

Market Overview

- Copper: Exports of copper concentrate from world's second-largest copper mine are expected to drop to 200 000 tonnes in 2019 from about 1.2 mln tonnes last year. Output decline is the result of the switch from the depleting open pit to a underground mine (page 2).
- Precious metals: Although down on the year, gold is getting ready to ring in 2019 on a strong note as it ends December with its best monthly gains since January 2017. Its good performance is the expectations of less Fed rate hikes and J. Powell commitment to react once the economic situation worsens (page 4).
- China: China's central bank is trying to secure liquidity to the slowing economy, by cutting reserves cash lenders must hold. Latest data showed a worsening picture for the world's second largest economy (page 6).

Shanghai Composite Index hit a four-year low



Source: KGHM Polska Miedź, Bloomberg



Key market prices

		Close price	2w chng.
	LME (USD/t)		
\blacksquare	Copper	5 926.50	-0.6%
	Nickel	11 400.00	7.6%
	LBMA (USD/troz)		
	Silver	15.68	1.4%
	Gold (PM)	1 288.95	0.6%
	FX		
	EURUSD	1.1533	0.7%
\blacksquare	EURPLN	4.2957	-0.1%
\blacksquare	USDPLN	3.7289	-0.8%
\blacksquare	USDCAD	1.3259	-2.8%
\blacksquare	USDCLP	677.58	-2.5%
	Stocks		
Source	KGHM e: Bloomberg, KGHM Po	89.96 olska Miedź: <i>(mor</i>	1.2% e on page 9)

Important macroeconomic data									
	Release	For							
	Manufacturing PMI	Dec	53.8 ▼						
*:	Official manuf. PMI	Dec	49.4 ▼						
	Manufacturing PMI	Dec	47.6 ▼						
	Manufacturing PMI	Dec	51.4 =						
Sourc	Non-farm payrolls chng. e: Bloomberg, KGHM Polska Mied	Dec dź; (more or	312 ▲ n <u>page 7</u>)						



Base and precious metals | Other commodities

Copper

Exports of copper concentrate from world's second-largest copper mine are expected to drop to 200 000 tonnes in 2019 from about 1.2 mln tonnes last year. Output decline is the result of the switch from the depleting open pit to a underground mine.

Indonesia Forecasts Drop In Grasberg Copper Concentrate Exports In 2019

Copper concentrate exports from Indonesia's Grasberg mine, the world's second-largest copper mine, are forecast to plunge this year because of a lag in output as operations move from open pit to underground mining. In 2019, copper concentrate exports are expected to drop to 200,000 tonnes from about 1.2 million tonnes last year, said Yunus Saefulhak, the director of minerals at the Energy and Mineral Resources Ministry. Grasberg's operator, U.S. miner Freeport McMoRan Inc., has documented the output decline, which is the result of the switch from the depleting open pit mine early this year but before a massive expansion of a coexisting underground mine ramps up to full production. The output drop will cut Grasberg's revenue over the next few years just as Indonesia's state-owned miner PT Indonesia Asahan Aluminium (PT Inalum) takes over ownership of the U.S. miner's PT Freeport Indonesia unit.

Production will resume normally after 2022

Grasberg will produce around 1.2 million tonnes of copper concentrate this year, compared to 2.1 million tonnes in 2018, while domestic consumption will grow to 1 million tonnes compared to 800,000 tonnes in 2018, the ministry said. A spokesman for Inalum said the decline was in line with expectations. "Production will resume normally after 2022, and Inalum has forecast net profit to average more than \$2 billion annually when the transition is slated to be completed after 2022," Inalum spokesman Rendi Witular told Reuters. Revenues of Freeport Indonesia, in which Inalum holds a majority stake, are expected to drop to \$3.1 billion in 2019 from \$6.3 billion in 2018, and peak again at \$7.5 billion in 2023, according to data provided by Inalum. While the resulting decline in government taxes collected from Grasberg was expected to be relatively minor, the government would need to be mindful of the mine's production over the longer term, said Yustinus Prastowo, executive director of the Center for Indonesia Taxation Analysis. Recently appointed Freeport Indonesia Chief Executive Officer Tony Wenas said last month that Grasberg output would begin to climb again in 2020, although the company said in October output would be "significantly" impacted until 2021.



