

GLOBAL ECONOMICS SCOTIABANK COMMODITY PRICE INDEX

June 18, 2018

Oil Market on OPEC+ Watch, While Copper Consumers Fear Escondida Strike

- Oil prices fell back after reaching \$80/bbl (Brent) as Saudi Arabia and Russia announced their desire to lift OPEC+ production to alleviate some of the current market tightness.
- The Federal Government announced its intention to purchase the Trans
 Mountain pipeline system from Kinder Morgan and that Ottawa would
 bring the Expansion Project through the construction phase. The move
 comes as ever-scarcer pipeline capacity out of Western Canada is
 increasing the volatility of WCS discounts to events such as Enbridge's
 recently proposed rule change for nomination treatment on the Mainline
 system.
- Labour negotiations at Escondida, the world's largest copper mine, have pushed up copper prices as buyers stockpile tonnage ahead of a potential repeat of last-year's 44-day work stoppage.
- Vale announced that it would begin construction on the \$2 billion project to convert the Voisey's Bay mine in Newfoundland and Labrador from surface to underground operations. The move highlights the improved fortunes of the nickel market as well as the increased value of the mine's cobalt by-product supply.

The Scotiabank Commodity Price Index advanced 2.3% m/m in May on continued energy complex gains (+4.8%). Oil prices reached their highest level since their 2014 collapse, offsetting middling metals performance and falling agriculture prices.

OIL PRICE FALLS BACK AS OPEC+ MULLS ADDITIONAL SUPPLY

Brent crude prices hit \$80/bbl in late-May before falling back on news that Saudi Arabia and Russia, by far the largest producers within the OPEC+ alliance, support increasing production to alleviate deepening supply tightness. After reaching their highest level since prices fell in 2014, Brent contracts have fallen back to \$73–75/bbl—still up more than 60% from \$45/bbl last June amid tight supply conditions. Saudi Arabia's oil minister is quoted as saying that a production increase is "inevitable" given high prices, falling Venezuelan supply, and the potential for lost barrels related to US sanctions against Iran.

We expect that OPEC+ will announce its intention to lift the group's aggregate production by 300–500 kbpd through the latter half of 2018 following the June 22–23 meetings (OPEC, followed by joint OPEC-NOPEC discussions). We also expect OPEC+ to signal that producers are willing to lift production by another 500–1,000 kbpd through the end of 2019, by then depleting the remainder of the voluntary (i.e., ex-Venezuela) cuts that took effect in January 2017 (chart 1). This represents an accelerated timeline relative to our prior expectation that production caps would be eased through the latter half of 2019, suggesting that major producers hold a healthier outlook for the oil market relative to a few months ago.

CONTACTS

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Chart 1

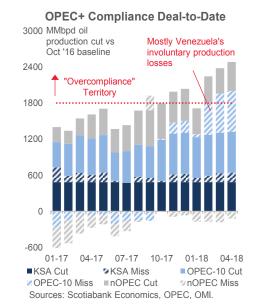


Table 1

Scotiabank Com	nmodity	Price I	Index		
May 2018	(%	(% change)			
	MM	Y/Y	YTD		
All Commodity*	2.3	19.7	11.4		
Industrials	3.3	22.4	12.0		
Oil & Gas	4.8	29.8	12.6		
Metal & Minerals	-0.6	9.2	3.7		
Forest Products	6.9	33.1	27.0		
Agriculture	-2.7	7.5	8.9		
	Janua	January 2007 = 100			
		2018			
	May	Apr YTD av			
All Commodity	125.3	122.5	121.2		
	400.4	119.4	118.2		
Industrials	123.4	113.4			
Industrials Oil & Gas		99.5	94.9		
	104.2				
Oil & Gas	104.2	99.5 122.8	127.0		
Oil & Gas Metal & Minerals	104.2 122.1 178.1	99.5 122.8	127.0 163.5		

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Iraq, Iran, and Venezuela have released statements opposing the Saudi-Russian increase, but these dissenters are unlikely to hold much sway given that they have either only very loosely been participating thus far (Iraq), facing export restraints due to renewed sanctions (Iran), or seeing production collapse due to mismanagement (Venezuela). Discordant chatter ahead of the OPEC meeting revives memories of a similar disagreement in 2011 between Saudi Arabia, which wanted to lift output, and smaller members, which wanted to keep supplies tighter and prices higher; that meeting collapsed with no consensus reached and Riyadh unilaterally boosted production to ease what the Kingdom viewed as excessively high oil prices. It is possible that we could see a similar outcome next week, but this time Moscow would join in to boost production with the Saudis bilaterally.

