















# Market Overview

as of: 16 March 2015

- Copper:** In the last two weeks copper traded sideways and the price at the end of the period remained virtually unchanged from the February-end levels, outperforming most of base metals and broad commodity indices. PLN denominated price continued to increase, thanks to USD strength (*page 2*).
- Nickel:** Indonesia managed to attract USD 1.4 bn of investments that will result in 11 new nickel smelters coming onto the market in 2015 and 2016 (*page 3*).
- Platinum:** Investors' confidence in the Europe's economic story is rising as some of the hard data improves. One of sectors enjoying a strong run is European car industry. This seems like good news for platinum, which derives one-fifth of its demand from European autocatalysts (*page 4*).
- Eurozone:** The ECB did not change interest rates, but revealed further details of QE, that started on March 9. Bank's projections of GDP growth and inflation for coming years have been raised further (*page 6*).
- China:** More than half of the high-interest local government debt falling due in 2015 will be covered under an impending local government debt swap, which will help to improve their stretched balances (*page 7*).

**Lower commodity prices, especially oil, give a huge net plus for the global economy what should drive the world growth up**

Positive impact		Negative impact	
 EU	\$17,6 trillion	 OPEC	\$7,0 trillion
 USA	\$16,8 trillion	 Russia	\$3,5 trillion
 China	\$16,1 trillion	 Brasil	\$3,0 trillion
 India	\$6,8 trillion	 Indonesia	\$2,4 trillion
 Japan	\$4,7 trillion	 Canada	\$1,5 trillion
 Korea	\$1,7 trillion	 Australia	\$1,1 trillion
		 Chile	\$0,4 trillion
		 Norway	\$0,3 trillion
<b>\$64 trillion*</b> <b>Or 62% of world economy</b>		<b>\$19 trillion*</b> <b>Or 19% of world economy</b>	

Source: Cornerstone Macro, SG Cross Asset Research




\*Using PPPs (IMF 2013)

## Key market prices

	Close price	2w chng.
<b>LME (USD/t)</b>		
▼ Copper	5 860.00	-0.3%
▼ Nickel	13 850.00	-1.4%
<b>LBMA (USD/troz)</b>		
▼ Silver	15.50	-6.2%
▼ Gold (PM)	1 152.00	-5.1%
<b>FX</b>		
▼ EUR/USD	1.0572	-5.9%
▲ EUR/PLN	4.1529	0.1%
▲ USD/PLN	3.9141	5.8%
▲ USD/CAD	1.2803	2.4%
▲ USD/CLP	633.54	2.6%
<b>Stocks</b>		
▼ KGHM	114.00	-5.8%

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

## Important macroeconomic data

Release	For		
 Non-farm payrolls chng.	Feb	295	▲
 Exports (yoy)	Feb	48.3%	▲
 NBP rate decision	Mar	1.50%	▼
 GDP (sa, yoy)	4Q	0.9%	-
 GDP (annlzd., qoq)	4Q	2.4%	▼

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

## Market Risk Unit

marketrisk@kgm.com

Grzegorz Laskowski

Łukasz Bielak

Marek Krochta

Wojciech Demski

Lech Chłopecki

## Base and precious metals

### Copper

**In the last two weeks copper traded sideways and the price at the end of the period remained virtually unchanged from the February-end levels, outperforming most of base metals and broad commodity indices. PLN-denominated price continued to increase, thanks to USD strength.**

#### China smelters buy Codelco's blended concentrate

Chinese copper smelters have signed up for nearly 300,000 tonnes of blended copper concentrate from Codelco in 2015, their first term deal for the grade. The grade was created by Codelco in 2014 by blending high-arsenic copper concentrates from its new Ministro Hales mine in Chile with third-party clean, standard concentrates in Taiwan. Chinese smelters bought spot shipments of the blend for trial runs last year.

The term amount, however, is less than the 400,000 tonnes that Codelco had aimed to sell, as Chinese smelters are betting on strong spot treatment and refining charges (TC/RC) due to an expected global surplus this year. Smelters typically favour the clean, standard grade of copper concentrate, therefore Codelco had to pay the Chinese smelters TC/RC that are USD 10 a tonne and 1 cent a pound higher than the 2015 TC/RC benchmark for standard grades. That puts the term TC/RC for the blended copper mix at USD 117 per tonne and 11.7 cents per pound.

#### Italy plans to spend USD 6.7 bn to switch to fibreoptics

Italy is planning to incentivise private sector with more than EUR 6 bn to speed up the country's broadband development. The plan involves substituting the copper-based broadband network with fibreoptic cables and bringing Italian broadband infrastructure up to speed with that in the rest of the continent.

According to Metal Bulletin, the plans could have a significant impact on the scrap market for copper in the medium to long term by increasing the supply. Although the copper to be scrapped from the wire network is of high quality, it is unlikely, however, that it will feed distant markets such as China due to high transportation costs. No deadline has been set for the proposals, but some of rumours mention 2030 as a completion date.

