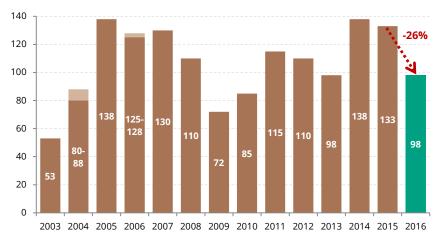


Market Overview

- Copper: Commodities took another hit during last fortnight. While energy was once again the worst category, metals also declined meaningfully, with copper loosing 6.2%. Market sources mention another round of metals shorting among Chinese funds. According to Coalition, a financial industry analytics company, top 10 investment banks' commodities-related revenues declined 17% yoy in the first three quarters (page 2).
- Precious metals: All precious metals remain under pressure as investors await Fed rates decision. During the last two weeks only gold managed to keep its price, while silver and PGMs recorded considerable losses (page 4).

Codelco has cut its term premium offer for physical refined copper supplied to China by more than quarter (USD/t)



Source: Reuters, KGHM



Key	mar	ket	pric	es

		Close price	2w chng.
	LME (USD/t)		
•	Copper	4 690.00	-6.2%
•	Nickel	8 900.00	-8.5%
	LBMA (USD/troz)		
•	Silver	14.29	-5.2%
•	Gold (PM)	1 081.75	-0.7%
	FX		
•	EUR/USD	1.0688	-1.6%
•	EUR/PLN	4.2441	0.0%
	USD/PLN	3.9706	1.6%
	USD/CAD	1.3338	0.2%
	USD/CLP	711.96	2.7%
	Stocks		
	KGHM	77.37	-13.6%

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

Impo	Important macroeconomic data								
	Release	For							
	GDP (sa, yoy)	3Q	1.6% 🔺						
	GDP (sa, yoy)	3Q	1.8% 🔺						
	GDP (yoy)	3Q	3.4% 🔺						
	Univ. of Michigan conf.	Nov	93.1 🔺						
*:	New yuan loans	Oct	514 🔻						
Sour	ce: Bloomberg, KGHM; (ma	re on p	age 5)						

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Base and precious metals | Other commodities

Copper and other commodities

Commodities took another hit during last fortnight. While energy was once again the worst category, metals also declined meaningfully, with copper loosing 6.2%. Market sources mention another round of metals shorting among Chinese funds. According to Coalition, a financial industry analytics company, top 10 investment banks' commodities-related revenues declined 17% yoy in the first three quarters.

Chinese funds return to metals shorting According to Financial Times. Chinese traders have

Funds activity picked up again, after quiet summer...

According to Financial Times, Chinese traders have placed a new round of speculative bets against aluminium and copper prices after months of quiet trading, suggesting funds in the country expect prices to keep falling. Investors in China this month have increased their bets that aluminium prices will fall by 15%, while average trading volumes have doubled. Average copper volumes in Shanghai have risen fourfold during November, while short positions have also increased.

...with positions being built more steadily

The move comes after a number of aggressive Chinese funds, including Shanghai Chaos, launched a series of "bear raids" on copper prices earlier this year that pushed the red metal sharply lower. But unlike then, the build-up in bets against the price has been steady, rather than being characterised by large moves in thinly traded markets when European and US traders were not active. Speculative activity in Chinese metals markets eased during the summer months when the country's equity markets plunged.

Chinese small market participants may contribute to volatility increases

The latest pick-up in activity has coincided with figures showing weak credit growth that has hit metal-intensive industries. Chinese traders, many of whom are smaller fund managers or retail investors, are exerting a greater influence on prices due to a shift in trading activity from London. While global prices for metals are set by the London Metal Exchange, volumes on the Shanghai Futures Exchange have started to compete with the 138-year old LME. The influence of retail investors could thus imply higher volatility levels to look forward.

Other important information on copper market:

KAZ Minerals has reached an agreement with Non Ferrous China (NFC) to defer a payment of USD 300mn for construction of its Aktogay copper project in Kazakhstan. KAZ Minerals had been due to this amount over 2016 and 2017, but the fee will now be settled in the first half of 2018. The overall budget for the project is USD 2.3bn. Production of copper concentrate from sulphide ore is due to begin in 2017.



