Oil Range-Bound While Metals Rally Higher

- **Oil remains anchored in the $45–50/bbl range (WTI) but we believe prices will move above $50/bbl through the latter half of 2017 as physical market tightness is confirmed by sustained declines in visible inventories.**
- **Metals prices have benefited from China's twin shocks to the supply of (environmental/industrial policy) and demand for (stimulus-fueled, materials-intensive growth) many industrial materials; we expect stimulus to fade later this year and industrial metals to fall in sympathy, though some will continue to rise on supply-side considerations.**

The Scotiabank Commodity Price Index advanced 4.9% m/m in July, with broad-based strength witnessed across all major commodity segments. While the Agriculture Index outperformed Industrials last month (7.1% vs 4.3% m/m), industrial commodities remain the core driver of the commodity sector recovery having risen 28.7% year-to-date.

We see further weakness ahead for the US dollar (USD) after a brief stabilization period in August, providing support for commodities which are typically priced in USD. While we may see some short-lived USD strength, rallies are expected to be temporary and we remain bearish through end-2018 as the market outlook for US interest rates continues to move lower. Movements in the relative value of the USD have a one-and-done effect on commodity prices as they adjust to reflect the level that consumers are willing to pay in all currencies, though gradual USD declines will create the mirage of a steady tailwind.

OIL & GAS: CRUDE'S MARCH HIGHER CONTINUES—AT LEISURELY PACE

Oil prices remain anchored in the $45–50/bbl range (WTI) as the market waits for concrete signs that demand is finally beginning to outpace supply after nearly three years of sustained surplus. Specifically, market participants need to see: 1) the narrative of a physically tightening market confirmed by continued reductions in US commercial inventories; 2) production from the US shale patch further slow in reaction to sustained sub-$50/bbl prices; and 3) OPEC+[1] alleviating some uncertainty by clarifying how production held back under its supply deal will re-enter the market when commitments expire in March 2018. We believe that WTI will sustainably move above $50/bbl through the second half of 2017 as global demand growth accelerates and supply gains slow in lagged sympathy with the recent episode of price weakness.

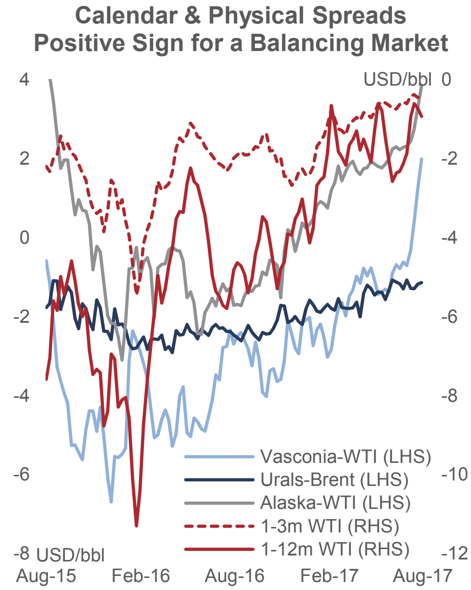
Despite bearish financial market sentiment, calendar spreads on crude futures—the difference between oil priced for delivery today and cargoes for later receipt—are shifting into backwardation (chart 1), or when prompt prices trade at a premium to later-dated contracts. Backwardation typically signals a tightening market and flushes crude out of inventory by eliminating the incentive to store oil

[1] OPEC+ refers to the larger informal group of OPEC and non-OPEC producers that agreed to collectively reduce oil production by 1.8 Mbpd in a November supply deal. Output cuts were relative to October 2016 levels, with OPEC contributing 1.2 Mbpd and non-OPEC countries including Russia, Kazakhstan, and Oman agreeing to hold back the remaining 0.6 Mbpd.

CONTACTS

Rory Johnston
416.862.3908
Scotiabank Economics
rory.johnston@scotiabank.com

Chart 1



Sources: Scotiabank Economics, Nymex, Bloomberg.