The combination of OPEC+ production increases and still-high speculative positioning points to downside price risk over the coming months, but prices are forecast to begin rising again and remain well-supported following the initial supply shock. Even factoring for higher OPEC+ supply, the market is expected to remain in mild deficit and medium-term price risks are tilted to the upside given downside risks to supply against robust global demand growth.

TRANS MOUNTAIN PURCHASE ALLEVIATES SOME TAKEAWAY UNCERTAINTY. ENBRIDGE RULE-CHANGE ROILS WCS DISCOUNTS

The Federal Government announced its intention to purchase the Trans Mountain pipeline system from Kinder Morgan and that Ottawa would bring the Expansion Project (TMEP) through the 2–3 year construction phase. The move is a major development in the seemingly endless saga of pipeline politics plaguing Canadian energy infrastructure projects. TMEP and Keystone XL have been delayed for years beyond initial timelines—with the rosiest outlook seeing those pipelines enter service early next decade—while others like Northern Gateway and Energy East were abandoned. The final details are still being ironed out, but the rough contours of the deal include C\$4.5 billion for the existing pipeline, the Burnaby marine terminal, and the expansion project. The government will put the assets under the control of a crown corporation, which will proceed with construction estimated to cost C\$7.4 billion and plans to sell the asset back to the market after work is completed—Ottawa doesn't intend to be in the pipeline business for the long run.

While it is a negative sign that it took this level of government involvement to insulate the pipeline against political interference through the construction window, the move is a positive development for the Canadian energy sector which continues to suffer from acutely constrained pipeline capacity out of Western Canada (chart 2). Canadian heavy oil discounts (WCS – WTI) are hovering around \$18/bbl, roughly the level that factors for marginal oil-by-rail transport. But operating at the edge of max capacity means that minor events can prompt significant volatility in differentials.

The latest such event was Enbridge's proposed change to how barrels are nominated on the Mainline system, which briefly pushed discounts back to \$26/bbl before Enbridge rescinded the changes and prices settled back toward \$18/bbl (chart 3). The change was prompted by what Enbridge saw as market distorting behaviour in the nomination process amid heavy apportionment (i.e., capacity rationing) on the Mainline system. As apportionment became a normal expectation, shippers were incentivized to nominate more space than they have product to fill so as to hopefully get apportioned back to the volume required by the firm. This led to instances where

Chart 2

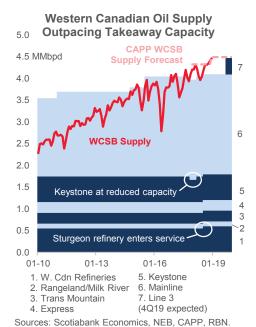
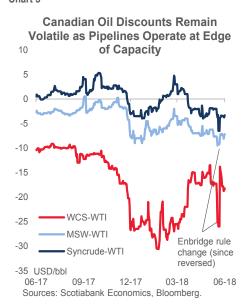


Chart 3



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Enbridge says that space on pipeline system was underutilized and the new rules would have forced shippers to verify the supply underpinning their nominations, thereby short-circuiting the zero-sum game between companies vying for capacity. However, uncertainty around and rigidity in the implementation of the new policy proved volatile and Enbridge has rescinded the rule change—we may see another attempt to change policy in the future, but the volatility associated with this latest attempt will provide a significant disincentive to try again while pipeline capacity out of Western Canada is so tight.

