Tight Physical Markets No Match for Macro Fear

- **A ratcheting up of US-China trade tensions walloped risk assets** including commodities through May as markets priced in slower demand growth amid contracting trade activity, though we believe that bearish sentiment is currently overdone and will fall off through latter half of 2019.

- **President Trump announced ramping tariffs on all Mexican exports** until the latter government takes concrete steps to block migrant activity at the US southern border, quickly disturbing the relative trade calm that had blessed North American markets following the resolution of 232 tariffs on steel and aluminium.

- **Oil prices experienced their largest one-day loss of 2019 despite calendar spreads indicating the tightest physical market since mid-2014** as macro bearishness overwhelmed fundamental strength.

- **Oil supply risks continue to rise**, most recently in the form of a major Russian pipeline clogged with contaminated crude that is now expected to take months to clear.

Commodity markets find themselves once again caught in the cross-current of a trade war-induced macro sell-off despite increasing signs of physical supply tightness. The one-two punch of further US-China tariff hike threats and the US blacklisting of Chinese tech giant Huawei walloped risk assets like crude, copper, and equity prices through May and pushed US Treasury yields to their lowest level since 2017 (chart 1). WTI experienced its largest one-day drop of 2019, falling by 5.7% despite calendar spreads resting around their steepest backwardation—indicating acute physical tightness—since June 2014 on a 6-month basis (chart 2). We continue to believe that markets are pricing in too much trade risk through weaker demand expectations at present and anticipate that US and China will make progress in trade negotiations when the country's leaders meet at the G20 in late-June.

Meanwhile, oil supply risks continue to mount without any commensurate price gains: Venezuela remains a basket case, a large Russian pipeline has halted deliveries due to contamination issues, the head of Libya's national oil company said that the country's oil output could fall by 95% due to fighting, and initial reports indicate that China may be at least temporarily reducing purchases from Iran in line with US sanctions which would add further supply losses to our base case. Despite these risks, we expect that OPEC+ will resist materially increasing supply until serious shortages visibly emerge in inventory reports given a recent history of US foreign policy flip-flops, and we don't expect to see a significant loosening of production limits when the producers group meets at the end of June.

US-CHINA TRADE TALKS STUMBLE AND WEIGH ON COMMODITY DEMAND EXPECTATIONS

Hopes that the sixteen-month running US-China trade war would find a near-term resolution were dashed in early-May when Washington announced that

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Chart 1

Sources: Scotiabank Economics, Bloomberg.

Scotiabank Commodity Price Index

April 2019	(% change)		
	M/M	Y/Y	YTD
All Commodity*	**1.4**	**-1.9**	**-2.7**
Industrials	**1.9**	**-0.4**	**-1.6**
Oil & Gas	5.6	5.2	4.2
Metal & Minerals	1.6	3.7	-2.9
Forest Products	-4.1	-15.7	-8.6
Agriculture	**-1.3**	**-9.2**	**-7.5**

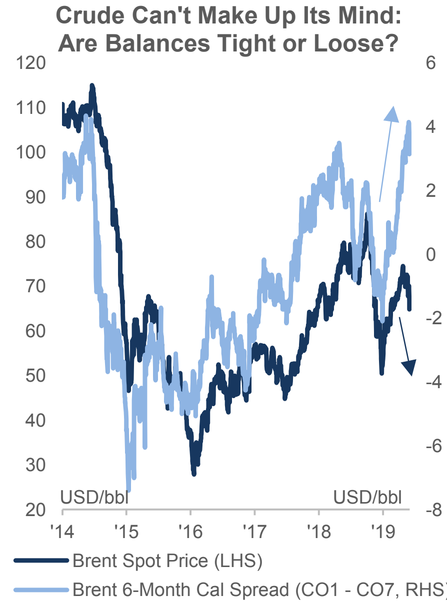
January 2007 = 100	2019		
	Apr	Mar	YTD avg.
All Commodity	**120.4**	**118.7**	**117.1**
Industrials	**119.2**	**117.0**	**115.1**
Oil & Gas	104.6	99.1	96.4
Metal & Minerals	128.2	126.2	124.7
Forest Products	140.4	146.5	146.1
Agriculture	**126.7**	**128.3**	**128.2**

* Weights: Oil & Gas (39.9%), Metal & Minerals (30.1%), Forest Products (14.7%), Agriculture (15.3%); Full technical note on page 7.

tariffs on $200B in Chinese imports would increase from 10% to 25% on June 1st absent material trade negotiation progress, with Beijing responding in kind a few days later with a planned tariff hike to as much as 25% on $60B in American imports. The White House followed up its tariff ratcheting by blacklisting Chinese tech giant Huawei, a non-tariff exacerbation of the bilateral dispute that risks even more disruptive economic impacts if reciprocated (for instance, with further direct constraints on US tech firms in China).

