THE OXFORD INSTITUTE FOR ENERGY STUDIES

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Global Energy Policies: Supply, Demand and the Future of Nuclear

Christopher Allsopp

Oxford Institute for Energy Studies

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Outline

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  - The industry consensus
  - Substitutions, other fuels
  - The climate change agenda
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  - Lack of feed backs
  - Offsetting policy
  - It is different this time
- Pricing and the market
  - Speculation versus fundamentals
  - Coordination games and beauty contests
- Concluding remarks

The dominant ‘story’

- Industry consensus
  - Continuing recovery, two speed world economy, decline rates and supply problems, high oil and other energy prices.
  - Oil is ‘special’. But bio fuels, natural gas etc
  - Forecasts and scenarios
    - Industry forecasts spectacularly bad
    - Claim on Opec.
    - Wide uncertainty about price, income and technology effects
    - The supply side
    - Policy –the hardest of all
- Substitutions and other fuels: is oil special?
  - Shale gas, nuclear, efficiency and technology, and shale oil
- The climate change agenda –an ‘imperative’?
- Uncertainty and inconsistency
  - How can a consistent picture be developed? Should we try?

Chart 1. Real and nominal oil prices

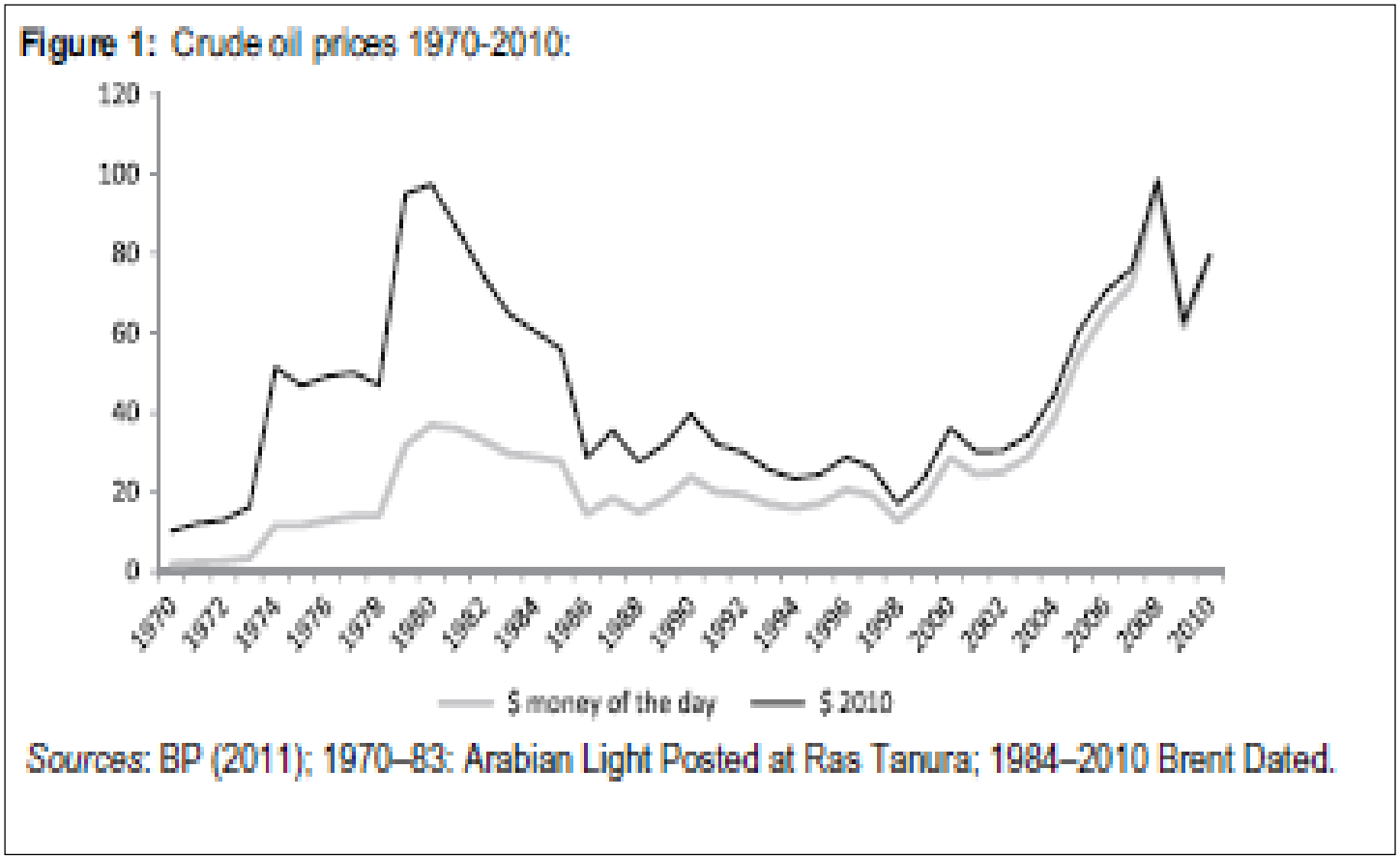
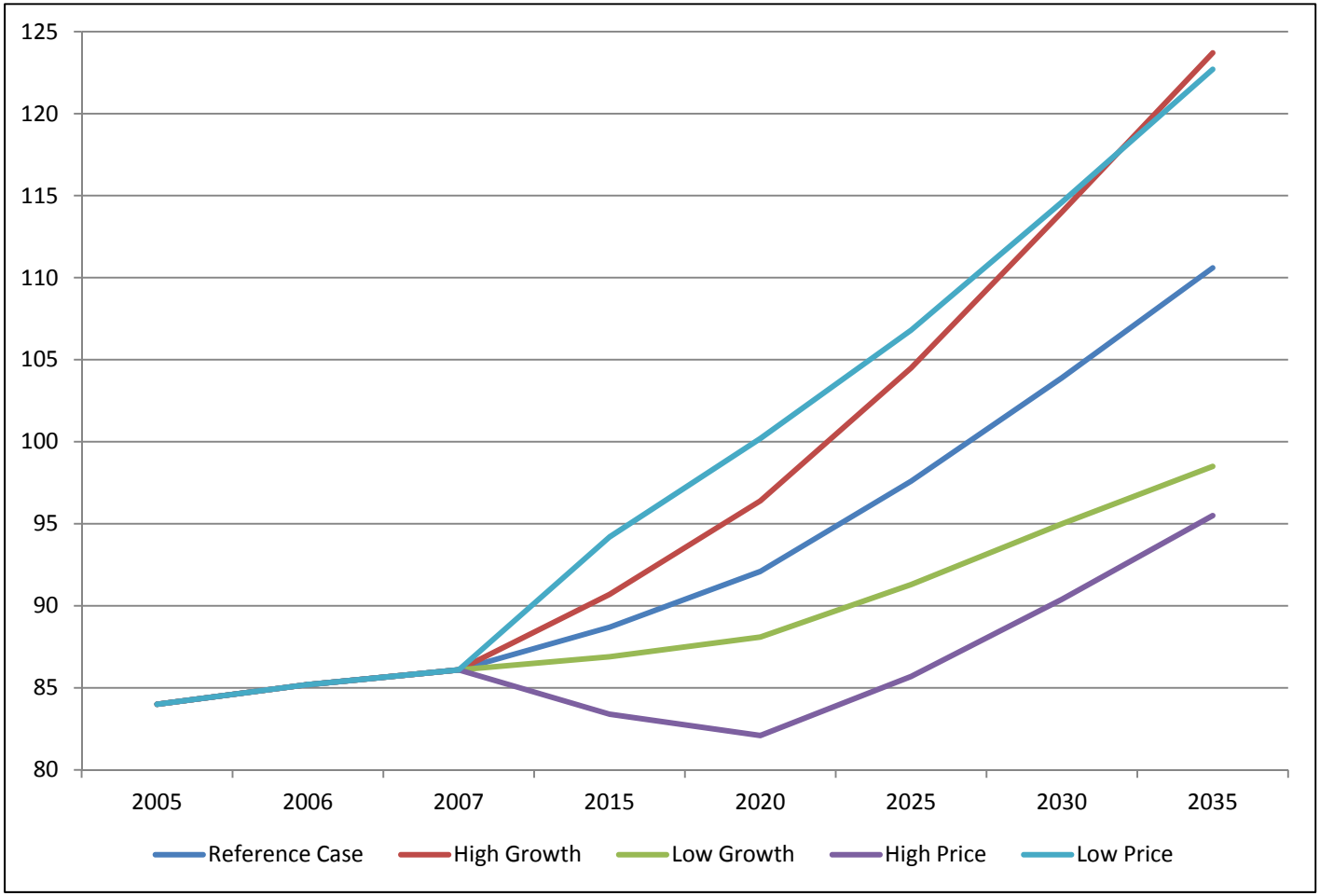
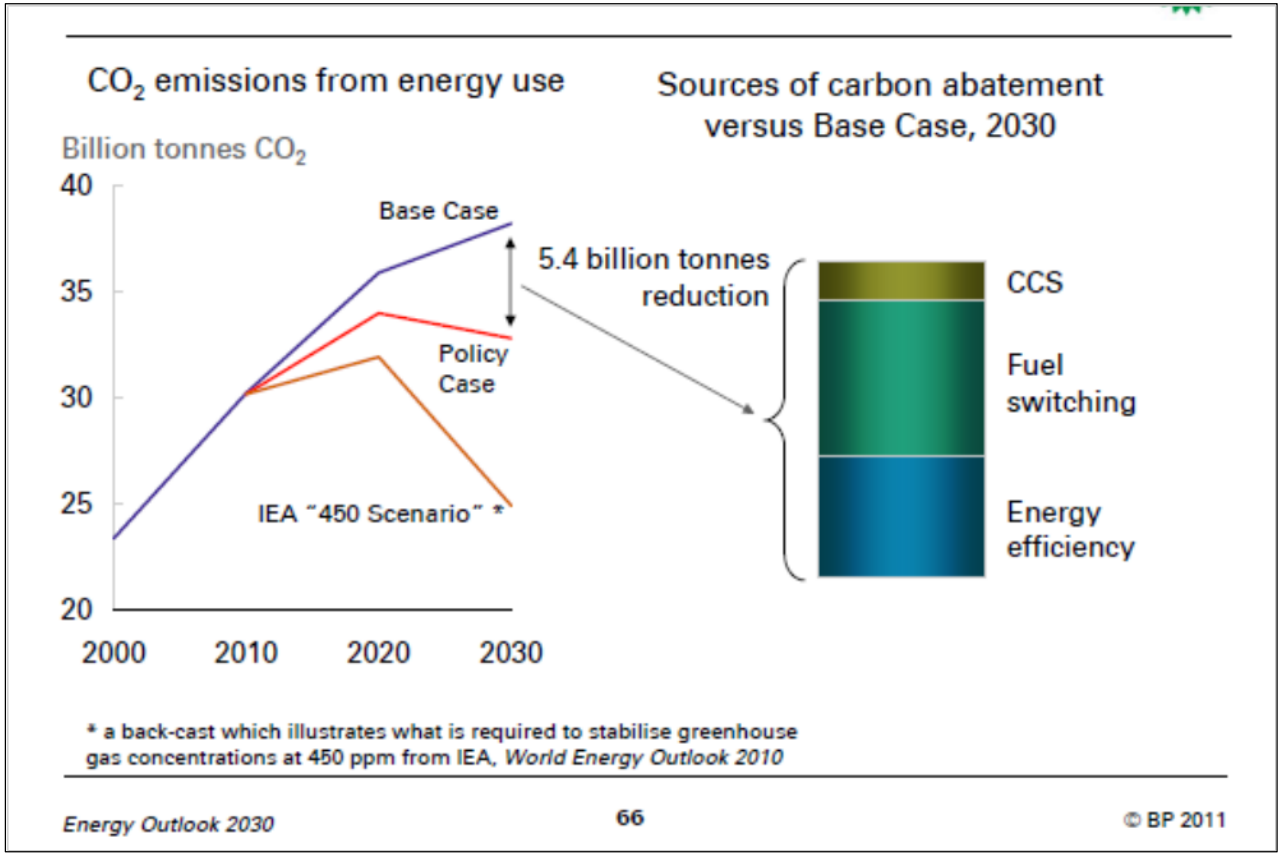


