

Market Overview

- **Copper:** Chilean lawmakers have recently passed a measure abolishing an antiquated, decades-old law under which state-run Codelco, the world's largest copper miner, helped foot the bill for the country's military. Meanwhile, China's top copper smelters have recently lowered their floor treatment and refining charges (TC/RCs) for the third quarter by 24.7%. On the top of that, the global world refined copper market showed a 96,000 tonnes deficit in April, compared with a 42,000 tonnes deficit in March, the International Copper Study Group (ICSG) said in its latest monthly bulletin (*page 2*).
- Precious metals: June's gold purchases brought Russia's gold reserves to a total of 2,208 tons, according to the latest data released by the Central Bank of Russia (CBR). Russian gold reserves top \$100 billion in a push to move away from American dollar in its foreign exchange reserves (page 4).
- IMF WEO: Global growth remains subdued. Since the April World Economic Outlook (WEO) report, the United States further increased tariffs on certain Chinese imports and China retaliated by raising tariffs on a subset of US imports. Additional escalation was averted following the June G20 summit. Global technology supply chains were threatened by the prospect of US sanctions, Brexit-related uncertainty continued, and rising geopolitical tensions roiled energy prices (*page 7*).

July 2019 IMF real GDP growth forecasts' revisions



as of: 29th July 2019

Key market prices

		Close price	2w chng.
	LME (USD/t)		
▼	Copper	5 945.00	-0.9%
	Nickel	14 060.00	5.3%
	LBMA (USD/troz)		
	Silver	16.44	7.3%
	Gold (PM)	1 420.40	0.6%
	FX		
▼	EURUSD	1.1138	-1.2%
▼	EURPLN	4.2645	-0.1%
	USDPLN	3.8296	1.2%
	USDCAD	1.3182	1.1%
	USDCLP	694.16	1.9%
	Stocks		
	KGHM	96.50	1.3%
Source	: Bloomberg, KGHM Po	olska Miedź; (mor	e on <u>page 10</u>)

Important macroeconomic data								
	Release	For						
	GDP (annlzd., qoq)	2Q	2.1% 🔻					
*1	GDP (yoy)	2Q	6.2% 🔻					
	Retail sales (yoy)	Jun	5.3% 🔻					
	CPI (yoy)	Jun	1.3% 🔺					
*1	Industrial profits (yoy)	Jun	-3.1% 🔻					
Sourc	e: Bloomberg, KGHM Polska Mie	edź; <i>(more</i>	on <u>page 8</u>)					

Market Risk Unit marketrisk@kghm.com

Please see important disclosures at the end of this document (page 12)



Base and precious metals | Other commodities

Copper

Chilean lawmakers have recently passed a measure abolishing an antiquated, decades-old law under which state-run Codelco, the world's largest copper miner, helped foot the bill for the country's military. Meanwhile, China's top copper smelters have recently lowered their floor treatment and refining charges (TC/RCs) for the third quarter by 24.7%. On the top of that, the global world refined copper market showed a 96,000 tonnes deficit in April, compared with a 42,000 tonnes deficit in March, the International Copper Study Group (ICSG) said in its latest monthly bulletin.

Important information on copper market:

