Prospects for oil prices

Professor Paul Stevens
Centre for Energy, Petroleum and Mineral Law and Policy
University of Dundee
Scotland

Scottish Oil Club
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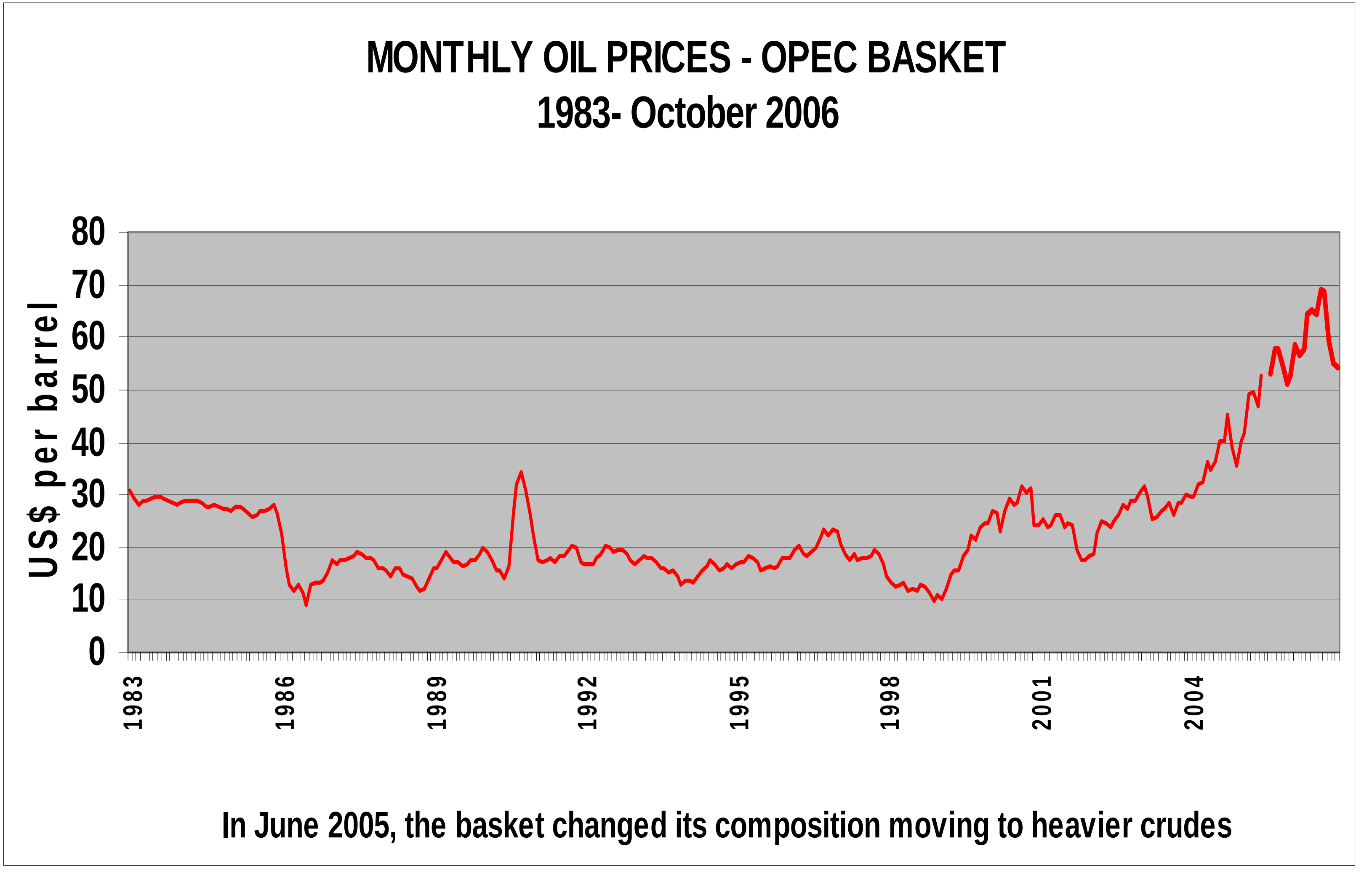
PRESENTATION OUTLINE

- **Why is the oil price currently high?**
- **What are the short term prospects?**
- **What are the medium term prospects?**
- **What are the long term prospects?**

Why are oil prices currently high?



IN 2004 DOLLARS THE PRICE IN 1980 AVERAGED $87.65 (Brent)

Why are oil prices high?