Chart 2. EIA energy scenarios



BP Energy scenarios to 2030 (BP 2011)

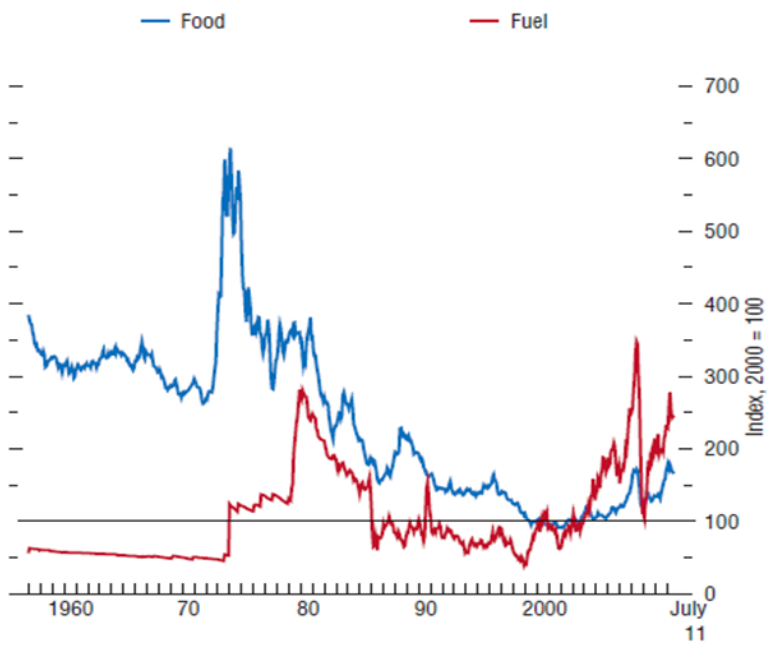


A longer-term view of oil and food prices. (Source: IMF WEO September 2011)

Figure 3.2. World Commodity Prices, 1957–2011

(In real terms, as deflated by U.S. consumer price index)

In a long-term historical context, 2000 was a low point for both food and fuel prices. Current fuel prices are at about historical highs (at least in real U.S. dollar terms), but food prices are at or below levels that prevailed before the mid–1990s.

