The Goods

BMO Capital Markets
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A monthly commodity watch

August 2017

Commodities Warm Up in July

Broad-based gains lift index off 2017 low; muted gains expected through year-end

The **BMO Capital Markets Commodity Price Index** increased 2.3% in July, the first rise in three months. The positive mood extended across the spectrum, with only three of the 19 index components posting losses. The upturn likely carried through August, though a return to the index's February high is not expected before 2018.

The **Oil & Gas Index** reversed a two month slide, climbing 3% in July as oil prices rose on indications of a quickening pace of inventory drawdowns in the United States. West Texas Intermediate (WTI) briefly reached US$50 at the end of the month, before retreating through mid-August in the wake of escalating tensions on the Korean peninsula. Average U.S. natural gas prices were roughly unchanged in July, with minor swings based on shifting near-term weather forecasts and power demand for air conditioners. Inventory excesses have diminished, with underground storage now around 2% above its five-year average.

The **Metals & Minerals Index** ebbed 0.1% in July as a rebound in base metals was insufficient to offset the latest dip in seesawing precious metals. Silver has failed to keep pace with gold so far this year, given the former's dual investment/industrial usage and its tendency to underperform gold when broader commodity prices are falling, as they have done through most of 2017. On balance, precious metals will remain supported by the measured pace of Fed tightening and ample Trump-related uncertainty.

The **Forest Products Index** vaulted 4.6% in July, landing just below its March 2013 record. The B.C. wildfires elicited some jitters, boosting lumber prices while Oriented Strand Board (OSB) surged US$48 to average $378/msf. Prices are showing signs of excessive exuberance, reminiscent of the 2013 OSB rally which was followed by a sharp correction. However, the current upturn is supported by more robust demand and less spare capacity available in the near term. Thus, we expect prices to ease towards the lower-$300s by the end of this year, rather than repeating the collapse experienced in the last cycle.

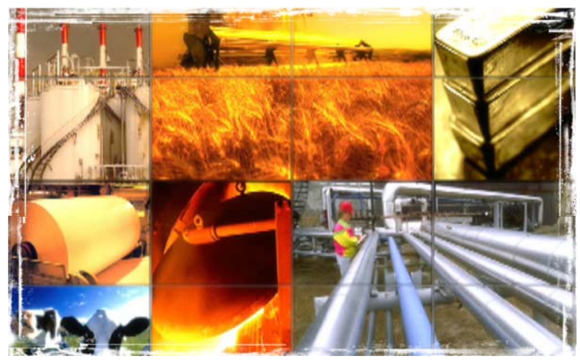
The **Agriculture Index** surged 7.7% in July to its highest level in two years. As in the prior month, the main driver was the ongoing drought in the U.S. Northern Plains, which is weighing on prospects for this year's wheat crop (though the market's initial reaction proved excessive, and by mid-August wheat prices retreated toward levels that prevailed in the spring). Canola prices also posted a large gain in July as dry conditions crept into Canada's Prairie Provinces, but then reversed course on signs of broad-based abundance in oilseeds, including the USDA's expectation of a record soybean harvest.

Aaron Goertzen (Agriculture)
416-359-8229
aaron.goertzen@bmo.com

Sarah Howcroft (Metals & Minerals, Editor)
416-359-8458
sarah.howcroft@bmo.com

Alexandros Koustas (Forest Products)
416-359-4624
alexandros.koustas@bmo.com

Earl Sweet (Oil & Gas)
416-359-4407
earl.sweet@bmo.com



BMO CAPITAL MARKETS COMMODITY PRICE INDEX
(2003 = 100)

All Commodities Index

	Jul. Level (2003=100)	% Change from Mth. Ago	% Change from Yr. Ago
All Commodities	169.6	2.3	2.9
Oil & Gas	137.5	3.0	4.4
Metals & Minerals	242.9	-0.1	-2.7
Forest Products	148.0	4.6	10.3
Agriculture	154.1	7.7	17.0

