MARKET INDICATORS AS AT END*: AUGUST-2019

Spot Price of OPEC Basket & Selected Crudes

<table>
<thead>
<tr>
<th></th>
<th>Aug-17</th>
<th>Aug-18</th>
<th>2017</th>
<th>2018</th>
<th>2019#</th>
<th>US Gulf</th>
<th>WTI</th>
<th>A. Heavy</th>
<th>Brent</th>
<th>Oman</th>
<th>Arab Light</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basket</td>
<td>49.60</td>
<td>72.26</td>
<td>59.62</td>
<td>52.43</td>
<td>69.78</td>
<td>64.63</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dubai</td>
<td>50.24</td>
<td>72.47</td>
<td>58.88</td>
<td>53.08</td>
<td>69.68</td>
<td>64.33</td>
<td>Jun-19</td>
<td>11.19</td>
<td>17.23</td>
<td>4.17</td>
<td>4.19</td>
</tr>
<tr>
<td>North Sea Dtd</td>
<td>51.66</td>
<td>72.64</td>
<td>58.83</td>
<td>54.17</td>
<td>71.22</td>
<td>64.78</td>
<td>Jul-19</td>
<td>13.80</td>
<td>18.57</td>
<td>6.46</td>
<td>7.67</td>
</tr>
<tr>
<td>WTI</td>
<td>48.03</td>
<td>67.99</td>
<td>54.84</td>
<td>50.82</td>
<td>65.16</td>
<td>57.08</td>
<td>Aug-19</td>
<td>10.42</td>
<td>14.19</td>
<td>2.63</td>
<td>7.75</td>
</tr>
</tbody>
</table>

Real Basket Price
Jun01s=100 32.43 46.86 39.06 35.22 44.73 42.13

NYMEX WTI Forward Curve (US$/b)

Basket Price (US$/b)

Differentials (US$/b)

Crude Oil Production (tb/d)

<table>
<thead>
<tr>
<th>Production: Secondary Sources</th>
<th>Diff.</th>
<th>Closing OECD Oil Stocks - Crude/Products Commercial and SPR (Mb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angola</td>
<td>1005</td>
<td>1027</td>
</tr>
<tr>
<td>Congo</td>
<td>1403</td>
<td>1395</td>
</tr>
<tr>
<td>Ecuador</td>
<td>337</td>
<td>325</td>
</tr>
<tr>
<td>Equatorial Guinea</td>
<td>527</td>
<td>535</td>
</tr>
<tr>
<td>Gabon</td>
<td>115</td>
<td>120</td>
</tr>
<tr>
<td>Iran, I.R.</td>
<td>2260</td>
<td>2218</td>
</tr>
<tr>
<td>Iraq</td>
<td>4713</td>
<td>4736</td>
</tr>
<tr>
<td>Kuwait</td>
<td>2674</td>
<td>2670</td>
</tr>
<tr>
<td>Libya</td>
<td>1118</td>
<td>1078</td>
</tr>
<tr>
<td>Nigeria</td>
<td>1808</td>
<td>1780</td>
</tr>
<tr>
<td>Nigeria</td>
<td>1808</td>
<td>1780</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>9829</td>
<td>9867</td>
</tr>
<tr>
<td>Ukraine</td>
<td>3070</td>
<td>3074</td>
</tr>
<tr>
<td>Venezuela</td>
<td>785</td>
<td>755</td>
</tr>
<tr>
<td>Total OPEC</td>
<td>29665</td>
<td>29605</td>
</tr>
</tbody>
</table>

World Oil Supply Demand Balance (Mb/d)

