Commodities Facing Renewed Headwinds

A Publication of BMO Capital Markets Economic Research • Douglas Porter, CFA, Chief Economist, BMO Financial Group

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Quarterly Forecast Update Edition

Macroeconomic Developments:

- Following a rapid rebound in prices from the deep lows in H1/20, commodity prospects have become more challenging given the resurgence in COVID-19 cases in the West. Even so, we have revised up our 2021 call on a variety of prices.
- Lumber prices have fallen sharply after a record run, while gold has been whipsawed by the US$ and political wrangling over U.S. fiscal policy.
- On the encouraging side, energy and crop prices have been holding up well.
- BMO Economics projects global GDP to contract 4.0% in 2020, then rebound 5.5% in 2021. China's economy remains a key source of support, with real GDP forecasted to rise 8% in 2021, compared to an estimate of 2% in 2020.

Commodity Forecast Highlights: [Quarterly Commentary Starting on Page 2]

- The **BMO Capital Markets Commodity Price Index** declined 1.1% in September.
- **Energy:** prospects for both crude oil and natural gas are improving with prices expected to head higher next year due largely to stronger global demand and supply-related constraints.
- **Metals:** broad-based upgrades reflect the Fed's shift to average inflation targeting and strong momentum in China, though geopolitical/supply risks remain elevated and a modest pullback is still expected by H2/21.
- **Forest Products:** while lumber inventories have started to loosen, solid residential construction demand and strong pricing momentum through late-summer resulted in further upward revisions.
- **Agriculture:** outlook for crop prices has been raised amid improving global demand and planting challenges in some regions. The forecast for hog prices has also been lifted as the U.S. herd is expected to see a greater-than-expected contraction this year due to coronavirus-related challenges.

Commodity Price Outlook

Commodity		2019	2020f	2021f
Energy				
Crude Oil [a]	US$/bbl	56.99	38.50 ↑	45.00
Natural Gas [b]	US$/mmbtu	2.57	1.95 ↑	2.50 ↑
Agriculture				
Wheat	US$/bushel	4.94	5.45 ↑	5.80 ↑
Canola	US$/tonne	344	365 ↑	410 ↑
Cattle	US$/cwt	116	107	118
Hogs	US$/cwt	70	61 ↑	78 ↑

Commodity		2019	2020f	2021f
Metals				
Gold	US$/oz	1,393	1,780 ↑	1,850 ↑
Silver	US$/oz	16.20	20.50 ↑	23.00 ↑
Aluminum	US$/lb	0.81	0.75 ↑	0.76 ↓
Copper	US$/lb	2.72	2.75 ↑	2.80 ↑
Nickel	US$/lb	6.31	6.15 ↑	6.85 ↑
Zinc	US$/lb	1.16	0.98 ↑	0.95 ↑
Forest Products				
Lumber	US$/mbf	360	530 ↑	370 ↑

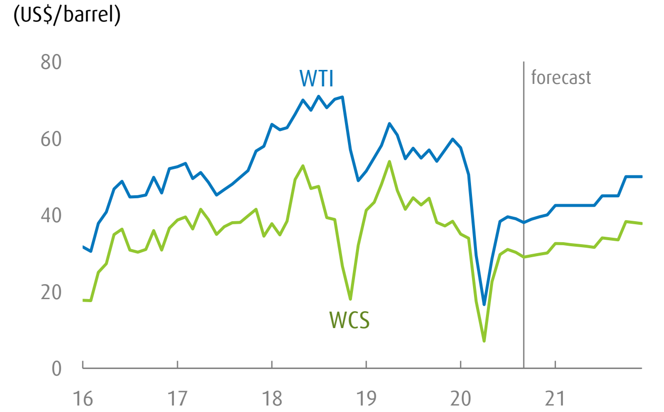
Sources: BMO Economics, Haver Analytics

f = forecast; ↑ , ↓ = forecast changes from last month; [a] WTI; [b] Henry Hub

Quarterly Forecast Update

Energy: The price of **West Texas Intermediate** (WTI) crude has remained resilient in the face of a resurgence of COVID-19 cases. Barring widespread economic lockdowns, similar to what occurred in H1/20, we expect the combination of OPEC+'s commitment to restrain supply and a stronger global economy to support crude oil prices. We are projecting WTI to average around US $40/bbl in Q4/20 ($38.5 for the whole of 2020) and then $45 in 2021.

