The Goods

BMO Capital Markets
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A monthly commodity watch

January 2019

Commodities Experience Late-Year Chill

Energy weakness offsets moderate gains in precious metals and agriculture

➔ 2020 Forecast Rollout on Page 2

The **BMO Capital Markets Commodity Price Index** fell 6.4% in December, as the plunge in oil prices overpowered moderate strength in precious metals and some agricultural products, leaving the index 8.9% below year-ago levels. However, energy prices rebounded sharply in early January, alongside gains in most other commodities as late-year financial market volatility and rising global economic concerns led to much more cautious guidance by the Federal Reserve.

The **Oil & Gas Index** ended a volatile year on a soft note, falling 13.4% in December as the market focused on weakening global demand amid overabundant supply. West Texas Intermediate has since rebounded moderately from its December 24th low of US$42.50/barrel on news that OPEC+ would once again restrain production, starting in January. U.S. natural gas benchmark Henry Hub edged down slightly in December and subsequently declined further in January as the market began to look past winter (perhaps a bit early) and focus on strong growth in U.S. gas output.

The **Metals & Minerals Index** gained 0.9% in December with uneven results across the sector as heightened equity market volatility continued to play a role in driving up precious metals prices. Gold had its largest monthly gain in a year, rising above US$1280/oz by year-end, while prices jumped above $1300 in late January. On the flipside, base metals were broadly weaker in December, with copper and nickel taking the biggest hits as downward pressure from dimming global growth prospects outweighed the upside from shrinking global inventories.

The **Forest Products Index** plunged a further 6% in December, capping off its most volatile year on record. The month's move was mostly due to a poor hand-off from November, with Spruce-Pine-Fir slipping $17 to average US$320 per thousand board feet (mbf), while OSB prices continued their nosedive, shedding $34 to average US$208 per thousand square feet (msf). However, the intra-monthly movements were much more subdued and, though trading was thin, prices of both products exhibited some late-month momentum as the market grew more confident that a bottom had been reached.

The **Agriculture Index** edged up 1.3% in December. Wheat prices gained 2.4% during the month and are now up an impressive 26% y/y thanks to last year's rotation of acreage toward other crops and poor growing conditions in certain producing regions. In the livestock space, hog and cattle prices posted moderate advances on signs of slower herd expansion.

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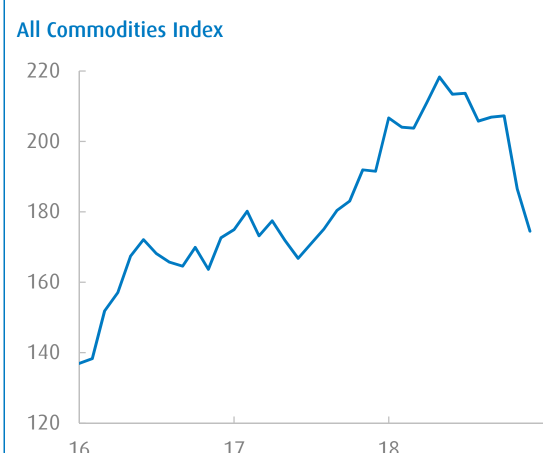
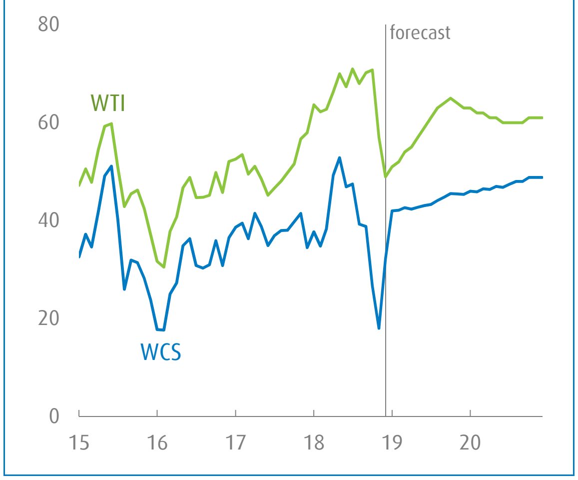
BMO CAPITAL MARKETS COMMODITY PRICE INDEX (2003 = 100)



	Dec. Level (2003=100)	% Change from Mth. Ago	% Change from Yr. Ago
All Commodities	174.5	-6.4	-8.9
Oil & Gas	146.5	-13.4	-13.2
Metals & Minerals	248.0	0.9	-3.6
Forest Products	111.7	-6.0	-30.1
Agriculture	146.5	1.3	8.1

