

# World Oil Overview

## Gathering Storms

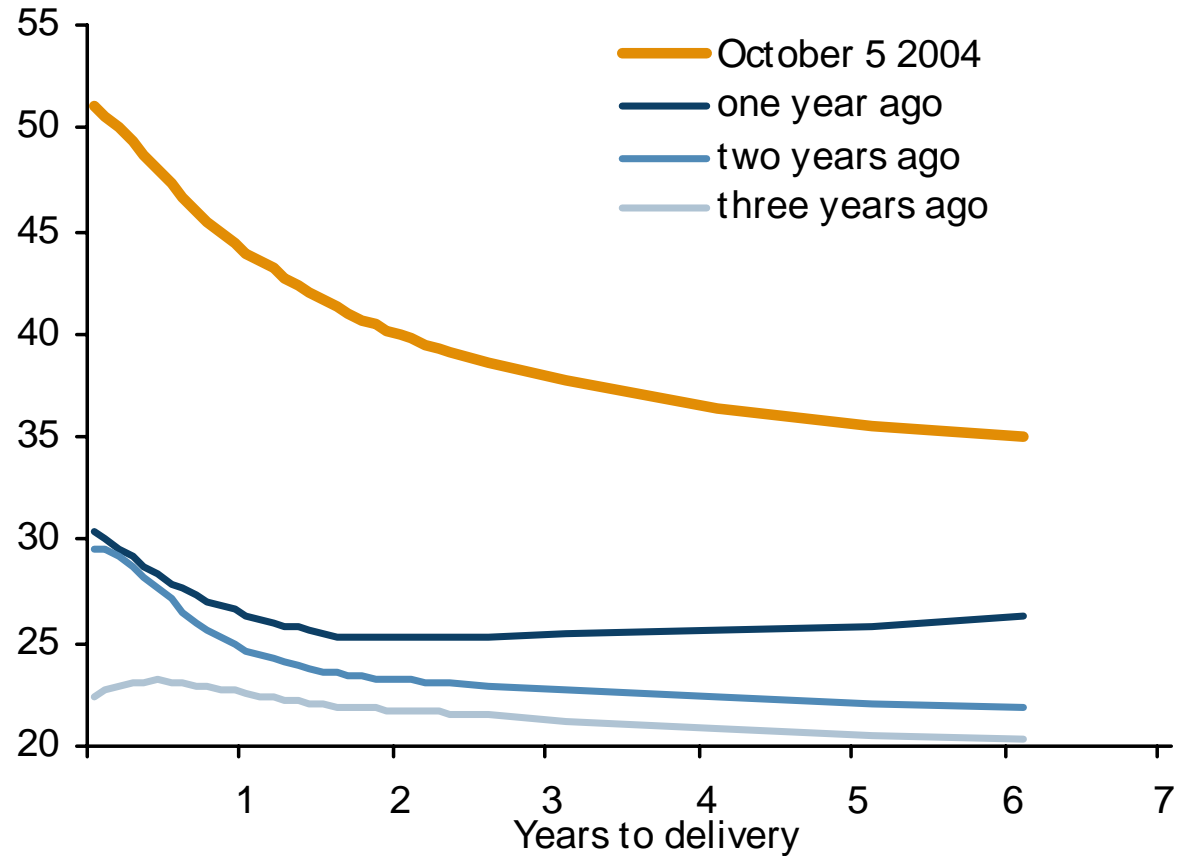


**2004-2005 Winter Fuels Outlook  
Conference**

**October 6 2004**

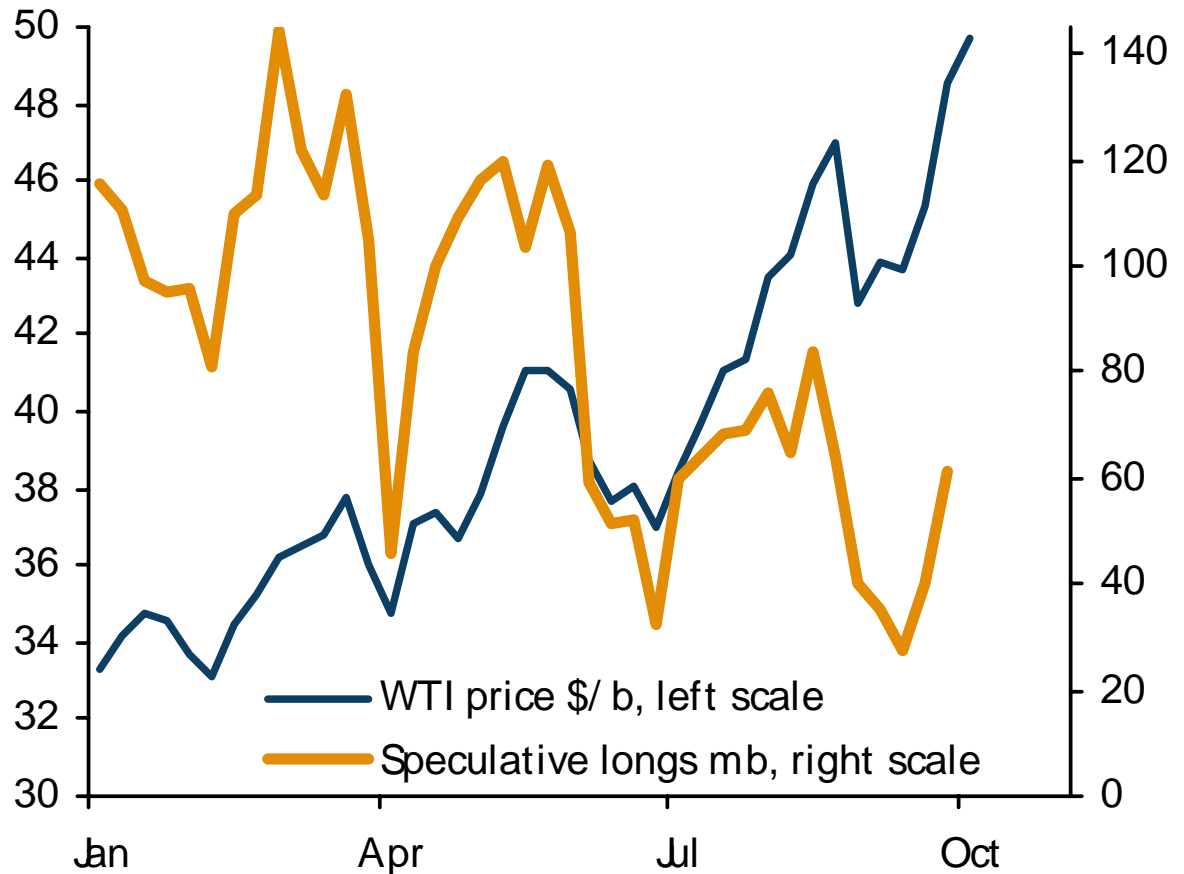
# Market view of long-term price has moved up

The price of West Texas Intermediate (WTI) crude oil for long term delivery has moved up sharply over the past two years.



