

All's Quiet on the Commodity Front

Commodity index little-changed for a third straight month

The **BMO Capital Markets Commodity Price Index** crept ahead just 0.1% in May, remaining more-or-less unchanged for a third straight month. But, whereas the previous lack of movement reflected mutually offsetting swings in the heavily-weighted energy and metals sub-indexes, May brought relative calm in both spaces. Looking ahead, we anticipate a continued lack of direction in the overall index as good-specific supply and demand fundamentals propel commodities on divergent paths.

The **Oil & Gas Index** edged down in May. Crude oil remained unchanged, although a flare-up in sectarian violence in Iraq, continued conflict in Libya, and ongoing terrorism in northern Nigeria boosted supply risk and prices through the first three weeks of June. Meanwhile, natgas prices edged down in May as U.S. production and inventories rose a bit faster than expected. Nevertheless, following the frigid winter, underground storage is still very low, making it a tough task to adequately refill inventories by next winter.

The **Metals & Minerals Index** was essentially flat in May, as a third consecutive double-digit gain in nickel offset a big drop in uranium and moderate declines in precious metals and aluminum. Uranium prices have shed 19% over the first five months of the year and are now at their lowest level since mid-2005. Delays in restarting Japan's nuclear reactors suggest that prices are unlikely to recover meaningfully this year.

The **Forest Products Index** edged up 0.6% in May, with both spruce-pine-fir and oriented strand board gaining on some seasonal strength, while pulp prices continued their surprisingly strong run, flirting with record levels at US\$1030/tonne. Although tight supply is likely to keep pulp prices at elevated levels, the soggy housing market continues to challenge upward momentum in the lumber market.

The **Agriculture Index** gained 2.7% in May as an uptick in canola and Minneapolis wheat prices countered a dip in livestock. Wheat prices continued to advance in June, at one point touching US\$10/bushel on concerns about the quality of the U.S. winter wheat crop. Meanwhile, cattle futures firmed and once again tested record levels as farmers held back animals for herd expansion.

ECONOMIC RESEARCH

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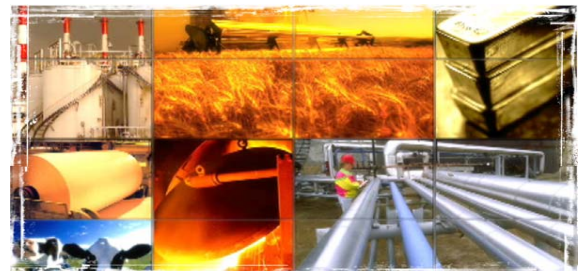
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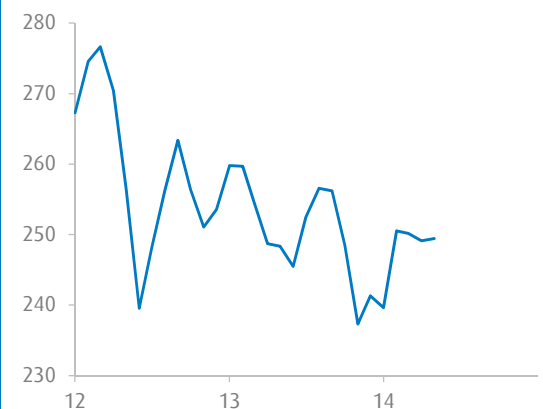
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BMO CAPITAL MARKETS COMMODITY PRICE INDEX (2003 = 100)

All Commodities Index



	May Level (2003=100)	% Change from Mth. Ago	% Change from Yr. Ago
All Commodities	249.4	0.1	0.4
Oil & Gas	273.6	-0.1	8.1
Metals & Minerals	267.5	-0.1	-9.6
Forest Products	142.9	0.6	4.2
Agriculture	194.6	2.7	-9.6



Commodity Focus: Livestock

Livestock prices are sky-high; how long will it last?

Hog and cattle prices have charged to all-time nominal highs over the first half of 2014 (Chart 1), with both outperforming nearly all other components of the BMO commodity price index on a year-over-year basis. Prices are lofty in inflation-adjusted terms, too: real hog prices

are at their highest in nearly two decades, while real cattle prices are at their richest in more than three. With grilling season now in full swing, barbecue lovers everywhere want to know: how long will it last?