Some are referring to the Huawei blacklisting as the first volley in a new technological Cold War between Washington and Beijing. **However, it is notable that the White House has at least thus far seemed to tie the Huawei actions into the broader umbrella of economic rivalry while historical Huawei concerns typically related to national security considerations, particularly as they relate to US network security** (e.g. 5G infrastructure). It's still too early to determine the degree to which the White House's motives are security-related or simply trade negotiation leverage, though we remain optimistic that this latest tech-related issue won't materially derail the broader trade negations. We expect that further clarity will be provided to the market following the G20 summit in late-June due to the interrelated mutual interest in resolving the dispute, though the chronically unpredictable nature of Washington's approach to the negotiations leaves risks tilted to the downside.

Chart 2



Sources: Scotiabank Economics, Bloomberg.

SUCCESS ON 232 TARIFF RESOLUTION POTENTIALLY UNDONE WITH NEW MIGRATION-LINKED TARIFFS ON MEXICO

The global downside of hotter US-China trade tensions is juxtaposed with progress closer to home, where Canada, the US, and Mexico resolved the long-running dispute related to US tariffs on steel and aluminium—25% and 10%, respectively, on Canadian metal. These tariffs initially took effect on June 1 2018 and were particularly controversial given that they were applied unilaterally by the White House on "national security" grounds in line with Section 232 of the Trade Expansion Act, a hard justification to defend given the long-standing security cooperation between the countries involved. Canada immediately followed suit and lifted retaliatory counter-tariffs that had been imposed on US steel and aluminium products, which Ottawa says have raised roughly C$1.27B in levies since they were imposed last July and will go toward supporting Canada's steel and aluminium industries harmed by US tariffs. As part of the negotiated trade truce, Canada and Mexico agreed to help combat the re-exporting of "unfairly subsidized and/or sold at dumped prices" steel from overseas, namely China, and the US reserves the right to re-impose tariffs if Canadian and/or Mexican metal exports to the US spike.

Just when the North American trade file seemed to be settling down with the resolution of 232 tariffs, President Trump announced a punitive ramping tariff—beginning at 5% and rising by 5% per month going forward—on all imports from Mexico until "the Illegal Immigration problem is remedied". Beyond the surprise, absurdist nature of the announcement, we have yet to receive firm details of the plan and if there are any exceptions—for instance on the nearly 700 kbpd of Mexican crude imported by US refiners. At current prices a 5% tariff would push up realized refinery crude purchase prices and this decrease the margins of refineries running Mexican crude by roughly $3/bbl.

RISKS BUILDING IN THE PERSIAN GULF

Security risks in the Persian Gulf that would have in prior cycles pushed crude prices dramatically higher have thus far been met with a pronounced 'meh' in flat pricing. The impact of twin attacks on midstream infrastructure—first the sabotage of four tankers at the UAE port of Fujairah in early May followed by explosive-laden drones targeting two Saudi pipeline pumping stations—are further exacerbated by continued Iranian threats about blockading the strait of Hormuz. While it is not immediately clear where responsibility for the attacks lies, both Washington and Riyadh wasted little time in pointing fingers at either Iran or Iranian-backed militants in the region, further ratcheting up tension between the regional [and global] powers.

RUSSIAN PIPELINE CONTAMINATION AND SLOW CLEANUP TO HAMPER EXPORTS FOR LONGER

The supply disruption stemming from a rare contamination of Russia crude travelling through the Soviet-era Druzhba pipeline, first discovered in April, looks like it will be far longer-lived than initial statements out of Moscow indicated. Transneft PJSC—Russia's stated-owned pipeline operator—shut down the pipeline on April 24th after the contaminants were detected and while initial statements from the Russian government assured the market that the disruption would be short-lived, contaminated crude has yet to be cleared from the pipeline and a full resumption of service is could take months. The pipeline originates in Russia and splits into a northern branch (which travels through Poland into Germany) and a southern branch (which travels through Ukraine en route to Hungary and the Czech Republic via Slovakia). **While Russia possesses some takeaway capacity redundancy, it is unlikely that sufficient excess capacity exists to completely offset Druzhba's outage and Russian production will likely be required to pull back after any existing inventory cushion is exhausted,** with the ultimate production impact rising the longer the pipeline remains out of service.