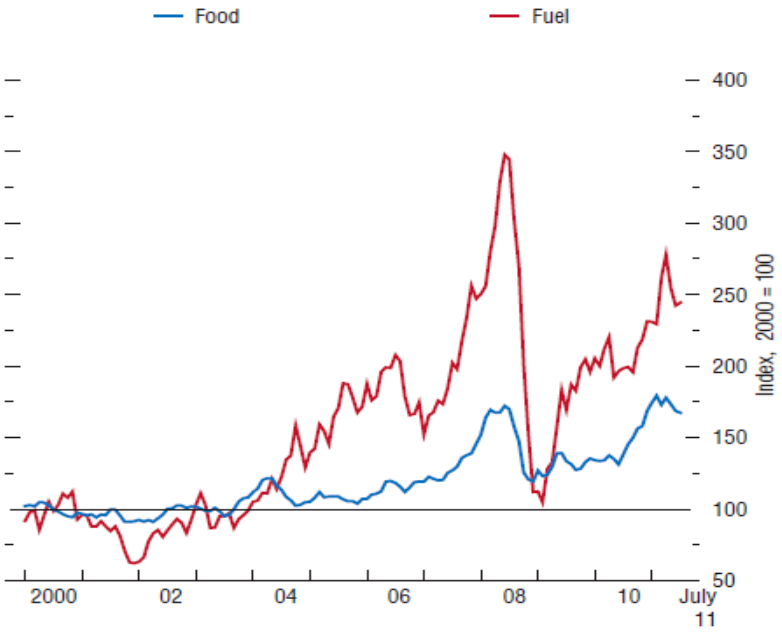


Sources: Haver Analytics; and IMF staff calculations.

Figure 3.1. World Commodity Prices, 2000–11

(In real terms, as deflated by U.S. consumer price index)

Food and fuel prices have risen dramatically since 2000. Food and fuel prices peaked in 2008 at levels 80 percent and 250 percent above the levels in 2000. Current prices are 75 percent and 150 percent above 2000 levels, and there are concerns that structural forces will push prices higher over coming years.



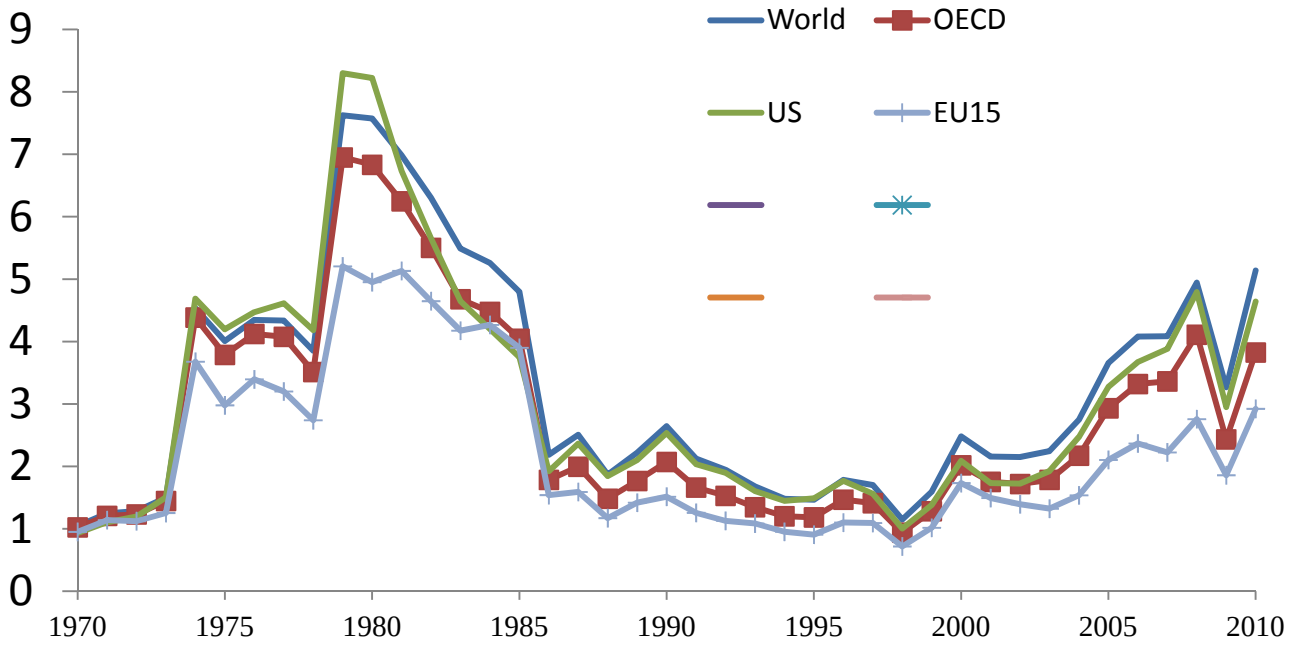
Sources: Haver Analytics; and IMF staff calculations.

