

Market Overview

as of: 30th January 2017

- Copper:** The base metals complex remains firm during the early weeks of 2017 with prices at elevated, buoyed by steady growth in China and hopes of fiscal spending/infrastructure investment elsewhere, especially in the U.S. Recent news, however, do not really focus on the consumption side, but rather on potential supply disruptions in the coming weeks, exclusively in regards to the copper market which has a long history of production disturbance (*page 2*).
- Precious metals:** Political uncertainty in the United States has been fuelled by President Donald Trump's policies, the most controversial of which is a temporary ban on immigrants from seven mostly Muslim countries. Analysts see in this raised uncertainty a potential to precious metals price growth. The Trump policy buying is further enhanced by the view that the Fed is likely to wait a while before next interest rates hike (*page 4*).
- IMF:** After a lackluster outturn in 2016, economic activity is projected to pick up pace in 2017 and 2018, especially in emerging market and developing economies. However, there is a wide dispersion of possible outcomes around the projections, given uncertainty surrounding the policy stance of the incoming U.S. administration and its global ramifications (*page 6*).

Key market prices

	Close price	2w chng.
LME (USD/t)		
▲ Copper	5 847.00	0.9%
▼ Nickel	9 380.00	-7.3%
LBMA (USD/troz)		
▼ Silver	16.70	-0.4%
▼ Gold (PM)	1 184.85	-0.5%
FX		
▲ EUR/USD	1.0681	0.2%
▼ EUR/PLN	4.3413	-0.7%
▼ USD/PLN	4.0595	-1.2%
▼ USD/CAD	1.3108	-0.2%
▼ USD/CLP	648.31	-2.2%
Stocks		
▲ KGHM	125.00	14.7%

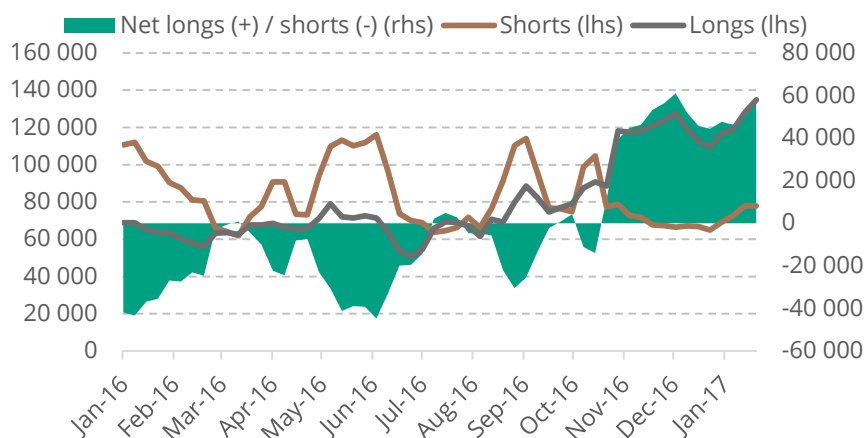
Source: Bloomberg, KGHM Polska Miedź; (*more on page 9*)

Important macroeconomic data

Release	For	
 GDP (yoy)	4Q	6.8% ▲
 CPI (yoy)	Dec	2.1% ▲
 Industrial prod. (yoy)	Dec	2.3% ▼
 FAI (ytd, yoy)	Dec	8.1% ▼
 CPI (yoy)	Dec	1.1% ▲

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

Net long positions on copper market (COMEX) keeps pushing higher mainly due to new fresh longs



Note: axes = no. of contracts; Source: Bloomberg, KGHM Polska Miedź

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Base and precious metals | Other commodities

Copper

The base metals complex remains firm during the early weeks of 2017 with prices at elevated, buoyed by steady growth in China and hopes of fiscal spending/infrastructure investment elsewhere, especially in the U.S. Recent news, however, do not really focus on the consumption side, but rather on potential supply disruptions in the coming weeks, exclusively in regards to the copper market which has a long history of production disturbance.

