October 31, 2018

Spooky October for Markets, Commodities Suffer

- **A steep pullback in global equity markets depressed commodity prices through October as investors withdrew from risky assets; haven demand boosted the greenback, adding further weight to dollar-denominated commodities contracts.**
- **Oil prices fell back as correlations with tumbling equities tightened; in addition to mounting risk aversion, the recent bull run in global crude benchmarks went too far, too fast and ran ahead of fundamentals that, while relatively supportive, won't become tight enough to justify Brent above $80/bbl until later into 2019, in our view.**
- **The lead up to Halloween was all tricks, no treats for Canadian heavy crude as discounts spiked to all-time highs on the back of continued pipeline bottlenecks and the steepest maintenance-related shutdowns for US Midwest refineries—major consumers of Canadian crude—in over a decade.**

The Scotiabank Commodity Price Index fell 3.1% m/m in September, pulled down by the Oil & Gas sub-index (-6.0%) as persistent Canadian heavy crude weakness spread to lighter Canadian oil benchmarks like Mixed Sweet (MSW). Wider differentials for Canadian crude persisted through October, with both heavy and light Canadian oil benchmarks falling to all-time lows relative to US benchmark WTI.

The broad sell-off in global equity markets—the S&P500 index is down 10% since early October—has put the commodities complex on the defensive, this time bringing crude prices along for the ride that metals experienced earlier in the year. Correlations between equity and oil prices tightened considerably (chart 1) as funds sold into a falling market—the worst monthly rout since the financial crisis, potentially bringing the longest bull market in history to an end. Investors are pulling back from risky assets abroad, boosting the greenback and adding further weight to dollar-denominated commodity contracts. A withdrawal of the Trump tariffs would likely provide a boost to calm the selling, a policy option that might well materialize through the end of the year if the White House perceives a steepening market rout as jeopardizing its Great Again narrative.

Oil market speculators have been taking profits for the past few weeks and now maintain the lowest net position in crude contracts since the summer of 2017. Beyond the impacts of bearish equity developments, oil market sentiment has been further hit by the ramp-up of Saudi and Russian production, meant to fill-in for anticipated losses of Iranian exports but arriving before said declines are realized. Sentiment looked stretched as Brent breached above $86/bbl and much of this pullback is simply a rationalization of that overextension, but we believe that fundamentals remain supportive over the next eighteen months. The presently well-supplied market is expected to tighten considerably through 2019 as Iranian barrels are pushed out of the market by US sanctions and OPEC bumps up against output capacity constraints, though a seasonal fallback in winter demand will likely delay a material bounce-back until next spring when tightness will really begin to manifest.

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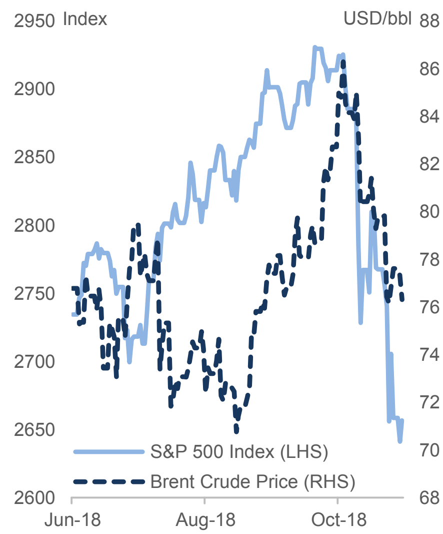
Chart 1

Equity Market Turmoil Spooks Crude



Source: Scotiabank Economics, Bloomberg.

Scotiabank Commodity Price Index

September 2018	(% change)		
	M/M	Y/Y	YTD
All Commodity*	**-3.1**	**2.5**	**10.9**
Industrials	**-3.0**	**4.3**	**12.8**
Oil & Gas	-6.0	5.4	15.4
Metal & Minerals	0.2	-0.7	3.9
Forest Products	-3.2	11.1	25.1
Agriculture	**-3.3**	**-5.6**	**2.3**

January 2007 = 100	2018		
	Sep	Aug	YTD avg.
All Commodity	**111.3**	**114.9**	**119.5**
Industrials	**109.0**	**112.4**	**116.8**
Oil & Gas	85.4	90.8	94.0
Metal & Minerals	116.8	116.6	123.5
Forest Products	157.1	162.3	165.4
Agriculture	**124.3**	**128.6**	**134.2**

