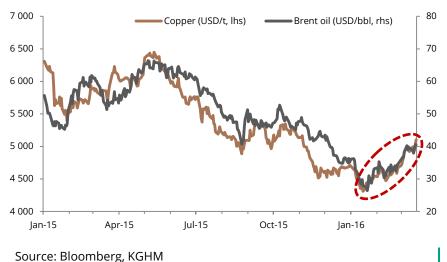


# **Market Overview**

- Copper: Copper posted solid gains once again, rising 3.8% over the fortnight. Red metal's price surprisingly closely follow oil moves this year, but historical analysis says that this phenomenon will not last long. In China, smelters are lobbying for regulations allowing to process copper concentrates with higher impurities (page 2).
- Precious metals: Precious metal's prices diverged to some extent during last two weeks, as silver gained 3.3%, while gold lost 2%. Federal Reserve policymakers revised down expect number of interest rates hikes this year from four to two. In the meantime, Indian government is trying to fight the current account deficit caused in big part by vast gold imports. China is working on gaining influence in precious metals markets by introducing new gold benchmark and becoming a member in LBMA price setting (page 5).
- China: Relatively big lay-off numbers in Chinese manufacturing sector's labour market should not worry global investors that much as the process with similar numbers has been lasting for over two years. Moreover, Chinese government should be well prepared as economy rebalancing towards services should smoothly absorb the additional labour force (page 7).
- Eurozone: The key points in ECB announcement were: a cut in all the policy rates: the refi rate was cut by 5bp to 0%, the depo rate by 10bp to -0.4% and the marginal lending facility rate by 5bp to +0.25%. Furthermore, the monthly purchases programme was expanded from EUR 60bn to EUR 80bn and from now on, it will also include non-bank euro denominated bonds.

It is not a mystery that commodities follow oil but copper-Brent relationship has been surprisingly close recently (more on page 2)





Key market prices

KGHM

-			-
		Close price	2w chng.
	LME (USD/t)		
	Copper	5 103.00	3.8%
	Nickel	8 855.00	-2.2%
	LBMA (USD/troz)		
	Silver	15.94	3.3%
	Gold (PM)	1 252.10	-2.0%
	FX		
	EUR/USD	1.1279	2.8%
	EUR/PLN	4.2705	-1.5%

▼ USD/PLN 3.7882 -4.2%
 ▼ USD/CAD 1.2982 -2.7%
 ▼ USD/CLP 672.06 -2.1%
 Stocks

76.12

-0.1%

Source: Bloomberg, KGHM; (more on page 11)

Important macroeconomic data									
	Release	For							
	ECB main refinancing rate	Mar	0.00%	•					
	ECB deposit facility rate	Mar	-0.4%	•					
	Fed upper rate	Mar	0.50%	-					
*}	Exports (yoy)	Feb	-25.4%	•					
*	GDP (yoy)	4Q	1.3%	•					

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

### **Market Risk Unit**

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### **Base and precious metals | Other commodities**

### Copper

Copper posted solid gains once again, rising 3.8% over the fortnight. Red metal's price surprisingly closely follow oil moves this year, but historical analysis says that this phenomenon will not last long. In China, smelters are lobbying for regulations allowing to process copper concentrates with higher impurities.

The recent rally on copper does not seem to be justified by fundamentals...

How long will copper accompany oil?

Copper prices have rallied 15% from the mid

Copper prices have rallied 15% from the mid-January lows to hover above 5,000 USD/t but the fundamental picture has not changed all that much. While LME stocks have dropped quickly, the build taking place in China has been at least as severe, and premiums are falling in Shanghai as metal has piled up. Price-led mine cutbacks slowed as aggressive cost cutting and input deflation have improved margins, however, a fall in spot TCRCs points to some constraints on global output.

...but it is, at least in part, driven by high correlation to oil

On the other hand, SRB's commitment to buy copper from the top eight Chinese smelters back in January may have helped. In addition, the global economy appears more hopeful, and the recent iron ore rally driven by rising steel prices has raised the possibility of higher-than-expected consumption in the world's top consumer. The better economic activity outlook may be also a reason for a jump of oil price, which has been copper's constant companion on this year's uptrend, with a 66-day moving correlation approaching 0.9.

Copper mimicking oil is not unusual...

