Energy supply and demand security

by

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Acting for the Secretary General

Delivered by
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EUROPIA Conference
15-16 February 2006
London, England
“The Organization shall devise ways and means of ensuring the stabilisation of (oil) prices in international markets, with a view to eliminating harmful and unnecessary fluctuations

“Due regard shall be given at all times to the interests of the producing nations and to the necessity of securing: a steady income to the producing countries; an efficient, economic and regular supply of petroleum to consuming nations; and a fair return on their capital to those investing in the petroleum industry”

The OPEC Statute was first adopted in 1961.
Crude oil production, mb/d

- Iraq
- OPEC-10
- OPEC-11 cumulative change (since 2002)
- Call on OPEC

<table>
<thead>
<tr>
<th>Year</th>
<th>OPEC-10</th>
<th>OPEC-11</th>
<th>OPEC-11 Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>25.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>26.9</td>
<td>1.6</td>
<td>0.3</td>
</tr>
<tr>
<td>2004</td>
<td>28.3</td>
<td>3.7</td>
<td>1.6</td>
</tr>
<tr>
<td>2005</td>
<td>29.9</td>
<td>4.5</td>
<td>1.9</td>
</tr>
</tbody>
</table>
Accelerated capacity expansions — 2005–06

- Several projects in 2004/05 delivered ahead of scheduled
- Capacity increase of 2 mb/d – end 04 to end 06

End 2004 to end 2005

- Algeria: 278
- Indonesia: 28
- Iran: 198
- Kuwait: 70
- Libya: 94
- Nigeria: 200
- Qatar: 238
- KSA: 70
- UAE: 80
- Ven: 1.2

End 2005 to end 2006

- Algeria: 110
- Indonesia: 100
- Iran: 200
- Kuwait: 25
- Libya: 70
- Nigeria: 300
- Qatar: 200
- KSA: 70
- UAE: 110
- Ven: 1
Medium term — OPEC expansions up to 2010

Upstream: global supply in excess of expected demand

Source: OPEC.
### World oil supply demand balance (mb/d)

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>1Q05</th>
<th>2Q05</th>
<th>3Q05</th>
<th>4Q05</th>
<th>2005</th>
<th>05/04</th>
<th>1Q06</th>
<th>2Q06</th>
<th>3Q06</th>
<th>4Q06</th>
<th>2006</th>
<th>06/05</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demand (a)</strong></td>
<td>82.1</td>
<td>83.7</td>
<td>82.1</td>
<td>82.6</td>
<td>83.9</td>
<td>83.1</td>
<td>1.0</td>
<td>85.3</td>
<td>83.4</td>
<td>84.0</td>
<td>85.8</td>
<td>84.6</td>
<td>1.6</td>
</tr>
<tr>
<td><strong>Non-OPEC (b)</strong></td>
<td>49.9</td>
<td>50.3</td>
<td>50.5</td>
<td>49.7</td>
<td>50.0</td>
<td>50.1</td>
<td>0.2</td>
<td>50.7</td>
<td>51.2</td>
<td>51.5</td>
<td>52.7</td>
<td>51.5</td>
<td>1.4</td>
</tr>
<tr>
<td><strong>OPEC NGL (c)</strong></td>
<td>4.1</td>
<td>4.2</td>
<td>4.3</td>
<td>4.3</td>
<td>4.4</td>
<td>4.3</td>
<td>0.2</td>
<td>4.5</td>
<td>4.6</td>
<td>4.7</td>
<td>4.8</td>
<td>4.6</td>
<td>0.3</td>
</tr>
<tr>
<td><strong>OPEC Crude oil</strong></td>
<td>29.1</td>
<td>29.5</td>
<td>29.9</td>
<td>30.2</td>
<td>29.9</td>
<td>29.9</td>
<td>0.8</td>
<td>29.8</td>
<td>29.9</td>
<td>29.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>a-(b+c)</strong></td>
<td>28.1</td>
<td>29.2</td>
<td>27.3</td>
<td>28.6</td>
<td>29.5</td>
<td>28.6</td>
<td>0.5</td>
<td>30.2</td>
<td>27.6</td>
<td>27.9</td>
<td>28.3</td>
<td>28.5</td>
<td>-0.1</td>
</tr>
<tr>
<td><strong>Balance (Actual)</strong></td>
<td>1.0</td>
<td>0.3</td>
<td>2.7</td>
<td>1.6</td>
<td>0.4</td>
<td>1.3</td>
<td>0.3</td>
<td>-0.4</td>
<td>2.3</td>
<td>2.1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Seasonal stock chg**

