

Market Overview

- Precious metals: The LBMA market conference took place in Singapore on 16-18th October. All the different parts of the bullion industry gathered to discuss challenges and opportunities facing precious metals. Physical gold demand slumped by nearly a third in the three months to September, GFMS analysts at Thomson Reuters said recently, as a rally in prices curbed jewelry buying in the key Chinese and Indian markets (page 2).
- Copper: In the eve of LME week, lots of market analysts try to figure out what could possibly happen with the biggest laggard in case of price performance this year – copper. The supply-side performance has been strong this year but after five years of relentless price deterioration, it seems that the red metal finally stop getting worse (page 3).
- Freight market: Britain's Financial Conduct Authority (FCA) has approved Singapore Exchange's 87 million pound (107 USD million) takeover of London's Baltic Exchange (page 4).

Average housing prices in China keep rising



Source: China Index Academy, KGHM Polska Miedź



K Os	/ 100	2 KI	/O+	nri	ces
rci	/ !!!	aı ı	VCL.	PII	CCS

		Close price	2w chng.
	LME (USD/t)		
	Copper	4 787.00	2.5%
\blacksquare	Nickel	10 340.00	-0.9%
	LBMA (USD/troz)		
	Silver	17.61	0.8%
	Gold (PM)	1 273.00	1.7%
	FX		
\blacksquare	EUR/USD	1.0922	-0.7%
	EUR/PLN	4.3293	0.8%
	USD/PLN	3.9696	1.9%
	USD/CAD	1.3385	1.6%
\blacksquare	USD/CLP	651.65	-2.9%
	Stocks		
	KGHM	71.80	2.9%
Sou	irce: Bloomberg, KGHM	l Polska Miedź; <i>(m</i>	nore on <u>page 7</u>)

Imp	ortant macroeconomic	data	
	Release	For	
★ 注	GDP (yoy)	3Q	6.7% =
	Industrial prod. (yoy)	Sep	3.2% 🔻
	Industrial prod. (mom)	Sep	0.1% 🔺
	HICP (yoy)	Oct	0.7% 🔺
*	Copper production (mt)	Sep	460 986 🔺
Sourc	e: Bloomberg, KGHM Polska Mie	dź; (mo	re on <u>page 5</u>)

Market Risk Unit

marketrisk@kghm.com

Grzegorz Laskowski Marek Krochta Wojciech Demski Michał Kamiński



Base and precious metals | Other commodities

Precious metals

The LBMA market conference took place in Singapore on 16-18th October. All the different parts of the bullion industry gathered to discuss challenges and opportunities facing precious metals. Physical gold demand slumped by nearly a third in the three months to September, GFMS analysts at Thomson Reuters said recently, as a rally in prices curbed jewellery buying in the key Chinese and Indian markets.

LBMA conference key takeaways

The LBMA market conference took place in Singapore on 16-18th October. All the different parts of the bullion industry gathered to discuss challenges and opportunities facing precious metals. Miners, jewelers, refiners banks and funds where all in record attendance at the conference in Singapore. The major subjects broached on were deflation, central bank activity, regulation, Brexit, rising populism in politics and Chinese demand amongst many other production related topics. There was also the topic of how the future of the gold benchmark will evolve after the traditional method has been abandoned, with LME and LBMA both trying to be involved in this process.

A poll of attendees showed on average that gold prices will be 1,347 USD/troz in 12 months' time, some 80 USD/troz (6%) higher than current spot prices. Silver meanwhile is forecast to be 20.90 USD/troz, more than 3 USD/troz (18%) higher than current spot. Delegates were also relatively bullish on platinum, seeing it trading at 1,055 USD/troz in 12 months' time (~12% higher than at present) though sentiment was markedly more bearish on this metal according to conversations at the conference and in the LPPM PGM session. Palladium was seen as trading at 752.5 USD/troz in 12 months' time (~18% higher than right now). While this 'wisdom of crowds' type forecasting is not always accurate, the consensus among speakers for the main driving factors in higher gold prices – financial and geopolitical risks – are difficult to deny, though concerns remain over the strength of Chinese and Indian physical demand in future.

Lower demand for gold - Reuters' GFMS reports

Physical gold demand slumped by nearly a third in the three months to September, GFMS analysts at Thomson Reuters said recently, as a rally in prices curbed jewellery buying in the key Chinese and Indian markets. The net surplus in the gold market was at its highest since 2005, it said, as demand for gold-backed exchange-traded funds also weakened. Prices are expected to stabilize into the year-end, bottoming out at \$1,240 an ounce. Next year it forecasts gold prices will average \$1,420. The U.S. election battle between Democrat Hillary Clinton and Republican Donald Trump, who go to the polls in November, has



now overtaken Britain's vote to leave the European Union as the key driver of gold buying, and consequently prices, it said.

