Attack on Saudi Oil Assets Peaks Supply Concern in Commodity Market Weighed Down by Trade War Malaise

- **Sophisticated aerial attacks on Saudi Arabia's oil industry temporarily knocked out more than 5% of global oil supplies and prompted the strongest opening rally in crude prices since the 1991 Gulf war (chart 1).**
- **Saudi officials have assured the market that the Kingdom would maintain shipments volumes by tapping idled wells and inventories, though little spare capacity remains in the system and prices are have priced in a \$3–5/bbl supply risk premium for the first time in years.**
- **Further crude price gains are likely capped from here given a still-bearish macro backdrop and strong producer interest to hedge production at currently-higher levels, though the risk of another attack on Saudi oil assets tips price risks to the upside through Q4 at present.**
- **Global macro sentiment remains broadly bearish amidst high levels of uncertainty, contractionary manufacturing and trade conditions, weak business investment, and the ever-present risk of further negative political surprises—most recently the prospect that House Democrats will begin impeachment proceedings against President Trump.**
- **Election Time in Canada! Federal elections set for October 21st have pushed the issues of climate change and pipeline access higher on the public agenda, though we expect that any of the contenders likely to form government will continue with the current supportive trajectory on policies like the Trans Mountain Expansion Project.**

Crude markets experienced tremendous volatility and record transaction volumes on the back of mid-September attacks in Saudi Arabia, though markets remain broadly bearish given persistent macro- and trade-related headwinds that continue to drive overall commodity market performance. We are releasing updates to that macro view next week and revising forecasts for everything from commodity prices to GDP growth rates to interest rates and currencies.

LARGEST-EVER DISRUPTION BRINGS SUPPLY RISK BACK INTO THE PRICE OF OIL

The oil market experienced its largest-ever supply disruption on Saturday, September 14th when Saudi Arabia's second-largest oilfield (Khurais) and largest processing facility (Abqaiq) were hit by a sophisticated aerial attack that knocked 5.7 MMbpd of output offline—about half the Kingdom's total capacity and more than 5% of global supplies. Both US and Saudi intelligence have communicated that the attacks involved a combination of drones and cruise missiles and most likely originated from within the territory of regional arch-rival Iran or neighbouring Iraq. Prices exploded higher when markets opened on Sunday evening, with Brent crude up 20% at its peak and prices enjoying their strongest daily gains since the 1991 Gulf War (chart 1). Trading volumes set an all-time record (chart 2) as investors—who held fairly bearish positions heading into the weekend (chart 3)—scrambled to

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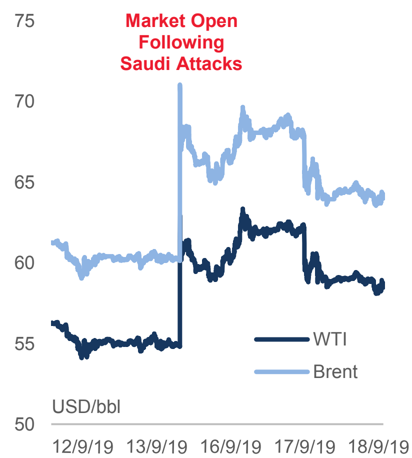
Chart 1

Crude Prices Experience Largest Spike Since '91 Gulf War Following Attacks on Saudi Oil Sector



Sources: Bloomberg, Scotiabank Economics

Scotiabank Commodity Price Index

August 2019	M/M	Y/Y	YTD
	(% change)		
All Commodity*	**-4.1**	**-4.3**	**-4.7**
Industrials	**-4.5**	**-4.4**	**-4.4**
Oil & Gas	-4.3	-6.8	-3.8
Metal & Minerals	-5.8	6.6	1.8
Forest Products	-2.4	-17.0	-14.8
Agriculture	**-1.9**	**-4.0**	**-6.3**

January 2007 = 100	2019 Aug	2019 Jul	YTD avg.
All Commodity	**109.9**	**114.5**	**114.8**
Industrials	**107.4**	**112.5**	**112.7**
Oil & Gas	84.6	88.4	91.4
Metal & Minerals	124.3	131.9	126.7
Forest Products	134.8	138.0	141.8
Agriculture	**123.4**	**125.8**	**126.9**

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

adjust to news of the attack. Oil companies looking to hedge production were there to sell at the richer prices and contracts slowly and choppily drifted lower through the day following the initial burst higher. **Brent contracts for November delivery are now trading about $61/bbl, roughly $1–2/bbl higher than before the attacks**—though only back to where they stood before outspoken Iran hawk John Bolton resigned/was relieved from his position as US National Security Advisor earlier that week.