- Glencore's copper smelter at the Mount Isa Mines and Townsville copper refinery in Australia will remain open beyond their respective planned closure dates of 2016 and 2017. The company and the Queensland government have finalized new environmental licensing conditions which allows the Mount Isa Mines copper smelter to operate to the end of 2022.
- Chinese consortium Sino-Congolaise des Mines (Sicomines) has recently started up production of the USD 3.3bn first phase of a copper-cobalt mine in Kolwezi city, Congo's mineral-rich Katanga province. Sicomines owns 68% of the Kolwezi mine, while the Congolese government controls the remaining 32%. Annual mined copper output will reach 125kt if first-phase production is ramped up fully. The joint venture is planning to build smelting and refining facilities under the second phase of the Kolwezi mine. The second phase will have annual designed production capacity of 250kt of copper, and the entire mine development will have a price tag of USD 6.7bn.

Revenues of top 10 banks declined 17% yoy after three quarters

Commodities less profitable for banks

Commodities-related revenues at the top 10 investment banks dropped by 17% in the first three quarters of the year after sluggish turnover from metals and investor products, according to Coalition, a financial industry analytics company. The decline was also due to a retreat in business in the power and gas markets after last year's surge.

Revenues earned by leading banks from commodity trading, selling derivatives to investors and other activities in the sector fell to USD 3.7bn from USD 4.5bn in the same period of 2014. Improvements in oil were offset by a lacklustre performance in metals and investor products, and normalisation of US power and gas markets in 1H. Last year a cold winter in North America created volatility and boosted activity in power and gas, while this year trading in the oil sector has been increased by a sharp fall and then partial recovery in prices.

2014 revenues of 4.9bn are far from 2008 levels of USD 14.1bn

The banks' commodities revenues in whole 2014 were 9% higher at USD 4.9bn, after three years of declines, due to increased activity in energy markets as oil prices went into free fall. However, revenues last year were still only just over a third of the USD 14.1bn recorded in 2008, at the height of the commodities boom. Many investors have avoided commodities in recent years due to lacklustre performance and as the sector was buffeted by economic events, moving in step with other assets. In addition, banks continued an exodus from commodities trading in 2014 due to tougher regulation and higher capital requirements after the global financial crisis.



Precious metals

All precious metals remain under pressure as investors await Fed rates decision. During the last two weeks only gold managed to keep its price, while silver and PGMs recorded considerable losses.

Important information on precious metals market:

- **Gold** slid to its lowest level since February 2010 during last few weeks, reached USD 1 064.95/troz, and pressed back only a few dollars of that level since then. Its 9 percent drop so far this year has come largely on the back of rate hike speculation.
- Holdings of the world's largest gold-backed exchange traded fund, New York-listed SPDR Gold Shares, fell to 655.69 tonnes, the lowest since September 2008. Total ETF holdings stood at 47 mn troz (43% down from the 2012 peak).
- Platinum dipped to its lowest in nearly seven years, putting it on track to fall 14 percent in November, its biggest monthly drop since September 2011.
- **Silver** touched USD 13.86/troz level recently, the lowest since August 2009.



