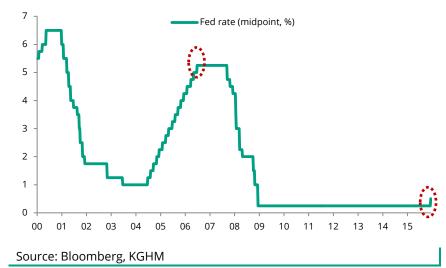


# **Market Overview**

- Copper & other commodities: It was a relatively quiet period for base metals as markets awaited Fed meeting. Copper stayed nearly flat compared with the price two weeks ago, while energy commodities took another hit. Anglo American announced huge reduction of its businesses, while Orion Mine Finance Group decided to enter commodities by launching a new hedge fund (page 2).
- USA: The Fed finally raised its policy interest rate, nearly a decade after last such move. Now that interest rate normalization has begun, the FOMC's December statement implies "gradual" rate increases that are slower than past hiking cycles. Compared with the September projections, there is now a smaller dispersion in the December interest rate forecast "dots" for 2016 and 2017 (page 4).

Fed finally began so-called "dovish tightening" by hiking its rates for the first time in nearly decade (more on page 4)





Ke	y market prices		<del>-</del>					
		Close price	2w chng.					
	LME (USD/t)							
	Copper	4 650.00	0.3%					
$\blacksquare$	Nickel	8 655.00	-4.1%					
	LBMA (USD/troz)							
$\blacksquare$	Silver	13.82	-2.2%					
$\blacksquare$	Gold (PM)	1 062.50	-1.6%					
	FX							
$\blacksquare$	EUR/USD	1.0836	-0.6%					
$\blacksquare$	EUR/PLN	4.2816	-0.8%					
$\blacksquare$	USD/PLN	3.9558	-0.1%					
	USD/CAD	1.3882	3.9%					
	USD/CLP	708.50	1.0%					
	Stocks							
•	KGHM	60.38	-9.2%					
Source: Bloomberg, KGHM; (more on page 7)								

Imp	ortant macroeconomic da	ita	
	Release	For	
	Fed upper rate	Dec	0.50% 🔺
	Fed lower rate	Dec	0.25% 🔺
*}	Industrial prod. (yoy)	Nov	6.2% 🔺
	Industrial prod. (yoy)	Nov	7.8% 🔺
*	BCCh rate decision	Dec	3.50% 🔺
Sour	ce: Bloomberg, KGHM; (mo	re on <u>r</u>	<u>nage 5</u> )

### **Market Risk Unit**

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

### **Copper & other commodities**

It was a relatively quiet period for base metals as markets awaited Fed meeting. Copper stayed nearly flat compared with the price two weeks ago, while energy commodities took another hit. Anglo American announced huge reduction of its businesses, while Orion Mine Finance Group decided to enter commodities by launching a new hedge fund.

## Anglo's shares lost more than 3/4 of their value this year



Source: Bloomberg, KGHM

#### Anglo American to become another victim of low prices

Anglo American, one of the world's biggest mining companies, is shrinking to a fraction of its former size to cope with the collapse in commodity prices. The company is selling assets, closing mines and will reduce its staff to 50,000 people, compared with 135,000 now, Chief Executive Officer Mark Cutifani announced, without giving a time frame. Anglo also scrapped its dividend for the second half of this year and for 2016.

Cutifani is seeking to keep the company afloat with metal prices showing no signs of a recovery from the lowest levels in six years, but he will surely make Anglo much smaller. The entity will keep control of 20 to 25 assets split across three divisions: its De Beers diamond unit, industrial metals and bulk commodities, out of about 55 assets company currently has. The focus will be on its so-called tier-one assets, which are competitive at low commodity prices. Anglo had previously announced that it would cut its workforce to about 100,000 next year; now the planned reduction is even bigger.

Company's shares are trading at a record low and have plunged 77% this year. The last time Anglo's cut its dividend was in 2009 during the depths of the global financial crisis. The company reduced spending forecasts for 2015 to 2017 by USD 2.9bn and increased the amount it plans to raise from asset sales to USD 4bn from USD 3bn, with its phosphates and niobium businesses confirmed for disposal. Impairments are expected to be USD 3.7bn to USD 4.7bn because of weak prices and asset closures. According to CFO, at current spot prices, the company does not meet the criteria for an investment-grade credit rating. However, any downgrade would not impact the cost of financing or the way Anglo runs its business and the company has no plans to tap shareholders for more money.

