MARKET INDICATORS AS AT END*: SEPTEMBER-2018

Spot Price of OPEC Basket & Selected Crudes

Real Price of OPEC Basket

<table>
<thead>
<tr>
<th></th>
<th>Sep-16</th>
<th>Sep-17</th>
<th>Sep-18</th>
<th>2016</th>
<th>2017</th>
<th>2018#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basket</td>
<td>42.89</td>
<td>53.44</td>
<td>77.18</td>
<td>40.76</td>
<td>52.43</td>
<td>70.34</td>
</tr>
<tr>
<td>Dubai</td>
<td>43.67</td>
<td>53.51</td>
<td>77.22</td>
<td>41.39</td>
<td>53.08</td>
<td>70.12</td>
</tr>
<tr>
<td>North Sea Ltd</td>
<td>46.69</td>
<td>56.07</td>
<td>78.80</td>
<td>43.76</td>
<td>54.17</td>
<td>72.11</td>
</tr>
<tr>
<td>WTI</td>
<td>45.16</td>
<td>49.71</td>
<td>70.20</td>
<td>43.27</td>
<td>50.82</td>
<td>66.92</td>
</tr>
</tbody>
</table>

US Gulf

<table>
<thead>
<tr>
<th></th>
<th>US Gulf</th>
</tr>
</thead>
<tbody>
<tr>
<td>LLS</td>
<td>Jul-18</td>
</tr>
<tr>
<td>WTI</td>
<td>11.71</td>
</tr>
<tr>
<td>A. Heavy</td>
<td>13.04</td>
</tr>
<tr>
<td>Brent</td>
<td>6.67</td>
</tr>
<tr>
<td>Oman</td>
<td>5.80</td>
</tr>
<tr>
<td>Arab Light</td>
<td>6.53</td>
</tr>
<tr>
<td>Singapore</td>
<td>13.57</td>
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Real Basket Price

<table>
<thead>
<tr>
<th></th>
<th>Jun01=100</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018#</td>
<td>28.85</td>
</tr>
</tbody>
</table>

NYMEX WTI Forward Curve (US$/b)

<table>
<thead>
<tr>
<th></th>
<th>2019***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basket Price (US$/b)</td>
<td>98.0</td>
</tr>
<tr>
<td>Differentials (US$/b)</td>
<td>47.4</td>
</tr>
</tbody>
</table>

Crude Oil Production (tb/d)

<table>
<thead>
<tr>
<th>Production: Secondary Sources</th>
<th>Jul 18</th>
<th>Aug 18</th>
<th>Sep 18</th>
<th>Sep/Aug</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algeria</td>
<td>1061</td>
<td>1057</td>
<td>1049</td>
<td>-8.1</td>
</tr>
<tr>
<td>Angola</td>
<td>1443</td>
<td>1462</td>
<td>1519</td>
<td>57.4</td>
</tr>
<tr>
<td>Congo</td>
<td>316</td>
<td>313</td>
<td>312</td>
<td>-1.4</td>
</tr>
<tr>
<td>Ecuador</td>
<td>525</td>
<td>531</td>
<td>531</td>
<td>0.0</td>
</tr>
<tr>
<td>Equatorial Guinea</td>
<td>124</td>
<td>126</td>
<td>124</td>
<td>-1.9</td>
</tr>
<tr>
<td>Gabon</td>
<td>187</td>
<td>188</td>
<td>187</td>
<td>-1.4</td>
</tr>
<tr>
<td>Iran, I.R. (March 18)</td>
<td>3747</td>
<td>3997</td>
<td>3447</td>
<td>-150.4</td>
</tr>
<tr>
<td>Iraq</td>
<td>4563</td>
<td>4642</td>
<td>4650</td>
<td>8.1</td>
</tr>
<tr>
<td>Kuwait</td>
<td>2793</td>
<td>2906</td>
<td>2812</td>
<td>6.1</td>
</tr>
<tr>
<td>Libya</td>
<td>673</td>
<td>950</td>
<td>1035</td>
<td>130.0</td>
</tr>
<tr>
<td>Nigeria</td>
<td>1643</td>
<td>1722</td>
<td>1748</td>
<td>25.6</td>
</tr>
<tr>
<td>Qatar</td>
<td>616</td>
<td>618</td>
<td>616</td>
<td>-2.3</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>10363</td>
<td>10404</td>
<td>10512</td>
<td>108.4</td>
</tr>
<tr>
<td>UAE</td>
<td>2960</td>
<td>2974</td>
<td>3004</td>
<td>30.3</td>
</tr>
<tr>
<td>Venezuela</td>
<td>1273</td>
<td>1239</td>
<td>1197</td>
<td>-41.7</td>
</tr>
<tr>
<td>Total OPEC</td>
<td>32288</td>
<td>32629</td>
<td>32761</td>
<td>131.8</td>
</tr>
</tbody>
</table>

Closing OECD Oil Stocks - Crude/Products Commercial and SPR (Mb)