Table 1

Scotiabank Commodity Price Index

July 2017	(% change)		
	M/M	Y/Y	YTD
All Commodity*	**4.9**	**14.1**	**24.0**
Industrials	**4.3**	**12.9**	**28.7**
Oil & Gas	4.1	11.1	41.0
Metal & Minerals	4.8	14.3	27.6
Forest Products	4.0	13.3	13.7
Agriculture	**7.1**	**18.9**	**6.6**

	January 2007 = 100		
	2017		
	Jul	Jun	YTD avg.
All Commodity	**106.4**	**101.4**	**107.7**
Industrials	**99.7**	**95.5**	**103.6**
Oil & Gas	77.2	74.2	81.8
Metal & Minerals	111.2	106.2	119.5
Forest Products	137.0	131.7	130.3
Agriculture	**143.6**	**134.0**	**130.2**

* Weights: Oil & Gas (39.9%), Metal & Minerals (30.1%), Forest Products (14.7%), Agriculture (15.3%); Full technical note on page 11.

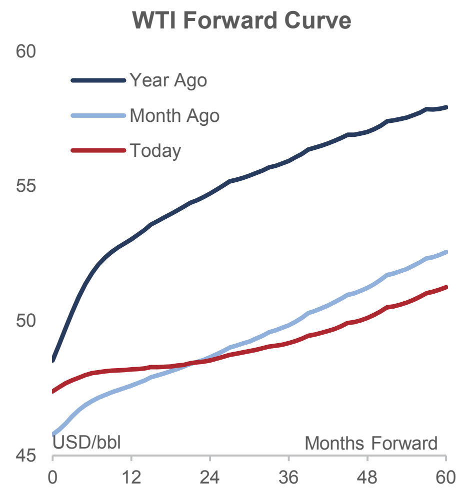
in carry-trades. It also appears that physical participants are more bullish than their financial counterparts, illustrated by the recent outperformance of less traded crude benchmarks like Russia's Urals and Colombia's Vasconia blends relative to financialized benchmarks like Brent and WTI (also chart 1); the financial market's relative bearishness is further illustrated by the steady reduction in speculative short positions as a share of outstanding open interest over the past two months.

While both physical and calendar spreads are signalling a stronger crude market, an important caveat is that oil's forward curve has flattened further—oil for delivery in 2022 is trading at barely $3/bbl above current spot prices—as bullish and bearish narratives battle to an ephemeral stalemate (chart 2). Uncertainty regarding oil's medium-term prospects has discounted the value that market participants are placing on forecasts and longer-term prices are increasingly tethered to spot markets where traders are more likely to overreact to high-frequency data like weekly US inventory reports. (US commercial petroleum inventories have resumed their counter-seasonal drawing trend—as seen in chart 3—after a brief bump in May, a trend that will need to continue for prices to break above their current range.) We have also seen the reappearance of the mid-curve distortion likely caused by US shale producers selling forward next year's volumes to lock in current prices (also chart 2), a sign that many aren't confident in oil's outlook. US production continues its upward climb and recently broke above 9.5 million barrels per day for the first time in more than a year, but rig count additions have slowed in the face of sub-$50/bbl WTI. A plateauing rig count and the necessary expansion into less-prime acreage away from the sweet spots where many operators retreated during the downturn will slow US production gains into 2018 until prices sustainably rise above $55/bbl.