The fund will trade derivatives as well as physical materials

### Orion takes a contrarian view by entering commodities

Orion Mine Finance Group is starting a commodity hedge fund at a time when most investors are fleeing this asset class. The investment firm is opening a fund in January to trade industrial and precious metals, and may eventually add equities. The fund, headed by John Fallon, is called Orion Commodities Fund LP and will trade both derivatives and physical raw materials.



The group manages USD 66.3bn of assets

Orion was founded by Oskar Lewnowski in 2013 as a spinoff of Red Kite Group. Until now, the company has focused on mines financing, acquisitions and providing merchant services. Orion is a co-investor in Anglo American's copper mines in northern Chile, and in November agreed to buy a zinc and lead mine in Macedonia. The company is also financing a gold project in Armenia. Orion Commodities Fund is starting with five traders after hiring Red Kite's Michael Sheehan and Louis Dreyfus Commodities BV's Matthew Heap and Raphael Bonvillian as portfolio managers. The group has USD 66.3bn of assets under management as of October.

Orion enters market where big players have lost more than USD 40bn

Orion's expansion is unusual because this year has seen some of the biggest, most well-known traders shut down their flagship commodity funds during the worst year for raw material prices since the global financial crisis of 2008. The biggest commodities meltdown in a generation have left assets at the top 10 commodities hedge funds at less than USD 10bn, compared with more than USD 50bn billion in 2008, according to estimates from Trafigura. Overall, commodity market became less liquid and it is more difficult to trade as hedge fund withdrawals led to closures.

#### Other important information on copper market:

- According to Reuters, US investment bank Morgan Stanley is closing its base metals trading desks globally, possibly as part of a wider job cuts programme, while precious metals trading stays unaffected.
- China increased the control of its state sector after metals trader China Minmetals agreed to buy engineering and mining firm China Metallurgical Group, combining two government-owned companies with around USD 80bn in sales. The deal between the Beijing-based companies, announced on the website of China's State-owned Assets Supervision and Administration Commission, comes after President Xi Jinping pledged last month to accelerate reform of state-owned enterprises.
- Hamburg-based copper producer Aurubis will carry out a 50-day large-scale shutdown due to maintenance works at its site in Pirdop, in the southwestern part of Bulgaria. The shutdown, which will be conducted in April and May 2016, is expected to generate capital expenditure costs of EUR 44 mn. In 2014, Aurubis Bulgaria's output was 350 kt of anode copper, 233 kt of cathode copper and 1,2mn tonnes of sulfuric acid. Aurubis Bulgaria is the country's largest exporter.
- Rio Tinto locked in USD 4.4bn in financing to fund a massive expansion of a copper mine in Mongolia and a final decision whether to proceed with construction will be made in the first half of 2016. The underground expansion of the Oyu Tolgoi mine is one of three big growth projects for Rio Tinto. The expansion will dig more than 200 km of tunnels to access 25bn lbs of copper and 12mn troz of gold reserves, making Oyu Tolgoi the world's third largest copper and gold mine.



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

#### USA: The Fed does not disappoint this time

The Fed finally raised its policy interest rate, nearly a decade after last such move. Now that interest rate normalization has begun, the FOMC's December statement implies "gradual" rate increases that are slower than past hiking cycles. Compared with the September projections, there is now a smaller dispersion in the December interest rate forecast "dots" for 2016 and 2017.

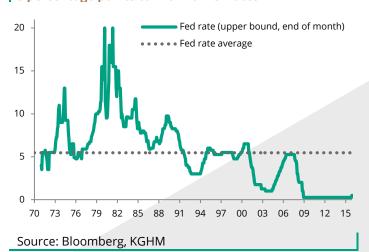
The press conference had no hint of one-and-done or similar rhetoric, and the statement had the expected emphasis on gradual hikes and on seeing actual and expected inflation make progress towards the Fed's goals. Therefore markets can expect further actions to be taken, although FOMC's reserved right to pace the hikes in accordance to incoming data makes the overall message mildly dovish.