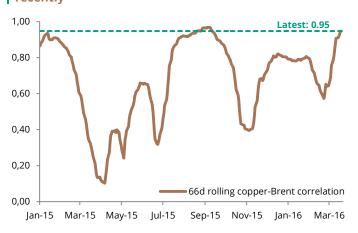
Macquarie Research, identified three correlation spikes since the last crisis, when the average correlation between Brent and copper, and between Brent and the main six LME metals as a whole increased significantly:

- September 2011: Copper, oil, and the entire LME complex retreated from early 2011 highs as weakening data began to undermine confidence in China's growth rate. The Eurozone's fiscal crisis was moving into fever, and fear spread through all markets.
- 2. <u>1H2013:</u> Both copper and oil were hit, but aluminium, zinc and other metals held up better, and some small USD appreciation appeared.
- 3. 4Q14-1Q15: Correlation had broken down from the end of 2013 as copper continued to trend down, but oil held up until the end of 2014, when a dramatic sell-off helped the latter to catch up. USD appreciation was also key. This oil price shock meant that investor reallocation away from commodities in the early days of 2015 was pronounced, prolonging the oil-copper correlation initially into New Year before it fell away.
- 4. <u>1Q16:</u> All commodities sold off in the first few days of the year, as the reaction to sentiment towards China. The initial recovery for commodities was driven by strong China imports data for January for almost all, with zinc, lead and tin leading, but copper and nickel later stalling on a lack of



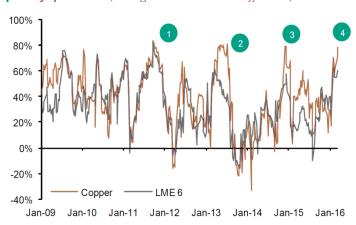
faith in their stories. However, when oil prices began their stronger uptrend on moves to contain supply, copper followed the most closely.

Correlation of copper and Brent prices has peaked recently



Source: Bloomberg, KGHM

Similar values have been noticed in the past but faded **away quite fast** (rolling 3m correlation coefficients)



Source: Macquarie Research, KGHM

...but usually short-lived

Previous incidences of strong correlation have been, therefore, brief. Moreover, the recent two ones have both been around the turn of the year, underscoring the impact that fund reallocation has on commodities as a group. Macquarie implies that oil's recent strong influence on copper is likely to fall away, as we are well away from year-end (and allocation timings), and particularly as we move into a seasonally strong time of the year for metals consumption - but one that is less conspicuously so for energy.

#### blend Chinese smelters want

## concentrates at ports

China's copper industry is urging the government to allow the blending of imported raw material copper concentrate when they land at the country's ports, which will allow for cheaper though toxic supply to arrive. Li Baomin, Jiangxi Copper's chairman, acting as a member of the National People's Congress (China's parliament), proposed to allow blending operations in "special administrative areas" at ports to help stabilize supplies of copper concentrates and cut buying costs, according to China Nonferrous Metals News. In China, special administrative areas include bonded warehouses and bonded areas at ports.

Chinese smelters want to process more impure material

The proposal would allow to buy material with more arsenic content...

If approved, firms would be allowed to import concentrates with high levels of arsenic, a toxic element that is often found with copper ore. Chinese smelters are currently prohibited from using concentrates with more than 0.5% arsenic content. By blending at ports, China could reduce purchases of previously blended concentrates that meet the domestic standard. More high-arsenic concentrates have come onto the global market in the past two to three years, particularly from mines controlled by Codelco in Chile and China's Chinalco Mining in Peru. As a result, Chinese smelters have imported more concentrates that are mixed with higher arsenic ores and standard grades.



...which could improve smelters' profitability

Since high-arsenic concentrates are prohibited at Chinese smelters, they demand higher treatment and refining charges (TCRCs) than for standard and blended grades. Import costs of concentrates are linked to TCRCs. The charges are paid by sellers to Chinese smelters, and then deducted from the smelters' buying price. That means a smelter would pay less for imports when the charges are high. Chinese smelters were paid charges about 10 USD/t and 1 USC/lbs above standard grade for Codelco's blended concentrates, but 20-30 USD/t and 2-3 USC/lbs more than the standard grade for some blended concentrates that contained more impurities than Codelco's.