#### Other important information on copper market:

- Antofagasta will spend more than USD 1 bn on mine project in Northern Minnesota, according to El Mercurio. Output will start at the beginning of the next decade depending on market conditions. The mine could become

**300 kt of concentrate had been sold**

**Codelco had to pay c. 9% higher TC/RC**

**Italy plans to substitute copper-based network with fibreoptic cables**

one of world's largest producing copper, nickel, palladium, platinum, gold and silver. About USD 200 mn has been spent to date on exploration.

- China's refined copper production for 2015 is forecast to rise to 7.5 mln mt, up about 8.7% from the 6.9 mln mt produced in 2014, according to the state-owned nonferrous metals information division Beijing Antaike. The forecast increase is attributed to expanded capacity in the country to about 10.8 mln mt in 2015, up 8% from 10 mln mt in 2014. Antaike estimated 2014 production at around 6.9 mln mt, compared with around 7.9 mln mt stated by the National Bureau of Statistics due to differences in the data gathering process.
- South Korean LS-Nikko Copper shut its 490,000 mt/year Ulsan smelting plant for a planned maintenance over March 1-31. The shutdown will not impact the company's copper production targets for 2015 as the maintenance had been taken into consideration while setting the year's targets. LS-Nikko plans to produce around about 630,000 mt of copper cathode in 2015, similar to last year's volumes.
- South Africa's Harmony Gold informed about its discovery of gold and copper deposits at Kili Teke exploration site in Papua New Guinea, which could be similar to its other resources in the Pacific Island nation. Harmony, Africa's fourth-largest bullion producer, thinks that there is potential to develop its latest finding into a major copper-gold deposit.

## Nickel

**Indonesia managed to attract USD 1.4 bn of investments that will result in 11 new nickel smelters coming onto the market in 2015 and 2016.**

### Indonesia attracts USD 1.4 bln for 11 nickel smelters

Indonesian Mining ministry informed that eleven new nickel smelters are to be built in Indonesia over the coming two years. The total investment cost is estimated at USD 1.4 bn. At the beginning of the last year Indonesian government put in place export restrictions aimed at forcing mining companies to develop smelting and processing facilities so that Indonesia could refine all of its raw ores and concentrates. Six new nickel smelters due to be finished in 2015 and another five set for completion in 2016 – all of them are located in Sulawesi, Indonesia's main nickel ore region.

**Six smelters to be finished in 2015, followed by five next year**

**50% of country's 2013 ore exports will be processed in newly constructed plants**

According to Coal and Minerals Director the whole investment will let to process 30 mln tonnes of nickel ore – 50% of country's nickel ore exports in 2013. In his opinion the new mining law was not only aimed at processing ore, but its big vision is to develop industry downstream. It seems that effects of this will be visible quite soon. After a fractious eight-month export tax dispute last year, US-based miner Freeport-McMoRan Inc is now pushing ahead with expansion plans at Indonesia's sole copper smelter at Gresik and has agreed to support a new industrial project in Papua, where it owns one

of the world's biggest copper mines. The government is satisfied with response from mining companies. Senior mining ministry official indicated that a total ban on exports of copper concentrates due to come into effect in January 2017 could be pushed back if miners had not built smelters in time but had made some progress.

## Platinum

**Investors' confidence in the Europe's economic story is rising as some of the hard data improves. One of sectors enjoying a strong run is European car industry. This seems like good news for platinum, which derives one-fifth of its demand from European autocatalysts.**

### European autos to stimulate platinum demand only slightly

Car sales in Europe are nowhere near pre-crisis levels, but they are robustly heading in this direction. According to Macquarie Research, using data from 20 key markets, European car sales rose just under 8% yoy in February, the strongest growth rate in almost a year. Moreover, on a seasonally adjusted and annualised (saar) basis sales were 12.8m, which is 4.3% or 1 mln vehicles higher than the average seen in 2014. If maintained, this growth rate would be comfortably ahead of most forecasts made for the European market at the start of the year of 3%, and QE in Eurozone may even strengthen it.

This is good news for platinum, as the Europe accounts for one quarter of global demand for the metal, much more than other commodities, and the vast majority (70%) of it comes from autocatalyst production – an estimated 1.5 mln oz in 2014. Under the assumption that the latest trend in European car sales persists and that car production is roughly equal to sales, that may mean an additional 63k oz of platinum demand in 2015.

Another positive factor for the metal from car industry stems from technological changes, notably emissions standards. A new regulation, Euro6, was introduced for all new car models in September 2014, and will be mandatory for all new cars sold by September this year. Although estimates of how much more platinum the industry will need to fulfil these requirement ranges from nothing to 20%, due to two different technologies available for usage, the overall platinum loading per vehicle should keep growing.