Compliance with the production deal among participating OPEC members remains impressive, averaging 98% year-to-date, but discipline is slipping as the supply agreement moves into its ninth month. Saudi Arabia, which had disproportionately carried the burden by cutting more than committed through the initial months, pumped above its agreed quota for the first time this year in July, but compliance among other participating OPEC members improved after a particularly poor performance in June. Meanwhile, gains from Libya and Nigeria—exempted from production cuts due to domestic militancy and where production is up almost 200 kbpd m/m—more than overwhelmed reductions elsewhere in the cartel, though output has been volatile and both states are likely nearing their upper capacity limit based on historical production levels (chart 4). Calls to pull these exempted members under the umbrella of the deal are likely to be unsuccessful until they reach nearer their potential production capacity, which is likely about 300 kbpd above where each is currently producing. We expect that OPEC+ will agree to gradually reintroduce withheld production based on prevailing market conditions when the deal ends in March 2018, ensuring that the market is not overwhelmed as members reopen their taps. However, the exact character of this production return remains unclear and the market will need further direction from participating governments to guide expectations.

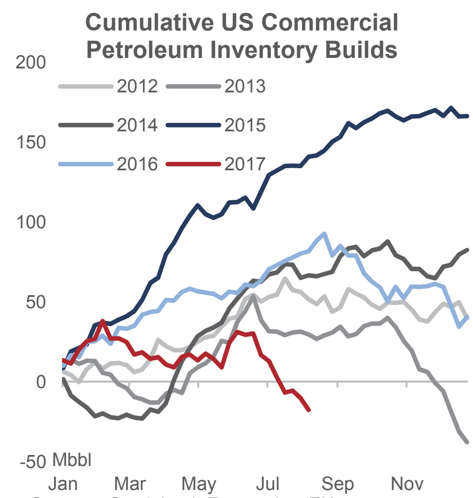
Venezuelan output continues to slide and risks to production are rising as the country falls further into domestic disarray. Beyond the internal threats to the reliability of future shipments, the international community has widely rebuked the government's recent moves to rewrite the constitution and the United States has threatened sanctions. These sanctions have so far been targeted at individuals

Chart 2



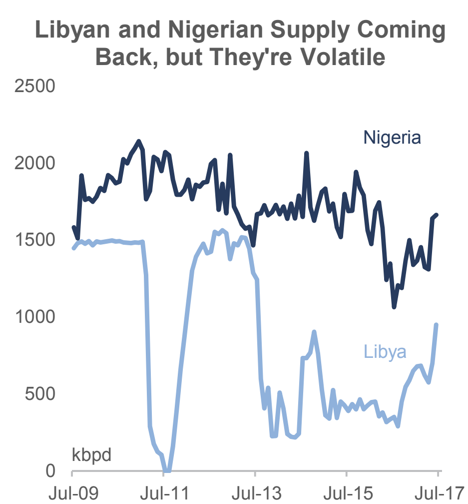
Sources: Scotiabank Economics, Bloomberg.

Chart 3



Sources: Scotiabank Economics, EIA.

Chart 4



Sources: Scotiabank Economics, OMI.

associated with the Venezuelan government, including president Nicholas Maduro himself, but a ban on the import of Venezuelan crude has also been discussed. Such a ban would likely have little impact on global supply balances as Venezuelan cargoes would simply be diverted to other willing buyers, but it would have an impact on regional benchmarks that would likely need to replace lost barrels. One of the primary beneficiaries would be Western Canadian Select (WCS), Canada's primary heavy crude export blend, which has seen the discount to major global benchmarks fall this year (chart 5) as heavier crude supply falls as part of OPEC's agreement and light crude output rises in the US shale patch as well as Libya and Nigeria. A ban on Venezuelan imports could cut another $3–4/bbl from that discount as US refineries are forced to find alternative heavier crudes to make use of capacity specifically designed to utilize those blends.

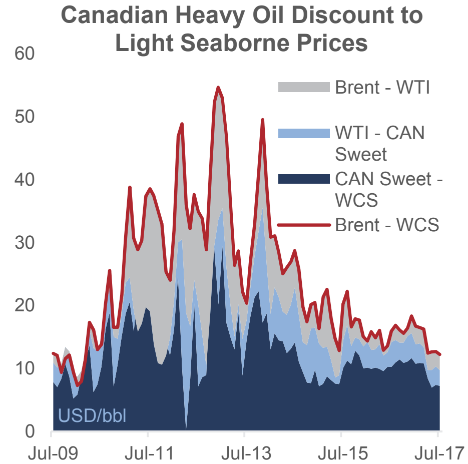
METALS & MINERALS: WHAT CHINA'S STIMULUS-RALLY GIVETH...