2020 Forecast Rollout

CRUDE OIL PRICES (US$/barrel)



Energy • **Crude Oil:** Global oil prices rose through much of last year (until collapsing in October), supported by the late-2017 decision by OPEC+ to extend its output curtailment pact through the end of 2018. The U.S. withdrawal in May from the Iran nuclear deal also stoked the market, with expectations that augmented sanctions would sharply curtail Iranian oil production starting in November. Consequently, U.S. benchmark West Texas Intermediate (WTI) increased to as high as US$76/barrel in early-October. However, even before then, Saudi Arabia and Russia had become concerned that over-compliance with production cuts due to large output declines in Venezuela and Iran would cause prices to spike even higher and destabilize the market. Consequently, both countries began to raise production. Saudi output surged from 10.1 million barrels per day (mmb/d) during the second quarter to 11.1mmb/d by November, while Russian output increased 0.4mmb/d. This coincided with a 1.2mmb/d leap in U.S. crude oil production. The resulting 2.6mmb/d surge in supply from those three countries, combined with rising concerns that slowing global economic growth would crimp the demand for oil, caused WTI to plunge by about $30/bbl to $46 between early-October and mid-December. Facing a fiscal breakeven oil price of about $73, Saudi Arabia quickly reversed course, unilaterally slashing output by about 0.5mmb/d in December and, on December 7th, OPEC+ agreed to remove 1.2mmb/d from the market for six months (from an October 2018 baseline), starting in January. This contributed to a moderate recovery in WTI to the vicinity of $54 currently. Given our macro view that the global economic expansion will average 3.3% over the next two years, oil demand should grow in the range of 1.3-1.4mmb/d. And, assuming OPEC+ follows through with its latest production curtailment agreement, the interplay between demand and supply should see the global oil market achieve balance by the second half of this year. Thus, we expect WTI to rise to an average of $59 in 2019 and $61 in 2020.

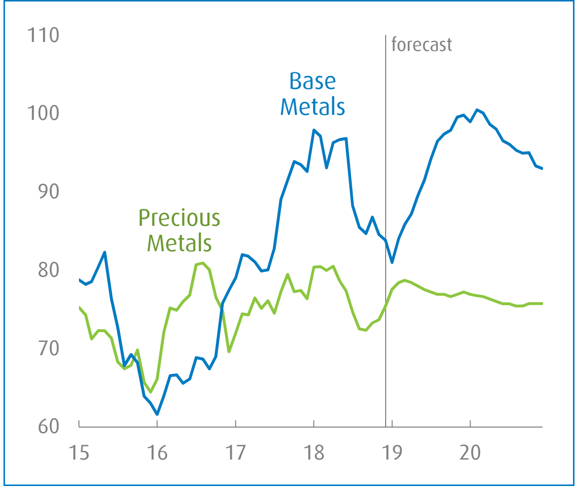
Canadian producers have faced not only the volatility of global prices, but also huge swings in the discounts of domestic prices from WTI. The discount on Western Canadian Select (WCS), a heavy oil benchmark, blew out from an average of US$12.70 in 2017 (or 25% of WTI, identical to its average since 2008) to $44.40 in October (63% of WTI) due to a confluence of factors, including: insufficient pipeline capacity to deliver growing Alberta oil output to U.S. clients, extended downtime at the Whiting Refinery in Indiana, and temporary pipeline outages. In November, the sharp drop in WTI, combined with its wide discount from WTI, caused WCS to temporarily collapse to US$13.50. Since then, increased rail transport of oil, the ramping up of the Whiting refinery, pipeline repairs, the temporary supply cap imposed by the Alberta government on production, and now the U.S. sanctions on Venezuelan oil have led to a sharp recovery in WCS to close to $45, narrowing the discount to around 17%. While renewed price pressures and volatility cannot be ruled out, rising rail transport of crude should keep the WCS discount well below its elevated level from 2018. And, completion of Enbridge's Line 3 upgrade later this year will provide a substantial boost to out-take capacity from Alberta. Consequently, we project WCS to rise to an average of US$43.60/barrel in 2019 and US$47.40 in 2020.