Copper: Focus shift away from demand to supply

Base metals market participants will not have much time for boredom, as the next couple of weeks will determine the direction of the copper market mood. Several labour contracts expire during this year amounting to nearly 2.6 million tonnes or just over 13% of global copper mine supply, according to Societe Generale mining analysts. Mineworkers who will be represented by labour unions in negotiations with company management are likely to hold out for higher wages and improved pensions and other benefits given the significant increase in copper prices.

Expiration of labour contracts encompass operations with a total of just over 13% of global copper supply

Labour contract expires at mines during 2017

Mine	Country	Company	Capacity (kt)	Expiry
Escondida	Chile	BHP/Rio Tinto	991	31-Jan-17
Sudbury	Canada	Vale	182	31-Jan-17
Konkola*	Zambia	Vedanta	190	01-Feb-17
Bingham Canyon	USA	Rio Tinto	215	31-Mar-17
Raglan	Canada	Glencore	18	30-Apr-17
Radomiro Tomic	Chile	Codelco	330	20-Oct-17
Mantos Blancos	Chile	Anglo American	151	28-Nov-17
Collahuasi	Chile	Anglo American	470	30-Nov-17
Mount Polley	Canada	Imperial Metals	37	31-Dec-17
Sub-total			2 584	
Global total			19 700	

Source: Societe Generale, industry reports, KGHM Polska Miedź

5% of total global supply at risk?

The mood in Escondida, which is the largest copper operation in the world, is not really promising and its workers' unions, representing 2,500 labourers, is calling on its members to vote to strike after rejecting the latest wage offer. Chile's Escondida mine, 57.5% owned by BHP Billiton, 30% owned by Rio Tinto and the rest is owned by Japan's JECO, produced 679kt of copper in concentrate and 312kt of copper cathode in 2016, which represents 5% of estimated total mined output. The union says the latest offer eliminates or modifies a series of

benefits (no wage increases, no bonus and a reduction in benefits) and is asking members to vote for a strike and prepare themselves for an extended conflict. Currently, BHP, which is the mine operator, is offering \$12,000 bonus per worker, much lower than \$49,000 accepted by the unions three years ago.

Other important information on copper market:

- Preliminary data released by the International Copper Study Group showed a 64k mt supply deficit in the global refined copper market in the first 10 months of 2016. As stated in the report, this is mainly because of a 5% increase in Chinese apparent demand in the first 10 months of 2016. Adjusting for changes in unreported Chinese warehouse stocks, the global refined market showed a deficit of about 24k mt. The deficit compares with one of 89k mt reported for the same period in 2015, and is down from a deficit of 89k mt reported for the first nine months of 2016, according to the report. According to the ICSG, the global refined market showed a surplus of about 48k mt in October, which is partly why the deficit for the 10-month period decreased. World mine production is estimated to have increased by around 5% or 815k mt in the first 10 months of 2016 to 16.6 million mt, with concentrate production increasing by 7% and solvent extraction-electrowinning (SX-EW) output declining by 1.5%. According to ICSG, the increase in world mine production was mainly due to a 43% (590k mt) rise in Peruvian output that is benefiting from new and expanded capacity brought on stream in the last two years. Moreover, a recovery in production levels in Canada, Indonesia and the US, and expanded capacity in Mexico, also contributed to world mine production growth. However, overall growth was partially offset by a 4.5% decline in production in the world's biggest copper mine producer, and a 6% decline in the Democratic Republic of Congo, where output is being constrained by temporary production cuts. World apparent refined usage is estimated to have increased by around 3% or 515k mt to nearly 23 million mt in the first 10 months of 2016. Growth was mainly due to the increase in Chinese apparent demand as world usage, excluding China, remained essentially unchanged, the ICSG said. Chinese apparent demand – excluding changes in unreported stocks – increased by around 5%, based mainly on 7% growth in refined production, since net imports of refined copper declined by 4%, according to ICSG analysts. Net refined copper imports have been on a declining trend in 2016 with the monthly average in the third quarter 40% below that of the first half.
- The main union at BHP Billiton Ltd.'s Escondida copper mine, the world's largest, said the company's latest offer is "irresponsible" and it will recommend its 2,500 workers begin a strike. BHP has offered workers no wage increase, no bonus and a reduction of benefits, Escondida's Union Number 1 said Tuesday in an e-mailed statement. Union representatives intend to explain the offer to workers Wednesday and Thursday. Escondida, which churned out 1.2 million metric tons of the red metal in 2015, will serve as a precedent for another 15 contracts coming up for renewal in