The main catalyst for the run-up in livestock was last year's

North American bumper crop and the resulting plunge in feed costs, which has led livestock producers to hold back animals for

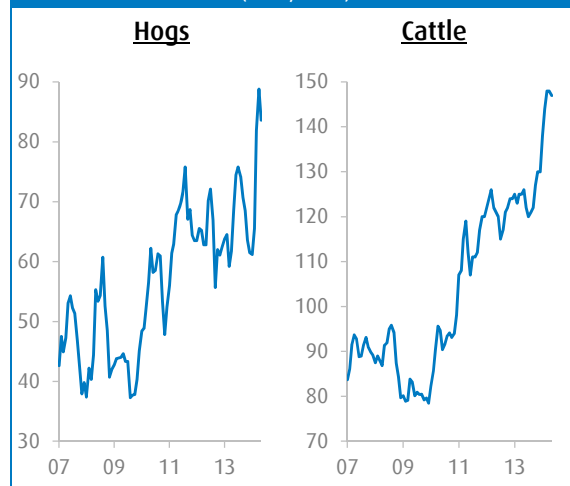
herd expansion. This year's crop is shaping up nicely as well. In fact, favourable spring conditions have elicited USDA projections of an even larger corn and soybean crop than last year, conditional on growing conditions remaining relatively supportive. Futures markets are also expecting a large crop, with end-2014 corn contracts priced in the same low \$4-5/bushel range that livestock producers have enjoyed since last summer, and end-2014 soybean contracts discounted 14% relative to July. Unless growing conditions take a sharp turn for the worse, livestock producers' costs should remain neatly contained.

In the cattle space, the increase in margins comes after years of high feed costs, low cattle prices, and drought-ravaged pasture land depressed the U.S. beef cow herd to its lowest headcount in half a century. Even accounting for the long-term upward trend in slaughter weights, the productive capacity of the U.S. cattle herd is at its lowest in two decades. In most areas of the United States, **cattle producers appear to be reacting to freshly enriched margins by moving to expand their herds** (though grazing land remains seared by drought in the south and southwest, which is preventing expansion there). While it's still too early to see the direct impact in the data (the most recent calf crop figures are for the second half of 2013), there are abundant indirect indications of a shift toward herd expansion, not least of which has been the large run-up in cattle prices this spring. A falling share of heifers (i.e. female cattle) being reported by feedlots and slaughterhouses also suggests that significantly more are being held back by cow-calf operators for breeding.

In the hog space, PED virus appears to be having an even larger impact on prices than herd expansion.

Although the hog breeding herd was down to its lowest headcount on record last year, the herd's productive capacity has remained in relatively good shape thanks to secularly rising litter rates (i.e. pigs per litter) and slaughter weights. As a result, the number of sows farrowed in the first half of 2014 looks to have been up only moderately since last year, and the resulting reduction in supply available for slaughter has likely had a middling impact on prices. However, prices have responded vigorously to the spread of PED virus, which has noticeably reduced the pig crop and slaughterhouse output over the past year, even with the increase in farrowing (PED poses no risk to food safety, but has a very high mortality rate in piglets). Moreover, widely-publicized bans on imports of U.S. hogs in a number of countries have done little to offset the supply-side impact, as relatively few live animals are exported.

CHART 1. USDA LIVESTOCK PRICES
(US\$/cwt)



Today's towering livestock prices won't last forever. For one thing, higher prices at the farm gate have already translated into significantly more expensive red meat at the supermarket. In fact, consumer beef and pork prices have risen at a double-digit pace over the past year, far outpacing overall food price inflation (*Chart 2*). Higher retail prices for beef and pork will lead to some consumer pull-back as buyers substitute poultry and other meats in their place, which should help stretch limited supplies a little bit further. But, while the anticipated consumer shift may have a marginal impact, a more meaningful decline in livestock prices will require an upswing in supply.

In the hog space, supply may already be starting to normalize, as the number of confirmed new cases of PED virus has fallen by more than 50% since peaking in February (*Chart 3*). This was likely a factor behind the nearly 6% pull-back in hog prices in May, though renewed firmness in June suggests that the market remains wary. And, rightly so: PED thrives in cold, damp conditions, so there is a real risk that the outbreak will reintensify in the fall. Futures markets, for their part, appear optimistic that the worst has passed, with end-2014 lean hog contracts priced nearly 25% cheaper than those expiring in July (far beyond the usual seasonal discount). Under the assumption that PED remains more-or-less contained going forward, hog prices are expected to rise from \$67.20/cwt in 2013 to an average of US\$79.00 in 2014, but steadily lose steam over the year as supply continues to loosen, particularly after the summer grilling season. Hog prices are expected to ease to an average of \$70.50 in 2015.