Chart 1
Crude Oil Prices



Sources: BMO Economics, Haver Analytics

Nonetheless, the path to higher prices is unlikely to be straightforward as both global oil demand and supply are still facing uncertainty. Of prominence, the near-term recovery in global oil demand is likely to be rocky given that a number of countries are experiencing a second wave of COVID-19 cases. Moreover, the latest outbreaks have taken place in the West (Europe and North America), which account for around 40% of total global demand. Although demand has returned to pre-pandemic levels in China, the Middle Kingdom can't single-handedly offset losses in the West despite accounting for nearly 15% of total global demand. Note that OPEC is currently projecting global demand to climb to 94.9 mb/d in Q4/20, compared to 91.0 mb/d in Q3/20 (9.7 mb/d or 9.6% below the year-ago level).

As the recovery in demand is likely to ebb and flow, the onus of balancing the oil market will remain squarely on the shoulders of OPEC+. Its current production cut target stands at 7.7 mb/d—equivalent to a decline of 7.7% y/y versus the global supply average of 100.5 mb/d in 2019—but this may only last until the end of the year. OPEC+ has already indicated it will subsequently lower its target to 5.8 mb/d until April 2022. However, Saudi Arabia—the cartel's most important member—recently signaled that lowering the production cut target would be ill-advised given the rise in COVID-19 cases and the unexpected return of Libyan oil production. This raises the possibility that OPEC+ may postpone changing the production target cut when the cartel next meets on November 30 and December 1 to discuss its supply strategy.

The outlook for the price of **Western Canada Select** (WCS) crude also remains encouraging due to prospects for higher WTI and the shut-in of Canadian oil production. The latter has resulted in a sharp decline in shipments of crude oil to the U.S., which has freed up space in the pipelines. This has directly lowered the discount of WCS to WTI, which averaged US$9.3/bbl in September (vs $13.7 in 2019), as lower U.S. shipments have reduced the need to transport crude by rail, which is much more expensive than transporting through pipelines to the Midwest and Gulf Coast. Nevertheless, we expect the WCS discount to widen slightly above $10 next year as some shut-in production is restarted and shipped via rail.

The prospects for **natural gas** have improved, especially compared to the depressed prices witnessed over the past year. The increased optimism over natural gas is reflected in the futures market, which is suggesting that **Henry Hub**—North America's benchmark price—could be significantly higher in 2021. Of course, a futures price is not forecast, so higher futures prices may not necessarily translate into higher actual Henry Hub spot prices. The futures market is currently indicating that a producer could theoretically sell all of its natural gas production in 2021 at around US$3.00/mmbtu. In contrast, Henry Hub has averaged $1.80 over the past month.

The optimism over a revival in natural gas is largely based on two key developments. Firstly, U.S. natural gas production is expected to experience a significant decline due to weaker associated gas production from lower shale oil output. The U.S. Energy Information Administration forecasts output to contract 3.8% to 94.4 bcf/d in 2021 (vs an estimate of -1.9% in 2020). And secondly, U.S. exports of LNG are expected to accelerate on the back of the recent surge in benchmark prices in Europe (Title Transfer Facility – TTF) and Asia (Japan-Korea-Marker – JKM). TTF is now trading close to EUR14.00/MWh (up ~165% since the beginning of August), while JKM is hovering just over US$5.00/mmbtu (up ~90% in the same period). Both benchmarks have reached levels that make them attractive for U.S. producers to export to these markets, when accounting for liquefaction and shipping costs. In contrast, natural gas prices in the spring had sunk to levels that compelled many buyers to cancel LNG contracts and opt to a pay a penalty, rather than take final delivery.