Unexpected demand increase

driven by exceptional GDP growth

plus constrained supply

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Unexpected demand increase

driven by exceptional GDP growth

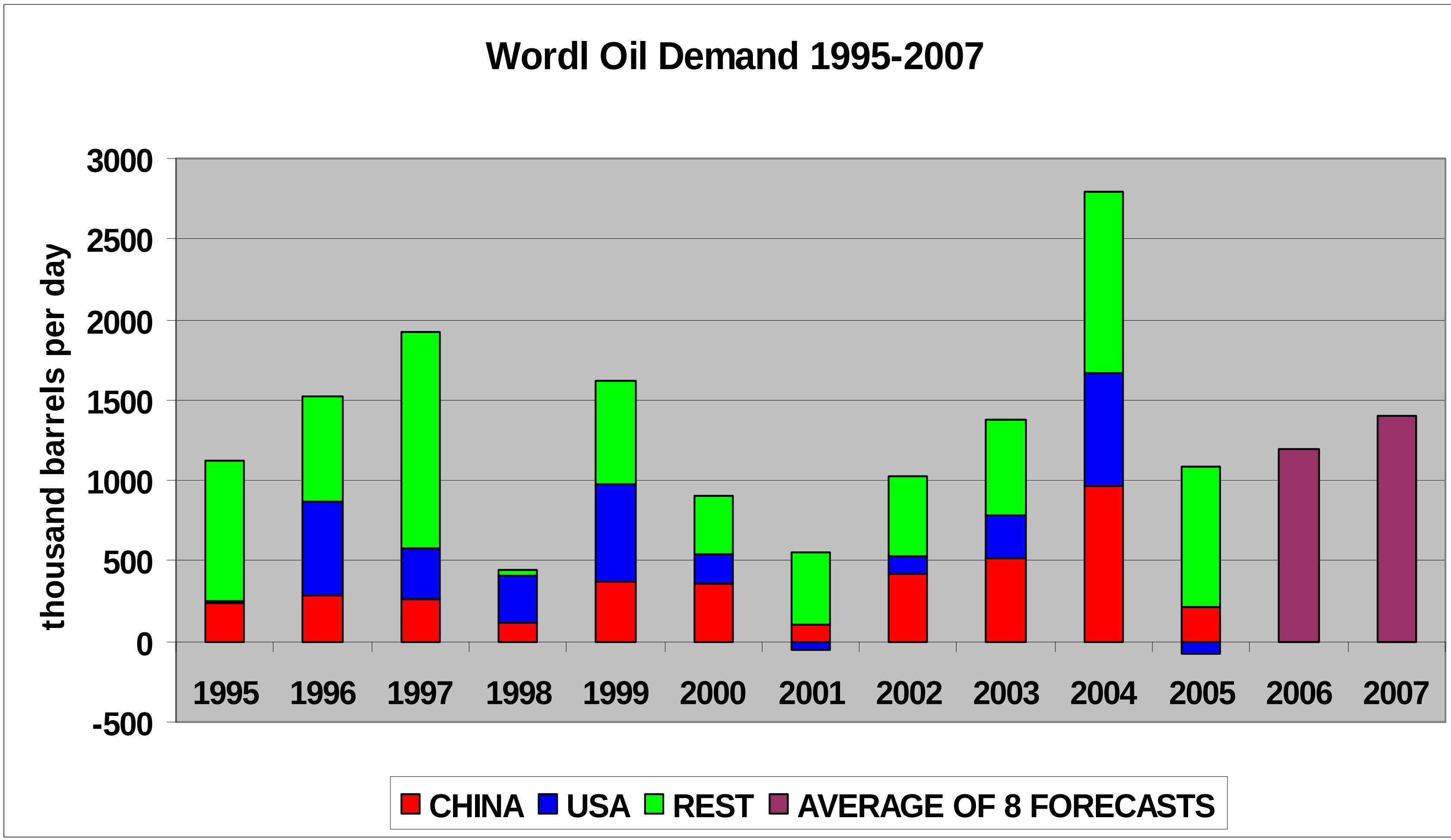
plus constrained supply

BUT it is not only China who got greedy. There is another culprit ??


Connecticut
Welcomes You
Birthplace of
George W. Bush
We Apologize.

Unexpected demand increase driven by exceptional GDP

1996-2004 total growth in demand China 3.4 Mbd USA 3.0 Mbd



Source: 1995 – 2005 BP Statistical Review of World Energy 2006

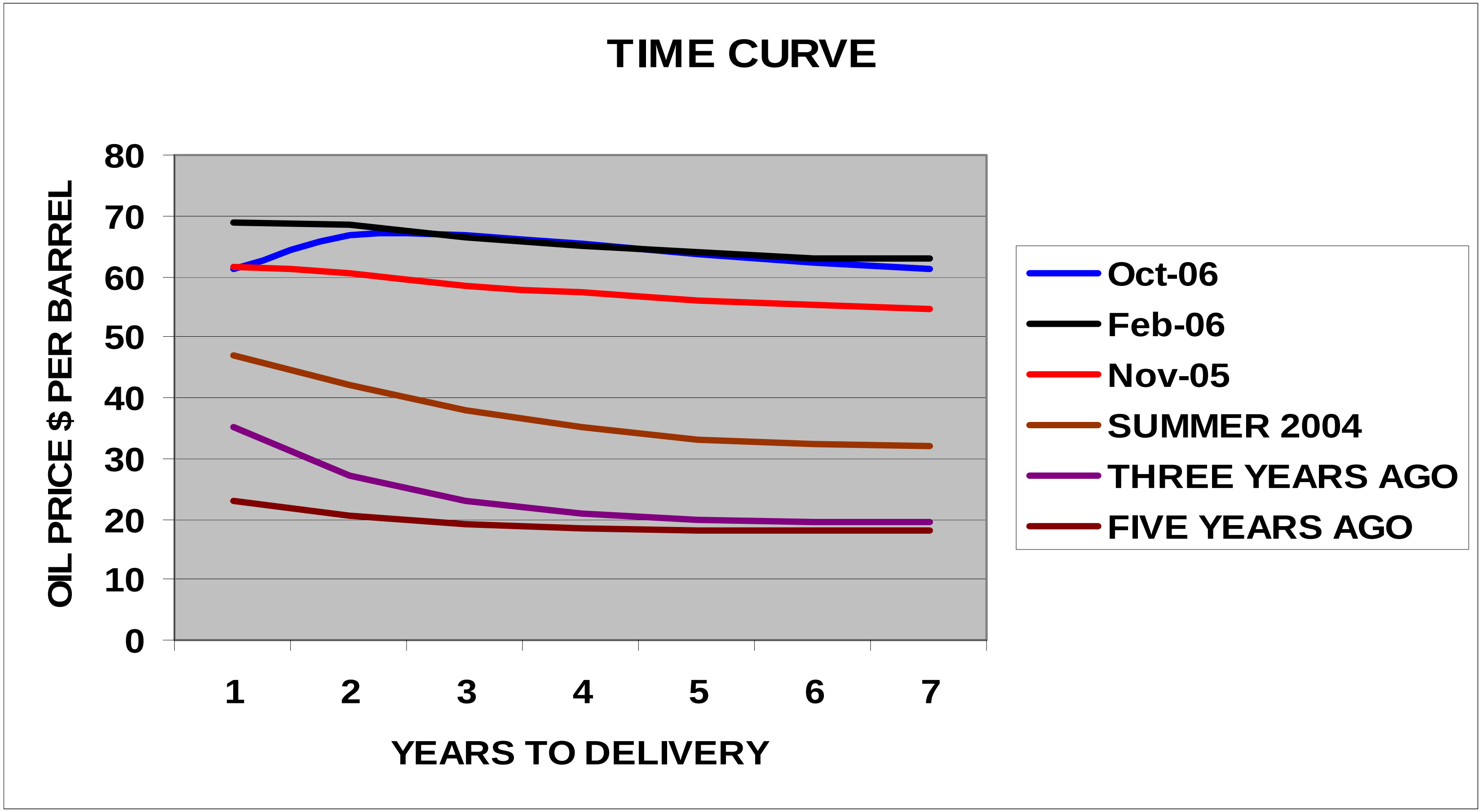
Unexpected demand increase driven by exceptional GDP growth plus constrained supply

In addition to increased demand for wet barrels there is also an increase in demand for paper barrels

-Speculation from concern about geo-politics and the “Money Managers” moving into commodities

-But there is a real change in the market attitude to the future of oil prices reflected in the forward curve