Lessons from the last cycle: oil

- Rise to the peak in 2008 hard to explain
- A stable oil market?
    - OPEC band around 2001/2
    - Stabilising responses
    - Parallel shifts in futures curve during the price rise
- Absence of feedbacks
  - From supply, from demand, from policy, from the world economy
- Macroeconomic effects
    - Analysing an oil impact – like an indirect tax
    - Monetary policy. The Volcker shock in the 80s.
    - Offsetting policies –due to absence of second round effects
- It is different this time
    - No inflation in OECD but fiscal impacts all over the world (OECD and emerging countries)
    - Interest rates at lower bound. Fiscal crisis. = no offset

Chart 4. Expenditure on oil as percent of nominal GDP

- Good indicator of the size of oil price impacts
- Typical oil impact ~ 3% GDP. Recent rise and fall about 2% GDP
- Like an indirect tax change



Oil and the world economy. (Recap)

- Macroeconomic issues: why did oil price rises fail to shock in the last cycle?
  - Anticipated effect on inflation and growth failed to appear
- Lack of feedbacks?
  - Supply, demand, policy, global growth
  - No 'second round' effects on wages or inflation
  - Policy could be offsetting
  - Indirect tax analogy
  - 'Great recession' not due to oil
- But different this time …
  - Interest rates at lower bound:
  - fiscal consolidation in OECD.
  - What kind of adjustment in Asia?
  - Oil prices at $150 - 200 plus pose real risk to global growth.
  - Big hit to real incomes all over the world. Comes on top of fiscal consolidation in many countries.
- Worries over low growth have had little effect on oil prices so far. But this could change

Pricing and the market

- Speculation versus fundamentals
  - Big swings look like ‘indeterminacy’, not speculation in strict sense
- Indeterminacy and uncertainty
- Oil price swings and coordination
    - Focal points
    - Beauty contests (Keynes)
    - Coordination games
      - Market focuses on a few public signals, which swing about
- What would change the consensus?
    - China, India
    - World economy
    - Policy
    - Technology
- International coordination/dialogue?