Chart 2
Natural Gas Prices

(US$/mmbtu)

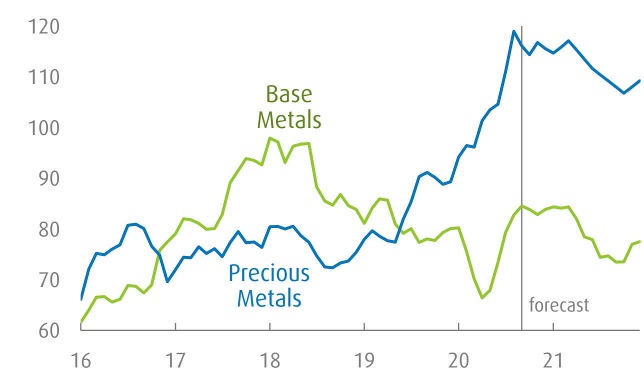
Sources: BMO Economics, Haver Analytics

These two factors, coupled with the typical seasonal pick-up in natural gas consumption during the winter, are expected to lead to a drawdown in inventories and a tighter natural gas market. As a consequence, we have revised up our forecast for Henry Hub to US$2.50/mmbtu in 2021 (previously $2.25), compared to an estimate of $1.95 for the whole of 2020. Meantime, the price of **AECO**—Western Canada's natural gas benchmark—should be able to piggyback on higher Henry Hub in the coming quarters. As a result, we are projecting AECO to average US$1.75/mmbtu in 2021, up from an estimate of $1.60 in 2020.

Metals: After an impressive rally through most of Q2 and Q3, most metals now appear to be in consolidation mode. The global recovery led by China is progressing, albeit at a milder pace, and PMIs are now largely back in expansionary territory around the world, boding well for metals demand. However, many economies remain under pressure due to still elevated or resurgent COVID-19 cases. And apart from the possible drag on demand from renewed containment measures, metals markets will have to contend with the return of some virus-impacted supply over the coming period as well as an array of geopolitical risks that could destabilize investor sentiment (e.g., vaccine availability, ongoing trade friction, contested U.S. presidential election, 'no-deal' Brexit).

Chart 3
Metal Prices

(January 2012 = 100)



Sources: BMO Economics, Haver Analytics

Precious metals will continue reaping the benefits of ultra-accommodative monetary policy and asset allocation. Although both gold and silver have come off their August record-highs, prices remain well supported above long-term equilibrium levels by copious ETF inflows and real yields near historic lows. In the near term, protracted U.S. election uncertainty/litigation could prompt a risk-off response, fueling another leg higher in **gold**, but otherwise prices are not expected to sustainably return to the US$2,000-mark. Nevertheless, given the U.S. Federal Reserve's official shift to average inflation targeting, which points to lower policy rates for even longer than previously anticipated, we have raised our medium-term price forecasts. Gold is now expected to average US$1,780/oz in 2020 and $1,850 in 2021. **Silver** has overtaken gold on a year-to-date basis thanks to record ETF inflows and the global green/ infrastructure stimulus push in response to the pandemic (i.e., solar and 5G development). Silver should maintain its outperformance in 2021, rising to US$23.00/oz on average from $20.50 this year.

The outlook for base metals remains broadly constructive, albeit more uneven, chiefly supported by China's V-shaped industrial recovery. We are most positive on nickel over the coming year and less so on copper and aluminum, while zinc is expected to continue to underperform. **Copper** benefited the most from the initial post-lockdown rebound in global industrial activity and market sentiment, rising to more than US$3.00/lb on average in September for the first time since mid-2018. However, there are headwinds in store for 2021, namely: a moderation in the pace of global recovery, a softer stimulus impulse in China (including possible property market tightening), and a pick-up in supply due to the reversal of earlier virus-related mine disruptions and some new projects coming online. Accordingly, the red metal appears primed for a modest pullback next year, averaging US$2.80/lb (vs. $3.01 in H2/20).