But the new demand for the metal may be muted by the same industry. Sales of cars in Europe have been depressed for many years now and the average age of the car fleet has reached a high level, thus the new car sales will be partially offset by old ones being scrapped. Cars that are to be scrapped will have mostly been built in the early 2000s, and platinum loadings per light vehicle during that period rose very significantly, so as more cars from the later years get scrapped the platinum loading per car will be higher.

Therefore, although European car sales growth still feeds into additional

**February car sales in Europe 4.3% higher than 2014 average**

**Autocatalyst production consumed 1.5 mln oz last year**

**Euro6 may stimulate demand further**

**Net consumption increase estimated at only 55k oz**

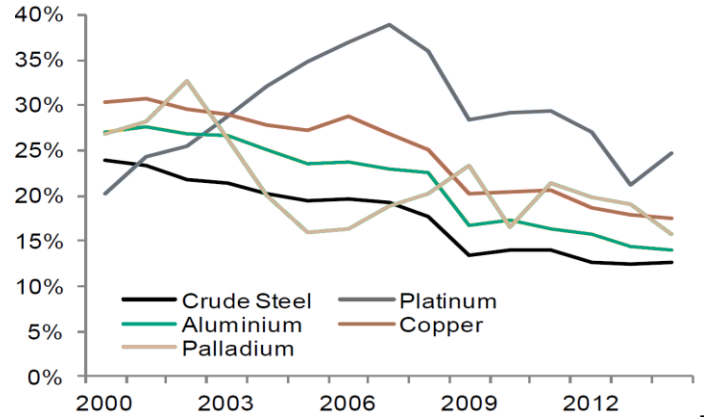
platinum demand, the recovery needs a much more rapid increase in European car sales than we have seen so far. According to Macquarie's estimations, current trends in European autos may mean a net increase for platinum of about 55k oz – a small number compared to 7 mln oz market.

**European car sales (saar, mln units) is a welcome news for platinum**



Source: Macquarie Research, KGHM

**One quarter of platinum demand is generated by Europe**



Source: Macquarie Research, KGHM

## Global economies | Foreign exchange markets

### Eurozone: ECB optimistic; reveals more QE details

**The ECB did not change interest rates, but revealed further details of QE, that started on March 9. Bank's projections of GDP growth and inflation for coming years have been raised further.**

#### QE to last until September 2016 in base case scenario

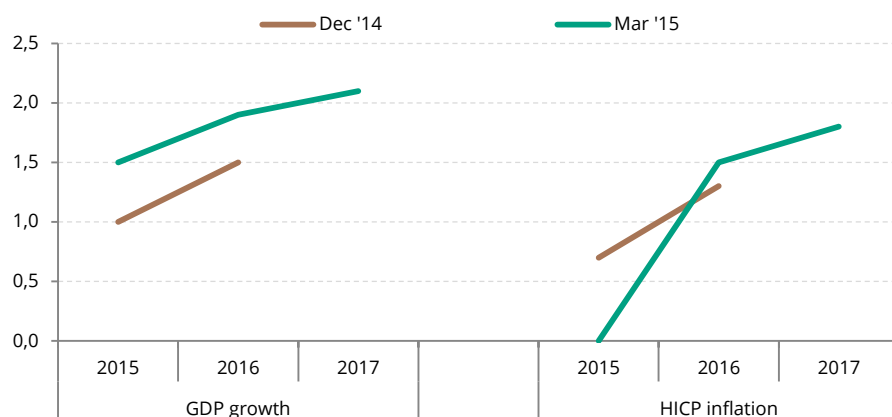
The ECB (European Central Bank) revealed further details of its QE (quantitative easing) programme. The most important parameters are as follow:

- The programme started on Monday, March 9. Purchases will amount to EUR 60 bn monthly.
- The programme will end in September 2016, conditional on the inflation path sufficiently adjusted to ECB's goals.
- Each national central bank will be responsible for buying its own sovereign and domestic agency markets, while the ECB will coordinate all asset purchases within the Eurosystem. National banks will be allowed to buy other eligible markets only in exceptional circumstances.
- Purchases of assets can happen down to yields of -20 bps, but not through. By bringing bond yields to this limit, the ECB will make banks indifferent to holding bonds versus cash reserves on their accounts at the central bank.
- The purchases will be weighted by nominal outstanding amounts to minimise any direct impact on the curve of the ECB purchases.
- The 30y upper maturity bound is actually 30y and 364 days, extending the upper bound beyond original market expectations.

#### Projections revised upwards, except 2015 HICP

The ECB revised also its growth projections upward. While in the December forecasts the bank had stated that they could not capture the entirety of the impact of the package of unconventional measures as it was at that time, leaving some "upside risk" to their inflation and growth call, this time they said that their baseline fully incorporated it. Only 2015 HICP (harmonized inflation) forecast has been lowered, mostly due to current progression and low energy prices.

