

OPEC Behaviour through the Lenses of the Oil Price Cycle

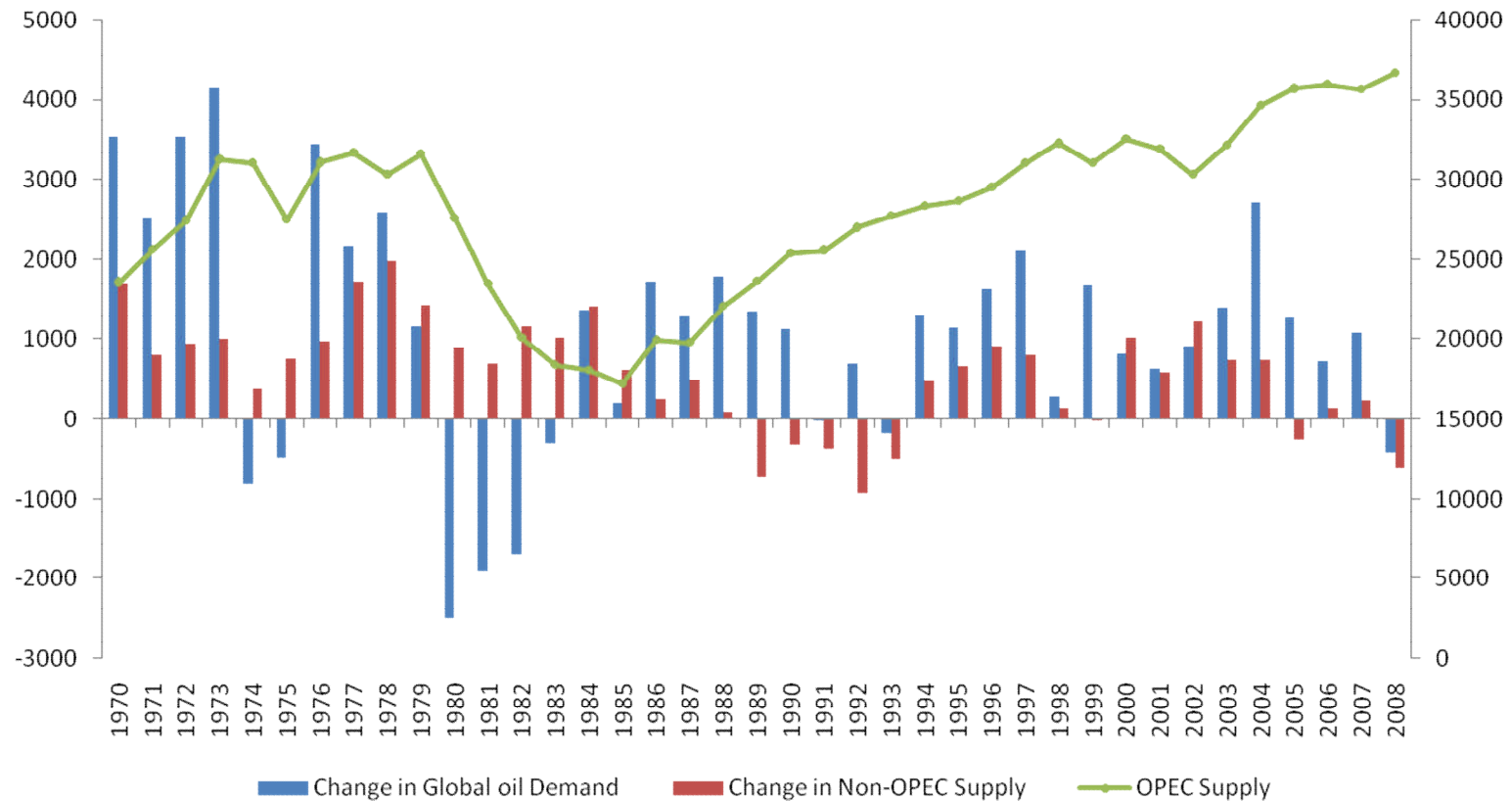
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21 September 2009
Prepared for the BIEE Seminar
Sustainable Energy: The Next Crisis

The Context

- Year-on-Year change in global oil demand exceeded total non-OPEC supply since 1986 (with very few exceptions)
- The demand-non-OPEC gap met by increasing OPEC supplies
 - During 1986-2008 OPEC increased its output by almost 19.5 mb/d (including NGLs)
 - Not from new investment but from existing spare capacity
- Gradual decline in spare capacity and upward pressure on oil prices
 - Sustained increase in average annual price