Metals prices have benefitted across the board from China's simultaneous shocks to the supply and demand of many industrial materials. Strong economic activity in the first half of the year—official growth of 6.9% y/y was above the Beijing's target of "around 6.5%" and an acceleration over last year's 6.7% expansion—came on the back of stimulus-induced upswings in the manufacturing and construction sectors, increasing the demand for industrial commodities like steel and copper. At the same time, Beijing is reducing available supply by forging ahead with plans aimed at cutting back excess domestic production capacity, which has weighed on profitability and exacerbated debt loads in an industry dominated by state-owned players.

However, the market was aware that any surprises to growth this year would likely be on the upside. The Chinese Communist Party's National Congress, an important leadership event that takes place every five years, is scheduled to occur later this autumn and it was anticipated that Beijing would ensure that the economy was strong going into the meeting. That meant stimulus in the form of infrastructure spending and looser credit, which kept materials-intensive industries like construction humming along and has provided an updraft for the entire metals complex (chart 6). Going forward, the government is expected to ease off the stimulus pedal following the conclusion of the Congress. Strong first-half growth provides plenty of room for policy makers to taper down stimulative policy through the end of the year and still achieve Beijing's growth target. Commodities that benefited most from the stimulus cycle—iron ore, met coal, copper, etc.—are expected to ease off their recent highs and broad-based support for metals will be replaced by commodity-specific factors such as a particular metal's estimated position in its rebalancing process.

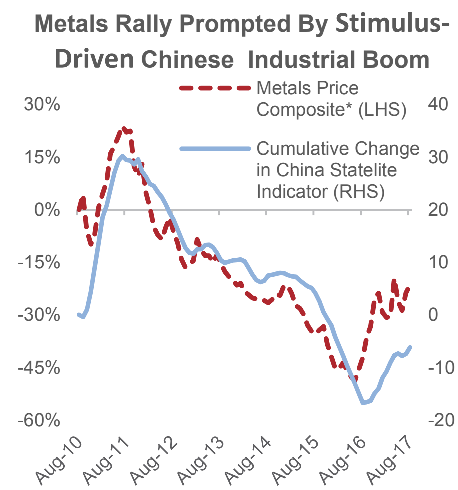
We believe that those commodity-specific factors will prompt downward corrections in iron ore, metallurgical coal, and copper, while zinc likely has more room to run before reaching the peak of its cycle. Chinese steel prices remain high, which has buttressed mill profitability (chart 7) and inflated import demand and thus prices for iron ore and metallurgical coal; steel prices are expected to fall as the government withdraws stimulus, deflating the current bulks bubble. Iron ore prices are expected to fall to around $55/t by 4Q17 from above $70/t today, facilitating the needed contraction of low-quality Chinese production as Australia and Brazil continue to ramp up high-quality, low-cost capacity. Metallurgical coal is in a similar position, with ample seaborne supply likely to push prices toward $125/t, the

Chart 5



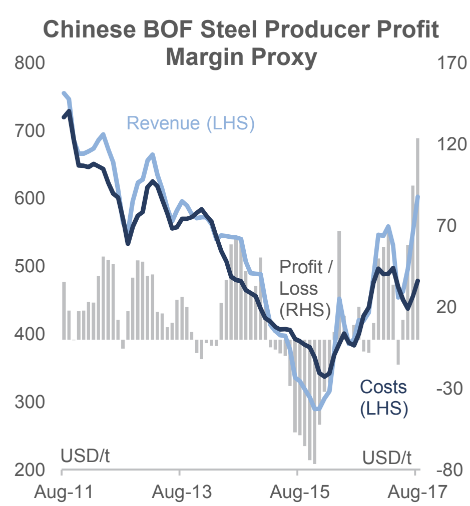
Sources: Scotiabank Economics, Bloomberg, Suncor.