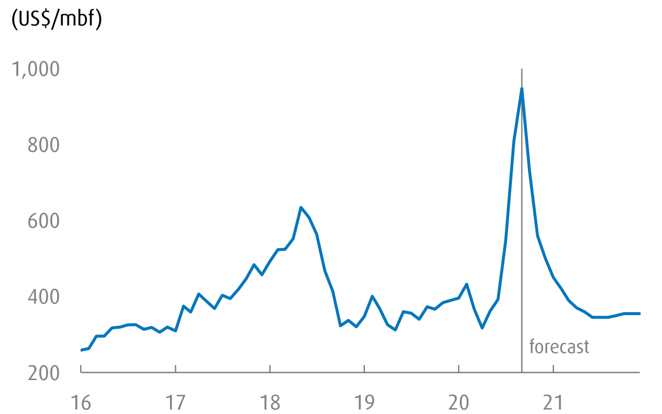
Though longer-term demand trends—related to electric vehicles and green energy—remain quite solid for both copper and nickel, one of the factors differentiating the latter in the near term is the expected direction of its market balance. The **nickel** supply surplus is expected to narrow significantly next year as demand recovers, while copper will shift from a deficit in 2020 back to surplus. This should provide scope for nickel prices to remain at or above current levels for most of 2021. We now forecast nickel to average US$6.85/lb next year, up from $6.15 in 2020.

Fundamentals are less supportive for aluminum and zinc. **Aluminum** inventories have surged this year given the lack of material COVID-related supply disruptions and new capacity additions in China. Notwithstanding positive demand prospects over the medium term—including strong investment in China's power grid—the market must substantially reduce overcapacity before prices can approach long-term equilibrium levels, especially with scrap recovery rates rising. Following some unexpected price resiliency in recent months, we raised our 2020 aluminum forecast to US $0.75/lb, but lowered our 2021 forecast to $0.76.

With most mines that were subject to virus-related shutdowns in H1 having now resumed operations, the **zinc** market has taken its cues of late from broader financial markets, which have generally been price-supportive. However, while concentrate stocks have declined, lower demand and increased smelting activity have lifted refined stocks above 2019 levels, and they will likely rise further in 2021, pressuring prices lower. As such, we expect zinc to fall from US$1.04/lb in H2/20 to $0.95 on average next year.

Forest Products: The scars from the initial COVID-related disruption were on grand display in Q3 as lumber demand snapped back with force, leaving production unable to catch up even after most sawmill operations returned to full capacity. The resulting inventory squeeze led to lumber shortages throughout the summer, with prices spiking to all-time highs by early September. Large-scale fiscal support, extremely low interest rates and low housing inventory intensified construction activity at a time when an increased 'working from home' demand shifted consumer preferences to larger and better-equipped houses.

Chart 4
Spruce-Pine-Fir Prices

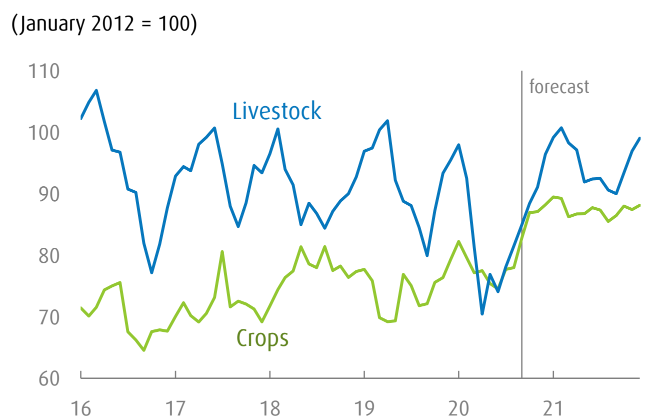


Sources: BMO Economics, Haver Analytics

Still, despite relatively solid housing market fundamentals, cooling temperatures and elevated levels of new coronavirus infections are likely to weigh on demand heading into yearend, allowing supply to catch up and pricing pressure to subside substantially. While further strict virus-containment measures could disrupt market conditions once again, we presently see little appetite for a return to broad lockdowns, especially in the run-up to the November U.S. presidential election. Instead, risks appear mostly tilted to the downside for lumber prices after this year's record run as elevated unemployment and uncertainty over further fiscal support and the impact of forbearance initiatives have clouded the outlook for both the housing market and overall economy. In this environment, we expect **Western Spruce-Pine-Fir (SPF)** prices to average US$530/mbf in 2020, ending the year at nearly half the September peak before moderating further to average $370 in 2021 as the market returns to a more balanced state.