Supply will remain tighter for longer in the cattle space.

Assuming that cattle producers started to step up animal breeding around the turn of the year (i.e. when cattle prices began to soar), supply is unlikely to loosen materially until early 2016, given cows' nine-month gestation period and the roughly 18 months of development required to prepare animals for slaughter. Cattle prices are therefore expected to remain near recent highs over the entire forecast horizon, averaging \$142/cwt in 2014 and \$140 in 2015, up from \$125 in 2013. Futures markets appear to concur, with contracts priced at a premium all the way to the end of the curve. Further out, cattle prices are likely to come under material downward pressure in 2016 as the increase in supply finally begins to show up at the slaughterhouse gate.

CHART 2. FOOD PRICE INFLATION
(y/y % change in May 2014)

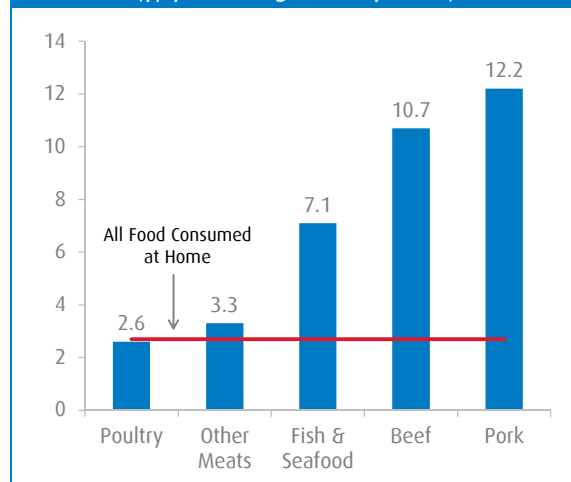
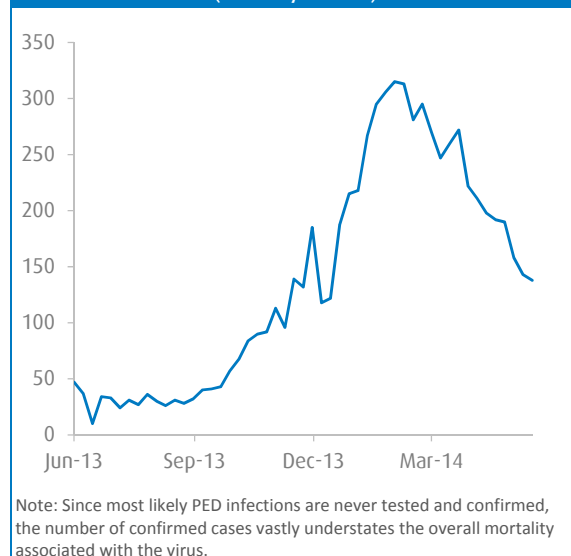


CHART 3. CONFIRMED CASES OF PED VIRUS
(weekly count)



Energy and Materials

	Crude Oil	Natural Gas		Lumber	Pulp	Newsprint
	(WTI)	(Henry Hub)	(Alta. Empress)			
	US\$/bbl	US\$/mmbtu		US\$/mbf	US\$/tonne	
2001	25.92	3.96	3.48	275	558	585
2002	26.10	3.37	2.63	262	490	465
2003	31.14	5.49	4.82	268	553	503
2004	41.44	5.90	5.25	386	640	550
2005	56.46	8.81	7.51	347	647	610
2006	66.10	6.74	5.92	290	722	667
2007	72.36	6.98	6.32	245	824	593
2008	99.57	8.86	8.09	215	858	701
2009	61.69	3.95	3.46	177	718	564
2010	79.43	4.39	3.59	255	960	606
2011	95.08	4.00	3.28	255	977	640
2012	94.20	2.75	2.19	299	872	640
2013	97.94	3.73	2.98	356	941	608
y-t-d 2014	100.79	4.92	5.53	354	1022	605
2013						
June	95.80	3.83	3.08	297	950	605
July	104.70	3.62	2.62	312	950	605
August	106.54	3.43	2.17	323	945	605
September	106.24	3.62	1.98	347	945	605
October	100.55	3.68	3.02	364	970	605
November	93.87	3.64	3.30	382	990	605
December	97.75	4.24	3.88	364	990	605
2014						
January	94.64	4.71	4.23	373	1010	605
February	100.82	6.00	7.94	364	1010	605
March	100.80	4.90	7.10	363	1030	605
April	102.07	4.66	4.52	338	1030	605
May	102.11	4.58	4.43	342	1030	605
m-t-d June	106.72	4.71	n.a.	n.a.	n.a.	n.a.
Forecast						
2014 Avg.	99.00	4.50	4.65	365	995	615
2015 Avg.	95.00	4.70	4.20	415	980	640