Early statements from Aramco—Saudi Arabia's national oil company—indicated that no shipments would be interrupted and flow would be maintained on the back of some low-hanging repairs, tapping idle oilfields, and drawing on inventory. Despite the sanguine tone in Aramco's press conference, the company is truly drawing on ***all its assets*** to offset the output loss, which means that the Kingdom's—and thus most of the world's—spare production capacity was put out of commission on September 14th. Any optimism projected by Aramco leadership needs to be handicapped by the fact that the company is still striving to push its much-delayed initial public offering across the finished line and the Kingdom wants to stress the company's flexibility and professional excellence rather than it's unique political risk profile. Much of the Aramco's lost capacity is expected to be back online by mid-November, though many parts could take upwards of a year to source given traditionally-long lead times.

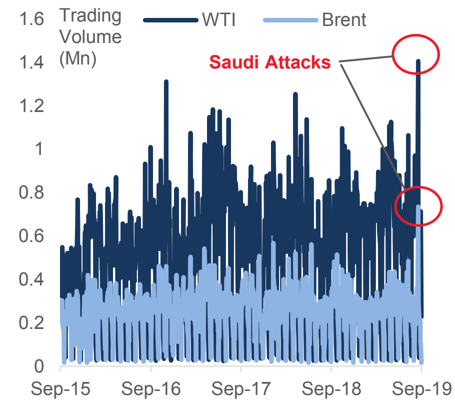
In the meantime, only ~1 MMbpd of spare capacity exists across other OPEC+ countries (ex-Iran) as part of the group's production agreement. Ironically, most of the world's spare production capacity now exists in Iran, where production is sitting at only 2.2 MMbpd as of August, 1.6 MMbpd below where the country was pumping a year-and-a-half earlier (chart 4).

The Saudi authorities and Aramco leadership presented an optimistic tone at the first official press conference following the attack and promised virtually no interruption to shipments, which seriously weighed on markets still operating at a high degree of supply concern. However, while it is true that Aramco has significant process flexibility, inventories, and about 2 MMbpd of spare capacity it would be unwise to assume all is as sanguine as Saudi Arabia is portraying. Riyadh doesn't want this event to prompt other OPEC+ members to break commitments and fill in for the Saudi loss, nor for the White House to authorize an emergency drawdown of the strategic petroleum reserve. The Kingdom also has a national oil company to IPO and wants investors focused on the positives of massive production and reserves instead of the company-specific risks including state conflict highlighted by the attacks.

The United States responded to the attacks and implications of Iranian culpability by announcing further sanctions on Tehran, which in today's heightened risk environment actually represents the dovish response given the alternative military strikes for which many have called. The response is also further confirming evidence that the White House is fundamentally dovish on costly and complicated military involvement, preferring instead to conduct its erratic and shallowly hawkish foreign policy by economic sanctions launched by a unilateral Twitter account. However, the attacks on Abqaiq and Khurais are only the latest in a series of Iranian-led provocation intended to build negotiating leverage are were preceded by drone attacks on Saudi pipeline pumping stations, oil tanker sabotage, the seizure of vessels in international waters by Iranian speedboats, violations of Iran's uranium enriching agreement in the JCPOA (which the US withdrew from), and downing of a $200 million US surveillance drone.