Other important information on copper market:

- Vedanta Ltd. cut production at its copper unit in Zambia as the company blamed new mining taxes for making some operations unviable, according to a document seen by Bloomberg. In the letter distributed to employees on Friday, Konkola Copper Mines said it has downsized output at the Nchanga smelter after Africa's second-biggest copper producer introduced a 5 percent levy on imported concentrates. The smelter's "current margins are thin and completely eroded through this impact, resulting in high production costs and operational losses," it said. Lower production of concentrates at the smelter will also affect other operations, according to the document. KCM will continue talks with the government about the matter and is confident that it"will resolve this to the benefit of all stakeholders," company spokesman Eugene Chungu said by text message, without confirming that operations will be curtailed. Zambian lawmakers in December passed a bill that raised the import levy and increased royalties from this month, a move the industry said could lead to more than 21,000 job losses and operators cutting \$500 million in capital spending over the next three years. Already, First Quantum Minerals Ltd., which accounts for more than half of the nation's cooper output, has announced plans to cut 2,500 jobs at its two mines.
- Rio Tinto and Mongolia have signed a deal for the supply of power to the miner's giant copper mine extension at Oyu Tolgoi by mid-2023, with both sides saying the framework agreement marked a step forward after a protracted dispute. The Oyu Tolgoi project is central to Rio Tinto's push to diversify its portfolio away from iron ore, but it has faced a series of challenges as Mongolia's fragile government wrangles over how to maximise benefits for the country. First production at the \$5.3 billion underground expansion located near the southern border with China is scheduled for early next decade, creating one of the world's biggest copper suppliers. The construction of a 300 megawatt plant, close to the Tavan Tolgoi coalfields, to supply electricity to the mine will start in 2020 under the new agreement. The plant is expected to be operational by mid-2023, slightly later than the 2022 date mooted after the government cancelled an earlier power agreement in February. Oyu Tolgoi would be the majority owner of the power plant, with funding possibly including third party debt, the statement said, without giving further details. A Mongolian government spokesman said the agreement was the first step to retain in the country the estimated \$150 million Oyu Tolgoi currently pays China for electricity each year, with the figure set to rise when the underground extension comes online. Rio Tinto in July entered agreements with three Chinese contractors on designing a power station to supply Oyu Tolgoi.
- Chile's largest copper mines posted mixed results through November of 2018, with a slight drop in output at state miner Codelco offset by a surge in production from Escondida, the world's largest copper mine. In all, copper production in the world's top producer of the red metal reached 5.33 million tonnes, a 6 percent increase over the same period the previous year.



Escondida, in northern Chile, produced 1.15 million tonnes through November, up 40.7 percent compared with the same period in 2017, when an historic strike shut down the mine for more than 40 days. Production from state-run miner Codelco's deposits reached 1.621 million tonnes in the first 11 months of 2018, a drop of 2.4 percent over the previous period with downturns at almost all its facilities. The country's second-largest mine by output Collahuasi, owned by Anglo American Plc and Glencore Plc, ramped up production by 5.8 percent to 502,600 tonnes.

Precious Metals

Although down on the year, gold is getting ready to ring in 2019 on a strong note as it ends December with its best monthly gains since January 2017. Its good performance is the expectations of less Fed rate hikes and J. Powell commitment to react once the economic situation worsens.

U.S. Mint American Eagle 2018 gold, silver coin sales at 11year lows

U.S. Mint sales of American Eagle gold and silver coins dropped to their lowest in 11 years during 2018, U.S. Mint data showed recently, as investors favored higher-yielding assets, despite global stock and bond market volatility late in the year. Total 2018 sales of American Eagle gold coins sold by the U.S. Mint reached 245,500 ounces, the lowest on a year-over-year basis since 2007. The Mint sold 3,000 ounces of gold coins in December, 85.4 percent lower than November sales, the data showed.

