

GLOBAL ECONOMICS COMMODITY NOTE

July 3, 2018

Commodities Outlook (Q3 2018)

**Content reproduced from our recently released quarterly <u>Scotiabank's</u> <u>Global Outlook</u> (p. 50–54).

OPEC+ LIFTS PRODUCTION, METALS COMPLEX PARTS WAYS

- Commodities prices continue to benefit from strong economic growth and increasingly tight conditions across both upstream production capacity as well as supporting supply chains.
- While supply-side fundamentals remain supportive for most commodities, far and away the largest risk to our outlook is US-led and rapidly escalating trade tensions. The trade policy path currently being pursued by the White House presents a clear and present to the global economy and the prices of industrial commodities, with risk tilted more heavily toward metal than energy products.
- OPEC+ announced that it would move to increase effective production by 600–1,000 kbpd through the latter half of 2018 to alleviate some of the tightness that had pressed crude prices as high as \$80/bbl in early June.
- In line with this revised path of expected OPEC+ supply and factoring
 for the tighter conditions that pressed the group to lift production earlier
 than expected, we have raised our oil price forecasts for 2018/19. Brent
 crude is now forecast to average \$74/bbl in 2018 and \$77/bbl in 2019,
 while WTI prices are expected to lag Brent given tight pipeline capacity
 between Cushing, OK and the export facilities on the US Gulf Coast.
- The outlook for metals remains mixed, with base metal markets seeing upgrades on even-tighter mine supply while bulk commodities ease and gold remains range-bound.

ENERGY: OPEC+ ANNOUNCES SUPPLY SUPPORT FOR TIGHT MARKET

Brent crude prices hit \$80/bbl in early June before Saudi Arabia and Russia signaled that they intended to lift production following the OPEC+ meetings on June 22–23. Despite contradictory and discordant chatter ahead of the gathering of major oil producers, OPEC+ announced that the group will lift effective production by 600–1,000 kbpd through the second half of 2018. Accounting for additional OPEC+ output and the robust consumption growth that demanded such a supply boost, we maintain our expectation that oil markets will remain in mild deficit through the end of 2019 and that prices will remain well-supported over the next two years. Accordingly, we now expect Brent crude prices to average \$74/bbl in 2018 and \$77/bbl in 2019 (chart 1), with WTI lagging behind (\$68/bbl in 2018, \$71/bbl 2019) due to increasingly chronic infrastructure bottlenecks en route to export facilities on the US Gulf Coast.

OPEC+ Lifts Output to Offset Involuntary Over-Compliance

Following meetings on June 22nd and 23rd, OPEC+ announced a nominal aggregate production increase of 1 MMbpd (chart 2) in a bid to alleviate part of

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Chart 1

Oil Prices Heading Higher, but OPEC+ Support Blunts 90 USD/bbl Some Tightness

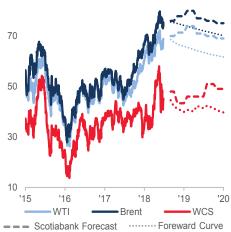
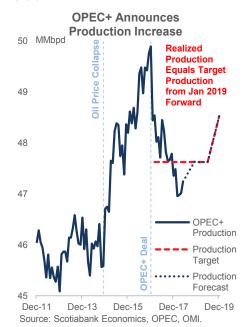


Chart 2







the recent market tightness that pushed Brent prices as high as \$80/bbl in early June for the first time since 2014. But while the market may see upwards of 1 MMbpd of fresh crude from producers like Saudi Arabia and Russia through year-end, this was only made necessary by production weakness throughout the rest of the alliance, where total compliance now exceeds 150% (chart 3). Venezuelan output—down more than 500 kbpd y/y—is collapsing, Angolan and Mexican production is sliding beyond committed cuts, and US sanctions against Iran could cut 400 kbpd from the regime's export volumes by the end of 2018. Bringing OPEC+ compliance back to 100% moves us back to the 2H18 production path we expected in our March Outlook, down 1.8 MMbpd from October 2016 levels rather than the 2.7 MMbpd falloff we have averaged year-to-date. We also maintain our view that the market will require further OPEC+ supply next year and that the collective ceiling will see a 900 kbpd increase through the latter half of 2019.

It is important to note that this is not an increase in the targeted level of production by the group, but rather an attempt to offset involuntary production losses in countries like Venezuela (chart 4). The "hike" intends to bring OPEC+ production back to a level commensurate with the initial 1.8 MMbpd cut that was agreed upon in late-2016 and took effect in January 2017. The operative phrase in the group's official statement is "overall conformity level", with disagreement between members as to what that functionally means. Some, most notably Iran, argued that the agreement refers to individual conformity, and that a 1 MMbpd "paper barrel" increase distributed proportionally throughout the alliance would result in a 500 kbpd "real" increase in production given that some members are unable to lift output for technical or political reasons. Others, including Saudi Arabia and Russia with plenty of spare capacity to tap, have interpreted the agreement as establishing a collective ceiling on production, and that those who can lift supply are able to "fill in" quota space for those who can't.

