

# Market Overview

as of: 11 January 2016






- Copper:** Copper started new year in red, like most metals (and energy), affected by panic equity sell-off in China. This happened despite Chinese smelters' efforts to reduce amount of red metal available on domestic market this year. In Chile, Cochilco released data on mine costs for the first time ever, showing that most copper producers were still above water last year (*page 2*).
- Precious metals:** Gold hit a two-month high last week in a rally driven by a slump in oil prices and fears over health of Chinese economy. The price should benefit, if the Fed delays a rate hike, while we could witness a drop if the inflation figures improve and FOMC responds. China has launched interbank gold trading at the beginning of this year, in an effort to open up the country's bullion market (*page 4*).
- Other metals:** Indonesia is analysing options to change its restrictions on concentrates export, as low metals' prices are threat to Jakarta's plans to spur investment in processing across the archipelago (*page 5*).
- China:** At the beginning of the new year financial investors have been surprised by thorough Chinese stocks sell-off. During the first five trading days Shanghai Composite Index and Shenzhen Composite CSI 300 lost around 11% of their values (*page 6*).

## Key market prices

	Close price	3w chng.
<b>LME (USD/t)</b>		
▼ Copper	4 486.50	-3.5%
▼ Nickel	8 405.00	-2.9%
<b>LBMA (USD/troz)</b>		
▲ Silver	14.04	1.6%
▲ Gold (PM)	1 101.85	3.7%
<b>FX</b>		
▲ EUR/USD	1.0861	0.2%
▲ EUR/PLN	4.3457	1.5%
▲ USD/PLN	3.9963	1.0%
▲ USD/CAD	1.4151	1.9%
▲ USD/CLP	721.31	1.8%
<b>Stocks</b>		
▼ KGHM	54.60	-9.6%

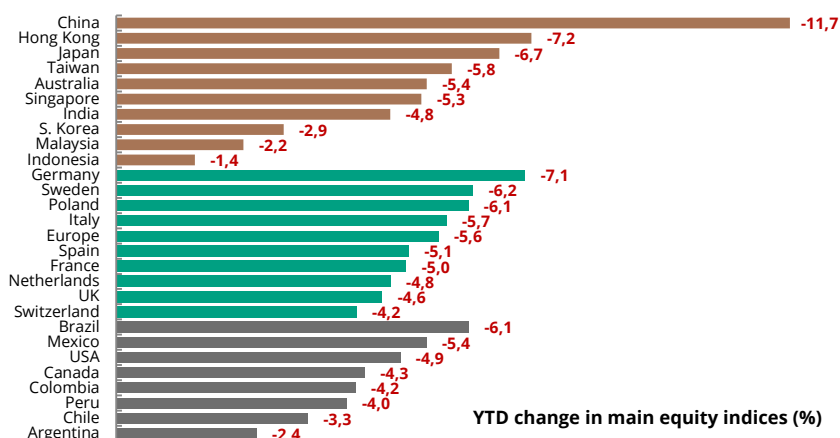
Source: Bloomberg, KGHM; (*more on page 9*)

## Important macroeconomic data

Release	For		
 Non-farm payrolls chng.	Dec	292	▲
 Caixin's manuf. PMI	Dec	48.2	▼
 Manufacturing PMI	Dec	53.2	▲
 CPI (yoy)	Dec	-0.5%	▲
 CPI (yoy)	Dec	4.4%	▲

Source: Bloomberg, KGHM; (*more on page 7*)

## China made investors' headache worse and Shanghai Composite dragged all major global equity indices down (*more on page 6*)



Source: Bloomberg, KGHM

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## Base and precious metals | Other commodities

### Copper

**Copper started new year in red, like most metals (and energy), affected by panic equity sell-off in China. This happened despite Chinese smelters' efforts to reduce amount of red metal available on domestic market this year. In Chile, Cochilco released data on mine costs for the first time ever, showing that most copper producers were still above water last year.**

#### China stockpiles and cuts spot sales to fight low prices

China's state stockpiling agency is expected to start buying up domestic copper supply any time now, after local smelters urged it to intervene in order to support prices. The State Reserves Bureau (SRB) has already invited at least one large copper smelter to sell refined copper cathode in a tender, said a Reuters' source. The SRB is said to plan buying as much as 150kt of copper and the tender is probably the first step in a larger stockpiling plan.

Several large copper producers wrote detailed joint proposals to the Chinese government late last month to begin a new stockpiling programme. Smelters began calling on the SRB to intervene in late November as prices were falling to around six-year lows on the domestic and international markets in the second half of 2015. The copper programme follows a similar plan under consideration to stockpile aluminium that is likely to be funded by commercial loans.