Macroeconomic calendar

Important macroeconomic data releases

Weight	ght Date Event		For	Reading ¹	Previous	Consensus ²		
		China				*3		
0000	10-Nov	Consumer inflation CPI (yoy)	Oct	1.3%	1.6%	1.5%		
00	10-Nov	Producer inflation PPI (yoy)	Oct	-5.9% =	-5.9%	-5.9%		
0000	11-Nov	Industrial production (yoy)	Oct	5.6%	5.7%	5.8%		
00	11-Nov	Fixed assets investments (ytd, yoy)	Oct	10.2%	10.3%	10.2%		
٥	11-Nov	Retail sales (yoy)	Oct	11.0%	10.9%	10.9%		
0	12-Nov	New yuan loans (CNY bn)	Oct	514	1 050	800		
		Poland						
00000	13-Nov	GDP (yoy) - preliminary data	3Q	3.4%	3.3%	3.3%		
00000	13-Nov	GDP (qoq) - preliminary data‡	3Q	0.9%	0.8%	0.8%		
0000	13-Nov	Consumer inflation CPI (yoy) - final data	Oct	-0.7%	-0.8%			
00	13-Nov	Trade balance (EUR mn)‡	Sep	87.0	- 188	315		
00	13-Nov	Exports (EUR mn)‡	Sep	15 059 🔺	12 775	15 090 🕳		
00	13-Nov	Current account balance (EUR mn)‡	Sep	- 959 🔻	- 930	- 437 👅		
0	13-Nov	M3 money supply (yoy)	Oct	9.2%	8.4%	8.4%		
0000	16-Nov	Core CPI (excluding food and energy, yoy)	Oct	0.3%	0.2%	0.3%		
٥	16-Nov	Budget balance (ytd)	Oct	74.8% 🔺	67.6%			
00	18-Nov	Average gross salary (yoy)	Oct	3.3%	4.1%	3.6%		
O	18-Nov	Employment (yoy)	Oct	1.1% 🔺	1.0%	1.0%		
0000	19-Nov	Sold industrial production (yoy)	Oct	2.4%	4.1%	2.5%		
000	19-Nov	Retail sales (yoy)	Oct	0.8%	0.1%	0.4%		
00	19-Nov	Producer inflation PPI (yoy)‡	Oct	-2.3%	-2.8%	-2.5%		
		US						
00	13-Nov	Retail sales (excluding autos, mom)‡	Oct	0.2%	-0.4%	0.4%		
00	13-Nov	University of Michigan confidence index - preliminary data	Nov	93.1	90.0	91.5		
0000	17-Nov	Consumer inflation CPI (mom)	Oct	0.2%	-0.2%	0.2%		
0000	17-Nov	Consumer inflation CPI (yoy)	Oct	0.2%	0.0%	0.1%		
0000	17-Nov	Industrial production (mom)	Oct	-0.2% =	-0.2%	0.1%		
0	17-Nov	Capacity utilization‡	Oct	77.5%	77.7%	77.5%		
00	19-Nov	Philadelphia Fed business outlook	Nov	1.9	- 4.5	- 0.5		
		Eurozone						
0000	12-Nov	Industrial production (sa, mom)‡	Sep	-0.3%	-0.4%	-0.1%		
0000	12-Nov	Industrial production (wda, yoy)‡	Sep	1.7%	2.2%	1.3%		
00000	13-Nov	GDP (sa, yoy) - estimation	3Q	1.6%	1.5%	1.7%		
00000	13-Nov	GDP (sa, qoq) - estimation	3Q	0.3%	0.4%	0.4%		
0	13-Nov	Trade balance (EUR mn)	Sep	20.5	11.2	16.0		
0000	16-Nov	Consumer inflation CPI (yoy) - final data	Oct	0.1%	0.0%	0.0%		
0000	16-Nov	Core CPI (yoy) - final data	Oct	1.1%	1.0%	1.0%		
0	17-Nov	ZEW survey expectations	Nov	28.3	30.1			
•	20-Nov	Consumer confidence - estimation‡	Nov	- 6.0	- 7.6	- 7.5		
		Germany						
0000	12-Nov	Harmonized consumer inflation HICP (yoy) - final data	Oct	0.2% =	0.2%	0.2%		
0000	12-Nov	Consumer inflation CPI (yoy) - final data	Oct	0.3% =	0.3%	0.3%		
00000	13-Nov	GDP (yoy) - preliminary data	3Q	1.8%	1.6%	1.8%		
00000	13-Nov	GDP (sa, qoq) - preliminary data	3Q	0.3%	0.4%	0.3%		



Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
		France		<u>_</u>		
0000	10-Nov	Industrial production (yoy)‡	Sep	1.8%	1.4%	1.8%
0000	12-Nov	Harmonized consumer inflation HICP (yoy)	Oct	0.2%	0.1%	0.1%
0000	12-Nov	Consumer inflation CPI (yoy)	Oct	0.1%	0.0%	0.1%
00000	13-Nov	GDP (yoy) - preliminary data	3Q	1.2%	1.1%	1.1%
00000	13-Nov	GDP (qoq) - preliminary data	3Q	0.3%	0.0%	0.3%
		Italy				
0000	10-Nov	Industrial production (wda, yoy)	Sep	1.7%	1.0%	1.4%
00000	13-Nov	GDP (wda, yoy) - preliminary data‡	3Q	0.9%	0.6%	1.0%
00000	13-Nov	GDP (wda, qoq) - preliminary data	3Q	0.2%	0.3%	0.3%
0000	13-Nov	Harmonized consumer inflation HICP (yoy) - final data	Oct	0.3% =	0.3%	0.3%
		UK				
00	11-Nov	Unemployment rate (ILO, 3-months)	Sep	5.3%	5.4%	5.4%
0000	17-Nov	Consumer inflation CPI (yoy)	Oct	-0.1% =	-0.1%	-0.1%
		Japan				
0000	13-Nov	Industrial production (yoy) - final data	Sep	-0.8%	-0.9%	
00000	16-Nov	GDP (annualized, qoq) - preliminary data‡	3Q	-0.8%	-0.7%	-0.2%
00000	16-Nov	GDP (qoq, sa) - preliminary data‡	3Q	-0.2% =	-0.2%	-0.1%
		Chile				*
000	09-Nov	Copper exports (USD mn)‡	Oct	2 493	2 535	
00000	12-Nov	BCCh overnight rate target	Nov	3.25% =	3.25%	3.25%
00000	18-Nov	GDP(yoy)	3Q	2.2%	1.9%	2.1%
		Canada				*
0000	20-Nov	Consumer inflation CPI (yoy)	Oct	1.0% =	1.0%	1.0%

¹ Reading difference to previous release: \triangle = higher than previous; ∇ = lower than previous; -= equal to previous.

² 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

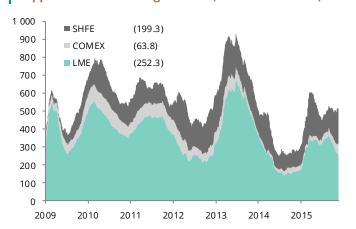
Key base & precious metal prices, exchange rates and other important market factors

