Saudi Aramco’s Role in the World of Energy

Presented to
Global Finance Forum on
Oil Price Volatility, Economic Impacts and
Financial Management

by
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Today’s Oil Fundamentals

• Despite near term downside risks, today’s economy is more global, interconnected and better managed than at any other time
• Oil consumption growth has slowed considerably since the surge in 2004
• Supply growth apace with demand but surplus capacity has been worn thin throughout the value chain
• Huge increase in the industry’s capital expenditure signaling a very strong cyclical expansion
• Nearly two thirds of demand is met by trade; oil trade growth consistently faster than total consumption growth
Today’s Oil Market

**Structure & Participation**
- Commodity markets have evolved considerably and are far more accessible to a wide range of investors
- Phenomenal growth in trading interest, primarily in exchange and OTC future contracts
- Strong liquidity in trading of deferred time periods

**Performance**
- Six year bull run
- Market structure remains a function of inventories
- Attractive returns to investors
- Deferred price rise appears disconnected with fundamentals

**NYMEX Crude Futures $/BBL**

<table>
<thead>
<tr>
<th>Year</th>
<th>Jan 99</th>
<th>Jan 00</th>
<th>Jan 01</th>
<th>Jan 02</th>
<th>Jan 03</th>
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<th>Jan 05</th>
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<td>$10</td>
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<td>$30</td>
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<td>$90</td>
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<td>$110</td>
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<td>$130</td>
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</table>

- Jan 00: 29-Feb-08
- Oct-07: November 2007
- Sep-06: September 2006
- Jan 05: January 2005
- Jan 02: January 2002
- Jan 03: January 2003
- Jan 04: January 2004
Futures Market

- Options market growing faster than futures market
- Strong correlation is observed between total open interest and oil prices

![NYMEX Crude Open Interest (Futures & Options) MMB](image)

Long Term Demand Outlook

- Future economic expansion will require additional oil and other energy sources.
  - Long term price elasticity is essentially unknown, particularly in developing nations
  - Impact of energy policies on oil consumption also not fully known; alternative fuels, taxation, demand management (e.g. CAFE)

![A comparison of Long Term Demand Growth Forecasts (%)](image)
Long Term Supply Outlook

- Global resource endowment ranges between 13 and 16 trillion barrels
- 3 to 6 trillion barrels are recoverable, more than adequate to meet future demand
- Many factors at play
  - Recovery factors
  - Exploration
  - Oil prices
  - Non-conventionals

Call on OPEC Nations

- Energy forecasts have systemically overestimated future energy consumption and underestimated future supplies
- Leveraged impact of demand and supply side uncertainties on the "call on OPEC"
  - Demand = 86 MMBD ± 0.5 MMBD (0.6%)
  - Non-OPEC = 50 MMBD ± 0.5 MMBD (1.0%)
  - Call on OPEC = 36 MMBD ± 1.0 MMBD (2.7%)
- When compounded, the level of uncertainty grows further
  - As an example, current estimates for the call on OPEC crude in 2010 vary between 36 MMBD and 40.6 MMBD
  - At a conservative capital cost of $10,000 per barrel of capacity this equates to a difference of $45 billion
- These factors are vividly demonstrated when comparing successive forecasts for future production required from Saudi Arabia…
### Call on Saudi Arabia – EIA Forecasts

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<td>18.4</td>
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### Who is Saudi Aramco

- Integrated international oil & gas company ranked world # 1 for the last 17 years and backed by a 75 year track record of reliable performance
- Proven oil reserve base of 260 Billion Barrels, 1/4<sup>th</sup> world total, in 96 fields and 320 reservoirs, featuring world’s lowest F&D costs
- World’s largest oil producer and exporter and on track to expand production capacity to 12 MMBD
- Among top ten global refiners with 4 MMBD of capacity
- Wholly owned marine shipping subsidiary transporting some 2.6 MMBD, to US & Europe
- 51,000 employees with a corporate training program spawning several decades
- Currently undertaking a $90bn capital expansion program
What if?

<table>
<thead>
<tr>
<th>Development</th>
<th>Date</th>
<th>Saudi Production</th>
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<tbody>
<tr>
<td>A worker’s strike in a producing country that removes 2 MMBD for a whole quarter</td>
<td>Venezuela Dec 02</td>
<td>Increased 1.0 MMBD between Dec and Feb 03</td>
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<tr>
<td>Military activities shut down field operations producing 1.2 MMBD in a Mideast oil producer for 2 months</td>
<td>Iraq Mar 03</td>
<td>Increased 0.6 MMBD between Mar and Apr 03</td>
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<tr>
<td>Surge in economic activity resulting in a tripling of oil demand growth levels</td>
<td>China 2004</td>
<td>Increased 1.8 MMBD between May and Aug 04</td>
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<tr>
<td>A weather disaster that shuts 1 MMBD of production for 3 to 4 months</td>
<td>USA Sep 05</td>
<td>Sales to N America dropped from 1.5 to 1.0 then increased to 1.8 by Jan 06</td>
</tr>
</tbody>
</table>

Upstream Strategy

- Uncertainties in oil markets is a certainty
- 1.5 to 2.0 MMBD spare capacity cushions against such events by enabling the company to respond to market requirements
- Part of a three pronged upstream strategy
  - Replace 100% of reserves
  - Maintain 1.5 to 2.0 MMBD spare capacity
  - Employ best in class reservoir management practices
**Downstream Strategy**

- Cyclical global refining expansion underway, in which Saudi Aramco is undertaking one of the world’s largest organic expansion programs

- Corporate strategy
  - Target domestic and international markets
  - Partnership with refining industry leaders
  - Exploit petrochemical integration opportunities

- Capital projects
  - USA
  - China
  - Jubail, Saudi Arabia
  - Yanbu, Saudi Arabia
  - Rabigh, Saudi Arabia
  - Ras Tanura, Saudi Arabia

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**Saudi Aramco’s Strategic Framework**

- Global Supply Role
  - Target markets, crude grades, logistics, spare capacity, refining and petrochemicals

- National Obligations
  - National content, fuels & feedstock, social responsibility

- Maintaining Commerciality
  - Governance, value addition, capital discipline & cost management
Putting it all together

• 51,000 employees from 66 countries after starting from a base of less than 2,000 employees in 1946
• Let's hear from one of them, Dave Cantrell…

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