Nine large copper smelters in China have already agreed to cut sales of spot metal by as much as 200kt in 1Q16 to counter low prices, which is equal to about 10% of China's 1Q15 refined copper production. The plan to limit spot sales adds to an earlier decision by smelters to cut production next year by at least 350kt. The nine firms are members of the China Smelters Purchase Team (CSPT) and include Jiangxi Copper, Tongling Nonferrous Metals and Jinchuan Group. Under the latest proposal, the smelters would place some refined metal in warehouses rather than sell it on the spot market. They would still raise cash through stock financing deals with banks. The producers could resume sales of held-back spot copper if spot prices rose above RMB 40,000 in the domestic market.

#### Chile releases data on mine costs for the first time ever

Chile, the world's top copper producing country, surprised investors by publishing for the first time ever detailed data related to costs for nearly its entire mining industry. According to the recently launched "Costs Observatory," the average cash cost per pound of copper produced in the country in 2Q15, was USD 1.625/lb, down from an average USD 1.655/lb in the same period in previous year.

**SRB is said to buy 150kt in the first step**

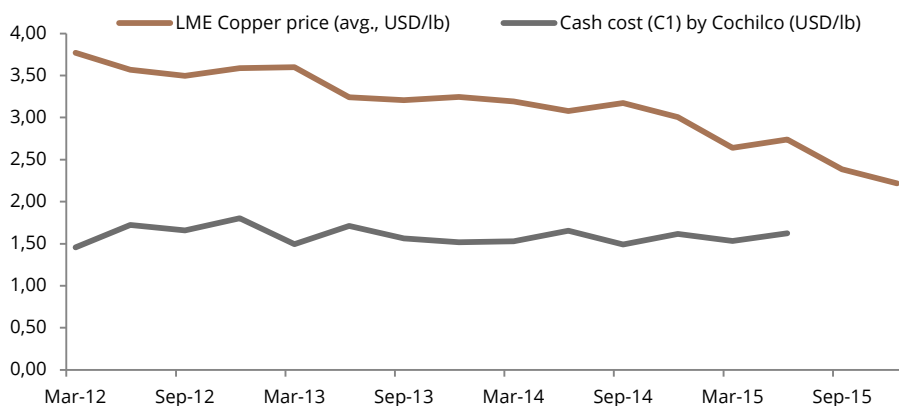
**Nine large producers reduce spot sales by 200kt in addition to previous decision to cut 350kt**

**The average cash cost in Chile in 2Q15 was USD 1.625/lb**

### The data contradicts mining associations' warning about losses

The index, which gathers data on production costs for 19 mining operations across Chile, representing 91% of the country's total copper output, also shows that mining companies have benefitted from lower fuel and energy costs, which saved 4.9 cents per pound during 2Q. Additionally, lower wages for staff and contractors cut 4.6 cents per pound. These figures contradict recent reports from local mining associations, which show that most copper producers in Chile are barely breaking even at current metal prices. However, the government noted this first report of mining costs is based on data collected up to June and, as such, does not reflect measures companies have taken in the second half of the year.

### Despite miners' warnings most of Chilean copper producers were still in black last year



Source: Cochilco, Bloomberg, KGHM

### Other important information on copper market:

- The Board of Codelco will decide whether to pursue the USD 3bn Salvador project to give continuity to its Salvador division, which records the highest production costs and lower output levels. If the project is greenlighted, Rajo Inca will be operational after 2021.
- The global refined copper market in September, excluding changes in Chinese bonded stocks, showed an apparent production deficit of around 25kt, according to the International Copper Study Group. When making seasonal adjustments for world refined production and usage, September showed a production surplus of 30kt. For January-September, global refined copper markets were in a surplus of about 35kt, and a seasonally adjusted surplus of about 122kt.
- Zambia, Africa's second largest copper producer, will introduce a variable tax on mineral royalties that will be adjusted according to metal prices. Zambian royalty taxes will range between 3% and 9% for open-pit and underground mines. This African country had already cut mineral royalties in June for underground mines to 6% from 9% and those of open cast mines to 9% percent from 20%.

## Precious metals

**Gold hit a two-month high last week in a rally driven by a slump in oil prices and fears over health of Chinese economy. The price should benefit, if the Fed delays a rate hike, while we could witness a drop if the inflation figures improve and FOMC responds. China has launched interbank gold trading at the beginning of this year, in an effort to open up the country's bullion market.**

### Gold's performance in 2015

In 2015 we have seen the continuation of a number of trends in the global gold market:

- Asian markets continued to be strong drivers of gold demand with both India and China up year on year as of Q3 2015.
- Global bar and coin demand more than doubled from pre-crisis levels and the strength of bar and coin demand in Europe is now well established, having been non-existent prior to the financial crisis.
- Recycling is down and mine production has begun to level off.
- The Indian government has introduced the gold monetisation scheme: a gold bond and a sovereign gold coin, in order to monetise the gold stocks held by the Indian people that are estimated to be about 22,000 tonnes. In China there have also been some dramatic changes.
- The PBoC's announcements on the additions to their gold reserves from June onwards have been a welcome development in transparency.
- The metal fell more than 10%, largely on the back of expectations that the Federal Reserve is set to normalise U.S. interest rates. Ultra-low rates, which cut the opportunity cost of holding gold while weighing on the dollar, were the key factor driving gold to record highs in 2011. The Fed raised rates in December and attention has shifted to how many hikes will follow in 2016.