Commodity Focus: Base Metals

Supply adjustments boost sentiment

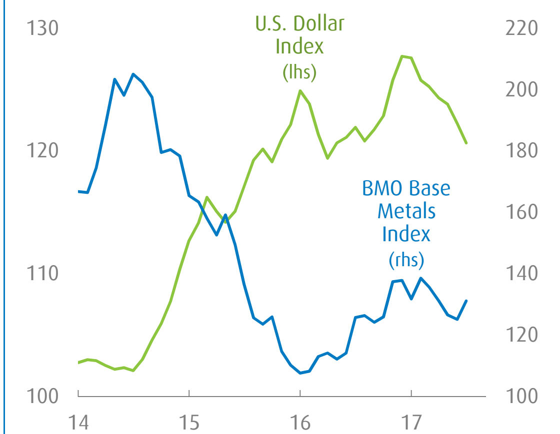
Sarah Howcroft • sarah.howcroft@bmo.com • 416-359-8458

Base metals markets are currently enjoying their firmest footing in years, but the road to recovery will remain bumpy and gradual. After bottoming out in early-2016, the BMO Base Metals Index initially came charging back with a 28% gain by December. Moving into 2017, investor sentiment began to wane and the index stumbled, suffering declines in five of the first six months of the year, despite the continued slide in the U.S. dollar. Typically, U.S. dollar-denominated commodity prices – metals in particular – move inversely to the greenback (see *chart 1*). However, the tide may now be turning once again as prices have recently broken above their earlier trading ranges.

Not surprisingly, shifts in base metals markets largely revolve around China, the world's top consumer of these commodities, not only in absolute terms (see *chart 2*), but also on an incremental basis. For the last few years, Chinese policymakers have faced the delicate task of balancing economic growth and needed structural reforms as it transitions from an investment- and export-driven to a consumer-based economy. In the second half of 2016 and first half of 2017, the bias was tilted towards maintaining growth at a robust rate ahead of the 19th Communist Party Congress scheduled for this fall. The Congress takes places once every five years and this year's event is especially significant as it is expected to see five of the seven members of the country's top decision-making committee replaced. Ensuring a smooth political transition is of utmost importance to the current leadership and one of the surest ways to achieve this is by pumping fiscal stimulus and delaying potentially painful reforms. As a result, demand for metals in China has remained quite buoyant.

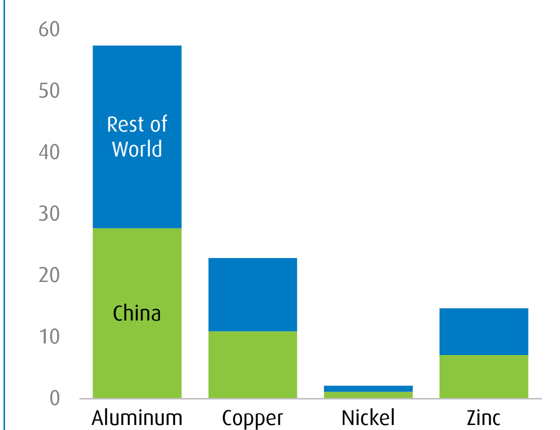
After the Party Congress, the reform drive is likely to resume, albeit at a measured pace. Top priorities are reducing industrial overcapacity, facilitating deleveraging by corporates and sub-national governments and curtailing speculative activity in the property market. Consequently, economic growth in China is expected to decelerate from its H1/2017 pace of 6.9% and, along with it, the growth rate of consumption of base metals. Copper demand growth, for instance, is likely to slow from an annual average of approximately 6.5% in 2012-16 to 2% in 2017-19. While the consumption rates of other nations will strengthen over the coming years (e.g., India, Mexico, Brazil, Middle East), the difference in scale is such that overall global demand will soften.

CHART 1: BMO BASE METALS INDEX & U.S. DOLLAR



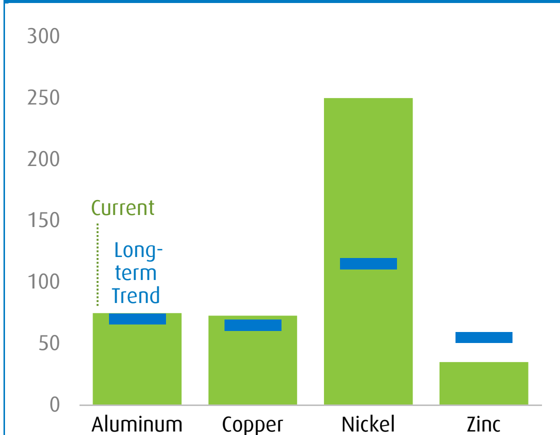
Source: Bloomberg, BMO Economics

CHART 2: GLOBAL BASE METALS CONSUMPTION (million tonnes)