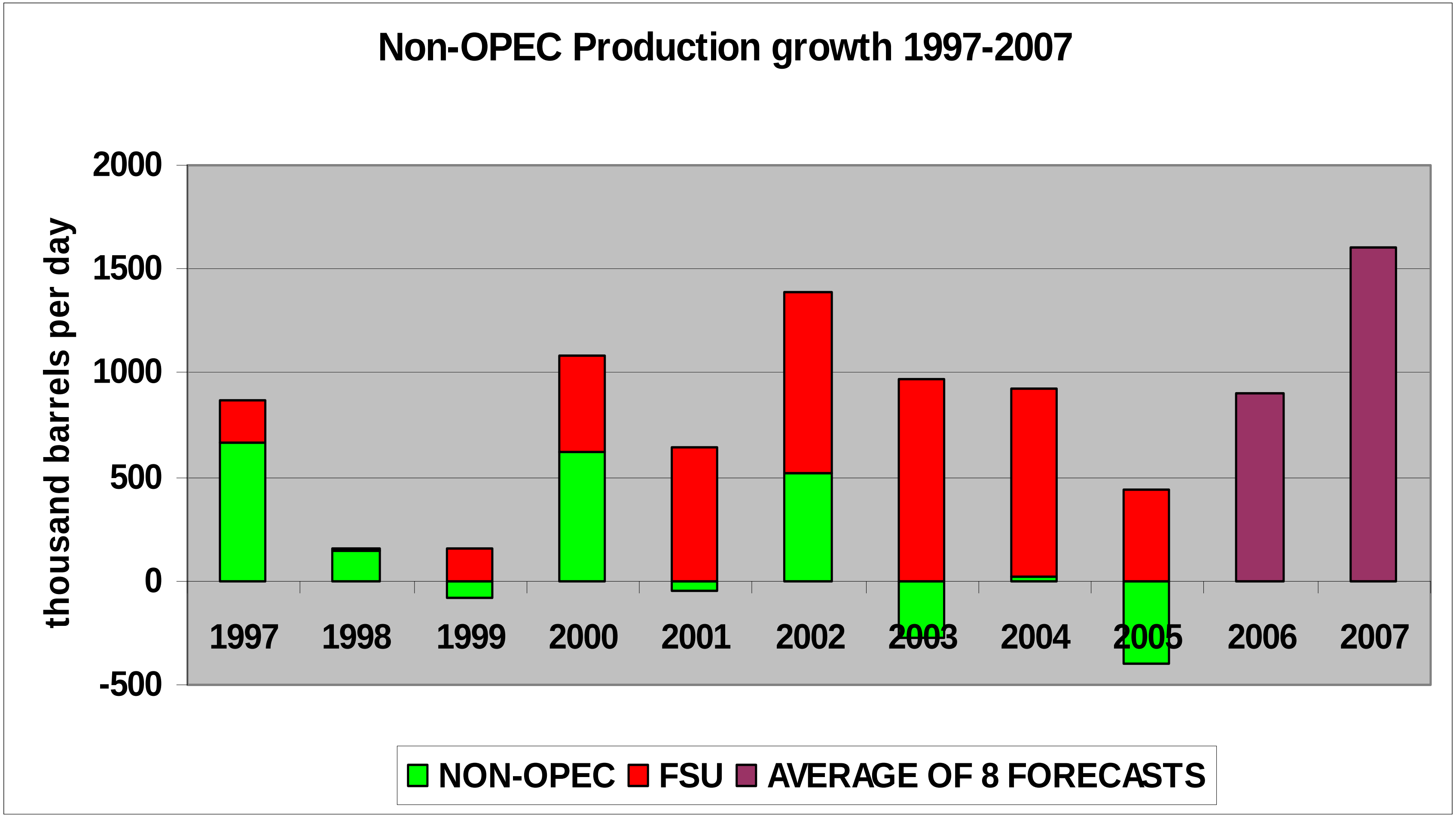
Change in the market attitude to futures prices. Driven by ….



Source: NYMEX

Unexpected demand increase plus constrained supply

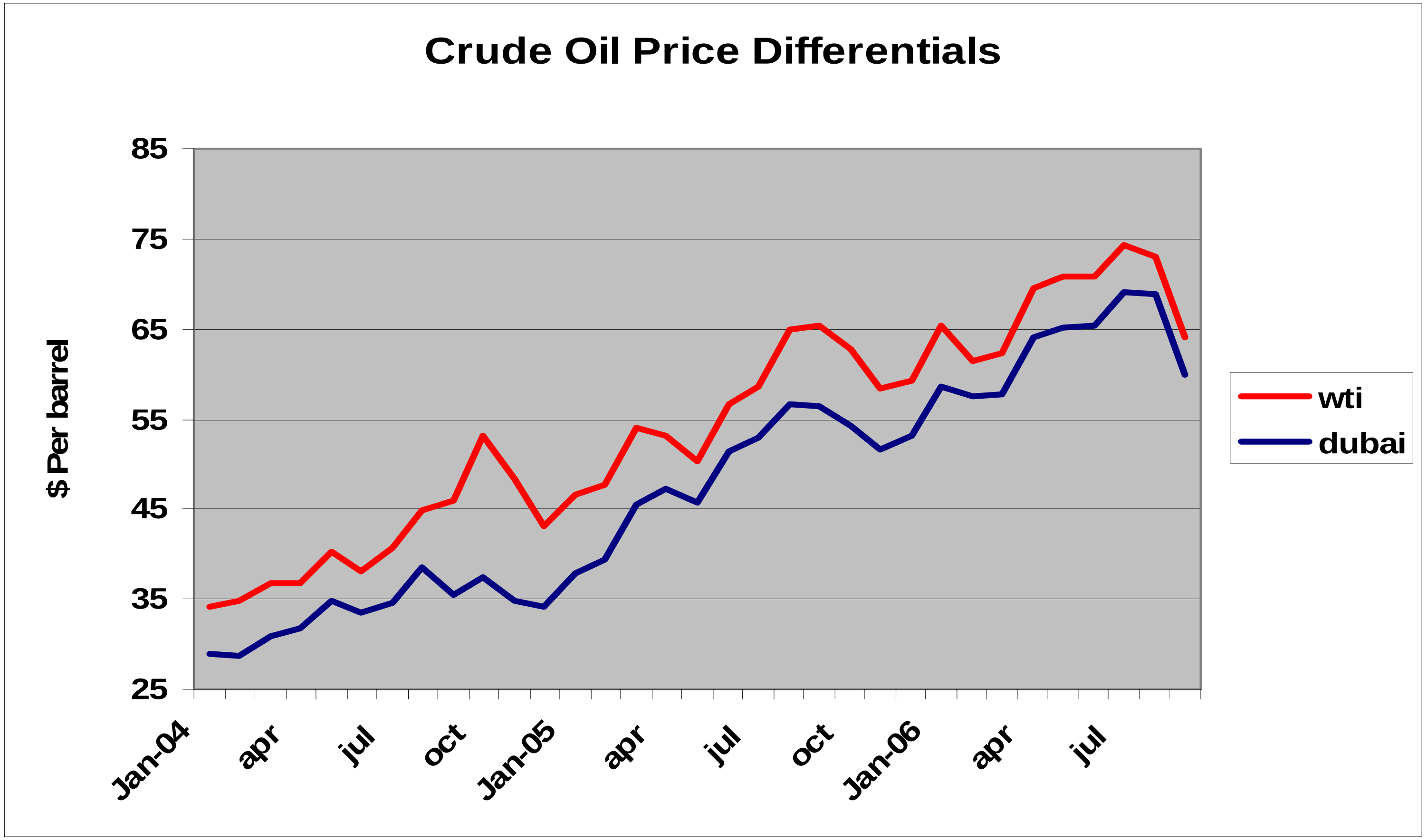
Supply constrained by geo-politics, hurricanes plus delays to Non-Opec projects



