World oil market developments: challenges and opportunities

Mr Mohammed Barkindo
Acting for the OPEC Secretary General

New developments in world oil and gas: challenges and opportunities

11th Annual International IIES Oil and Gas Forum
Tehran, Islamic Republic of Iran
20–21 November 2006
Islamic Republic of Iran as OPEC Member

Contribution to world civilisation
• 5,000-year historical heritage
• 1979 revolution

Major player in both oil and gas
• 2nd-largest proven reserves
• 4th-largest producer

Founder Member
• Major role in creating OPEC
• Landmark Conferences
It is very important to have the total commitment of all our Members to handling the challenges and opportunities that face us in the international oil market, as we seek to ensure that it functions in a stable and orderly manner at all times, in the interests of producers and consumers alike.

It is a constantly shifting landscape, requiring continuous monitoring and the readiness and capability to take timely remedial actions as and when the need arises.
Oil price movements, Jul–Oct 2006, US $/b

(US $/b)

<table>
<thead>
<tr>
<th>Date</th>
<th>Basket</th>
<th>Brent/D</th>
<th>WTI</th>
</tr>
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<tbody>
<tr>
<td>15 Nov '06</td>
<td>58.67</td>
<td>58.88</td>
<td>55.33</td>
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<td>58.67</td>
<td>58.88</td>
<td>55.33</td>
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July - November 2006

<table>
<thead>
<tr>
<th></th>
<th>High</th>
<th>Low</th>
<th>H/L diff</th>
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<tr>
<td>ORB</td>
<td>72.68</td>
<td>53.37</td>
<td>19.31</td>
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<tr>
<td>Brent/D</td>
<td>78.69</td>
<td>55.89</td>
<td>22.80</td>
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<tr>
<td>WTI</td>
<td>76.95</td>
<td>57.09</td>
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US stocks, deviation from five-year average

per cent
World oil demand and supply growth, \( mb/d \)
Long-term oil demand outlook, \( mb/d \)

- World economic growth averages 3.5% pa over next two decades
- “Dynamics-as-usual”: no new strong policy drives
- Oil demand increases by 30 \( mb/d \) by 2025, or 1.5 \( mb/d \) annually
- Four-fifths of increase in demand comes from developing countries
- Transportation continues to be dominant source of growth (~60 %)

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
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<th>2015</th>
<th>2020</th>
<th>2025</th>
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<tr>
<td>OECD</td>
<td>49.8</td>
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<td>DCs</td>
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<td>34.2</td>
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<td>Transition economies</td>
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<td>5.3</td>
<td>5.5</td>
<td>5.7</td>
</tr>
<tr>
<td>World</td>
<td>83.2</td>
<td>90.7</td>
<td>98.0</td>
<td>105.6</td>
<td>113.1</td>
</tr>
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</table>
More than 50 per cent of the countries in the world have fewer than 100 vehicles per 1000 inhabitants.

- **South Asia:** 11 or lower
- **China:** 15
- **Japan:** 581
- **Most West European countries:** 400-600
- **USA:** 826

Most countries below 10 vehicles per 1000 are in Africa.
Conventional liquid resource base is sufficient
### Long-term oil supply outlook, \( mb/d \)

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<td>20.7</td>
<td>20.5</td>
<td>19.5</td>
</tr>
<tr>
<td>DCs, excl. OPEC</td>
<td>16.1</td>
<td>18.6</td>
<td>19.7</td>
<td>20.0</td>
<td>19.9</td>
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<tr>
<td>Transition economies</td>
<td>11.7</td>
<td>14.4</td>
<td>15.5</td>
<td>16.1</td>
<td>16.5</td>
</tr>
<tr>
<td>Total non-OPEC</td>
<td>50.1</td>
<td>55.8</td>
<td>58.3</td>
<td>59.4</td>
<td>58.9</td>
</tr>
<tr>
<td>OPEC (incl. NGLs)</td>
<td>33.1</td>
<td>34.9</td>
<td>39.7</td>
<td>46.2</td>
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Non-OPEC increases: Latin America, Africa, Russia, Caspian
Expected major crude oil exports, by destination 2015
Oil and gas in Islamic Republic of Iran, 2005

Crude oil

Proven reserves: 136 billion barrels
World share: 11.8 per cent

Production: 4.1 million barrels a day
World share: 5.7 per cent

Natural gas

Proven reserves: 28 trillion cubic metres
World share: 15.3 per cent

Marketed production: 95 billion cu m a year
World share: 3.3 per cent

Cumulative investment in OPEC: three scenarios

- Protracted market tightness
- Dynamics as usual
- Prolonged soft market

Uncertain future demand translates into a broad range of possible OPEC investment needs.
Indicative cost increases

- **3D seismic costs have doubled in the last 24 months**
- **Deepwater drilling day rigs up at least 50% in 12 months. Contracts at $500/d for 2008.**
- **Wage pressure is escalating with growing shortage of skilled labour (~15% rise in 2005)**
- **Steel is a major component of infrastructure and facilities, with prices up 40% since 2004.**

Cost split for a typical deepwater development

- **Infrastructure:** 20%
- **Drilling:** 25%
- **SURF:** 15%
- **Exploration:** 10%
- **Personnel:** 10%
- **Facilities:** 20%

Source: Goldman Sachs, OPEC Secretariat
The downstream is also important

Investment gap: $100 billion?

Range of additional required crude runs

Current expectations for distillation capacity expansion

mb/d
Total investment needs to 2015: $310 billion (2005 prices)
OPEC’s commitment to the environment

Three pillars of sustainable development
Economic development
Social development
Environmental protection

Active involvement in UN climate change meetings
Conference of the Parties to the UN Framework
Convention on Climate Change
Kyoto Protocol

‘Common, but differentiated responsibilities’
‘Respective capabilities’

‘Post-Kyoto’ agreement must adequately address developing country concerns
Challenges for oil-producing developing countries

To provide regular supplies of crude to consumers at reasonable prices both now and in the future.

To use petroleum revenue to:

- help develop our domestic economies and provide better life-styles for our citizens;
- plough back into the industry to ensure that future consumer needs are met;
- provide assistance to other impoverished nations in the true spirit of sustainable development.
There is widespread agreement on the need for a constructive, sustained process of dialogue at a global level, involving all the interested parties and prepared to tackle all the major topical issues affecting the industry.

- OPEC pioneered efforts to initiate producer-consumer dialogue, leading to International Energy Forum.
- Formal OPEC energy dialogues with the European Union, China and Russia were established in 2006.
- Many other forms of dialogue involving OPEC.
A central task of oil producers is to meet the growing energy needs of the global community and, most especially, those of the world’s poorest nations in their long-overdue quest for sustainable development.

It is up to all of us to rise to these challenges, and OPEC maintains its longstanding resolve to do this, to the benefit of producers and consumers alike and in support of sound, sustained growth across the global economy.
Organization of the Petroleum Exporting Countries

www.opec.org