KGHM POLSKA MIEDŹ

Market Overview

as of: 19 November 2018

- **Copper:** In the last two weeks, Market Risk Unit employees participated in the annual CESCO Asia Copper Week conference organized by Metal Bulletin (Fastmarkets) and CESCO. The most frequent motif was the opinion that despite the good fundamentals of the copper market, the specter of escalating trade conflict between USA and China and the ambiguous macroeconomic data coming from the statistical offices of major global copper consumers continue to weigh on the metal's price *(page 2)*.
- **Precious metals:** China's domestic gold supply was still insufficient to meet the country's demand for the precious metal during this year's January-September period, with the supply deficit swelling by 8.2% on year to 476.9 tonnes, calculated based on statistics from the China Gold Association's *(page 6)*.
- **Brexit, US elections:** The United Kingdom and the EU have initially accepted the draft contract on withdrawal from the European Union, but Prime Minister Theresa May needs to receive further support for the project by the British parliament, including some members of her own group. In the US elections, Democrats reclaim the House of Representatives, while Republicans retain their majority in the Senate *(page 8)*.

Key market prices

		Close price	2w chng.
	LME (USD/t)		
▼	Copper	6 181.00	-0.9%
▼	Nickel	11 280.00	-3.4%
	LBMA (USD/troz)		
▼	Silver	14.29	-3.1%
▼	Gold (PM)	1 222.40	-0.8%
	FX		
▼	EURUSD	1.1346	-0.2%
▼	EURPLN	4.2950	-0.4%
▼	USDPLN	3.7876	-0.1%
▲	USDCAD	1.3154	0.4%
▼	USDCLP	678.49	-2.9%
	Stocks		
▲	KGHM	91.20	1.0%

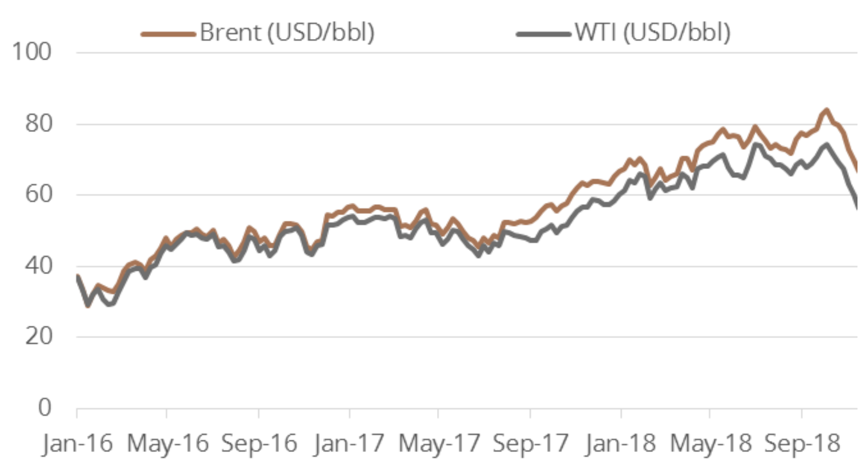
Source: Bloomberg, KGHM Polska Miedź; *(more on page 13)*

Important macroeconomic data

Release	For		
GDP (yoy)	3Q	5.1%	-
CPI (yoy)	Oct	2.5%	▲
GDP (sa, yoy)	3Q	1.7%	-
GDP (sa, yoy)	3Q	1.1%	▼
Econom. activity (yoy)	Sep	2.3%	▼

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

Oil price has fallen significantly in the recent weeks



Source: Bloomberg, KGHM Polska Miedź

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Please see important disclosures at the end of this document (page 15)

Base and precious metals | Other commodities

Copper

In the last two weeks, Market Risk Unit employees participated in the annual CESCO Asia Copper Week conference organized by Metal Bulletin (Fastmarkets) and CESCO. The most frequent motif was the opinion that despite the good fundamentals of the copper market, the specter of escalating trade conflict between USA and China and the ambiguous macroeconomic data coming from the statistical offices of major global copper consumers continue to weigh on the metal's price.

CESCO Asia Copper Week key takeaways

Raju Daswani, president of Fastmarkets, presented the state of the copper market and presented the events that shaped the price in 2018. In his speech, he analysed the development of copper price in 2018 and pointed out that its decrease was mainly due to macroeconomic forces. In support of his thesis, Daswani showed a linear relationship between currency markets (USD, CNY), inventories and the price of copper. The macroeconomic situation on the Chinese market was also commented, in which recent events are not conducive to the rebound of red metal prices. The most notable is the negative contribution from the power grid segment. According to the speaker, it is worth paying attention to the microeconomic factors of the copper market - decrease in inventories, switch in the forward curve from contango to backwardation (which may indicate tightness on the market) and an increase in physical premiums in China. These factors and other specific for the copper market contribute to a positive view of the situation and expectations for price increases in the coming quarters.

Jian Jiao, representative of Minmetals, spoke about infrastructural and, generally, sustainable development. The main idea, which quite well illustrates the strategic approach of China not only in the case of the copper market, was the rational extraction and processing of copper in China, in order to ensure the continuity of production of this metal in the long term for subsequent generations. Jian Jian sees very good foundations of the copper market. Technological development will affect copper extraction, which is needed for further electrification of the country. The main threats on the red metal market include: falling copper grades, no decision to build further mines, cost pressure, pressure of local communities and trade unions, etc. The development of the market and mining in general today requires sharing of business growth with the local community. Regarding the future - there is still a perception that China has been, is and will be the largest engine for the copper market. The speaker also spoke about the current situation in China, where the economy is slowing down. Minmetals representative also referred to the trade war between the US and China, claiming that the situation is short-term and China is still in the trend of opening to the world. As far as the socio-economic situation is concerned, the speaker notices a change in the quality of life – in the past the public cared more about new clothes, cars and apartments - but today it is also about the environment and its protection. Another trend that we are dealing with is the systematic closure of China for cash trading. Currently, most transactions are carried out on the Internet, cashless.