Silver coin sales were 15.7 million ounces, also the lowest since 2007 on an annual basis, according to the U.S. Mint. December American Eagle silver coin sales reached 490,000 ounces, down 70.2 percent from the month prior.

Investors concentrated on buying more older coins at lower premiums, U.S. dealers said. Sales of American Eagle coins by the U.S. Mint fell in consecutive months for the first five months of the year, the data showed. Sentiment changed in the summer, when a trade war between the United States and China sparked a temporary move toward safer assets. However, that momentum waned later in the year, even as stock markets slid further, because the U.S. dollar increased in value. This made dollar-denominated gold more expensive for holders using other currencies and a less attractive investment.

The U.S. Mint sold American Eagle palladium coins for the first time in 2017, but sold none in 2018. Just 30,000 ounces of American Eagle platinum coins were sold during 2018.

and silver coins dropped to their lowest in 11 years during 2018

U.S. Mint sales of American Eagle gold

Gold-backed ETFs gained globally in 2018, even with North America outflows



Gold-backed exchange-traded funds (ETFs) worldwide registered net inflows of \$3.4 billion, a 3 percent annual rise

Gold-backed exchange-traded funds ended 2018 with new inflows globally as uncertainty about Britain's exit from the EU drove investors to the perceived safety of European-backed ETFs, more than offsetting outflows in North America resulting from a strong U.S. dollar.

Gold-backed exchange-traded funds (ETFs) worldwide registered net inflows of \$3.4 billion, a 3 percent annual rise and increased by 69 tonnes to 2,440 tonnes in the year. This was the first year since 2012 that total gold-backed ETF holdings finished above \$100 billion, at \$100.6 billion, according to the World Gold Council.

Europe-based funds grew 10 percent during 2018, or by 96.8 tonnes worth \$4.5 billion, with Germany leading country inflows and UK-based funds following as concerns increased about Brexit. North American gold-backed ETFs experienced outflows in 2018, as gold prices weakened during the third quarter, the World Gold Council said. Holdings in North American gold-backed ETFs declined 1.3 percent by 13.4 tonnes worth \$667.4 million.

Gold prices and North American gold ETF flows turned positive in October when stock markets worldwide had their worst October since the 2008 financial crisis.

In December alone, gold-backed ETFs globally rose 3 percent, adding 76 tonnes worth \$3.1 billion, for a third-straight month of net inflows, largely driven by North American and European investment, World Gold Council data showed.

The Bank of Mongolia bought a total of 22 tons of gold in 2018, up 9.5 percent from the previous year

Mongolian central bank's purchase of gold expected to decrease in 2019

The Bank of Mongolia's purchase of gold is expected to decrease in 2019, according to the central bank's spokesperson. The 2014 amendments to the Minerals Law have played an important role in hiking gold sales to the Treasury Fund over the past five years, but the effective period of the law expired on Jan. 1, Ariun Dagva told Xinhua.

"Thus, gold purchase of the central bank is expected to decline significantly in 2019. The bank has not yet set a goal on the amount of gold to buy this year," Ariun said. The bank purchased only 12.7 tons of gold in 2014. Thanks to the low royalty taxes on gold with the 2014 amendments, the central bank's annual gold purchase almost doubled in 2018, she said. The Bank of Mongolia bought a total of 22 tons of gold from legal entities and individuals in 2018, up 9.5 percent from the previous year.



Global economies | Foreign exchange markets

PBOC Tweaks Liquidity Tap Again as China Growth Jitters Persist

China's central bank is trying to secure liquidity to the slowing economy, by cutting reserves cash lenders must hold. Latest data showed a worsening picture for the world's second largest economy.