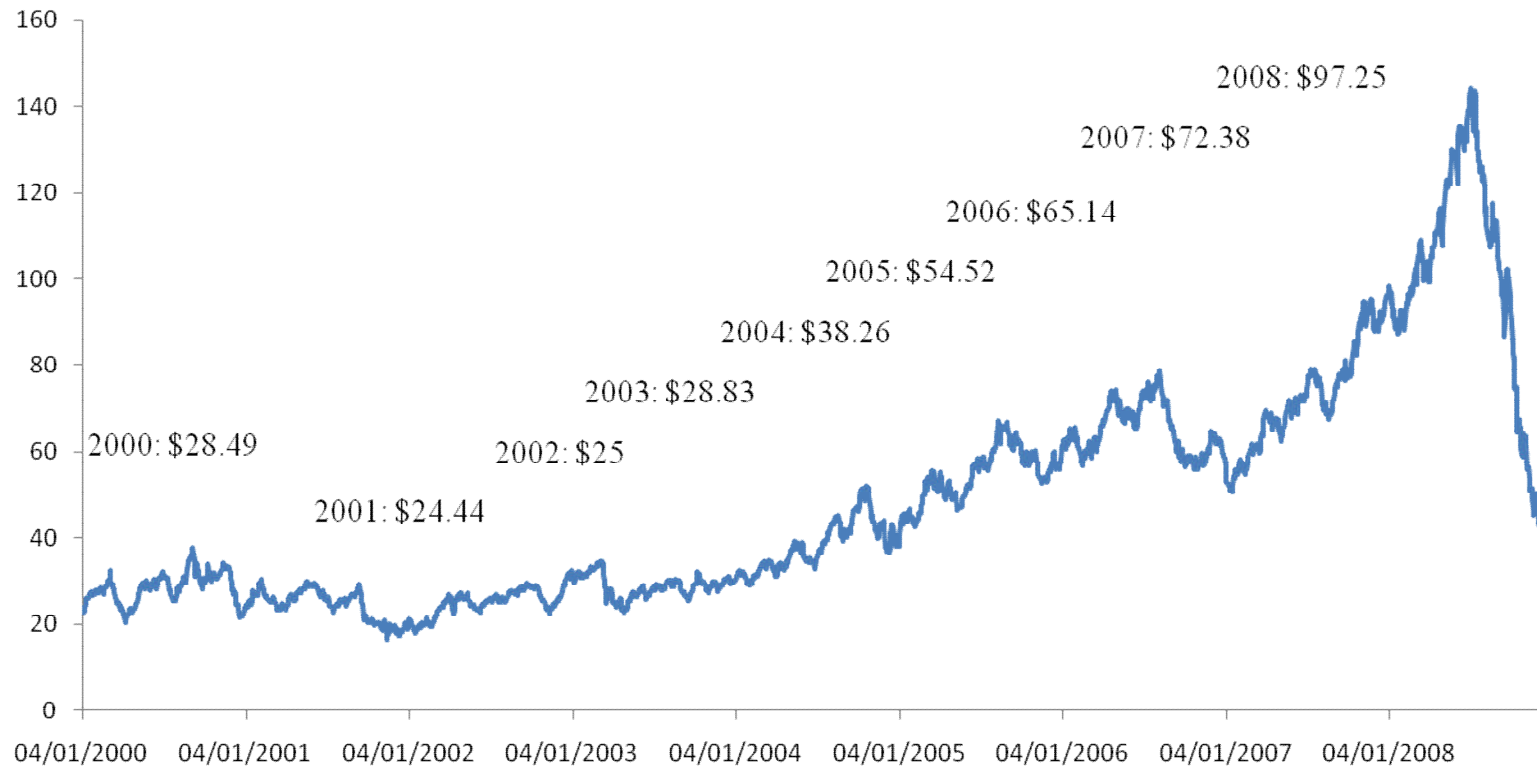
Global Demand and Supply Dynamics

Change in Global Oil Demand and Non-OPEC Supply and OPEC Total Supply



Sustained Increase in Crude Oil Prices

Dated Brent: US\$/Barrel



Source: BP

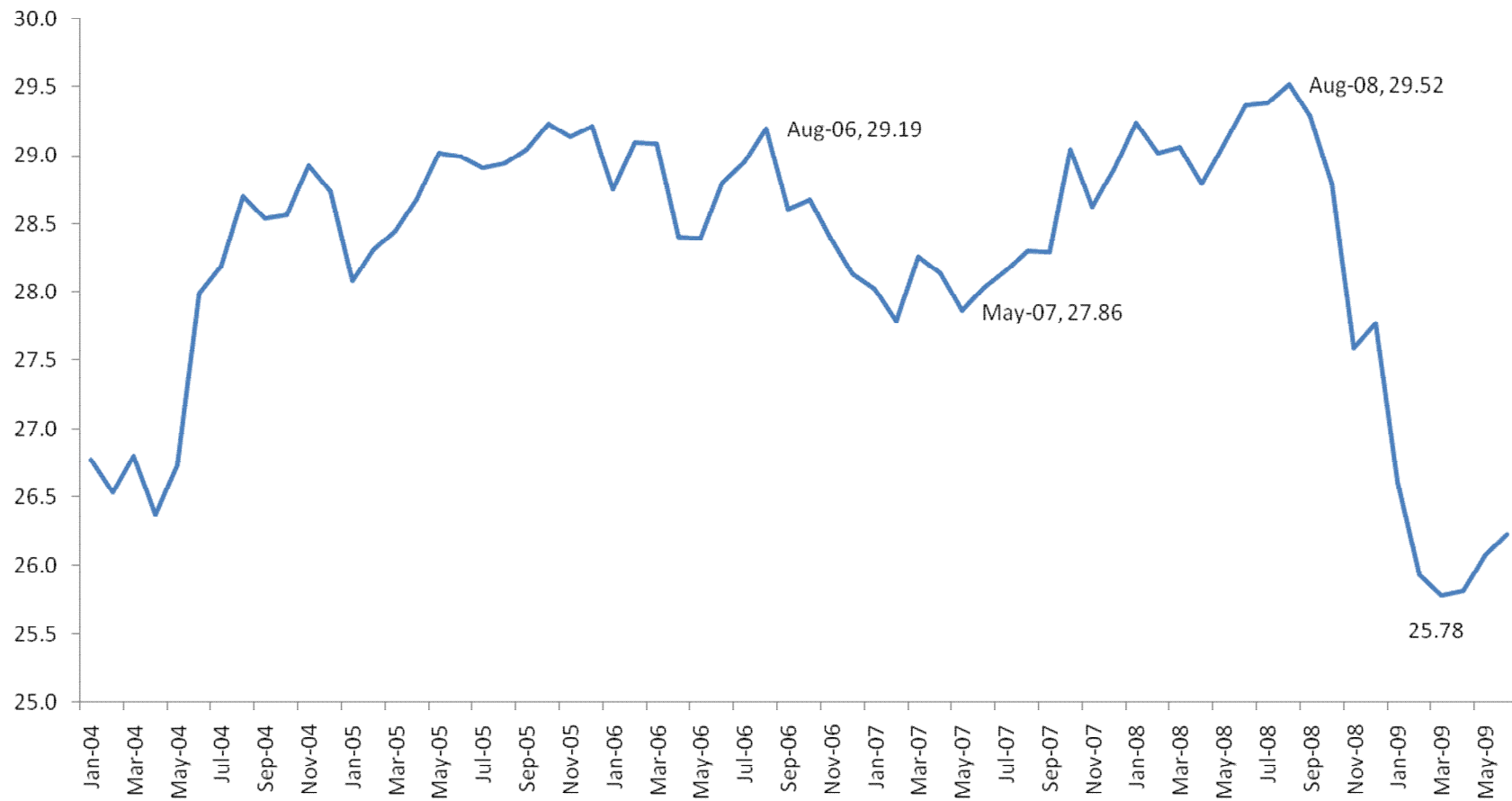
Notes: Annual Average

OPEC Cycles

- Think of OPEC behaviour in terms of cycles
 - 2003- 2006: Increase supply to meet the ‘unexpected’ rise on its demand at market determined prices
 - 2007: Concerns about the rapid accumulation of inventories
 - Cut production in 2007 despite rise in global demand in 2007
 - Oil importing countries tap into their oil stocks and inventories decline
 - Spot price rose and shape of futures curve changed from partial contango into backwardation and no incentive to accumulate inventories
 - First half of 2008
 - Passive approach: Willing to supply the market at ‘market-determined’ price
 - No attempt to bring down prices by auctioning spare capacity or offering discounts for refineries to lift its heavy sour crude
 - Despite decline in oil demand excess supplies did not appear because OPEC passively adjusted its output in line with the demand for its oil
 - July 2008: Saudi Arabia concerned about the rapid rise in oil price
 - Put more supplies into a weak market
 - Third quarter of 2008
 - Implement large cuts to put a floor on the oil price
- Asymmetry in Response