Another panel concentrated on Chinese economy and potential threats. One of the speakers (representative of asset management) qualified tightening of the monetary policy by the Fed and credit availability reduction (deleveraging) to the main risk factors. Regarding the economy, which is clearly slowing down (macroeconomic data are not stable in the recent period), one should expect stimulation, mainly through selective investments. From a global perspective, it is worth noting the problems in the euro area (Italy) and the change in the monetary policy of the G4 countries, in which the trend of central banks has changed in terms of balance - currently, mainly thanks to the Fed, the central banks' balance sheet balance is falling. Such actions translate into the strength of the US dollar, which according to the lecturers has a solid basis for further appreciation. According to the speakers, tax cuts in the US did not fully translate into an increase in investments in the US market - the labor market is still under considerable pressure (an increasing problem with finding hands to work), while new capacities are not being expanded. In terms of the copper market - the sentiment is currently pessimistic. Only in the case of positive solution in terms of trade war, investors will be able to return to the market and believe in it, since foundations look very attractive.

Another panel concentrated on the situation on the copper market in China. In terms of mining production in the Middle Kingdom, an increase of 3% is expected on an annual basis in 2019. The smelting capacity continues to grow, however, taking into account environmental controls, its growth will be partially offset by the closure of some of the existing obsolete mills. The shortage of material on the global market, according to the panellists, will likely take place in the middle of next year, which will translate into a deficit on the copper market after 2018. Mining companies that have done well in this year's negotiation of labour contracts and partly agreed to the terms dictated by trade unions have saved the market from larger deficit this year. In terms of the smelting input, it is worth noting the substitution of scrap with cathodes, which shows how important the secondary copper turnover is for production. Regarding the new production, one should notice not only a fairly small portfolio of new mining projects, significant from the point of view of the market balance, but also a tendency of a strong decrease in copper grades, which reduces the amount of copper from current production. In addition, shareholders still demand payment of dividends from mining companies rather than new investments. In terms of demand on the Chinese market, expected by BGRIMM at the level of 2-3%, a very good year in terms of air conditioners sales, which lies in contrast with the auto market, which has recently slowed significantly. The trade war between China and the US has a greater impact on investments in the copper market than consumption. In terms of the latter, the development of electric cars is the most dynamic, however, the Chinese government's subsidies for the purchase of EV are systematically decreasing, which may partially affect the decline in its dynamics in the subsequent quarters / years.

Copper Giant Sees Wider Deficit as China Bans Scrap Imports

Cochilco cut its forecast for copper prices

China's drive to curb pollution is deepening the supply gap in copper, according to a government agency in Chile, the largest producer of the metal. The Asian nation's demand for copper will rise 2.5 percent next year, faster than forecast in July, as producers of pipes and wires seek substitutes for imported scrap metal, Cochilco, as the Chilean copper commission is known, said Thursday. Beijing aims to halt shipments of machinery waste for recycling as it seeks to cut greenhouse gas emissions from heavy industries.

Consumers are already bracing for higher premiums to secure the metal as global supply tightens. Inventories tracked by the London Metal Exchange shrank to a decade low earlier this month as stockpiles monitored by exchanges in New York and Shanghai tumbled. Copper imports by China climbed 17 percent this year through October, according to Beijing-based customs data. "The rapid decrease in copper stockpiles available on the metals exchanges, together with higher-than-expected imports from China suggest that demand for copper will remain solid," Victor Garay, director of studies at Cochilco, said in a telephone interview. China is "stockpiling amid low prices," he said. Global production will trail consumption by 67,000 metric tons this year and that deficit will widen to 86,000 tons next year, Cochilco said in its quarterly report released Thursday. The supply outlook has dimmed since July when the commission predicted a 91,000 surplus next year.

The agency cut its forecast for copper prices as trade war concerns dragged the metal 16 percent lower this year. It now estimates the metal will average $2.97 per pound this year and $3.05 next, compared with a July forecast of $3 per pound this year and $3.10 for 2019. Copper futures rose 0.6 percent to $2.76 per pound at 11:33 a.m. on Comex in New York. The nation's copper scrap overseas purchases will drop by 300,000 metric tons this year because of the ban on shipments of used hardware, electrical cables and electrical motors set to take effect at the end of this year, analysts Yanting Zhou and Sifang Liu of Wood Mackenzie said in a note in May.

Congo Lifts Export Ban on Glencore's Copper and Cobalt Unit

A Glencore Plc unit in the Democratic Republic of Congo had a ban on imports and exports from its giant copper and cobalt mine lifted by authorities in the country. "They submitted a request," Jean Baptiste Nkongolo Kabila, director general of Congo's custom's agency, said Thursday by phone. "I have taken the decision to temporarily lift the suspension measures." Katanga Mining Ltd., which is controlled by Glencore, said in a statement earlier Thursday it had been blocked on Nov.9 from exporting copper and cobalt from Congo over a dispute around payments on copper that was never actually mined years ago. The Congo government is asking for $129.8 million to settle the dispute, a number rejected by Katanga.