NATURAL GAS PRICES (US$/mmbtu)

Natural Gas: The U.S. natural gas market saw exceptional growth in supply and demand in 2018, though little change in average prices. Reflecting a fleeting late-year spike, U.S. benchmark Henry Hub rose modestly to an annual average of $3.17 per million BTU (mmbtu) from $2.99 in 2017. Though natural gas production rose an estimated 11%, it was outpaced by demand. Both domestic consumption and exports grew by an estimated 12%, the latter on surging pipeline shipments to Mexico and sales of liquefied natural gas (LNG). With the growth in demand for U.S. natural gas outpacing domestic production and imports down moderately, there was a stronger-than-average draw from inventories, bringing current underground storage to a level about 12% below its five-year average. The early onset to cold weather in the autumn and below-average inventories caused the market to tighten notably during the fourth quarter, with Henry Hub climbing to an average of $3.80 and spiking as high as $4.70 in mid-November. Since then, despite the deep freeze currently enveloping the middle and eastern parts of the continent, Henry Hub has retreated to the vicinity of $3.00 on expectations of surging production growth and some switching back to coal by power generators. With supply likely to remain strong while consumption slows from its heated pace in 2018, we forecast Henry Hub to ease to an average $3.00/mmbtu in 2019 before rising moderately in 2020 to $3.10.

For reasons similar to the oil market, the discount on Canadian natural gas is very high and has been elevated considerably longer. For instance, over the three-year period 2016-2018, the discount on AECO from Henry Hub averaged 47% and, during the final three quarters of 2018, it averaged 67%, far above its 12.5% average during 2008-2015. Though it will take some time, we do anticipate that the current exceptionally large discount will decline as pipeline expansions reduce bottlenecks by increasing export infrastructure to the U.S. Midwest, Northwest, and California. The eventual removal of crude oil output restrictions in Alberta and recovery in oil sands production will also absorb more natural gas. Further out, the demand for Western Canadian gas will rise as Alberta power producers convert their coal generating capacity to natural gas and LNG Canada begins exports of liquefied natural gas. However, in 2019, the discount is projected to remain elevated, at 55% of Henry Hub — due to existing pipeline constraints — before narrowing to 45% in 2020. Accordingly, we project that AECO will average US$1.35/mmbtu this year and $1.70 in 2020.

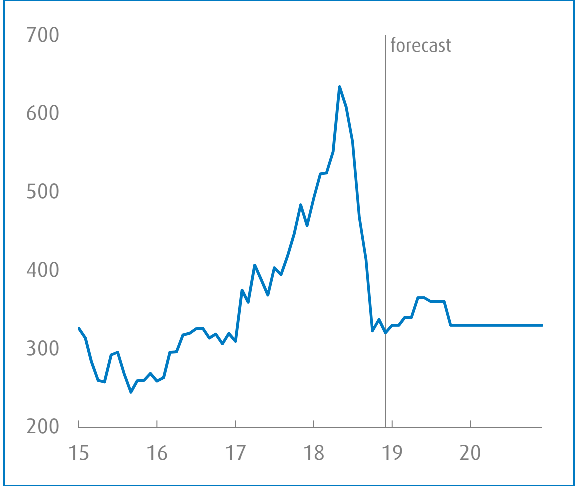
METAL PRICES (Jan. 2012 = 100)



Metals • **Precious metals** prices were little changed in 2018 on an average annual basis, masking substantial fluctuations throughout the year. Early on, prices were supported by a multi-year low in the US dollar and a pick-up in equity market volatility. Financial markets calmed into mid-year, even as the Trump Administration's protectionist trade policies stirred global trade tensions, and precious metals fell out of favour as U.S. equity markets rallied to new highs. As geopolitical risks returned to the forefront in Q4, investor nervousness provided substantial support for safe-haven assets into late December, though precious metals remained well below the early-2018 highs. Of course, continued uncertainties related to U.S./China trade relations, Brexit, and a merely temporary end to the longest U.S. government shutdown in history, reflect just some of the risks lingering below the surface which should support the moderately positive outlook for precious metals in the first half of 2019. We expect **gold** to average $1285 in 2019, before downshifting modestly to $1260 in 2020. While solar demand should provide support to **silver** over the medium term, the cutting of China's solar subsidies in 2018 led to further underperformance versus gold, lifting the gold-to-silver ratio to its highest levels since the early 1990s. Still, we expect silver to rise from an average $15.71/oz in 2018 to a projected $16.20 in 2019 and $17.20 in 2020.