<table>
<thead>
<tr>
<th>2018</th>
<th>1Q19</th>
<th>2Q19</th>
<th>3Q19</th>
<th>4Q19</th>
<th>2019</th>
<th>1Q20</th>
<th>2Q20</th>
<th>3Q20</th>
<th>4Q20</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>OECD</td>
<td>47.9</td>
<td>47.7</td>
<td>47.5</td>
<td>46.3</td>
<td>46.4</td>
<td>46.0</td>
<td>47.7</td>
<td>47.6</td>
<td>48.6</td>
<td>48.5</td>
</tr>
<tr>
<td>Non-OECD</td>
<td>50.9</td>
<td>51.1</td>
<td>51.6</td>
<td>52.1</td>
<td>52.4</td>
<td>51.8</td>
<td>52.0</td>
<td>52.5</td>
<td>53.2</td>
<td>53.5</td>
</tr>
<tr>
<td>(a) Total World Demand</td>
<td>98.8</td>
<td>98.8</td>
<td>99.1</td>
<td>100.0</td>
<td>100.9</td>
<td>99.8</td>
<td>99.8</td>
<td>100.1</td>
<td>101.7</td>
<td>102.1</td>
</tr>
<tr>
<td>(b) Total Non-OPEC Supply &amp; OPEC NGLs</td>
<td>67.2</td>
<td>66.6</td>
<td>66.6</td>
<td>69.2</td>
<td>70.5</td>
<td>69.2</td>
<td>70.9</td>
<td>71.1</td>
<td>71.5</td>
<td>72.6</td>
</tr>
<tr>
<td>OPEC Crude Oil Production</td>
<td>31.9</td>
<td>30.5</td>
<td>30.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total supply</td>
<td>99.0</td>
<td>99.0</td>
<td>98.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance (Stock Change and Misc.)</td>
<td>0.2</td>
<td>0.3</td>
<td>-0.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OECD Onland Commercial</td>
<td>2872</td>
<td>2873</td>
<td>2955</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OECD SPR</td>
<td>1547</td>
<td>1552</td>
<td>1541</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OECD Total</td>
<td>4419</td>
<td>4425</td>
<td>4495</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil on Water</td>
<td>1058</td>
<td>1013</td>
<td>999</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) - (b)</td>
<td>31.6</td>
<td>30.2</td>
<td>30.5</td>
<td>31.4</td>
<td>30.4</td>
<td>30.6</td>
<td>28.9</td>
<td>29.0</td>
<td>30.2</td>
<td>29.5</td>
</tr>
</tbody>
</table>

Real GDP Growth Rates Using 2011 PPP Based Weights

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>OECD:</td>
<td>2.3</td>
<td>1.6</td>
<td>1.5</td>
<td>3.7</td>
<td>3.2</td>
</tr>
<tr>
<td>North America</td>
<td>2.7</td>
<td>2.1</td>
<td>1.8</td>
<td>3.5</td>
<td>3.1</td>
</tr>
<tr>
<td>Europe</td>
<td>2.1</td>
<td>1.1</td>
<td>1.3</td>
<td>0.4</td>
<td>0.2</td>
</tr>
<tr>
<td>Pacific</td>
<td>1.6</td>
<td>1.4</td>
<td>1.1</td>
<td>1.6</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Crude Oil Spot Freight Rates (US$/b)

<table>
<thead>
<tr>
<th>Aug-17</th>
<th>Aug-18</th>
<th>Aug-19</th>
<th>USA</th>
<th>Western Europe</th>
<th>Japan</th>
<th>Aug-17</th>
<th>Aug-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle East / East</td>
<td>0.81</td>
<td>1.23</td>
<td>1.53</td>
<td>n.a</td>
<td>n.a</td>
<td>n.a</td>
<td>n.a</td>
</tr>
<tr>
<td>Middle East / West</td>
<td>0.52</td>
<td>0.62</td>
<td>0.82</td>
<td>n.a</td>
<td>n.a</td>
<td>n.a</td>
<td>n.a</td>
</tr>
<tr>
<td>W. Africa / US GC</td>
<td>1.14</td>
<td>1.35</td>
<td>1.48</td>
<td>n.a</td>
<td>n.a</td>
<td>n.a</td>
<td>n.a</td>
</tr>
<tr>
<td>Med / Med</td>
<td>0.57</td>
<td>0.93</td>
<td>0.70</td>
<td>n.a</td>
<td>n.a</td>
<td>n.a</td>
<td>n.a</td>
</tr>
<tr>
<td>Carib / US EC</td>
<td>0.88</td>
<td>1.18</td>
<td>0.90</td>
<td>n.a</td>
<td>n.a</td>
<td>n.a</td>
<td>n.a</td>
</tr>
</tbody>
</table>

Heating Degree Days

<table>
<thead>
<tr>
<th>USA</th>
<th>Western Europe</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>Aug-16</td>
<td>Normal</td>
</tr>
<tr>
<td>UK</td>
<td>0.772</td>
<td>0.777</td>
</tr>
<tr>
<td>Yen</td>
<td>109.915</td>
<td>111.058</td>
</tr>
</tbody>
</table>

National Currency per US$

<table>
<thead>
<tr>
<th>Aug-17</th>
<th>Aug-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Euro</td>
<td>0.847</td>
</tr>
</tbody>
</table>

Note: Totals may not add up due to independent rounding.

* As of January 2016 Argus data is used.
** Estimate
*** Forecast

Data Services Dept.
September 2019