### China's bigger presence on gold market

China has launched interbank gold trading at the beginning of this year, in an effort to open up the country's bullion market. The trading mechanism has been introduced by Shanghai Gold Exchange and the China Foreign Exchange Trading System. It is aimed to boost liquidity of interbank gold trading, and promote market making.

#### New gold trading market in China

**10 banks will be first-tier market makers with another 6 classified as second-tier**

Ten banks including Middle Kingdom's big four banks, a local branch of Australia and New Zealand Banking Group ANZ will act as first-tier market makers. Another six smaller Chinese banks are listed as second-tier market makers. Before the new mechanism, banks were not allowed to trade gold with each other and could only buy the precious metal through the Shanghai Gold Exchange, which is the world's biggest physical trading platform for the metal.

### Deutsche's vaults acquired by ICBC

## ICBC expands precious metals business

ICBC Standard Bank is buying the lease on Deutsche Bank's London gold and silver vault, enlarging its footprint in the City's bullion market. China's ICBC, which took a controlling stake in Standard Bank's London-based Global Markets business last year, has also applied to become a clearing member of the London gold and silver over-the-counter business. The Chinese and South African lender is aiming to fill the gap left by Western banks, which are retreating from commodities to cut costs and reduce regulatory burden.

The vault became operational in June 2014 and has a capacity of 1,500 tonnes. It was built and is managed by British security services company G4S. Deutsche Bank resigned as a clearing member in 2015, after closing its physical precious metals trading and withdrawing from gold and silver benchmark price setting.

## Other metals

**Indonesia is analysing options to change its restrictions on concentrates export, as low metals' prices are threat to Jakarta's plans to spur investment in processing across the archipelago.**

### Indonesia to reconsider restrictions on concentrates export

Indonesia considers relaxing rules on the export of metal concentrates following the collapse in metals prices, while keeping a ban on raw ore shipments, according to local Energy and Mineral Resources Minister, Sudirman Said. The policy on concentrate shipments, due to be halted from 2017 to push mining companies to build smelters, should be examined to provide maximum value for the domestic economy, said minister, and the government will soon discuss changes to the mining law with parliament.

The curbs imposed by Jakarta were intended to spur investment in processing across the archipelago, enabling Indonesia to produce higher-value commodities. But since the ban on ore shipments went into effect in January 2014, base metals have plunged on the slowdown in China, while rival shippers emerged, including producers in the Philippines and Australia. Unless the law is revised, exports of concentrates from Indonesia will also be prohibited from January 2017.

Before the 2014 ban, Indonesia was the world's biggest shipper of mined nickel, as well as China's largest supplier of bauxite. The low metal prices are a challenge for the country's goal of promoting processing, according to S. Said, who said the government would provide incentives to aid development. The slumping nickel price has hurt producers in Indonesia. One of companies that built a smelter after the ban on ore export, Tsingshan Bintangdelapan Group, a Chinese-Indonesian venture, is making a loss of USD 2,000 per tonne. Some industry sources also wonder if the government will reconsider the existing export ban on unprocessed metal minerals.

**Concentrate export ban is to come in force since next year**

**Philippine and Australian producers took advantage of missing Indonesian supply**

**Some wonder if unprocessed minerals' export restriction could also be relaxed**

## Global economies | Foreign exchange markets

### China: Stock markets slide as fears in China spread

**At the beginning of the new year financial investors have been surprised by thorough Chinese stocks sell-off. During the first five trading days Shanghai Composite Index and Shenzhen Composite CSI 300 lost around 11% of their values.**

Negative atmosphere in Middle Kingdom have spread out very fast around the world and majority of the most important indexes have followed Chinese stocks into the red. Dow Jones Industrial Average had its worst start into the year since at least 1896. The index slid 5.2% in the first four trading days of 2016.