- Chilean lawmakers have recently passed a measure abolishing an antiquated, decades-old law under which state-run Codelco, the world's largest copper miner, helped foot the bill for the country's military. The bill establishes a dedicated fund to finance the Chilean armed forces, and beefs up congressional oversight of the use of those funds, according to a statement from Chile's Congress. Codelco's payments to Chilean state coffers will be phased out over a period lasting more than a decade. The legislation replaces a 1958 law, strengthened during the dictatorship of Augusto Pinochet, that required Codelco to turn over 10 per cent of its export sales to the military. Center-right President Sebastian Pinera, who spearheaded the bill and is expected to sign it into law, had said it was "absurd" that the strategic spending of Chile's armed forces was affected by a fluctuating copper price. Codelco chief executive Nelson Pizarro has said the state miner would be better off without the military funding requirement.
- The Chilean government has lowered its forecast for the price of copper, the country's largest export, and cut its production target as the world's largest producer of the metal contends with tougher conditions at home and abroad. The Chilean Copper Commission or Cochilco, which monitors the market for the government, said that it now expects the price of copper to average \$2.81/lb this year, down from a previous forecast of \$3.05/lb. Cochilco market analyst Victor Garay blamed US-China trade tensions to spark demand for the red metal in China at lower price. Demand for copper in China is now expected to grow by 1.2%, or by 150,000 mt, down from a previous forecast of 2.5%. Global demand will grow by a lower 0.9% to 24 million mt. In addition, global stockpiles of copper have grown over a third since the end of last year to almost 500,000 mt, he noted. Copper prices declined sharply during the second quarter of the year, falling from over \$2.90/lb in April to \$2.60/lb in late June as Beijing and Washington clashed over trade and technology.
- China's top copper smelters have recently lowered their floor treatment and refining charges (TC/RCs) for the third quarter by 24.7%. Moreover, smelters



will consider cutting output if low rates persist. The 10-member China Smelters Purchase Team (CSPT) set the treatment charge floor at \$55 per tonne, and the refining charge floor at 5.5 cents a pound at a meeting in Hunchun, in northeast China's Jilin province. The group has now cut its floor for two straight guarters. The TC/RC floor for the second guarter was \$73 per tonne and 7.3 cents a pound and for the first guarter at \$92 per tonne and 9.2 cents a pound. There was no floor set in the third quarter of 2018. The annual TC benchmark for 2019 was set at \$80.80 a tonne last November. "Smelters may consider reducing production," if TC/RCs remain low as they are losing money at current rates, said one official on the smelter team, who said production cuts were discussed at the meeting but did not specify at what scale. The prospect of production cuts comes after China's refined copper output rose 11.8% year-on-year in June to its highest since December. Reuters reported on July 9 that the CSPT's two biggest members, Jiangxi Copper Co and Tongling Nonferrous, broke with tradition by signing contracts for copper concentrate in the first half of 2020 months before term supply is usually agreed.

- Glencore has started a new copper concentrates blending facility in Taiwan to mix high-arsenic containing ores with clean material, according to three sources familiar with the matter. Blending of the dirty concentrates, or material with high levels of impurities like hazardous arsenic, with cleaner concentrates, make it fit for shipment to China, the world's biggest importer of copper concentrates. China's legal import limit is arsenic under 0.5% in copper concentrates. Glencore has set up this blending facility because of an increase in the amount of dirty concentrates available in the market. The dirty concentrates containing high amounts of arsenic and other impurities were coming from mines in Chile and Peru, said one of the sources. The new blending facility is surprising as countries like Malaysia and Taiwan are creating new regulations to protect their environment, a second source said. Complex concentrates, partially treated ore that contains 0.5% or more arsenic, cannot be processed by most smelters in the world for safety reasons and need to be blended first before they can be processed into refined metal.
- The global world refined copper market showed a 96,000 tonnes deficit in April, compared with a 42,000 tonnes deficit in March, the International Copper Study Group (ICSG) said in its latest monthly bulletin. For the first 4 months of the year, the market was in a 155,000 tonnes deficit compared with a 64,000 tonnes deficit in the same period a year earlier, the ICSG said. World refined copper output in April was 2.03 million tonnes , while consumption was 2.12 million tonnes. Bonded stocks of copper in China showed a 91,000 tonnes deficit in April compared with a 8,000 tonnes surplus in March.

KGHM Polska miedź

Precious Metals

June's gold purchases brought Russia's gold reserves to a total of 2,208 tons, according to the latest data released by the Central Bank of Russia (CBR). Russian gold reserves top \$100 billion in a push to move away from American dollar in its foreign exchange reserves.

