <sup>2</sup>		
	Price	2W	QTD	YTD	1Y	Average	Min	Max	
<b>LME (USD/t)</b>									
Copper	7 063.50	▲ 0.6%	▼ -1.3%	▼ -1.3%	▲ 19.9%	7 081.84	6 905.00	7 202.50	
Molybdenum	16 000.00	- 0.0%	- 0.0%	- 0.0%	▲ 4.9%	16 000.00	16 000.00	16 000.00	
Nickel	13 750.00	▲ 10.8%	▲ 12.2%	▲ 12.2%	▲ 43.8%	12 751.05	12 415.00	13 750.00	
Aluminum	2 238.00	▲ 3.0%	▼ -0.2%	▼ -0.2%	▲ 21.8%	2 211.26	2 143.50	2 256.00	
Tin	22 005.00	▲ 8.1%	▲ 10.7%	▲ 10.7%	▲ 9.0%	20 504.21	19 960.00	22 005.00	
Zinc	3 526.00	▲ 2.8%	▲ 6.6%	▲ 6.6%	▲ 25.3%	3 423.95	3 350.50	3 526.00	
Lead	2 604.00	▲ 2.4%	▲ 4.4%	▲ 4.4%	▲ 9.0%	2 583.55	2 536.00	2 621.00	
<b>LBMA (USD/troz)</b>									
Silver	17.40	▲ 1.8%	▲ 3.2%	▲ 3.2%	▲ 3.2%	17.15	16.98	17.52	
Gold <sup>2</sup>	1 353.15	▲ 1.4%	▲ 4.4%	▲ 4.4%	▲ 13.7%	1 329.62	1 311.00	1 354.95	
<b>LPPM (USD/troz)</b>									
Platinum <sup>2</sup>	1 017.00	▲ 2.3%	▲ 9.7%	▲ 9.7%	▲ 4.6%	988.24	936.00	1 020.00	
Palladium <sup>2</sup>	1 087.00	▼ -1.6%	▲ 2.9%	▲ 2.9%	▲ 51.6%	1 097.84	1 078.00	1 129.00	
<b>FX<sup>3</sup></b>									
EURUSD	1.2436	▲ 1.7%	▲ 3.7%	▲ 3.7%	▲ 16.2%	1.2165	1.1932	1.2436	
EURPLN	4.1477	▼ -0.8%	▼ -0.6%	▼ -0.6%	▼ -4.7%	4.1671	4.1477	4.1825	
USDPLN	3.3299	▼ -2.6%	▼ -4.3%	▼ -4.3%	▼ -18.0%	3.4269	3.3299	3.4999	
USDCAD	1.2321	▼ -0.8%	▼ -1.8%	▼ -1.8%	▼ -6.0%	1.2445	1.2321	1.2535	
USDCNY	6.3283	▼ -1.8%	▼ -2.7%	▼ -2.7%	▼ -8.1%	6.4449	6.3263	6.5297	
USDCLP	599.33	▼ -0.8%	▼ -2.6%	▼ -2.6%	▼ -7.9%	606.14	599.33	614.75	
<b>Money market</b>									
3m LIBOR USD	1.767	▲ 0.03	▲ 0.07	▲ 0.07	▲ 0.73	1.728	1.696	1.767	
3m EURIBOR	-0.328	▲ 0.00	▲ 0.00	▲ 0.00	- 0.00	-0.329	-0.329	-0.327	
3m WIBOR	1.720	- 0.00	- 0.00	- 0.00	▼ -0.01	1.720	1.720	1.720	
5y USD interest rate swap	2.545	▲ 0.14	▲ 0.30	▲ 0.30	▲ 0.52	2.414	2.283	2.545	
5y EUR interest rate swap	0.455	▲ 0.09	▲ 0.14	▲ 0.14	▲ 0.26	0.359	0.292	0.455	
5y PLN interest rate swap	2.690	▲ 0.26	▲ 0.19	▲ 0.19	▲ 0.06	2.481	2.400	2.690	
<b>Fuel</b>									
WTI Cushing	66.14	▲ 3.8%	▲ 9.5%	▲ 9.5%	▲ 23.0%	63.46	60.37	66.14	
Brent	70.17	▲ 1.2%	▲ 5.0%	▲ 5.0%	▲ 26.3%	69.15	66.69	70.42	
Diesel NY (ULSD)	212.60	▲ 3.2%	▲ 3.0%	▲ 3.0%	▲ 32.0%	207.25	204.09	212.60	
<b>Others</b>									
VIX	11.08	▼ -0.58	▲ 0.04	▲ 0.04	▲ 0.45	10.56	9.15	12.22	
BBG Commodity Index	90.80	▲ 2.7%	▲ 3.0%	▲ 3.0%	▲ 2.9%	88.82	87.69	90.80	
S&P500	2 872.87	▲ 3.5%	▲ 7.5%	▲ 7.5%	▲ 25.1%	2 782.56	2 695.81	2 872.87	
DAX	13 340.17	▲ 0.7%	▲ 3.3%	▲ 3.3%	▲ 12.6%	13 275.95	12 871.39	13 559.60	
Shanghai Composite	3 558.13	▲ 3.5%	▲ 7.6%	▲ 7.6%	▲ 12.6%	3 450.66	3 348.33	3 559.47	
WIG 20	2 600.48	▲ 0.4%	▲ 5.7%	▲ 5.7%	▲ 25.0%	2 565.44	2 463.25	2 630.37	
KGHM	112.45	▼ -1.2%	▲ 1.1%	▲ 1.1%	▼ -7.9%	112.89	109.40	115.00	