### Other important information on copper market:

- Swedish mining and smelting group Boliden will buy Finnish mine Kevitsa from First Quantum Minerals for USD 712mn. Boliden said the mine, a source of nickel, copper, gold and platinum, was a good operational and geographic fit and would yield savings in its Nordic operations.
- China-backed miner MMG Ltd lost USD 1.05bn last year as metals prices traded at multiyear lows, forcing it to book a USD 784.3mn write down. The overseas unit of China's largest state-owned copper and zinc producer's revenues fell 21% to USD 1.95bn in 2015, despite achieving record copper production.
- Glencore is getting closer to selling its Lomas Bayas copper mine in Chile's Atacama Desert, after receiving at least two significant offers for the asset, local media reports. Bidders include former Barrick Gold CEO Aaron Regent's company and Chilean energy firm Copec.
- Ecuador is evaluating bids from Australian and Canadian companies for copper and gold exploration projects as the OPEC member looks to reduce its dependence on crude. The country's state-owned miner Enami has received partnership proposals for several projects. In a parallel process, authorities will start taking bids for new exploration areas, with the first licenses to be awarded by about midyear. The government expects mineral exports to reach USD 4bn by 2025.
- The global refined copper market is expected to remain "essentially balanced" in 2016 compared with a October forecast of a 175kt surplus, the International Copper Study Group (ICSG) said. "Downward revisions have been made for both production and usage in view of global weaker economic outlook, and project delays and price related production cuts," the Lisbon-based group said. The copper market should see a deficit of 56kt this year and a surplus of 20kt in 2017. World mine production is seen rising about 1.5% in 2016 and 2.5% in 2017, while global refined copper production should increase by just 0.5% this year.
- Katanga Mining has suspended operations it its KOV open-pit mine in the DR Congo after a pit wall failure, with four people are still missing. A total of seven people went missing but only three bodies have been found.



### **Precious Metals**

Precious metal's prices diverged to some extent during last two weeks, as silver gained 3.3%, while gold lost 2%. Federal Reserve policymakers revised down expect number of interest rates hikes this year from four to two. In the meantime, Indian government is trying to fight the current account deficit caused in big part by vast gold imports. China is working on gaining influence in precious metals markets by introducing new gold benchmark and becoming a member in LBMA price setting.

#### Fed less hawkish than market expected

### **Recent developments on gold market**

The metal has risen more than 17 percent this year as expectations for fresh rate hikes faded. U.S. Federal Reserve policymakers revised down expect number of interest rates hikes this year from four to two. Market indicators are signalling that investors see stronger risks of inflation, which has been almost non-existent since the credit crisis, despite scepticism from the Fed and the relatively slow pace of U.S. economic growth. Holdings of gold-backed exchange-traded funds, which issue securities backed by physical metal, continue to rise.

#### Another gold tax burden introduced

### Indian jewellers ended their strike

Jewellers called off a 19-day strike late last week after government assured they will not be "harassed" by the excise department in collecting a new tax. Jewellers in the world's second-biggest gold consumer went on an indefinite strike from the start of March after government reintroduced a 1-percent excise duty on gold jewellery after four years.

Successive governments have struggled to curb appetite for gold in Asia's third-largest economy, which continued to be robust despite the imposition of a 10-percent import duty in 2013 and other restrictions. Annual imports of up to 1,000 tonnes of gold, accounting for about a quarter of India's trade deficit, have also prompted the government to launch a scheme to mobilize a pool of more than 20,000 tonnes of the metal in homes and temples.

### New Chinese benchmark will compete with LBMA's

### New Chinese gold pricing benchmark - launch on April, 19

The Shanghai Gold Exchange's new gold pricing benchmark will aim to attract the interest of foreign participants by allowing foreign price-setting companies and their clients to trade the contract based on the index. Foreign banks' clients will be able to keep their trading activities anonymous – much like in London – while domestic companies do not appear to enjoy the same privilege, with each having a client code that will be displayed on the system. Still, the system will differ from the current London benchmark run by Intercontinental Exchange (ICE).



China Construction Bank as a 6<sup>th</sup> member

### China will now have a say also in LBMA's silver price

China has been an unofficial price-setter for most metals over the past decade. To go one step further, the country became an official participant in setting prices for one of the world's most important precious metals markets last week – the London Bullion Market silver price. CME Group, which runs the process of setting silver price in London, said that China Construction Bank will officially join as a member of the price determination process, putting it alongside existing participants: HSBC, JPMorgan Chase, The Bank of Nova Scotia, Toronto Dominion Bank, and UBS.