Investors continue piling into silver ETFs

Investors are continuing to pile into silver exchange-traded funds, with ETF holdings since the start of June rising by more than the amount of metal normally mined throughout the world in an entire month, analyst said.

"Holdings in silver-backed ETFs surged 818.8 tonnes on Tuesday, 23 July, the biggest daily increase in data compiled by Bloomberg since 2006," said commodities brokerage SP Angel. The metal has been outperforming gold lately, as reflected by a declining gold/silver ratio, said Commerzbank.

"It seems as if silver was kissed awake two or three weeks ago when the technically important 100- and 200-day moving averages held firm," Commerzbank said. "Ever since, the price has been rising almost continuously. Silver ETFs have now seen inflows of nearly 2,000 tonnes since the start of the month, and even of 2,400 tons since the beginning of June," Commerzbank said. "This is equivalent to more than a month's worth of mining production. The holdings in the silver ETFs tracked by Bloomberg are at a record high of over 18,300 tons."

Perth Mint Bullion Sales Mostly Steady in First Half of 2019

Perth Mint sales of gold coins and gold bars combined last month to 19,449 ounces, posting gains of 80.3% from May and 15.4% from July of last year. Gold sales through the first half of 2019 at 133,700 ounces are 4.7% lower than the 140,338 ounces sold during the first six months of 2018.

June sales of the Mint's silver coins and silver bars at 344,474 ounces sank 49.5% from May but jumped 50.2% from June 2018. Silver sales through the first half of this year at 4,281,254 ounces virtually match the 4,281,291 ounces sold during the same period last year.

Below is a monthly summary of Perth Mint bullion sales from June 2018 to June 2019. The figures show monthly ounces of gold and silver shipped as minted products by The Perth Mint to wholesale and retail customers worldwide. It excludes sales of cast bars and other Group activities including sales of allocated/unallocated precious metal for storage by the Depository.

Perth Mint Bullion Sales (in troy ounces)									
	Silver	Gold							
June 2019	344,474	19,449							
May 2019	681,582	10,790							
April 2019	906,219	19,991							

Holdings in silver-backed ETFs surged 818.8 tonnes on Tuesday, 23 July, the biggest daily increase in data compiled by Bloomberg since 2006

Perth Mint sales of gold coins and gold bars combined last month to 19,449 ounces, posting gains of 80.3% from May and 15.4% from July of last year.



ch 2019	935,819	32,757
ruary 2019	584,310	19,524
uary 2019	828,854	. 31,189
ember 2018	692,971	29,186
ember 2018	876,446	64,308
ober 2018	1,079,684	36,840
tember 2018	1,305,600	62,552
ust 2018	520,245	38,904
2018	486,821	29,921
e 2018	229,280	16,847
2018	229,2	

Source: <u>https://www.coinnews.net/2019/07/25/perth-mint-bullion-sales-mostly-</u> steady-in-first-half-of-2019/



steady-in-first-half-of-2019/ Perth Mint Bullion Sales

Russian gold reserves top \$100 billion after adding another 600.000 ounces to its vast stockpile

Russia's gold reserves rose to more than \$100 billion thanks to rising gold prices and the country's efforts to boost its bullion holdings. In June alone, Russia added more than 18 tons of the precious metal.

June's gold purchases brought Russia's gold reserves to a total of 2,208 tons, according to the latest data released by the Central Bank of Russia (CBR). This meant Russia was sitting on a mountain of gold valued at \$100,277.6 million as of July 1, the CBR report shows.

Since the beginning of the year the national holdings of the precious metal have been increased by around 96.4 tons amid Moscow's push to de-dollarize its foreign exchange reserves. More than 6 tons were added to Russia's coffers in May, around 16 tons in April, and a further 18 tons in March. The biggest gold shopping spree came in February, when Russian gold reserves rose by more than 31 tons in one month. During the first month of the year 6 tons of gold were added.