Source: 1997-2005 BP Statistical Review of World Energy 2006

<u>AND</u> there are <u>refinery constraints</u> increasing the price of light sweet crude

<u>REMEMBER</u> light-sweet crude provides the headline price – WTI/Nymex and Brent/ICE



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What are the short term prospects?

- Current inventory overhang
  - Role of the near term contango
  - What is OPEC's price target and can they defend it?

- Immediate downside risks
  - Demand collapse

- Immediate upside risks
  - Sudden supply loss – Iran (plus Iraq); Nigeria; …..
  - Geo-politics and paper markets

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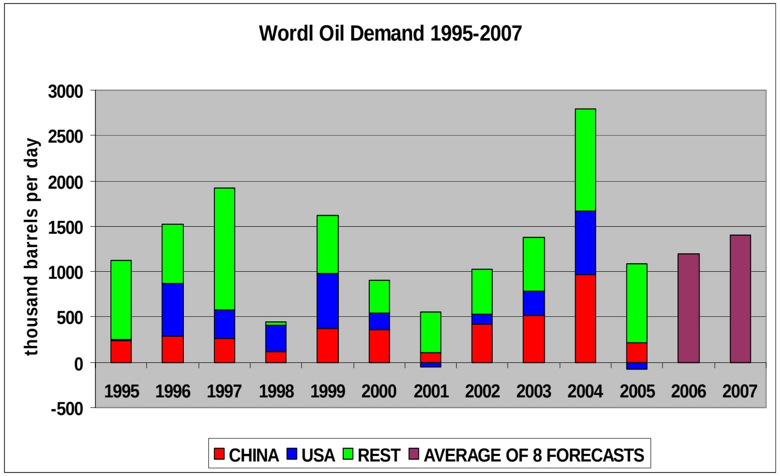
What are the medium term prospects?

In the past high oil prices resulted in …

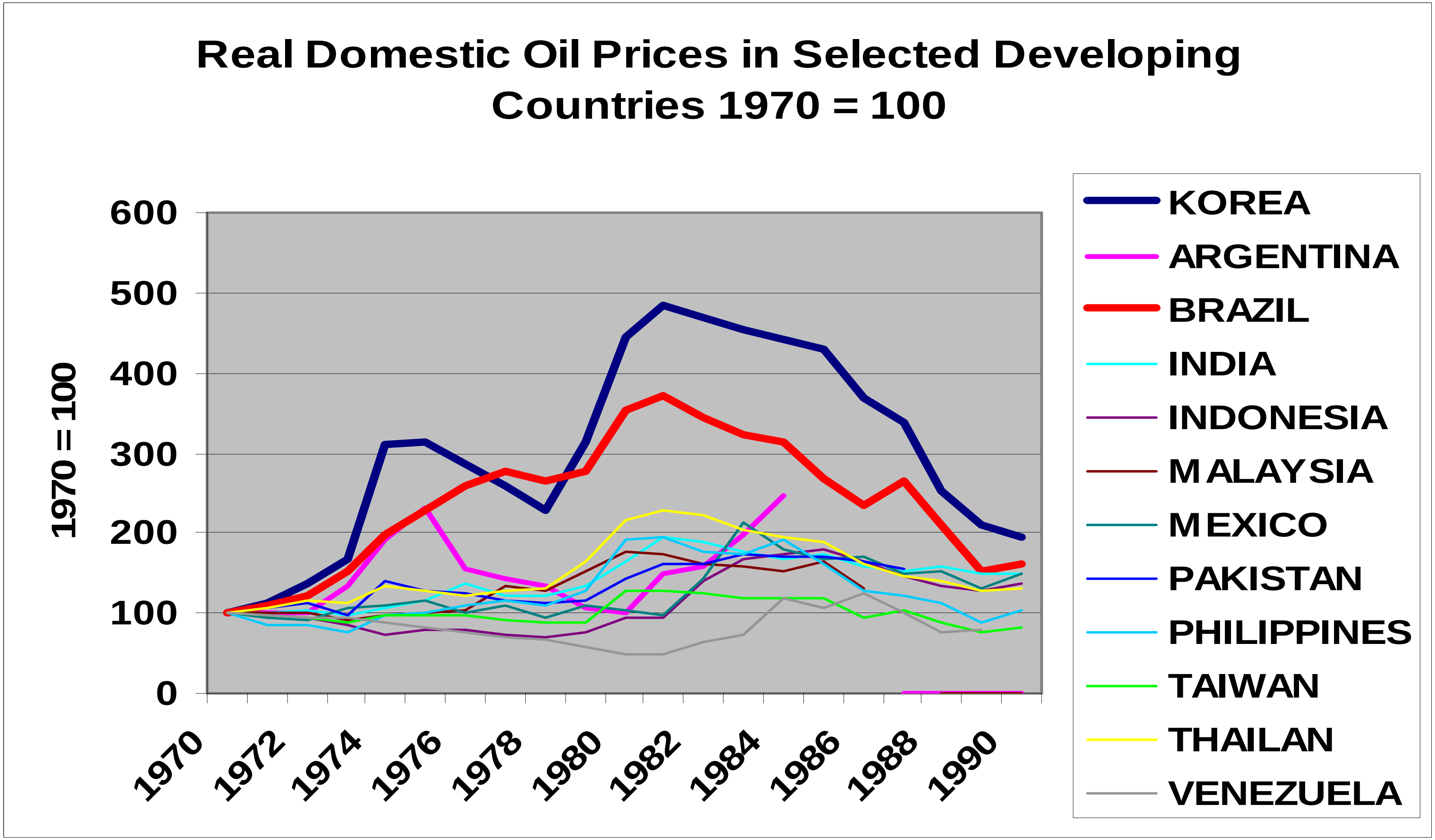
- **Recession reduced demand**
- **Improved appliance efficiency and fuel switching reduced demand**
- **Increased supply because of greater ability and willingness to invest by producers**
- **Thus less consumption plus greater supply = oversupplied market and prices fall – <u>Markets work! But in the new world????</u>**

BUT IN THE NEW WORLD: Doubts over demand destruction?