(2000-2004)

-0.7 0.9 0.3 -0.6

**Stock change:**

- **OECD Commercial (e)**
  - 0.1 -0.1 0.9 0.2 -0.5
- **OECD SPR (f)**
  - 0.1 0.1 0.4 0.0 -0.1
- **Oil in Water (g)**
  - 0.1 0.3 0.0 -0.1 0.4
- **Remaining to Balance (d-e-f-g)**
  - 0.6 0.1 1.4 1.5 0.7

**Scenario Actual:**

OPEC Crude oil production assumptions: As of February 2005, OPEC-11 production is assumed to be at 4Q05 level of 29.9 mb/d
The price of oil: in nominal and real terms
Base: January 2006

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But other commodity prices have also risen strongly recently.
World energy demand by fuel type (mtoe)
Oil demand outlook, mb/d

<table>
<thead>
<tr>
<th>Reference</th>
<th>2005</th>
<th>2010</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>OECD</td>
<td>49.8</td>
<td>51.4</td>
<td>52.7</td>
<td>53.8</td>
<td>54.7</td>
</tr>
<tr>
<td>DCs</td>
<td>29.0</td>
<td>34.4</td>
<td>40.3</td>
<td>46.4</td>
<td>52.8</td>
</tr>
<tr>
<td>Transition economies</td>
<td>4.8</td>
<td>5.1</td>
<td>5.4</td>
<td>5.7</td>
<td>5.9</td>
</tr>
<tr>
<td>Total World</td>
<td>83.6</td>
<td>90.9</td>
<td>98.4</td>
<td>105.9</td>
<td>113.4</td>
</tr>
</tbody>
</table>

- World economic growth averages 3.5% p.a. over next two decades
- “Dynamics-as-usual”: observed patterns, no new strong policy drives
- Oil demand increases by 30 mb/d by 2025, or 1.5 mb/d annually
- Four-fifths of the increase in demand comes from developing countries
- Transportation continues to be the dominant source of growth (~60 %)
- Many uncertainties: GDP, technology, policy
## Oil production outlook, mb/d

<table>
<thead>
<tr>
<th>Reference (DAU)</th>
<th>2005</th>
<th>2010</th>
<th>2020</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>OECD</td>
<td>20.9</td>
<td>20.9</td>
<td>19.9</td>
<td>19.3</td>
</tr>
<tr>
<td>DCs excl. OPEC</td>
<td>16.1</td>
<td>18.2</td>
<td>19.4</td>
<td>18.9</td>
</tr>
<tr>
<td>Russia &amp; Caspian</td>
<td>11.7</td>
<td>13.1</td>
<td>14.9</td>
<td>15.3</td>
</tr>
<tr>
<td>Non-OPEC</td>
<td>50.5</td>
<td>54.3</td>
<td>56.8</td>
<td>56.4</td>
</tr>
<tr>
<td>OPEC (incl. NGLs)</td>
<td>33.1</td>
<td>36.6</td>
<td>49.1</td>
<td>57.0</td>
</tr>
<tr>
<td>World</td>
<td>83.6</td>
<td>90.9</td>
<td>105.9</td>
<td>113.4</td>
</tr>
<tr>
<td><strong>OPEC market share %</strong></td>
<td>40</td>
<td>40</td>
<td>46</td>
<td>50</td>
</tr>
</tbody>
</table>
But there is considerable uncertainty over how much oil OPEC will need to produce.
Cumulative OPEC investment requirements: how much is needed to provide market stability?

If OPEC balances the market, the huge uncertainties in future oil demand translate into huge uncertainties and risks for future OPEC investment.
Security of demand

Energy security: to be seen from both supply and demand perspectives

Uncertainty over future demand translates into large uncertainties over the amount of oil that OPEC will eventually need to supply

Investment requirements are large, subject to long lead-times

The call for a "road-map" for oil demand

The need for security of demand is a legitimate concern of producers

More transparency in the evolution and implementation of policies

Lends support to making appropriate capacity expansion decisions, while at the same time not wasting precious financial resources.
Distillation Capacity Additions vs Incremental Crude Runs

Bars: additional crude runs; Lines: distillation capacity additions
OPEC has encouraged dialogue and cooperation over the past two decades.

2005 — launch of formal Energy Dialogues between OPEC and: European Union; China; and Russia

April 2006 — 10th International Energy Forum, Doha

Dialogue and cooperation are the way forward for the industry to evolve in an orderly manner in the early 21st century with security of supply and demand.