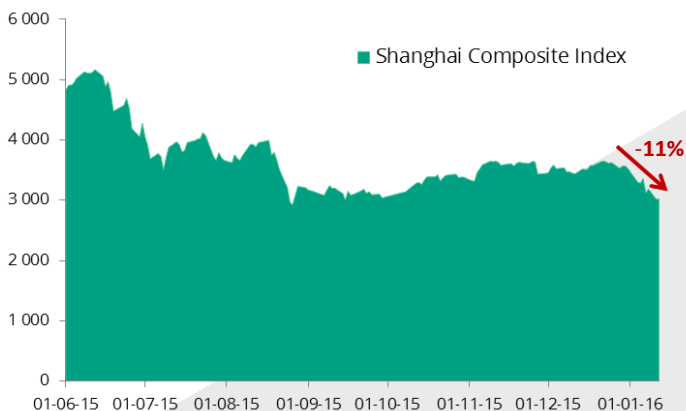
There were few triggers of recent sell-off in China. Once again some negative economic data was released, including worse-than-expected reading for the Caixin PMI (48.2 vs 49.0), a purchasing manager index that is a closely watched indicator of manufacturing activity. That has created fears that slowdown in China becomes more serious than anticipated by analysts, especially due to lack of transparency of the Chinese economy.

In addition, chaotic Chinese authorities' decisions undermined investors' confidence in Beijing's ability to smoothly manage the world's second largest economy transformation, as it cools down from decades of double-digit growth. Early Thursday's sharp devaluation of renminbi has been interpreted as a sign that the authorities are becoming increasingly worried about the nation's ailing economy. In an attempt to shore up investor sentiment, Middle Kingdom's securities regulator issued new rules on Thursday to prolong restrictions on share sales by major shareholders. However, some analysts think it may not help, and they expect that the rocky start of the year for Chinese shares will be continued in following months.

**Weak PMI reading was once again the trigger**

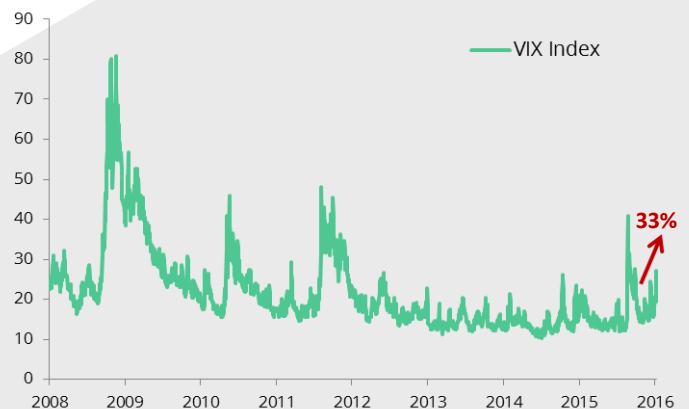
**Chaotic Chinese authorities decisions undermined investor confidence**