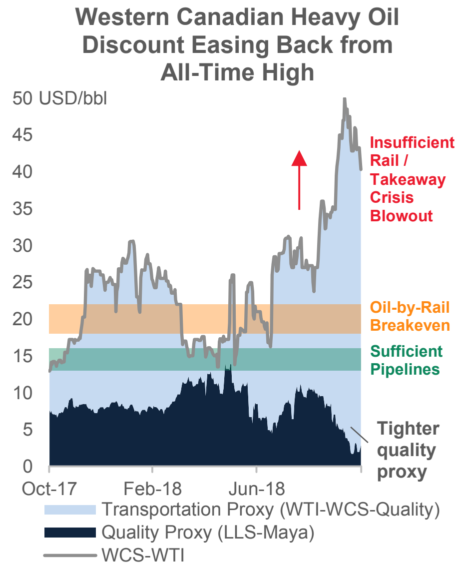
* Weights: Oil & Gas (39.9%), Metal & Minerals (30.1%), Forest Products (14.7%), Agriculture (15.3%); Full technical note on page 6.

ALL TRICKS, NO TREATS FOR CANADIAN HEAVY CRUDE

Breaking records isn't always a cause for celebration. Case in point, the discount borne by Canadian heavy oil reached an all-time high of more than $50/bbl under WTI in early October as the ramp-up of necessary oil-by-rail capacity clearly fell below demand for non-pipeline egress out of Western Canada and demand for Canadian heavy crude was temporarily depressed by steeper-than-average refinery maintenance in the US Midwest. The narrowing heavy discount in the US gulf coast—measured by the difference between Mexican Maya and Louisiana Sweet crude benchmarks (chart 2)—makes it all the more clear that the latest blow-out is due almost entirely to transportation-related challenges. And while pipeline bottlenecks are most visible in Western Canadian Select (WCS) heavy oil discounts, Canadian light crude benchmarks like Mixed Sweet (MSW) and Synthetic Crude (SCO) also saw differentials rise to more than $30/bbl relative to trading nearly at par with WTI in more normal times, reflecting the fact that increasingly tight takeaway capacity is impacting realized pricing across all crude grades.

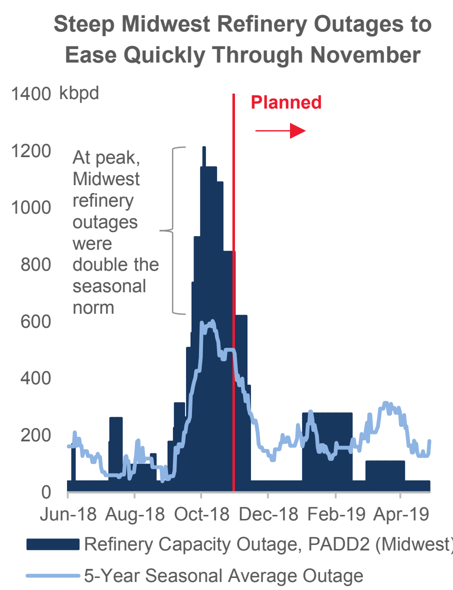
Canadian oil-by-rail shipments—which jumped to set a new all-time high of 230 kbpd in July—are expected to reach 300–400 kbpd by early 2019, but the ramp up is clearly underperforming demands on rail services needed to get around now-chronic pipeline bottlenecks en route to export markets. In the meantime, much of the stranded crude is being flushed into provincial storage tanks and Alberta crude inventories reached a record of 75 Mbbl in August, a jump of 28% over the same period last year. The steepest maintenance cycle in more than a decade for Midwest refineries—major consumers of Canadian crude—added to the pressure on Canadian oil benchmarks, though the worst of that refinery downtime is now behind us (chart 3). We expect that the end of Midwest refinery turnarounds through November will alleviate the worst of the current discount blowout and that continued gains in oil-by-rail throughput will allow differentials to fall back toward the mid-$20s, a level supporting now-necessary oil-by-rail economics that is well above "natural" discounts but thankfully below the crisis levels reached earlier this month. However, it is important to stress that we are operating with a very thin egress margin out of Western Canada through the course of next year and Canadian crude discounts are likely to be unforgiving if any unforeseen events—e.g. pipeline outages, slower than anticipated rail ramp-up, unexpected refinery maintenance, etc.—tighten takeaway capacity once again, particularly given the lack of a material regional inventory capacity cushion.