Agriculture: **Livestock prices** have continued to recover after dropping precipitously during the spring, when coronavirus outbreaks caused widespread shutdowns at meatpacking plants and resulted in a glut of animals at the farm level. In the hog space, prices fell as low as US $37/cwt in April—the lowest level since the early 2000s—but have now rebounded to roughly $78, almost 25% above year-ago levels. The recovery has been driven by a continued improvement in slaughter numbers as well as a downturn in the headcount of the North American hog herd, which is likely to shrink in 2020 for the first time in seven years.

Chart 5
Agricultural Prices



Sources: BMO Economics, Haver Analytics

Cattle prices, which fell to a decade-low of US$84/cwt in April, have also recovered impressively and are now hovering around $108, roughly in line with year-ago levels. At this stage, the recovery in livestock pricing has likely mostly run its course. Even with the turbulence caused by the pandemic, the North American cattle herd is on track to post a modest gain this year, while in the hog space, the stronger pricing environment will likely motivate renewed herd expansion in 2021.

Crop prices entered the year on a relatively weak footing after years of strong global production, but generally held up well through the worst of the coronavirus lockdowns and have trended meaningfully higher over the past few months. **Wheat** prices have increased to a five-year high of roughly US$6/bushel following several years of subdued global acreage and, most recently, due to dry weather impeding winter wheat planting in Europe and parts of the Black Sea region. **Canola** prices have also improved substantially to around US$400/tonne—the strongest level since early 2018, when China began blocking imports of U.S. soybeans, which weighed heavily across the oilseed space. Although China's purchases of U.S. soybeans have remained lacklustre despite the Phase One trade deal announced earlier this year, soybean prices have received support from the supply side. In the United States, soybean production has declined substantially and global challenges related to the La Niña climate pattern are helping to further whittle down world oilseed stockpiles. However, with inventories of key crops still historically elevated relative to consumption and technological advances pushing crop yields steadily higher, recent price momentum is likely to wane ahead.

Energy, Materials and Agriculture

		Crude Oil (US$/bbl)	Natural Gas Henry Hub (US$/mmbtu)	Natural Gas AECO (US$/mmbtu)	Lumber (US$/mbf)	Wheat (US$/bushel)	Canola (US$/tonne)	Cattle (US$/cwt)	Hogs (US$/cwt)
	2007	72.36	6.98	6.02	245	6.38	378	93.92	65.56
	2008	99.57	8.86	7.78	215	7.98	527	93.60	66.05
	2009	61.69	3.95	3.51	177	5.30	371	83.85	58.11
	2010	79.43	4.39	3.89	255	5.81	429	94.95	75.60
	2011	95.08	4.00	3.67	255	7.10	566	114.54	90.34
	2012	94.20	2.75	2.39	299	7.50	601	122.65	84.93
	2013	97.93	3.73	3.08	356	6.84	545	126.40	89.33
	2014	93.26	4.39	4.08	349	5.88	400	151.50	105.83
	2015	48.69	2.63	2.12	277	5.08	371	146.49	69.40
	2016	43.21	2.52	1.64	305	4.36	366	118.61	65.60
	2017	50.91	2.99	1.69	401	4.36	393	117.90	69.87
	2018	64.84	3.17	1.19	480	4.95	389	114.64	65.26
	2019	56.99	2.57	1.36	360	4.94	344	115.84	69.92
	y-t-d 2020	38.09	1.86	1.55	510	5.33	352	104.30	57.39
2019	Oct	53.98	2.33	1.71	367	5.08	346	109.98	64.88
	Nov	56.95	2.65	2.11	384	5.16	346	119.49	62.92
	Dec	59.81	2.22	1.82	390	5.42	350	121.72	66.08
2020	Jan	57.53	2.02	1.75	396	5.65	360	125.18	66.80
	Feb	50.53	1.91	1.39	433	5.49	345	118.90	60.59
	Mar	29.46	1.79	1.39	367	5.35	331	102.30	61.31
	Apr	16.61	1.74	1.42	317	5.41	327	90.38	46.62
	May	28.55	1.75	1.51	361	5.15	334	95.43	62.68
	Jun	38.32	1.63	1.41	392	4.97	346	95.23	48.38
	Jul	40.72	1.76	1.49	547	5.24	354	100.76	49.56
	Aug	42.35	2.30	1.90	808	5.14	370	104.86	52.97
	Sep	39.59	1.92	1.71	948	5.49	391	106.46	65.42
	m-t-d Oct	38.92	1.70	1.24	875	5.80	391	108.69	74.93
Forecast	2020 avg.	38.50 ↑	1.95 ↑	1.60	530 ↑	5.45 ↑	365 ↑	107.00	61.00 ↑
	2021 avg.	45.00	2.50 ↑	1.75	370 ↑	5.80 ↑	410 ↑	118.00	78.00 ↑