**First Chinese stocks sell-off took place in the middle of last year. Are we going to repeat it?**



Source: Bloomberg, KGHM

**VIX at highest levels since August 2015. Is Chinese economy and stock market driving global "Fear Index"?**



Source: Bloomberg, KGHM

## Macroeconomic calendar

### Important macroeconomic data releases

Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>	
<b>China</b>							
***	01-Jan	Official manufacturing PMI	Dec	49.7 ▲	49.6	49.8	▲
***	04-Jan	Caixin's manufacturing PMI	Dec	48.2 ▼	48.6	48.9	▲
*	07-Jan	Foreign reserves (USD bn)	Dec	3 330 ▼	3 438	3 415	▲
*****	09-Jan	Consumer inflation CPI (yoy)	Dec	1.6% ▲	1.5%	1.6%	○
**	09-Jan	Producer inflation PPI (yoy)	Dec	-5.9% -	-5.9%	-5.8%	▲
**	27-Dec	Industrial profits (yoy)	Nov	-1.4% ▲	-4.6%	--	▲
<b>Poland</b>							
***	04-Jan	Manufacturing PMI	Dec	52.1 -	52.1	52.3	▲
*****	04-Jan	Consumer inflation CPI (yoy) - preliminary data	Dec	-0.5% ▲	-0.6%	-0.4%	▲
**	23-Dec	Unemployment rate	Nov	9.6% -	9.6%	9.7%	▲
*	31-Dec	NBP inflation expectations	Dec	0.2% -	0.2%	0.2%	○
<b>US</b>							
***	04-Jan	Manufacturing PMI - final data	Dec	51.2 ▼	51.3	51.1	▲
**	04-Jan	ISM Manufacturing	Dec	48.2 ▼	48.6	49.0	▲
***	06-Jan	Composite PMI - final data	Dec	54.0 ▲	53.5	--	▲
***	06-Jan	PMI services - final data	Dec	54.3 ▲	53.7	54.0	▲
**	08-Jan	Change in non-farm payrolls (th\$)‡	Dec	292 ▲	252	200	▲
**	08-Jan	Underemployment rate (U6)	Dec	9.9% -	9.9%	--	▲
**	08-Jan	Unemployment rate	Dec	5.0% -	5.0%	5.0%	○
*	08-Jan	Average hourly earnings (yoy)	Dec	2.5% ▲	2.3%	2.7%	▲
*****	22-Dec	GDP (annualized, qoq) -	3Q	2.0% ▼	2.1%	1.9%	▲
*	22-Dec	Richmond Fed manufacturing index	Dec	6.0 ▲	- 3.0	- 1.0	▲
**	23-Dec	Personal spending (sa, mom)‡	Nov	0.3% ▲	0.0%	0.3%	○
*****	23-Dec	Consumer spending inflation PCE (mom)	Nov	0.1% ▲	0.0%	0.1%	○
*****	23-Dec	Consumer spending inflation PCE (yoy)	Nov	1.3% -	1.3%	1.3%	○
**	23-Dec	Durable goods orders - preliminary data	Nov	0.0% ▼	2.9%	-0.6%	▲
**	23-Dec	Personal income (sa, mom)	Nov	0.3% ▼	0.4%	0.2%	▲
**	23-Dec	University of Michigan confidence index - final data	Dec	92.6 ▲	91.8	92.0	▲
*	28-Dec	Dallas Fed manufacturing activity	Dec	- 20.1 ▼	- 4.9	- 7.0	▲
*	29-Dec	S&P/CaseShiller home price index‡	Oct	183 ▲	183	183	▲
<b>Eurozone</b>							
***	04-Jan	Manufacturing PMI - final data	Dec	53.2 ▲	53.1	53.1	▲
*****	05-Jan	Core CPI (yoy) - estimation	Dec	0.9% -	0.9%	1.0%	▲
*****	05-Jan	CPI estimate (yoy)	Dec	0.2% -	0.2%	0.3%	▲
***	06-Jan	Composite PMI - final data	Dec	54.3 ▲	54.0	54.0	▲
***	06-Jan	Services PMI - final data	Dec	54.2 ▲	53.9	53.9	▲
**	06-Jan	Producer inflation PPI (yoy)‡	Nov	-3.2% -	-3.2%	-3.2%	○
**	07-Jan	Retail sales (yoy)‡	Nov	1.4% ▼	2.4%	2.0%	▲
**	07-Jan	Unemployment rate‡	Nov	10.5% ▼	10.6%	10.7%	▲
*	07-Jan	Economic confidence	Dec	107 ▲	106	106	▲
*	07-Jan	Industrial confidence	Dec	- 2.0 ▲	- 3.2	- 2.9	▲
*	07-Jan	Consumer confidence - final data	Dec	- 5.7 -	- 5.7	- 5.7	○
*	07-Jan	Business climate indicator	Dec	0.4 ▲	0.4	0.4	▲
*	21-Dec	Consumer confidence - estimation	Dec	- 5.7 ▲	- 5.9	- 5.9	▲
*	30-Dec	M3 money supply (yoy)	Nov	5.1% ▼	5.3%	5.2%	▲

Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>	
<b>Germany</b>							
☆☆☆	04-Jan	Manufacturing PMI - final data	Dec	53.2 ▲	53.0	53.0	▲
☆☆☆☆	04-Jan	Harmonized consumer inflation HICP (yoy) - preliminary data	Dec	0.2% ▼	0.3%	0.4%	●
☆☆☆☆	04-Jan	Consumer inflation CPI (yoy) - preliminary data	Dec	0.3% ▼	0.4%	0.6%	●
☆☆	05-Jan	Unemployment rate	Dec	6.3% -	6.3%	6.3%	○
☆☆☆	06-Jan	Composite PMI - final data	Dec	55.5 ▲	54.9	54.9	▲
☆☆☆	07-Jan	Factory orders (wda, yoy)‡	Nov	2.1% ▲	-1.6%	1.1%	▲
☆☆☆	07-Jan	Retail sales (yoy)‡	Nov	2.3% ▼	2.5%	3.7%	●
☆☆☆☆	08-Jan	Industrial production (wda, yoy)‡	Nov	0.1% ▼	0.4%	0.5%	●
☆☆	22-Dec	GfK consumer confidence	Jan	9.4 ▲	9.3	9.3	▲
<b>France</b>							
☆☆☆	04-Jan	Manufacturing PMI - final data	Dec	51.4 ▼	51.6	51.6	●
☆☆☆	06-Jan	Composite PMI - final data	Dec	50.1 ▼	50.3	50.3	●
☆☆☆☆	08-Jan	Industrial production (yoy)‡	Nov	2.8% ▼	3.7%	3.0%	●
☆☆☆☆☆	23-Dec	GDP (yoy) - final data	3Q	1.1% ▼	1.2%	1.2%	●
☆☆☆☆☆	23-Dec	GDP (qoq) - final data	3Q	0.3% -	0.3%	0.3%	○
<b>Italy</b>							
☆☆☆	04-Jan	Manufacturing PMI	Dec	55.6 ▲	54.9	54.9	▲
☆☆☆☆	05-Jan	Harmonized consumer inflation HICP (yoy) - preliminary data	Dec	0.1% ▼	0.2%	0.4%	●
☆☆☆	06-Jan	Composite PMI	Dec	56.0 ▲	54.3	--	
☆☆	07-Jan	Unemployment rate - preliminary data	Nov	11.3% ▼	11.5%	11.5%	●
<b>UK</b>							
☆☆☆	04-Jan	Manufacturing PMI (sa)‡	Dec	51.9 ▼	52.5	52.8	●
☆☆☆	06-Jan	Composite PMI‡	Dec	55.3 ▼	55.7	--	
☆☆☆☆☆	23-Dec	GDP (yoy) - final data	3Q	2.1% ▼	2.3%	2.3%	●
☆☆☆☆☆	23-Dec	GDP (qoq) - final data	3Q	0.4% ▼	0.5%	0.5%	●
<b>Japan</b>							
☆☆☆	04-Jan	Manufacturing PMI - final data	Dec	52.6 ▲	52.5	--	
☆☆☆	06-Jan	Composite PMI	Dec	52.2 ▼	52.3	--	
☆☆☆☆	25-Dec	Consumer inflation CPI (yoy)	Nov	0.3% -	0.3%	0.3%	○
☆☆☆☆	28-Dec	Industrial production (yoy) - preliminary data	Nov	1.6% ▲	-1.4%	1.6%	○
<b>Chile</b>							
☆☆☆☆	05-Jan	Economic activity (yoy)	Nov	1.8% ▲	1.5%	2.5%	●
☆☆☆	07-Jan	Copper exports (USD mn)	Dec	2 597 ▼	2 729	--	
☆☆	07-Jan	Nominal wages (yoy)	Nov	5.5% ▼	5.7%	5.6%	●
☆☆☆☆	08-Jan	Consumer inflation CPI (yoy)	Dec	4.4% ▲	3.9%	4.5%	●
☆☆☆	30-Dec	Total copper production (metric tons)	Nov	486 128 ▼	500 720	--	
☆☆☆	30-Dec	Manufacturing (yoy)	Nov	-0.2% ▲	-3.0%	-0.3%	▲
<b>Canada</b>							
☆☆☆	08-Jan	Net change in employment (ths)	Dec	22.8 ▲	-35.7	10.0	▲
☆☆☆☆	23-Dec	GDP (yoy)‡	Oct	-0.2% ▼	0.1%	-0.1%	●