### **Global economies | Foreign exchange markets**

### China: Revamping the labour market

Relatively big lay-off numbers in Chinese manufacturing sector's labour market should not worry global investors that much as the process with similar numbers has been lasting for over two years. Moreover, Chinese government should be well prepared as economy rebalancing towards services should smoothly absorb the additional labour force.

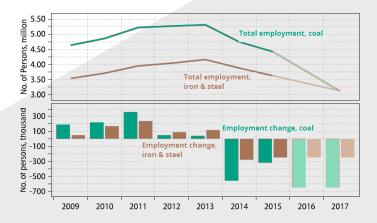
1.8 million job losses is nothing new for the Chinese economy

Recently, China's labour minister announced the restructuring of troubled coal and steel industries might lead up to 1.8 million job losses. According to Gavekal Dragonomics research, the last such a big downsizing happened in late 1990s during the Asian crisis. The labour reallocation is not a shock to Chinese government. Middle Kingdom's job market has been in the process of adjusting to the end of the housing boom for two years already, which makes the matter theoretically more manageable.

Coal and steel sectors look to be mostly troubled...

Coal and steel sectors added millions of workers in the past decade, as the housing boom drove a surge in demand for their products. But when construction stopped growing, so did those industries. In the last two years, coal and steel sectors have already shed about 1.4 million workers, so the government's expectation that another 1.8 million workers will lose their jobs in the next two years represents not a radical move but rather an evolution of existing trend. So far, most of the layoffs have been done in smaller companies while the bigger, state-owned companies have been rather reducing hours and wages, mostly because the local authorities are worried about social stability. As a partial solution the central government's plan for RMB 100bn in worker aid should allow those companies to finally let go of employees they can no longer afford to pay.

### Government plan is not a revolution, it "just" follows the trend



The chart presents employment estimates (2016-2017) in industrial survey. Source: Gavekal Dragonomics, KGHM



...however, services sector will be the right place to absorb additional labour force

Rebalancing the Chinese economy means that industry-related layoffs will be less dire in light of services sector, which should account for creation of 20 million new jobs per annum. It is therefore well equipped to perform its traditional role as the "catch basin" for labour shed from industrial employment. So, according to Gavekal Dragonomics, the most likely result from future industrial layoffs is not a sharp increase in unemployment, but a further deceleration in household income growth. This is because most of the service-sector jobs being created are at private businesses that are less well paid.