Chart 2



Source: Scotiabank Economics, Bloomberg.

Chart 3



Source: Scotiabank Economics, Bloomberg.

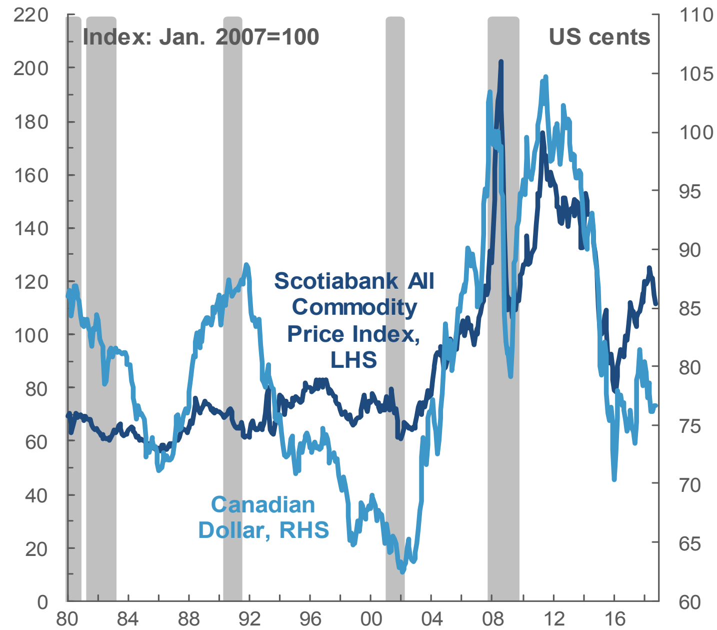
Price Outlook

		2000–2016						
Oil & Gas		Monthly Avg. Low	Period Avg.	Monthly Avg. High	**2017**	**2018ytd**	**2018F**	**2019F**
Crude Oils								
West Texas Intermediate	USD/bbl	19.40	62.70	134.02	50.85	67.24	68	72
North Sea Brent Blend	USD/bbl	19.06	65.53	134.56	54.75	73.57	74	80
WCS - WTI Discount*	USD/bbl	-42.50	-16.85	-5.50	-12.74	-25.93	-27	-24
Natural Gas								
Nymex Henry Hub	USD/MMBtu	1.81	4.94	13.46	3.02	2.89	2.93	2.93
Metals & Minerals								
Base Metals								
Copper	USD/lb	0.62	2.35	4.48	2.80	2.99	2.99	3.00
Nickel	USD/lb	2.19	7.26	23.67	4.72	6.14	6.15	6.50
Zinc	USD/lb	0.34	0.81	2.00	1.31	1.35	1.33	1.30
Aluminium	USD/lb	0.58	0.86	1.39	0.89	0.97	0.95	1.00
Bulk Commodities								
Iron Ore	USD/t	27	108	302	72	69	65	65
Metallurgical Coal	USD/t	39	127	330	188	205	205	175
Precious Metals								
Gold	USD/toz	261	869	1,772	1,257	1,276	1,262	1,300

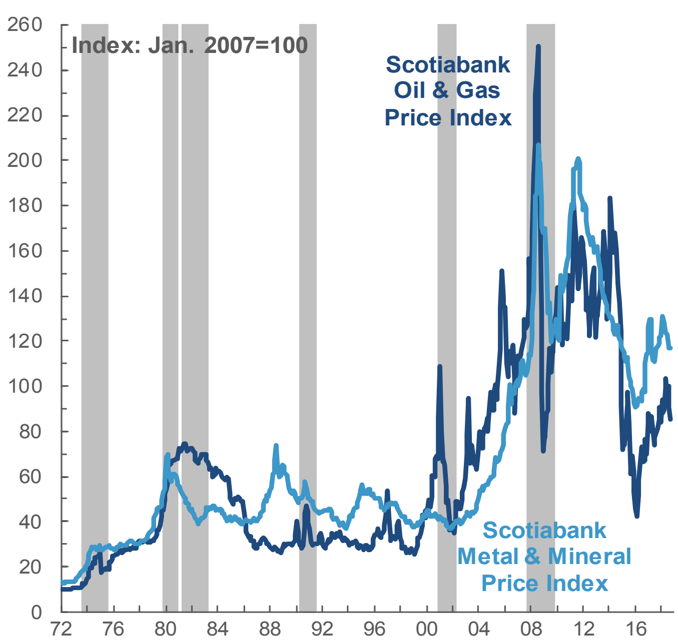
* 2008-16 average.