Source: Wood Mackenzie, BMI Research

CHART 3: ESTIMATED METALS STOCKS (days of consumption)



Source: Wood Mackenzie

With demand following a stable to slightly downward trend, what then accounts for the latest spike in base metals prices? This can largely be explained by supply-side developments, both actual and prospective. In the **aluminum** market, after hovering in a relatively tight range since March, prices broke above US$0.90/lb in August for the first time since late 2014. The move comes as provincial governments in China look increasingly prepared to enforce Beijing's proposed aluminum smelter capacity cuts, intended to curb pollution and reduce overcapacity in the sector. If fully implemented, the cuts would see roughly 30% of China's annual aluminum output suspended, but a more likely figure is around 10%. Either way, this will have a meaningful impact on world supply given that China is the top producer, possibly enough to tip the global market balance into deficit in 2018. Our price outlook remains cautious – annual average of US$0.86/lb in both 2017and 2018, up from $0.73 last year – reflecting the risk that the actual supply reduction falls short of market expectations.

Copper has also been galvanized by environmental-related news out of China. Reports that the authorities are considering a ban on imports of low-grade copper scrap metal sent prices briefly above US$2.90/lb, their highest level since late 2014. The ultimate impact of the vague proposal, slated for late 2018, is uncertain; such bans have been announced in the past and never implemented, and even if the ban is implemented, scrap metal disassembling and trade may simply migrate to locations outside China's borders. Nevertheless, the news added to the positive sentiment in the market building on earlier reports of supply disruptions in other countries, some of which have not materialized (e.g., threatened labour strikes in Latin America). Fundamentally, these developments are unlikely to significantly alter the global market, which may temporarily slip into a slight deficit in 2017 (due to lower mine output) but is otherwise expected to remain well-supplied through the end of the decade. We forecast only marginal gains in copper over the medium term, with prices averaging US$2.58/lb in 2017 and $2.60 in 2018 (compared with $2.21 in 2016).

Rumours continue to circulate in the **nickel** market regarding possible mine and smelter closures in Indonesia and the Philippines. Supply concerns (likely exaggerated) were compounded in late July by signs of stronger-than-anticipated stainless steel activity in China, boosting prices to a five-month high. The fact remains, however, that even though the refined market is now in deficit, global inventories of nickel ore remain excessively high and will take time to wind down (see *chart 3*). As such, the recent exuberance was unlikely to last, and prices have already begun to retreat. Overall, we continue to expect a gradual upward trend in prices, from US$4.35/lb in 2016 to $4.40 in 2017 and $4.80 in 2018. A key longer-term challenge for nickel is the increasing substitution of less expensive nickel pig iron (NPI) for the refined metal, and the associated ramping up of NPI production in Asia.

Finally, **zinc** prices kicked up in early August but failed to top the previous high set back in February. Zinc fundamentals remain the strongest of the major base metals, and it has led the pack with a mammoth 84% gain from its early-2016 trough (on a monthly average basis). Mine supply cuts starting in 2015 propelled prices skyward in late 2016, but concerns about hidden inventories and readily accessible idle capacity in China have since kept the rally in check (as of writing, prices are only 1% higher than their peak in November 2016). Now it appears that Chinese production has in fact been constrained to a greater degree than earlier presumed by stricter enforcement of environmental and safety regulations, with zinc output down 2.0% y/y through July of 2017. With global inventories hovering near critically low levels, zinc will remain well supported over the medium term, even as Glencore is likely to restart some of its suspended production in 2018; we forecast prices to rise from an average of US$0.95/lb in 2016 to $1.23 in 2017 and $1.30 in 2018.