Chart 2

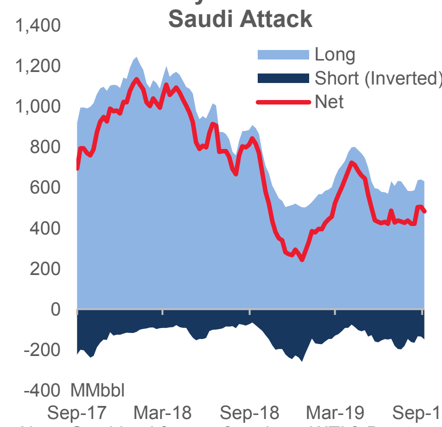
Saudi Attacks Prompted Record Trading Volume as Investors Scrambled To Reposition



Sources: Bloomberg, Scotiabank Economics

Chart 3

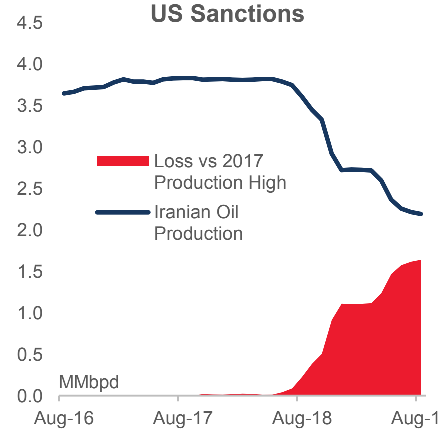
Speculative Oil Positioning Was Relatively Bearish Before Saudi Attack



Note: Combined futures & options; WTI & Brent.
Source: Scotiabank Economics, Nymex, CFTC.

Chart 4

Iranian Oil Production Down >1.6 MMbpd Since the Reimposition of US Sanctions



Sources: OPEC OMR, Scotiabank Economics

All this to say that the latest attacks are unlikely to be the last and without the security blanket of well-managed Saudi spare capacity any further damage to the oil market's supply chain will be far harder to offset. It also makes the system less resilient to unrelated supply disruptions in chronically challenging countries like Libya, Nigeria, or Venezuela. The $3–5/bbl premium now baked into prices has less to do with the tangible loss of supply and more to do with the now-higher likelihood of further supply disruptions as well as the more acute impact of any additional attack given sparse spare capacity.

While it is certain we are experiencing a moment of heightened supply volatility the market has thus far failed to rally materially, continuing instead to be weighed down by the negative macro overhang of trade wars, industrial contraction, and now US presidential impeachment proceedings. **Prices are expected to experience a bit of positive pressure through December before easing in early-2020 as an anticipated upswing of global crude supplies runs headlong into a seasonal turndown in demand.**

CANADA HEADS TO THE POLLS

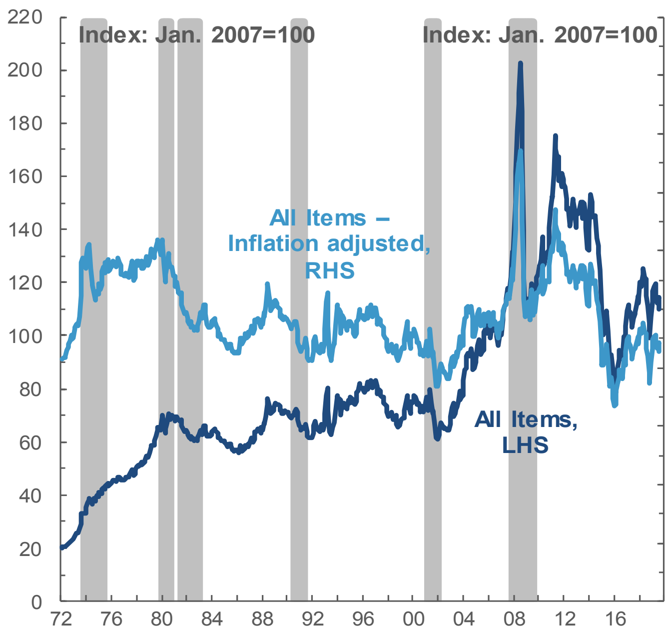
Canadians are set to vote in the next federal election on October 21st with current polls indicating a very tight race between the governing Liberals (LPC) and opposition Conservative (CPC) parties. Polling indicates that Canadians consider climate change to be one of the top issues of the election but a solid majority also approves of further Canadian oil patch development given the economic benefits. It is no secret that Alberta's oil patch sees a victory by the CPC to be in the industry's interests, though either leading party is expected to continue the current push for Canadian resource market access and the electoral outcome likely makes little difference in that core industry challenge.

Trans Mountain Corporation, the crown corp charged with managing the pipeline and its expansion project, announced that it has received more than 55% (>550km of 1,000km) of the pipe required to complete the project. Most of the pipe segments are being held in BC and Alberta, and were supplied by mills in Regina, SK and Camrose, AB. The latest timeline provided by the federal government sees the pipeline enter service in mid-2022, which corresponds with our current egress forecasts.