### ECB's belief in QE success visible in its GDP and HICP projections



Source: mBank, KGHM

### China: Debt swap to cover half of maturing 2015 debt

**More than half of the high-interest local government debt falling due in 2015 will be covered under an impending local government debt swap, which will help to improve their stretched balances.**

**53.8% of debt maturing in 2015 may be swapped**

An audit in June 2013 revealed that local governments are faced with making repayments of 1.86 trillion yuan (USD 297 bn) in 2015. The announced debt swap amount of 1 trillion yuan covers 53.8% of that amount and will help local authorities reduce their interest costs. Provinces and municipalities will be primarily responsible for issuing and repaying the new debt, but the administration of the swap has not been revealed. The debt swap represents "a change of form, not an additional amount of debt, and therefore will not add to this year's deficit".

Earlier this month, the Ministry of Finance announced that local governments in China, which have borrowed heavily through off-balance sheet local government financing vehicles, would be allowed to swap up to 1 trillion yuan (USD 160 bn) of high interest debt maturing in 2015 for lower-interest official municipal or provincial debt. In May 2014, China let local governments sell and redeem their own bonds in an experiment to straighten out its messy state budget and start cleaning up its USD 3 trillion public debt problem.

## Macroeconomic calendar

### Important macroeconomic data releases

Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>	
<b>China</b>							
★★★★	10-Mar	Consumer inflation CPI (yoy)	Feb	1.4% ▲	0.8%	1.0%	▲
★★★★	02-Mar	HSBC's manufacturing PMI - final data	Feb	50.7 ▲	50.1	50.1	▲
★★	08-Mar	Trade balance (USD bn)	Feb	60.6 ▲	60.0	6.0	▲
★★	08-Mar	Exports (yoy)‡	Feb	48.3% ▲	-3.2%	14.0%	▲
★★	11-Mar	Fixed assets investments (ytd, yoy)	Feb	13.9%	--	15.0%	●
★★	10-Mar	Producer inflation PPI (yoy)	Feb	-4.8% ▼	-4.3%	-4.3%	●
★	12-Mar	New yuan loans (CNY bn)	Feb	1 020 ▼	1 470	750	▲
<b>Poland</b>							
★★★★★	04-Mar	NBP base rate decision	Mar	1.50% ▼	2.00%	1.75%	●
★★★★	13-Mar	Consumer inflation CPI (yoy)‡	Feb	-1.6% ▼	-1.4%	-1.3%	●
★★★	02-Mar	Manufacturing PMI	Feb	55.1 ▼	55.2	54.8	▲
★	13-Mar	M3 money supply (yoy)‡	Feb	8.8% ▲	8.6%	8.6%	▲
<b>US</b>							
★★★★	02-Mar	Consumer spending inflation PCE (mom)	Jan	0.1% ▲	0.0%	0.1%	●
★★★★	02-Mar	Consumer spending inflation PCE (yoy)	Jan	1.3% -	1.3%	1.3%	●
★★★	04-Mar	Composite PMI - final data	Feb	57.2 ▲	56.8	--	
★★★	02-Mar	Manufacturing PMI - final data	Feb	55.1 ▲	54.3	54.3	▲
★★★	04-Mar	PMI services - final data	Feb	57.1 ▲	57.0	57.0	▲
★★	06-Mar	Change in non-farm payrolls (ths)‡	Feb	295 ▲	239	235	▲
★★	02-Mar	ISM Manufacturing	Feb	52.9 ▼	53.5	53.0	●
★★	02-Mar	Personal income (sa, mom)	Jan	0.3% -	0.3%	0.4%	●
★★	02-Mar	Personal spending (sa, mom)	Jan	-0.2% ▲	-0.3%	-0.1%	●
★★	12-Mar	Retail sales (excluding autos, mom)‡	Feb	-0.1% ▲	-1.1%	0.5%	●
★★	06-Mar	Underemployment rate (U6)	Feb	11.0% ▼	11.3%	--	
★★	06-Mar	Unemployment rate	Feb	5.5% ▼	5.7%	5.6%	●
★★	13-Mar	University of Michigan confidence index - preliminary data	Mar	91.2 ▼	95.4	95.5	●
★	06-Mar	Average hourly earnings (yoy)	Feb	2.0% ▼	2.2%	2.2%	●
<b>Eurozone</b>							
★★★★★	05-Mar	ECB main refinancing rate	42068	0.05% -	0.05%	0.05%	●
★★★★★	05-Mar	ECB deposit facility rate	42068	-0.2% -	-0.2%	-0.2%	●
★★★★★	06-Mar	GDP (sa, yoy) - preliminary data	4Q	0.9% -	0.9%	0.9%	●
★★★★★	06-Mar	GDP (sa, qoq) - preliminary data	4Q	0.3% -	0.3%	0.3%	●
★★★★	02-Mar	Core CPI (yoy) - estimation	Feb	0.6% -	0.6%	0.6%	●
★★★★	02-Mar	CPI estimate (yoy)	Feb	-0.3% ▲	-0.6%	-0.4%	▲
★★★★	12-Mar	Industrial production (sa, mom)‡	Jan	-0.1% ▼	0.3%	0.2%	●
★★★★	12-Mar	Industrial production (wda, yoy)‡	Jan	1.2% ▲	0.6%	0.1%	▲
★★★	06-Mar	Gross fixed capital (qoq)‡	4Q	0.4% ▲	0.0%	0.3%	▲
★★★	06-Mar	Households consumption (qoq)	4Q	0.4% ▼	0.5%	0.4%	●
★★★	04-Mar	Composite PMI - final data	Feb	53.3 ▼	53.5	53.5	●
★★★	02-Mar	Manufacturing PMI - final data	Feb	51.0 ▼	51.1	51.1	●
★★★	04-Mar	Services PMI - final data	Feb	53.7 ▼	53.9	53.9	●
★★	04-Mar	Retail sales (yoy)‡	Jan	3.7% ▲	3.1%	2.3%	▲
★★	02-Mar	Unemployment rate‡	Jan	11.2% ▼	11.3%	11.4%	●
★★	03-Mar	Producer inflation PPI (yoy)‡	Jan	-3.4% ▼	-2.6%	-3.0%	●



Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>	
<b>Germany</b>							
⊙⊙⊙⊙	12-Mar	Harmonized consumer inflation HICP (yoy) - final data	Feb	-0.1% -	-0.1%	-0.1%	⊙
⊙⊙⊙⊙	12-Mar	Consumer inflation CPI (yoy) - final data	Feb	0.1% -	0.1%	0.1%	⊙
⊙⊙⊙⊙	06-Mar	Industrial production (wda, yoy)‡	Jan	0.9% ▲	0.5%	-0.2%	▲
⊙⊙⊙	04-Mar	Composite PMI - final data	Feb	53.8 ▼	54.3	54.3	◡
⊙⊙⊙	02-Mar	Manufacturing PMI - final data	Feb	51.1 ▲	50.9	50.9	▲
⊙⊙⊙	05-Mar	Factory orders (wda, yoy)‡	Jan	-0.1% ▼	3.9%	2.6%	◡
⊙⊙⊙	03-Mar	Retail sales (yoy)‡	Jan	5.3% ▲	4.8%	3.0%	▲
<b>France</b>							
⊙⊙⊙⊙	12-Mar	Harmonized consumer inflation HICP (yoy)	Feb	-0.3% ▲	-0.4%	-0.4%	▲
⊙⊙⊙⊙	10-Mar	Industrial production (yoy)‡	Jan	0.6% ▲	-0.4%	0.4%	▲
⊙⊙⊙⊙	12-Mar	Consumer inflation CPI (yoy)	Feb	-0.3% ▲	-0.4%	-0.4%	▲
⊙⊙⊙	04-Mar	Composite PMI - final data	Feb	52.2 -	52.2	52.1	▲
⊙⊙⊙	02-Mar	Manufacturing PMI - final data	Feb	47.6 ▼	47.7	47.7	◡
<b>Italy</b>							
⊙⊙⊙⊙⊙	05-Mar	GDP (wda, yoy) - final data	4Q	-0.5% ▼	-0.3%	-0.3%	◡
⊙⊙⊙⊙⊙	05-Mar	GDP (wda, qoq) - final data	4Q	0.0% -	0.0%	0.0%	⊙
⊙⊙⊙⊙	13-Mar	Harmonized consumer inflation HICP (yoy) - final data	Feb	0.1% -	0.1%	0.1%	⊙
⊙⊙⊙⊙	10-Mar	Industrial production (wda, yoy)	Jan	-2.2% ▼	0.1%	0.1%	◡
⊙⊙⊙	04-Mar	Composite PMI	Feb	51.0 ▼	51.2	51.4	◡
⊙⊙⊙	02-Mar	Manufacturing PMI	Feb	51.9 ▲	49.9	50.2	▲
⊙⊙	02-Mar	Unemployment rate - preliminary data‡	Jan	12.6% ▼	12.7%	12.9%	◡
<b>UK</b>							
⊙⊙⊙⊙⊙	05-Mar	BoE base rate decision	42068	0.50% -	0.50%	0.50%	⊙
⊙⊙⊙⊙	11-Mar	Industrial production (yoy)‡	Jan	1.3% ▲	0.8%	1.3%	⊙
⊙⊙⊙⊙	05-Mar	BoE asset purchase target (GBP bn)	Mar	375 -	375	375	⊙
⊙⊙⊙	02-Mar	Manufacturing PMI (sa)‡	Feb	54.1 ▲	53.1	53.3	▲
⊙⊙⊙	04-Mar	Composite PMI	Feb	56.7 -	56.7	--	
<b>Japan</b>							
⊙⊙⊙⊙⊙	09-Mar	GDP (annualized, qoq) - final data	4Q	1.5% ▼	2.2%	2.2%	◡
⊙⊙⊙⊙⊙	09-Mar	GDP (qoq, sa) - final data	4Q	0.4% ▼	0.6%	0.5%	◡
⊙⊙⊙⊙	13-Mar	Industrial production (yoy) - final data	Jan	-2.8% ▼	-2.6%	--	
⊙⊙⊙	04-Mar	Composite PMI	Feb	50.0 ▼	51.7	--	
⊙⊙⊙	02-Mar	Manufacturing PMI - final data	Feb	51.6 ▲	51.5	--	
<b>Chile</b>							
⊙⊙⊙⊙	06-Mar	Consumer inflation CPI (yoy)	Feb	4.4% ▼	4.5%	4.3%	▲
⊙⊙⊙⊙	05-Mar	Economic activity (yoy)	Jan	--	2.9%	2.7%	
⊙⊙⊙	09-Mar	Copper exports (USD mn)	Feb	2 480 ▼	2 870	--	
⊙⊙	05-Mar	Nominal wages (yoy)	Jan	7.1% ▼	7.2%	--	
<b>Canada</b>							
⊙⊙⊙⊙⊙	04-Mar	BoC base rate decision	42067	0.75% -	0.75%	0.75%	⊙
⊙⊙⊙⊙⊙	03-Mar	GDP (yoy)‡	Dec	2.8% ▲	2.0%	2.5%	▲
⊙⊙⊙⊙⊙	03-Mar	GDP (annualized, qoq)‡	4Q	2.4% ▼	3.2%	2.0%	▲
⊙⊙⊙	12-Mar	Capacity utilization‡	4Q	83.6% ▲	83.2%	83.6%	⊙
⊙⊙⊙	13-Mar	Net change in employment (th\$)	Feb	-1.0 ▼	35.4	-5.0	▲