The cut will release a net 800 billion yuan

China's central bank took a further step to secure liquidity to the slowing economy, amid investor jitters over the outlook and expectations that more easing moves are in the pipeline. The amount of cash lenders must hold as reserves will be cut by 1 percentage point, dropping by 0.5 percentage point on January 15 and a further 0.5 percentage point on January 25, the People's Bank of China said on its website. The cut will release a net 800 billion yuan (\$117 billion) of liquidity and will offset a funding squeeze ahead of the Chinese New Year, it said in separate statement. Latest data also showed a worsening picture for the world's second largest economy, with a manufacturing gauge falling into contraction, further depressing investor sentiment after a rough 2018. The Shanghai Composite Index hit a four-year low lately, and Apple Inc. shares plunged the most since 2013 after reporting it would miss a quarterly sales forecast because of slowing iPhone sales, especially in China. The latest reduction is the first all-inclusive required reserves cut since March 2016. It reduces the rate for major banks to 14 percent from Jan. 15 and 13.5 percent from Jan. 25.

China's top leaders have pledged to keep monetary policy prudent while striking an "appropriate" balance between tightening and loosening in 2019, as part of a broader effort to ratchet up stimulus to support growth. Today's cut is still "targeted" easing rather than wide-ranging stimulus, the PBOC said, adding that its "prudent monetary policy stance hasn't changed." Implementing the cut in two phases ensures "overall banking liquidity stays reasonable and sufficient while balancing internal and external factors to keep the yuan's exchange rate at a reasonable and equilibrium level," it said. The PBOC had cut reserve requirement ratios for some banks four times in 2018, and recently introduced a targeted version of its Medium-Term Lending Facility to supply lower-cost funding to banks, a move analysts see as a toned-down version of broad rate cut. China's official manufacturing purchasing managers index fell into contraction territory last month, the weakest since early 2016. Early indicators for December signal the economic slowdown is deepening, after official data showed industrial production growth was the weakest in a decade and industrial profits fell for the first time in almost three years in November.



Macroeconomic calendar

Important macroeconomic data releases

Weight	Date	Event	For	Reading ¹	Previous	Consensu	
		China				*:	
000	31-Dec	Official manufacturing PMI	Dec	49.4	50.0	50.0	
000	02-Jan	Caixin's manufacturing PMI	Dec	49.7	50.2	50.2	
00000	04-Jan	Reserve requirement ratio	Jan	14.0%	14.5%		
00000	04-Jan	Reserve requirement ratio	Jan	13.5%	14.0%		
9	07-Jan	Foreign reserves (USD bn)	Dec	3 073	3 062	3 072	
0000	10-Jan	Consumer inflation CPI (yoy)	Dec	1.9%	2.2%	2.1%	
00	10-Jan	Producer inflation PPI (yoy)	Dec	0.9%	2.7%	1.6%	
		Poland					
000	02-Jan	Manufacturing PMI	Dec	47.6	49.5	49.8	
0000	04-Jan	Consumer inflation CPI (yoy) - preliminary data	Dec	1.1%	1.3%	1.1%	
00000	09-Jan	NBP base rate decision	Jan	1.50% =	1.50%	1.50%	
		US					
)	31-Dec	Dallas Fed manufacturing activity	Dec	- 5.1 🔻	17.6	15.0	
000	02-Jan	Manufacturing PMI - final data	Dec	53.8	53.9	53.9	
00	03-Jan	ISM Manufacturing	Dec	54.1	59.3	57.5	
000	04-Jan	Composite PMI - final data	Dec	54.4	53.6		
000	04-Jan	PMI services - final data	Dec	54.4	53.4	53.4	
0	04-Jan	Change in non-farm payrolls (ths)‡	Dec	312	176	184	
0	04-Jan	Underemployment rate (U6)	Dec	7.6% =	7.6%		
0	04-Jan	Unemployment rate	Dec	3.9%	3.7%	3.7%	
,	04-Jan	Average hourly earnings (yoy)	Dec	3.2%	3.1%	3.0%	
0000	11-Jan	Consumer inflation CPI (mom)	Dec	-0.1%	0.0%	-0.1%	
0000	11-Jan	Consumer inflation CPI (yoy)	Dec	1.9%	2.2%	1.9%	
		Eurozone				1	
000	02-Jan	Manufacturing PMI - final data	Dec	51.4 =	51.4	51.4	
,	03-Jan	M3 money supply (yoy)	Nov	3.7%	3.9%	3.8%	
0000	04-Jan	Core CPI (yoy) - estimation	Dec	1.0% =	1.0%	1.0%	
0000	04-Jan	CPI estimate (yoy)	Dec	1.6%	2.0%	1.7%	
000	04-Jan	Composite PMI - final data	Dec	51.1	51.3	51.3	
000	04-Jan	Services PMI - final data	Dec	51.2	51.4	51.4	
0	04-Jan	Producer inflation PPI (yoy)	Nov	4.0%	4.9%	4.2%	
0	07-Jan	Retail sales (yoy)‡	Nov	1.1%	2.3%	0.4%	
•	08-Jan	Economic confidence	Dec	107	110	108	
,	08-Jan	Industrial confidence	Dec	1.1 ▼	3.4	3.0	
,	08-Jan	Consumer confidence - final data	Dec	- 6.2 =	- 6.2	- 6.2	
,	08-Jan	Business climate indicator‡	Dec	0.8	1.0	1.0	
0	09-Jan	Unemployment rate‡	Nov	7.9%	8.0%	8.1%	
		Germany					
000	02-Jan	Manufacturing PMI - final data	Dec	51.5 =	51.5	51.5	
000	04-Jan	Composite PMI - final data	Dec	51.6	52.2	52.2	
00	04-Jan	Unemployment rate	Dec	5.0% =	5.0%	5.0%	
000	07-Jan	Factory orders (wda, yoy)‡	Nov	-4.3%	-3.0%	-2.7%	
000	07-Jan	Retail sales (yoy)‡	Nov	1.1%	5.2%	-0.4%	
0000	08-Jan	Industrial production (wda, yoy)‡	Nov	-4.7% V	0.5%	-0.8%	