(as of: 20-Nov-15)	Price change °								From	year beginn	ning ²	
	Price		2W		QTD		YTD		1Y	Average	Min	Max
LME (USD/t)												
Copper	4 690.00		-6.2%	_	-7.9%	_	-26.2%	•	-29.9%	5 599.19	4 610.00	6 448.00
Molybdenum	10 800.00		-1.8%	_	-10.7%	_	-48.6%	•	-48.6%	15 251.77	9 250.00	21 500.00
Nickel	8 900.00	_	-8.5%	_	-11.6%	_	-40.4%	•	-45.0%	12 180.71	8 885.00	15 455.00
Aluminum	1 475.00	_	-1.1%	•	-5.6%	_	-19.5%	•	-26.9%	1 681.93	1 434.00	1 919.00
Tin	14 795.00		0.6%	_	-4.9%	_	-24.1%	•	-25.2%	16 233.16	13 895.00	19 750.00
Zinc	1 577.50		-3.0%	_	-4.8%	_	-27.2%	•	-29.5%	1 976.11	1 487.00	2 405.00
Lead	1 617.00		-1.3%	_	-2.3%	_	-12.7%	•	-19.8%	1 795.98	1 561.50	2 140.00
LBMA (USD/troz)												
Silver	14.29	_	-5.2%	•	-2.5%	_	-10.5%		-11.8%	15.87	14.17	18.23
Gold ¹	1 081.75	_	-0.7%	•	-2.9%	_	-9.8%		-9.1%	1 170.24	1 067.75	1 295.75
LPPM (USD/troz)												
Platinum ¹	858.00	_	-8.6%	•	-5.5%	_	-29.1%		-28.7%	1 074.96	844.00	1 285.00
Palladium ¹	551.00	_	-9.1%	•	-16.6%	_	-31.0%		-28.4%	707.23	524.00	831.00
FX ³												
EUR/USD	1.0688	_	-1.6%	_	-4.6%	_	-12.0%	_	-14.8%	1.1129	1.0552	1.2043
EUR/PLN	4.2441	_	0.0%		0.1%	_	-0.4%		0.7%	4.1718	3.9822	4.3335
USD/PLN	3.9706		1.6%		5.2%		13.2%		17.9%	3.7497	3.5550	3.9802
USD/CAD	1.3338		0.2%	•	-0.4%		15.0%		17.9%	1.2686	1.1728	1.3413
USD/CNY	6.3846		0.5%		0.4%		2.9%		4.2%	6.2652	6.1883	6.4128
USD/CLP	711.96		2.7%		1.0%		17.2%		18.8%	647.90	597.10	714.12
Money market												
3m LIBOR USD	0.382		0.12		0.18		0.49		0.64	0.293	0.251	0.382
3m EURIBOR	-0.095		0.30		1.38	•	-2.22	\blacksquare	-2.17	-0.008	-0.095	0.076
3m WIBOR	1.730	-	0.00	-	0.00	•	-0.16	\blacksquare	-0.16	1.749	1.650	2.060
5y USD interest rate swap	1.578	•	-0.06		0.14	•	-0.11	\blacksquare	-0.10	1.616	1.282	1.909
5y EUR interest rate swap	0.178	•	-0.45	•	-0.48	•	-0.51	\blacksquare	-0.59	0.353	0.176	0.590
5y PLN interest rate swap	1.775	•	-0.09	•	-0.11	\blacksquare	-0.09	\blacksquare	-0.13	2.041	1.563	2.643
Fuel												
WTI Cushing	40.39	•	-8.8%	•	-10.4%	\blacksquare	-24.2%	\blacksquare	-46.6%	49.96	38.09	61.43
Brent	42.26	•	-9.3%	•	-10.3%	•	-24.2%	\blacksquare	-46.2%	53.98	40.74	66.37
Diesel NY (ULSD)	134.88	•	-8.2%	•	-9.8%	•	-26.1%	\blacksquare	-43.7%	171.32	134.88	233.64
Others												
VIX	15.47		0.08	•	-0.37	•	-0.19		0.14	16.57	11.95	40.74
BBG Commodity Index	81.42	•	-4.5%	•	-7.3%	•	-22.0%	•	-30.9%	96.30	81.42	105.49
S&P500	2 089.17	•	-0.5%		8.8%		1.5%		1.8%	2 061.17	1 867.61	2 130.82
DAX	11 119.83		1.2%		15.1%		13.4%		17.2%	10 980.65	9 427.64	12 374.73
Shanghai Composite	3 630.50		1.1%		18.9%		12.2%		48.0%	3 744.69	2 927.29	5 166.35
WIG 20	2 021.99		0.1%	_	-2.1%	\blacksquare	-12.7%	\blacksquare	-15.6%	2 279.99	1 971.43	2 549.40

[°] 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

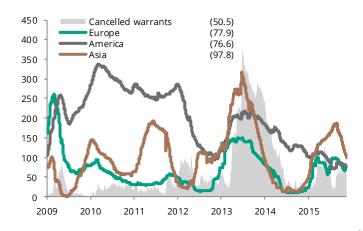


Copper: official exchange stocks (thousand tonnes)



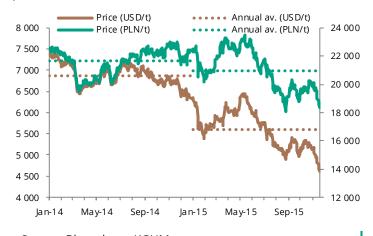
Note: Latest values in brackets. Source: Bloomberg, KGHM

Copper: official LME stocks (thousand tonnes)



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

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



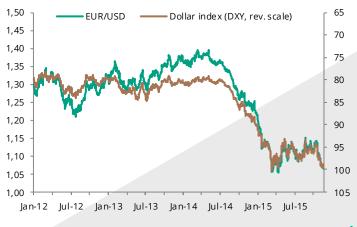
Source: Bloomberg, KGHM

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: **9 November - 22 November 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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