Katanga Mining and its Kamoto copper and cobalt mine is one of Glencore's most important growth projects. It restarted production in December after a two-year hiatus during which it invested in new processing facilities. It had expected to produce as much as 300,000 metric tons of copper and 34,000 tons of cobalt in 2019, which would make it Congo's largest copper project and the world's biggest source of cobalt.

Last week, Katanga halted sales of cobalt after detecting levels of uranium in supplies above those allowed for export. While it doesn't plan to resume exports until the second half of next year, it will continue to mine and stockpile cobalt. Katanga's junior partner at Kamoto, state-owned Gecamines, said Wednesday it wasn't informed of the decision to stop cobalt sales. The order from the custom's agency to stop all imports and exports was Glencore's latest challenge in Congo in 2018. Earlier this year, it agreed to a $5.6 billion debt-to-equity swap at Katanga, effectively reducing the debt load of the subsidiary which Glencore co-owns with Gecamines. That deal also included a one-time payment of $150 million to Gecamines that raised concerns with some investors and non-governmental organizations. A spokesman for Glencore declined to comment. Katanga rose after the news that the ban would be lifted, climbing as much as 18 percent, after earlier falling the same amount. The shares were up 2.3 percent as of 2:09 p.m. in Toronto.

Other important information on copper market:

- The board of directors of Chilean miner Antofagasta has approved a $1.3 billion expansion of the company's flagship Los Pelambres copper mine in Chile, Chief Executive Ivan Arriagada said on Thursday. The expansion will produce additional ore equal to an extra 60,000 tonnes per year of refined copper over the first 15 years of the expansion project, lifting the mine's output for the first time in over a decade, Arrigada said. Construction will start in January, Arriagada told Reuters in an interview at Antofagasta's Shanghai representative office. The work involves adding an extra milling line and a desalination plant, he said. The company has previously said production would start in 2021. The comments come as global miners are gathered for the annual Asia Copper Week in Shanghai, where they are negotiating benchmark treatment and refining charges (TC/RCs) to process their copper concentrate into refined metal. The Pelambres expansion will increase treatment capacity from 175,000 tonnes to 190,000 tonnes per day of ore, Arriagada said. "In terms of fine copper, copper-contained, it's going to be 60,000 tonnes extra per year... which is around a 15 percent increase in production," he said.
- Chinese copper smelter Jiangxi Copper and miner Antofagasta have agreed 2019 copper treatment and refining charges (TC/RCs) at $80.80 a tonne and 8.08 cents a pound, three sources familiar with the matter said. This is the first major deal for the coming year, which typically sets the benchmark for the sector. The charges agreed between Jiangxi and Antofagasta are down

from the 2018 benchmark of $82.25 a tonne and 8.225 cents a pound. China is bringing on a lot of smelter capacity next year, just as a flood of mine supply funded during the boom years starts to subside. The nation is the world's largest consumer of copper. The fall marks a fourth consecutive drop in the annual TC/RC benchmarks since it was agreed at $107 a tonne for 2015.

- The London Metal Exchange is planning to hike fees for some of its services by up to two percent from next year, the exchange's chief executive Matt Chamberlain said, while charges for trading and clearing will remain unchanged. Revenues at the LME, owned by Hong Kong Exchanges and Clearing Ltd., totalled $187 million last year, down from $202 million in 2016. Volumes in 2017 amounted to 157 million lots, little changed from 156 million lots in 2016.
- India's refined copper consumption is set to more than double over the next eight years amid rising demand from the power, auto and consumer sectors, the chief executive of one of the country's top copper smelters said on Thursday. The nation's consumption of the metal is expected to rise to 1.433 million tonnes by 2026 from around 650,000 tonnes in 2018, Birla Copper Chief Executive Officer J.C. Laddha told delegates at the Asia Copper Conference in Shanghai. However, he added that this projection did not include the boost copper may receive from a boom in copper-intensive electric vehicles. "If you add that, I think by 2026 the total consumption would be 2.5 million tonnes," Laddha said. Birla Copper, a unit of Hindalco Industries, has around 430,000 tonnes per year of copper smelting capacity in India's western state of Gujarat. At a capacity utilisation rate of 80 percent, Indian smelters would be able to produce 843,000 tonnes of refined copper this year, Laddha said, versus projected demand of 642,000 tonnes. But that figure does not take into account the shutdown of Vedanta Ltd's 400,000 tonne per year copper smelter in May, Laddha later told Reuters in an interview on the sidelines of the conference.

Precious Metals

China's domestic gold supply was still insufficient to meet the country's demand for the precious metal during this year's January-September period, with the supply deficit swelling by 8.2% on year to 476.9 tonnes, calculated based on statistics from the China Gold Association's.

China's gold supply deficit widens over Jan-Sept

China's domestic gold supply was still insufficient to meet the country's demand

Over the past three quarters, China's gold consumption increased by 5.1% on year to 849.7 tonnes, while its gold output declined by a slight 0.6% on year to 372.8 tonnes, according to the association. China is the world's largest supplier and consumer of gold.

Gold demand from China's jewellery segment continued growing over January-September, with total gold demand in this segment increasing by 6.9% on year to 538.9 tonnes, the statistics showed. The lower gold price this year helped drive sales during the past three quarters, the association explained in the report. Though Chinese consumers in developed first- and second-tier cities prefer well-designed and high value-added gold jewellery products, high gold-content jewellery stayed popular in some less developed third- and fourth-tier cities, the report noted.