"Dots" predict cumulative hikes of about 1 percentage point next year

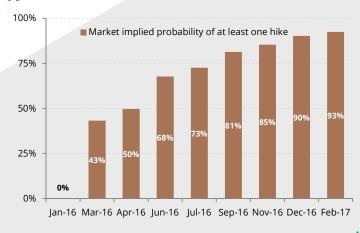
FOMC's "dots", showing members' predictions regarding year-end forecasts of policy rates, remain virtually unchanged for 2016 and 2017. The median for next year imply increases of approximately 1 percentage point – this may be seen as quite aggressive tightening, although it's only about half the 2 percentage point pace typical of past cycles. Chair Yellen, however, has warned repeatedly that the "dot" forecasts of interest rate increases are conditional on the most likely outcomes for FOMC participants' economic outlook, and do not take account risks to that modal outlook.

Yellen also echoed the Committee's long-standing preference for keeping the Fed's enlarged balance sheet unchanged until interest rate normalization is "well under way", suggesting that QE's dovish effects will not disappear as soon as some initially thought.

If history is any guide, Fed needs to hike by another 5 percentage points to "normalize" rates



Next hike is expected to happen not sooner than in June



Source: Bloomberg, KGHM



# **Macroeconomic calendar**

#### Important macroeconomic data releases

Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>
		China				*1
0	07-Dec	Foreign reserves (USD bn)	Nov	3 438	3 526	3 493 👅
00	08-Dec	Trade balance (USD bn)	Nov	54.1	61.6	64.0
00	08-Dec	Exports (yoy)	Nov	-6.8%	-6.9%	-5.0%
0000	09-Dec	Consumer inflation CPI (yoy)	Nov	1.5%	1.3%	1.4%
00	09-Dec	Producer inflation PPI (yoy)	Nov	-5.9% =	-5.9%	-6.0%
0	11-Dec	New yuan loans (CNY bn)	Nov	709 🔺	514	735 🕳
0000	12-Dec	Industrial production (yoy)	Nov	6.2%	5.6%	5.7%
00	12-Dec	Fixed assets investments (ytd, yoy)	Nov	10.2% =	10.2%	10.1%
0	12-Dec	Retail sales (yoy)	Nov	11.2%	11.0%	11.1%
		Poland				
00	14-Dec	Trade balance (EUR mn)	Oct	483 🔺	87.0	- 156
00	14-Dec	Exports (EUR mn)	Oct	15 344 🔺	15 059	15 427 👅
00	14-Dec	Current account balance (EUR mn)	Oct	- 113 🔺	- 959	- 595
0	14-Dec	M3 money supply (yoy)‡	Nov	9.8%	9.1%	9.3%
0000	15-Dec	Consumer inflation CPI (yoy) - final data	Nov	-0.6%	-0.5%	
0	15-Dec	Budget balance (ytd)	Nov	78.4%	74.8%	
0000	16-Dec	Core CPI (excluding food and energy, yoy)	Nov	0.2%	0.3%	0.3%
00	16-Dec	Average gross salary (yoy)	Nov	4.0%	3.3%	3.9%
0	16-Dec	Employment (yoy)	Nov	1.2%	1.1%	1.1%
0000	17-Dec	Sold industrial production (yoy)	Nov	7.8%	2.4%	5.7%
000	17-Dec	Retail sales (yoy)	Nov	3.3%	0.8%	2.2%
00	17-Dec	Producer inflation PPI (yoy)	Nov	-1.8%	-2.3%	-2.0%
		US				
00	11-Dec	Retail sales (excluding autos, mom)‡	Nov	0.4%	0.1%	0.3%
00	11-Dec	University of Michigan confidence index - preliminary data	Dec	91.8 🔺	91.3	92.0
0000	15-Dec	Consumer inflation CPI (mom)	Nov	0.0%	0.2%	0.0%
0000	15-Dec	Consumer inflation CPI (yoy)	Nov	0.5%	0.2%	0.4%
0000	16-Dec	Industrial production (mom)‡	Nov	-0.6%	-0.4%	-0.2%
٥	16-Dec	Capacity utilization	Nov	77.0%	77.5%	77.4%
000	16-Dec	Manufacturing PMI - preliminary data	Dec	51.3	52.8	52.6
00000	16-Dec	FOMC base rate decision - upper bound (Fed)	Dec	0.50%	0.25%	0.50%
00000	16-Dec	FOMC base rate decision - lower bound (Fed)	Dec	0.25%	0.00%	0.25%
00	17-Dec	Philadelphia Fed business outlook	Dec	- 5.9 🔻	1.9	1.0
000	18-Dec	Composite PMI - preliminary data	Dec	53.5	55.9	
000	18-Dec	PMI services - preliminary data	Dec	53.7	56.1	55.9