According to CBR, June's gold purchases brought Russia's gold reserves to a total of 2,208 tons



Last year, Russia was crowned the most committed purchaser of gold as it acquired almost 275 tons, the largest amount ever purchased in a single year, according to the World Gold Council.

"Russia, right now, obviously wants to buy as much gold as it can while the price is still relatively cheap. That allows it to build up a bigger hoard of gold to replace the diminished value that the dollar is going to play as a reserve currency," veteran broker Peter Schiff previously told RT. The analyst later predicted that the precious metal is set to top its 2011 highs (up to \$1900 per ounce) in the near future.

Moscow used to be one of the largest investors in US Treasury securities, but has sold off much of them in recent years. Russia's holdings of US debt are currently at the lowest level since May 2007 totaling \$12.024 billion. Last year, Russia reduced its holdings by more than 85 percent, from \$96.9 billion in January to \$13.2 billion in December.

Chinese firms to build gold smelter, refineries in Tanzania

Chinese companies to build gold smelter and refineries in Tanzania

Tanzania, Africa's fourth-biggest gold producer after South Africa, Ghana and Mali, had awarded licenses for the construction of a mineral smelter and two gold refineries to Chinese firms, as part of government efforts to generate more revenues from the nation's mining industry.

Minerals Minister Doto Biteko said the Chinese companies would also soon be awarded licenses for mines, each of which would require investment worth more than \$100 million. Biteko said 37 Chinese companies had expressed interest.

The government said it had set up 28 mineral trading centers since March to improve revenue collection from small-scale miners. "Gold worth a total of 136.7 billion Tanzanian shillings (\$60 million) has been traded through the new mineral centers since March and the government has collected 7.7 billion shillings royalty and clearance fees," Small-scale miners produce around 20 tonnes of gold a year but 90% is illegally exported.

Gold exports are a key source of foreign exchange for Tanzania, which exported gold worth \$1.549 billion last year, up from \$1.541 billion in 2017, central bank data shows.



Global economies | Foreign exchange markets

IMF WEO: Still sluggish global growth

Global growth remains subdued. Since the April World Economic Outlook (WEO) report, the United States further increased tariffs on certain Chinese imports and China retaliated by raising tariffs on a subset of US imports. Additional escalation was averted following the June G20 summit. Global technology supply chains were threatened by the prospect of US sanctions, Brexit-related uncertainty continued, and rising geopolitical tensions roiled energy prices.

World economy is set to growth at 3.2%, by 0,1 pc. pts lower in comparison to April WEO forecast Against this backdrop, global growth is forecast at 3.2 percent in 2019, picking up to 3.5 percent in 2020 (0.1 percentage point lower than in the April WEO projections for both years). GDP releases so far this year, together with generally softening inflation, point to weaker-than-anticipated global activity. Investment and demand for consumer durables have been subdued across advanced and emerging market economies as firms and households continue to hold back on long-range spending. Accordingly, global trade, which is intensive in machinery and consumer durables, remains sluggish. The projected growth pickup in 2020 is precarious, presuming stabilization in currently stressed emerging market and developing economies and progress toward resolving trade policy differences.

Risks to the forecast are mainly to the downside. They include further trade and technology tensions that dent sentiment and slow investment; a protracted increase in risk aversion that exposes the financial vulnerabilities continuing to accumulate after years of low interest rates; and mounting disinflationary pressures that increase debt service difficulties, constrain monetary policy space to counter downturns, and make adverse shocks more persistent than normal.

Multilateral and national policy actions are vital to place global growth on a stronger footing. The pressing needs include reducing trade and technology tensions and expeditiously resolving uncertainty around trade agreements (including between the United Kingdom and the European Union and the free trade area encompassing Canada, Mexico, and the United States). Specifically, countries should not use tariffs to target bilateral trade balances or as a substitute for dialogue to pressure others for reforms. With subdued final demand and muted inflation, accommodative monetary policy is appropriate in advanced economies, and in emerging market and developing economies where expectations are anchored. Fiscal policy should balance multiple objectives: smoothing demand as needed, bolstering growth potential with spending that supports structural reforms, and ensuring sustainable public finances over the medium term. If growth weakens relative to the baseline, macroeconomic policies will need to turn more accommodative, depending on country circumstances. Priorities across all economies are to enhance inclusion, strengthen resilience, and address constraints on potential output growth.