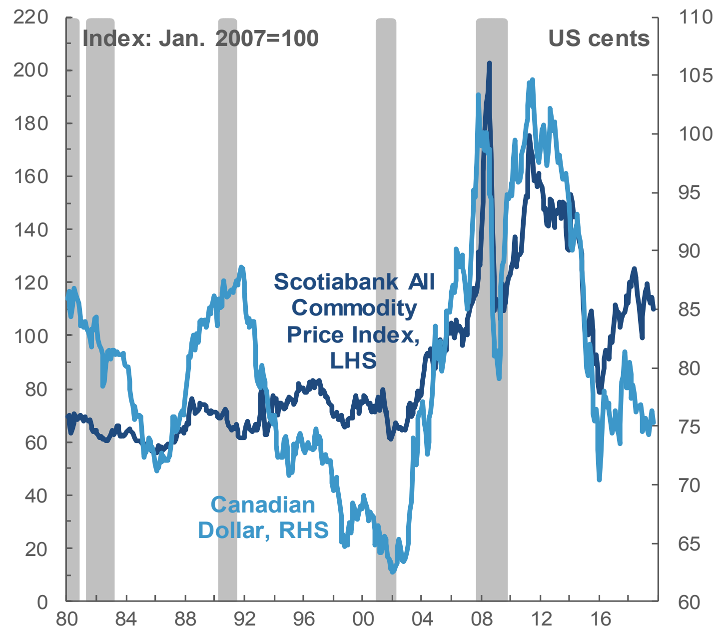
Price Outlook		2000–2017 Low	Period Avg.	High	2018	2019ytd	2019F	2020F
Oil & Gas								
Crude Oils								
West Texas Intermediate	USD/bbl	17.45	62.05	145.29	64.90	57.12	56	55
North Sea Brent Blend	USD/bbl	17.68	64.93	146.08	71.69	64.77	65	62
WCS - WTI Discount*	USD/bbl	-42.50	-16.43	-5.50	-26.29	-11.86	-14	-21
Natural Gas								
Nymex Henry Hub	USD/MMBtu	1.64	4.83	15.38	3.07	2.57	2.71	2.75
Metals & Minerals								
Base Metals								
Copper	USD/lb	0.60	2.38	4.60	2.96	2.74	2.80	3.00
Nickel	USD/lb	2.00	7.12	24.58	5.95	6.08	5.70	6.00
Zinc	USD/lb	0.33	0.84	2.10	1.33	1.18	1.22	1.20
Aluminium	USD/lb	0.56	0.87	1.49	0.96	0.82	0.90	0.90
Bulk Commodities								
Iron Ore	USD/t	27	108	302	70	96	90	72
Metallurgical Coal	USD/t	39	131	330	208	190	195	170
Precious Metals								
Gold	USD/toz	256	890	1,895	1,268	1,363	1,350	1,350

* 2008-17 average.