Chart 6



* Copper, Nickel, Zinc, Aluminium, Iron Ore, HCC.
Sources: Scotiabank Economics, SpaceKnow, Bloomberg.

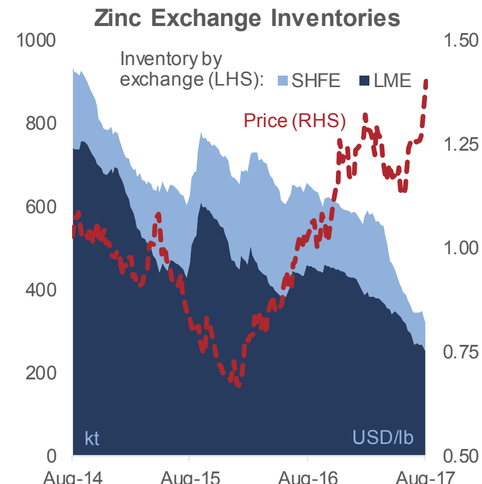
Chart 7



Sources: Scotiabank Economics, Bloomberg.

upper end of the cost curve, by the final quarter of the year from nearly $200/t today as marginal Chinese import demand falls away. Copper prices, too, are expected to fall but we also anticipate that further clarity about China's announced ban on scrap imports will tamp down some of the initial enthusiasm. Meanwhile, zinc's outlook remains fundamentally strong, even though prices may temporarily fall back in sympathy with the broader metals market. Ongoing shortages of zinc concentrate impacted production of refined metal, which has pushed exchange-listed stocks to their lowest level (chart 8) in almost a decade when zinc was trading nearer $2/lb.

Chart 8

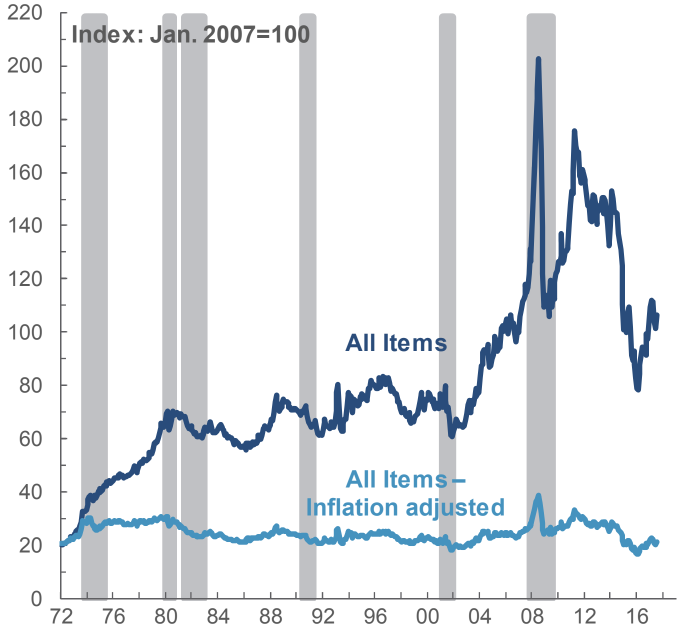


Sources: Scotiabank Economics, LME, SHFE.