Scotiabank All Commodity Price Index

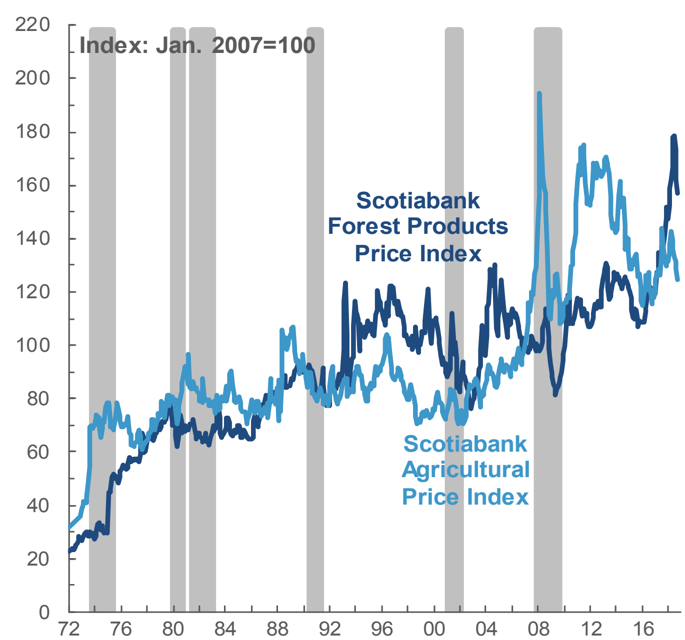
Canadian Dollar vs. Commodity Prices



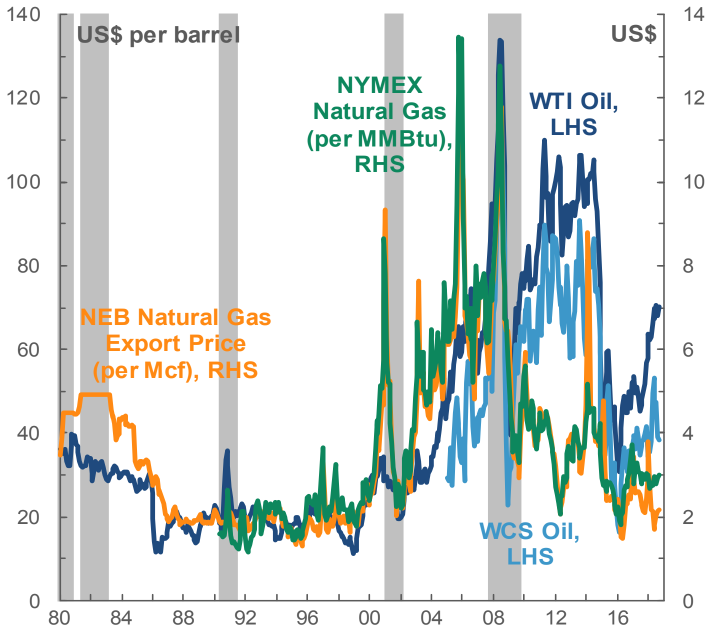
Scotiabank Oil & Gas and Metal & Mineral Indices