Weight	Date	Event	For	Reading <sup>1</sup>	Previous	Consensus <sup>2</sup>
		Eurozone				0
00000	08-Dec	GDP (sa, yoy) - preliminary data	3Q	1.6% =	1.6%	1.6%
00000	08-Dec	GDP (sa, qoq) - preliminary data	3Q	0.3% -	0.3%	0.3%
000	08-Dec	Gross fixed capital (qoq)‡	3Q	0.0%	0.1%	0.2%
000	08-Dec	Households consumption (qoq)‡	3Q	0.4%	0.3%	0.5%
0000	14-Dec	Industrial production (sa, mom)	Oct	0.6%	-0.3%	0.3%
0000	14-Dec	Industrial production (wda, yoy)‡	Oct	1.9% 🔺	1.3%	1.4%
<b>©</b>	15-Dec	ZEW survey expectations	Dec	33.9	28.3	
000	16-Dec	Composite PMI - preliminary data	Dec	54.0	54.2	54.2
000	16-Dec	Manufacturing PMI - preliminary data	Dec	53.1	52.8	52.8
000	16-Dec	Services PMI - preliminary data	Dec	53.9	54.2	54.0
0000	16-Dec	Consumer inflation CPI (yoy) - final data‡	Nov	0.2%	0.1%	0.1%
0000	16-Dec	Core CPI (yoy) - final data	Nov	0.9% =	0.9%	0.9%
0	16-Dec	Trade balance (EUR mn)‡	Oct	24.1 🔺	20.2	
00	17-Dec	Labour costs (yoy)	3Q	1.1%	1.6%	
		Germany				
0000	07-Dec	Industrial production (wda, yoy)‡	Oct	0.0%	0.4%	0.7%
0000	11-Dec	Harmonized consumer inflation HICP (yoy) - final data	Nov	0.3% =	0.3%	0.3%
0000	11-Dec	Consumer inflation CPI (yoy) - final data	Nov	0.4% =	0.4%	0.4%
000	16-Dec	Composite PMI - preliminary data	Dec	54.9	55.2	55.0
000	16-Dec	Manufacturing PMI - preliminary data	Dec	53.0 🛕	52.9	52.8
00	17-Dec	IFO business climate	Dec	109	109	109
		France				
0000	10-Dec	Harmonized consumer inflation HICP (yoy)	Nov	0.1%		0.2%
0000	10-Dec	Industrial production (yoy)‡	Oct	3.6%	1.7%	2.5%
0000	10-Dec	Consumer inflation CPI (yoy)	Nov	0.0%		0.2%
000	16-Dec	Composite PMI - preliminary data	Dec	50.3	51.0	51.0
000	16-Dec	Manufacturing PMI - preliminary data	Dec	51.6	50.6	50.6
		Italy	_			
0000	11-Dec	Industrial production (wda, yoy)‡	Oct	2.9%	1.8%	2.0%
0000	14-Dec	Harmonized consumer inflation HICP (yoy) - final data‡	Nov	0.2% =	0.2%	0.1%
	00.5	UK		4 70/	4.50/	1.00
0000	08-Dec	Industrial production (yoy)‡	Oct	1.7%	1.5%	1.2%
00000	10-Dec	BoE base rate decision	Dec	0.50% =	0.50%	0.50%
0000	10-Dec	BoE asset purchase target (GBP bn)  Consumer inflation CPI (yoy)	Dec	375 -	375	375
0000		* *.	Nov	0.1%	-0.1%	0.1%
00	16-Dec	Unemployment rate (ILO, 3-months)  Japan	Oct	5.2%	5.3%	5.3%
00000	08-Dec	• •	3Q	1.0%	-0.8%	0.2%
00000	08-Dec	GDP (qoq, sa) - final data	3Q 3Q	0.3%	-0.2%	0.2%