<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

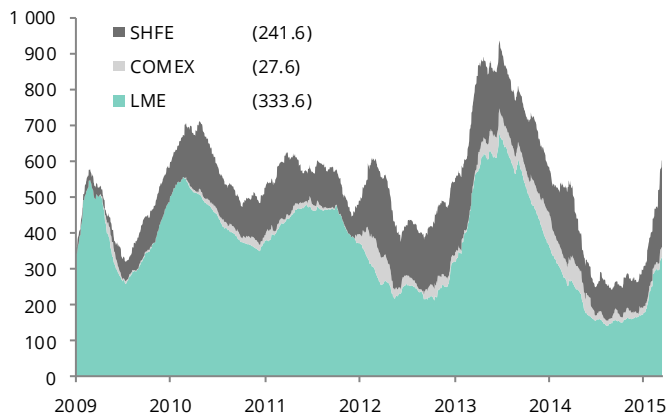
## Key market data

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

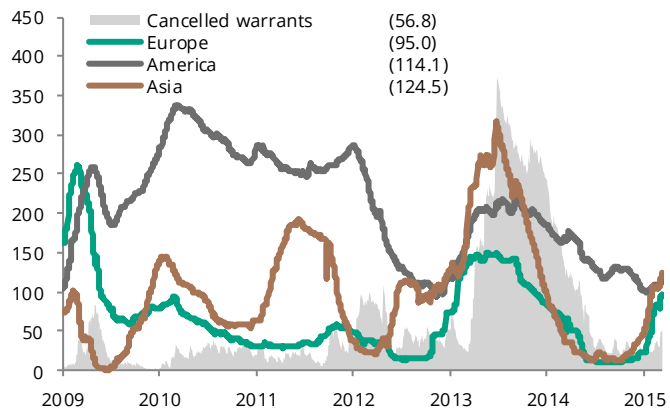
<i>(as of: 13-Mar-15)</i>		Price change <sup>4</sup>					From year beginning <sup>2</sup>		
	Price	2W	QTD	YTD	1Y	Average	Min	Max	
<b>LME (USD/t)</b>									
Copper	5 860.00	▼ -0.3%	▼ -7.8%	▼ -7.8%	▼ -9.8%	5 776.17	5 390.50	6 309.00	
Molybdenum	17 500.00	▲ 2.9%	▼ -16.7%	▼ -16.7%	▼ -23.9%	18 806.86	16 350.00	21 500.00	
Nickel	13 850.00	▼ -1.4%	▼ -7.3%	▼ -7.3%	▼ -12.0%	14 519.12	13 600.00	15 455.00	
Aluminum	1 744.00	▼ -2.8%	▼ -4.8%	▼ -4.8%	▲ 2.4%	1 805.53	1 742.00	1 871.50	
Tin	17 405.00	▼ -2.9%	▼ -10.7%	▼ -10.7%	▼ -23.6%	18 672.75	17 405.00	19 750.00	
Zinc	2 000.50	▼ -2.9%	▼ -7.7%	▼ -7.7%	▲ 0.4%	2 088.27	1 994.50	2 183.50	
Lead	1 792.00	▲ 3.8%	▼ -3.3%	▼ -3.3%	▼ -10.8%	1 810.62	1 725.00	1 881.50	
<b>LBMA (USD/troz)</b>									
Silver	15.50	▼ -6.2%	▼ -2.9%	▼ -2.9%	▼ -27.0%	16.78	15.50	18.23	
Gold <sup>1</sup>	1 152.00	▼ -5.1%	▼ -3.9%	▼ -3.9%	▼ -15.8%	1 227.84	1 150.00	1 295.75	
<b>LPPM (USD/troz)</b>									
Platinum <sup>1</sup>	1 115.00	▼ -5.3%	▼ -7.9%	▼ -7.9%	▼ -24.5%	1 208.08	1 115.00	1 285.00	
Palladium <sup>1</sup>	791.00	▼ -2.1%	▼ -0.9%	▼ -0.9%	▲ 1.9%	790.84	757.00	831.00	
<b>FX <sup>3</sup></b>									
EUR/USD	1.0572	▼ -5.9%	▼ -12.9%	▼ -12.9%	▼ -24.2%	1.1372	1.0572	1.2043	
EUR/PLN	4.1529	▲ 0.1%	▼ -2.6%	▼ -2.6%	▼ -1.8%	4.2118	4.1233	4.3335	