Chile, the biggest copper-mining country. Unions have been emboldened by a 25% surge in the metal's price since mid-October. The union said Tuesday that BHP's offer ends compensation for workers who resign voluntarily, eliminates the bonus for experienced workers hired after Feb. 1 and cuts some housing-expense benefits for new workers. The union initially asked the company for a 7% wage increase and a 25 million peso bonus (\$38,400), higher than the 19.3 million peso bonus workers negotiated in 2013. In its own statement, Melbourne-based BHP, the world's largest miner, said it has kept full health-care coverage for workers and added new benefits.

- China is set to spend more than \$165 billion on energy-saving technologies through 2020, according to figures on spending across 13 industries the National Development and Reform Commission released on 19th of Jan. The latest catalog lists 296 types of technologies it will use to save energy and reduce carbon emissions across coal-fired power, electricity, steel, non-ferrous metal, petroleum, petrochemical, chemical, construction materials, machinery, light industry, textiles, transportation and communications industries. Among the big-ticket items are:
 - 150 billion yuan (\$21.8 billion) on hybrid vehicle and engine technologies
 - 82.5 billion yuan (\$12 billion) for technology that improves gasification efficiency by using coal-powder from lower quality coals
 - 80 billion yuan (\$11.6 billion) for technology that utilizes heat released from underground piped water

Combined with a catalog focusing specifically on low-carbon technologies released Jan. 10 that detailed spending of around \$37 billion, the total amount of the two catalogs comes to around \$202 billion. China's National Energy Administration recently announced plans to spend around \$360 billion on renewable energy sources over the coming four years.

- Pan Pacific Copper, Japan's biggest copper smelter, has mostly agreed with producers on treatment and refining charges (TC/RCs) at the level of \$92.5/mt, 9.25 cents/lb for 2017 that are 5 percent lower than last year, amid tighter supplies.

Precious metals

Political uncertainty in the United States has been fuelled by President Donald Trump's policies, the most controversial of which is a temporary ban on immigrants from seven mostly Muslim countries. Analysts see in this raised uncertainty a potential to precious metals price growth. The Trump policy buying is further enhanced by the view that the Fed is likely to wait a while before next interest rates hike.

Less demand for gold, especially in jewellery sector

Thomson Reuters' GFMS Report for gold in 2016

Physical gold demand fell 20% last year to its lowest since 2009, GFMS analysts at Thomson Reuters said in a report, as a rebound in prices after three straight years of losses blunted appetite for the metal. Buying of jewellery, coins and bars, plus official sector and industrial demand, fell to 3,349 tonnes last year from 4,184 tonnes in 2015, the analysts said, the lowest in seven years. That helped lift the net surplus in the gold market to 1,176 tonnes, up from just 220 tonnes in 2015 and the biggest physical surplus this century. Political tensions linked to the new Trump presidency in the United States, the progress of Britain's departure from the European Union, and a host of elections in Europe may spark renewed gold demand later in the year. That led GFMS to forecast gold prices averaging at \$1,259 an ounce in 2017.

Indian gold demand dropped as well

Indian gold demand slid to its lowest since 2003 last year at 580 tonnes, down by one third year-on-year. Jewellery demand in China, the world's biggest consumer of the precious metal, fell 15% in the last quarter to 146.6 tonnes. Global jewellery fabrication, the largest single demand segment for the metal, fell by more than one fifth last year, while central bank buying slipped 42 percent to 252 tonnes. Retail investment fell 12% to 986 tonnes in the full year, but rose 6 percent in the final quarter. North American retail investment rose by nearly one third in the last three months of the year, with U.S. buying rising 27%.

Global economies | Foreign exchange markets

IMF: A shifting global economic landscape

After a lackluster outturn in 2016, economic activity is projected to pick up pace in 2017 and 2018, especially in emerging market and developing economies. However, there is a wide dispersion of possible outcomes around the projections, given uncertainty surrounding the policy stance of the incoming U.S. administration and its global ramifications.