COPPER PRICES RALLY ON RISK OF ESCONDIDA STRIKE

Copper prices raced higher through the first days of June on rising concerns that there would be another strike at Chile's Escondida mine, the world's largest copper project (chart 4). Escondida alone is expected to produce 5% of global copper ore in 2018. A breakdown in the negotiations last year resulted in a 44-day work stoppage—the largest such disruption in modern Chilean history—before the union used a legal provision to extend the existing contract until July 2018.

While last year's disruption didn't seem to contribute much of a boost to the already-frothy copper market, physical balances are much tighter today and a similar disruption is likely to have a more pronounced effect on spot markets. LME copper contracts moved briefly into backwardation on disruption fears, reversing the everwider contango that had served as a bearish drag on copper's latest bull-run. The strike would potentially begin as soon as August if the two sides fail to reach an agreement.

The union, which represents roughly 2,500 Escondida workers, is looking for a one-time bonus of US\$34,000 and a 5% pay hike. Following heavy investments in the project, management is focused on maintaining competitiveness by increasing productivity. Given the reality of ever-declining grades at the mine, it is unlikely that management will accept such steep wage terms—at least not without some commensurate reduction in labour-force, so as to keep per-tonne costs under control. Last year's disruption was worth roughly US\$1 billion in lost revenue, but most analysts believe that management is willing to sustain some pain today in an effort to maintain the long-term value of the mine, which would suffer from a faster pace of wage growth. The union believes that it will see a "favourable scenario" in part due to higher-than-expected copper prices, which are boosting earnings. Management, as well, has responded to the union's proposal and is ready to discuss "different points of interest." We expect that shifts in reporting around the progress of the Escondida negotiations will keep copper contracts volatile through the balance of the summer.

VALE PULLS THE TRIGGER ON VOISEY'S BAY

Vale announced that it will begin construction on the \$2 billion expansion project to shift the Voisey's Bay mine in Newfoundland and Labrador from surface to underground operations. The plan initially received the green light in 2015, but exceptionally weak nickel prices and dour market sentiment toward the metal had delayed investment. Construction is expected to last 2–3 years and the move underground will extend the life of the mine—which began producing a mix of nickel, copper, and cobalt since 2005 (chart 5)—through at least 2035, supporting an estimated 1,700 jobs including those employed at the Long Harbour processing plant.

Chart 4

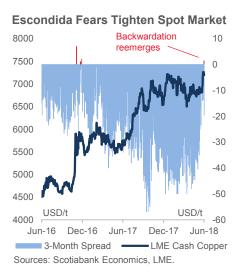
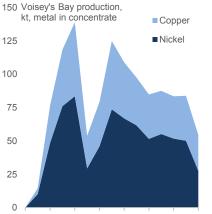


Chart 5

Voisey's Bay Expansion Gets the OK



2004 2006 2008 2010 2012 2014 2016 2018 Sources: Scotiabank Economics, Wood Mackenzie.

Chart 6





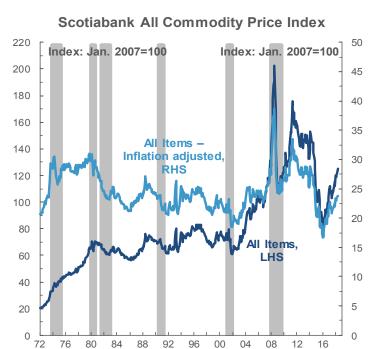
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The company helped finance the expansion by pre-selling 75% of the project's future cobalt production for \$690 million in the form of streaming deals. Cobalt prices have experienced an impressive run over the past two years on the back of bullish expectations around energy storage demand and concerns about political risks in the Democratic Republic of Congo, the world's dominant producer of the metal.

The nickel market has been one of the best performers this year after a decade of surplus supply and declining prices. LME nickel prices are up 75% since last June to over \$7/lb (chart 6) amid widening supply deficits and rapidly falling exchange-listed stocks. While inventories remain high relative to base metals peers, exchange-listed tonnage has fallen by one-fifth in the past year.