Macroeconomic calendar

Important macroeconomic data releases

Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
		China				*1
00000	15-Jul	GDP (yoy)	2Q	6.2% 🔻	6.4%	6.2% 🔘
00000	15-Jul	GDP (sa, qoq)	2Q	1.6% 🔺	1.4%	1.5% 🖱
0000	15-Jul	Industrial production (yoy)	Jun	6.3% 🔺	5.0%	5.2% 🖱
00	15-Jul	Fixed assets investments (ytd, yoy)	Jun	5.8% 🔺	5.6%	5.5% 🦱
0	15-Jul	Retail sales (yoy)	Jun	9.8% 🔺	8.6%	8.5% 🦱
00	27-Jul	Industrial profits (yoy)	Jun	-3.1% 🔻	1.1%	
		Poland				
0000	15-Jul	Consumer inflation CPI (yoy) - final data	Jun	2.6% =	2.6%	
00	15-Jul	Trade balance (EUR mn)	May	96.0 🔻	279	46.0 🖱
00	15-Jul	Exports (EUR mn)‡	May	19 703 🔺	19 411	19 128 🖱
00	15-Jul	Current account balance (EUR mn)‡	May	1 006 🔺	720	504 🖱
0000	16-Jul	Core CPI (excluding food and energy, yoy)	Jun	1.9% 🔺	1.7%	1.9% 🔘
00	17-Jul	Average gross salary (yoy)	Jun	5.3% 🔻	7.7%	7.1% 🚽
0	17-Jul	Employment (yoy)	Jun	2.8%	2.7%	2.6%
0000	18-Jul	Sold industrial production (yoy)	Jun	-2.7% 🔻	7.7%	2.0% 🕳
00	18-Jul	Producer inflation PPI (yoy)	Jun	0.6% 🔻	1.4%	0.7% 🕳
000	19-Jul	Retail sales (yoy)	Jun	5.3% 🔻	7.3%	6.0% 🚽
0	22-Jul	M3 money supply (yoy)	Jun	9.3% 🔻	9.9%	9.9% 🕳
00	23-Jul Unemployment rate		Jun	5.3% 🔻	5.4%	5.3% 🔘
		US				
0000	16-Jul	Industrial production (mom)	Jun	0.0% 🔻	0.4%	0.1% 🕳
00	16-Jul	Retail sales (excluding autos, mom)‡	Jun	0.4% =	0.4%	0.1% 🖱
0	16-Jul	Capacity utilization	Jun	77.9% 🔻	78.1%	78.1% 🕳
00	18-Jul	Philadelphia Fed business outlook	Jul	21.8 🔺	0.3	5.0 🔷
00	19-Jul	University of Michigan confidence index - preliminary data	Jul	98.4 🔺	98.2	98.8 🕳
0	23-Jul	Richmond Fed manufacturing index‡	Jul	- 12.0 🔻	2.0	5.0 🕳
000	24-Jul	Composite PMI - preliminary data	Jul		51.5	
000	24-Jul	Manufacturing PMI - preliminary data	Jul		50.6	51.0
000	24-Jul	PMI services - preliminary data	Jul		51.5	51.8
00	25-Jul	Durable goods orders - preliminary data‡	Jun	2.0% 🔺	-2.3%	0.7% 🔷
00000	26-Jul	GDP (annualized, qoq) - estimation	2Q	2.1% 🔻	3.1%	1.8% 🔴
		Eurozone				
0	16-Jul	Trade balance (EUR mn)	May	23.0 🔺	15.7	
0	16-Jul	ZEW survey expectations	Jul	- 20.3 🔻	- 20.2	
0000	17-Jul	Consumer inflation CPI (yoy) - final data	Jun	1.3% 🔺	1.2%	1.2% 🔷
0000	17-Jul	Core CPI (yoy) - final data	Jun	1.1% =	1.1%	1.1% 🔘
0	23-Jul	Consumer confidence - estimation	Jul	- 6.6 🔺	- 7.2	- 7.1 🔷
000	24-Jul	Composite PMI - preliminary data	Jul		52.2	52.2
000	24-Jul	Manufacturing PMI - preliminary data	Jul		47.6	47.7
000	24-Jul	Services PMI - preliminary data	Jul		53.6	53.3
0	24-Jul	M3 money supply (yoy)	Jun	4.5% 🔻	4.8%	4.6% 🕳
00000	25-Jul	ECB main refinancing rate	Jul	0.00% =	0.00%	0.00% O
		-	-			