Energy and Materials

		Crude Oil (WTI)	Natural Gas (Henry Hub)	(Alta. Empress)	Lumber	Pulp	Newsprint
		US$/bbl	US$/mmbtu		US$/mbf	US$/tonne	
	2004	41.44	5.90	5.25	386	632	534
	2005	56.46	8.81	7.51	347	631	594
	2006	66.10	6.74	5.92	290	713	654
	2007	72.36	6.98	6.32	245	816	588
	2008	99.57	8.86	8.09	215	844	666
	2009	61.69	3.95	3.46	177	707	589
	2010	79.43	4.39	3.59	255	926	583
	2011	95.08	4.00	3.28	255	968	623
	2012	94.20	2.75	2.19	299	862	619
	2013	97.93	3.73	2.98	356	895	601
	2014	93.26	4.39	4.56	349	965	571
	2015	48.69	2.63	2.33	277	946	542
	2016	43.21	2.52	1.68	305	938	540
	y-t-d 2017	49.39	3.02	2.01	373	938	540
2016	August	44.76	2.82	2.09	326	938	540
	September	45.20	2.99	2.07	314	938	540
	October	49.81	2.98	2.26	319	938	540
	November	45.73	2.55	1.94	306	938	540
	December	52.06	3.59	2.56	320	938	540
2017	January	52.56	3.30	2.17	310	938	540
	February	53.46	2.85	1.92	375	938	540
	March	49.48	2.88	1.90	359	938	540
	April	51.08	3.10	2.09	407	938	540
	May	48.51	3.15	2.14	388	938	540
	June	45.19	2.98	1.87	368	938	540
	July	46.61	2.98	2.05	403	938	540
	m-t-d August	48.74	2.84	n.a.	409	n.a.	n.a.
Forecast	2017 Avg.	**50.00**	**3.00**	**2.00** ↓	**372** ↑	**938**	**536** ↑
	2018 Avg.	**55.00**	**3.25**	**2.55**	**370**	**925**	**520**

Commodity price forecasts are by BMO Capital Markets Economics and are independent of those used by BMO Capital Markets Equity Research.
↑ and ↓ indicate annual forecast changes from last month.

Base and Precious Metals

		Copper	Aluminum	Zinc	Nickel	Gold	Silver
			US$/lb			US$/oz	
	2004	1.30	0.78	0.48	6.27	409	6.65
	2005	1.67	0.86	0.63	6.69	445	7.31
	2006	3.05	1.17	1.48	11.00	605	11.58
	2007	3.23	1.20	1.47	16.89	697	13.40
	2008	3.15	1.17	0.85	9.57	872	15.01
	2009	2.34	0.75	0.75	6.64	973	14.67
	2010	3.42	0.99	0.98	9.89	1225	20.16
	2011	4.00	1.09	0.99	10.38	1570	35.11
	2012	3.61	0.92	0.88	7.96	1668	31.15
	2013	3.32	0.84	0.87	6.81	1411	23.83
	2014	3.11	0.85	0.98	7.65	1266	19.08
	2015	2.50	0.75	0.88	5.37	1160	15.70
	2016	2.21	0.73	0.95	4.35	1248	17.10
	y-t-d 2017	2.64	0.86	1.23	4.43	1240	17.13
2016	August	2.16	0.74	1.04	4.69	1341	19.62
	September	2.13	0.72	1.04	4.62	1327	19.28
	October	2.15	0.75	1.05	4.65	1269	17.72
	November	2.47	0.79	1.17	5.05	1240	17.48
	December	2.57	0.78	1.21	4.99	1153	16.37
2017	January	2.60	0.81	1.23	4.53	1193	16.85
	February	2.69	0.84	1.29	4.82	1233	17.88
	March	2.64	0.86	1.26	4.64	1231	17.61
	April	2.58	0.88	1.19	4.38	1267	18.08
	May	2.54	0.87	1.17	4.15	1245	16.76
	June	2.59	0.86	1.17	4.05	1261	16.96
	July	2.71	0.86	1.26	4.30	1235	16.16
	m-t-d August	2.88	0.90	1.30	4.73	1270	16.68
Forecast	2017 Avg.	**2.58** ↑	**0.86** ↑	**1.23** ↑	**4.40**	**1240** ↑	**17.00** ↓
	2018 Avg.	**2.60**	**0.86** ↑	**1.30**	**4.80** ↓	**1265** ↑	**17.50** ↓