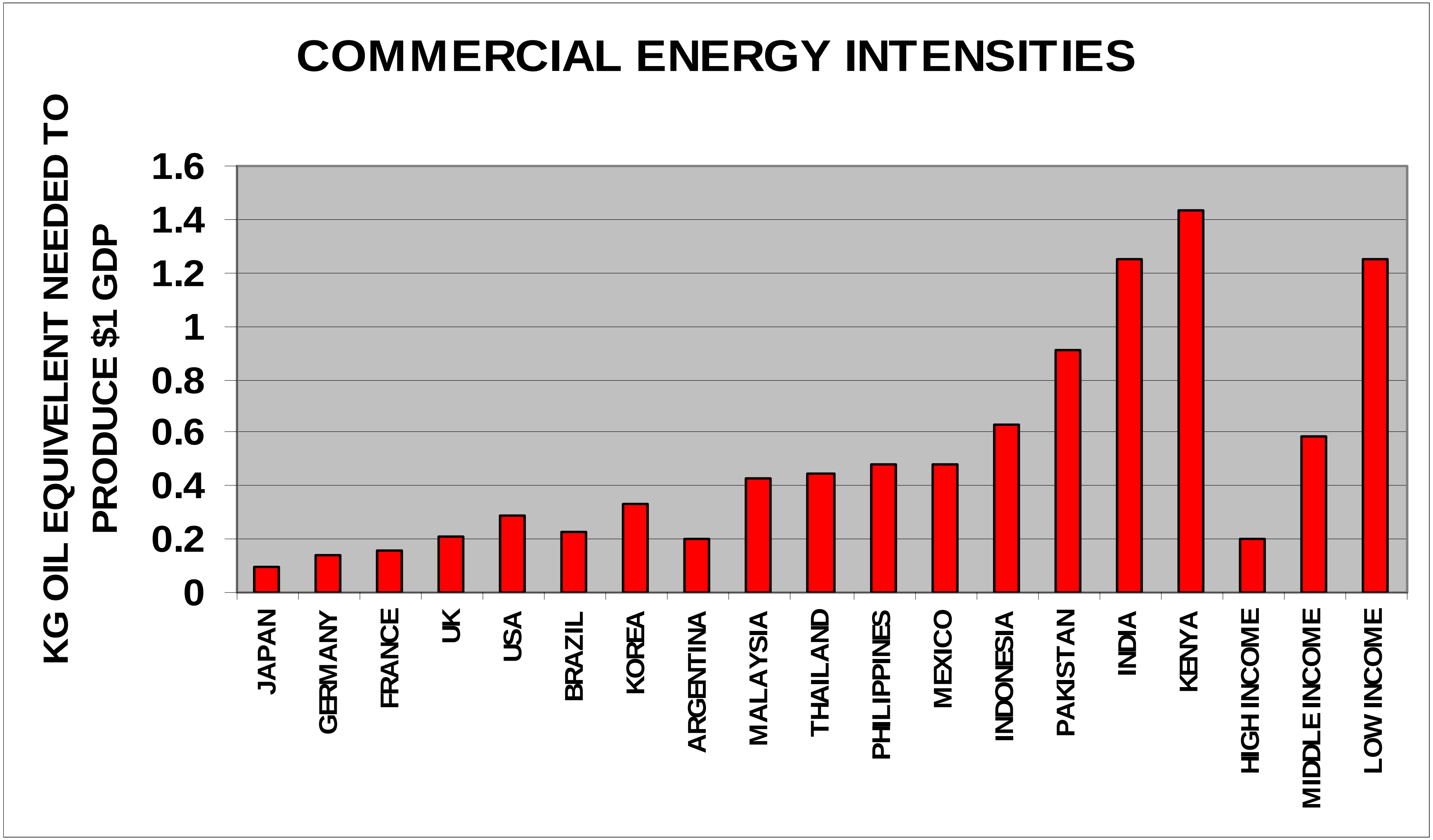
- **Range of uncertainty over 2007 – Average 1.4 mbd Range 1.0 to 1.9**
- **Little sign of global economic slow-down although there are concerns**
- **In the OECD all the easy fuel switching and improved oil efficiency has been done**
- **But Emerging Market Economies missed out on the oil shocks of the 1970's.**

THE DEVELOPING COUNTRIES MISSED OUT ON THE OIL SHOCKS OF THE 1970s



Source: Computed from Lawrence Berkeley Laboratories data 1989

COMMERCIALLY ENERGY INTENSITY



Source:World Bank

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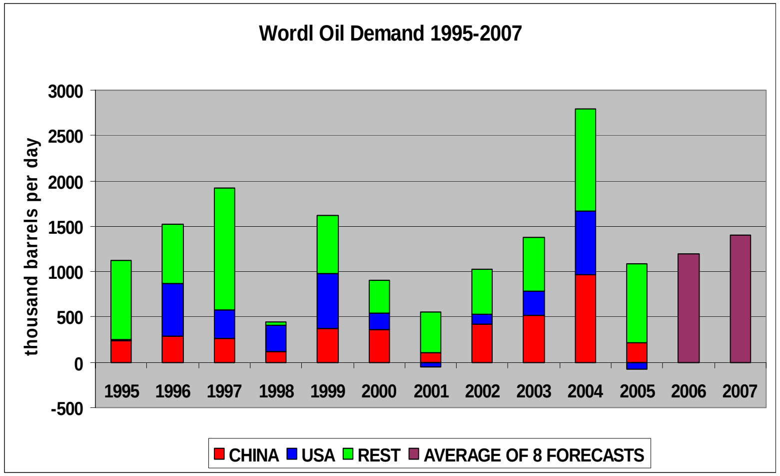


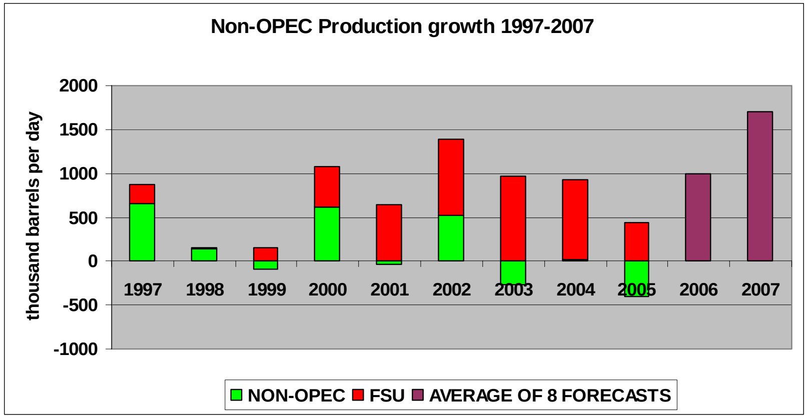
- **Range of uncertainty over 2007 – Average 1.4 mbd Range 1.0 to 1.9**

- **Little sign of global economic slow-down although there are concerns**

- **In the OECD all the easy fuel switching and improved oil efficiency has been done**

- **But Emerging Market Economies missed out on the oil shocks of the 1970's. <u>There is scope for using less oil BUT it will take time</u>**

BUT IN THE NEW WORLD: Will Non-OPEC supply respond?