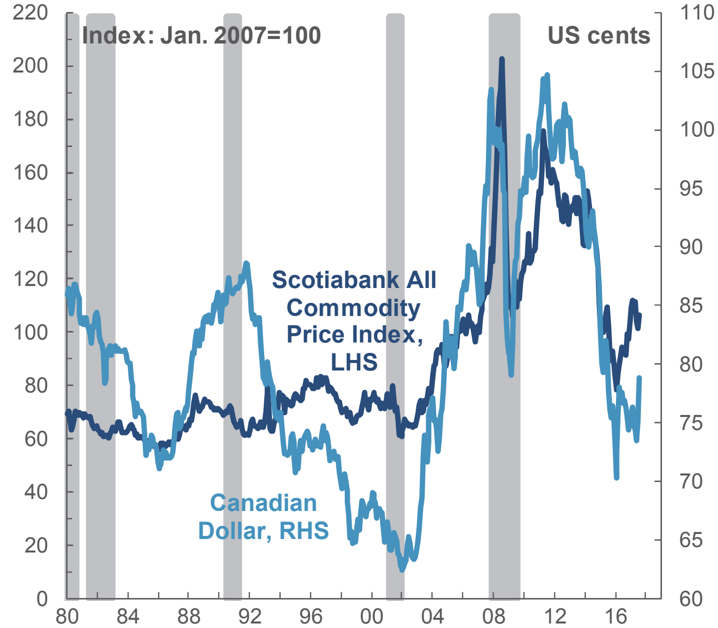
Aluminium's outlook is more uncertain given rapidly changing supply expectations in China, and prices jumped to a nearly three-year high in mid-August following reports of significant Chinese smelting capacity closures. As part of the government's drive to crack down on "illegal" industrial capacity that first took aim at steel and coal mines, Hongqiao, the world's largest producer of aluminium, announced 2.7 Mt—or almost 5% of global supply—worth of closures across five facilities. This sparked a run-up in prices that was accompanied by a surge in open interest, especially on domestic Chinese exchanges, signaling the extent to which this rally was prompted by speculative reactions to the closure headlines. This latest bout of bullish aluminium news follows an announcement earlier this year that aluminium processors would be forced to idle some capacity through the winter months as part of an effort to battle urban smog. Prior to this year's flurry of Chinese supply risks, aluminium prices had languished under the weight of chronic overcapacity facilitated by Chinese subsidies. However, many of these closures will be followed by new capacity additions and China has a history of only partially enforcing environmental orders—it will take time to assess just how much of an impact recent headlines will have on global balances. Going forward, Beijing will determine the immediate fate of aluminium through a combination of environmental and industrial rationalization policies, with lots of volatility expected as further regulatory announcements filter through.

Price Outlook		2000–2015 Monthly Avg. Low	2000–2015 Period Avg.	2000–2015 Monthly Avg. High	2016	2017YTD	2017F	2018F
Oil & Gas								
Crude Oils								
West Texas Intermediate	USD/bbl	19.40	63.68	134.02	43.47	49.41	51	53
North Sea Brent Blend	USD/bbl	19.06	66.44	134.56	45.13	52.18	53	56
Natural Gas								
Nymex Henry Hub	USD/MMBtu	2.05	5.09	13.46	2.55	3.06	3.10	2.95
Metals & Minerals								
Base Metals								
Copper	USD/lb	0.62	2.35	4.48	2.21	2.65	2.55	2.75
Nickel	USD/lb	2.19	7.45	23.67	4.36	4.44	4.40	5.00
Zinc	USD/lb	0.34	0.80	2.00	0.95	1.24	1.25	1.40
Aluminium	USD/lb	0.58	0.87	1.39	0.73	0.86	0.85	0.85
Bulk Commodities								
Iron Ore	USD/t	12	65	187	58	73	65	60
Metallurgical Coal	USD/t	40	128	330	143	179	185	125
Precious Metals								
Gold	USD/toz	261	842	1,772	1,251	1,241	1,225	1,250

