**Chart Watch**

2. Cdn large cap equities were up 14% last week

17. Crude oil stocks have dropped 18 MMB in 2 wks

22. US oil rigs fell to 176; lowest level since 2005

42. Gas storage is now 26 Bcf above the 5-year avg

48. Only 66 wells were rig-released in July in Canada

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**Broad Equity Markets**

Indexed to 12 Months Ago

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<th>120</th>
<th>110</th>
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<th>90</th>
<th>80</th>
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<td>Apr-20</td>
<td>Jun-20</td>
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**Oil and Gas E&P Indices**

Indexed to 12 Months Ago

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**Oil & Gas Service and Midstream Indices**

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**Canadian Currency Exchange**

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<th>0.74</th>
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**Spot WTI Crude** $US/B

**Edmonton Light** $US/B

**Spot Henry Hub** $US/MMBtu

**Spot AECO** $Cdn/GJ

**Spot AECO Basis** $US/MMBtu

**Currency** $US/$Cdn

<table>
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<th>41.94</th>
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<th>2.15</th>
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**Performance of Canadian and US oil & gas equities are compared against each other.**

Source: Bloomberg, ARC Financial Corp.

**The performance of Canadian oil and gas service and midstream equities are plotted in tandem with the corresponding US Oilfield index.**

Source: Bloomberg, Petroleum Services Association of Canada

**Much of Canada’s oil and gas production is sold in US dollars. As such, the exchange rate significantly impacts corporate revenues and profits.**

Source: Bloomberg
**United States: New and Active COVID-19 Cases**

Daily (5-Day Rolling Average); March 9, 2020 to Current

- **New Cases (Thousands)**
  - New US COVID Cases: Blue line
  - Active US COVID Cases: Green line

- **Active Cases (Thousands)**

**Daily infection rates and active cases of COVID-19 will determine reopening and recovery of the world's largest economy.**

*Source: Worldometer*

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**TomTom Traffic Index: Chicago, U.S.**

Congestion Level of Last 7 Days Compared with Year Prior

- Traffic congestion levels show a real-time picture of the number of vehicles on the road; an indication of gasoline demand and economic recovery.

*Source: TomTom International BV*

---

**United States: Daily New Deaths**

Deaths per Day (5-Day Rolling Average); March 9, 2020 to Current

- **Daily Deaths (Thousands)**

**The growth rate of daily deaths is a useful statistic for tracking the progress of COVID-19 and predicting healthcare needs.**

*Source: Worldometer*

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**U.S. Weekly Jobless Claims**

Initial and Continuing Claims

- **Initial Claims (Millions)**
  - US Initial Jobless Claims: Blue line
- **Continuing Claims (Millions)**

- **Jobless claims are an important leading indicator on the state of the employment situation and the health of the economy.**

*Source: US Labor Department*

---

**TSA Checkpoint Screening Numbers**

Number of Travelers in 2020 as % of Same Period in 2019

- **TSA Traveler Throughput Relative to 2019 (%)**

*Monitoring the daily number of passengers screened at TSA checkpoints in the United States is a leading indicator of recovery in air travel.*

*Source: Transportation Security Administration*
11 WTI Crude Oil Price and Differential to Brent
Near-Month WTI and Brent Differential; Rolling 12-Month History

North American crude oil prices can sometimes disconnect from global prices depending on regional supply and demand dynamics. Source: Bloomberg

12 US Crude Oil Futures
West Texas Intermediate (WTI), Next 36 Months

Forward prices for WTI are plotted for the next 36 contracts, and compared against the same contracts one month prior. Source: Bloomberg

13 Canadian Heavy Oil Price Differential to WTI
Western Canadian Select (WCS) Differential; Rolling 12-Month History

The differential should reflect quality differences and transportation costs. Greater discounts can result from infrastructure or refinery outages. Source: Bloomberg

14 Canadian Light Crude Oil Price Differential to WTI
WTI and Edmonton Light differential; Rolling 12-Month History

The differential should reflect the transportation cost from Alberta to Cushing. Greater discounts can result from infrastructure or refinery outages. Source: Bloomberg

15 Daily NGL Prices as a % of Edmonton Light
NGL Prices at Edmonton, AB, 10 Day Rolling Average Shown

Natural gas liquids have become critical contributors to producer’s cash flow. Prices are influenced by the price of oil as well as local supply and demand. Source: Bloomberg, ARC Financial Corp.

16 Long and Short Contracts - WTI
Managed Money - Futures

Long contracts take the position that WTI oil price will increase, while short contracts expect a decline. Source: Bloomberg, U.S. Commodity Futures Trading Commission
US crude oil stock levels can affect crude oil prices. Stock levels for the current year are represented by the blue line.