0000	14-Dec	Industrial production (yoy) - final data	Oct	-1.4% =	-1.4%	J.070 —
000	16-Dec	Manufacturing PMI - preliminary data	Dec	52.5		
	10 DCC	Chile	Dec	32.3 <b>V</b>	52.0	*
0000	07-Dec	Consumer inflation CPI (yoy)	Nov	3.9% ▼	4.0%	4.0%
0000	07-Dec	Economic activity (yoy)‡	Oct	1.5%		1.7%
000	07-Dec	Copper exports (USD mn)	Nov	2 729	2 493	1.770
00000	17-Dec	BCCh overnight rate target	Dec	3.50%	3.25%	3.25%
~~~~	17-DEC	Deen overingiff ate target	Dec	J.JU70 A	3.2370	J.ZJ70

<sup>&</sup>lt;sup>1</sup> Reading difference to previous release: ▲ = higher than previous; ▼ = lower than previous; •= equal to previous. <sup>2</sup> Reading difference to consensus: ● = higher than consensus; ● = lower than consensus; ○ = equal to consensus. mom = month-on-month; yoy = year-on-year; qoq = quarter on quarter; ytd year-to-date; sa = seasonally adjusted; wda = working days adjusted; ‡ = previous data after revision. Source: Bloomberg, KGHM



# **Key market data**

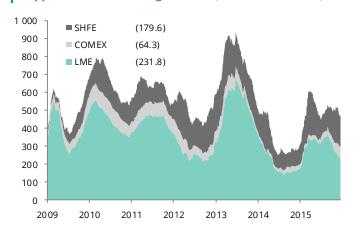
Key base & precious metal prices, exchange rates and other important market factors

(as of: 18-Dec-15)					Price	cha	nge °			From	year beginn	ing <sup>2</sup>
	Price		2W		QTD		YTD		1Y	Average	Min	Max
LME (USD/t)												
Copper	4 650.00		0.3%	•	-8.7%	•	-26.9%	_	-26.8%	5 517.47	4 515.50	6 448.00
Molybdenum	12 000.00		14.3%	•	-0.8%	•	-42.9%	_	-40.3%	14 917.48	9 250.00	21 500.00
Nickel	8 655.00	_	-4.1%	•	-14.1%	•	-42.0%	_	-44.2%	11 897.34	8 160.00	15 455.00
Aluminum	1 508.00		0.3%		-3.5%	•	-17.7%	•	-20.1%	1 664.70	1 424.00	1 919.00
Tin	14 675.00	_	-1.2%	•	-5.7%	•	-24.7%	_	-23.6%	16 111.04	13 895.00	19 750.00
Zinc	1 498.00	_	-2.0%	•	-9.6%	•	-30.9%	_	-29.4%	1 939.20	1 461.50	2 405.00
Lead	1 669.00	-	0.0%		0.8%	•	-9.9%	_	-10.0%	1 784.43	1 555.00	2 140.00
LBMA (USD/troz)												
Silver	13.82	_	-2.2%	_	-5.7%	_	-13.5%	•	-14.1%	15.73	13.71	18.23
Gold <sup>1</sup>	1 062.50	_	-1.6%	•	-4.6%	_	-11.4%	•	-11.4%	1 161.88	1 049.40	1 295.75
LPPM (USD/troz)												
Platinum <sup>1</sup>	852.00	_	-0.8%	•	-6.2%	_	-29.6%	•	-29.3%	1 056.54	827.00	1 285.00
Palladium <sup>1</sup>	553.00		2.0%	•	-16.3%	_	-30.7%	•	-30.1%	694.38	524.00	831.00
FX <sup>3</sup>												
EUR/USD	1.0836	_	-0.6%	_	-3.3%	_	-10.7%	_	-11.8%	1.1101	1.0552	1.2043
EUR/PLN	4.2816	_	-0.8%		1.0%		0.5%		1.1%	4.1823	3.9822	4.3580
