

Challenges to the uncertain oil industry

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The future has changed

- 1. Oil demand trends breaking
- 2. Middle East oil now Asian problem
- 3. Oil reserves are growing, not peaking
- 4. New roles for state companies

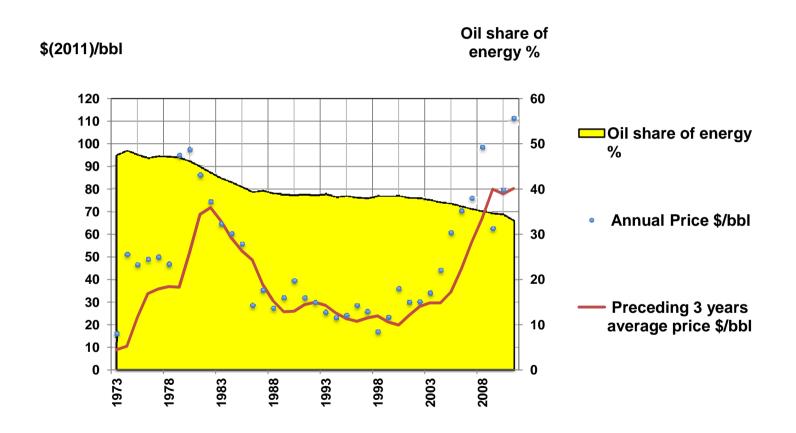
 How will the oil industry change?

 Investors and governments want to know.