Following a couple years of relatively solid gains, **base metals** underperformed in 2018, with most metals peaking early in the year and then struggling in the second half as escalating trade tensions and slower global growth prospects overshadowed relatively tight supplies across the segment. The latter was exacerbated by reduced smelter capacity as China continued to push toward meeting its clean air targets. **Nickel** prices were strong out of the gates in 2018 as plunging inventories, concerns over potential Russia-related sanctions and the prospects for electric vehicle battery use temporarily jolted prices above the US$7.00/lb mark for the first time since 2014. That euphoria was abruptly extinguished as the nickel sanctions never came to fruition (unlike aluminum) and global growth prospects began to dim. Prices nosedived more than 30% from the June peak into year-end, but have shown some signs of life in early 2019 while inventories have stabilized. After averaging $5.95/lb in 2018, nickel is expected to moderate to an average of $5.70 in 2019, before rising to $5.90 in 2020. **Aluminum** prices were particularly choppy in 2018 as U.S. import tariffs, sanctions on Rusal (the largest producer outside of China) and disruptions at a large alumina facility in Brazil ratcheted prices to a multi-year high in April. But, much like the situation with other base metals, geopolitics took over, contributing to a nearly 25% decline by year-end from the April peak. Still, as supply deficits persist and inventories remain low, aluminum is expected to firm throughout 2019, to an average of $0.95/lb in 2019, and rise to $0.99 in 2020. Given the typical correlation between global growth and **copper** prices, the red metal also had a rather rough go in 2018. Nonetheless, China's increasingly stringent scrap import restrictions and a lack of new mine supply should allow copper prices to rise from an average $2.96/lb in 2018, to $3.10 in 2019 and $3.30 in 2020. After peaking early in 2018, **zinc** went on to underperform its fellow base metals, sliding nearly 35% from February to September before prices stabilized. Meantime, tight concentrate markets and reduced smelter capacity have contributed to very low inventory levels. Still, we expect the average zinc price to decline from $1.33/lb in 2018, to $1.20 in 2019 as increased production returns balance to the market, before rising moderately to $1.23 in 2020.

SPRUCE-PINE-FIR PRICES (US$/mbf)



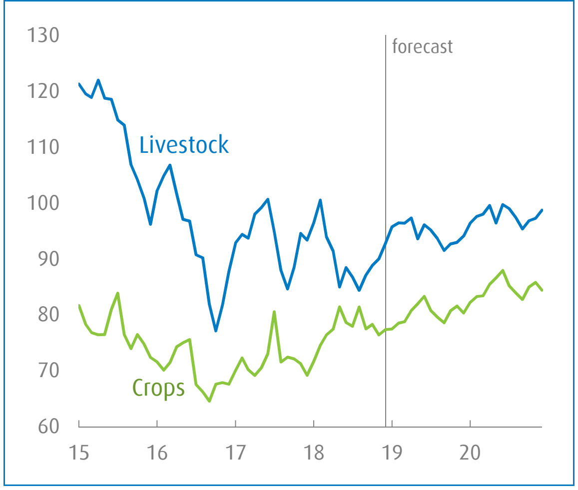
Forest Products • The forest products index experienced unprecedented volatility in 2018. Transitory supply issues wreaked havoc on a drum-tight tariff-trapped market ahead of the summer building season, vaulting prices of framing lumber to record levels. But, a softening in fundamentals — namely soggy housing starts (amid poor weather conditions) and a downward grind in home sales activity — unleashed the greatest crash in framing lumber prices on record. Filtering through the considerable volatility reveals that the general trend in pricing was dictated by developments in the home building segment. In that regard, wood product markets will likely face less volatile, albeit softer, conditions in 2019 with the U.S. housing cycle now appearing to have passed its peak. Given higher interest rates, rising home prices, and reduced affordability, we see few signs that the multi-month slowdown in housing-related metrics shows any sign of a turnaround. On the supply-side, building has been constrained by zoning restrictions, labour shortages, building-material inflation (including forest products), and the imposition of duties on specific materials. Taken together, we see starts moderating to 1.24 million units in 2019, a sharp drop-off from the 1.32 million unit annualized pace that triggered the early-2018 price spike.