Meanwhile, demand for gold bars, the country's second largest application of the metal, slid by 5% on year to 210.9 tonnes over January-September, according to the statistics. The rate of decline in demand year-on-year has narrowed markedly from the 15.7% slump in demand over January-June, the data shows. This was partly due to increased hedging demand for gold from Chinese investors in Q3 when trade relations between China and USA deteriorated further during the same quarter.

A positive development over the nine months was the continuing buoyant demand for the metal for use in electronic devices which supported an overall surge in gold demand from China's industrial segment of 24.7% on year to 81.9 tonnes, the association added.

As for gold supply in China, the decline in output over the past three quarters was partly a consequence of the central government's ongoing environmental protection campaign this year, during which some gold mines with substandard pollution control facilities were ordered to reduce output or halt completely while rectification work is completed, the report noted.

Global economies | Foreign exchange markets

United Kingdom and UE signs draft of Brexit deal

The United Kingdom and the EU have initially accepted the draft contract on withdrawal from the European Union, but Prime Minister Theresa May needs to receive further support for the project by the British parliament, including some members of her own group.

The United Kingdom and the EU have initially accepted the draft contract on withdrawal from the European Union, but Prime Minister Theresa May needs to receive further support for the project by the British parliament, including some members of her own group, who claim that it may threaten the unity of United Kingdom. Not to mention the opposition Labor Party, whose leader Jeremy Corbyn explicitly described the agreement as "botched deal". Similar opinion was also presented by the Brexit – supporting Conservative Party.

The agreement will be based on the EU's existing system of financial market access known as equivalence - a watered-down relationship that officials in Brussels have said all along is the best arrangement that Britain can expect, which excludes major activities such as commercial bank lending. Such an agreement would allow similar access of British companies to the EU that larger American and Japanese companies have. Additionally, in some cases this type of access can be limited in just 30 days. The draft deal is likely to persuade banks, insurers and asset managers to stick with plans to move some activities to the EU to ensure they maintain access to the bloc's markets.

The remaining points of the contract, among others include:

- a free trade area and deep cooperation on goods, with zero tariffs and quotas,

- the ability of the UK to strike trade deals around the world,

- visa-free travel for tourism and temporary business activity, to ensure businesses can continue to provide services and move their talented people,

- a time-limited transition period that provides a bridge to the future relationship, allowing businesses to continue trading as now until the end of 2020. The deal includes provisions to extend the transition for a temporary period,

- divorce-bill the UK will have to pay was estimated at 39 billion pounds,

- rights of more than three million EU citizens living in the UK and around one million UK nationals living in the EU protected,

- a mechanism for resolving any disputes between the UK and the EU. First, disputes will be consulted on in a Joint Committee and, if no mutually agreed solution can be found, it will be resolved by an independent arbitration panel,

- the UK will be outside the EU's Common Agricultural Policy,

- the UK will be an independent coastal state, with commitments to ensure sustainable fishing levels and a new fisheries agreement with the EU.

How Democrats Could Help or Hurt Trump's Next Trade Policy Moves

In the US elections, Democrats reclaim the House of Representatives, while Republicans retain their majority in the Senate.

President Donald Trump may be encouraged to pursue more protectionism and could even get a hand from Democrats on his trade agenda -- a rare area of potential cooperation that will test his willingness to bargain with a new negotiating partner, likely to be Democratic leader Nancy Pelosi. Here are some areas where the White House and a new Democrat-controlled House of Representatives may agree and disagree:

China Trade War

Until Trump campaigned for the presidency, seeking a tougher stance on China had historically been a policy issue for Democrats. With the Republican president aligned with them, analysts see opportunities for cooperation between the White House and Democrats, though they won't see eye-to-eye on everything. One place Democrats could push for a tougher stance is on currencies. Trump promised on the presidential campaign trail that he would label China a currency manipulator, but has stopped short of doing so in the four foreign-exchange reports released since he took office in January 2017. "It would not surprise me at all to see a more aggressive push on currency," said Scott Paul, president of the Alliance for American Manufacturing, a coalition of domestic industry and the United Steelworkers. But he cautioned that it was very unlikely that there would be enough support in both the House and the Senate to pass a currency bill that Trump could sign into law.

New Nafta

At the top of Congress' 2019 agenda is a vote on the U.S.- Mexico-Canada Agreement that was struck in late-September to update the North American Free Trade Agreement. Trump and his counterparts are scheduled to sign the deal on the sidelines of the Nov. 30-Dec. 1 Group of 20 summit in Buenos Aires. Alden said that while Democrats will likely be skeptical of some of the provisions, including on patents, labor rights and environmental protections, they won't want to kill the deal. Trump can withdraw from Nafta to put pressure on lawmakers to pass his new agreement by setting up a six-month period before the U.S. is no longer party to the existing agreement. "I have no doubt Trump will pull the plug on Nafta if he can't get the USMCA through Congress," Alden said. Democrats could leverage their vote on Trump's trade deal and push for an infrastructure package that Trump has long promised and would align with their own priorities. "I don't know how much, if any, traction that would get but that's something that would be attractive for many folks," Paul said.

EU, Japan

The Trump administration starts trade talks with Japan and the European Union early next year. With Democrats in command of the House, these negotiations are expected to focus on autos and agriculture. There may not be a lot of daylight between Trump and the Democrats. Both will want to focus on those areas, and Democrats also have fewer concerns over labor and environmental issues in those talks. The majority of Democrats say the EU and Japan are fair trading partners -- a perception that has dramatically shifted in the past 25 years, according to a June 2018 Gallup survey. The poll shows 70 percent of Democrats -- versus 42 percent of Republicans -- say the EU is a fair trading partner and 65 percent of Democrats say Japan is a fair partner. In 1993, only 51 percent said so about the EU and 27 percent did about Japan. But Bruce Stokes, director of global economic attitudes at Pew Research Center, noted trade is a "very partisan issue" and said the survey results could therefore be more of a reflection of party politics and less a reflection of attitudes toward the matter.