Commodity price forecasts are by BMO 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)	
	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
	2019	2.72	0.81	1.16	6.31	1393	16.20
	y-t-d 2020	2.66	0.74	0.97	5.94	1739	19.34
2019	Oct	2.60	0.78	1.11	7.76	1495	17.66
	Nov	2.66	0.80	1.10	6.89	1472	17.18
	Dec	2.75	0.80	1.03	6.26	1480	17.10
2020	Jan	2.74	0.80	1.07	6.15	1561	17.97
	Feb	2.58	0.76	0.96	5.78	1599	17.91
	Mar	2.35	0.73	0.86	5.38	1594	14.90
	Apr	2.29	0.66	0.86	5.33	1680	15.04
	May	2.37	0.66	0.89	5.50	1716	16.22
	Jun	2.60	0.71	0.92	5.76	1734	17.73
	Jul	2.88	0.74	0.98	6.05	1841	20.44
	Aug	2.95	0.79	1.09	6.57	1971	26.90
	Sep	3.04	0.79	1.11	6.74	1923	25.84
	m-t-d Oct	2.95	0.78	1.05	6.54	1904	23.95
Forecast	2020 avg.	2.75 ↑	0.75 ↑	0.98 ↑	6.15 ↑	1780 ↑	20.50 ↑
	2021 avg.	2.80 ↑	0.76 ↓	0.95 ↑	6.85 ↑	1850 ↑	23.00 ↑

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

↑ *and* ↓ *indicate annual forecast changes from last month*

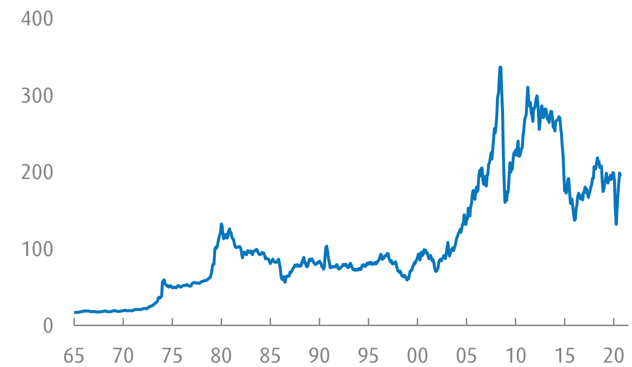
Commodity Indices and Forecasts (US$-terms : 2003 = 100)

