Medium-term oil views

Outline

• Where are we?
  
  § US supply

  § Opec: Management to continue – Venezuela as a wildcard

• After 2020: demand and supply. Flows

• IMO

• What to look at?
Short term market balance

Global Oil Balance (Y/Y)

Commercial stocks in main OECD markets, mbbl

Source: IEA, Equinor
US shale have kept market well supplied despite supply disruptions
Acute midstream bottlenecks creating discounts in the main US crude benchmark, WTI

- US crude production expected at 10.6 Mbd in 2018
- US exports surged almost 1 mbd year-over-year to 2 mbd in May, with China as the no. 1 buyer
- Permian has provided the lions share of production growth in the US, but now faces bottlenecks in takeaway capacity from the region. Capacity will increase 2nd half of 2019
- Shale oil in the Bakken and Eagleford do not face the same price discounts due to an abundance of infrastructure in those basins.

Source: EIA, IEA, Equinor
Venezuelan production on a steep decline
Steeper showdown (2018-2020) – more blurry potential recovery

- **O&G sector faces huge challenges**
  Non-oil sector has absorbed all available funds

- **Regime increasingly isolated and continued political stalemate**
  The stalemate most likely will last for another few years

- **But regime change looks likely – at some point**
  - Refining utilization below 20%. This is fuel for social unrest
  - Speed of recovery?
  - Will China, Russia and IOCs accept and rely on new fiscal terms?

**Crude oil production and supply disruption, mbd**

<table>
<thead>
<tr>
<th>Year</th>
<th>Production</th>
<th>Supply disruptions</th>
<th>Prev prod forecast</th>
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<tbody>
<tr>
<td>2010</td>
<td>2.5</td>
<td>1.5</td>
<td>1.0</td>
</tr>
<tr>
<td>2014</td>
<td>2.5</td>
<td>1.5</td>
<td>1.0</td>
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<tr>
<td>2015</td>
<td>2.5</td>
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<tr>
<td>2016</td>
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<tr>
<td>2017</td>
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<tr>
<td>1Q18</td>
<td>2.5</td>
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</tr>
<tr>
<td>2018</td>
<td>2.5</td>
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<tr>
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<td>2020</td>
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<tr>
<td>2025</td>
<td>2.5</td>
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<td>1.0</td>
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Source: Equinor, IHS, Platts/PIRA
## Venezuela: some impacts of the US embargo

<table>
<thead>
<tr>
<th>Item</th>
<th>Impact</th>
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| Crude exports         | • From 2 mbd in 1997 to about 350 kbd in 2019 to US  
                       | • Only 50 kbd to other markets (Ex China / India) Jan 2019                                                                              |
| Waterborne ops        | • Will prevent tankers and/or insurance companies from transporting or insuring Venezuelan oil  
                       | • Limited storage available at Venezuelan ports – Temporarily shut in production                                                         |
| Oil products import   | • Diluent for extra-heavy crude affecting 400 kbd of heavy blends  
                       | • Lower output from medium crude                                                                                                         |
| JVs and partners      | • Impact in bottom lines of private investors  
                       | • Production fall  
                       | • Redirected markets and discount                                                                                                         |
| Power and domestic transport | • Include gasoline and components for the transport sector, and gasoil for power generation.  
                                  | • Social unrest                                                                                                                          |
The medium term - Demand
Driven by transportation fuels – and income growth and efficiency

Demand assessment, mbd

Source: IEA, Equinor
The medium term - Supply
Driven by oil resource, prices, companies’ strategies and Opec

- Global oil resources are large and enough
- New investments are steadily required
- Drivers behind supply growth: oil prices, technology, efficiency, regulations, tax regime,...

Source: IEA, Equinor
Current strength in global oil market due to supply tightness

Weaker medium term prices due to looser balance

<table>
<thead>
<tr>
<th>Key drivers</th>
<th>Q1 2019 Impact on price</th>
<th>Medium term Impact on price</th>
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<tr>
<td>Global oil demand</td>
<td><img src="image1.png" alt="Graph" /></td>
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<td>Global shale production</td>
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<td>Non-OPEC production</td>
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<tr>
<td>Supply disruptions</td>
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<td><img src="image10.png" alt="Graph" /></td>
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<td>Commercial inventories</td>
<td><img src="image11.png" alt="Graph" /></td>
<td><img src="image12.png" alt="Graph" /></td>
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Non-OPEC supply growth

Additional gains from US, Brazil, Canada, Kazakhstan and Russia
Medium term outlook
Indicative tradeflows crudes 2025-2017

Source: Equinor

Routes are illustrative
IMO bunker

Major share of the heavy fuel oil will lose its natural "home"

- Switch to low sulphur fuel oil, diesel (also LNG, LPG)
- Invest in scrubbers (exhaust gas cleaning system)
- Exemptions
- Non-compliance (enforcement and sanctioning bodies still uncertain)

Source: Equinor
Impact of Venezuelan collapse and Iranian sanctions + US shale

The lightening of the barrel becomes more evident

VRS selected producers (KBD)

LVN+HVN selected producers (KBD)

Average crude cuts

y-o-y supply growth, mbd

Source: Equinor
What to look at in the medium term?

**Geopolitics**

Venezuelan oil production, mbd

Source: IEA (history), Equinor (projections)

**Oil prices and Opec budgets**

Brent historical and forward price
USD/bbl

Source: Platts (history), ICE (projections)

**The state of the economy**

Source: mintpressnews.com
Oil markets update – March 2019

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