 So do modelers



Oil price lowers market share

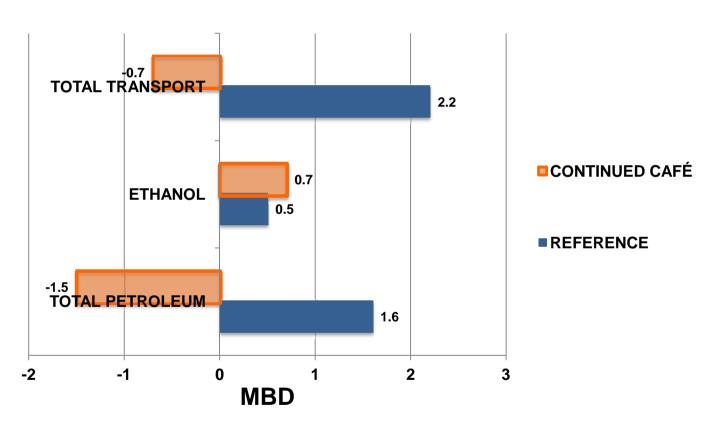




Climate policies + competition reverse growth for transport fuel in US

After 2012 Café

Before new Café



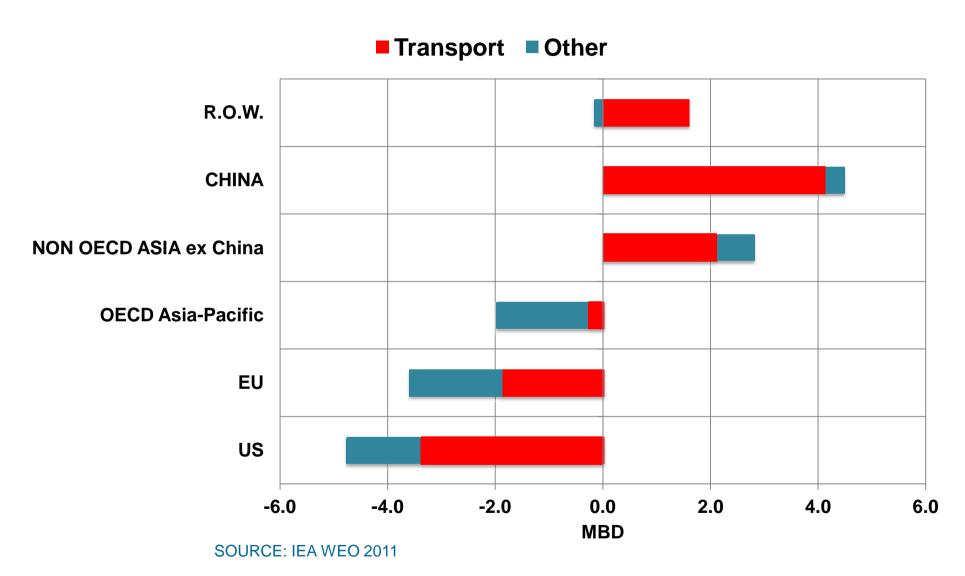
Source: AEO 2011

Reference consumption 2035 : 15 MBD

2012:14 MBD



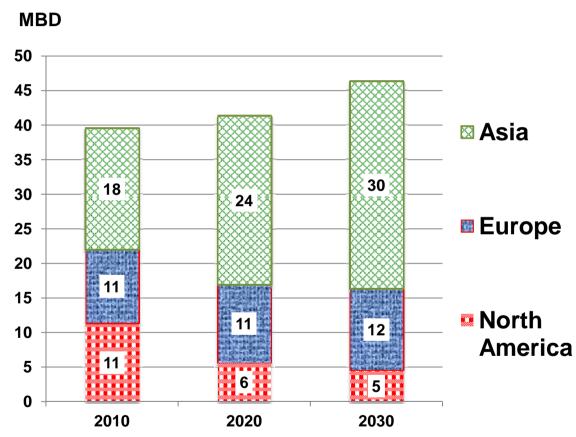
Growth vs. no-growth in oil use 2009-30





Oil import dependence is changing

Oil & liquid deficits

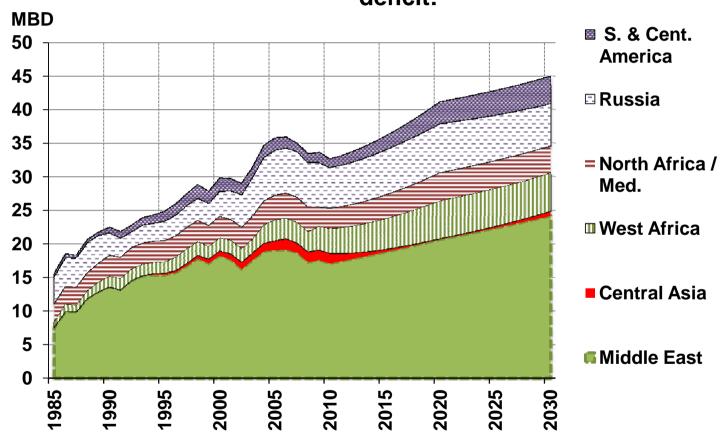


Source: US DOE International Energy Outlook 2011 and Annual Energy Outlook 2012; BP Statistical Review of World Energy; author's adjustments.



Middle East oil now going East

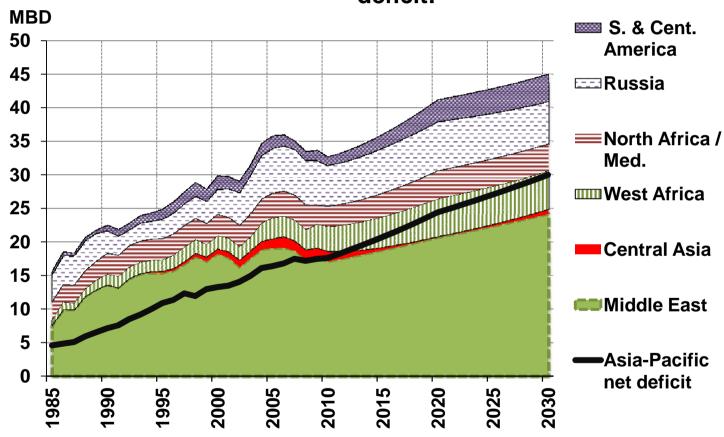
Regional oil surpluses versus Asia-Pacific oil deficit:





Middle East oil now going East

Regional oil surpluses versus Asia-Pacific oil deficit:





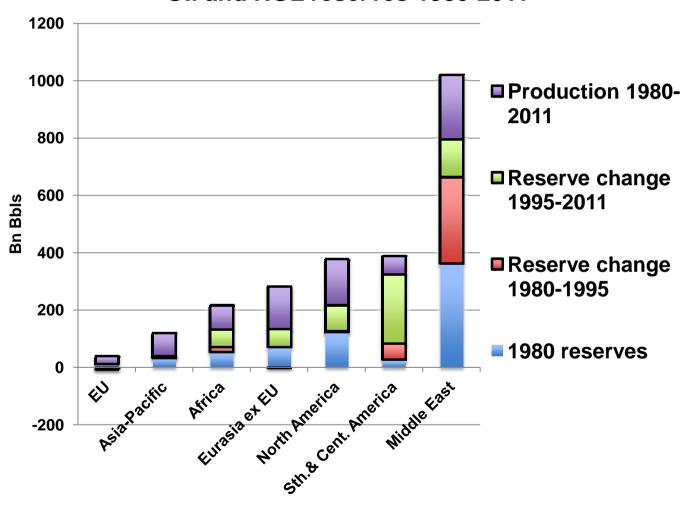
What will the oil industry do downstream?

- No-growth markets
 - Retreat to bunkers
 - Localize (spin-off?)
- Growth markets
 - Depends on local NOCs and security policies



