

# Presentation to CSIS

## “Energy Security in the 21<sup>st</sup> Century – who has the answers”

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# Challenges in 21<sup>st</sup> Century Energy Markets.

- Maintaining and enhancing security of long-term energy supply to developed economies.
- Squaring the energy-environment circle:
  - Development and deployment of clean technologies.
  - ..and remaining competitive.
- Meeting the growing demand from developing economies (India, China)
- Dealing with cartelisation and concentration of natural resources.

## Plenty of Hyrdocarbons

- But concentrated in a few countries/regions:
- MENA
  - 45%-65% of proven oil reserves
  - 45% of proven gas reserves
- Russia
  - 6 % of proven oil reserves (7<sup>th</sup> largest)
  - 26 % of proven gas reserves



## By 2030:

- MENA
  - account for 44% of world oil production
  - Account for 25% of world gas production
- Russia
  - 9% of world oil production
  - 19% of world gas production

# Investment

- Both regions need huge investment:
  - MENA \$56bn/yr to 2030
- Russia
  - \$935bn over the period 2003 – 2030

➤ **Will that investment occur?**

# The challenge for governments

- Making markets work better:
  - Creating the right frameworks:
    - For rational economic investment throughout the supply chain
    - For transition to a cleaner future
  - Balancing Government and Market roles
  - Data transparency and information provision
- Emergency Response:
  - Managing small probability/large impact events

# Data Transparency and Information

- Joint Oil Data Initiative (JODI)
  - Monthly oil production, oil stocks and oil demand.
  - Fundamental technical work undertaken by IEA
- **Need to improve data quality and scope.**

# Frameworks for rational investment

- Supply capacity is important. For oil
  - When spare capacity is large:
    - Strong relationship between inventories and price
  - When spare capacity is low:
    - Relationship breaks down; risk premium “fear” determines market price.
- Clear role for Government in setting framework:
  - Whole supply chain approach
    - Open investment regimes with clear property rights.
    - Transparent and stable regulatory regimes.

# Investment keeps markets sane!

Chart a: US crude stock cover v real oil prices  
Spare capacity > 3% (of world supply)