There are concerns about Russia

-Political uncertainty

-New fiscal system

The estimates for 2006 and 2007 are probably over stated

-Remember at the start of 2005 the average of 8 forecasts estimated Non-OPEC for 2005 at 1.4 Mb/d. The outcome was only 0.04 Mb/d. Start of 2006 estimated 1.2 Mb/d now 0.9 Mb/d

-Although the average for 2007 is 1.6 mbd the range is 1.0 to 1.9 mbd

BUT IN THE NEW WORLD:
Non-OPEC supply is not responding because of insufficient investment

- International oil companies
  - Returning money to the shareholders
    - In 2005 the top six IOCs invested $54 billion BUT they bought back $40 billion of shares and declare a dividend of $31 billion.
  - Managerially constrained because of "downsizing".
    - Since 1981, over 70% of the workforce of the top 25 oil companies have been laid off
  - Service industry insufficient capacity because of monopsony and Ecommerce.
    - In 2002-3, the lead time to hire a jack-up rig averaged around seven months. Now the delay is over two years.

BUT IN THE NEW WORLD:
Supply is not responding because of insufficient investment

- **International oil companies**

- **OPEC national oil companies have plans but face serious constraints**

OPEC Plans –But there are constraints

Country Gross Increment 2005-6
(000 b/d)

- Algeria 255
- Indonesia 85
- Iran 370
- Kuwait 300
- Libya 150
- Nigeria 485
- Qatar 100
- Saudi Arabia 450
- UAE 200
- Venezuela 175
- OPEC NGL 600
- TOTAL 3170
- **Source IEA November 2005**

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- **Source IEA November 2005**

- **Service industry constraints**
- **Capital access constraints because NOCs are seen as high cost and inefficient "rent seekers"**
- **Concern over security of demand after George W Bush's State of the Union Address**
- **Growing concern over the threat of an attack of "resource curse"**
- **Growing resource nationalism**

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- **Iran and President Ahmadi-Nejad = chaos and anti-IOC and buy-backs and fear of sanctions and …..**
- **Venezuela – Chavez moving into election mode – PDVSA forced into social spending + fiscal squeeze**
- **Nigeria – Political unrest growing, tougher fiscal regime unrealistic local content clauses**
- **Kuwait – Project Kuwait remains a political football**
- **Libya- unattractive fiscal terms and delayed reforms**
- **Algeria – New hydrocarbon law**

BUT IN THE NEW WORLD:
Supply is not responding because of insufficient investment

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- **What about the national oil companies of the Asian oil importers?**

Conclusions for the medium term

- Investment upstream and downstream is unlikely to be sufficient even with higher prices thus supply constraints will remain…

- “Higher” prices are here to stay for a long time. The issue is how high is “high” and how long is “long”? In the 1990’s prices averaged $19 per barrel …