The crude was contaminated with organic chloride, a chemical used at the well site for cleaning and to improve initial oil flow, but is usually removed before product is shipped on to destination markets because the chemical is corrosive and degrades refinery equipment. A plan to drain the tainted oil clogging Druzhba experienced a major setback when the German refinery that had planned to accept, dilute, and process the majority of the tainted crude itself experienced an equipment failure, as reported by Reuters. It is thus far unclear whether the refinery failure was related to the processing of the contaminated oil.

Russia has stated that the flow of oil will resume again "within days", but the flow interruption is now easily the largest such disruption in the country's modern history. The volume of contaminated crude is estimated at roughly 35 million barrels and the total lost volume is climbing by 1–1.5 million barrels per day that the pipeline is offline. Refinery runs across Europe have fallen due to lack of feedstock and the Polish government has resorted to releasing crude from its strategic petroleum reserve to maintain a stable supply of refined products. As in so many areas of life, the technical challenge of clearing millions of barrels of crude out of the pipeline is further complicated by the legal and financial challenge of determining who is ultimately responsible for paying for the mess. One of the most voluminously daunting tasks is finding storage to receive the more than one million of barrels flowing toward Druzhba on any given day. It remains a bit of a mystery as to where Russia has found the tank space necessary to take so much crude and production may need to be throttled back if storage cannot keep up.

The crude is far from useless but needs to be diluted with clean barrels before it can be refined into products like gasoline or diesel, and the compensatory discounts required by refineries to take the crude are thought to be between $10 and $20 per barrel. Initial estimates put the required dilution ratio at 1:10 contaminated-to-clean barrels. Until pipeline flow can be restored, Russia is slowly offloading the contaminated oil by railcar to the black sea where large-scale blending procedures can occur. To date, it is believed that Russia has removed 2 million tones of an initial 5 million tones of contaminated crude. Urals crude like that which flows through the Druzhba pipeline is a medium-heavy sour benchmark, which further tightens this typically lower-value segment of the market; however, between Iranian and Venezuelan sanctions, Alberta curtailment, Mexico's persisting declines, and now a major pipeline outage in Russia, that segment of the market is getting pretty tight pretty quick. Transneft has indicated that flow could resume on the pipeline by mid-June if various parties can come to an agreement regarding offloading terms.