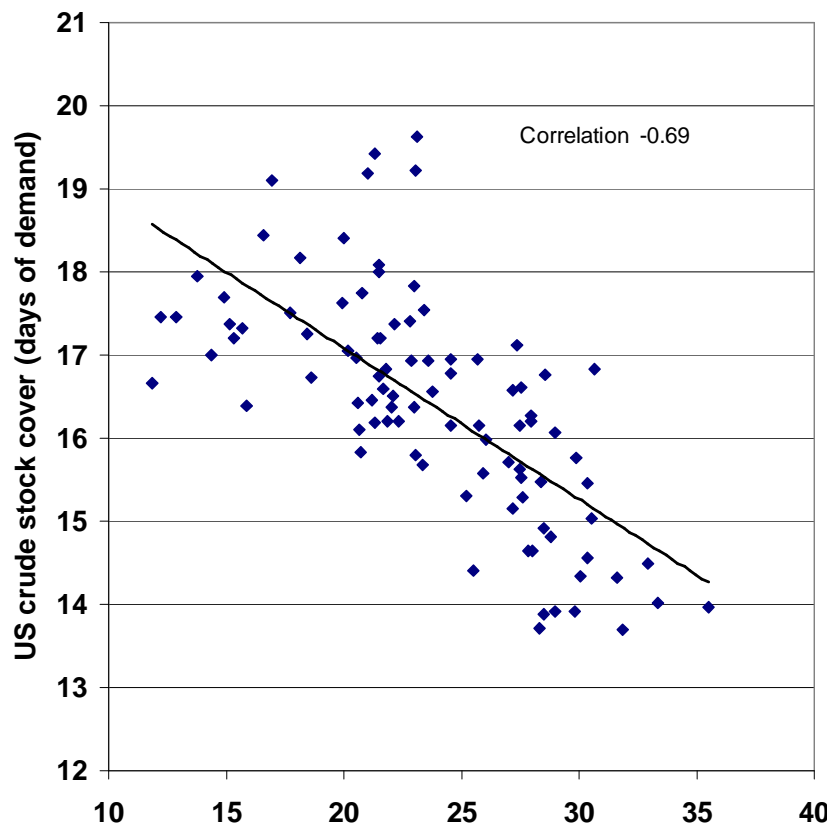
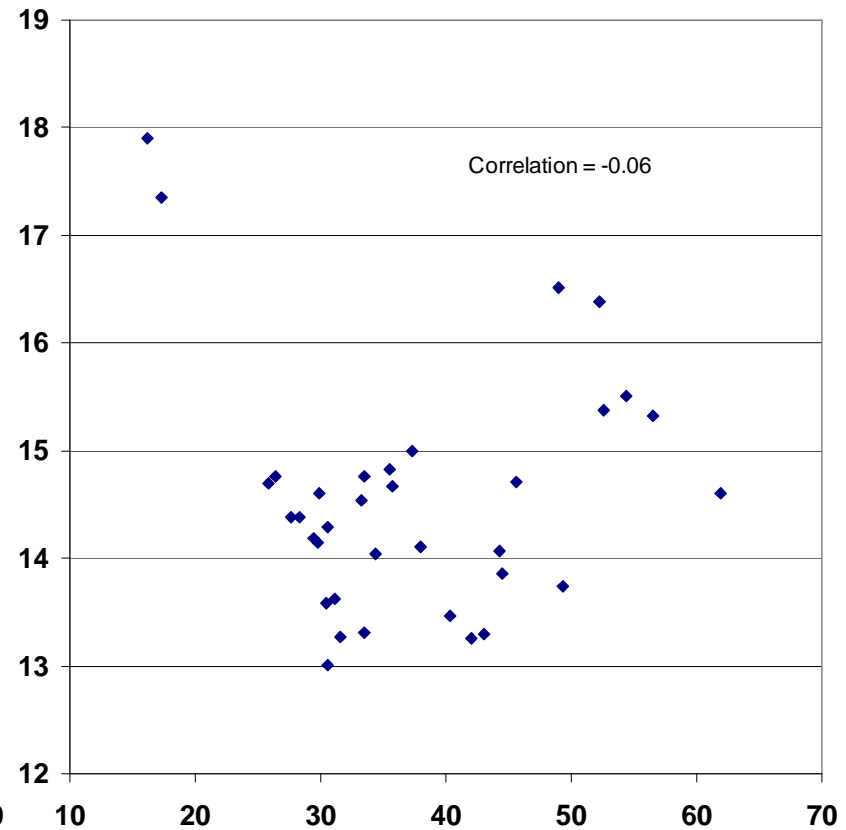


Chart b: US crude stock cover v real oil prices  
Spare capacity < 3% (of world supply)