<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>

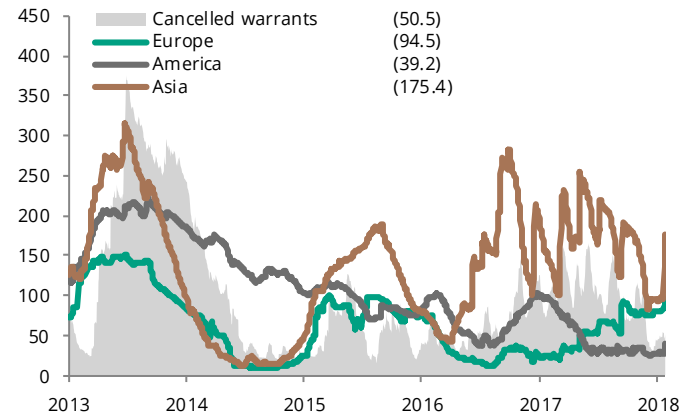
Source: Bloomberg, KGHM

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



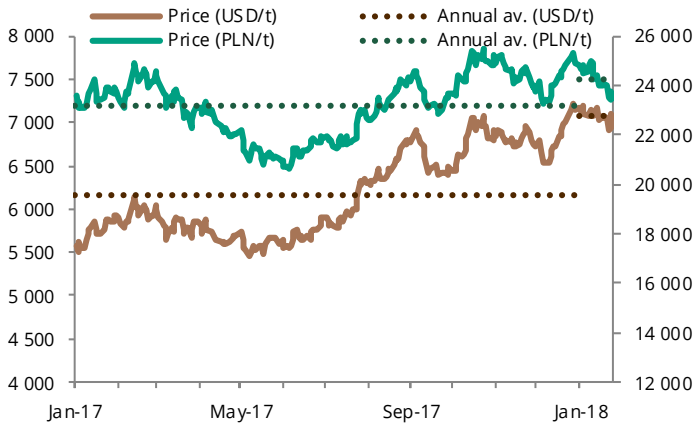
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



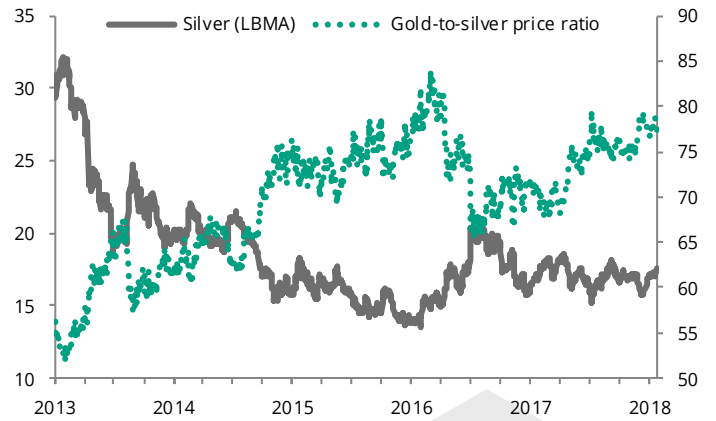
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