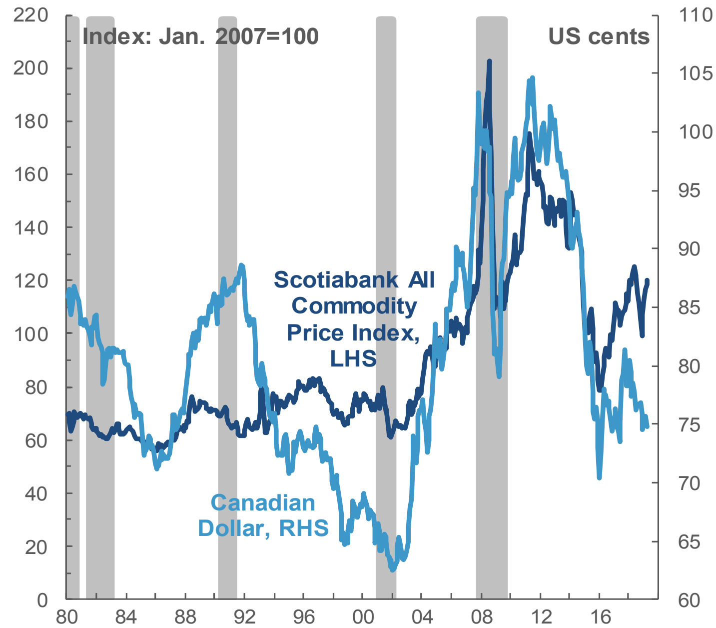
Price Outlook

		2000–2017						
Oil & Gas		Low	Period Avg.	High	2018	2019ytd	2019F	2020F
Crude Oils								
West Texas Intermediate	USD/bbl	17.45	62.05	145.29	64.90	58.01	59	61
North Sea Brent Blend	USD/bbl	17.68	64.93	146.08	71.69	66.77	67	68
WCS - WTI Discount*	USD/bbl	-42.50	-16.43	-5.50	-26.29	-11.13	-15	-21
Natural Gas								
Nymex Henry Hub	USD/MMBtu	1.64	4.83	15.38	3.07	2.76	2.90	2.80
Metals & Minerals								
Base Metals								
Copper	USD/lb	0.60	2.38	4.60	2.96	2.82	3.00	3.20
Nickel	USD/lb	2.00	7.12	24.58	5.95	5.62	5.75	6.00
Zinc	USD/lb	0.33	0.84	2.10	1.33	1.25	1.25	1.20
Aluminium	USD/lb	0.56	0.87	1.49	0.96	0.84	0.90	0.90
Bulk Commodities								
Iron Ore	USD/t	27	108	302	70	89	77	70
Metallurgical Coal	USD/t	39	131	330	208	205	185	160
Precious Metals								
Gold	USD/toz	256	890	1,895	1,268	1,297	1,300	1,300

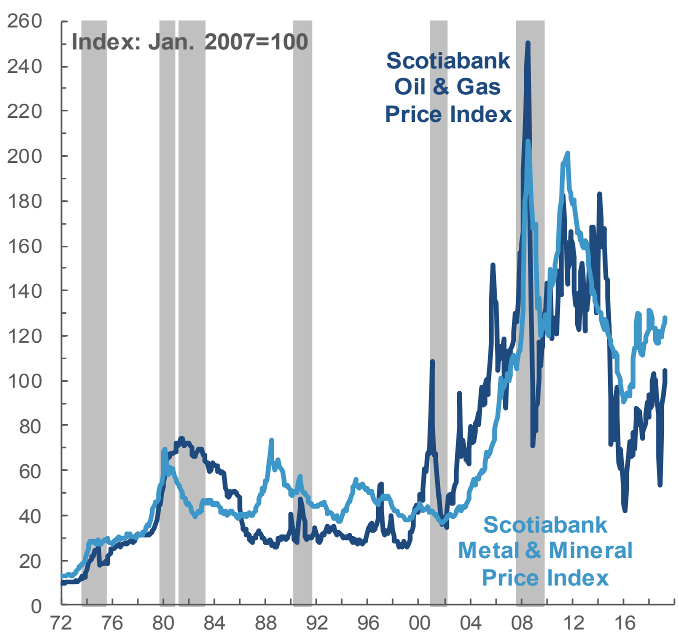
* 2008-17 average.