National-Security Tariffs

Trump has threatened to impose tariffs on foreign cars and car parts in the name of national security. A Commerce Department report that could lead to tariffs is due by February and several attempts by lawmakers this year to limit Trump's unilateral tariff powers have failed. Lawmakers weren't able to block the president from slapping duties on imported steel and aluminum on national security grounds earlier this year. Alden said it seemed "highly unlikely" that would change with Democrats controlling the House because any legislation requires a two-thirds majority to override Trump's veto. Paul said that a "very aggressive action" on auto tariffs "could change the dynamic in the Congress somewhat." At the same time, he said "Democrats have a meaty agenda they will have to pursue, and reversing the Trump administration's trade agenda is not at the top of the list -- especially because they happen to agree with him." Former Trump economic adviser Gary Cohn said he didn't expect the Democrats' election gains will speed an end of the trade war. "I don't think there's an instant cure for the trade issue," Cohn told Bloomberg's New Economy Forum in Singapore as assembled business and political leaders digested the results Wednesday. "I wish that I could sit here and say, after the midterm elections, the White House and the administration understand they've gotta solve trade issues."

Macroeconomic calendar

Important macroeconomic data releases

Weight	Date	Event	For	Reading [1]		Previous	Consensus [2]
		China					
✪	07-Nov	Foreign reserves (USD bn)	Oct	3 053	▼	3 087	3 059
✪✪	08-Nov	Trade balance (USD bn)‡	Oct	34.0	▲	31.3	35.2
✪✪	08-Nov	Exports (yoy)‡	Oct	15.6%	▲	14.4%	11.7%
✪✪✪✪	09-Nov	Consumer inflation CPI (yoy)	Oct	2.5%	-	2.5%	2.5%
✪✪	09-Nov	Producer inflation PPI (yoy)	Oct	3.3%	▼	3.6%	3.3%
✪	13-Nov	New yuan loans (CNY bn)	Oct	697	▼	1 380	905
✪✪✪✪	14-Nov	Industrial production (yoy)	Oct	5.9%	▲	5.8%	5.8%
✪✪	14-Nov	Fixed assets investments (ytd, yoy)	Oct	5.7%	▲	5.4%	5.5%
✪	14-Nov	Retail sales (yoy)	Oct	8.6%	▼	9.2%	9.2%
		Poland					
✪✪✪✪✪	07-Nov	NBP base rate decision	Nov	1.50%	-	1.50%	1.50%
✪✪	13-Nov	Trade balance (EUR mn)‡	Sep	- 449	▼	- 376	- 107
✪✪	13-Nov	Exports (EUR mn)‡	Sep	17 683	▲	17 165	18 186
✪✪	13-Nov	Current account balance (EUR mn)‡	Sep	- 547	▲	- 582	- 376
✪✪✪✪✪	14-Nov	GDP (yoy) - preliminary data	3Q	5.1%	-	5.1%	4.6%
✪✪✪✪✪	14-Nov	GDP (qoq) - preliminary data‡	3Q	1.7%	▲	1.1%	0.9%
✪✪✪✪	14-Nov	Consumer inflation CPI (yoy) - final data	Oct	1.8%	▲	1.7%	--
✪✪✪✪	15-Nov	Core CPI (excluding food and energy, yoy)	Oct	0.9%	▲	0.8%	0.9%
		US					
✪✪✪	05-Nov	Composite PMI - final data‡	Oct	54.9	-	54.9	--
✪✪✪	05-Nov	PMI services - final data‡	Oct	54.8	-	54.8	54.6
✪✪✪✪✪	08-Nov	FOMC base rate decision - upper bound (Fed)	Nov	2.25%	-	2.25%	2.25%
✪✪✪✪✪	08-Nov	FOMC base rate decision - lower bound (Fed)	Nov	2.00%	-	2.00%	2.00%
✪✪	09-Nov	University of Michigan confidence index - preliminary data	Nov	98.3	▼	98.6	98.0
✪✪✪✪	14-Nov	Consumer inflation CPI (mom)	Oct	0.3%	▲	0.1%	0.3%
✪✪✪✪	14-Nov	Consumer inflation CPI (yoy)	Oct	2.5%	▲	2.3%	2.5%
✪✪	15-Nov	Philadelphia Fed business outlook	Nov	12.9	▼	22.2	20.0
✪✪	15-Nov	Retail sales (excluding autos, mom)	Oct	0.7%	▲	-0.1%	0.5%
✪✪✪✪	16-Nov	Industrial production (mom)‡	Oct	0.1%	▼	0.2%	0.2%
✪	16-Nov	Capacity utilization‡	Oct	78.4%	▼	78.5%	78.2%
		Eurozone					
✪✪✪	06-Nov	Composite PMI - final data‡	Oct	53.1	-	53.1	52.7
✪✪✪	06-Nov	Services PMI - final data‡	Oct	53.7	-	53.7	53.3
✪✪	06-Nov	Producer inflation PPI (yoy)‡	Sep	4.5%	▲	4.3%	4.3%
✪✪	07-Nov	Retail sales (yoy)‡	Sep	0.8%	▼	2.2%	0.9%
✪	13-Nov	ZEW survey expectations	Nov	- 22.0	▼	- 19.4	--
✪✪✪✪✪	14-Nov	GDP (sa, yoy) - preliminary data	3Q	1.7%	-	1.7%	1.7%
✪✪✪✪✪	14-Nov	GDP (sa, qoq) - preliminary data	3Q	0.2%	-	0.2%	0.2%
✪✪✪✪	14-Nov	Industrial production (sa, mom)‡	Sep	-0.3%	▼	1.1%	-0.4%
✪✪✪✪	14-Nov	Industrial production (wda, yoy)‡	Sep	0.9%	▼	1.1%	0.3%
✪	15-Nov	Trade balance (EUR mn)‡	Sep	13.1	▲	12.0	--
✪✪✪✪	16-Nov	Consumer inflation CPI (yoy) - final data‡	Oct	2.2%	▲	2.1%	2.2%
✪✪✪✪	16-Nov	Core CPI (yoy) - final data	Oct	1.1%	-	1.1%	1.1%