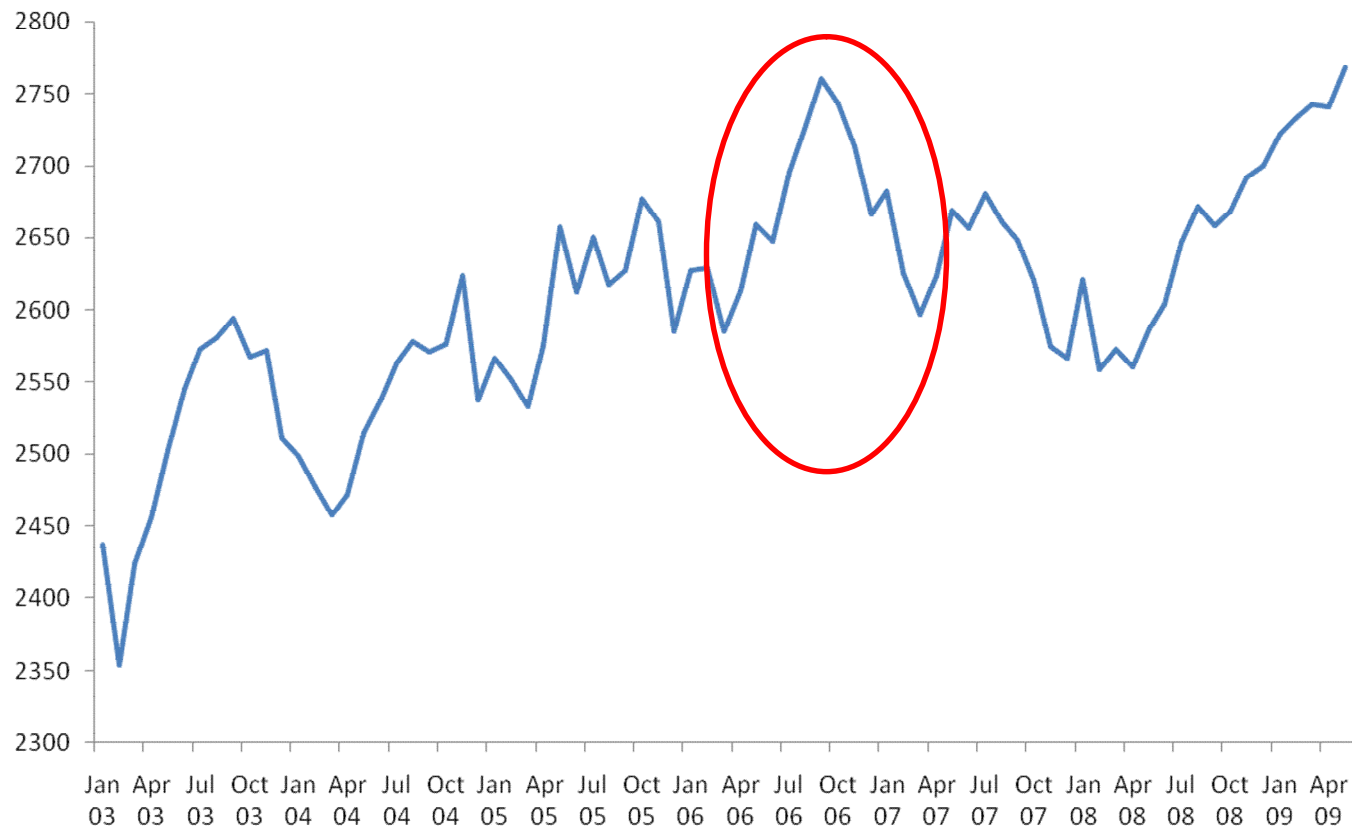
OPEC Supply: 2004-2009

OPEC 11 Supply (million barrels per day)



Tackling Rise in Inventories

OECD Crude Oil and Products Stocks (million barrels)