Scotiabank All Commodity Price Index

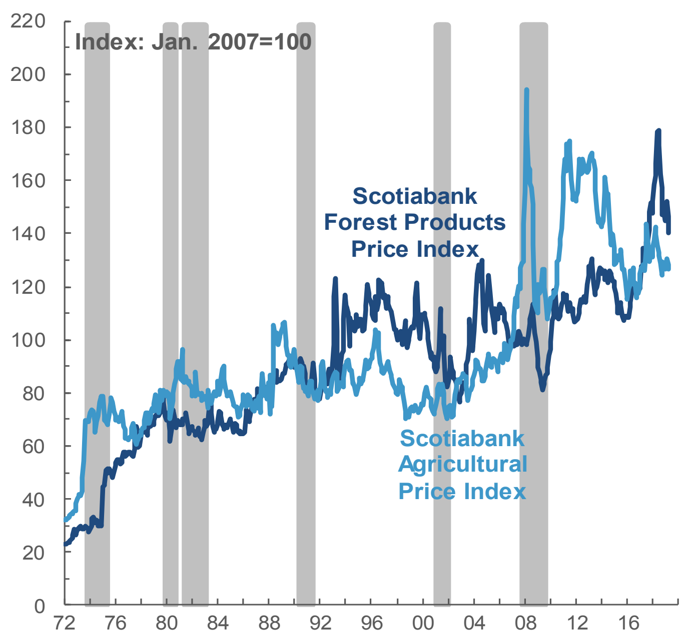
Canadian Dollar vs. Commodity Prices

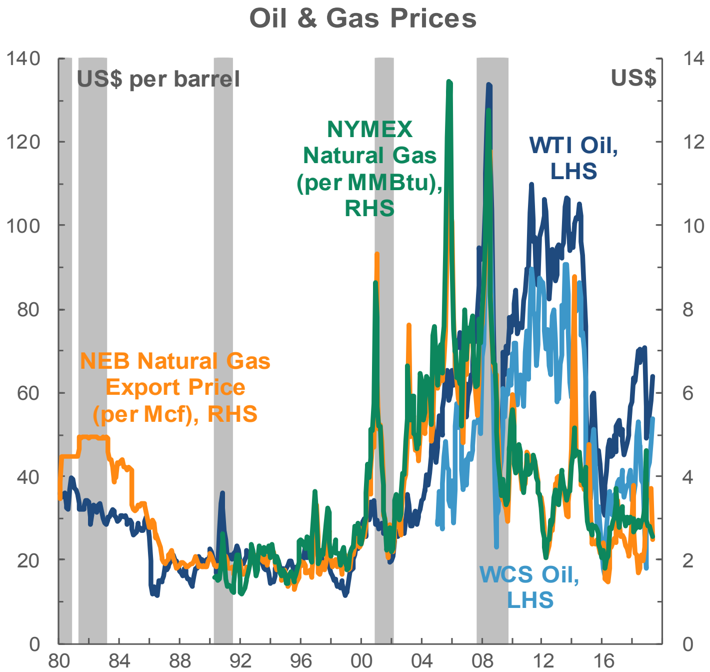


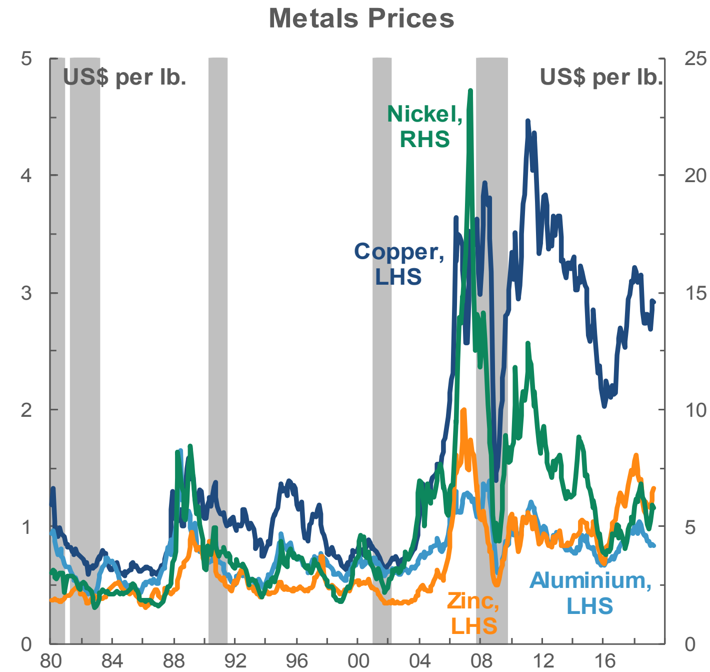
Scotiabank Oil & Gas and Metal & Mineral Indices