		All Commodities	Oil & Gas	Metals & Minerals	Forest Products	Agricultural Products	All Commodities (C$-terms)
	2011	283.7	275.6	364.8	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
	2019	191.0	165.6	267.4	124.4	141.3	180.9
Forecast	**2020**	**177.5**	**112.4**	**302.8**	**188.4**	**149.9**	**170.0**
	2021	**190.5**	**131.9**	**319.1**	**131.1**	**164.0**	**178.1**
2019	Q1	185.4	160.4	256.6	128.3	143.2	176.0
	Q2	191.7	173.4	258.3	114.5	138.3	182.9
	Q3	192.3	163.5	276.8	123.5	137.9	181.2
	Q4	194.7	165.0	278.0	131.3	145.7	183.5
2020	Q1	178.4	132.8	279.2	139.8	149.2	170.5
	Q2	150.8	81.9	285.9	126.5	139.5	149.0
	Q3	192.2	119.2	322.5	271.1	147.8	182.6
Forecast	**Q4**	**188.5**	**115.6**	**323.8**	**216.2**	**163.1**	**177.7**
2021	**Q1**	**191.7**	**124.9**	**330.9**	**151.2**	**166.2**	**180.2**
	Q2	**188.1**	**124.7**	**325.2**	**126.3**	**163.2**	**176.1**
2019	Sep	195.5	165.5	283.3	128.8	135.5	184.7
	Oct	190.3	156.6	280.4	126.9	142.4	179.4
	Nov	194.8	165.7	277.0	132.7	144.9	183.8
	Dec	199.1	172.7	276.6	134.4	149.9	187.3
2020	Jan	197.7	165.8	282.6	136.5	155.1	184.6
	Feb	187.0	146.0	281.6	151.1	149.5	177.4
	Mar	150.4	86.7	273.3	131.9	143.2	149.5
	Apr	131.6	50.6	281.2	112.5	140.9	132.3
	May	151.9	84.0	285.2	128.2	139.7	151.5
	Jun	169.0	111.1	291.3	138.6	138.0	163.4
	Jul	182.2	118.2	309.0	193.0	143.7	175.8
	Aug	198.3	124.0	331.5	286.3	145.4	187.4
	Sep	196.2	115.4	327.1	334.1	154.3	184.8

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

All-Commodity Index
Nominal US$-Terms

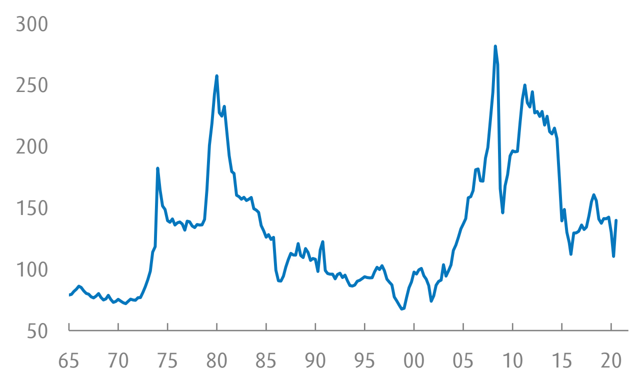
(2003 = 100)



Source: BMO Economics

All-Commodity Index
Real US$-Terms

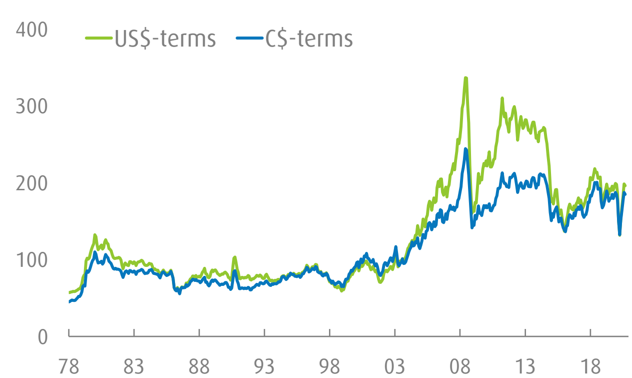
(2003 = 100)



Source: BMO Economics

All-Commodity Index
Nominal

(2003 = 100)



Source: BMO Economics

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
Metals & Minerals	29.8	100.0
Gold	10.6	35.4
Silver	1.4	4.6
Aluminum	6.4	21.4
Copper	2.3	7.8
Nickel	3.2	10.8
Zinc	0.9	3.0
Uranium	1.3	4.4
Potash	3.8	12.6
Oil and Gas	54.6	100.0
Crude Oil	47.6	87.2
Canadian Natural Gas	7.0	12.8
Forest Products	6.5	100.0
Lumber	5.5	84.1
OSB	1.0	15.9
Agricultural Products	9.1	100.0
Wheat	4.5	49.5
Canola	3.3	36.6
Hogs	0.3	3.0
Beef Cattle	1.0	10.9
All Commodities	100.0	—

Source: BMO Economics

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

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