# **Macroeconomic calendar**

### Important macroeconomic data releases

Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>	
		China				*3	
0	07-Mar	Foreign reserves (USD bn)	Feb	3 202	3 231	3 190 🦱	
00	08-Mar	Trade balance (USD bn)	Feb	32.6	63.3	51.0	
00	08-Mar	Exports (yoy)	Feb	-25.4%	-11.2%	-14.5%	
0000	10-Mar	Consumer inflation CPI (yoy)	Feb	2.3%	1.8%	1.8%	
00	10-Mar	Producer inflation PPI (yoy)	Feb	-4.9%	-5.3%	-4.9%	
٥	11-Mar	New yuan loans (CNY bn)	Feb	727	2 5 1 0	1 200 👅	
00	12-Mar	Fixed assets investments (ytd, yoy)	Feb	10.2%	10.0%	9.3%	
		Poland					
00000	11-Mar	NBP base rate decision	Mar	1.50%	1.50%	1.50%	
0	14-Mar	M3 money supply (yoy)	Feb	10.0%	10.2%	10.0%	
0000	15-Mar	Consumer inflation CPI (yoy)‡	Feb	-0.8%	-0.9%	-0.7%	
00	15-Mar	Trade balance (EUR mn)	Jan	576	373	973	
00	15-Mar	Exports (EUR mn)	Jan	13 275		13 794 👅	
00	15-Mar	Current account balance (EUR mn)	Jan	764	- 410	395 🦱	
0000	16-Mar	Core CPI (excluding food and energy, yoy)	Feb	-0.1%	-0.1%	0.1%	
00	16-Mar	Average gross salary (yoy)	Feb	3.9%	4.0%	3.9%	
0	16-Mar	Employment (yoy)	Feb	2.5%	2.3%	2.4%	
0	16-Mar	Budget balance (ytd)	Feb	5.7%			
0000	17-Mar	Sold industrial production (yoy)	Feb	6.7%	1.4%	5.3%	
000	17-Mar	Retail sales (yoy)	Feb	3.9%	0.9%	3.2%	
00	17-Mar	Producer inflation PPI (yoy)	Feb	-1.4%	-1.2%	-1.3%	
		US	_				
00	15-Mar	Retail sales (excluding autos, mom)‡	Feb	-0.1%		-0.2%	
0000	16-Mar	Consumer inflation CPI (mom)	Feb	-0.2%		-0.2%	
0000	16-Mar	Consumer inflation CPI (yoy)	Feb	1.0%		0.9%	
0000	16-Mar	Industrial production (mom)‡	Feb	-0.5%		-0.3%	
0	16-Mar	Capacity utilization	Feb	76.7%		76.9%	
00000	16-Mar	FOMC base rate decision - upper bound (Fed)	Mar	0.50%		0.50%	
00000	16-Mar	FOMC base rate decision - lower bound (Fed)	Mar	0.25%		0.25%	
00	17-Mar	Philadelphia Fed business outlook	Mar	12.4		- 1.5	
00	18-Mar	University of Michigan confidence index - preliminary data	Mar	90.0	91.7	92.2	
00000	00 Mar	Eurozone	10	1.604	1.60/	1.50/	
00000	08-Mar	GDP (sa, yoy) - preliminary data	4Q 40	1.6%		1.5%	
0000	08-Mar	GDP (sa, qoq) - preliminary data	4Q 40	0.3%		0.3%	
000	08-Mar	Gross fixed capital (qoq)‡  Households consumption (qoq)‡	4Q 4Q	1.3% <i>4</i>		0.6%	
00000						_	
00000	10-Mar	ECB deposit facility rate	Mar	0.00%		0.05%	
00000	10-Mar 14-Mar	ECB deposit facility rate  Industrial production (sa, mom)‡	Mar	-0.4%		-0.4%	
0000	14-Mar 14-Mar	Industrial production (sa, mom)‡ Industrial production (wda, yoy)‡	Jan	2.1% <b>2</b> .8% <b>4</b>		1.7%	
			Jan Eeb				
0000	17-Mar	Consumer inflation CPI (yoy) - final data	Feb	-0.2%		-0.2% <b>O</b>	
0	17-Mar	Core CPI (yoy) - final data	Feb	0.8%			
00	17-Mar 18-Mar	Trade balance (EUR mn)  Labour costs (yoy)	Jan 4Q	6.2 1.3%		10.0	
~~	10-ivial	Labour Costs (y by)	40	1.3%	1.170		



Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>
		Germany				
000	07-Mar	Factory orders (wda, yoy)‡	Jan	1.1% 🔺	-2.2%	0.0%
0000	08-Mar	Industrial production (wda, yoy)‡	Jan	2.2%	-1.3%	-1.6%
0000	11-Mar	Harmonized consumer inflation HICP (yoy) - final data	Feb	-0.2% =	-0.2%	-0.2%
0000	11-Mar	Consumer inflation CPI (yoy) - final data	Feb	0.0% =	0.0%	0.0%
		France				
0000	10-Mar	Industrial production (yoy)‡	Jan	2.0%	-0.2%	0.1%
0000	15-Mar	Harmonized consumer inflation HICP (yoy) - final data	Feb	-0.1% =	-0.1%	-0.1%
0000	15-Mar	Consumer inflation CPI (yoy) - final data	Feb	-0.2% =	-0.2%	-0.2%
		Italy				
0000	11-Mar	Industrial production (wda, yoy)	Jan	3.9% 🛕	-1.0%	
0000	15-Mar	Harmonized consumer inflation HICP (yoy) - final data	Feb	-0.2% =	-0.2%	-0.2%
		UK				
0000	09-Mar	Industrial production (yoy)‡	Jan	0.2%	-0.2%	0.0%
00	16-Mar	Unemployment rate (ILO, 3-months)	Jan	5.1% =	5.1%	5.1%
00000	17-Mar	BoE base rate decision	Mar	0.50% =	0.50%	0.50%
0000	17-Mar	BoE asset purchase target (GBP bn)	Mar	375 =	375	375 🔾
		Japan				
00000	08-Mar	GDP (annualized, qoq) - final data	4Q	-1.1% 🔺	-1.4%	-1.5%
00000	08-Mar	GDP (qoq, sa) - final data	4Q	-0.3%	-0.4%	-0.4%
0000	15-Mar	Industrial production (yoy) - final data	Jan	-3.8% =	-3.8%	
		Chile				*
0000	07-Mar	Economic activity (yoy)‡	Jan	0.3%	1.7%	0.2%
000	07-Mar	Copper exports (USD mn)	Feb	2 268	2 054	
00	07-Mar	Nominal wages (yoy)	Jan	5.8%	5.2%	5.0%
0000	08-Mar	Consumer inflation CPI (yoy)	Feb	4.7%	4.8%	4.6%
00000	17-Mar	BCCh overnight rate target	Mar	3.50% =	3.50%	3.50%
00000	18-Mar	GDP (yoy)	4Q	1.3%	2.2%	1.6%
		Canada				*
00000	09-Mar	BoC base rate decision	Mar	0.50% =	0.50%	0.50%
000	10-Mar	Capacity utilization‡	4Q	81.1%	81.6%	81.7%
000	11-Mar	Net change in employment (ths)	Feb	- 2.3	- 5.7	10.0
0000	18-Mar	Consumer inflation CPI (yoy)	Feb	1.4%	2.0%	1.5%

