Oil Industry Trends

Rob Arnott

26th January 2004
Oil Industry Trends

- Overview of global industry trends
  - Regional costs and capital migration

- Industry costs and implications
  - Why is further consolidation likely?

- Company specific growth
  - Where will growth come from?

- Conclusions
  - How much more risk are companies taking on?
Global proved reserves base

- Middle East: 66%
- S&C America: 9%
- Africa: 7%
- FSU: 6%
- Asia Pacific: 4%
- Europe: 2%
- North America: 6%

1050 bn barrels
R/P 40 Years
Annual discoveries 1900-2002

Emphasis switches from exploration to exploitation

Annual discoveries

Cumulative discoveries
OPEC ~ 1100 Gb
Non-OPEC ~ 1000 Gb

OPEC
Non-OPEC
Global Oil Supply 1990-2020

OPEC will start to gain market share after 2010
Cost of Supply

Under $8/bbl for 90 per cent of new capacity
OPEC remains the low cost producer

For private companies access to OPEC is key
Global Upstream Investment 98-02

Private Oil Companies drive upstream investment

- Development Cost
- Exploration Cost
Recent Sources of Non-OPEC growth

Russia has been the big surprise.. But for how long?

average annual increase 2000-02, ‘000 b/d

-150 0 150 300 450 600

UK Colombia China Eq. Guinea Mexico Canada Angola Brazil Kazakhstan Russia
Incremental production 2002-2007

Deepwater developments driving near term growth

- DW Atlantic Basin: total increment 2002-2007, 7.3 million b/d
- Russia
- Caspian
- Canada

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Replacement figures are deceptive

Source: Company data, JS Herold
Acquisitions a cheaper route to growth

Consistent pattern explains industry consolidation

Source: Company data, JS Herold
US, Canada and Europe overheated

Companies overpaying to achieve growth

- Proved Acquisition Cost ($/boe)
- Finding and Development Cost ($/boe)

Source: Company data, JS Herold
Migration of capital away from US

Spending changes 2000-2002

- US: -24%
- Canada: -8%
- Europe: 47%
- Africa/Middle East: 69%
- Asia-Pacific: 40%

Source: Company data, Harrison Lovegrove
Private oil company growth targets

- **ENI**: to 2008
- **Total**: to 2007
- **Royal Dutch Shell**: to 2008
- **ExxonMobil**: to 2008
- **ConocoPhillips**: 2002-2008
- **BP**: 2002-2008

Source: Company data
The real cost of growth

Smaller companies chase growth at shareholders expense

Source: Company data, JS Herold
Growth without acquisitions unrealistic

Even revised targets are unlikely to be achieved

Source: Company data, JS Herold, OIES
Decline versus growth

More and more growth projects are needed to infill decline

Source: Company data, OIES
Industry costs rising

Unit costs rise as oil price climbs and decline rates increase

F&D costs in $ per barrel

2-year lagged Brent Price in $ per barrel

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BP’s oil production growth 2002-2007

Reliance on Russia a high risk strategy?

Source: Company data, OIES
Shell’s oil production growth 2002-2007

Growth reliant on Nigeria (Bonga, NLNG liquids)

Source: Company data, OIES
Exxon’s oil production growth 2002-2007

Growth from Bonga (Nigeria) + Kizomba/Dalia (Angola)

Source: Company data, OIES
Total’s oil production growth 2002-2007

Deepwater Africa the key (Nigeria: BongaMain, Congo: Moho, Angola: Dalia)

Production mboe/d

Source: Company data, OIES
BP’s gas production growth 2002-2007

A switch from Europe and North America to Egypt, Algeria and Trinidad LNG

Source: Company data, OIES
Shell’s gas production growth 2002-2007

NW shelf Australia and Nigeria LNG the drivers

Source: Company data, OIES
Exxon’s oil production growth 2002-2007

Middle East gas project (RasGas LNG trains 3 and 4 + Qatar) driving growth

Source: Company data, OIES
Total’s gas production growth 2002-2007

A more even spread from Indonesia, Venezuela (Yucal), Argentina (Carina/Aries),

Source: Company data, OIES
Oil is still driving production growth

Targets will only be met if ‘oil’ developments proceed as planned

Source: Company data, OIES
Oil regaining share of production mix

Only in Total does gas increase proportionately

Source: Company data, OIES
OPEC exposure is increasing

3.6 million b/d out of 15.8 million b/d will come from OPEC in 2007

Source: Company data, OIES
Capital growth is key to equity investors

Source: LSE, NYSE
Reserve growth influences share price

Correlation Between Relative Changes in Key Variables and Share Price

<table>
<thead>
<tr>
<th>Illustration</th>
<th>Value</th>
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<tr>
<td>Reserve base</td>
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<tr>
<td>ROCE</td>
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<td>Oil Price</td>
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Source: LSE, NYSE, Morgan Stanley

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The equity market expects growth but delivery is at risk.

Source: Morgan Stanley
The Opportunity

Annual expenditure 2001-2030 required to meet demand

Source: IEA
Main trends and outlook

- Further consolidation inevitable
  - US, Canada and Europe are ex-growth
  - Acquisition costs still below FD costs

- Oil continues to drive POC production growth
  - Companies are not shifting to gas
  - Increasing differentiation between companies

- Capital flowing from low risk to high risk
  - OPEC exposure increasing
  - Technical and political risk increasing
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Presentation to Paradigm

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