Given that producers with spare capacity will determine the ultimate efficacy of this supply increase, however, the collective ceiling interpretation is likely the view that will win out and tips the likely outcome nearer 1 MMbpd than Iran's 500 kbpd estimate. The collective ceiling interpretation also theoretically shields the market against further expected declines in Venezuelan supply or the potential loss of Iranian barrels due to the pending snapback of US sanctions, as producers like Saudi Arabia would be within their interpreted rights to fill in for that widening gap. However, in our view, a full 1 MMbpd hike from spare capacity producers would require the disruption of Iranian exports, which are currently expected to fall by 400 kbpd by year end but could see smaller declines in part due to the escalating trade tensions between Washington and Beijing.

Following the resumption of US sanctions against Iran related to the regime's nuclear program, the market has tried to determine how much production will be lost due to curtailed market access, particularly concerning European customers. We expected that about 400 kbpd of Iranian supply would be at risk due to US sanctions, but assumed that China and India wouldn't materially increase imports from Iran despite suppliers likely willing to offer enticing discounts. Mounting US-China trade tensions complicate matters, however, as the latest round of retaliatory tariffs from China included a 25% levy on US energy products. With 350 kbpd of American crude currently heading to China, these displaced barrels may increase the incentive to source more barrels from Iran—the symbolic finger-in-the-eye of the US would likely be a happy side effect for Beijing given the acrimonious state of diplomatic relations between the two global powers. This is expected to further exacerbate the discount currently ailing WTI, with barrels likely needing to be diverted to consumers where transportation costs are higher and thus netbacks lower.

Chart 3

OPEC+ Compliance Deal-to-Date

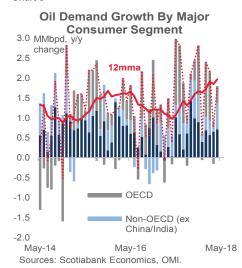


OPEC-10 Miss ■nOPEC Cut nOPEC Miss Sources: Scotiabank Economics, OPEC, OMI.

OPEC's Volatile Producers



Chart 5







Robust Oil Demand Has Been the Real Saviour of the Oil Price

While most commentary focuses on the supply side of the oil market's ledger, demand has been the real stand-out performer supporting crude prices over the past year. Oil production growth has remained fairly robust on the back of continued gains in the US shale patch but demand growth is roaring, sitting around 2 MMbpd (12mma, chart 5) or almost twice the pace the market would consider normal. This demand growth is broadly based, but China, India, and non-OECD Asia remain key contributors despite recent moves to reduce petroleum price subsidies through the region. The chance that higher oil prices weigh on global economic activity, or that the world economy faces headwinds in the form of rising trade disputes, tips risks to the current pace of oil demand growth to the downside. However, we continue to expect strong consumption growth going forward of around 1.6-1.7 MMbpd on a steadying of the global economy and the passing of some of these recent policy risks.

Oil Market Balance, What Art Thou?

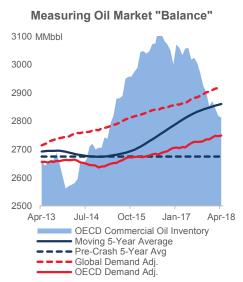
As oil prices recover and OPEC+ lifts production to alleviate some of the current spot supply tightness, both futures contracts and the producer group are reacting to perceptions that the oil market has "rebalanced" or is at least on the doorstep of finding "balance" once again. While no official metric of market balance exists, most market participants including OPEC+ leadership look to trends in OECD commercial petroleum inventories as an indicator of the market's health. OECD inventory statistics are transparent and relatively timely compared to the movements of crude in-and-out of non-OECD tank farms, making them a reliable—though incomplete—snapshot of the market.

A measure of oil market balance requires that it factor for cumulative surpluses or deficits rather than simply spot market supply surpluses or deficits. To factor for cumulative stock inflows or outflows, many use the deviation of OECD commercial inventories from their five-year average level. This is the metric that OPEC+ has communicated it is watching as the key oil market data-point that drives its decision making. However, as chart 6 illustrates, the five-year average is a moving target that has been made easier to reach by the prolonged post-2014 supply glut. It is also informative to view inventories relative to where they averaged before the market collapse (2010–2014), or the duration of either OECD or global demand that the inventories could cover. All these indicators provide perspective on the state of the oil market today, and while not all paint as rosy a picture as the simple 5-year moving average, they all either point to either a tight market or a market on the doorstep of tightness, which confirms the market's current bullish disposition.