Near-term growth prospects largely unchanged, the main revisions for China (up) and the rest of BRIC countries, all revised down.

The assumptions underpinning the forecast should be more specific by the time of the April 2017 World Economic Outlook, as more clarity emerges on U.S. policies and their implications for the global economy. At the moment aggregate growth estimates and projections for 2016–18 remain unchanged relative to the October 2016 World Economic Outlook. The outlook for advanced economies has improved for 2017–18, reflecting somewhat stronger activity in the second half of 2016 as well as a projected fiscal stimulus in the United States. Growth prospects have marginally worsened for emerging market and developing economies, where financial conditions have generally tightened. Near-term growth prospects were revised up for China, due to expected policy stimulus, but were revised down for a number of other large economies—most notably India, Brazil, and Mexico.

Overview of the World Economic Outlook Projections






Country	2016E	2017F	2018F
World	3,1	3,4	3,6
Advanced economies	1,6	1,9	2,0
USA	1,6	2,3	2,5
Euro Area	1,7	1,6	1,6
Japan	0,9	0,8	0,5
Russia	-0,6	1,1	1,2
China	6,7	6,5	6,0
India	6,6	7,2	7,7
Brazil	-3,5	0,2	1,5

This forecasts is taking consideration the assumption of a changing policy mix under a new administration in the United States and its global spillovers. The IMF analysts now project some near-term fiscal stimulus and a less gradual normalization of monetary policy. While the balance of risks is viewed as being to the downside, there are also upside risks to near-term growth. Specifically, global activity could accelerate more strongly if policy stimulus turns out to be larger than currently projected in the United States or China. Notable negative risks to activity include a possible shift toward inward-looking policy platforms and protectionism, a sharper than expected tightening in global financial conditions that could interact with balance sheet weaknesses in parts of the euro area and in some emerging market economies, increased geopolitical tensions, and a more severe slowdown in China.