Source: IEA

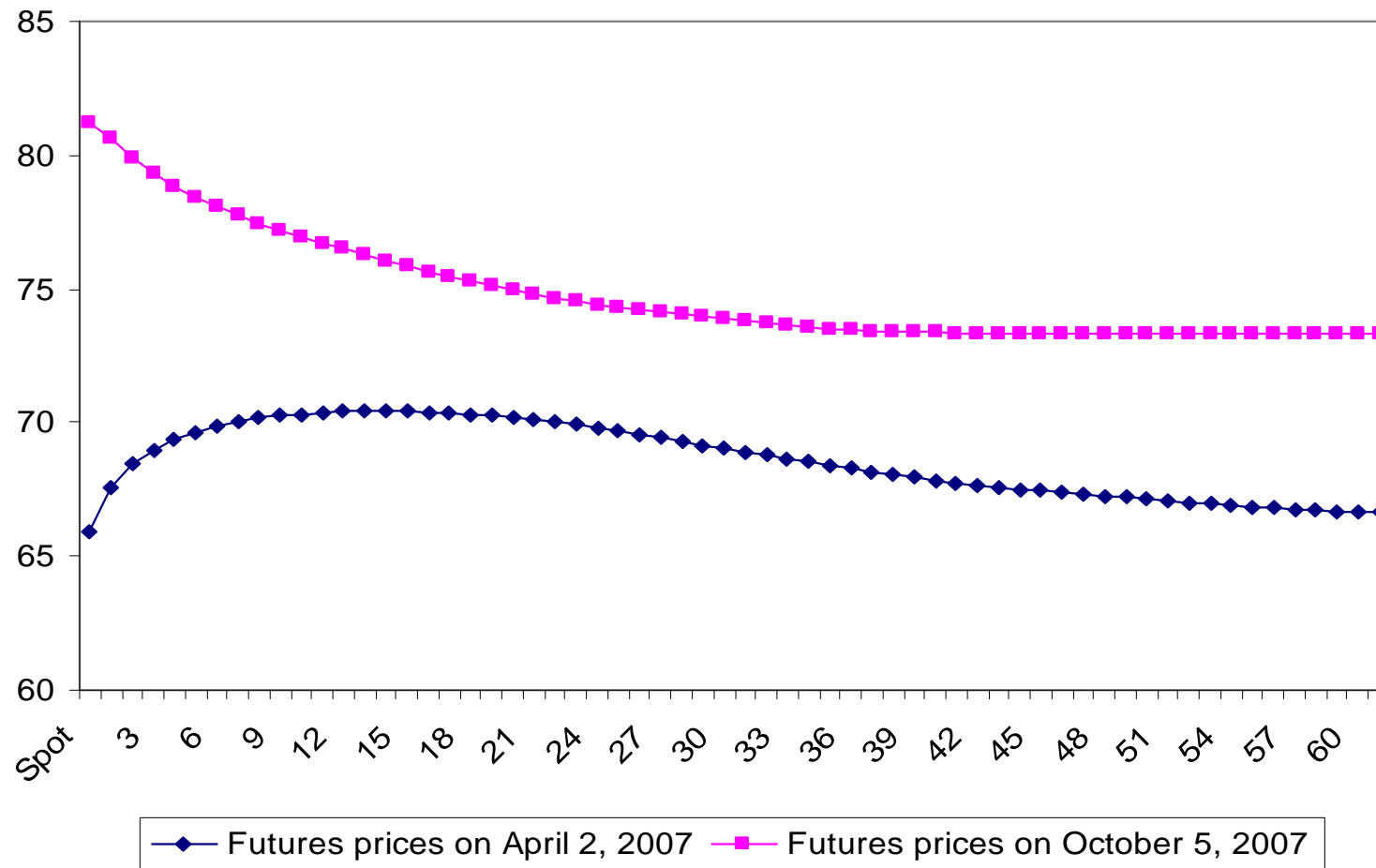
OPEC Cuts Supplies

Change 2007



Source: BP

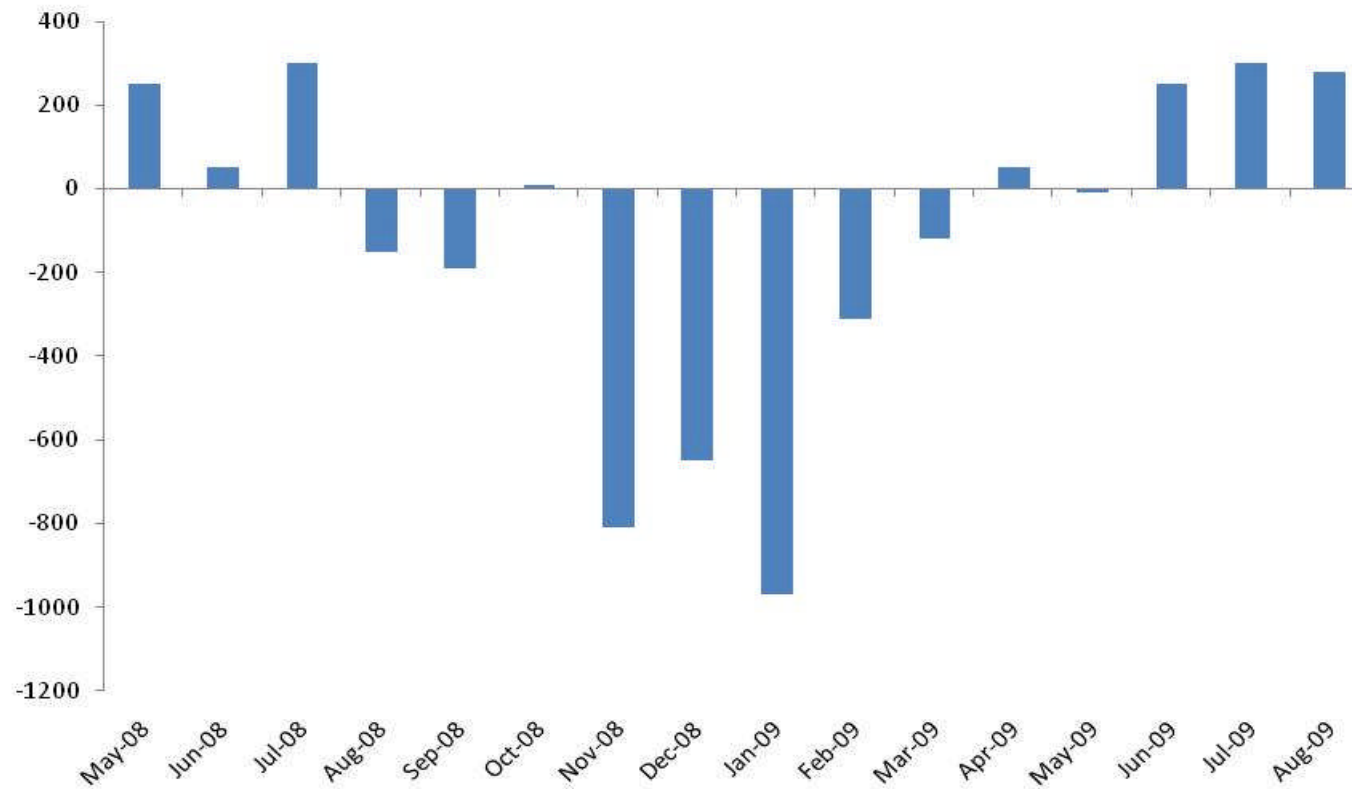
Change in Shape of Curve



Source: IMF, World Economic Outlook: Globalization and Inequality, October 2007, Figure 1.9