<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



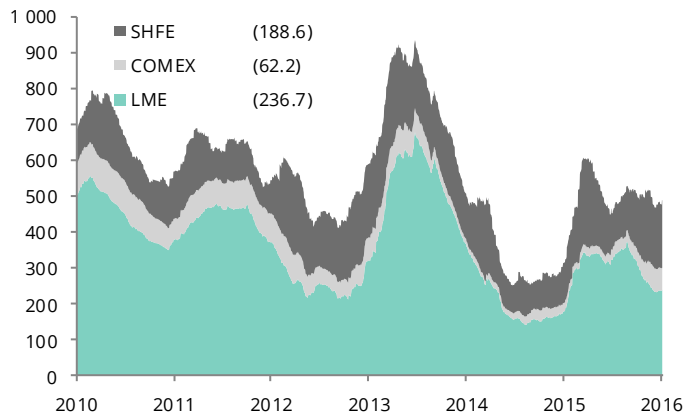
## Key market data

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

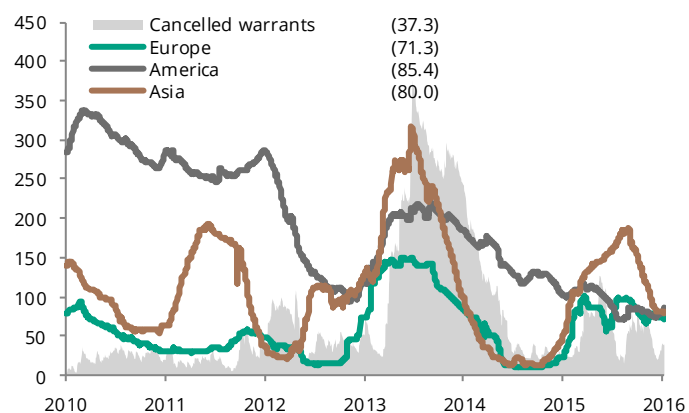
<i>(as of: 08-Jan-16)</i>		Price change °					From year beginning <sup>2</sup>		
	Price	3W	QTD	YTD	1Y	Average	Min	Max	
<b>LME (USD/t)</b>									
Copper	4 486.50	▼ -3.5%	▼ -4.6%	▼ -4.6%	▼ -28.0%	4 578.50	4 486.50	4 647.00	
Molybdenum	12 000.00	- 0.0%	- 0.0%	- 0.0%	▼ -42.9%	11 950.00	11 750.00	12 000.00	
Nickel	8 405.00	▼ -2.9%	▼ -3.0%	▼ -3.0%	▼ -45.2%	8 467.00	8 315.00	8 620.00	
Aluminum	1 476.00	▼ -2.1%	▼ -2.1%	▼ -2.1%	▼ -16.9%	1 465.40	1 455.00	1 476.00	
Tin	13 950.00	▼ -4.9%	▼ -4.5%	▼ -4.5%	▼ -29.4%	14 152.00	13 850.00	14 560.00	
Zinc	1 478.50	▼ -1.3%	▼ -7.6%	▼ -7.6%	▼ -31.6%	1 514.40	1 477.00	1 554.00	
Lead	1 647.00	▼ -1.3%	▼ -8.6%	▼ -8.6%	▼ -11.1%	1 689.10	1 613.00	1 762.00	
<b>LBMA (USD/troz)</b>									
Silver	14.04	▲ 1.6%	▲ 1.6%	▲ 1.6%	▼ -14.2%	14.02	14.00	14.04	
Gold <sup>1</sup>	1 101.85	▲ 3.7%	▲ 3.7%	▲ 3.7%	▼ -9.4%	1 091.77	1 077.00	1 106.35	
<b>LPPM (USD/troz)</b>									
Platinum <sup>1</sup>	874.00	▲ 2.6%	▲ 0.2%	▲ 0.2%	▼ -28.4%	879.60	865.00	893.00	
Palladium <sup>1</sup>	505.00	▼ -8.7%	▼ -7.7%	▼ -7.7%	▼ -36.2%	520.80	486.00	550.00	
<b>FX <sup>3</sup></b>									
EUR/USD	1.0861	▲ 0.2%	▼ -0.2%	▼ -0.2%	▼ -7.7%	1.0823	1.0742	1.0898	
EUR/PLN	4.3457	▲ 1.5%	▲ 2.0%	▲ 2.0%	▲ 1.1%	4.3261	4.2935	4.3475	
USD/PLN	3.9963	▲ 1.0%	▲ 2.4%	▲ 2.4%	▲ 9.5%	3.9851	3.9281	4.0085	
USD/CAD	1.4151	▲ 1.9%	▲ 2.2%	▲ 2.2%	▲ 19.8%	1.4052	1.3969	1.4151	
USD/CNY	6.5948	▲ 1.8%	▲ 1.6%	▲ 1.6%	▲ 6.1%	6.5586	6.5159	6.5948	
USD/CLP	721.31	▲ 1.8%	▲ 1.6%	▲ 1.6%	▲ 17.3%	715.87	710.16	721.31	
<b>Money market</b>									
3m LIBOR USD	0.621	▲ 0.04	▲ 0.01	▲ 0.01	▲ 0.37	0.617	0.612	0.621	
3m EURIBOR	-0.143	▼ -0.01	▼ -0.01	▼ -0.01	▼ -0.21	-0.137	-0.143	-0.132	
3m WIBOR	1.720	- 0.00	- 0.00	- 0.00	▼ -0.34	1.720	1.720	1.720	
5y USD interest rate swap	1.501	▼ -0.17	▼ -0.24	▼ -0.24	▼ -0.14	1.607	1.501	1.709	
5y EUR interest rate swap	0.234	▼ -0.03	▼ -0.10	▼ -0.10	▼ -0.12	0.260	0.234	0.309	
5y PLN interest rate swap	1.963	▼ -0.03	▼ -0.03	▼ -0.03	▲ 0.17	2.010	1.963	2.040	
<b>Fuel</b>									
WTI Cushing	33.16	▼ -4.5%	▼ -10.5%	▼ -10.5%	▼ -32.0%	34.63	33.16	36.76	
Brent	32.05	▼ -8.6%	▼ -10.3%	▼ -10.3%	▼ -36.3%	33.85	32.05	36.23	
Diesel NY (ULSD)	101.46	▼ -4.6%	▼ -5.7%	▼ -5.7%	▼ -41.1%	104.80	101.46	108.03	
<b>Others</b>									
VIX	27.01	▲ 6.31	▲ 8.80	▲ 8.80	▲ 10.00	22.53	19.34	27.01	
BBG Commodity Index	76.73	▼ -0.9%	▼ -2.3%	▼ -2.3%	▼ -26.0%	77.12	76.64	77.91	
S&P500	1 922.03	▼ -4.2%	▼ -6.0%	▼ -6.0%	▼ -6.8%	1 976.95	1 922.03	2 016.71	
DAX	9 849.34	▼ -7.2%	▼ -8.3%	▼ -8.3%	▲ 0.1%	10 127.35	9 849.34	10 310.10	
Shanghai Composite	3 186.41	▼ -11.0%	▼ -10.0%	▼ -10.0%	▼ -3.3%	3 251.44	3 125.00	3 361.84	
WIG 20	1 725.14	▼ -7.2%	▼ -7.2%	▼ -7.2%	▼ -26.9%	1 766.76	1 725.14	1 804.42	
KGHM	54.60	▼ -9.6%	▼ -14.0%	▼ -14.0%	▼ -52.1%	57.67	54.60	60.21	