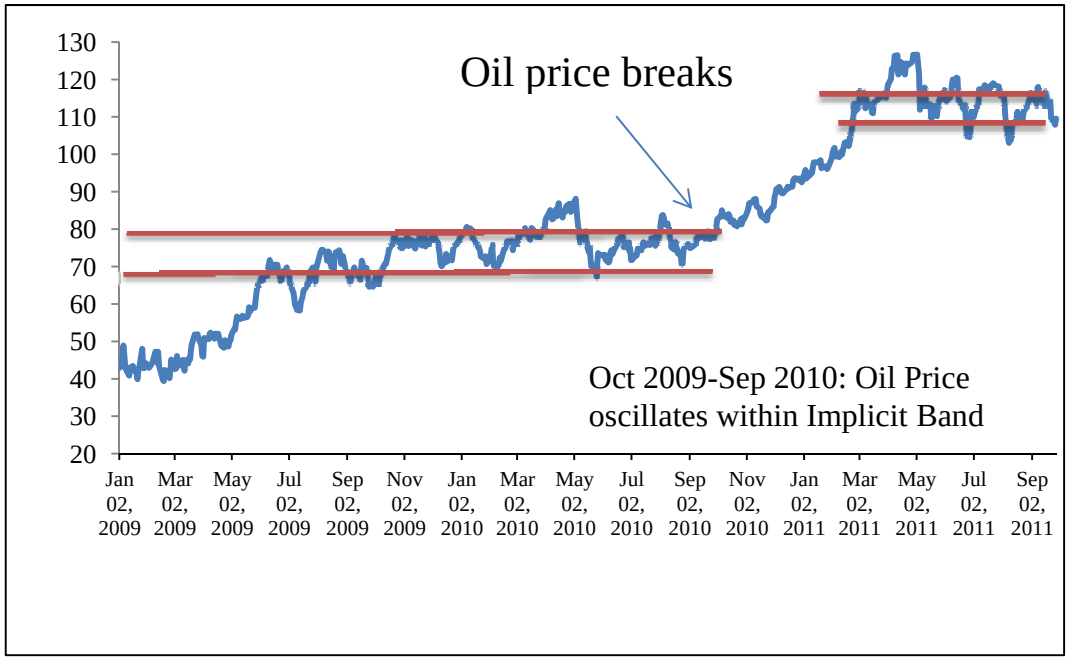
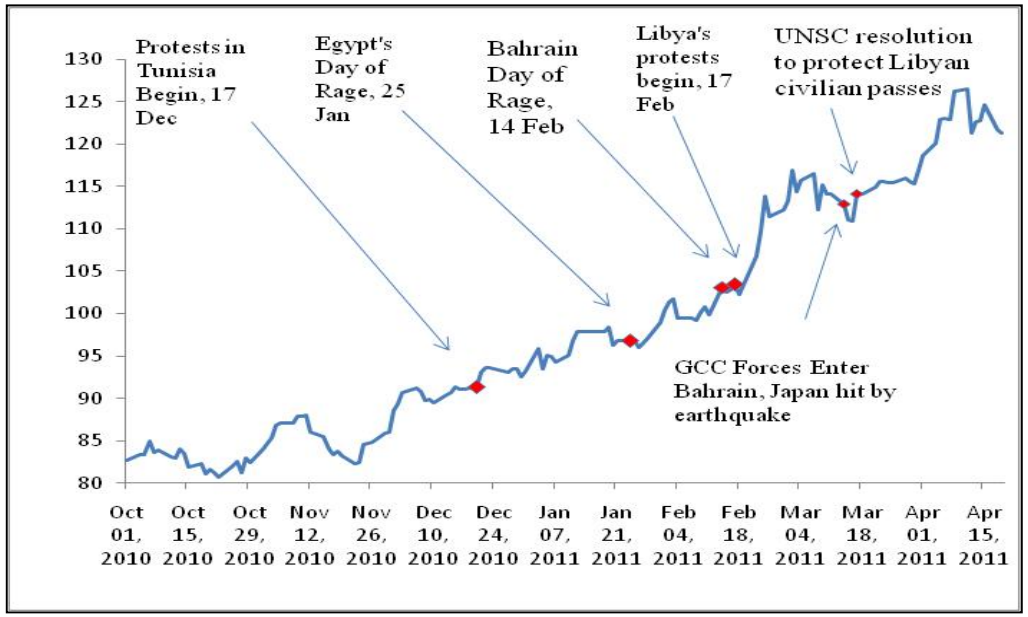
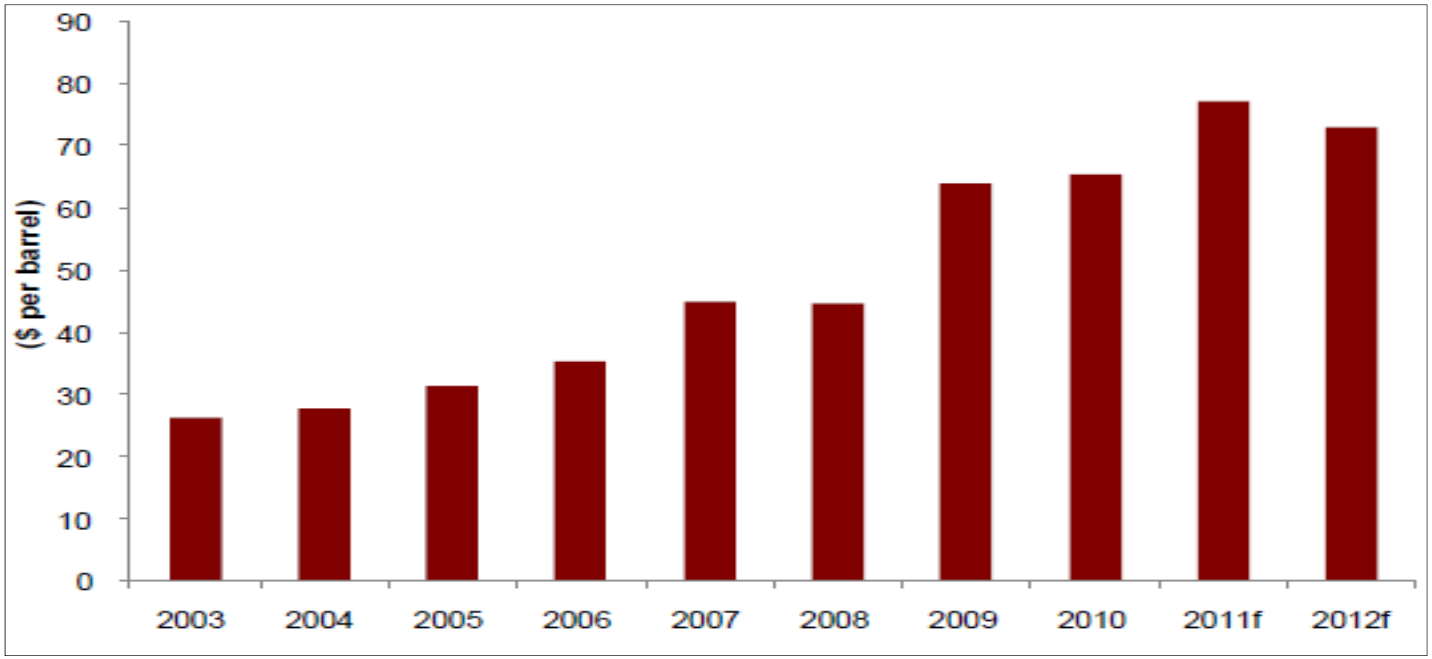


