Recent market developments and near-term prospects

Presented by:

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Review of market for 2016 and outlook for 2017

Price developments

Concluding remarks
Performance of the world economy
percentage change from the previous year

GDP growth in selected countries, %

<table>
<thead>
<tr>
<th>Country</th>
<th>2016 (estimate)</th>
<th>2017 (forecast)</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>3.0</td>
<td>3.2</td>
</tr>
<tr>
<td>US</td>
<td>1.6</td>
<td>2.2</td>
</tr>
<tr>
<td>Japan</td>
<td>1.0</td>
<td>1.1</td>
</tr>
<tr>
<td>Euro-zone</td>
<td>1.7</td>
<td>2.0</td>
</tr>
<tr>
<td>UK</td>
<td>1.3</td>
<td>2.0</td>
</tr>
<tr>
<td>China</td>
<td>-0.5</td>
<td>1.0</td>
</tr>
<tr>
<td>India</td>
<td>1.4</td>
<td>2.0</td>
</tr>
<tr>
<td>Russia</td>
<td>0.4</td>
<td>1.0</td>
</tr>
<tr>
<td>Brazil</td>
<td>-3.4</td>
<td>0.4</td>
</tr>
<tr>
<td>OPEC</td>
<td>1.4</td>
<td>2.0</td>
</tr>
</tbody>
</table>

| OECD       | 1.7             |
| DCs        | 3.1             |
| World      | 3.0             |
| OECD       | 1.9             |
| DCs        | 3.7             |

GDP growth comparison

Sources: Consensus Forecasts, IMF and OPEC Secretariat.
The manufacturing sector is holding up well in OECD economies.

Sources: HSBC, Markit and Haver Analytics.
World oil demand
y-o-y change, mb/d

Note: * 2016 = Estimate and 2017 = Forecast.
Source: OPEC Secretariat.
Non-OPEC supply
y-o-y change, mb/d

Non-OPEC supply change

Annual supply change 2016* and 2017*
for selected countries

- US
- Russia
- Canada
- Other non-OPEC
- Brazil
- Total

Brazil
Canada
Russia
Kazakhstan
Congo
UK
US
Colombia
Mexico
China

* 2016 = Estimate and 2017 = Forecast.
Source: OPEC Secretariat.

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From 2008 to 2016, non-OPEC supply grew by 7.13 mb/d, while OPEC production increased by 1.97 mb/d.
Global oil stocks

OECD commercial stocks

Deviation from 5-year average crude and products

Days of forward cover in OECD

Non-OECD stocks

Sources: Argus Media, Euroilstock, IEA, METI, OPEC Secretariat and US Energy Information Administration.
Supply/Demand balance, \( mb/d \)

**Supply/demand balance**

**Demand for OPEC crude**

Source: OPEC Secretariat.

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Crude price developments

ICE Brent

**Yearly average**
- 2013: 108.70
- 2014: 99.45
- 2015: 53.60
- 2016: 45.13
- 2017: 55.57 *

*Note: * = Year-to-date.

Sources: Intercontinental Exchange and OPEC Secretariat.

**Monthly volatility index**

- January 2015: 0.0
- March 2015: 0.5
- May 2015: 1.0
- July 2015: 1.5
- September 2015: 2.0
- November 2015: 2.5
- January 2016: 3.0
- March 2016: 3.5
- May 2016: 4.0
- July 2016: 4.5
- September 2016: 5.0

**Index**

- January 2015: 0.0
- March 2015: 0.5
- May 2015: 1.0
- July 2015: 1.5
- September 2015: 2.0
- November 2015: 2.5
- January 2016: 3.0
- March 2016: 3.5
- May 2016: 4.0
- July 2016: 4.5
- September 2016: 5.0

**Note:**
- * = Volatility is measured by the standard deviation of daily prices change in each month.
- ** = Month-to-date.
Crude price developments

NYMEX WTI price vs. OECD commercial stocks

ICE Brent price vs. US dollar index

Sources: CME Group, Intercontinental Exchange and OPEC Secretariat.
Crude price developments, ICE Brent (1st month)

Sources: Intercontinental Exchange and OPEC Secretariat.
Crude price developments: ICE Brent
more bullish market sentiment, September 2016 – February 2017

<table>
<thead>
<tr>
<th></th>
<th>Sep 16</th>
<th>Oct 16</th>
<th>Nov 16</th>
<th>Dec 16</th>
<th>Jan 17</th>
<th>Feb 17</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Price</strong></td>
<td>$47.24/b</td>
<td>$51.39/b</td>
<td>$47.08/b</td>
<td>$54.92/b</td>
<td>$55.45/b</td>
<td>$55.96/b</td>
</tr>
<tr>
<td><strong>Volatility index</strong></td>
<td>2.71</td>
<td>1.68</td>
<td>2.94</td>
<td>2.03</td>
<td>1.78</td>
<td>1.31</td>
</tr>
<tr>
<td><strong>Managed money net long positions</strong></td>
<td>328,109 contracts</td>
<td>380,785 contracts</td>
<td>293,936 contracts</td>
<td>460,037 contracts</td>
<td>458,066 contracts</td>
<td>na*</td>
</tr>
</tbody>
</table>
## Crude price developments: NYMEX WTI
more bullish market sentiment, September 2016 – February 2017

<table>
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<tr>
<th></th>
<th>Sep 16</th>
<th>Oct 16</th>
<th>Nov 16</th>
<th>Dec 16</th>
<th>Jan 17</th>
<th>Feb 17 Month-to-date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>$45.23/b</td>
<td>$49.94/b</td>
<td>$45.76/b</td>
<td>$52.17/b</td>
<td>$52.61/b</td>
<td>$53.11/b</td>
</tr>
<tr>
<td>Volatility index</td>
<td>2.83</td>
<td>1.73</td>
<td>3.07</td>
<td>1.60</td>
<td>1.74</td>
<td>1.37</td>
</tr>
<tr>
<td>Managed money net long positions</td>
<td>178,089 contracts</td>
<td>275,522 contracts</td>
<td>186,854 contracts</td>
<td>296,924 contracts</td>
<td>342,151* contracts</td>
<td>na**</td>
</tr>
</tbody>
</table>

Note: * Money managers raised net long US crude futures and options positions sharply in the week to 31 January 2017 to 379,927 contracts, with long positions reaching the highest in record.

Note: ** na = Not available. Sources: CME group, CFTC and Thomson Reuters.
Impact of Joint Cooperation on Production Adjustment on WTI forward curve

Market switches to backwardation

Sources: CME group and Thomson Reuters.
Global economic growth is projected at 3.2% for 2017, following 3.0% in 2016, however many uncertainties remain.

World oil demand is expected to grow by 1.19 mb/d in 2017, following an increase of 1.32 mb/d in 2016. Non-OECD countries are projected to continue leading oil demand growth in 2017 (non-OECD 0.99 mb/d & OECD 0.20 mb/d).

Non-OPEC supply is projected to increase by 0.24 mb/d in 2017, following a larger decline of 0.66 mb/d last year.

Oil market sentiments have improved as prices rose, volatility decreased and net futures and options long positions increased. Furthermore, forward curves are expected switch into backwardation by 3Q17.

OECD stocks have been showing a declining trend for the fifth-consecutive-month, however the overhang remains still high.
Thank you