METALS: BASE OUTPERFORM ON STEADY DEMAND & TIGHT MINE SUPPLY

Metals markets have broadly felt the adverse effects of bellicose trade rhetoric and mounting tariff walls, but fundamentals are expected to drive the three main metals markets—base, bulk, and precious—in three very different directions going forward. Base metals are forecast to outperform on robust demand and tightening mine supply. Bulk commodities, meanwhile, are expected to settle into a lower price path given flat-to-declining demand and relatively plentiful, low-cost seaborne supply. Between the two industrial metals complexes, precious metals are forecast to remain anchored around a range-bound gold price, though silver, which has underperformed expectations, is forecast to rise on stronger industrial demand.

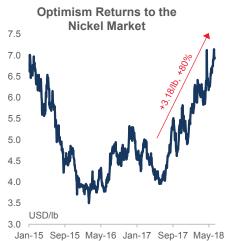
Chart 6



Notes: "pre-crash" refers to 2010-14 period; OECD/global demand cover averaged 29.5/57.8 days through 2010-14; adjustments use 12mma demand with same coverage

Sources: Scotiabank Economics, IEA, OMI

Chart 7



Sources: Scotiabank Economics, LME.





Base Metals: Outperforming on Strong Demand, Tight Mine Supply

Base metals are benefiting from robust global economic tailwinds, tightening mine supply, and a host of metal-specific factors—labour negotiations, electric vehicle (EV) narrative support, etc. After years of underperformance, nickel is a great example of this trend as rapidly expanding supply deficits have already eroded more than one-fifth of the inventory overhang that has been suppressing prices. The prospects for copper also continue to improve and our forecast has been upgraded accordingly.

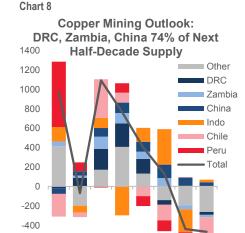
The nickel market has been one of the best commodity performers this year after a decade of surplus supply and declining prices. LME nickel prices are up 75% since last June to over \$7/lb amid widening supply deficits and rapidly falling exchange-listed inventories (chart 7). While inventories remain high relative to base metals peers, exchange-listed tonnage has fallen by one-fifth in the past year. Adding to favourable fundamentals, the fervour around nickel has been supercharged by the EV battery demand narrative. But today's nickel market is still a mainly stainless steel market and deficits are emerging due to classic drivers like weak supply after poor price performance and strong demand in line with broad economic growth. While we maintain a constructive view of the nickel market, we think that prices will likely linger around this \$7/lb mark for the next 18 months, with prices now forecast to average \$6.50/lb in 2018 and \$7.00/lb in 2019. However, near-term price risk is tilted to the down given the rapidity of nickel's recent rise and heightened trade-related risks—many of the products targeted by the back-and-forth US-China tariffs contained nickel, typically in the form of stainless steel.

Copper prices are expected to average \$3.10/lb in 2018 before rising to \$3.25/lb in 2019 on gradually widening supply-side deficits (chart 8), though prices are currently receiving a boost beyond these levels on fears of another strike at Chile's Escondida mine, the world's largest copper project that is alone expected to supply 5% of total 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—copper prices briefly moved into backwardation

Commodities	2000–2016			Annual Average			
	Low	Avg.	High	2016	2017	2018f	2019f
WTI Oil (USD/bbl)	17	63	145	43	51	68	71
Brent Oil (USD/bbl)	18	66	146	45	55	74	77
WCS - WTI Discount* (USD/bbl)	-43	-17	-6	-14	-13	-23	-23
Nymex Natural Gas (USD/mmbtu)	1.64	4.94	15.38	2.55	3.02	2.93	2.90
Copper (USD/lb)	0.60	2.35	4.60	2.21	2.80	3.10	3.25
Zinc (USD/lb)	0.33	0.81	2.10	0.95	1.31	1.45	1.45
Nickel (USD/lb)	2.00	7.26	24.58	4.36	4.72	6.50	7.00
Aluminium (USD/lb)	0.56	0.86	1.49	0.73	0.89	0.95	1.00
Iron Ore (USD/tonne)	17	67	187	58	72	63	60
Metallurgical Coal (USD/tonne)	39	127	330	114	187	190	160
Gold, London PM Fix (USD/oz)	256	869	1,895	1,251	1,257	1,311	1,300
Silver, London PM Fix (USD/oz)	4.07	14.67	48.70	17.14	17.05	18.00	19.00

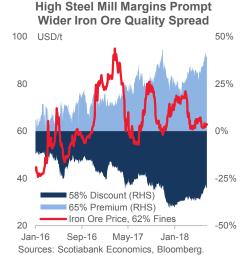
^{* 2008–16} average.