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

Base and Precious Metals

	Copper	Aluminum	Zinc	Nickel	Gold	Silver
	US\$/lb			US\$/oz		
2001	0.72	0.66	0.40	2.71	271	4.37
2002	0.71	0.61	0.35	3.08	310	4.60
2003	0.81	0.65	0.38	4.37	364	4.88
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
y-t-d 2014	3.14	0.79	0.93	7.46	1290	20.01
2013						
June	3.18	0.82	0.83	6.47	1343	21.13
July	3.13	0.80	0.83	6.22	1284	19.72
August	3.26	0.82	0.86	6.48	1345	21.85
September	3.25	0.80	0.84	6.25	1348	22.58
October	3.26	0.82	0.85	6.38	1314	21.91
November	3.21	0.79	0.85	6.23	1277	20.77
December	3.27	0.79	0.90	6.31	1222	19.61
2014						
January	3.31	0.78	0.92	6.38	1243	19.90
February	3.24	0.77	0.92	6.44	1299	20.85
March	3.02	0.77	0.91	7.10	1337	20.73
April	3.03	0.82	0.92	7.88	1299	19.71
May	3.12	0.79	0.93	8.82	1289	19.35
m-t-d June	3.07	0.83	0.97	8.40	1292	20.05
Forecast						
2014 Avg.	3.15	0.79	0.94	8.15	1265	20.00
2015 Avg.	3.10	0.83	0.95	10.50	1200	20.25

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Agriculture

	Wheat	Canola	Cattle	Hogs
	US\$/bushel	US\$/tonne		US\$/cwt
2001	3.69	201	71.21	44.08
2002	4.14	242	66.61	33.28
2003	4.24	261	79.97	37.54
2004	4.56	271	85.54	51.20
2005	4.78	224	89.55	49.61
2006	5.19	257	87.09	46.25
2007	7.10	379	90.02	46.68
2008	11.19	528	89.23	47.65
2009	7.03	371	80.36	41.99
2010	7.57	429	91.97	55.05
2011	11.20	567	113.25	66.47
2012	9.71	599	121.50	64.18
2013	8.86	543	124.67	67.22
y-t-d 2014	9.11	411	145.00	76.20
2013				
June	9.18	593	122.00	74.40
July	8.57	527	120.00	75.80
August	8.37	486	121.00	74.20
September	8.22	477	122.00	70.70
October	8.78	467	127.00	68.50
November	8.39	465	130.00	63.60
December	8.63	426	130.00	61.50
2014				
January	9.31	391	138.00	61.20
February	9.04	376	144.00	65.50
March	9.64	404	148.00	81.90
April	8.73	423	148.00	88.80
May	8.96	446	147.00	83.60
m-t-d June	9.40	439	n.a.	n.a.
Forecast				
2014 Avg.	9.20	425	142.00	79.00
2015 Avg.	10.10	480	140.00	70.50