Source: IMF, KGHM Polska Miedź

Macroeconomic calendar

Important macroeconomic data releases

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²	
China 							
★★★★★	20-Jan	GDP (yoy)	4Q	6.8% ▲	6.7%	6.7%	▲
★★★★★	20-Jan	GDP (sa, qoq)	4Q	1.7% ▼	1.8%	1.7%	○
★★★★	20-Jan	Industrial production (yoy)	Dec	6.0% ▼	6.2%	6.1%	●
★★	20-Jan	Fixed assets investments (ytd, yoy)	Dec	8.1% ▼	8.3%	8.3%	●
★	20-Jan	Retail sales (yoy)	Dec	10.9% ▲	10.8%	10.7%	▲
★★	26-Jan	Industrial profits (yoy)	Dec	2.3% ▼	14.5%	--	
Poland 							
★★★★	16-Jan	Core CPI (excluding food and energy, yoy)	Dec	0.0% ▲	-0.1%	0.0%	○
★★	18-Jan	Average gross salary (yoy)	Dec	2.7% ▼	4.0%	4.0%	●
★	18-Jan	Employment (yoy)	Dec	3.1% -	3.1%	3.0%	▲
★★★★	19-Jan	Sold industrial production (yoy)‡	Dec	2.3% ▼	3.1%	1.6%	▲
★★★	19-Jan	Retail sales (yoy)	Dec	6.4% ▼	6.6%	6.5%	●
★★	19-Jan	Producer inflation PPI (yoy)‡	Dec	3.0% ▲	1.8%	2.6%	▲
★★	25-Jan	Unemployment rate	Dec	8.3% ▲	8.2%	8.3%	○
US 							
★★★★	18-Jan	Consumer inflation CPI (mom)	Dec	0.3% ▲	0.2%	0.3%	○
★★★★	18-Jan	Consumer inflation CPI (yoy)	Dec	2.1% ▲	1.7%	2.1%	○
★★★★	18-Jan	Industrial production (mom)‡	Dec	0.8% ▲	-0.7%	0.6%	▲
★	18-Jan	Capacity utilization‡	Dec	75.5% ▲	74.9%	75.4%	▲
★★	19-Jan	Philadelphia Fed business outlook‡	Jan	23.6 ▲	19.7	15.3	▲
★★★	24-Jan	Manufacturing PMI - preliminary data	Jan	--	54.3	54.5	
★	24-Jan	Richmond Fed manufacturing index	Jan	12.0 ▲	8.0	7.0	▲
★★★	26-Jan	Composite PMI - preliminary data	Jan	--	54.1	--	
★★★	26-Jan	PMI services - preliminary data	Jan	--	53.9	54.4	
★★★★★	27-Jan	GDP (annualized, qoq) - estimation	4Q	1.9% ▼	3.5%	2.2%	●
★★	27-Jan	Durable goods orders - preliminary data‡	Dec	-0.4% ▲	-4.8%	2.5%	●
★★	27-Jan	University of Michigan confidence index - final data	Jan	98.5 ▲	98.1	98.1	▲
Eurozone 							
★	16-Jan	Trade balance (EUR mn)	Nov	25.9 ▲	20.1	24.3	▲
★	17-Jan	ZEW survey expectations	Jan	23.2 ▲	18.1	--	
★★★★	18-Jan	Consumer inflation CPI (yoy) - final data‡	Dec	1.1% ▲	0.6%	1.1%	○
★★★★	18-Jan	Core CPI (yoy) - final data	Dec	0.9% -	0.9%	0.9%	○
★★★★★	19-Jan	ECB main refinancing rate	Jan	0.00% -	0.00%	0.00%	○
★★★★★	19-Jan	ECB deposit facility rate	Jan	-0.4% -	-0.4%	-0.4%	○
★	23-Jan	Consumer confidence - estimation	Jan	-4.9 ▲	-5.1	-4.8	●
★★★	24-Jan	Composite PMI - preliminary data	Jan	--	54.4	54.5	
★★★	24-Jan	Manufacturing PMI - preliminary data	Jan	--	54.9	54.8	
★★★	24-Jan	Services PMI - preliminary data	Jan	--	53.7	53.8	
★	27-Jan	M3 money supply (yoy)	Dec	5.0% ▲	4.8%	4.9%	▲
Germany 							
★★★★	18-Jan	Harmonized consumer inflation HICP (yoy) - final data	Dec	1.7% -	1.7%	1.7%	○
★★★★	18-Jan	Consumer inflation CPI (yoy) - final data	Dec	1.7% -	1.7%	1.7%	○
★★★	24-Jan	Composite PMI - preliminary data	Jan	--	55.2	55.3	
★★★	24-Jan	Manufacturing PMI - preliminary data	Jan	--	55.6	55.4	
★★	25-Jan	IFO business climate	Jan	110 ▼	111	111	●
★★	26-Jan	GfK consumer confidence	Feb	10.2 ▲	9.9	10.0	▲

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
France						
☉☉☉	24-Jan	Composite PMI - preliminary data	Jan	--	53.1	53.2
☉☉☉	24-Jan	Manufacturing PMI - preliminary data	Jan	--	53.5	53.4
Italy						
☉☉☉☉	16-Jan	Harmonized consumer inflation HICP (yoy) - final data	Dec	0.5% -	0.5%	0.5% ○
UK						
☉☉☉☉	17-Jan	Consumer inflation CPI (yoy)	Dec	1.6% ▲	1.2%	1.4% ●
☉☉	18-Jan	Unemployment rate (ILO, 3-months)	Nov	4.8% -	4.8%	4.8% ○
☉☉☉☉☉	26-Jan	GDP (yoy) - estimation	4Q	2.2% -	2.2%	2.1% ●
☉☉☉☉☉	26-Jan	GDP (qoq) - estimation	4Q	0.6% -	0.6%	0.5% ●
Japan						
☉☉☉☉	17-Jan	Industrial production (yoy) - final data	Nov	4.6% -	4.6%	--
☉☉☉	24-Jan	Manufacturing PMI - preliminary data	Jan	--	52.4	--
☉☉☉☉	27-Jan	Consumer inflation CPI (yoy)	Dec	0.3% ▼	0.5%	0.2% ●
Chile						
☉☉☉☉☉	19-Jan	BCCh overnight rate target	Jan	3.25% ▼	3.50%	3.25% ○
Canada						
☉☉☉☉☉	18-Jan	BoC base rate decision	Jan	0.50% -	0.50%	0.50% ○
☉☉☉☉	20-Jan	Consumer inflation CPI (yoy)	Dec	1.5% ▲	1.2%	1.7% ●