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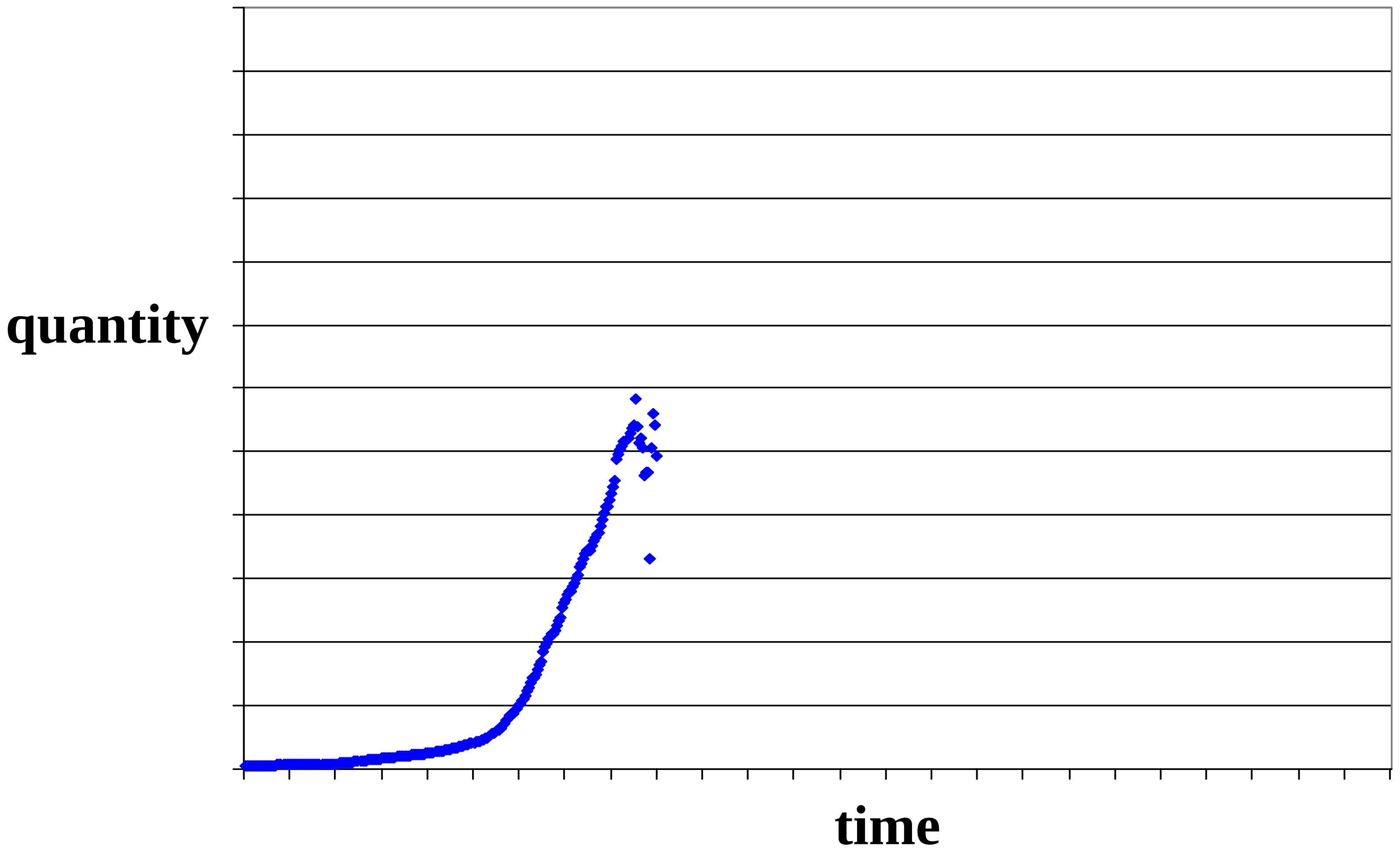
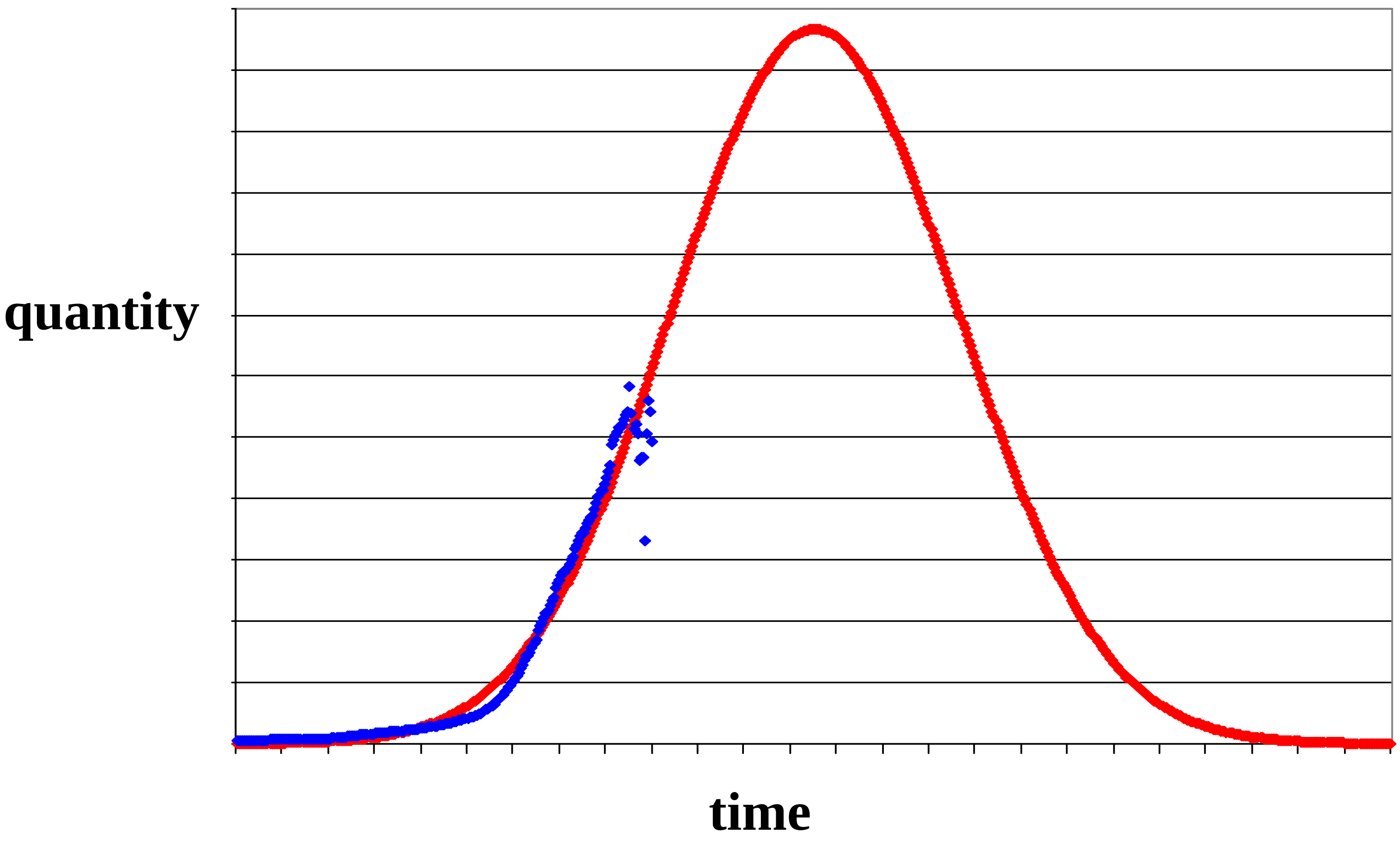
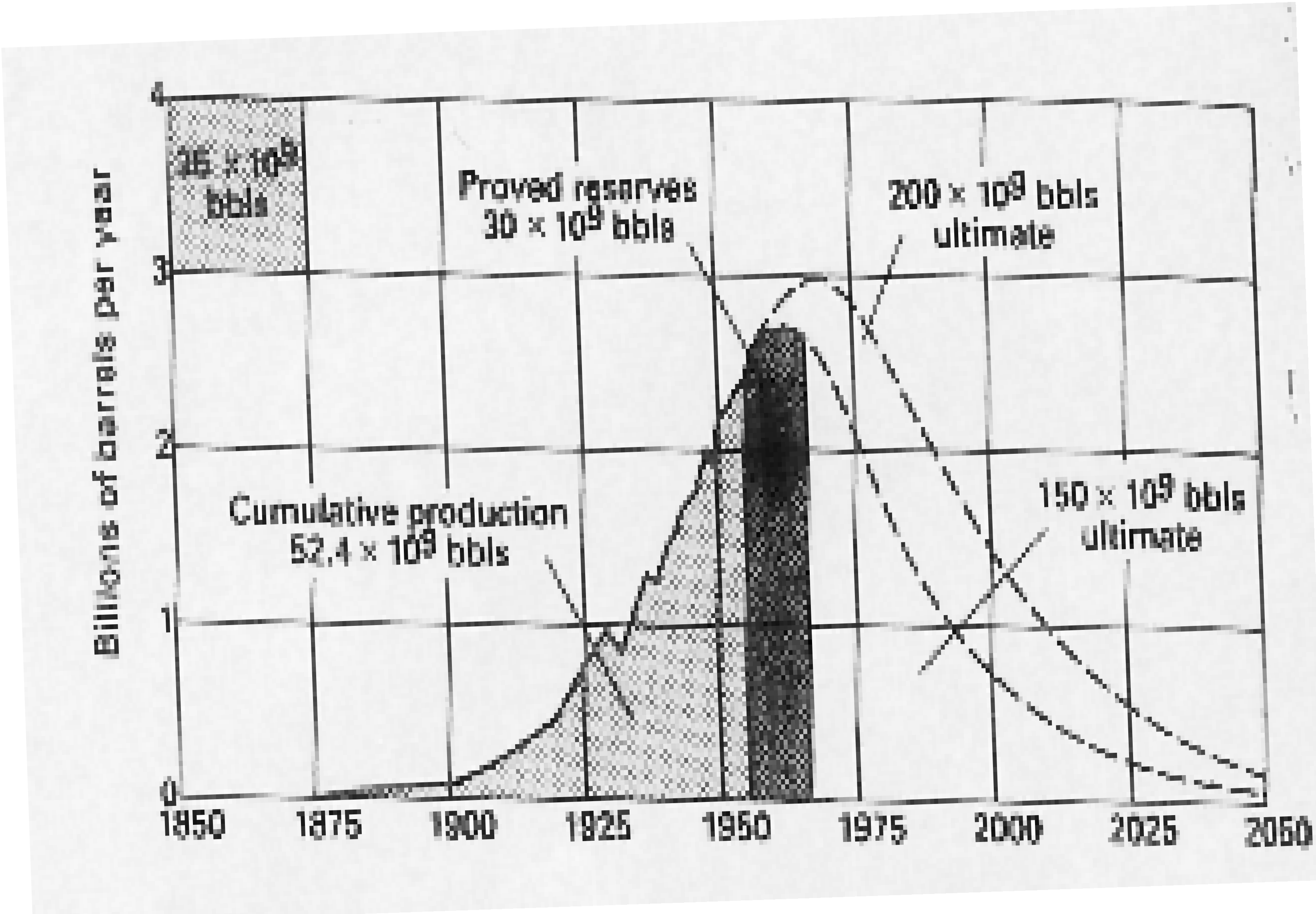
The Peak Oil Argument
Hubbert Curve