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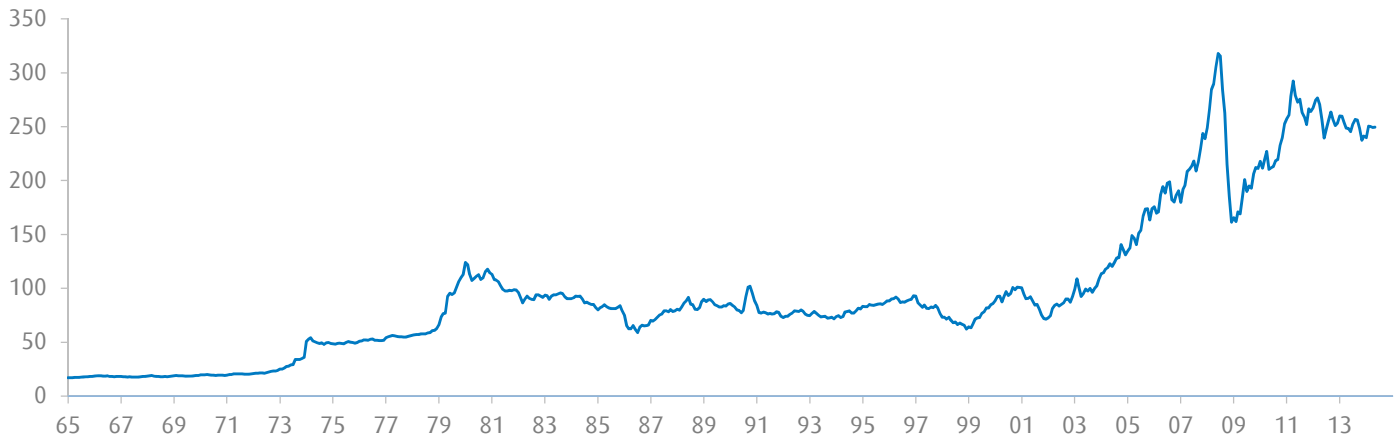
Commodity Indices and Forecasts

US\$-terms : 2003 = 100		All Commodities	Oil & Gas	Metals & Minerals	Forest Products	Agricultural Products	All Commodities C\$-terms	
Annual								
	2005	155.4	176.7	146.9	121.3	103.8	134.2	
	2006	185.1	192.4	219.7	119.9	112.5	149.8	
	2007	213.0	209.0	276.5	117.3	152.6	162.5	
	2008	261.4	284.6	290.4	122.8	222.3	196.2	
	2009	188.3	170.1	266.0	104.0	149.0	152.7	
	2010	222.8	216.1	289.0	129.2	166.1	163.8	
	2011	268.4	253.6	361.0	132.1	232.3	189.4	
	2012	259.5	246.4	347.0	131.3	219.4	185.0	
	2013	250.7	259.7	294.8	140.8	202.3	184.2	
Forecast	2014	245.5	265.5	267.9	144.1	193.7	191.6	
	2015	247.1	256.3	281.5	151.3	210.9	201.0	
Quarterly								
	2012	Q3	255.9	242.1	340.8	130.9	224.8	181.8
		Q4	253.7	233.9	345.6	135.6	224.0	179.4
	2013	Q1	258.0	249.7	331.7	143.3	217.1	185.3
		Q2	247.5	251.6	295.5	138.4	214.4	180.8
		Q3	255.1	278.7	281.4	137.5	190.4	189.1
		Q4	242.4	258.8	270.4	144.0	187.2	181.4
	2014	Q1	246.8	267.7	269.0	145.0	189.9	194.2
Forecast		Q2	250.2	275.9	266.8	141.6	194.5	194.9
		Q3	242.2	261.0	265.4	142.7	191.9	187.4
		Q4	242.8	257.2	270.2	147.0	198.6	189.9
Monthly								
	2013	May	248.3	253.1	295.9	137.2	215.3	180.8
		Jun	245.5	254.8	285.3	134.1	213.2	180.7
		Jul	252.5	276.2	275.7	136.1	196.9	187.8
		Aug	256.6	279.9	285.0	137.0	188.7	190.2
		Sep	256.2	280.0	283.5	139.3	185.6	189.3
		Oct	248.5	266.0	278.1	143.0	191.5	183.4
		Nov	237.3	249.2	269.3	145.8	186.5	177.6
		Dec	241.3	261.3	263.8	143.3	183.8	183.2
	2014	Jan	239.6	255.5	265.9	145.5	188.4	186.6
		Feb	250.5	276.1	269.3	144.2	184.1	197.8
		Mar	250.2	271.6	271.8	145.1	197.2	198.4
		Apr	249.1	273.8	267.9	142.1	189.4	195.5
		May	249.4	273.6	267.5	142.9	194.6	194.0