Weight	Date	Event	For	Reading [1]		Previous	Consensus [2]	
		Germany						
✪✪✪	06-Nov	Composite PMI - final data‡	Oct	53.4	▪	53.4	52.7	◓
✪✪✪	06-Nov	Factory orders (wda, yoy)‡	Sep	-2.2%	▼	-1.8%	-2.8%	◓
✪✪✪✪	07-Nov	Industrial production (wda, yoy)‡	Sep	0.8%	▲	0.2%	0.5%	◓
✪✪✪✪	13-Nov	Harmonized consumer inflation HICP (yoy) - final data	Oct	2.4%	▪	2.4%	2.4%	○
✪✪✪✪	13-Nov	Consumer inflation CPI (yoy) - final data	Oct	2.5%	▪	2.5%	2.5%	○
✪✪✪✪✪	14-Nov	GDP (yoy) - preliminary data	3Q	1.1%	▼	2.3%	1.2%	◒
✪✪✪✪✪	14-Nov	GDP (sa, qoq) - preliminary data	3Q	-0.2%	▼	0.5%	-0.1%	◒
		France						
✪✪✪	06-Nov	Composite PMI - final data‡	Oct	54.1	▪	54.1	54.3	◒
✪✪✪✪	09-Nov	Industrial production (yoy)‡	Sep	-1.1%	▼	1.5%	1.1%	◒
✪✪✪✪	14-Nov	Harmonized consumer inflation HICP (yoy) - final data	Oct	2.5%	▪	2.5%	2.5%	○
✪✪✪✪	14-Nov	Consumer inflation CPI (yoy) - final data	Oct	2.2%	▪	2.2%	2.2%	○
		Italy						
✪✪✪	06-Nov	Composite PMI	Oct	49.3	▼	52.4	51.0	◒
✪✪✪✪	12-Nov	Industrial production (wda, yoy)	Sep	1.3%	▲	-0.8%	0.5%	◓
✪✪✪✪	16-Nov	Harmonized consumer inflation HICP (yoy) - final data	Oct	1.7%	▪	1.7%	1.7%	○
		UK						
✪✪✪	05-Nov	Composite PMI	Oct	52.1	▼	54.1	53.4	◒
✪✪✪✪✪	09-Nov	GDP (yoy) - preliminary data	3Q	1.5%	▲	1.2%	1.5%	○
✪✪✪✪✪	09-Nov	GDP (qoq) - preliminary data	3Q	0.6%	▲	0.4%	0.6%	○
✪✪✪✪	09-Nov	Industrial production (yoy)‡	Sep	0.0%	▼	1.0%	0.4%	◒
✪✪	13-Nov	Unemployment rate (ILO, 3-months)	Sep	4.1%	▲	4.0%	4.0%	◓
✪✪✪✪	14-Nov	Consumer inflation CPI (yoy)	Oct	2.4%	▪	2.4%	2.5%	◒
		Japan						
✪✪✪	05-Nov	Composite PMI	Oct	52.5	▲	50.7	--	
✪✪✪✪✪	14-Nov	GDP (annualized, qoq) - preliminary data	3Q	-1.2%	▼	3.0%	-1.0%	◒
✪✪✪✪✪	14-Nov	GDP (qoq, sa) - preliminary data‡	3Q	-0.3%	▼	0.8%	-0.3%	○
✪✪✪✪	14-Nov	Industrial production (yoy) - final data‡	Sep	-2.5%	▪	-2.5%	--	
		Chile						
✪✪✪✪	05-Nov	Economic activity (yoy)	Sep	2.3%	▼	3.2%	2.0%	◓
✪✪✪	07-Nov	Copper exports (USD mn)‡	Oct	3 155	▲	2 886	--	
✪✪	07-Nov	Nominal wages (yoy)‡	Sep	4.5%	▲	3.6%	2.6%	◓
✪✪✪✪	08-Nov	Consumer inflation CPI (yoy)	Oct	2.9%	▼	3.1%	2.9%	○
		Canada						
		No major data in the period						