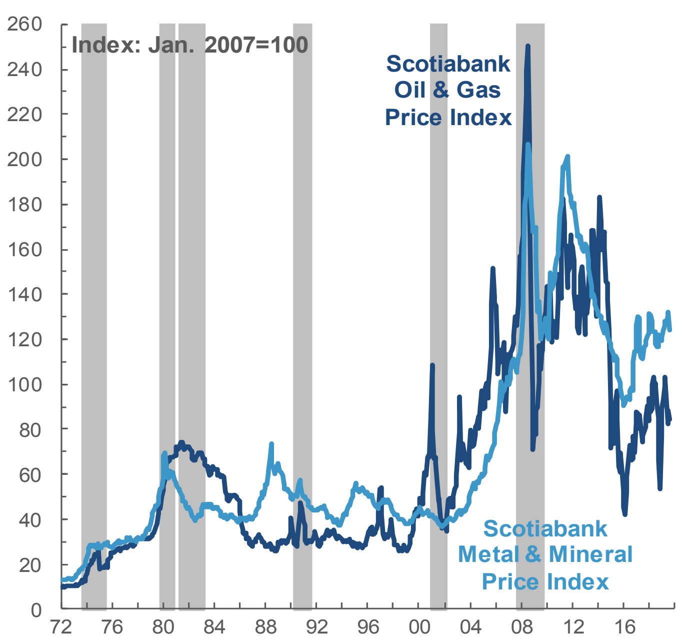
Scotiabank All Commodity Price Index



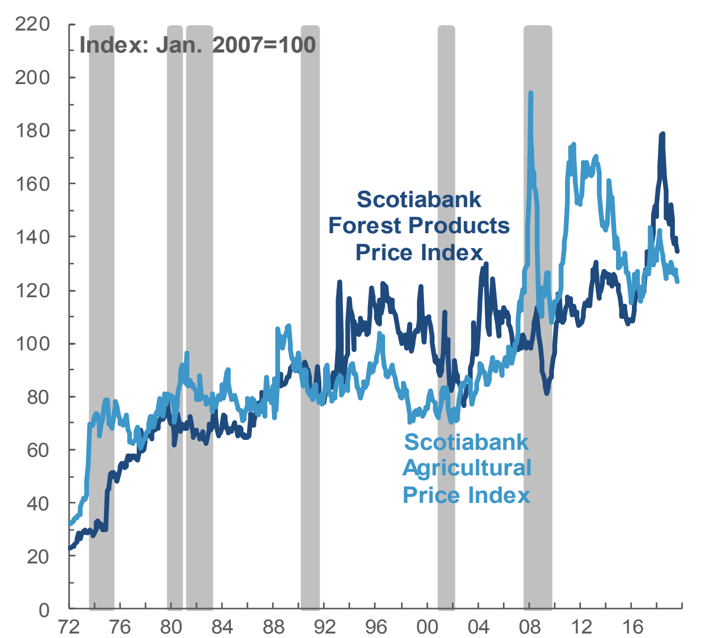
Canadian Dollar vs. Commodity Prices

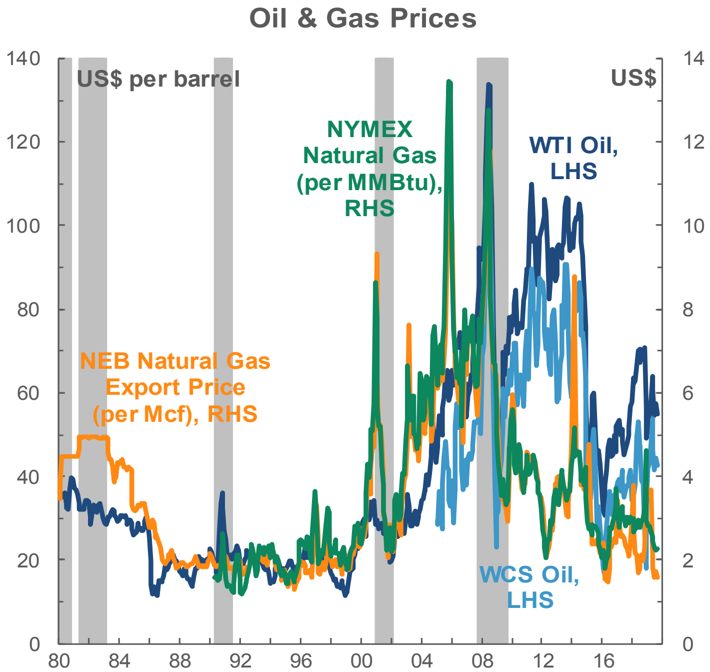


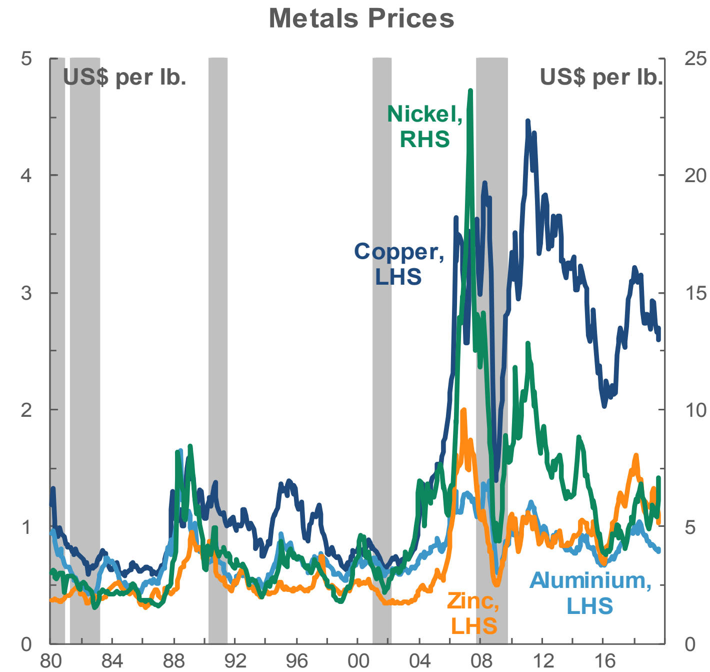
Scotiabank Oil & Gas and Metal & Mineral Indices