Consumption of physical gold in the form of coins, bars and jewelry was down nearly 30 percent year on year in the third quarter, while higher prices lifted scrap flows by a fifth. Chinese jewelry buying fell 29 percent from a year before, more than offsetting an 11 percent rise in investment demand in the same period. Indian consumption saw a still steeper drop, sliding 41 percent to 108 tonnes, while investment demand also fell 60 percent to 22 tonnes. Scrap sales more than doubled, meanwhile, to their highest since 1999. GFMS said it expects both Chinese and Indian demand to pick up in the final quarter.

Copper

In the eve of LME week, lots of market analysts try to figure out what could possibly happen with the biggest laggard in case of price performance this year – copper. The supply-side performance has been strong this year but after five years of relentless price deterioration, it seems that the red metal finally stop getting worse.

Important information on copper market:

- Ministry of industry and information technology of China released that in 13th Five-year plan, the average annual growth rate of industrial value added in nonferrous metal industry is targeted as 8%. It also forcasted that in China, during 2016-2020, the average annual growth rate of nominal consumption on refined copper may reach 3.3%. In 2020, nominal copper consumption of may reach 13.5 million tons, while the output may reach 9.8 million tons.
- The global world refined copper market showed a 133,000 tonnes surplus in July, compared with a 106,000 tonnes deficit in June, the International Copper Study Group (ICSG) said in its latest monthly bulletin. For the first 7 months of the year, the market was in a 264,000 tonnes deficit compared with a 70,000 tonnes deficit in the same period a year earlier, the ICSG said. World refined copper output in July was 1.98 million tonnes , while consumption was 1.85 million tonnes. Bonded stocks of copper in China showed a 123,000 tonnes surplus in July compared with a 109,000 tonnes deficit in June.
- London Metal Exchange revenue fell by 11% in the first nine months of the year to HK\$1.178 billion (\$152 million) from HK\$1.322 billion a year ago, according to the interim report from parent company Hong Kong Exchanges & Clearing (HKEX). This drop in revenue reflects a 13% year-on-year fall in trading fees to HK\$932 million during the January-September period. The decline in trading fees stems from a 10% drop in average daily volume (ADV) of metals contracts traded, the effect of incentive rebates introduced in the third quarter of 2015 and fee reductions for certain member trades from



September 2016, HKEX said. The ADV of metals contracts traded on the LME was 612,663 lots in January-September, down from 681,550 lots in the previous year. Market open interest (MOI), showing long-term position holders, at the end of September 2016 was 2.27 million lots, down 5.4% from a year previously. Earnings before interest, tax, depreciation and amortisation (Ebitda) fell 21% to \$HK743 million while operating expenses rose 13% to HK\$435 million in the first three quarters of this year. The exchange attributed the increase in costs mainly to increased headcount for strategic initiatives – including product development and establishment of a commodities trading platform in China – and also to higher legal professional fees incurred on strategic projects.

Freight market

Britain's Financial Conduct Authority (FCA) has approved Singapore Exchange's 87 million pound (107 USD million) takeover of London's Baltic Exchange.

UK regulator approves Singapore Exchange's takeover of London's Baltic Exchange

Britain's Financial Conduct Authority (FCA) has approved Singapore Exchange's 87 million pound (\$107 million) takeover of London's Baltic Exchange after shareholders gave the green light for the deal last month. The acquisition is one of the latest developments in a string of mergers, bidding wars and failed deals among global exchanges. The privately owned Baltic Exchange - one of London's oldest commercial institutions - said the FCA gave its regulatory approval on Oct. 13, clearing the way for the final stages of the deal.

SGX added separately on Wednesday that the transaction was expected to be completed by the end of November this year.

Founded in 1744 as a forum for chartering vessels, the Baltic Exchange now produces benchmark indexes for global shipping rates and owns a trading platform for the freight derivatives market. Baltic shareholders unanimously approved the takeover on Sept. 26. After months of talks, SGX offered shareholders 160.41 pounds per share. Shareholders will separately receive 19.30 pounds per share from the Baltic as a final dividend, giving the business a total valuation of about 87 million pounds.