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Agriculture

		Wheat	Canola	Cattle	Hogs
		US$/bushel	US$/tonne	US$/cwt	
	2004	3.46	271	n.a.	n.a.
	2005	3.19	224	87.34	68.58
	2006	4.02	257	86.23	64.08
	2007	6.38	378	93.92	65.56
	2008	7.98	527	93.60	66.05
	2009	5.30	371	83.85	58.11
	2010	5.81	429	94.95	75.60
	2011	7.10	566	114.54	90.34
	2012	7.50	601	122.65	84.93
	2013	6.84	545	126.40	89.33
	2014	5.88	400	151.50	105.83
	2015	5.08	371	146.49	69.40
	2016	4.36	366	118.61	65.60
	y-t-d 2017	4.43	390	120.17	74.17
2016	August	4.07	354	114.60	63.95
	September	3.91	354	104.66	56.02
	October	4.09	371	100.15	46.93
	November	4.03	382	106.63	48.12
	December	3.97	386	112.09	59.81
2017	January	4.24	383	118.07	65.57
	February	4.37	396	118.85	70.83
	March	4.27	382	118.66	67.92
	April	4.20	377	125.99	64.21
	May	4.30	382	124.69	75.12
	June	4.54	385	124.42	84.08
	July	5.04	419	115.15	86.65
	m-t-d August	4.49	396	111.70	80.91
Forecast	2017 Avg.	**4.60**	**385**	**118.00** ↓	**73.00** ↑
	2018 Avg.	**5.20**	**410**	**115.00**	**69.00** ↑

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↑ and ↓ indicate annual forecast changes from last month.

Commodity Indices and Forecasts[1]

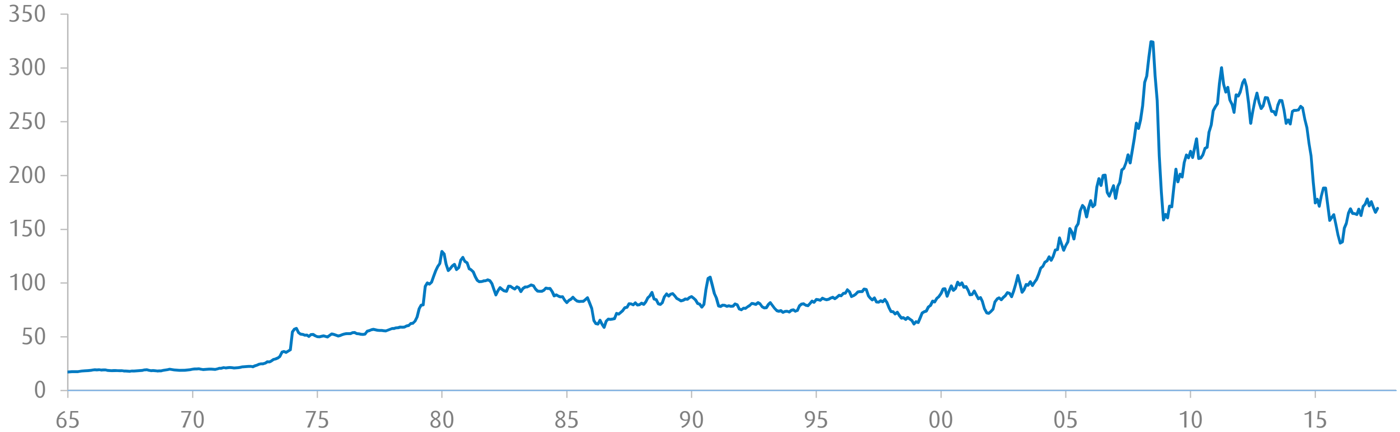
US$-terms : 2003 = 100			All Commodities	Oil & Gas	Metals & Minerals	Forest Products	Agricultural Products	All Commodities C$-terms
Annual								
		2008	264.9	299.5	287.2	113.5	208.5	198.8
		2009	191.8	182.0	267.1	97.1	145.2	155.5
		2010	229.1	232.7	291.0	122.3	163.4	168.4
		2011	275.5	275.6	364.8	125.6	205.3	194.5
		2012	271.0	270.3	353.8	128.1	216.9	193.3
		2013	262.8	283.0	300.6	139.4	200.1	193.1
		2014	246.3	271.4	272.2	138.8	170.0	193.9
		2015	169.7	142.5	245.2	125.6	151.3	154.4
		2016	159.3	126.9	239.0	130.3	135.9	150.5
Forecast		2017	**172.8**	**147.0**	**243.4**	**142.1**	**142.5**	**161.2**
		2018	**183.9**	**161.6**	**254.0**	**139.4**	**154.2**	**168.9**
Quarterly								
	2015	Q4	154.0	122.4	228.9	123.7	143.7	146.7
	2016	Q1	142.1	98.0	231.9	124.3	139.1	139.2
		Q2	163.1	132.3	239.5	131.2	145.4	150.1
		Q3	164.4	132.4	247.9	133.7	128.7	153.1
		Q4	167.6	144.9	236.7	132.2	130.5	159.7
	2017	Q1	174.5	152.2	243.3	137.4	138.0	164.7
		Q2	170.7	142.3	244.3	144.4	139.2	164.0
Forecast		Q3	**171.0**	**140.4**	**245.3**	**146.0**	**147.8**	**154.6**
		Q4	**175.1**	**153.1**	**240.5**	**140.6**	**144.7**	**161.3**
	2018	Q1	**179.6**	**159.3**	**244.9**	**138.6**	**147.9**	**166.1**
Monthly								
	2016	Jul	164.8	131.7	249.6	134.2	131.7	153.6
		Aug	164.6	131.9	249.0	134.4	129.4	152.6
		Sep	163.7	133.6	245.1	132.4	125.0	153.1
		Oct	168.8	146.4	238.1	132.9	128.9	159.5
		Nov	162.8	134.0	240.0	130.9	130.7	156.2
		Dec	171.3	154.2	232.0	132.9	131.8	163.3
	2017	Jan	173.4	154.9	237.8	131.2	136.5	163.6
		Feb	178.3	156.4	246.6	141.4	140.7	166.7
		Mar	171.7	145.3	245.5	139.5	136.9	163.9
		Apr	175.7	150.3	247.5	147.2	136.0	168.5
		May	170.5	143.2	242.3	144.4	138.7	165.8
		Jun	165.8	133.5	243.1	141.5	143.0	157.7
		Jul	169.6	137.5	242.9	148.0	154.1	153.9