Weight	Date	Event	For	Reading ¹	Previous	Consensus ²
		Germany				
000	24-Jul	Composite PMI - preliminary data	Jul		52.6	52.4
000	24-Jul	Manufacturing PMI - preliminary data	Jul		45.0	45.2
00	25-Jul	IFO business climate‡	Jul	95.7 🔻	97.5	97.2 🕳
		France				
000	24-Jul	Composite PMI - preliminary data	Jul		52.7	52.5
000	24-Jul	Manufacturing PMI - preliminary data	Jul		51.9	51.6
		Italy				
0000	16-Jul	Harmonized consumer inflation HICP (yoy) - final data	Jun	0.8% =	0.8%	0.8% 🔘
		UK				
00	16-Jul	Unemployment rate (ILO, 3-months)	May	3.8% =	3.8%	3.8% 🔘
0000	17-Jul	Consumer inflation CPI (yoy)	Jun	2.0% =	2.0%	2.0%
		Japan				•
0000	19-Jul	Consumer inflation CPI (yoy)	Jun	0.7% =	0.7%	0.7% 🔘
000	24-Jul	Composite PMI - preliminary data	Jul		50.8	
000	24-Jul	Manufacturing PMI - preliminary data	Jul		49.3	
		Chile				*
00000	19-Jul	BCCh overnight rate target	Jul	2.50% =	2.50%	2.50% 🔘
		Canada				*
0000	17-Jul	Consumer inflation CPI (yoy)	Jun	2.0% 🔻	2.4%	2.0% 🔘

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	Key	v base & precious metal	rices, exchange rates and other importan	t market factors
---	-----	-------------------------	--	------------------