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

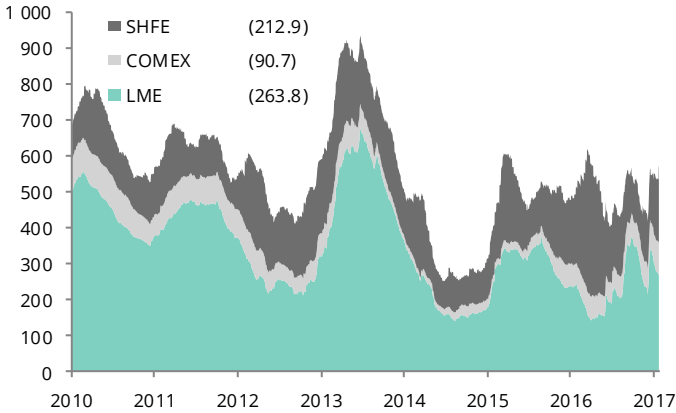
(as of: 27-Jan-17)

	Price	Price change °						From year beginning ²		
		2W	QTD	YTD	1Y	Average	Min	Max		
LME (USD/t)										
Copper	5 847.00	▲ 0.9%	▲ 6.3%	▲ 6.3%	▲ 28.4%	5 721.47	5 500.50	5 890.00		
Molybdenum	15 250.00	- 0.0%	- 0.0%	- 0.0%	▲ 27.1%	15 250.00	15 250.00	15 250.00		
Nickel	9 380.00	▼ -7.3%	▼ -6.3%	▼ -6.3%	▲ 9.5%	10 015.00	9 380.00	10 450.00		
Aluminum	1 827.50	▲ 2.1%	▲ 6.7%	▲ 6.7%	▲ 19.7%	1 788.37	1 701.00	1 870.00		
Tin	19 975.00	▼ -5.7%	▼ -5.3%	▼ -5.3%	▲ 43.2%	20 840.26	19 875.00	21 300.00		
Zinc	2 762.00	▲ 1.5%	▲ 7.8%	▲ 7.8%	▲ 74.3%	2 702.97	2 530.00	2 814.50		
Lead	2 365.00	▲ 6.5%	▲ 19.1%	▲ 19.1%	▲ 41.7%	2 226.08	2 007.00	2 390.00		
LBMA (USD/troz)										
Silver	16.70	▼ -0.4%	▲ 2.8%	▲ 2.8%	▲ 23.0%	16.77	15.95	17.14		
Gold ¹	1 184.85	▼ -0.5%	▲ 2.2%	▲ 2.2%	▲ 6.4%	1 191.54	1 151.00	1 216.80		
LPPM (USD/troz)										
Platinum ¹	965.00	▼ -0.6%	▲ 6.4%	▲ 6.4%	▲ 9.3%	970.37	929.00	993.00		
Palladium ¹	722.00	▼ -3.2%	▲ 6.8%	▲ 6.8%	▲ 44.7%	748.95	706.00	787.00		
FX ³										
EUR/USD	1.0681	▲ 0.2%	▲ 1.3%	▲ 1.3%	▼ -2.0%	1.0614	1.0385	1.0748		
EUR/PLN	4.3413	▼ -0.7%	▼ -1.9%	▼ -1.9%	▼ -2.6%	4.3721	4.3413	4.4002		
USD/PLN	4.0595	▼ -1.2%	▼ -2.9%	▼ -2.9%	▼ -0.7%	4.1164	4.0585	4.2271		
USD/CAD	1.3108	▼ -0.2%	▼ -2.4%	▼ -2.4%	▼ -6.9%	1.3205	1.3060	1.3438		
USD/CNY	6.8840	▼ -0.2%	▼ -0.9%	▼ -0.9%	▲ 4.7%	6.8953	6.8450	6.9640		