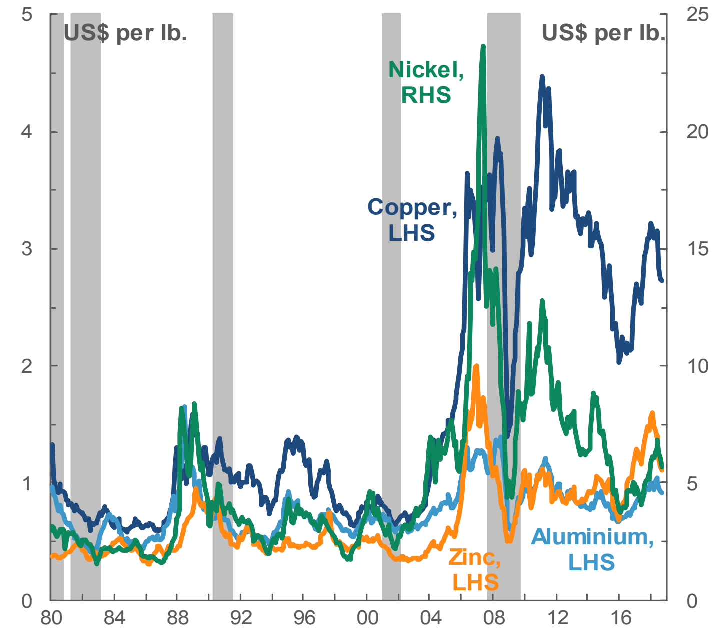
Scotiabank Forest Products & Agricultural Indices



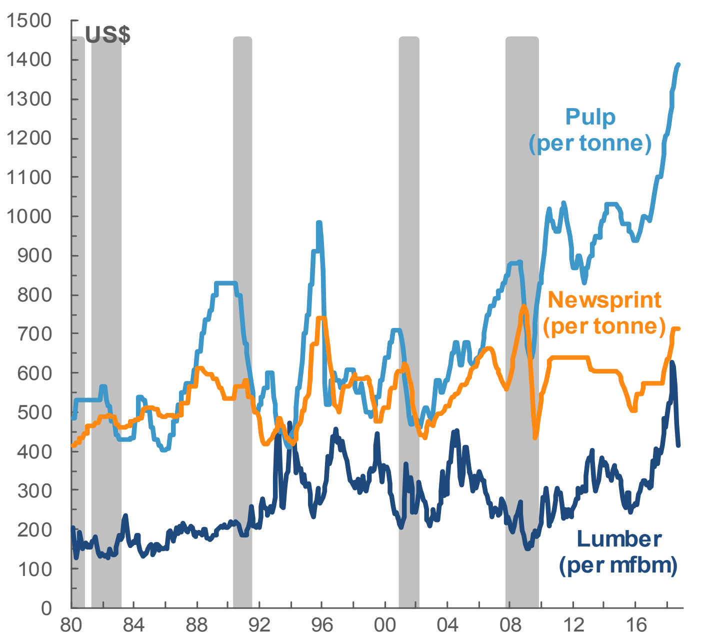
Oil & Gas Prices



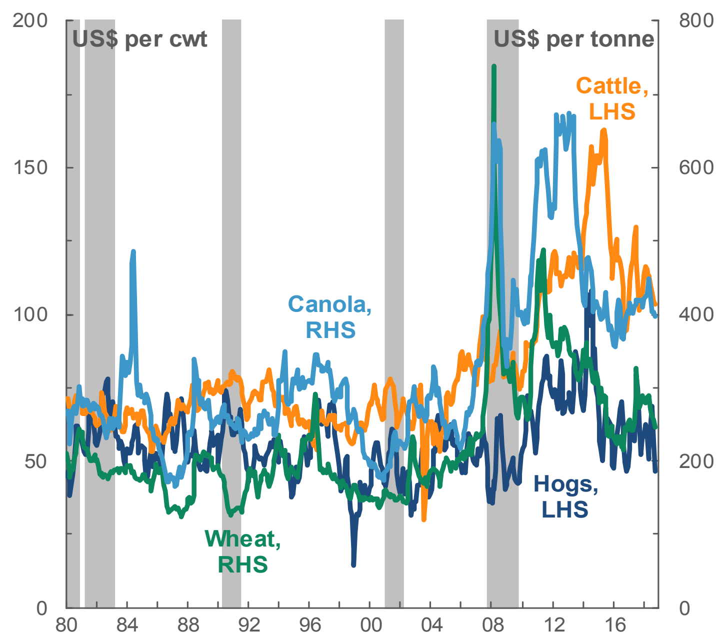
Metals Prices



Forest Products Prices



Agricultural Prices



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**