Macroeconomic calendar

Important macroeconomic data releases

Weight	Date	Event		Reading ¹	Previous	Consensus ²		
		China				*}		
0	18-Oct	New yuan loans (CNY bn)	Sep	1 220 🔺	949	1 000		
00000	19-Oct	GDP (yoy)	3Q	6.7% =	6.7%	6.7%		
00000	19-Oct	GDP (sa, qoq)‡	3Q	1.8%	1.9%	1.8%		
0000	19-Oct	Industrial production (yoy)	Sep	6.1%	6.3%	6.4%		
00	19-Oct	Fixed assets investments (ytd, yoy)	Sep	8.2%	8.1%	8.2%		
•	19-Oct	Retail sales (yoy)	Sep	10.7%	10.6%	10.7%		
00	27-Oct	Industrial profits (yoy)	Sep	7.7%	19.5%			
		Poland						
00	18-Oct	Average gross salary (yoy)	Sep	3.9%	4.7%	4.5%		
0	18-Oct	Employment (yoy)	Sep	3.2%	3.1%	3.1%		
0000	19-Oct	Sold industrial production (yoy)	Sep	3.2%	7.5%	3.5%		
000	19-Oct	Retail sales (yoy)	Sep	4.8%	5.6%	5.9%		
00	19-Oct	Producer inflation PPI (yoy)	Sep	0.2%	-0.1%	0.2%		
0	21-Oct	Budget balance (ytd)	Sep	37.7%	27.3%			
00	25-Oct	Unemployment rate‡	Sep	8.3%	8.4%	8.4%		
		US						
0000	17-Oct	Industrial production (mom)‡	Sep	0.1%	-0.5%	0.1%		
0	17-Oct	Capacity utilization‡	Sep	75.4%	75.3%	75.6%		
0000	18-Oct	Consumer inflation CPI (mom)	Sep	0.3%	0.2%	0.3%		
0000	18-Oct	Consumer inflation CPI (yoy)	Sep	1.5%	1.1%	1.5%		
00	20-Oct	Philadelphia Fed business outlook	Oct	9.7	12.8	5.0		
000	24-Oct	Manufacturing PMI - preliminary data	Oct		51.5	51.5		
0	25-Oct	Richmond Fed manufacturing index	Oct	- 4.0	- 8.0	- 4.0		
0	25-Oct	S&P/CaseShiller home price index‡	Aug	192 🔺	191			
000	26-Oct	Composite PMI - preliminary data	Oct	54.9	52.3			
000	26-Oct	PMI services - preliminary data	Oct	54.8	52.3	52.5		
00	27-Oct	Durable goods orders - preliminary data‡	Sep	-0.1%	0.3%	0.0%		
00000	28-Oct	GDP (annualized, qoq) - estimation	3Q	2.9%	1.4%	2.6%		
00	28-Oct	University of Michigan confidence index - final data	Oct	87.2	87.9	88.2		
		Eurozone						
0000	17-Oct	Consumer inflation CPI (yoy) - final data‡	Sep	0.4%	0.2%	0.4%		
0000	17-Oct	Core CPI (yoy) - final data	Sep	0.8% =	0.8%	0.8%		
00000	20-Oct	ECB main refinancing rate	Oct	0.00% =	0.00%	0.00%		
00000	20-Oct	ECB deposit facility rate	Oct	-0.4% =	-0.4%	-0.4%		
٥	21-Oct	Consumer confidence - estimation	Oct	- 8.0	- 8.2	- 8.0		
000	24-Oct	Composite PMI - preliminary data	Oct	53.7	52.6	52.8		
000	24-Oct	Manufacturing PMI - preliminary data	Oct		52.6	52.7		
000	24-Oct	Services PMI - preliminary data	Oct	53.5	52.2	52.4		
•	27-Oct	M3 money supply (yoy)	Sep	5.0%	5.1%	5.1%		
0	28-Oct	Economic confidence	Oct	106 🔺	105	105		
©	28-Oct	Industrial confidence‡	Oct	- 0.6	- 1.8	- 1.6		
©	28-Oct	Consumer confidence - final data	Oct	- 8.0 =	- 8.0	- 8.0		
٥	28-Oct	Business climate indicator‡	Oct	0.6	0.4	0.5		



Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
		Germany				
000	24-Oct	Composite PMI - preliminary data	Oct	55.1 🔺	52.8	53.3
000	24-Oct	Manufacturing PMI - preliminary data	Oct		54.3	54.4
00	25-Oct	IFO business climate	Oct	111 🔺	110	110
00	26-Oct	GfK consumer confidence	Nov	9.7	10.0	10.0
0000	28-Oct	Harmonized consumer inflation HICP (yoy) - preliminary data	Oct	0.7%	0.5%	0.7%
0000	28-Oct	Consumer inflation CPI (yoy) - preliminary data	Oct	0.8%	0.7%	0.8%
		France				
000	24-Oct	Composite PMI - preliminary data	Oct	52.2	52.7	52.8
000	24-Oct	Manufacturing PMI - preliminary data	Oct		49.7	50.0
00000	28-Oct	GDP (yoy) - estimation	3Q	1.1%	1.3%	1.2%
00000	28-Oct	GDP (qoq) - estimation	3Q	0.2%	-0.1%	0.3%
0000	28-Oct	Harmonized consumer inflation HICP (yoy) - preliminary data	Oct	0.5% =	0.5%	0.6%
0000	28-Oct	Consumer inflation CPI (yoy) - preliminary data	Oct	0.4% =	0.4%	0.5%
		Italy				
		No major data in the period	d			
		UK				
0000	18-Oct	Consumer inflation CPI (yoy)	Sep	1.0%	0.6%	0.9%
00	19-Oct	Unemployment rate (ILO, 3-months)	Aug	4.9% =	4.9%	4.9%
00000	27-Oct	GDP (yoy) - estimation	3Q	2.3%	2.1%	2.1%
00000	27-Oct	GDP (qoq) - estimation	3Q	0.5%	0.7%	0.3%
		Japan				
0000	17-Oct	Industrial production (yoy) - final data	Aug	4.5%	4.6%	
000	24-Oct	Manufacturing PMI - preliminary data	Oct		50.4	
0000	28-Oct	Consumer inflation CPI (yoy)	Sep	-0.5% =	-0.5%	-0.5%
		Chile				*
00000	18-Oct	BCCh overnight rate target	Oct	3.50% =	3.50%	3.50%
000	28-Oct	Total copper production (metric tons)	Sep	460 986 🔺	455 434	
000	28-Oct	Manufacturing (yoy)	Sep	1.4%	2.4%	-2.0%
		Canada				*
00000	19-Oct	BoC base rate decision	Oct	0.50% =	0.50%	0.50%
0000	21-Oct	Consumer inflation CPI (yoy)	Sep	1.3% 🔺	1.1%	1.4%

¹ Reading difference to previous release: ▲ = 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

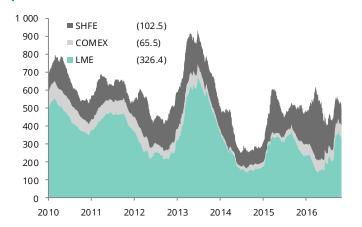
Key base & precious metal prices, exchange rates and other important market factors