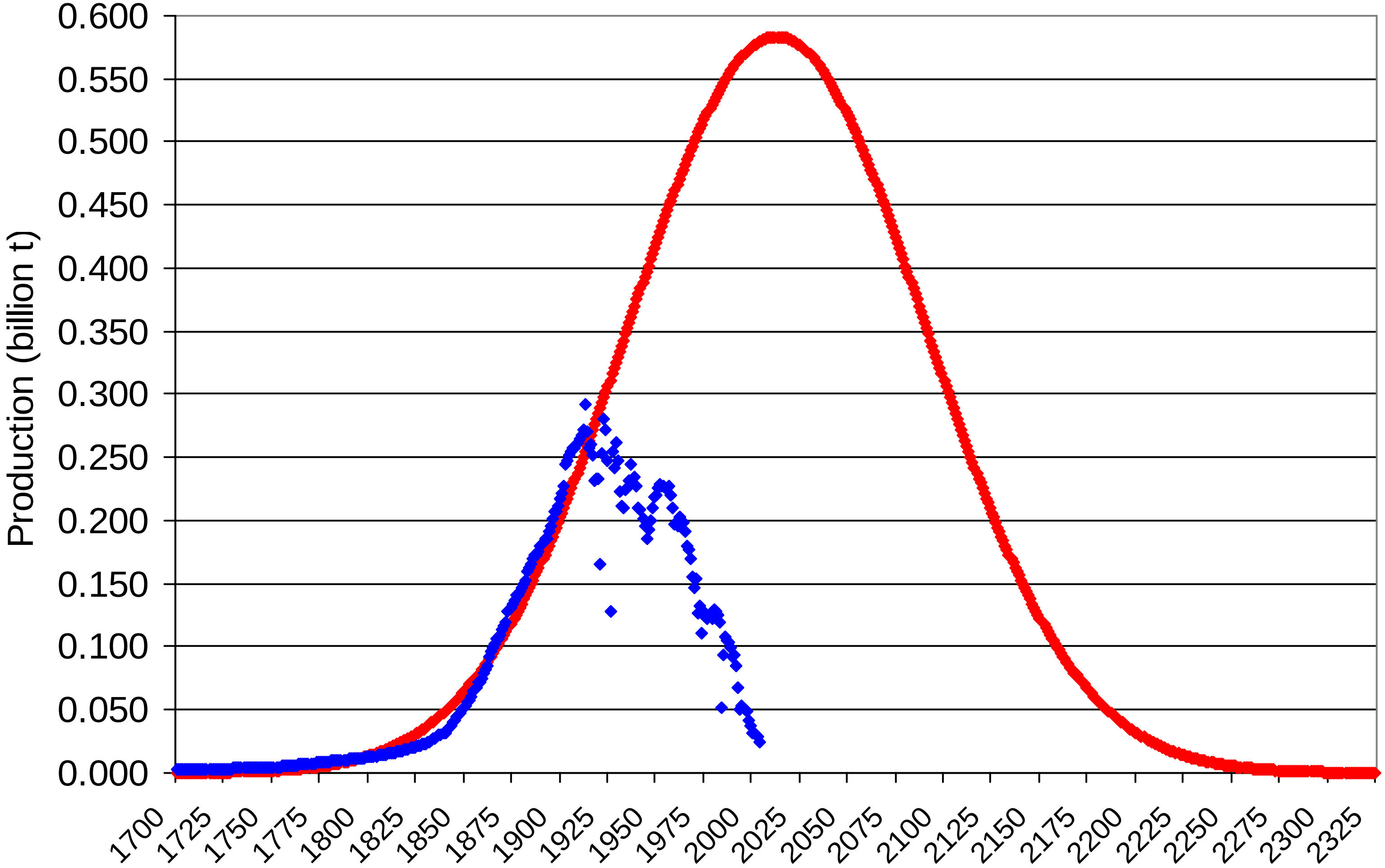
Hubbert Curve





Hartshorne, 1993

What is it?



Production (billion t)
0.600
0.550
0.500
0.450
0.400
0.350
0.300
0.250
0.200
0.150
0.100
0.050
0.000
1700
1725
1750
1775
1800
1825
1850
1875
1900
1925
1950
1975
2000
2025
2050
2075
2100
2125
2150
2175
2200
2225
2250
2275
2300
2325

What are the long term prospects?

- Eventually the market will respond
  - Demand in the developing countries will fall. There is still a lot of fuel oil used under the boiler in those countries (4.9 Mb/d in 2004
  - Supply will increase and there will be an increase in non-conventional liquids

- But remember that the 1986 price collapse was 13 years after 1973. This time ………????

THANK YOU FOR YOUR ATTENTION

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