Commodity price indices and forecasts are by BMO Capital Markets Economics.
Forecasts are independent of those used by BMO Capital Markets Equity Research.

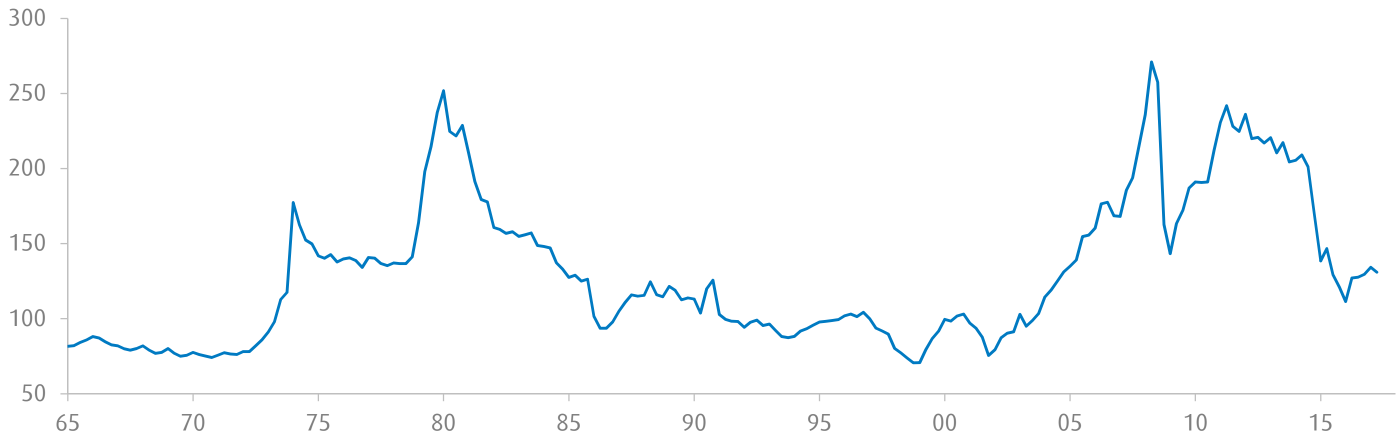
[1] Commodity Indices have been reweighted to the period 2012-16. For details see Technical Note on page 9.