Weight	Date	ate Event		Reading ¹		Previous	Consensu	
		France						
000	02-Jan	Manufacturing PMI - final data	Dec	49.7	-	49.7	49.7	0
0000	04-Jan	Harmonized consumer inflation HICP (yoy) - preliminary data	Dec	1.9%	\blacksquare	2.2%	2.0%	_
0000	04-Jan	Consumer inflation CPI (yoy) - preliminary data	Dec	1.6%	\blacksquare	1.9%	1.8%	_
000	04-Jan	Composite PMI - final data	Dec	48.7	\blacksquare	49.3	49.4	_
0000	10-Jan	Industrial production (yoy)‡	Nov	-2.1%	\blacksquare	-0.6%	-0.2%	
		Italy						
000	02-Jan	Manufacturing PMI	Dec	49.2	A	48.6	48.4	
0000	04-Jan	Harmonized consumer inflation HICP (yoy) - preliminary data	Dec	1.2%	\blacksquare	1.6%	1.4%	
000	04-Jan	Composite PMI	Dec	50.0		49.3	49.3	
00	09-Jan	Unemployment rate - preliminary data	Nov	10.5%	\blacksquare	10.6%	10.5%	0
0000	11-Jan	Industrial production (wda, yoy)	Nov	-2.6%	\blacksquare	1.0%	0.4%	_
		UK						J
000	02-Jan	Manufacturing PMI (sa)‡	Dec	54.2	A	53.6	52.5	4
000	04-Jan	Composite PMI‡	Dec	51.4		50.8	50.8	
0000	11-Jan	Industrial production (yoy)‡	Nov	-1.5%	\blacksquare	-0.9%	-0.7%	_
		Japan						•
000	04-Jan	Manufacturing PMI - final data	Dec	52.6	A	52.4		
000	07-Jan	Composite PMI	Dec	52.0	\blacksquare	52.4		
		Chile					*	
000	31-Dec	Total copper production (metric tons)	Nov	540 720	A	495 923		
000	31-Dec	Manufacturing (yoy)	Nov	-4.7%	\blacksquare	9.1%	-1.0%	_
0000	07-Jan	Economic activity (yoy)	Nov	3.1%	\blacksquare	4.2%	2.0%	
000	07-Jan	Copper exports (USD mn)	Dec	3 489		2 986		
00	07-Jan	Nominal wages (yoy)	Nov	4.1%	-	4.1%		
0000	08-Jan	Consumer inflation CPI (yoy)	Dec	2.6%	\blacksquare	2.8%	2.6%	O
		Canada					ų.	*
000	04-Jan	Net change in employment (ths)	Dec	9.3	▼	94.1	10.0	
00000	09-Jan	BoC base rate decision	Jan	1.75%		1.75%	1.75%	O

