OPEC Behaviour through the Lenses of the Oil Price Cycle

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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

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

Oil in Floating Storage Worldwide

- Sep 10, 2008
- Total: 187 million barrels
- Crude: 154 million barrels
- Products: 33 million barrels

- Crude plus Products
- Crude tankers
- Product tankers

*note that some new crude tankers are carrying clean products.*
Increase in OPEC Surplus Capacity

OPEC Surplus Crude Oil Production Capacity

Notes: Shaded area represents the 1998-2008 average: (2.8 mb/d)
Source: EIA, Short Term Energy Outlook, August 2009