OPEC Cuts

Year-on-Year Change in OPEC Supply (minus Iraq)



Asymmetry in OPEC Response

In a Falling Market

Objective

Defend oil prices from falling below some level deemed unacceptable

Mechanism

Impose quotas and implement output cuts

Issues

- ☐ How would the market respond to announcement of cuts?
- ☐ Will OPEC be able to implement the cut?
- ☐ No different this time

In Rising Market

Objective:

- ☐ Increase output in response to customers' demand at market determined prices
- ☐ Consider itself as price taker
- ☐ Not to impose a ceiling on oil prices

Mechanism

- ☐ No mechanism exists
- ☐ OPEC does not offer discounts or auction spare capacity to bring prices down

Issues

- ☐ Internal and external political constraints
- ☐ Learning process about impact of oil price shocks on growth

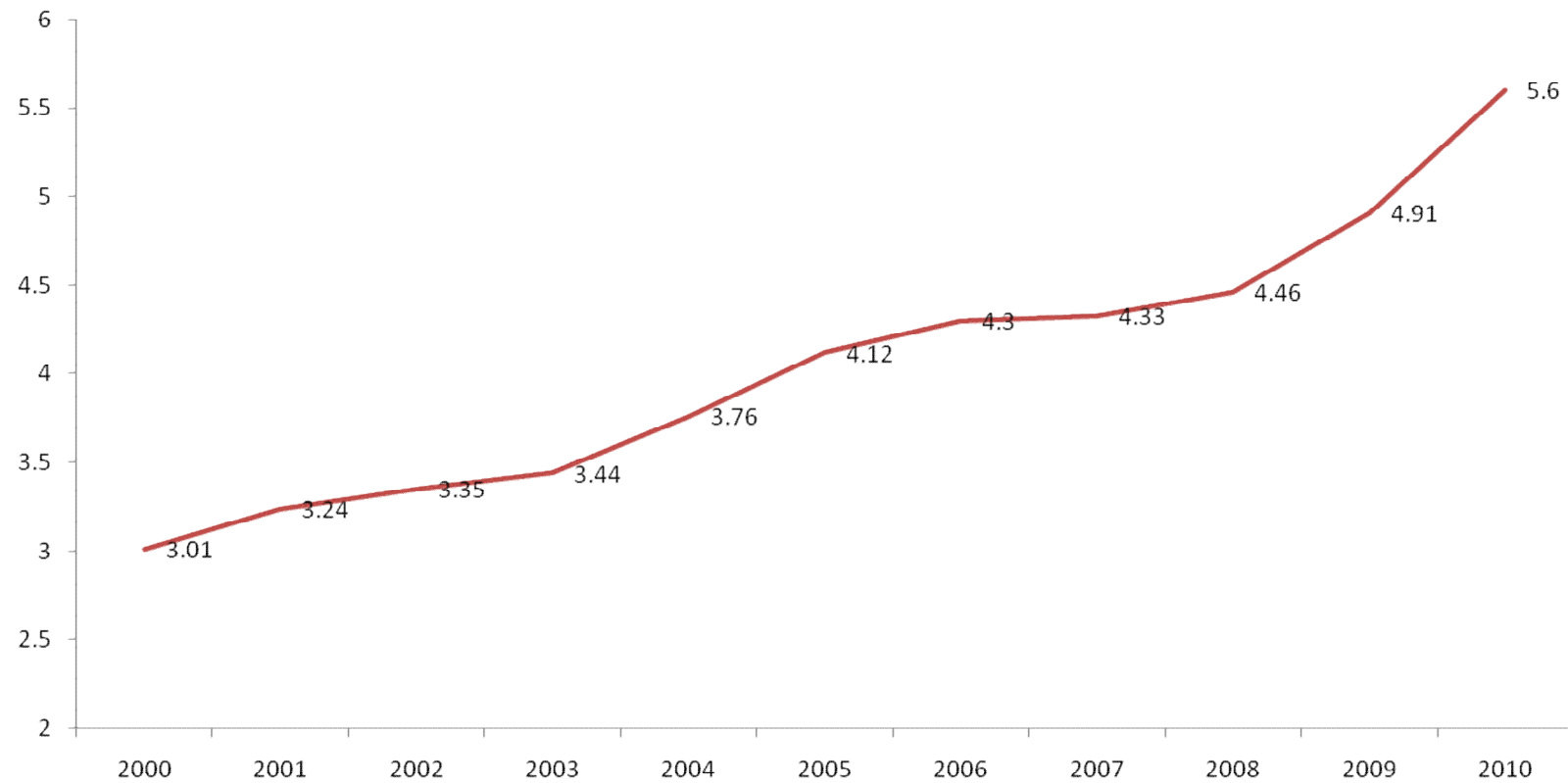
Lack of response from OPEC when prices rising affects short-term and long-term expectations