Source: Bloomberg, KGHM

<sup>&</sup>lt;sup>1</sup> Reading difference to previous release:  $\triangle$  = higher than previous;  $\blacktriangledown$  = lower than previous; == equal to previous.

<sup>&</sup>lt;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.



# **Key market data**

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

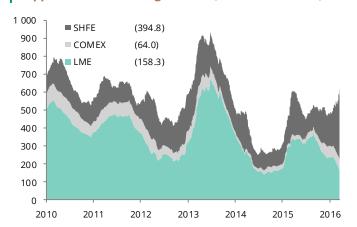
(as of: 18-Mar-16)		Price change °								From year beginning <sup>2</sup>		
	Price		2W		QTD		YTD		1Y	Average	Min	Max
LME (USD/t)												
Copper	5 103.00		3.8%		8.5%		8.5%	_	-12.5%	4 632.41	4 310.50	5 103.00
Molybdenum	12 200.00	-	0.0%		1.7%		1.7%	•	-34.1%	12 068.18	11 750.00	12 200.00
Nickel	8 855.00	_	-2.2%		2.2%		2.2%	•	-35.0%	8 494.45	7 710.00	9 375.00
Aluminum	1 498.00	_	-5.6%	$\blacksquare$	-0.6%		-0.6%	_	-16.0%	1 520.35	1 453.00	1 621.50
Tin	17 155.00		1.2%		17.5%		17.5%		2.1%	15 284.55	13 235.00	17 350.00
Zinc	1 847.50		0.5%		15.5%		15.5%	_	-7.6%	1 661.48	1 453.50	1 847.50
Lead	1 820.50	_	-1.5%		1.0%		1.0%		7.3%	1 741.05	1 597.00	1 896.50
LBMA (USD/troz)												
Silver	15.94		3.3%		15.3%		15.3%		0.4%	14.77	13.58	15.94
Gold <sup>1</sup>	1 252.10	_	-2.0%		17.9%		17.9%		7.4%	1 176.06	1 077.00	1 277.50
LPPM (USD/troz)												
Platinum <sup>1</sup>	972.00		1.3%		11.5%		11.5%	•	-12.8%	908.42	814.00	1 005.00
Palladium <sup>1</sup>	593.00		7.8%		8.4%		8.4%	_	-23.0%	517.36	470.00	593.00
FX <sup>3</sup>												
EUR/USD	1.1279		2.8%		3.6%		3.6%		5.6%	1.0991	1.0742	1.1347
EUR/PLN	4.2705	_	-1.5%		0.2%		0.2%		3.6%	4.3805	4.2705	4.4987
USD/PLN	3.7882	_	-4.2%		-2.9%	•	-2.9%	•	-1.8%	3.9825	3.7882	4.1475
USD/CAD	1.2982	_	-2.7%		-6.2%	•	-6.2%		1.9%	1.3824	1.2982	1.4589
USD/CNY	6.4716	_	-0.6%		-0.3%	_	-0.3%		4.4%	6.5462	6.4716	6.5948
USD/CLP	672.06	_	-2.1%		-5.4%	•	-5.4%		4.7%	705.54	672.06	730.31
Money market	_											
3m LIBOR USD	0.624	_	-0.01		0.01		0.01		0.36	0.624	0.612	0.642
3m EURIBOR	-0.235	_	-0.02	•	-0.10	•	-0.10	•	-0.26	-0.180	-0.235	-0.132
3m WIBOR	1.670	-	0.00	•	-0.05	•	-0.05		0.02	1.690	1.670	1.720
5y USD interest rate swap	1.275	_	-0.02	•	-0.46	•	-0.46	•	-0.34	1.301	1.045	1.709
5y EUR interest rate swap	0.040		0.04	$\blacksquare$	-0.29	•	-0.29	•	-0.21	0.098	-0.035	0.309
5y PLN interest rate swap	1.760	_	-0.05	$\blacksquare$	-0.23	•	-0.23	•	-0.17	1.855	1.735	2.040
Fuel												
WTI Cushing	39.44		9.8%		6.5%		6.5%	•	-10.3%	32.59	26.21	40.20
Brent	40.54		5.6%		13.4%		13.4%	•	-22.7%	33.65	26.39	40.56
Diesel NY (ULSD)	123.91		7.9%		15.2%		15.2%	•	-29.3%	105.35	86.44	125.32
Others												
VIX	14.02	•	-2.84	•	-4.19	•	-4.19	•	-0.05	21.42	14.02	28.14
BBG Commodity Index	80.76		3.0%		2.8%		2.8%	•	-17.6%	76.31	72.88	81.29
S&P500	2 049.58		2.5%		0.3%		0.3%	•	-1.9%	1 936.51	1 829.08	2 049.58
DAX	9 950.80		1.3%	•	-7.4%	•	-7.4%	_	-16.4%	9 618.28	8 752.87	10 310.10
Shanghai Composite	2 955.15		2.8%	•	-16.5%	•	-16.5%	_	-17.5%	2 891.32	2 655.66	3 361.84
WIG 20	1 961.97		4.7%		5.5%		5.5%	•	-17.7%	1 800.87	1 674.57	1 961.97
KGHM	76.12	_	-0.1%		19.9%		19.9%	_	-35.1%	62.70	52.29	76.76