[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 Polska Miedź

Key market data

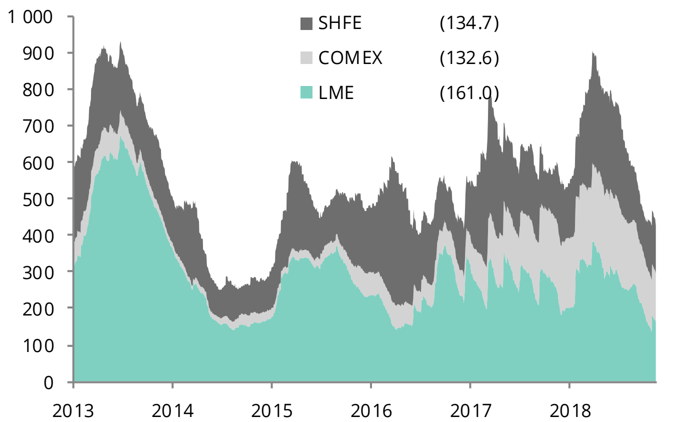
Key base & precious metal prices, exchange rates and other important market factors

(as of: 16-Nov-18)	Price	Price change[1]				From year beginning[2]		
		2W	QTD	YTD	1Y	Average	Min	Max
LME (USD/t)								
Copper	6 181.00	-0.9%	0.0%	-13.6%	-8.6%	6 572.25	5 823.00	7 262.50
Molybdenum	26 000.00	0.0%	0.0%	62.5%	62.5%	23 680.80	16 000.00	26 000.00
Nickel	11 280.00	-3.4%	-9.6%	-8.0%	-2.5%	13 414.08	11 225.00	15 750.00
Aluminum	1 914.00	-2.3%	-4.8%	-14.6%	-9.1%	2 133.37	1 914.00	2 602.50
Tin	19 450.00	1.9%	2.6%	-2.1%	-1.5%	20 281.07	18 675.00	22 105.00
Zinc	2 641.00	3.6%	2.6%	-20.2%	-17.6%	2 960.97	2 287.00	3 618.00
Lead	1 960.00	0.6%	-2.1%	-21.4%	-19.1%	2 279.18	1 867.00	2 683.00
LBMA (USD/troz)								
Silver	14.29	-3.1%	-0.1%	-15.3%	-16.2%	15.85	13.97	17.52
Gold[2]	1 222.40	-0.8%	3.0%	-5.7%	-4.5%	1 272.11	1 178.40	1 354.95
LPPM (USD/troz)								
Platinum[2]	842.00	-2.4%	3.3%	-9.2%	-9.6%	888.83	772.00	1 020.00
Palladium[2]	1 178.00	4.6%	7.7%	11.6%	19.8%	1 005.77	849.00	1 178.00
FX [3]								
EURUSD	1.1346	-0.2%	-2.0%	-5.4%	-3.6%	1.1865	1.1261	1.2493
EURPLN	4.2950	-0.4%	0.6%	3.0%	1.4%	4.2575	4.1423	4.3978
USDPLN	3.7876	-0.1%	3.1%	8.8%	5.3%	3.5906	3.3173	3.8268
USDCAD	1.3154	0.4%	1.6%	4.9%	3.2%	1.2903	1.2288	1.3310
USDCNY	6.9380	0.2%	1.0%	6.6%	4.6%	6.5800	6.2690	6.9757
USDCLP	678.49	-2.9%	2.6%	10.3%	7.4%	636.74	588.28	698.56
Money market								
3m LIBOR USD	2.645	0.06	0.25	0.95	1.21	2.249	1.696	2.645
3m EURIBOR	-0.316	0.00	0.00	0.01	0.01	-0.323	-0.329	-0.316
3m WIBOR	1.720	0.00	0.00	0.00	-0.01	1.709	1.700	1.720
5y USD interest rate swap	3.023	-0.15	-0.05	0.78	0.90	2.870	2.283	3.214
5y EUR interest rate swap	0.322	-0.04	-0.07	0.01	0.12	0.364	0.224	0.509
5y PLN interest rate swap	2.498	-0.02	-0.02	0.00	-0.02	2.483	2.280	2.740
Fuel								
WTI Cushing	56.46	-10.5%	-22.9%	-6.6%	2.4%	66.90	55.69	76.41
Brent	66.32	-8.1%	-20.0%	-0.7%	8.6%	72.97	62.33	86.09
Diesel NY (ULSD)	207.37	-5.7%	-11.7%	0.5%	9.2%	212.94	183.32	243.40
Others								
VIX	18.14	-1.82	6.02	7.10	6.38	15.80	9.15	37.32
BBG Commodity Index	83.91	-0.3%	-1.5%	-4.8%	-2.0%	86.81	82.14	91.57
S&P500	2 736.27	-0.1%	-6.1%	2.3%	5.8%	2 763.71	2 581.00	2 930.75
DAX	11 341.00	-1.3%	-7.4%	-12.2%	-13.1%	12 424.44	11 191.63	13 559.60
Shanghai Composite	2 679.11	0.5%	-5.0%	-19.0%	-21.2%	2 993.32	2 486.42	3 559.47
WIG 20	2 165.46	-3.1%	-5.2%	-12.0%	-10.2%	2 292.76	2 082.77	2 630.37
KGHM	91.20	1.0%	2.4%	-18.0%	-17.6%	94.57	82.56	115.00

° 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].