Looking Ahead

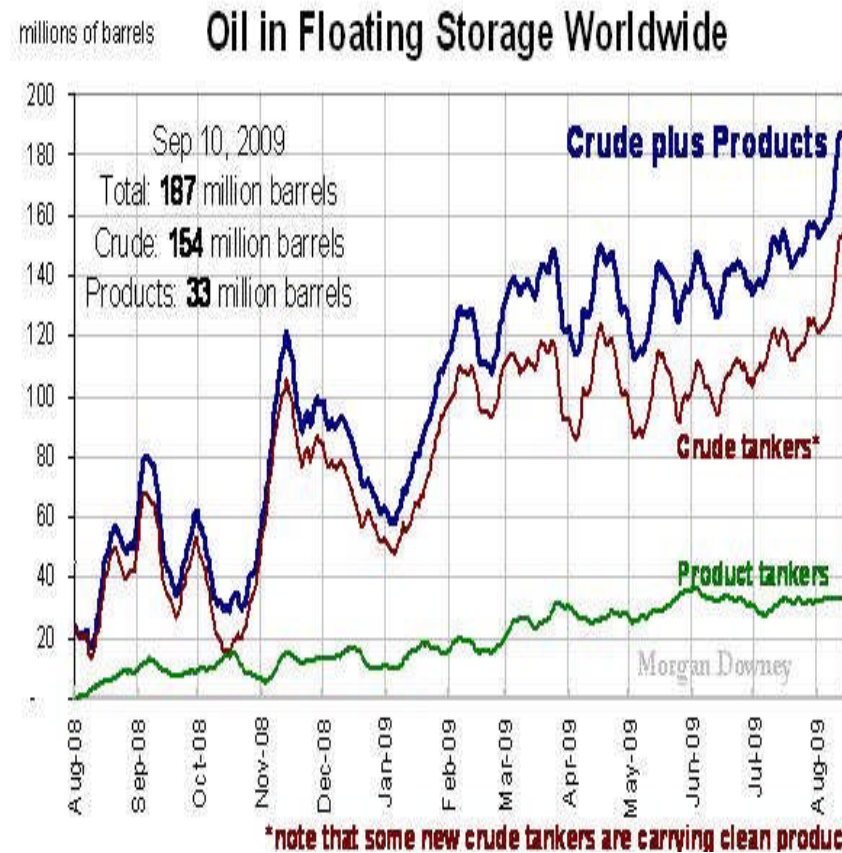
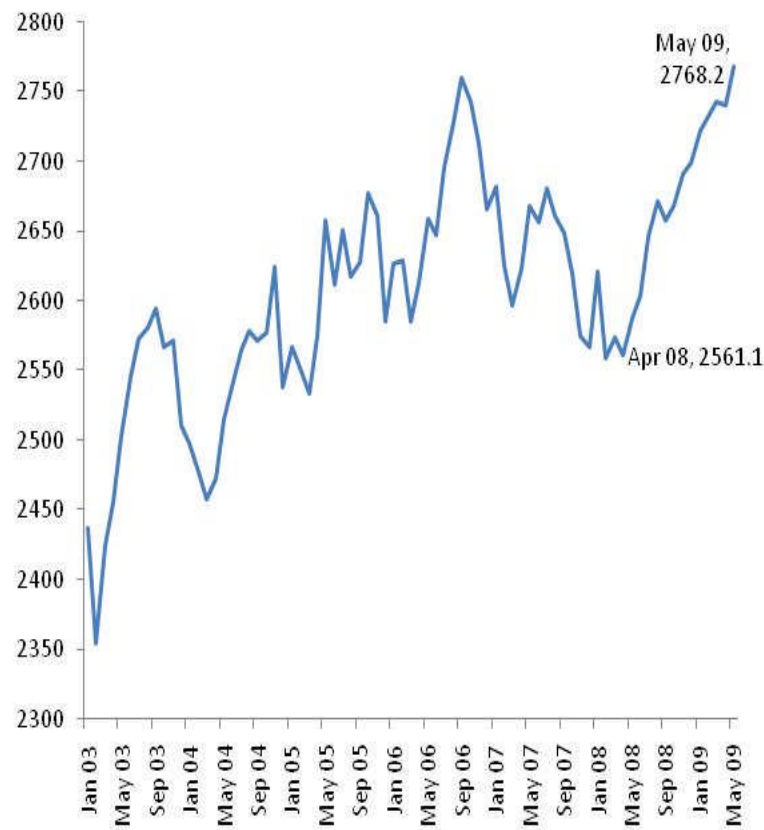
- [The Liquid dimension](#)
- [The inventory dimension](#)
 - Disconnect between stocks and oil prices
 - Currently not a serious concern
- [The spare capacity dimension](#)
 - Puts OPEC in the driving seat for the next few years
- The asymmetry dimension
 - Constant: OPEC attempts to put floor on oil price
 - Big uncertainty: Will OPEC respond this time differently to a spike in oil price? ??
 - “We will bring it down. With all the spare capacity we can do it.”
 - Contain price spirals “is the biggest challenge...it's very difficult. There are too many players in the market. It's impossible with so many players.”
- The convergence dimension
 - Convergence of views between OPEC and oil importers on where prices should be?
 - How long will this last?