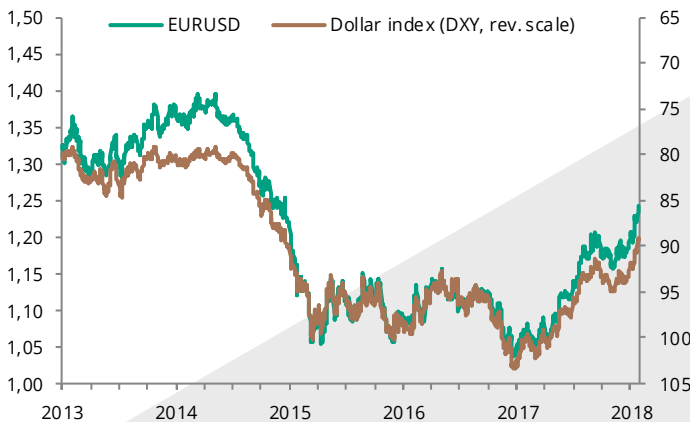
Source: Bloomberg, KGHM Polska Miedź

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



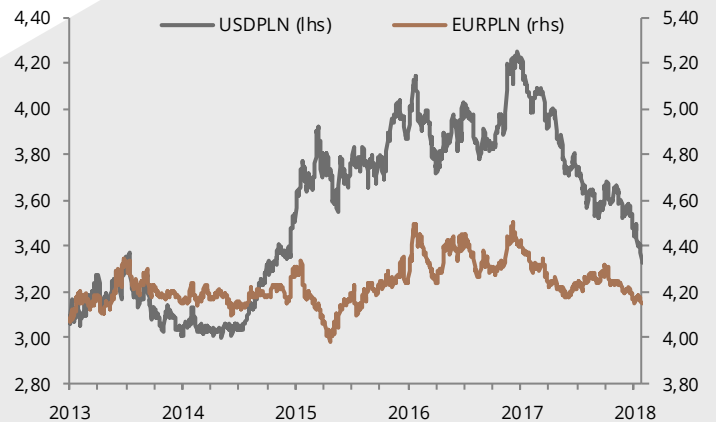
Source: Bloomberg, KGHM Polska Miedź

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



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:  
**15<sup>th</sup> – 28<sup>th</sup> January 2018.**

- 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](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)

### **DISCLAIMER**

This document reflects the market view of the staff of KGHM Polska Miedz (Polish Copper)'s Market Risk Unit employees on the economy, commodity as well as financial markets. Although, according to the our best of our knowledge, all the facts presented in this publication come from or are based on reliable sources, we do not guarantee their correctness. Moreover, they may be incomplete or shortened. All the opinions and forecasts are backed by diligently-performed analyses valid as of the publishing date and may be subject to change. KGHM Polska Miedz (Polish Copper) S.A. is not obligated to announce any subsequent change of these opinions or forecasts. This document's purpose is solely informative and must not be interpreted as an offer or advice with regards to the purchase/sale of any mentioned financial instrument, nor it is part of such offer or advice.

Re-printing or using this publication or its in whole or part requires prior written consent from KGHM. To acquire that such consent please contact the Communications and CSR Department of Communication (Departament Komunikacji i CSR) of and CSR KGHM Polska Miedz SA.

In case of questions or comments please contact us:

KGHM Polska Miedz (Polish Copper) S.A.

Departament Zarządzania Ryzykiem Rynkowym i Kredytowym (Market and Credit Risk Management Department)

Wydział Ryzyka Rynkowego (Market Risk Unit)

ul. M. Skłodowskiej-Curie 48

59-301 Lubin, Poland