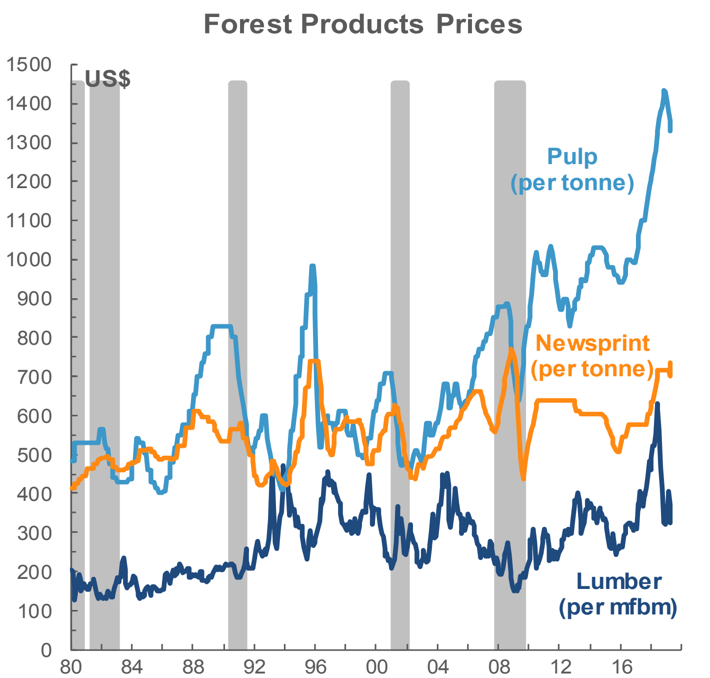


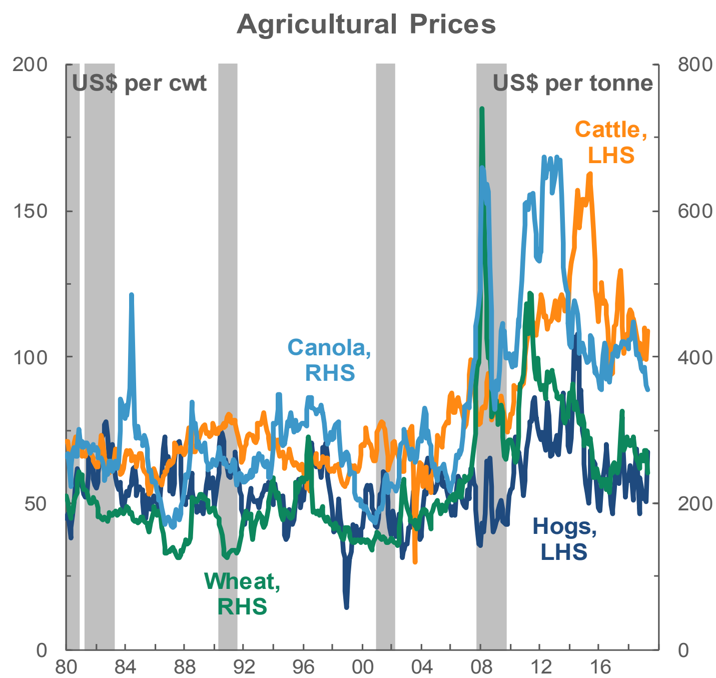
Scotiabank Forest Products & Agricultural Indices




Oil & Gas Prices
US$ per barrel
US$
NYMEX Natural Gas (per MMBtu), RHS
WTI Oil, LHS
NEB Natural Gas Export Price (per Mcf), RHS
WCS Oil, LHS
140
120
100
80
60
40
20
0
14
12
10
8
6
4
2
0
80
84
88
92
96
00
04
08
12
16


Metals Prices
US$ per lb.
US$ per lb.
Nickel, RHS
Copper, LHS
Zinc, LHS
Aluminium, LHS
5
4
3
2
1
0
25
20
15
10
5
0
80
84
88
92
96
00
04
08
12
16


Forest Products Prices
US$
Pulp (per tonne)
Newsprint (per tonne)
Lumber (per mfbm)
1500
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
80
84
88
92
96
00
04
08
12
16


Agricultural Prices
US$ per cwt
US$ per tonne
Cattle, LHS
Canola, RHS
Hogs, LHS
Wheat, RHS
200
150
100
50
0
800
600
400
200
0
80
84
88
92
96
00
04
08
12
16

Technical Note
Scotiabank Commodity Price Index — Principal Canadian Exports
January 2007 = 100

This Index has been designed to track the spot or transactions prices paid in U.S. dollars for key Canadian commodities and resource-based manufactured goods in export markets. The weight of each component is based upon its net export value in 2010. Prior to January 2007, the weight of each component was based on its export value in 1995-97, except for crude oil & refined petroleum products, uncoated freesheet paper and linerboard, where net exports were used. Canada imports a significant quantity of these products, and use of their export value alone would have overstated the importance in Canada's trade performance.

The following prices are included:

OIL & GAS

Crude Oil & Refined Petroleum Products (US$ per bbl) MSW light sweet crude oil at Edmonton (previously Edmonton Par crude) and Western Canadian Select heavy oil at Hardisty, Alberta; price differentials off WTI near-by futures from Bloomberg.

Natural Gas (US$ per mcf) Average export price quoted by the National Energy Board.

Natural Gas Liquids (NGLs – Propane, Butane, Ethane & Pentanes-Plus) (US$ per bbl), Propane at Edmonton & Sarnia.

