Oil Markets into 2006

Peter Davies
Chief Economist, BP plc
British Institute of Energy Economics
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Outline

- Oil and energy today
- How did we get to here?
- Prospects for 2006
- Into the medium term
Oil and Gas: A Perspective

- Oil - Dated Brent
- US Gas - Heny Hub
- Refining Margins - BP GIM
Real Oil Prices

Real Oil Prices*

US$/bbl


* Brent prices deflated by US CPI (2004 prices)
### 2005: A Snapshot – “the 40% Year”

#### Oil Prices ($/bbl)

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2004</th>
<th>% Change</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brent</td>
<td>54.52</td>
<td>38.27</td>
<td>+42.5%</td>
<td>63.46</td>
</tr>
<tr>
<td>WTI</td>
<td>56.59</td>
<td>41.49</td>
<td>+36.4%</td>
<td>66.85</td>
</tr>
<tr>
<td>OPEC basket</td>
<td>50.71</td>
<td>36.04</td>
<td>+40.7%</td>
<td>59.42</td>
</tr>
</tbody>
</table>

#### Gas Prices

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2004</th>
<th>% Change</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>Henry Hub ($/mmbtu)</td>
<td>8.64</td>
<td>6.13</td>
<td>+40.9%</td>
<td>8.21</td>
</tr>
<tr>
<td>UK NBP (UKp/therm)</td>
<td>40.59</td>
<td>24.39</td>
<td>+66.4%</td>
<td>55.90</td>
</tr>
</tbody>
</table>

#### Refining Margins

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2004</th>
<th>% Change</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP GIM  ($/bbl)</td>
<td>8.60</td>
<td>6.08</td>
<td>+41.4%</td>
<td>3.24</td>
</tr>
</tbody>
</table>
Share of world primary energy consumption

- Oil
- Coal
- Gas
- Hydro
- Nuclear

World Fuel Shares 1965-2004
Why High Oil Prices?

- Driven by:
  - OPEC behaviour post 1999
  - Strong demand growth 2004
  - Low spare capacity
  - Geopolitics
  - Energy as a financial commodity

**World Oil Consumption Growth**

<table>
<thead>
<tr>
<th>Year</th>
<th>ROW</th>
<th>FSU</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>0.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>1.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>2.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**OPEC Spare Capacity**

- 2001: 3.5 Million b/d
- 2004: 6.0 Million b/d

Brent Oil Prices 2005

Max price: 12 August - $67.35
Hurricane Katrina
Hurricane Rita
Oil Markets in 2005

Million b/d

2005 Developments

- Trend demand growth but with Chinese weakness
- Non-OPEC weakness:
  - Hurricane disruption
  - Russian slowdown
  - Project delays
- OPEC production growth led to stockbuild
Oil Consumption in 2005

- GDP growth returns to trend
- Chinese oil consumption growth slows sharply
Hurricane Impacts

- net tightened crude oil market
- loss of refineries temporarily raised refining margins
- hit US gas harder than oil
- revealed new dimensions of energy security – it is not always the Middle East and embargoes
OPEC Crude Oil Production 2004-5

- **Iraq**
- **OPEC 10**
Why did market fundamentals weaken but prices still rise?
Brent Contango & Backwardation

Contango

Backwardation

US$/bbl
Brent Contango & Backwardation 2005

Contango

Backwardation
Brent Contango & Backwardation 2005
Brent Forward Price Curves

Forward Price Curves on 1st trading day of January
2005: The Explanation

- Inventories built in face of oversupply and enabled through ‘flip’ into contango
- 4Q saw:
  - Hurricane net tightening as production was slow to return
  - Colder than average weather
  - High gas prices stimulating resid demand
- Geopolitical concerns
  - Iran
  - Iraq
- Spare capacity remained low
- Emerging consensus on OPEC price objectives – floor of $45-50 OPEC basket
Entering 2006

- Prices breakthrough $60 – in face of rising concerns over Iran
- Global economic momentum – and expectations of trend economic growth in 2006
- OPEC wait and see through the winter
**Oil Markets in 2005/6**

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### Million b/d

**2005**

- **Demand Growth 2005**: [Bar Chart]
- **Stock Build**: [Bar Chart]
- **OPEC Growth 05**: [Bar Chart]

**2006**

- **Demand Growth 2006**: [Bar Chart]
- **Non-OPEC Growth 06**: [Bar Chart]

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**2006 Prospects**

- Trend demand growth with Chinese acceleration
- Non-OPEC acceleration:
  - Hurricane restoration
  - Project delivery
- Starting from a stockbuild in 2005
2006 supply growth outside of OPEC quotas

Million b/d

CA Oil Sands

- FSU
- Growth
- Decline

- Russia
- Azerbaijan
- Kazakhstan
- OPEC NGLs
- US
- Brazil
- Angola
- Other
- UK
- Mexico

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2006 Oil Price Prospects

- Drivers
  - 2006 call on OPEC less than current OPEC production levels
  - OPEC capacity rising
  - Geopolitical uncertainties

- Risks
  - Economic growth
  - Supply delays and outages
  - Geopolitics

- OPEC may need to trim production to achieve price objectives – but production already at historical high levels

- Reasonable expectation of $50-60 Brent for 2006
Spare capacity should recover ...... but OPEC likely to remain in control

Mb/d

Recession and demand destruction

Range

Delays and interruptions
Conclusions

- Oil prices driven up in 2004 by demand surge and low spare capacity – and further in 2005 despite rising inventories

- 2006 shows further momentum but OPEC may need to trim production. $50-60 oil prices likely

- Spare capacity expected to build back to historic levels through 2010 – but call on OPEC still projected to edge upwards. Potential for prices to remain over $40.

- Market forces expected to respond – but could take a long time to reassert.