Source: U.S. Energy Information Administration

US oil rigs fell by another 4 to 176 rigs. This is the lowest rig count since 2005.

Source: Baker Hughes
Crude oil imports from Canada are taking market share from overseas imports.  
*Source: U.S. Energy Information Administration*

The advancement of drilling and completion methods is increasing US crude oil production.  
*Source: Bloomberg, U.S. Energy Information Administration*

Most of Canada’s oil production comes from Alberta; split between oil sands and conventional production.  
*Source: Alberta Energy Regulator*

The US exports more refined products than crude oil. With the rapid growth of tight oil, most export growth should come from crude oil exports.  
*Source: U.S. Energy Information Administration*

OPEC’s production levels relative to its sustainable and spare capacity influences global crude prices. Note: scale has been expanded.  
*Source: Petroleum Intelligence Weekly*

OECD stock levels can affect crude oil prices.  
*Source: International Energy Agency*
29 Near-Month North American Natural Gas Prices
Daily Prices; Rolling 12-Month History

Near-month prices at AECO track Henry Hub prices, the exchange rate and the cost of transportation. Local factors can also affect prices. Source: Bloomberg

30 US Natural Gas Futures
Nymex (Henry Hub) Next 36 Months

Forward contract prices are plotted for the next 36 months, and compared against the curve one month prior. Source: Bloomberg

31 Long and Short Contracts – Henry Hub
Managed Money - Futures

Long contracts take the position that Henry Hub gas price will increase, while short contracts expect a decline. Source: U.S. Commodity Futures Trading Commission

32 Canadian Natural Gas Futures
AECO Hub (Bloomberg Estimate) Next 36 Months

AECO forward prices mimic Henry Hub futures minus a differential. Source: Bloomberg

33 Global Natural Gas Prices
Japanese LNG, UK NBP, Henry Hub; Average Monthly Prices

International natural gas prices strongly impact the economics of proposed LNG projects. Source: Bloomberg, Japanese Ministry of Economy, Trade and Industry

34 US Coal and Natural Gas Power Generation Cost
Converted to a $/MWh Equivalent

This graph illustrates when it may be economic to begin coal-gas switching in power generation. Average power plant efficiencies are assumed. Source: Bloomberg
North America has an integrated natural gas market. Prices are determined by regional supply and demand, and pipeline flows. 
Source: Bloomberg

The ability of gas producers to move gas out of the WCSB to eastern markets and the US is a major factor in local natural gas prices.
Source: Various Pipeline Companies

Between exports to Mexico and LNG shipments, the US is growing as a natural gas exporter. Robust US supply growth has driven this trend.
Source: S&P Global Platts
Alberta natural gas demand has grown steadily in recent years, largely driven by new oil sands demand and power generation projects. 
*Source: TransCanada Pipelines*

This includes receipts on the TCPL, Alliance, WestCoast, and TransGas pipelines. 
*Source: Various Pipeline Companies*

Canada’s natural gas storage level provides a good metric if the country is well stocked. Abnormally high or low storage can affect the basis. 
*Source: Bloomberg*

The EIA reports changes in US natural gas inventories held in underground storage facilities on a weekly basis. 
*Source: U.S. Energy Information Administration*
Unlike US drilling activity, Canadian rigs are dispatched seasonally. Capital allocation by operators is driven by views of future oil and gas prices.

Source: Baker Hughes

Tracking US gas drilling by major play provides insight into the composition of US gas supply and growth trends.

Source: Baker Hughes

Unlike US drilling activity, Canadian rigs are dispatched seasonally. Capital allocation by operators is driven by views of future oil and gas prices.

Source: Baker Hughes

Total rig-releases for exploratory and development wells are highlighted in this chart. Rig releases for the current year are shown in red.

Source: Daily Oil Bulletin/JWN

Total wells drilled in US Drilling Productivity Report regions are shown. These are the most active onshore US plays.

Source: EIA
### Estimated Capital Flow in the Canadian Oil and Gas Economy for 2020

Industry Revenue, Cash Flow, Reinvestment, Drilling Activity and Production

<table>
<thead>
<tr>
<th>Price</th>
<th>Production Volume</th>
<th>Capital Inflow</th>
<th>Reinvestment</th>
<th>Drilling</th>
<th>Well Split</th>
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<tr>
<td>Average</td>
<td>Conv. Oil</td>
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<td>Oil Wells</td>
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<td>Complicated</td>
<td>Gas Wells</td>
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### Canadian Industry Statistics: Historical Data and Forecast

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