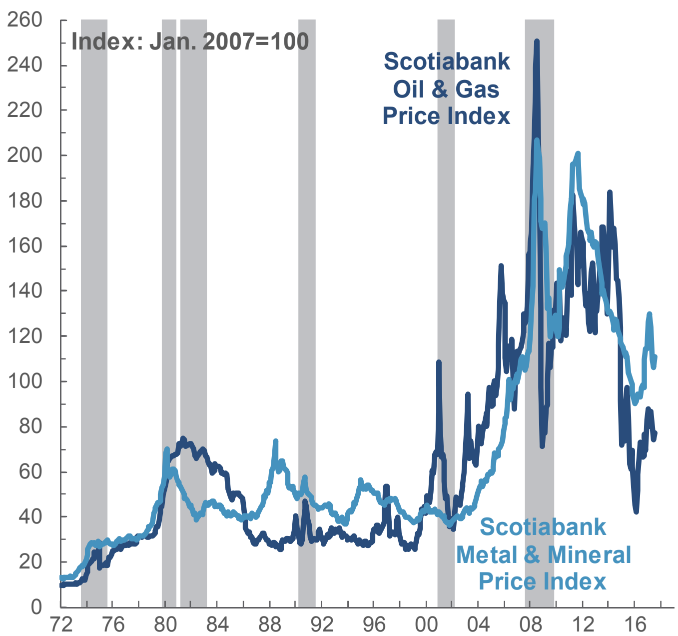
Scotiabank All Commodity Price Index



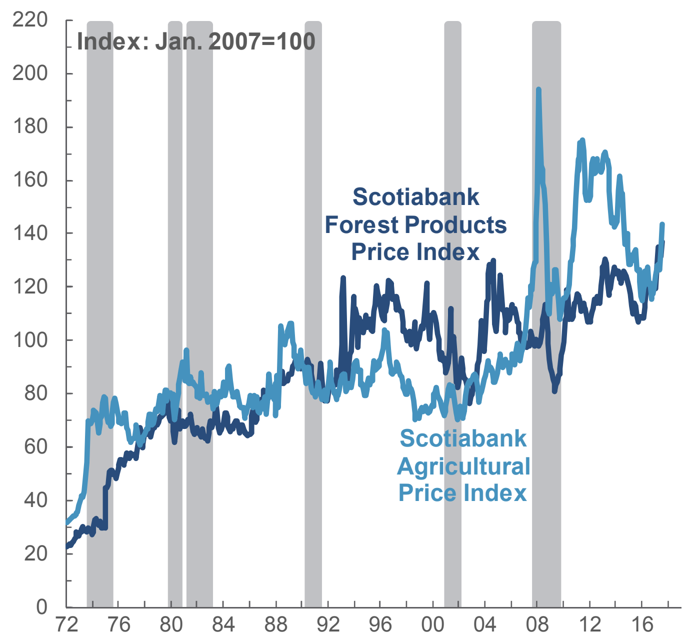
Canadian Dollar vs. Commodity Prices

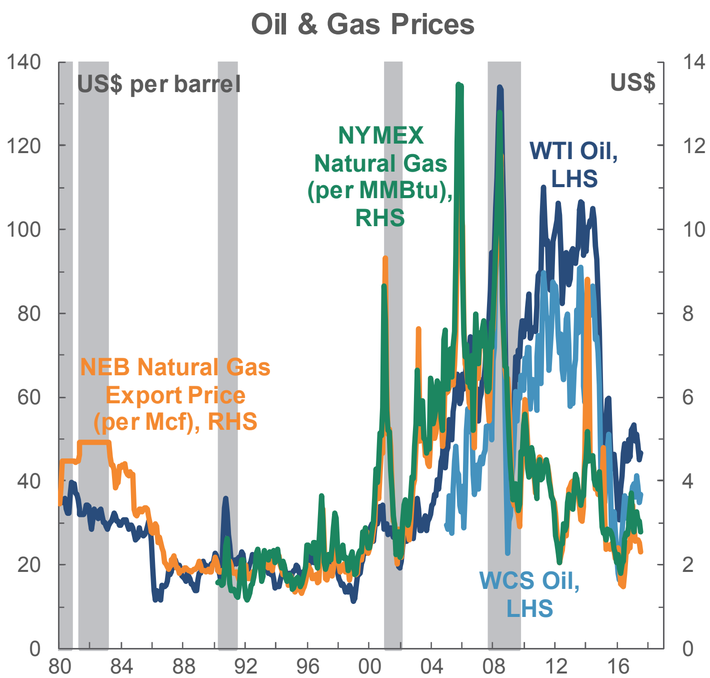


Scotiabank Oil & Gas and Metal & Mineral Indices

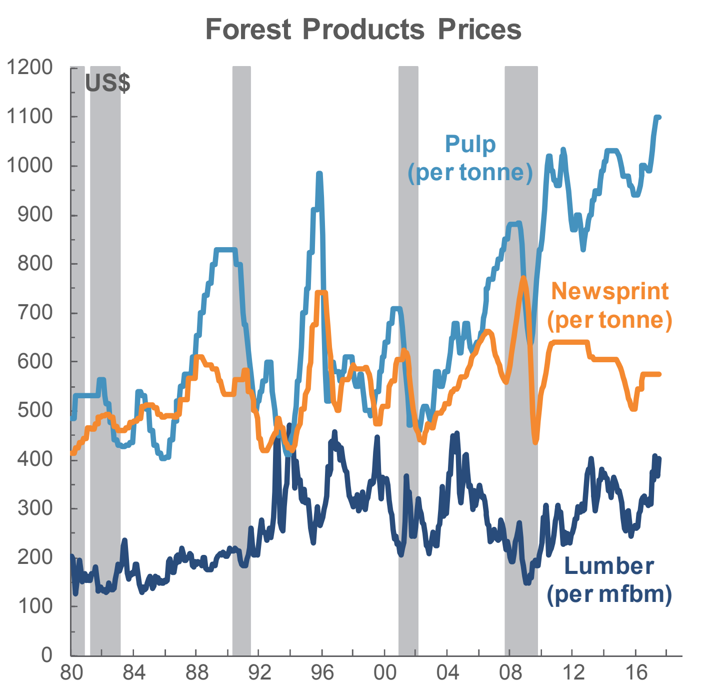


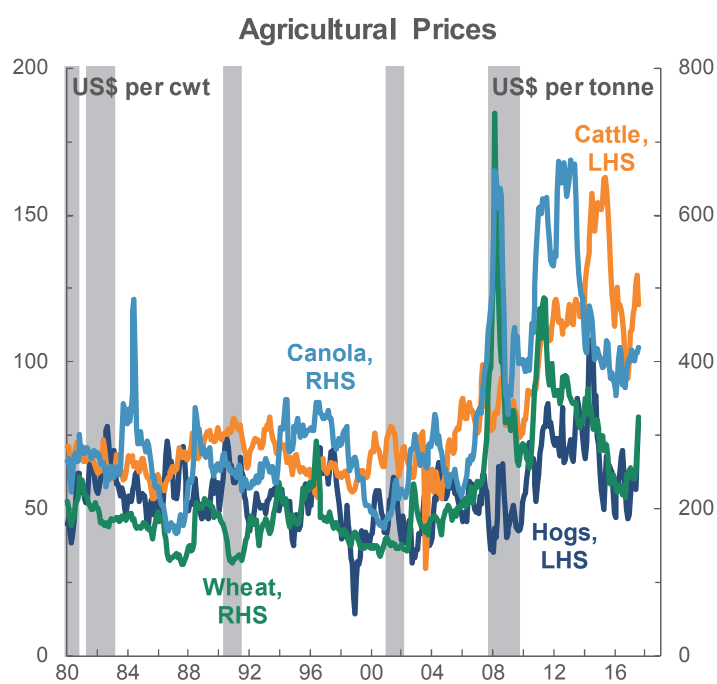
Scotiabank Forest Products & Agricultural Indices




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)
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 TMX/Shorcan Energy Brokers.

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) Spot price for U3O8.

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**