USD/PLN	3.9141	▲ 5.8%	▲ 11.6%	▲ 11.6%	▲ 29.2%	3.7057	3.5725	3.9141	
USD/CAD	1.2803	▲ 2.4%	▲ 10.4%	▲ 10.4%	▲ 15.8%	1.2359	1.1728	1.2803	
USD/CNY	6.2589	▼ -0.2%	▲ 0.9%	▲ 0.9%	▲ 2.0%	6.2414	6.1883	6.2747	
USD/CLP	633.54	▲ 2.6%	▲ 4.3%	▲ 4.3%	▲ 10.5%	622.78	606.75	637.59	
<b>Money market</b>									
3m LIBOR USD	0.271	▲ 0.03	▲ 0.06	▲ 0.06	▲ 0.16	0.258	0.251	0.271	
3m EURIBOR	0.025	▼ -0.36	▼ -0.68	▼ -0.68	▼ -0.92	0.051	0.025	0.076	
3m WIBOR	1.650	▼ -0.09	▼ -0.20	▼ -0.20	▼ -0.39	1.919	1.650	2.060	
5y USD interest rate swap	1.749	▲ 0.06	▼ -0.01	▼ -0.01	▲ 0.08	1.607	1.313	1.849	
5y EUR interest rate swap	0.274	▲ 0.02	▼ -0.24	▼ -0.24	▼ -0.71	0.304	0.250	0.350	
5y PLN interest rate swap	2.059	▲ 0.16	▲ 0.06	▲ 0.06	▼ -0.43	1.787	1.563	2.100	
<b>Fuel</b>									
WTI Cushing	44.84	▼ -9.9%	▼ -15.8%	▼ -15.8%	▼ -54.3%	48.92	44.45	53.53	
Brent	53.83	▼ -12.9%	▼ -3.5%	▼ -3.5%	▼ -49.8%	53.94	45.25	61.81	
Diesel NY (ULSD)	175.30	▼ -25.0%	▼ -3.9%	▼ -3.9%	▼ -41.0%	185.56	161.84	233.64	
<b>Others</b>									
VIX	16.00	▲ 0.20	▼ -0.17	▼ -0.17	▼ -0.01	17.04	13.04	22.39	
BBG Commodity Index	97.58	▼ -5.7%	▼ -6.5%	▼ -6.5%	▼ -27.5%	102.00	97.58	104.47	
S&P500	2 053.40	▼ -2.4%	▼ -0.3%	▼ -0.3%	▲ 11.2%	2 059.27	1 992.67	2 117.39	
DAX	11 901.61	▲ 4.4%	▲ 21.4%	▲ 21.4%	▲ 32.0%	10 748.52	9 469.66	11 901.61	
Shanghai Composite	3 372.91	▲ 1.9%	▲ 4.3%	▲ 4.3%	▲ 67.0%	3 258.80	3 075.91	3 383.18	
WIG 20	2 303.40	▼ -2.7%	▼ -0.5%	▼ -0.5%	▼ -1.5%	2 329.62	2 242.42	2 367.65	
KGHM	114.00	▼ -5.8%	▲ 4.7%	▲ 4.7%	▲ 11.7%	112.23	100.95	122.70	