Historical Charts: All-Commodity Index

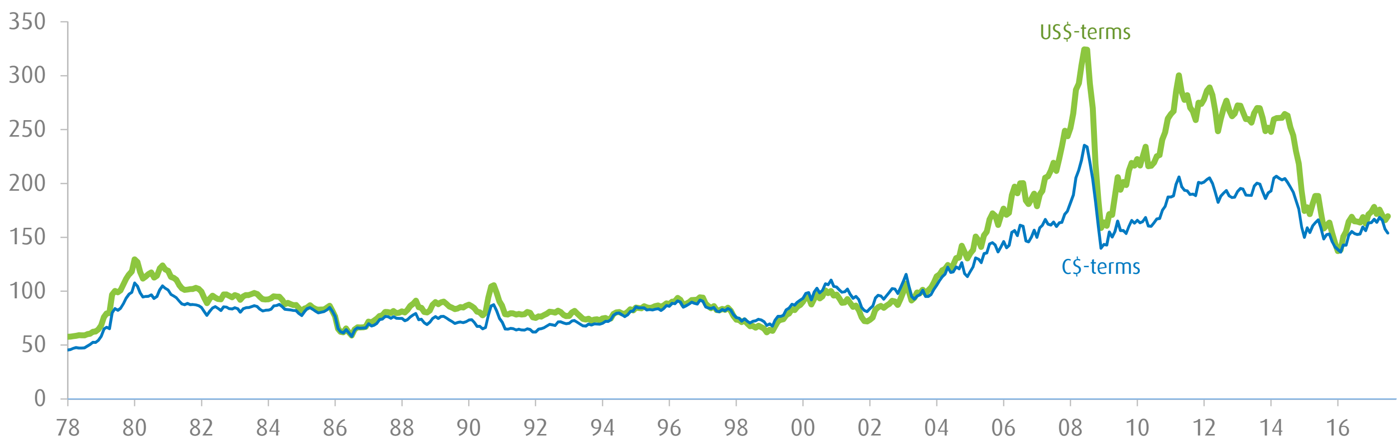
Nominal US$-Terms (2003 = 100)



Real US$-Terms (2003 = 100)



Nominal (2003 = 100)



Technical Note

The BMO Capital Markets Commodity Price Index is a fixed-weight, export-based index that encompasses the price movement of 19 commodities key to Canadian exports. Weights are each commodity's average share of the total value of exports of the 19 commodities during the period 2012-16. Similarly, weights of sub-index components reflect the relative importance of commodities within their respective product group.

The all-commodities index and sub-indices consist of the following:

Percent	Weight in All-Commodities Index	Weight in Sub-Index		Weight in All-Commodities Index	Weight in Sub-Index
Metals & Minerals	**27.8**	**100.0**	**Forest Products**	**12.6**	**100.0**
Gold	9.9	35.5	Newsprint	1.4	11.5
Silver	1.3	4.6	Market Pulp	3.8	30.5
Aluminum	5.9	21.4	Supercalendered Paper	1.2	9.8
Copper	2.2	7.8	Lumber	5.1	40.6
Nickel	3.0	10.8	OSB	1.0	7.6
Zinc	0.8	3.0			
Uranium	1.2	4.4	**Agricultural Products**	**8.5**	**100.0**
Potash	3.5	12.7	Wheat	4.2	49.5
			Canola	3.1	36.6
Oil and Gas	**51.1**	**100.0**	Hogs	0.3	3.0
Crude Oil	44.5	87.2	Beef Cattle	0.9	10.9
Canadian Natural Gas	6.5	12.8			
			All Commodities	**100.0**	

Unless otherwise specified, all indices reported in this publication correspond to prices in U.S. dollars.