Oil and gas: the engine of the world economy

Dr Maizar Rahman
Indonesian Governor for OPEC
Acting for the Secretary General

Delivered on behalf of
Dr Purnomo Yusgiantoro
President of the Conference, and OPEC Secretary General
Indonesian Minister of Energy and Mineral Resources

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Real GDP in 1995 prices and exchange rates

OECD

DCs including China
GDP versus energy growth (world): 1971–2002

Total primary energy requirement (mtoe)

Real GDP (US $ billion)
Energy consumption for OECD and DCs: 1971–2003

FCPEs
DCs incl. China
OECD
Appeal of petroleum

Unique combination of attributes
Sufficiency, accessibility, versatility, transportability
Low costs in many areas
Established infrastructure
Ever cleaner, safer and more efficient
The resource base is not a constraint

Cumulative production, as a percentage of the estimated resource base, has been relatively stable
The challenge for gas

Sufficient world resources
Many shared challenges with oil
Prices linked with oil in many markets
Production costs falling
Transportation still expensive
## World energy mix

<table>
<thead>
<tr>
<th>Source</th>
<th>2000</th>
<th>2010</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil</td>
<td>40.1</td>
<td>38.7</td>
<td>36.9</td>
</tr>
<tr>
<td>Gas</td>
<td>23.3</td>
<td>25.7</td>
<td>29.9</td>
</tr>
<tr>
<td>Solids</td>
<td>26.0</td>
<td>25.8</td>
<td>25.2</td>
</tr>
<tr>
<td>Hydro/nuclear/renewables</td>
<td>10.6</td>
<td>9.8</td>
<td>8.0</td>
</tr>
</tbody>
</table>

OPEC World Energy Model, 2004
Annual growth in oil demand: 2002–25

*million barrels a day p.a.*

Asia: 65% of DCs increase, especially China & India

- huge potential (e.g. low vehicle ownership)
- But possible constraints: infrastructure, policies

OECD Pac. W. Europe
N. America
OCEA

DCs

OPEC & other exp.
Latin America, Africa & M.E.

Transition economies

OPEC World Energy Model, 2004
Annual global growth in oil demand by sector

*million barrels a day*
### World oil production outlook in the reference case

*million barrels a day*

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2010</th>
<th>2020</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-OPEC</td>
<td>47.8</td>
<td>54.6</td>
<td>56.9</td>
<td>56.3</td>
</tr>
<tr>
<td>OPEC (incl. NGLs)</td>
<td>29.2</td>
<td>34.1</td>
<td>48.9</td>
<td>58.3</td>
</tr>
<tr>
<td>World</td>
<td>77.0</td>
<td>88.7</td>
<td>105.8</td>
<td>114.6</td>
</tr>
<tr>
<td>OPEC market share%</td>
<td>37.9</td>
<td>38.4</td>
<td>46.2</td>
<td>50.9</td>
</tr>
</tbody>
</table>
OPEC crude oil

Proven reserves 891 billion barrels
78.3% of world figure

Production 29 million barrels a day
40.1% of world figure

Cheaper to exploit than non-OPEC oil

Increasing call on OPEC oil in coming years
51% world oil market projected for 2025
OPEC’s objectives

Stable markets
Reasonable prices
Steady revenues
Secure supply
Fair returns to investors
Short, medium and long terms
Investment in production capacity

To meet increase in overall demand
To replace exhausted reserves
To cope with unexpected shortages

Oil must be cleaner, safer and more efficient

Security of demand is AS IMPORTANT AS security of supply
If OPEC balances the market, the uncertain volume requirements translate into huge ranges of anticipated capital outlay needs.

Already by 2010 an estimated uncertainty of $25 billion exists between the reference case and the low economic growth case.

This a central concern: where lies the onus of maintaining sufficient spare capacity?

Cumulative OPEC investment requirements: effect of 1% lower world economic growth
Today’s oil market

OPEC concerned about high oil prices and volatility

Note: orange rings denote OPEC Conferences.
Today’s oil market

Market well-supplied with crude

but

Higher-than-expected demand
Downstream bottlenecks
Geopolitical tensions
Speculation
Objective: reasonable prices and stability

Three-stage OPEC-10 output ceiling rise
from 23.5 mb/d to:
  25.5 mb/d from 1 July
  26.0 mb/d from 1 August
  27.0 mb/d from 1 November

Total rise 3.5 mb/d

*Agreements made at OPEC Conferences in Beirut on 3 June and Vienna on 15 September
OPEC crude oil production and capacity

* The production ranges for ’04 & ’05 are based on required OPEC crude production for the balance from the survey of forecasts.
Dialogue and cooperation

Big advances in recent years

The industry is much better off if there is an underlying consensus on such major issues as price stability, security, investment, the environment and sustainable development
Rising to the challenges

Globalisation
Technology
Environment
Sustainable development
Energy consumption by primary source: 1960–2003

OECD

DCs

mboe/d