° 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>

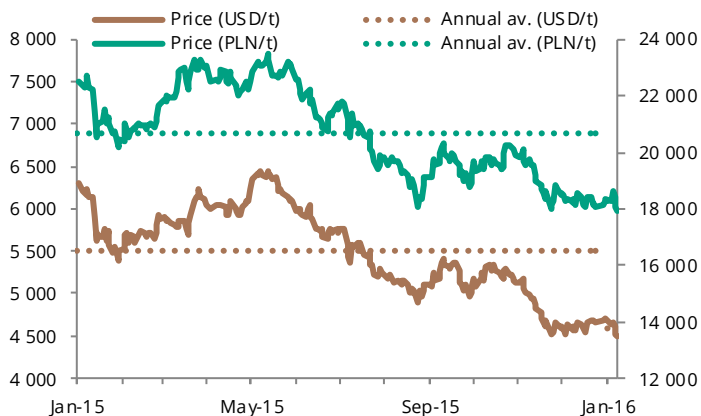
Source: Bloomberg, KGHM

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


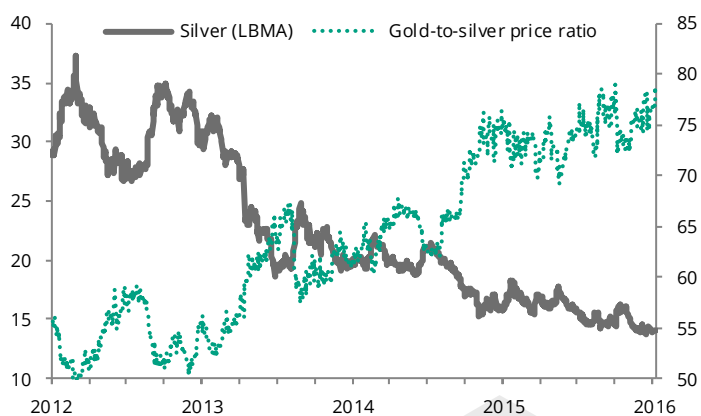
Note: Latest values in brackets. Source: Bloomberg, KGHM

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


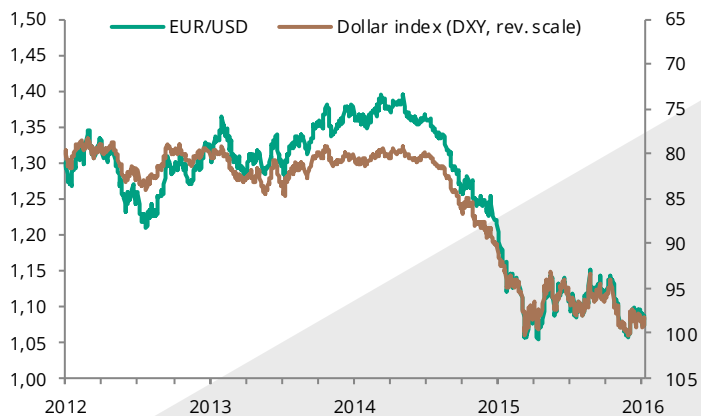
Note: Latest values in brackets. Source: Bloomberg, KGHM

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


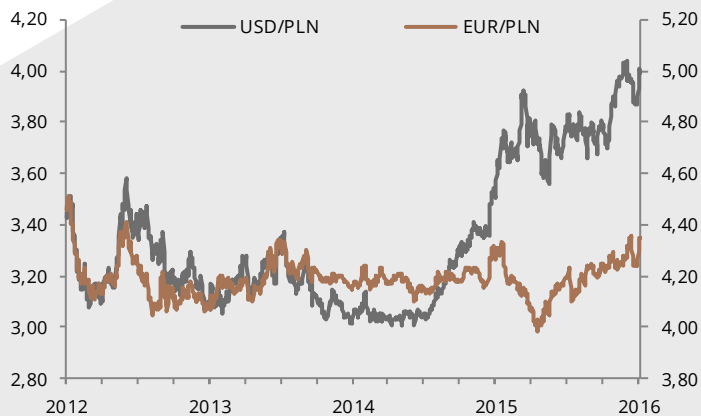
Source: Bloomberg, KGHM

**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:  
**21 December 2015 – 10 January 2016.**

- 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, ▪ Wood Mackenzie.

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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