¹ Reading difference to previous release: ▲ = higher than previous; ▼ = lower than previous; •= equal to previous.



Key market data

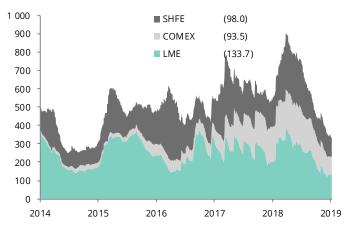
Key base & precious metal prices, exchange rates and other important market factors

(as of: 11-Jan-19)		Price change ¹								From year beginning ²			
(us 0j. 11-jun-19)	Price				1Y	Average Min Max							
LME (USD/t)	FIICE		200		QID		110			Average	IVIIII	IVIAX	
Copper	5 926.50	_	-0.6%	_	-0.6%	_	-17.2%	_	-16.8%	6 503,49	5 811.00	7 262.50	
Molybdenum	26 000.00	Ľ	0.0%		0.0%	Ă	62.5%	Ă	62.5%	24 009.58	16 000.00	26 000.00	
Nickel	11 400.00		7.6%		7.6%	_		_	-11.2%	13 057.22	10 440.00	15 750.00	
Aluminum	1 816.00	_	-2.9%	_	-2.9%		-19.0%		-16.7%	2 101.96	1 816.00	2 602.50	
Tin	20 500.00	Å	5.1%	Å	5.1%	, X	3.1%	Ă	1.3%	20 145.40	18 425.00	22 105.00	
Zinc	2 470.00		-1.6%	_	-1.6%		-25.4%	_	-27.8%	2 909.02	2 287.00	3 618.00	
Lead	1 961.50	Ť	-2.4%	Ť	-2.4%		-21.4%		-23.7%	2 233.52	1 867.00	2 683.00	
LBMA (USD/troz)	1 501.50	•	2.470	•	2.470	•	21.470	•	23.770	2 233.32	1 007.00	2 003.00	
Silver	 15.68		1.4%		1.4%	_	-7.0%	_	-7.8%	15.70	13.97	17.52	
Gold ²	1 288.95		0.6%	_	0.6%	_	-0.6%	_	-2.6%	1 269.10	1 178.40	1 354.95	
LPPM (USD/troz)				_		·		·					
Platinum ²	822.00		3.5%		3.5%	_	-11.3%	_	-16.2%	877.27	772.00	1 020.00	
Palladium ²	1 327.00		5.1%		5.1%				23.1%	1 038.43	849.00	1 337.00	
FX ³													
EURUSD	1.1533		0.7%		0.7%	_	-3.8%	_	-4.0%	1.1798	1.1261	1.2493	
EURPLN	4.2957	_	-0.1%	_	-0.1%		3.0%		2.9%	4.2629	4.1423	4.3978	
USDPLN	3.7289	_	-0.8%	•	-0.8%		7.1%		6.7%	3.6161	3.3173	3.8268	
USDCAD	1.3259	_	-2.8%	•	-2.8%		5.7%		5.8%	1.2970	1.2288	1.3642	
USDCNY	6.7630	_	-1.7%	•	-1.7%		3.9%		3.9%	6.6268	6.2690	6.9757	
USDCLP	677.58	_	-2.5%	\blacksquare	-2.5%		10.1%		11.2%	643.39	588.28	698.56	
Money market													
3m LIBOR USD	2.787	•	-0.02	\blacksquare	-0.02		1.09		1.07	2.322	1.696	2.824	
3m EURIBOR	-0.308		0.00		0.00		0.02		0.02	-0.322	-0.329	-0.308	
3m WIBOR	1.720	-	0.00	-	0.00	-	0.00	-	0.00	1.711	1.700	1.720	
5y USD interest rate swap	2.615		0.04		0.04		0.37		0.24	2.860	2.283	3.214	
5y EUR interest rate swap	0.197	•	0.00	\blacksquare	0.00	•	-0.12	\blacksquare	-0.18	0.347	0.136	0.509	
5y PLN interest rate swap	2.050	•	-0.08	\blacksquare	-0.08	•	-0.45	\blacksquare	-0.41	2.445	2.050	2.740	
Fuel	_												
WTI Cushing	51.59		13.6%		13.6%	•	-14.6%	\blacksquare	-19.1%	64.48	42.33	76.41	
Brent	59.81		12.5%		12.5%	•	-10.5%	\blacksquare	-13.8%	70.69	49.73	86.09	
Diesel NY (ULSD)	187.35		11.4%		11.4%	•	-9.2%	\blacksquare	-9.7%	208.67	166.60	243.40	
Others	_												
VIX	18.19	•	-7.23	\blacksquare	-7.23		7.15		8.31	16.78	9.15	37.32	
BBG Commodity Index	79.66		3.8%		3.8%	•	-9.6%	•	-9.8%	85.93	76.72	91.57	
S&P500	2 596.26		3.6%		3.6%	•	-2.9%	•	-6.2%	2 740.12	2 351.10	2 930.75	
DAX	10 887.46		3.1%		3.1%	•	-15.7%	•	-17.5%	12 222.73	10 381.51	13 559.60	
Shanghai Composite	2 553.83		2.4%		2.4%	•	-22.8%	•	-25.4%	2 929.57	2 464.36	3 559.47	
WIG 20	2 335.10		2.6%		2.6%	•	-5.1%	•		2 291.09	2 082.77	2 630.37	
KGHM	89.96		1.2%		1.2%	•	-19.1%	•	-21.3%	93.88	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