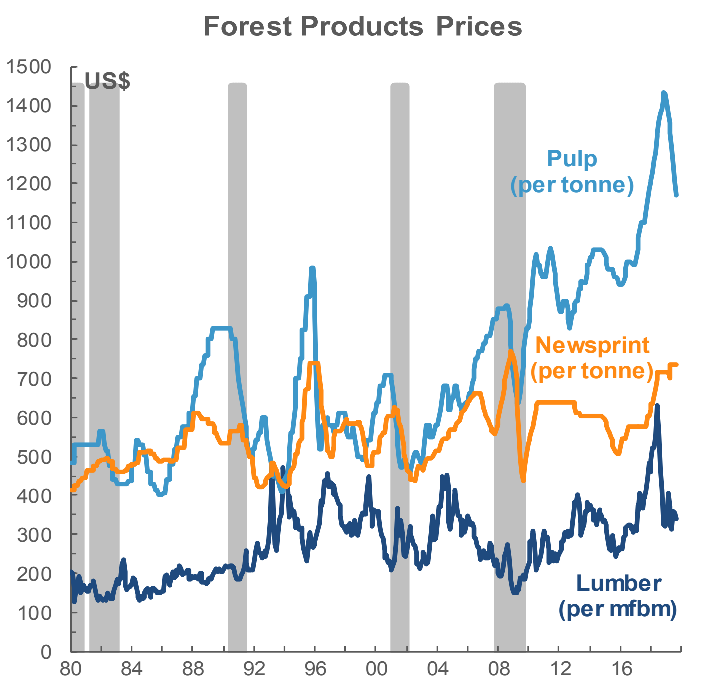


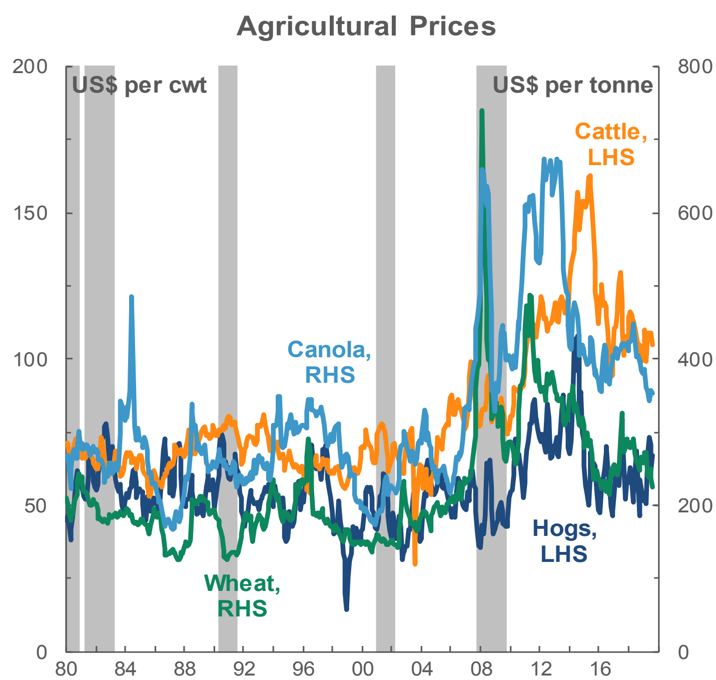
Scotiabank Forest Products & Agricultural Indices




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
Wheat, RHS
Hogs, LHS
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, 45 grams, 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), Saskatchewan aggregate spot price; historical data 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**