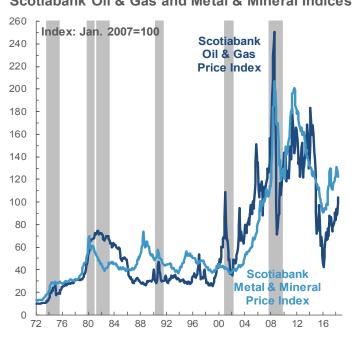
Price Outlook		Monthly	2000–2016 Period	Monthly	2017	2018ytd	2018F	2019F
Oil & Gas		Avg. Low	Avg.	Avg. High				
Crude Oils								
West Texas Intermediate	USD/bbl	19.40	62.70	134.02	50.85	65.15	65	68
North Sea Brent Blend	USD/bbl	19.06	65.53	134.56	54.75	70.75	70	73
WCS - WTI Discount*	USD/bbl	-42.50	-16.85	-5.50	-12.74	-21.70	-22	-20
Natural Gas								
Nymex Henry Hub	USD/MMBtu	1.81	4.94	13.46	3.02	2.83	2.80	2.85
Metals & Minerals								
Base Metals								
Copper	USD/lb	0.62	2.35	4.48	2.80	3.14	3.10	3.25
Nickel	USD/lb	2.19	7.26	23.67	4.72	6.25	6.00	6.50
Zinc	USD/lb	0.34	0.81	2.00	1.31	1.49	1.60	1.60
Aluminium	USD/lb	0.58	0.86	1.39	0.89	1.00	0.95	1.00
Bulk Commodities								
Iron Ore	USD/t	27	108	302	72	70	63	60
Metallurgical Coal	USD/t	39	127	330	188	211	182	160
Precious Metals								
Gold	USD/toz	261	869	1,772	1,257	1,323	1,310	1,300
* 2008-16 average.								



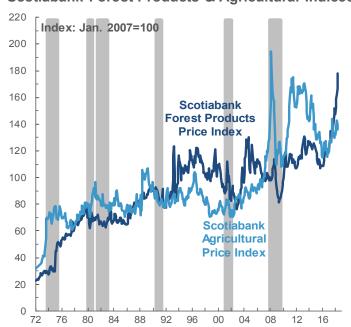




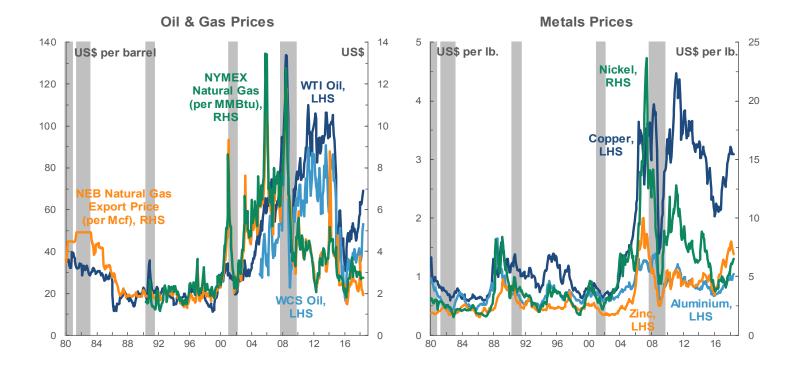
Scotiabank Oil & Gas and Metal & Mineral Indices

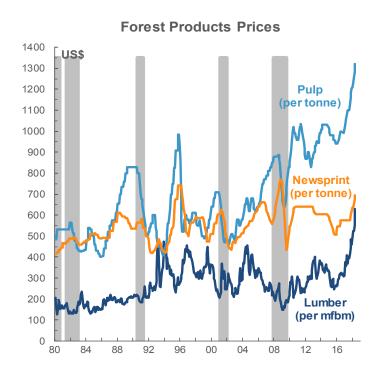


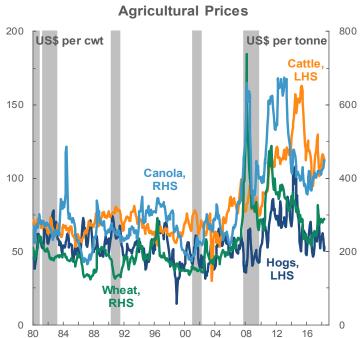
Scotiabank Forest Products & Agricultural Indices













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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 Ib) 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) U₃O₈ 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

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



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