(as of: 28-Oct-16)	Price change °						From year beginning ²					
	Price		2W		QTD		YTD		1Y	Average	Min	Max
LME (USD/t)												
Copper	4 787.00		2.5%	\blacksquare	-0.9%		1.8%	•	-7.2%	4 725.38	4 310.50	5 103.00
Molybdenum	15 250.00	_	-1.6%	-	0.0%		27.1%		45.2%	14 289.29	11 750.00	17 000.00
Nickel	10 340.00	_	-0.9%	\blacksquare	-1.1%		19.3%	•	-1.3%	9 309.71	7 710.00	10 900.00
Aluminum	1 701.50		1.0%		2.6%		12.9%		18.1%	1 578.69	1 453.00	1 701.50
Tin	20 875.00		6.6%		2.9%		43.0%		39.1%	17 340.98	13 235.00	20 875.00
Zinc	2 374.00		6.3%	\blacksquare	-0.2%		48.4%		40.0%	1 988.59	1 453.50	2 404.00
Lead	2 048.00		2.8%	•	-2.7%		13.7%		19.6%	1 804.25	1 597.00	2 105.50
LBMA (USD/troz)	_											
Silver	17.61		0.8%	•	-9.0%		27.4%		11.3%	17.18	13.58	20.7
Gold ¹	1 273.00		1.7%	\blacksquare	-3.7%		19.8%		10.8%	1 260.77	1 077.00	1 366.25
LPPM (USD/troz)												
Platinum ¹	972.00		4.2%	\blacksquare	-6.0%		11.5%	•	-2.1%	998.40	814.00	1 182.00
Palladium ¹	616.00	_	-4.0%	\blacksquare	-14.7%		12.6%	•	-8.5%	596.56	470.00	730.00
FX ³												
EUR/USD	1.0922	_	-0.7%	•	-2.1%		0.3%	•	-0.1%	1.1149	1.0742	1.1569
EUR/PLN	4.3293		0.8%		0.4%		1.6%		1.3%	4.3539	4.2355	4.4987
USD/PLN	3.9696		1.9%		3.0%		1.8%		1.9%	3.9055	3.7193	4.1475
USD/CAD	1.3385		1.6%		2.0%	•	-3.3%		1.6%	1.3220	1.2544	1.4589
USD/CNY	6.7789		0.8%		1.6%		4.4%		6.6%	6.5945	6.4536	6.7835
USD/CLP	651.65	_	-2.9%	•	-1.1%	_	-8.2%	_	-5.2%	678.82	645.22	730.31
Money market												
3m LIBOR USD	0.886		0.00		0.03		0.27		0.56	0.705	0.612	0.890
3m EURIBOR	-0.313	•	0.00	\blacksquare	-0.01	•	-0.18	\blacksquare	-0.25	-0.255	-0.313	-0.132
3m WIBOR	1.720	-	0.00		0.01	-	0.00	\blacksquare	-0.01	1.695	1.670	1.720
5y USD interest rate swap	1.349		0.05		0.17	\blacksquare	-0.39	\blacksquare	-0.17	1.221	0.928	1.709
5y EUR interest rate swap	0.014		0.07		0.16	\blacksquare	-0.32	\blacksquare	-0.26	-0.020	-0.183	0.309
5y PLN interest rate swap	2.135		0.07		0.20		0.15		0.33	1.887	1.735	2.170
Fuel												
WTI Cushing	48.70	•	-3.3%		1.0%		31.5%		5.7%	42.22	26.21	51.60
Brent	47.97	_	-4.7%		0.5%		34.2%		2.9%	42.88	26.39	51.56
Diesel NY (ULSD)	153.85	_	-1.0%		0.8%		43.0%		4.5%	131.44	86.44	160.02
Others												
VIX	16.19		0.07		2.90	•	-2.02		1.58	16.22	11.34	28.14
BBG Commodity Index	85.91	•	-0.5%		0.7%		9.4%	•	-1.1%	82.52	72.88	89.94
S&P500	2 126.41	•	-0.3%	•	-1.9%		4.0%		1.8%	2 072.16	1 829.08	2 190.15
DAX	10 696.19		1.1%		1.8%	•	-0.4%	•	-1.0%	10 050.30	8 752.87	10 761.17
Shanghai Composite	3 104.27		1.3%		3.3%	•	-12.3%	_	-8.4%	2 965.17	2 655.66	3 361.84
WIG 20	1 817.79		5.7%		6.3%	_	-2.2%	_	-11.7%	1 808.98	1 674.57	1 999.93
			2.9%		-3.6%		13.1%			68.71	52.29	80.20

[°] 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

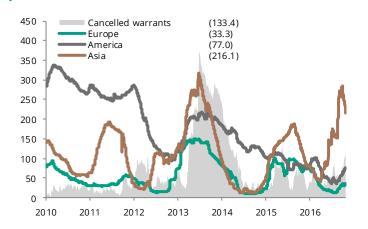


Copper: official exchange stocks (thousand tonnes)



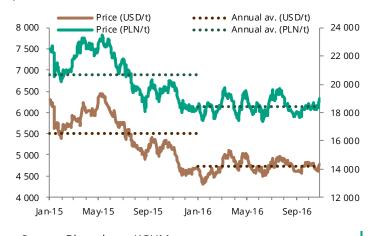
Note: Latest values in brackets. Source: Bloomberg, KGHM

Copper: official LME stocks (thousand tonnes)



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

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



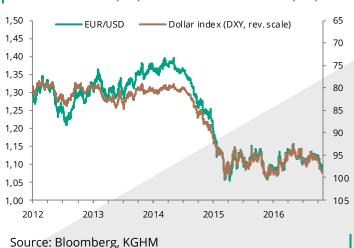
Source: Bloomberg, KGHM

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

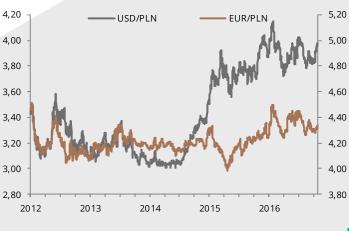


Source: Bloomberg, KGHM

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



PLN: NBP-fixing based rate vs. USD (lhs) and EUR (rhs)





Legal note

This document has been prepared based on the below listed reports, among others, published in the following period: 17th – 30th October 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.

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

DISCLAIMER

This document reflects the market view of the staff of KGHM Polska Miedz (Polish Copper)'s Market Risk Unit employees on the economy, commodity as well as financial markets. Although, according to the 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. is 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 itsin whole or part requires prior written consent from KGHM. To acquire that such consent please contact the Communications and CSR Department of Communication (Department 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)

Wydzial Ryzyka Rynkowego (Market Risk Unit)

ul. M. Sklodowskiej-Curie 48

59-301 Lubin, Poland