<sup>°</sup> change over: 2W = two weeks; QTD = quarter-to-day; YTD = year-to-date; 1Y = one year. ¹ based on daily closing prices. ² latest quoted price. ³ central banks' fixing rates (Bank of China HK for USD/CNY). ⁴.

Source: Bloomberg, KGHM

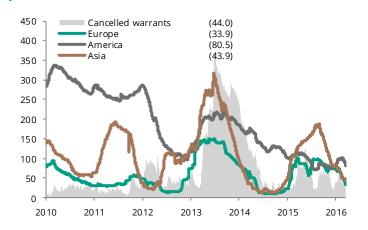


### Copper: official exchange stocks (thousand tonnes)



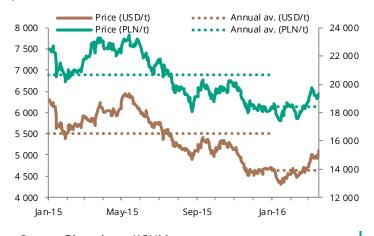
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



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

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



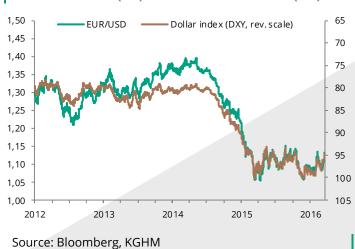
Source: Bloomberg, KGHM

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

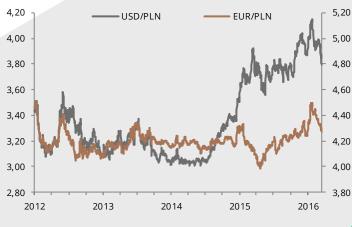


Source: Bloomberg, KGHM

### USD: dollar index (lhs) and ECB-based EUR/USD (rhs)



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: **7 - 20 March 2016.** 

- Barclays Capital,
   BofA Merrill Lynch,
   Citi Research,
   CRU Group,
   Deustche 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, • lbma.org.uk, • lme.co.uk, • metalbulletin.com, • 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 (charge-free logging)

• silver and gold: www.lbma.org.uk/pricing-and-statistics

platinum and palladium: www.lppm.com/statistics.aspx

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