<sup>0</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>

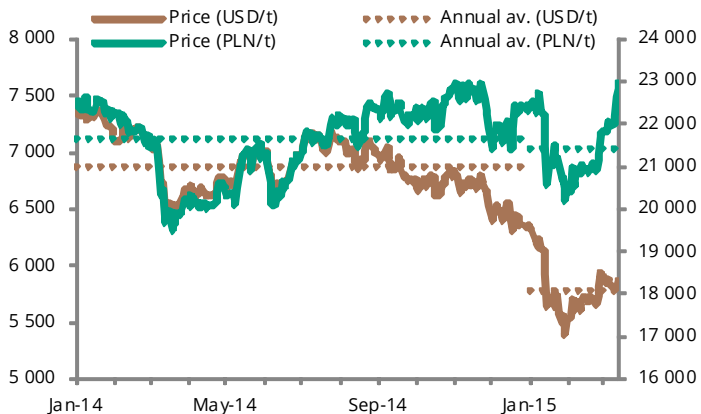
Source: Bloomberg, KGHM

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


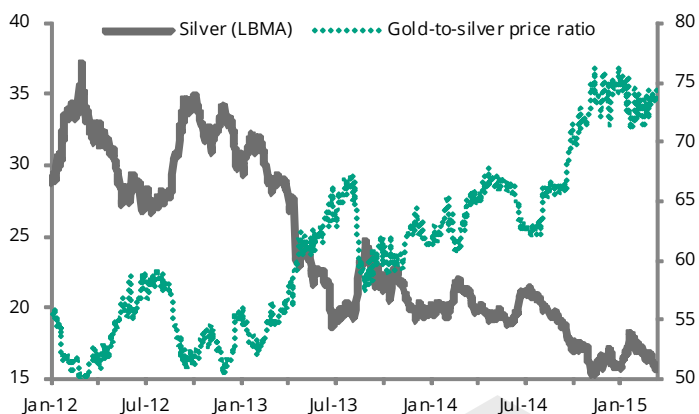
Note: Latest values in brackets. Source: Bloomberg, KGHM

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


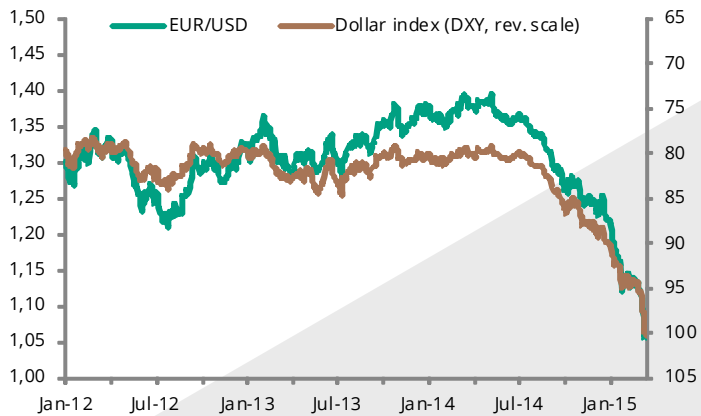
Note: Latest values in brackets. Source: Bloomberg, KGHM

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


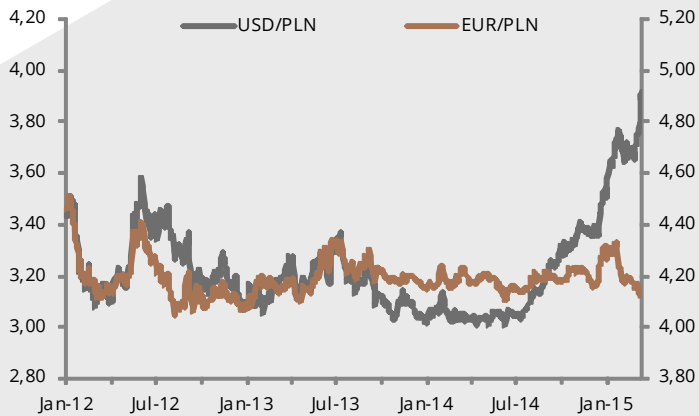
Source: Bloomberg, KGHM

**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 March 2015 – 15 March 2015.**

- “Commodities Comment” Macquarie Research Metals and Mining, ▪ “Commodities Daily” Standard Bank, ▪ “Commodities Weekly” Barclays Capital Research, ▪ “Metals Market Update” Morgan Stanley, ▪ “Daily Copper Wrap” Mitsui, ▪ “Base and Precious Metals Daily” JPMorgan, ▪ „Codziennik” BZ WBK, ▪ „Tygodnik Ekonomiczny” BZ WBK, ▪ „Raport dzienny” mBank, ▪ „Biuletyn Dzienny” Bank PEKAO S.A., ▪ „Dragonomics: China Research” Gavekal

Moreover, additional information published here was acquired in direct conversations with market dealers, from financial institution reports and from the following websites: ▪ lme.co.uk, ▪ lbma.org.uk, ▪ economy.com/dismal, ▪ thebulliondesk.com, ▪ lbma.org.uk/stats, ▪ crumonitor.com, ▪ metalbulletin.com, ▪ nbportal.pl, ▪ nbp.pl, as well as data providing systems: Thomson Reuters and Bloomberg.

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 economies, commodity as well as financial markets. Although, according to 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. may not inform about its 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