Supply dynamics within the framing lumber space remained balanced through the latter months of 2018, although inventories began to swell on a seasonal basis. The structural decline in B.C.'s production (due to reductions in the yearly allowable cut) was underappreciated by traders in the early months of last year, a factor at the root of the run-up in pricing that followed. However, the shortfall was more than reversed by a late-year surge by Western and Southern U.S. production that contributed to the steep correction in prices. Naturally, sustained production increases in the order of 4%-to-5% a year from U.S. producers will pressure pricing if housing activity moderates as outlined in our forecast. And, while home building accounts for only about one-third of the framing lumber market, other end-uses are highly correlated, namely renovations and consumer goods (of which furniture is a large component). On balance, we believe that softening demand and marginal production increases will lead to a broad weakening in prices, with Western Spruce-Pine-Fir declining roughly 30% on an annual basis (largely due to base effects) to average US$345/mbf in 2019.

Conditions in the oriented strand board market were similarly volatile in 2018, owing to rail disruptions and the delayed start-up of several mills. The market was initially caught off-guard by a dearth of supply amid a strong start to the building season; but, unlike framing lumber markets, a downward move in pricing was largely telegraphed by already-announced capacity increases. An uninspiring end of the year saw North Central OSB dip to its lowest level in three years at just over US$200/msf. While the downswing might be slightly overblown, we do not anticipate much price recovery in 2019 given OSB's heavy dependency on home construction and the addition of 2900msf, or 12%, of capacity over the past several months. It bears repeating that annual figures are significantly distorted by base effects, but our OSB forecast is for a 37% decline, with North Central prices averaging $220/msf in 2019.

Agriculture • **Wheat** prices increased an impressive 26% y/y in December, pulling further away from decade-lows plumbed in 2016. The improvement has been driven primarily from the supply side, reflecting last year's rotation of global acreage away from wheat and into soybeans (which were more attractively priced at the start of 2018) and poor growing conditions in parts of Europe, the Black Sea region, and Australia. Overall, global wheat production is estimated to have declined to a four-year low in the 2018 marketing year, yielding a drop in the stocks-to-use ratio for the first time in five years. Demand growth has also been robust, especially in the crucial U.S. market, where real consumer spending on food has increased at a 3.3% annualized pace over the past three years (significantly exceeding the 1.4% average of the past half-century). But despite the improvement, wheat stockpiles remain elevated and, as a result, prices remain lacklustre in historical terms. Looking ahead, the wheat market is unlikely to post further strong gains in the near term, as today's higher prices will likely spur an increase in acreage this year, while trend-reversion in overseas yields would further increase supply. With the U.S. and global economies expected to slow this year, demand growth is also likely to slow. Even so, under the assumption that global corn and soybean yields fall back toward trend, tighter conditions in the crop space as a whole should benefit wheat modestly. Wheat prices, therefore, are expected to rise from an average of US$4.95/bushel in 2018 to $5.30 in 2019 (mainly reflecting a solid hand-off, as prices are already in the $5.20 range) before rising to $5.60 in 2020.

AGRICULTURAL PRICES (Jan. 2012 = 100)



Canola prices ended 2018 on a sour note, flirting with multi-year lows and down 8.3% y/y (in U.S. dollar terms). Although the demand environment has remained supportive, canola has been hard-hit by the drop in soybean prices, which tend to determine market conditions across the broader oilseed space. The soybean market, in turn, has been undermined by last year's rotation of acreage into the crop and, since mid-2018, by China's new 25% tariff on imports from the United States (China typically purchases around one-third of the U.S. soybean crop and has been highly effective at reducing consumption and tapping alternative sources). At this stage, a key risk for soybeans — and by extension, canola — is that rising production outside the United States will yield a prolonged glut of oilseeds if and when U.S./China trade relations normalize. Overall, canola prices are expected to decline from an average of US$389/tonne in 2018 to $380 in 2019, though this reflects a weak hand-off from 2018 and the market is actually expected to edge somewhat higher over the year (the crop was trading at just $357 in December). Canola prices should improve somewhat further to $400 in 2020.

Hog prices had a tough year in 2018 and, at one point, traded below the US$50 per hundredweight (cwt) mark, which, setting aside a brief period in 2016, was their lowest level since the global recession. Even with a rebound in the latter months of the year, hog prices were down 12.6% y/y in December. With food demand in good shape, the decline resulted from a continued ramp-up in supply. Indeed, the U.S. hog herd has expanded nearly 17% over the past five years, or 3.2% per year—significantly faster than can be sustained by population and export growth. Hog prices have also been negatively affected by ongoing U.S. trade skirmishes, particularly tariffs enacted by China and Mexico, which are among the largest markets for U.S. pork. Fortunately, the shakier pricing environment has started to spur supply restraint, which the U.S. Department of Agriculture expects will continue into 2019. With supply rationalization underway, hog prices are expected to increase from an average of US$65.26/cwt in 2018 to $68 in 2019 and $77 in 2020. However, prices could meaningfully exceed those levels if the continued overseas spread of African Swine Fever (ASF) was to weigh more heavily on global supply, or if the disease made landfall in North America (ASF results in animal loss but does not pose a risk to human health).