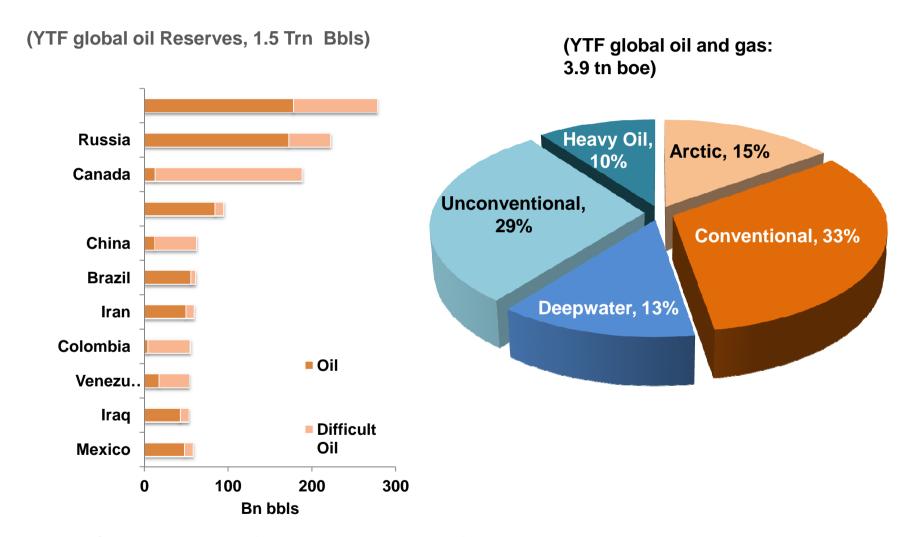
Oil is not running out

Oll and NGL reserves 1980-2011





Global YTF potential has increased significantly but so has the technological challenge



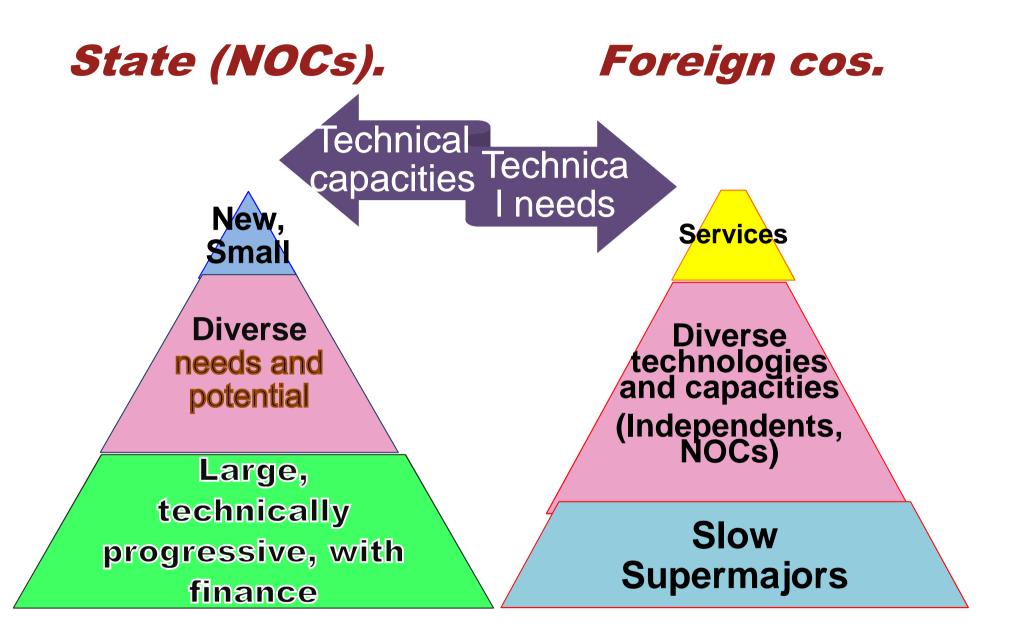




Access to oil reserves, (2010): not completely closed but by invitation only

% of world 100 ■ Private sector 90 80 **70** Mixed 60 companies **50** 40 ■ State + project sharing 30 20 ■ State exclusive 10 0 **Top 50 Companies cumulative**

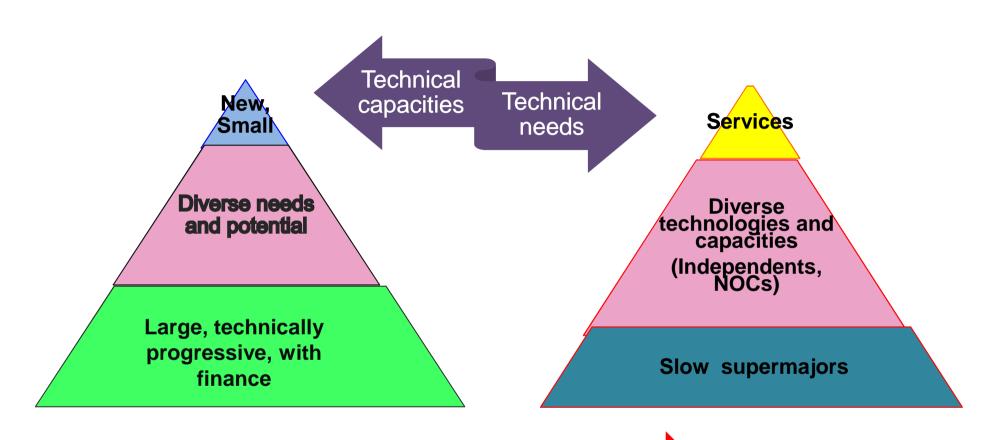






State (NOCs).

Foreign cos.



Development needs



Where will the upstream industry go?

National focus with appropriate technology

Technologies for new, unconventional etc.

Deals with existing reserve countries



New structures for a new era

- Upstream specialist for growth investors and NOCs
- Fuel conglomerate for yield investors
- Downstream very regional or NOC owned

The oil & gas industry will look very different

THE CHOICE IS TO CHANGE OR BE CHANGED