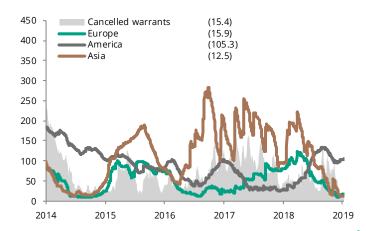


Copper: official exchange stocks (thousand tonnes)



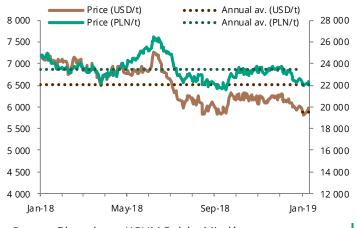
Note: Latest values in brackets. Source: Bloomberg, KGHM

Copper: official LME stocks (thousand tonnes)



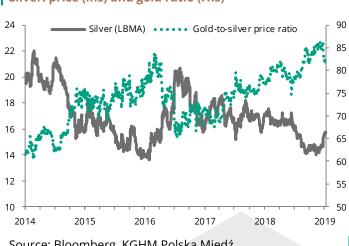
Note: Latest values in brackets. Source: Bloomberg, KGHM

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



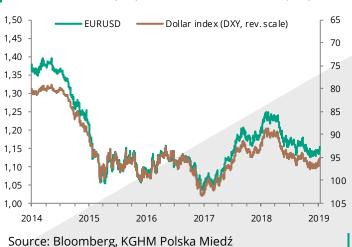
Source: Bloomberg, KGHM Polska Miedź

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



Source: Bloomberg, KGHM Polska Miedź

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



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: 31st Dec 2018 – 13th January 2019.

- 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,
 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

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