Cattle prices, despite a substantial mid-year drop, were little-changed in 2018 as a whole, increasing 1.2% y/y in December. Compared to the hog sector, the U.S. cattle industry has been considerably more cautious on herd expansion, with the head count up just 7.3% over the past five years despite solid demand growth. Most recently, the U.S. cattle herd expanded just 0.6% in 2018, partly due to a mid-year drought on the Southern Plains, which spurred the early placement of animals into feed lots and put significant but temporary pressure on the market. The U.S. cattle and beef industry has also been the target of foreign tariffs, but is not especially reliant on trade, with only 11% of production exported in 2017 (i.e., before the onset of current trade disputes), against 22% in the pork industry and 48% in the soybean space. Overall, the cattle market appears fairly balanced. Cattle prices are expected to increase from an average of US$114.64/cwt in 2018 (and $119.83 in December) to $120 in 2019 and $122 in 2020. However, prices would be vulnerable to an unexpectedly sharp increase in feed prices or a meaningful downshift in demand.

Energy and Materials

		Crude Oil (WTI)	Natural Gas (Henry Hub)	Natural Gas (AECO)	Lumber
		US$/bbl	US$/mmbtu		US$/mbf
	2006	66.10	6.74	5.76	290
	2007	72.36	6.98	6.02	245
	2008	99.57	8.86	7.79	215
	2009	61.69	3.95	3.48	177
	2010	79.43	4.39	3.89	255
	2011	95.08	4.00	3.67	255
	2012	94.20	2.75	2.39	299
	2013	97.93	3.73	3.09	356
	2014	93.26	4.39	4.08	349
	2015	48.69	2.63	2.12	277
	2016	43.21	2.52	1.63	305
	2017	50.91	2.99	1.67	401
	2018	64.84	3.17	1.19	480
	y-t-d 2019	51.14	3.16	1.41	221
2018	January	63.66	3.88	1.64	493
	February	62.21	2.67	1.69	523
	March	62.76	2.69	1.57	524
	April	66.26	2.80	1.10	552
	May	69.99	2.80	0.86	634
	June	67.33	2.97	0.91	609
	July	70.97	2.83	1.04	564
	August	67.99	2.96	0.82	468
	September	70.20	3.00	1.04	414
	October	70.76	3.28	1.10	323
	November	57.00	4.09	1.29	337
	December	48.95	4.04	1.25	320
2019	m-t-d January	51.14	3.16	1.41	221
Forecast	2019 Avg.	**59.00**	**3.00** ↓	**1.35**	**345**
	2020 Avg.	**61.00**	**3.10**	**1.70**	**330**

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	
	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
	2017	2.80	0.89	1.31	4.72	1258	17.06
	2018	2.96	0.96	1.33	5.95	1270	15.71
	y-t-d 2019	2.68	0.84	1.15	5.14	1288	15.56
2018	January	3.21	1.00	1.56	5.84	1333	17.19
	February	3.18	0.99	1.61	6.16	1334	16.65
	March	3.08	0.94	1.49	6.08	1326	16.47
	April	3.10	1.02	1.45	6.32	1334	16.60
	May	3.09	1.04	1.39	6.51	1304	16.45
	June	3.15	1.02	1.40	6.85	1282	16.51
	July	2.83	0.95	1.21	6.25	1238	15.71
	August	2.74	0.93	1.14	6.09	1202	15.00
	September	2.73	0.92	1.10	5.68	1199	14.27
	October	2.82	0.92	1.21	5.59	1215	14.58
	November	2.81	0.88	1.18	5.10	1221	14.36
	December	2.76	0.88	1.19	4.91	1250	14.67
2019	m-t-d January	2.68	0.84	1.15	5.14	1288	15.56
Forecast	2019 Avg.	**3.10** ↓	**0.95** ↓	**1.20** ↓	**5.70**	**1285**	**16.20** ↓
	2020 Avg.	**3.30**	**0.99**	**1.23**	**5.90**	**1260**	**17.20**