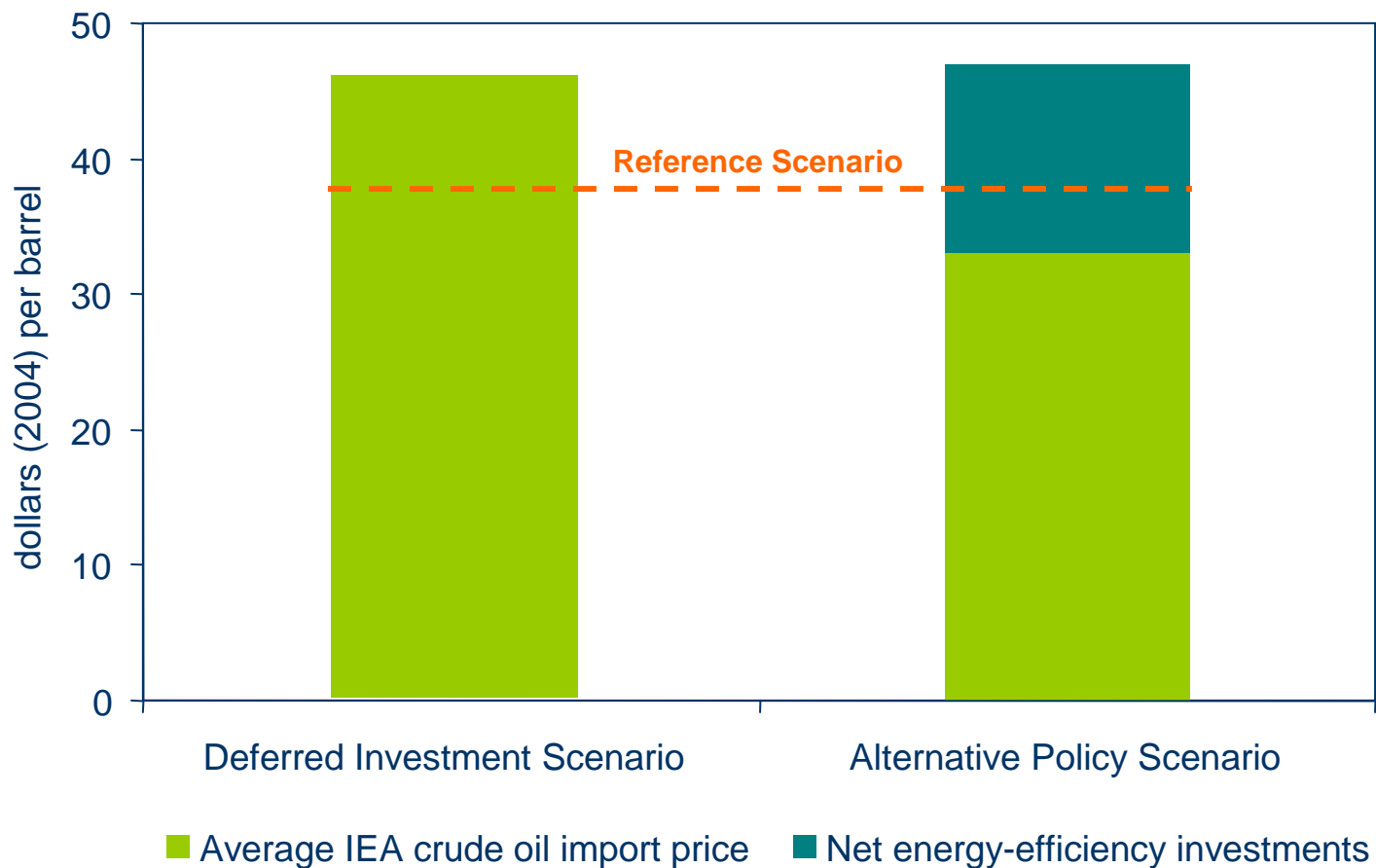
Illustrative analysis

Real (Jan 05) oil prices: US\$ a barrel

# Government Versus Market: getting the balance right

- Governments set domestic frameworks
- Governments set international frameworks:
  - Energy Charter Treaty
  - Kyoto Protocol and ETS
  - European Union single markets
  - External EU energy policy: Hampton Ct
  - G8/G7 finance – wider influencing, enabling
- Above are all framework issues. When must government intervene?

# Squaring the energy, environment and security triangle



# Emergency Response to small probability/large impact events

- Recent example: Hurricane Katrina.
  - Governments
    - Help minimise physical disruption
    - Act in concert to restore equilibrium
  - IEA oil stock response: 26 countries < 24hrs
    - working with the market: making available, not forced sale
- Must not confuse emergency response with price management
  - Emergency response is a residual role for Govts.
  - Price determination is the role of markets.

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- Who has the answers: Government, Markets, Environmentalists?

➤ **All of the them**