OPEC: The Liquid Dimension

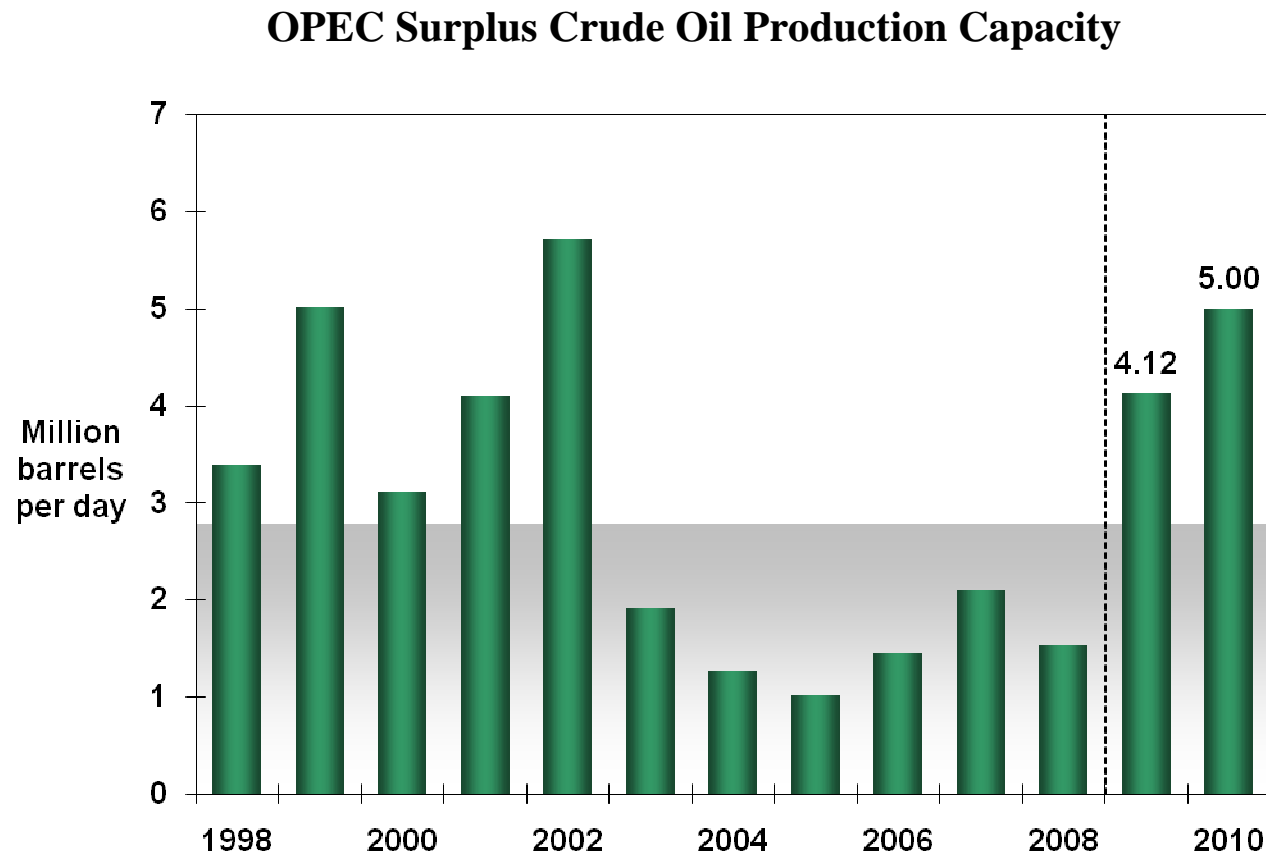
Total OPEC Other Liquids (mb/d)



Increase in Inventory



Increase in OPEC Surplus Capacity



Notes: Shaded area represents the 1998-2008 average: (2.8 mb/d)

Source: EIA, Short Term Energy Outlook, August 2009