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Agriculture

		Wheat	Canola		Cattle	Hogs
		US$/bushel	US$/tonne		US$/cwt	
	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
	2017	4.36	393		117.90	69.87
	2018	4.95	389		114.64	65.26
	y-t-d 2019	5.17	362		125.23	61.41
2018	January	4.32	395		121.53	72.26
	February	4.56	403		127.54	71.99
	March	4.75	402		120.05	64.16
	April	4.75	416		117.21	61.01
	May	5.17	414		104.96	71.13
	June	5.01	398		107.63	80.01
	July	5.07	379		107.13	72.90
	August	5.38	384		108.63	54.74
	September	5.04	378		111.77	57.80
	October	5.11	378		113.36	61.13
	November	5.05	361		116.04	57.61
	December	5.17	357		119.83	58.44
2019	m-t-d January	5.17	362		125.23	61.41
Forecast	2019 Avg.	**5.30**	**380**	↓	**120.00**	**68.00**
	2020 Avg.	**5.60**	**400**		**122.00**	**77.00**

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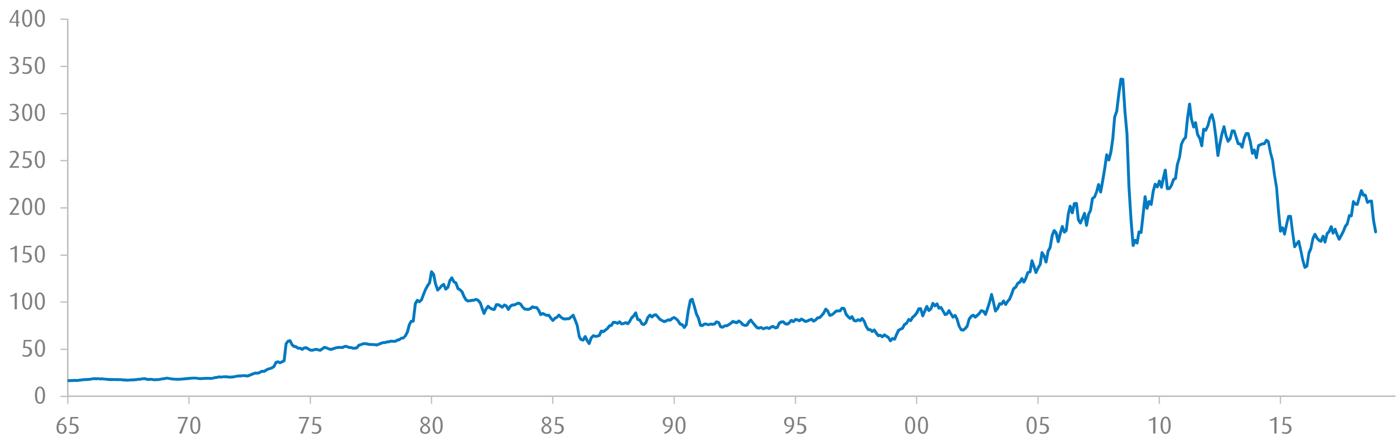
Commodity Indices and Forecasts

US$-terms : 2003 = 100			All Commodities	Oil & Gas	Metals & Minerals	Forest Products	Agricultural Products	All Commodities C$-terms
Annual								
		2010	234.6	232.7	291.1	92.0	163.4	172.5
		2011	283.8	275.6	365.0	90.1	205.3	200.3
		2012	279.7	270.2	353.8	108.4	216.9	199.5
		2013	271.7	283.0	304.1	128.6	200.1	199.6
		2014	252.1	271.4	270.5	121.3	170.0	198.4
		2015	170.9	142.5	244.8	98.3	151.3	155.5
		2016	160.7	126.9	241.1	110.3	135.9	151.8
		2017	178.1	149.6	249.4	144.8	139.8	165.0
		2018	204.3	189.0	257.5	169.5	147.2	188.8
Forecast		2019	**193.7**	**172.2**	**262.0**	**120.1**	**152.0**	**183.8**
		2020	**199.0**	**178.1**	**267.5**	**115.4**	**160.0**	**186.3**
Quarterly								
	2017	Q2	172.0	142.3	243.6	139.4	139.2	165.3
		Q3	175.5	141.8	252.6	149.3	143.8	157.1
		Q4	188.8	161.9	258.8	165.5	138.0	171.2
	2018	Q1	204.8	183.3	268.2	180.9	144.2	184.6
		Q2	214.2	196.7	266.8	210.7	150.1	197.2
		Q3	208.8	202.1	247.8	170.9	148.3	194.9
		Q4	189.4	173.8	247.3	115.6	146.3	178.4
Forecast	2019	Q1	**180.8**	**153.8**	**254.1**	**116.2**	**148.9**	**171.9**
		Q2	**190.6**	**166.4**	**260.1**	**123.8**	**155.4**	**180.9**
		Q3	**200.4**	**182.4**	**265.1**	**124.9**	**151.0**	**190.0**
Monthly								
	2017	Dec	191.5	168.8	257.2	159.7	135.6	174.5
	2018	Jan	206.7	187.3	270.2	171.7	140.2	183.6
		Feb	204.1	180.5	269.5	184.6	145.5	182.5
		Mar	203.8	182.0	264.9	186.3	146.8	187.8
		Apr	211.0	192.1	268.4	195.0	148.2	191.7
		May	218.3	202.6	266.4	222.2	153.0	200.3
		Jun	213.4	195.5	265.6	214.9	149.2	199.6
		Jul	213.7	205.4	252.5	198.8	147.1	200.4
		Aug	205.8	197.3	246.6	165.6	151.6	191.5
		Sep	206.9	203.6	244.4	148.3	146.2	192.6
		Oct	207.3	205.8	248.0	116.3	147.8	192.2
		Nov	186.5	169.2	245.9	118.9	144.6	175.6
		Dec	174.5	146.5	248.0	111.7	146.5	167.4