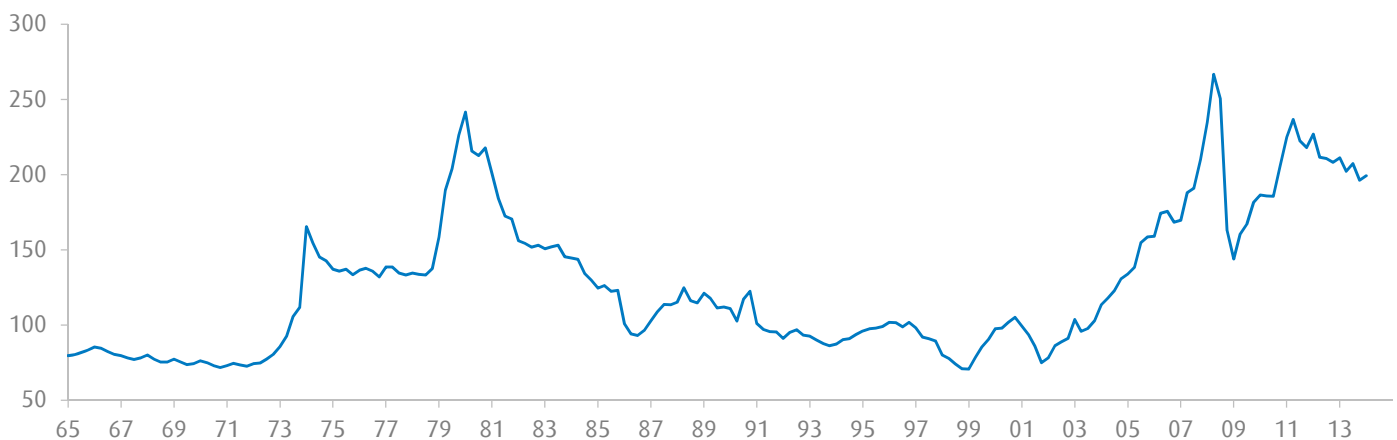
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Historical Charts: All-Commodity Index

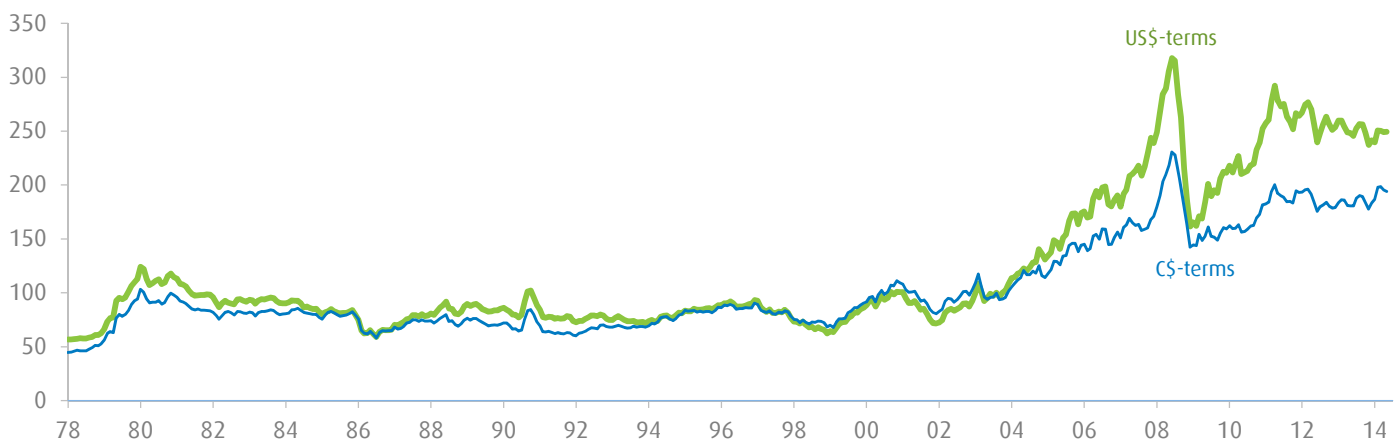
Nominal US\$-Terms (2003 = 100)



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 2009-11. 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	29.3	100.0	Forest Products	12.3	100.0
Gold	9.3	31.7	Newsprint	2.0	16.2
Silver	1.4	4.7	Market Pulp	4.3	34.9
Aluminum	6.5	22.1	Supercalendered Paper	2.0	15.9
Copper	2.4	8.0	Lumber	3.5	28.2
Nickel	3.6	12.3	OSB	0.6	4.8
Zinc	0.9	3.2			
Uranium	1.6	5.4	Agricultural Products	7.9	100.0
Potash	3.7	12.7	Wheat	4.1	51.3
			Canola	2.8	35.2
Oil and Gas	50.5	100.0	Hogs	0.3	3.5
Crude Oil	39.3	77.8	Beef Cattle	0.8	9.9
Canadian Natural Gas	11.2	22.2			
			All Commodities	100.0	

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

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