USD/CLP	648.31	▼ -2.2%	▼ -2.8%	▼ -2.8%	▼ -9.5%	662.44	648.31	673.36		
Money market										
3m LIBOR USD	1.039	▲ 0.02	▲ 0.04	▲ 0.04	▲ 0.42	1.025	0.999	1.043		
3m EURIBOR	-0.328	▼ 0.00	▼ -0.01	▼ -0.01	▼ -0.17	-0.326	-0.329	-0.319		
3m WIBOR	1.730	- 0.00	- 0.00	- 0.00	▲ 0.03	1.730	1.730	1.730		
5y USD interest rate swap	2.017	▲ 0.07	▲ 0.04	▲ 0.04	▲ 0.66	1.959	1.872	2.033		
5y EUR interest rate swap	0.198	▲ 0.12	▲ 0.12	▲ 0.12	▲ 0.08	0.119	0.078	0.198		
5y PLN interest rate swap	2.595	▲ 0.16	▲ 0.20	▲ 0.20	▲ 0.68	2.497	2.390	2.625		
Fuel										
WTI Cushing	53.17	▲ 1.5%	▼ -1.0%	▼ -1.0%	▲ 60.1%	52.49	50.82	53.99		
Brent	54.86	▼ -0.5%	▼ -1.0%	▼ -1.0%	▲ 66.0%	54.86	52.88	56.42		
Diesel NY (ULSD)	158.89	▼ -2.6%	▼ -6.4%	▼ -6.4%	▲ 54.3%	161.73	156.92	167.82		
Others										
VIX	10.58	▼ -0.65	▼ -3.46	▼ -3.46	▼ -11.84	11.57	10.58	12.85		
BBG Commodity Index	87.98	▼ -0.6%	▲ 0.5%	▲ 0.5%	▲ 15.6%	87.86	86.07	88.95		
S&P500	2 294.69	▲ 0.9%	▲ 2.5%	▲ 2.5%	▲ 21.2%	2 274.59	2 257.83	2 298.37		
DAX	11 814.27	▲ 1.6%	▲ 2.9%	▲ 2.9%	▲ 22.6%	11 622.47	11 521.04	11 848.63		
Shanghai Composite	3 159.17	▲ 1.5%	▲ 1.8%	▲ 1.8%	▲ 19.0%	3 136.33	3 101.30	3 171.24		
WIG 20	2 084.05	▲ 3.4%	▲ 7.0%	▲ 7.0%	▲ 18.7%	2 022.58	1 989.64	2 084.05		
KGHM	125.00	▲ 14.7%	▲ 35.2%	▲ 35.2%	▲ 123.2%	109.11	94.00	125.00		

° 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

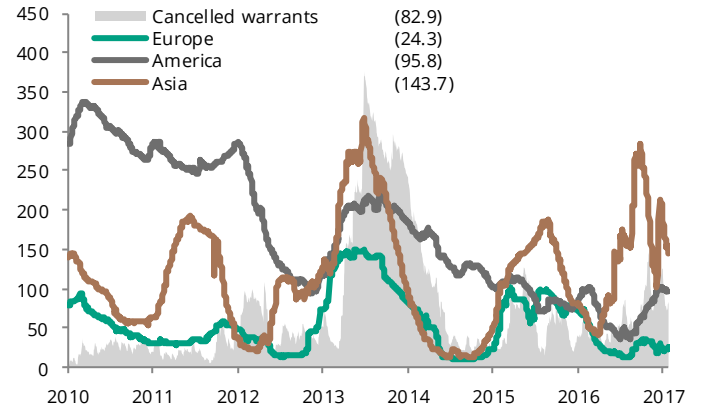
Source: Bloomberg, KGHM

Copper: official exchange stocks (thousand tonnes)