<table>
<thead>
<tr>
<th>Change</th>
<th>Aug-16</th>
<th>Aug-17</th>
<th>Aug-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude &amp; NGL Feedstocks</td>
<td>1515</td>
<td>1494</td>
<td>1397</td>
</tr>
<tr>
<td>Total Products</td>
<td>1595</td>
<td>1512</td>
<td>1445</td>
</tr>
<tr>
<td>Commercial</td>
<td>3110</td>
<td>3007</td>
<td>2841</td>
</tr>
<tr>
<td>SPR</td>
<td>1596</td>
<td>1583</td>
<td>1569</td>
</tr>
<tr>
<td>Total</td>
<td>4706</td>
<td>4590</td>
<td>4410</td>
</tr>
</tbody>
</table>

World Oil Supply Demand Balance (Mb/d)

<table>
<thead>
<tr>
<th>2017</th>
<th>1Q18</th>
<th>2018</th>
<th>3Q18</th>
<th>4Q18</th>
<th>2018</th>
<th>1Q19</th>
<th>2Q19</th>
<th>3Q19</th>
<th>4Q19</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>OECD</td>
<td>47.4</td>
<td>47.7</td>
<td>47.2</td>
<td>47.9</td>
<td>48.2</td>
<td>47.8</td>
<td>48.0</td>
<td>47.4</td>
<td>48.2</td>
<td>48.5</td>
</tr>
<tr>
<td>Non-OECD</td>
<td>49.9</td>
<td>50.1</td>
<td>50.7</td>
<td>51.4</td>
<td>51.9</td>
<td>51.5</td>
<td>51.5</td>
<td>51.8</td>
<td>52.5</td>
<td>53.0</td>
</tr>
<tr>
<td>(a)Total World Demand</td>
<td>97.2</td>
<td>97.8</td>
<td>97.9</td>
<td>99.3</td>
<td>100.1</td>
<td>98.8</td>
<td>99.2</td>
<td>99.2</td>
<td>100.7</td>
<td>101.5</td>
</tr>
<tr>
<td>(b) Total Non-OPEC Supply &amp; OPEC NGIs</td>
<td>63.8</td>
<td>65.4</td>
<td>65.8</td>
<td>66.3</td>
<td>67.0</td>
<td>66.1</td>
<td>67.5</td>
<td>67.5</td>
<td>68.5</td>
<td>69.8</td>
</tr>
<tr>
<td>OPEC Crude Oil Production</td>
<td>32.6</td>
<td>32.4</td>
<td>32.2</td>
<td>32.2</td>
<td>32.6</td>
<td>32.6</td>
<td>32.6</td>
<td>32.6</td>
<td>32.6</td>
<td>32.6</td>
</tr>
<tr>
<td>Total Supply</td>
<td>96.4</td>
<td>97.8</td>
<td>98.0</td>
<td>98.9</td>
<td>98.9</td>
<td>98.9</td>
<td>98.9</td>
<td>98.9</td>
<td>98.9</td>
<td>98.9</td>
</tr>
</tbody>
</table>

Balance (Stock Change and Misc.)

| -0.8 | 0.0 | 0.1 | -0.5 |

Closing Stock Level (Outside F.C.PEs) (Mb)

| OECD Crude Oil | 2853 | 2816 | 2816 |
| OECD SPR       | 1568 | 1575 | 1570 |
| OECD Total     | 4421 | 4391 | 4386 |

Oil on Water

| 1025 | 1036 | 1014 |

(a)-(b)

| 33.5 | 32.4 | 32.1 | 33.1 | 33.1 | 32.7 | 31.5 | 31.7 | 32.2 | 31.7 | 31.8 |

Real GDP Growth Rates Using 2011 PPP Based Weights

| OECD: | 2.5 | 2.4 | 2.1 | Developing Countries: | 3.8 | 4.1 | 4.2 | OPEC: | 1.1 | 1.7 | 1.9 |
| North America | 2.2 | 2.7 | 2.4 | Africa | 3.8 | 3.7 | 3.4 | FSU: | 2.1 | 2.3 | 2.2 |
| Europe | 3.0 | 2.2 | 2.0 | L. America & Caribbean | 1.0 | 0.9 | 1.8 | China: | 6.9 | 6.6 | 6.2 |
| Pacific | 2.2 | 1.9 | 1.7 | Asia & Oceania | 4.6 | 5.1 | 5.0 | WORLD: | 3.7 | 3.7 | 3.6 |

Crude Oil Spot Freight Rates (US$/b)

<table>
<thead>
<tr>
<th>USA</th>
<th>Western Europe</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid East / East</td>
<td>0.85</td>
<td>0.83</td>
</tr>
<tr>
<td>Mid East / West</td>
<td>0.67</td>
<td>0.49</td>
</tr>
<tr>
<td>W Africa / US GC</td>
<td>1.63</td>
<td>1.26</td>
</tr>
<tr>
<td>Med / Med</td>
<td>0.75</td>
<td>0.78</td>
</tr>
<tr>
<td>Carib / US EC</td>
<td>1.00</td>
<td>1.26</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>Sep-17</td>
<td>Normal</td>
</tr>
<tr>
<td>UK</td>
<td>0.761</td>
<td>0.750</td>
</tr>
<tr>
<td>Yen</td>
<td>101.944</td>
<td>110.723</td>
</tr>
<tr>
<td>Euro</td>
<td>0.892</td>
<td>0.839</td>
</tr>
</tbody>
</table>

National Currency per US$

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

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

Data Services Dept.
October 2018