(as of: 26-Jul-19)					Price	cha	nge ¹			From	year beginr	ning²
	Price		2W		QTD		YTD		1Y	Average	Min	Мах
LME (USD/t)												
Copper	5 945.00		-0.9%	▼	-0.5%	▼	-0.3%	▼	-5.0%	6 133.35	5 756.00	6 572.00
Molybdenum		-		-		-		-				
Nickel	14 060.00		5.3%		11.0%		32.7%		3.6%	12 458.99	10 440.00	14 685.00
Aluminum	1 778.00	\bullet	-1.8%		0.3%	▼	-4.9%	▼	-13.4%	1 821.97	1 719.50	1 923.00
Tin	17 830.00	\bullet	-1.0%	▼	-5.2%	▼	-8.6%	▼	-10.4%	20 104.17	17 600.00	21 925.00
Zinc	2 423.00	\bullet	-1.5%	▼	-6.1%	▼	-3.5%	▼	-7.7%	2 691.26	2 372.00	3 018.00
Lead	2 075.00		5.1%		8.4%		3.3%	▼	-3.1%	1 962.60	1 768.00	2 154.00
LBMA (USD/troz)												
Silver	16.44		7.3%		8.0%		6.3%		5.8%	15.29	14.38	16.54
Gold ²	1 420.40		0.6%		0.8%		10.8%		15.6%	1 321.09	1 269.50	1 439.70
LPPM (USD/troz)												
Platinum ²	865.00		2.6%		5.7%		8.9%		3.6%	833.07	782.00	914.00
Palladium ²	1 531.00	▼	-2.1%		0.5%		21.2%		64.4%	1 429.40	1 267.00	1 604.00
FX ³												
EURUSD	1.1138	▼	-1.2%	▼	-2.1%	▼	-2.7%	▼	-4.9%	1.1288	1.1115	1.153
EURPLN	4.2645	▼	-0.1%		0.3%	▼	-0.8%	▼	-0.7%	4.2887	4.2406	4.3402
USDPLN	3.8296		1.2%		2.6%		1.9%		4.5%	3.7987	3.7243	3.8696
USDCAD	1.3182		1.1%		0.7%	▼	-3.4%		0.9%	1.3304	1.3038	1.3600
USDCNY	6.8805		0.0%		0.2%		0.0%		1.3%	6.7993	6.6872	6.931 ⁻
USDCLP	694.16		1.9%		2.1%	▼	-0.1%		6.9%	676.73	649.22	709.80
Money market												
3m LIBOR USD	2.266	\bullet	-0.04	▼	-0.05	▼	-0.54	▼	-0.07	2.557	2.256	2.804
3m EURIBOR	-0.368	\bullet	-0.01	▼	-0.02	▼	-0.06	▼	-0.05	-0.320	-0.378	-0.306
3m WIBOR	1.720	-	0.00	-	0.00	-	0.00		0.02	1.720	1.720	1.720
5y USD interest rate swap	1.824	\bullet	0.00		0.06	▼	-0.75	▼	-1.16	2.266	1.695	2.71
5y EUR interest rate swap	-0.312	\bullet	-0.09	▼	-0.08	▼	-0.51	▼	-0.62	-0.002	-0.320	0.222
5y PLN interest rate swap	1.788	\bullet	-0.04	▼	-0.08	▼	-0.33	▼	-0.66	1.988	1.735	2.240
Fuel												
WTI Cushing	56.20	\bullet	-5.7%	▼	-3.9%		23.8%	▼	-19.3%	57.43	46.54	66.40
Brent	62.87	\bullet	-4.8%	▼	-2.4%		18.2%	▼	-15.1%	65.69	53.83	73.89
Diesel NY (ULSD)	190.07	\bullet	-2.2%	▼	-2.2%		13.0%	▼	-12.6%	195.27	170.01	212.40
Others												
VIX	12.16	\mathbf{v}	-0.52	▼	-2.92	▼	-13.26		0.02	15.46	12.01	25.4
BBG Commodity Index	78.74	\bullet	-2.3%	▼	-1.1%		2.6%	▼	-7.3%	80.11	76.49	83.06
S&P500	3 025.86		0.4%		2.9%		20.7%		6.6%	2 828.45	2 447.89	3 025.86
DAX	12 419.90		0.3%		0.2%		17.6%	▼	-3.0%	11 778.89	10 416.66	12 629.90
Shanghai Composite	2 944.54		0.1%	▼	-1.2%		18.1%		2.2%	2 910.05	2 464.36	3 270.80
WIG 20	2 305.79	▼	-0.8%	▼	-0.9%		1.3%		0.0%	2 317.68	2 163.94	2 414.4
КБНМ	96.50		1.3%		-6.8%		8.6%		-1.0%	98.76	86.12	112.00

° 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













Silver: price (lhs) and gold ratio (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: **15th – 28th July 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

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 its in whole or part requires prior written consent from KGHM. To acquire that such consent please contact the Communications and CSR Department of Communication (Departament 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 Ryzyka Finansowego i Rynkowego (Financial and Market Risk Department) Wydzial Ryzyka Rynkowego (Market Risk Unit) ul. M. Sklodowskiej-Curie 48 59-301 Lubin, Poland