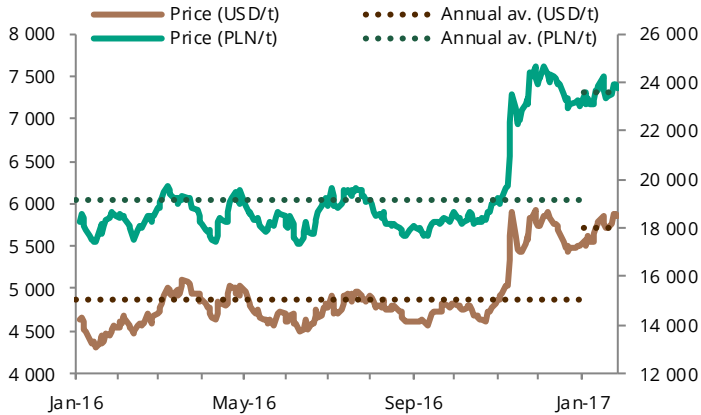
Note: Latest values in brackets. Source: Bloomberg, KGHM

Copper: official LME stocks (thousand tonnes)



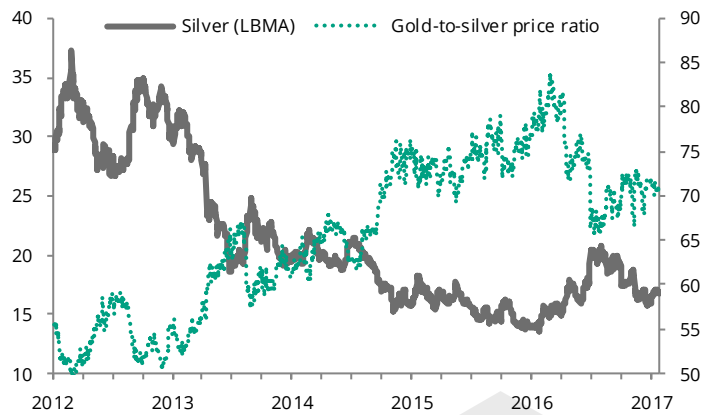
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



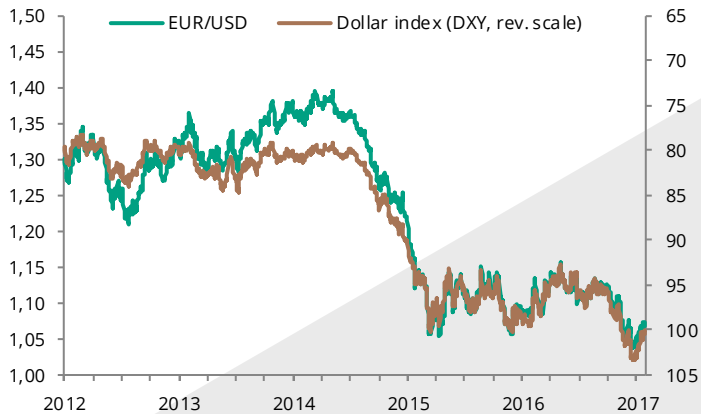
Source: Bloomberg, KGHM

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



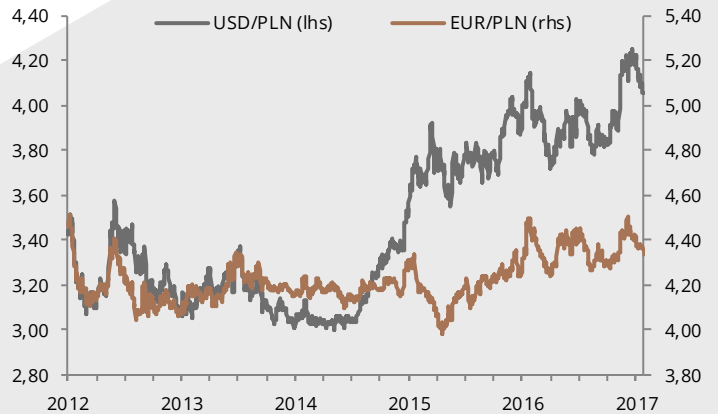
Source: Bloomberg, KGHM

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: **16th – 29th January 2017.**

- Barclays Capital, ▪ BofA Merrill Lynch, ▪ Citi Research, ▪ CRU Group, ▪ Deutsche 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

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