Sources: Scotiabank Economics, Bloomberg



-600 kt, y/y
'16 '17 '18 '19 '20 '21 '22 '23
Sources: Scotlabank Economics, Wood Mackenzie

Chart 9





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from the protracted contango experienced by contracts since 2016, signaling just how tight spot markets are today. Despite recent concerns, we don't believe that we will see another significant work stoppage at Escondida this year and we anticipate that the union and management will come to an agreement through the summer.

We remain constructive on the zinc outlook given persistent supply tightness and increasingly low exchange-listed inventories, though demand is expected to suffer from price-induced substitution and weaker construction activity in China. Zinc is more tilted toward construction demand than other metals like copper and nickel given ties to the steel sector, and is the only base metal that doesn't appear to be receiving an offsetting demand boost from Chinese manufacturing for export markets. Accordingly, we have reduced our peak zinc price expectation and prices are now expected to average \$1.45/lb in 2018 and \$1.45/lb in 2019.

Bulks: Flat Steel Sector Demand Pushes Quality Considerations to the Fore

The outlook for bulk commodities remains less buoyant than the rest of the metals complex. Steel sector demand is flat and efficient seaborne supply remains plentiful. Iron ore prices need to fall in order to push high-cost, low-quality supply (mostly in China) off the market to make room for further supply gains in Australia and Brazil, which dominate the seaborne market with low-cost, high-quality product. Coking coal is experiencing similar demand challenges, but prices have received support from a series of disruptions to Australian supply, from Cyclone Debbie last year to the ongoing threat of rail capacity curtailment in Queensland.

Iron ore prices are expected to average \$60/t through the next half-decade, far from the market excitement of the base metals. However, while the price outlook for iron ore appears staid, the growing importance of ore quality highlights a central trend in the broader metals complex. Beijing's policy of excess capacity rationalization pushed for the closure of more than a quarter billion tonnes of either inefficient or illegal smelting capacity. Add to this China's "Blue Sky" environmental policies, which forced industries—including steel smelters—to operate at reduced capacity through the winter months in an effort to alleviate endemic smog in major coastal cities. In little more than a year, China has shuttered a quarter billion tonnes of annual steel smelting capacity and forced many of the remaining smelters to reduce throughput rates, dramatically shrinking the global steel smelting curve and boosting margins. Higher profits push up utilization rates through the rest of the smelting industry, which shifts to maximizing the productivity of limited capacity. In such an environment, smelters prefer higher quality ore (65% > 62% > 58%) because a producer can source more steel per ton of processed ore, and the natural premium or discount between differentiated grades grows larger (chart 9).

High coking coal prices further inflame iron ore quality differentials as lower grades require more coke per ton of steel. While we expect that coking coal prices will begin to ease back toward \$150/t over the next two years, prices have benefitted from a series of Australian supply shocks including cyclone-induced flooding and, most recently, potential limits on the throughput on regional rail lines. The dispute—between Aurizon, the country's largest rail freight provider, and the Queensland Competition Authority (QCA), which regulates Aurizon—concerns allowable revenue on the Central Queensland Coal Network. The QCA capped revenues below what was factored for in Aurizon's business plan (A\$3.9 billion vs A\$4.9 billion planned), and Aurizon has stated that it will attempt to comply by reducing coal throughput on its tracks. The reduction could impact as much as 20 Mt of seaborne coking coal supply, more than the 16 Mt of supply disrupted by Cyclone Debbie in April 2017 that pushed prices above \$300/t.

Precious Metals: Silver Expected to Outperform Range-Bound Bullion

Silver is expected to outperform gold through the forecast horizon as industrial tailwinds help silver close the gap with range-bound bullion. Our gold outlook remains unchanged and prices are expected to remain anchored around \$1,300/oz through the balance of the decade. Rising interest rates around the world present the key headwind for gold prices as the opportunity cost of holding non-yielding bullion rises, and prices received another knock back on the US dollar's recent and unexpected rally. Tailwinds for gold come in the form of a seemingly inexhaustible series of political risk triggers, flat-to-declining equity market performance, and the anticipated resumption of secular weakening path for the US dollar.

Silver, meanwhile, has thus far underperformed expectations, averaging below \$17/oz relative to our forecast for prices to rise toward \$19/oz. We believe a large part of silver's current weakness stems from lingering physical demand malaise from India's 2016 demonetization drive and the fact that silver contracts have failed to attract the same risk-haven demand that has supported gold. Going forward, we expect that recuperating physical bar demand and rising industrial consumption will help tighten markets and push speculators, who remain net short silver, out of the market. Silver prices are expected to average \$18/oz this year and rise to \$19/oz in 2019 on the dual precious/industrial nature of its demand base.



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