USD/PLN	3.9558	_	-0.1%		4.8%		12.8%		14.9%	3.7694	3.5550	4.0400
USD/CAD	1.3882		3.9%		3.6%		19.7%		19.7%	1.2755	1.1728	1.3970
USD/CNY	6.4811		1.2%		2.0%		4.4%		4.3%	6.2781	6.1883	6.4837
USD/CLP	708.50		1.0%		0.5%		16.6%		14.4%	652.71	597.10	715.66
Money market												
3m LIBOR USD	0.586		0.27		0.80		1.29		1.37	0.308	0.251	0.586
3m EURIBOR	-0.131		0.16		2.28	_	-2.68	$\blacksquare$	-2.66	-0.017	-0.133	0.076
3m WIBOR	1.720	-	0.00	•	-0.01	•	-0.17	$\blacksquare$	-0.17	1.747	1.650	2.060
5y USD interest rate swap	1.672		0.02		0.21	_	-0.06	$\blacksquare$	-0.07	1.615	1.282	1.909
5y EUR interest rate swap	0.263	_	-0.14	•	-0.24	_	-0.27	$\blacksquare$	-0.35	0.343	0.143	0.590
5y PLN interest rate swap	1.990		0.05	•	-0.01		0.02	$\blacksquare$	-0.01	2.030	1.563	2.643
Fuel												
WTI Cushing	34.73	_	-13.1%	•	-23.0%	•	-34.8%	$\blacksquare$	-35.8%	49.07	34.73	61.43
Brent	35.05	_	-16.6%	•	-25.6%	•	-37.1%	$\blacksquare$	-40.8%	52.90	35.05	66.37
Diesel NY (ULSD)	106.33	_	-17.4%	•	-28.9%	_	-41.7%	$\blacksquare$	-46.5%	167.50	105.65	233.64
Others												
VIX	20.70		0.40	•	-0.16		0.08		0.23	16.67	11.95	40.74
BBG Commodity Index	77.45	_	-5.2%	•	-11.8%	•	-25.8%	•	-28.6%	95.01	76.60	105.49
S&P500	2 005.55	_	-4.1%		4.5%	_	-2.6%	•	-2.7%	2 061.32	1 867.61	2 130.82
DAX	10 608.19	•	-1.3%		9.8%		8.2%		8.1%	10 968.78	9 427.64	12 374.73
Shanghai Composite	3 578.96		1.5%		17.2%		10.6%		17.1%	3 726.29	2 927.29	5 166.35
WIG 20	1 858.87	•	-0.5%	_	-10.0%	_	-19.7%	•	-20.2%	2 246.04	1 754.74	2 549.40
KGHM	60.38	_	-9.2%	_	-26.3%	_	-44.5%	_	-45.4%	100.92	59.07	131.00

<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

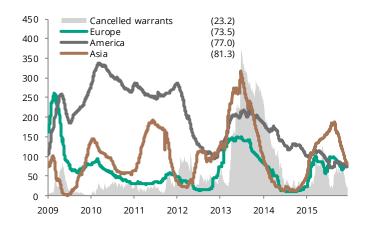


#### Copper: official exchange stocks (thousand tonnes)



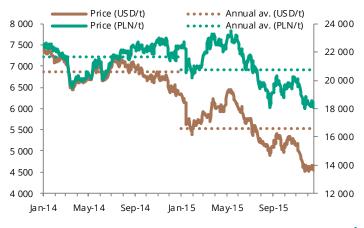
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



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

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



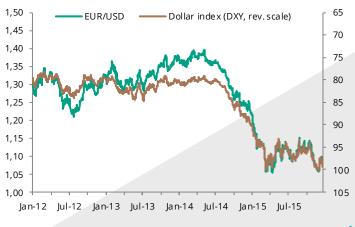
Source: Bloomberg, KGHM

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



Source: Bloomberg, KGHM

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



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: **7 December 2015 - 20 December 2015.** 

- 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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