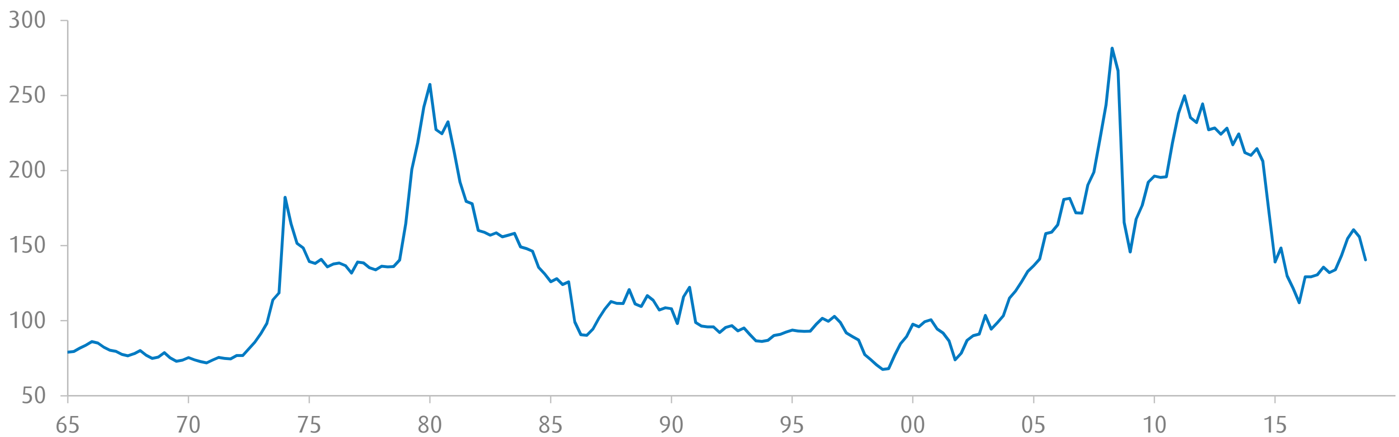
Commodity price indices and forecasts are by BMO Capital Markets Economics.
Forecasts are independent of those used by BMO Capital Markets Equity Research.

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 16 commodities key to Canadian exports. Weights are each commodity's average share of the total value of exports of the 16 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	**29.8**	**100.0**	**Forest Products**	**6.5**	**100.0**
Gold	10.6	35.4	Lumber	5.5	84.1
Silver	1.4	4.6	OSB	1.0	15.9
Aluminum	6.4	21.4			
Copper	2.3	7.8	**Agricultural Products**	**9.1**	**100.0**
Nickel	3.2	10.8	Wheat	4.5	49.5
Zinc	0.9	3.0	Canola	3.3	36.6
Uranium	1.3	4.4	Hogs	0.3	3.0
Potash	3.8	12.6	Beef Cattle	1.0	10.9
Oil and Gas	**54.6**	**100.0**	**All Commodities**	**100.0**	
Crude Oil	47.6	87.2			
Canadian Natural Gas	7.0	12.8			

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