Chart 5. The Oil price breaks away from the implicit band. (Brent spot, $ per barrel)

Chart 6. Geopolitical events and the oil price (Brent spot, $ per barrel)



One story. Oil price to balance budget in Saudi Arabia



Source:Jadwah Investment

The world economy and oil prices. (Recap)

- The dominant ‘story’
  - Continuing growth in Asia and other non-OECD
  - Substitution against oil in transport very difficult/slow
  - Structural problems on the supply side
    - Decline rates, lack of investment, ‘peak oil’, geo politics
- But does the story explain oil prices?
  - Indeterminacy and the implicit band ($70- 80), Break out before the ‘Arab spring’.
  - Producer behaviour and market perceptions
- Could the story change?
  - Slowdown in world economy? Crisis in China, India?
  - Economic policy, politics: expect volatility
  - Substitution: there has been a major change in relative prices. What are the long run effects?
- What kind of policy could make a difference

Conclusions and some longer term issues

- Consensus forecasts for the world economy have been strong, but 'two speed'. This has supported oil prices. But large price changes
- Biggest risks were always
  - Premature fiscal consolidation (OECD)
  - Renewed financial strains (Eurozone)
- Both of these have become much greater recently – hence volatility
- Consensus still based on temporary slowdown and muddle through. But that could change very quickly. Eurozone crisis cannot be ruled out.
- Unlike last time, high oil (and food) prices are slowing the world economy.
- Longer term issues include
  - The disconnect between economic realist views of oil markets and the imperatives of the climate change agenda. Unresolved, but adding to intrinsic uncertainty. Peak oil or stranded oil? Made worse post Fukushima.
  - Potential conflicts between producers and consumers over economic rents.
  - Can emerging countries continue to grow fast with high oil and other energy prices?
  - The 'green paradox'

‘But what if stories themselves move markets? What if these stories of over-explanation have real effects? What if they themselves are a real part of how the economy functions? .. The stories no longer merely explain the facts; they are the facts.’ (*Akerlof and Shiller; Animal Spirits, p.54*)