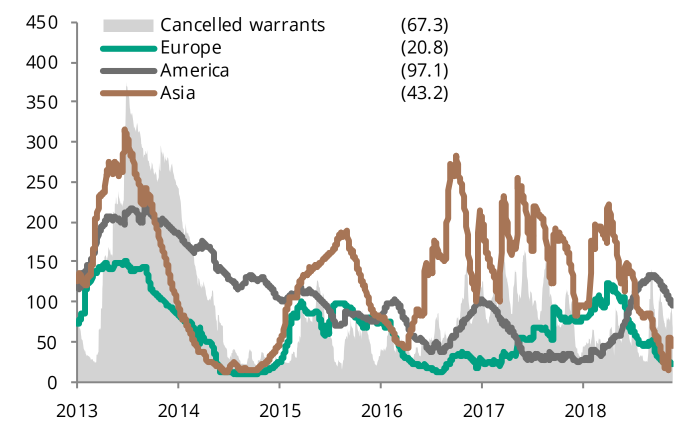
Source: Bloomberg, KGHM Polska Miedź

Copper: official exchange stocks (thousand tonnes)



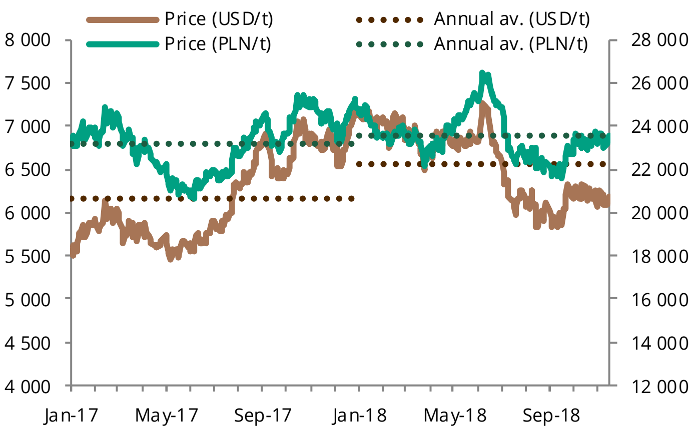
Note: Latest values in brackets. Source: Bloomberg, KGHM

Copper: official LME stocks (thousand tonnes)



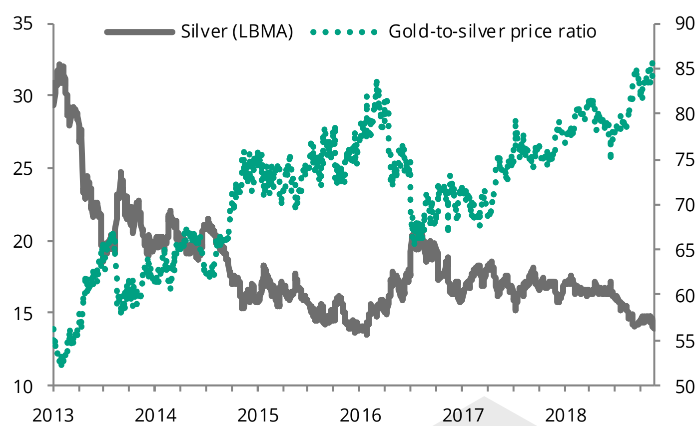
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



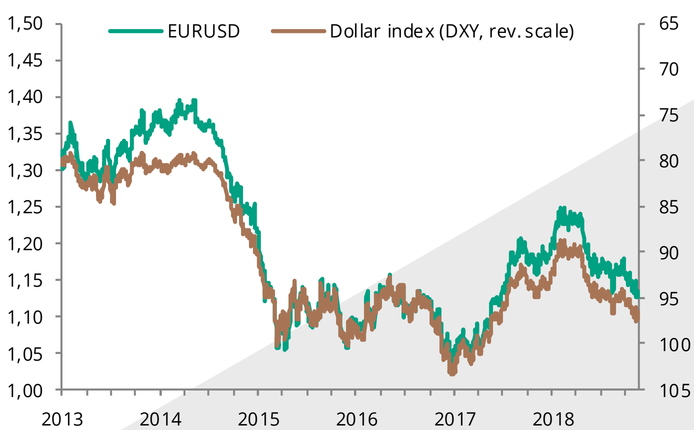
Source: Bloomberg, KGHM Polska Miedź

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



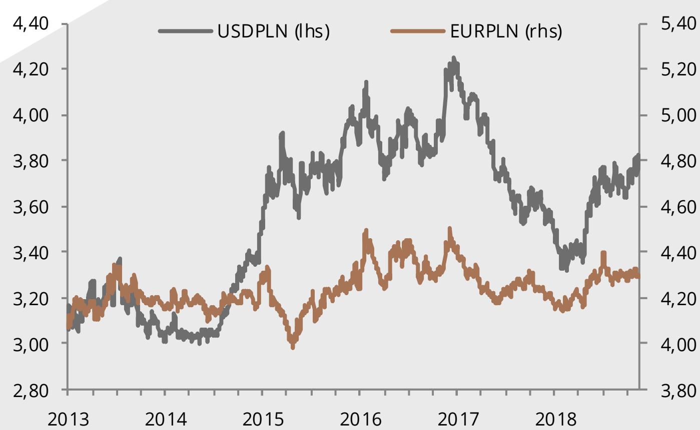
Source: Bloomberg, KGHM Polska Miedź

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



Source: Bloomberg, KGHM Polska Miedź

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



Source: Bloomberg, KGHM Polska Miedź

Legal note

This document has been prepared based on the below listed reports, among others, published in the following period: **5th – 18th November 2018.**

▪ Barclays Capital, ▪ BofA Merrill Lynch, ▪ Citi Research, ▪ CRU Group, ▪ Deutsche Bank Markets Research, ▪ Gavekal Dragonomics, ▪ Goldman Sachs, ▪ JPMorgan, ▪ Macquarie Capital Research, ▪ Mitsui Bussan Commodities, ▪ Morgan Stanley Research, ▪ SMM Information & Technology, ▪ Sharps Pixley.

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, , also: Bloomberg and 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

In case of questions or comments please contact us:

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