METALS & MINERALS

Copper & Products (US$ per lb) LME official cash settlement price for grade A copper.

Zinc (US$ per lb) LME SHG cash settlement: prior to Sept 1990, U.S. producers' price for high-grade zinc delivered.

Lead (US$ per lb) LME official cash settlement price; prior to Jan. 1991, U.S. producers' price for common grade delivered.

Aluminium & Products (US$ per lb) since 1979, LME official cash settlement price.

Nickel (US$ per lb) since 1980, LME official cash settlement price.

Gold (US$ per oz) 'LBMA Gold Price PM' as of March 20, 2015.

Potash (US$ per tonne) Standard potassium chloride, spot price, FOB Vancouver.

Sulphur (US$ per tonne) Solid, spot price, FOB Vancouver.

Metallurgical Coal (US$ per tonne) Contract price for premium-grade hard coking coal, FOB Vancouver.

Iron Ore (US cents per dmtu) Spot price fines 62% Fe, CFR Qingdao, China; prior to Jan 2011, term-contract price for concentrates 66% Fe from Labrador/Quebec to Northern Europe (FOB Sept-Iles).

Uranium (US$ per lb) U_3O_8 near-by-futures from Bloomberg.

Molybdenum (US$ per lb) since March 1992, MW dealer oxide.

Cobalt (US$ per lb) MW dealer price.

FOREST PRODUCTS

Lumber & Wood Products, Western Spruce-Pine-Fir 2x4 No.2 & Btr (US$ per mfbm) FOB mill.

Oriented Strandboard (US$ per thousand sq. ft.), U.S. North Central region, 7/16 inch.

Pulp, Bleached Northern Softwood Kraft (US$ per tonne) Transactions price, delivery USA.

Newsprint (US$ per tonne) Average transactions price, 48.8 gsm, delivery Eastern USA.

Groundwood Specialty Papers (US$ per ton) Supercalendered-A paper, 35 lb., delivery USA.

Linerboard (US$ per ton), delivery Eastern USA with zone discounts.

AGRICULTURE

Wheat & Flour (US$ per tonne), DNS No 1 14% protein Duluth, Minn; prior to April 2011 No.1 CWRS, 13.5% protein at St. Lawrence.

Barley (US$ per tonne), since Dec.1994, No.1 at Lethbridge, Alberta.

Canola & Oilseeds (US$ per tonne) No.1 Canada, in store Vancouver.

Cattle & Beef (US$ per cwt) Steers over 1,051 pounds at Toronto; from Jan 1993, Ontario average.

Hogs & Pork (US$ per cwt) 100 Index Hogs at Toronto; from Jan 1993, Ontario average.

Fish & Seafood (US$ per lb) West Coast silver coho salmon; Atlantic lobster prices; prior to 1986 cod fillets & blocks.

Scotiabank Commodity Price Index — Components And Weights

Index Components	Net Export Value In 2010 (millions of dollars)	Index Weight (per cent)
OIL & GAS INDEX	**46,537**	**39.90**
Crude Oil & Refined Products	33,231	28.49
Natural Gas & LNG	11,741	10.07
NGLs	1,565	1.34
METAL & MINERAL INDEX	**35,109**	**30.10**
Copper	3,160	2.71
Zinc	1,255	1.08
Lead	579	0.50
Aluminium	6,045	5.18
Nickel	4,246	3.64
Gold	4,678	4.01
Coal	4,757	4.08
Iron Ore	3,346	2.87
Potash	5,161	4.42
Sulphur	457	0.39
Uranium	891	0.76
Cobalt	288	0.25
Molybdenum	246	0.21
FOREST PRODUCTS INDEX	**17,081**	**14.66**
Lumber & Wood Products	4,673	4.01
OSB	812	0.70
Pulp	6,818	5.85
Newsprint	2,734	2.34
Groundwood Spec. Papers	1,971	1.69
Linerboard	87	0.07
AGRICULTURAL INDEX	**17,901**	**15.35**
Wheat & Flour	4,693	4.02
Barley & Feedgrains	1,088	0.93
Canola & Oilseeds	5,398	4.63
Cattle & Beef	1,640	1.41
Hogs & Pork	2,378	2.04
Fish & Seafood	2,704	2.32
TOTAL INDEX	**116,643**	**100.00**