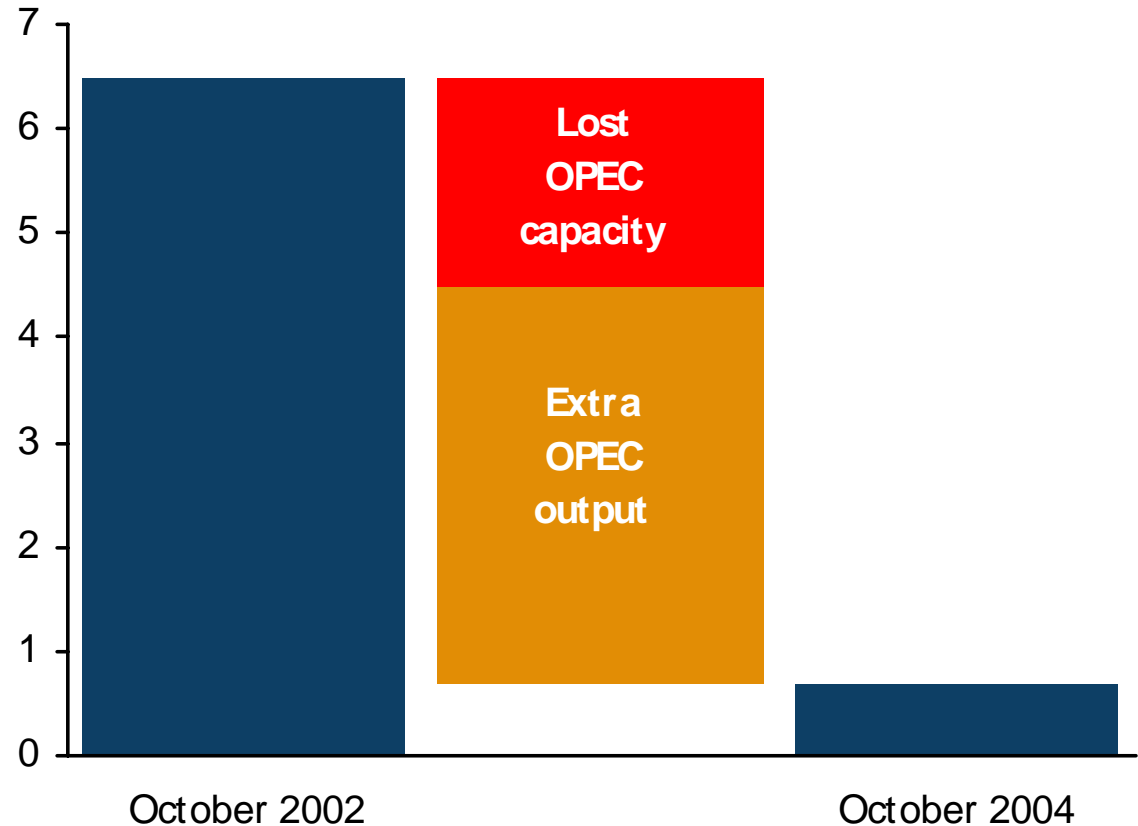
# Speculative buying and higher prices

Speculators have sold very heavily into the last three downward swings in prices this year, but have been far less aggressive when buying into upswings. The net result is that speculators have been net sellers over the course of 2004. Higher prices do not appear to be related to flows of speculative hot money.



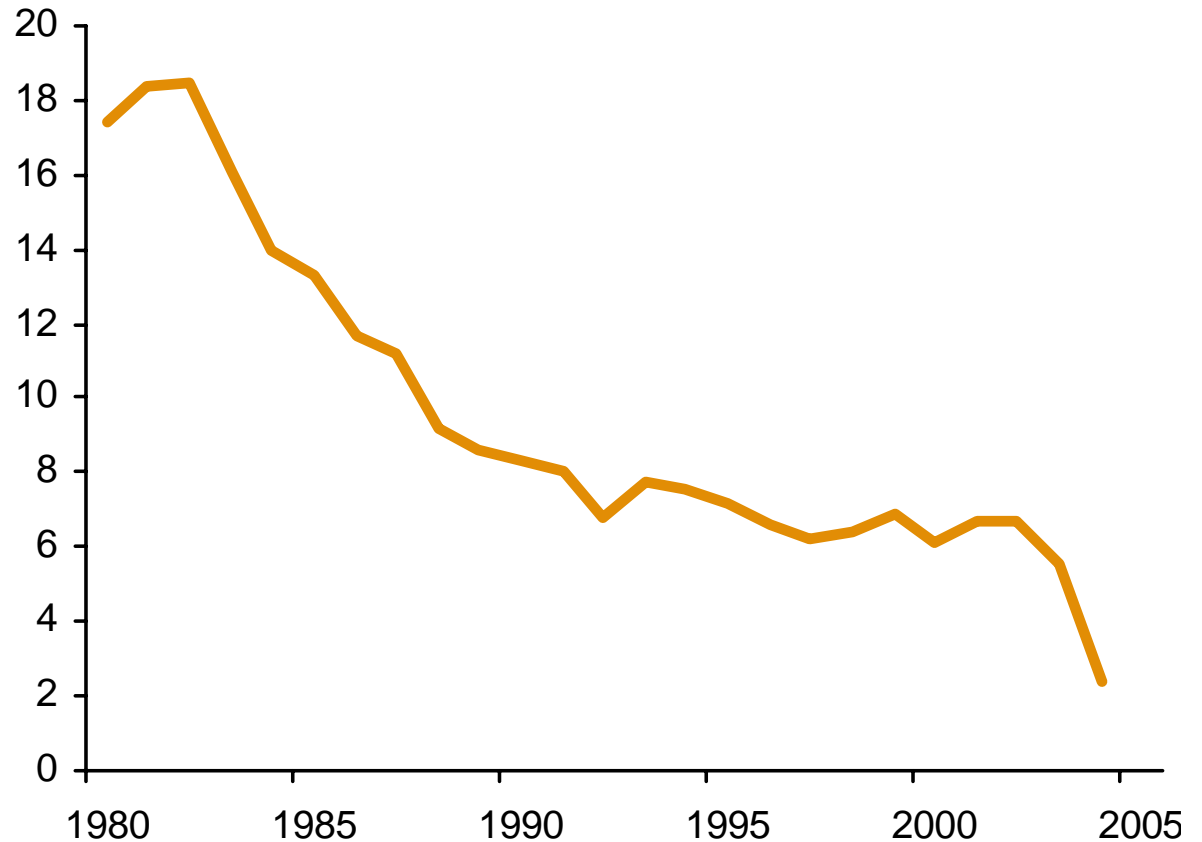
# Spare global production capacity has shrunk

Spare sustainable capacity in the global upstream system has shrunk by 5 mb/d over the last two years. Two-thirds of this decline is due to increased OPEC output given the strength of demand, one-third is due to a net loss of capacity within OPEC, (especially in Venezuela, Iraq and Indonesia)



# Spare refining capacity has also shrunk

Spare sustainable capacity in the global downstream system has also shrunk to low levels. This has accelerated over the last two years with demand growth far outstripping refining capacity growth. Indeed, at seasonal highs of demand, spare capacity has completely gone.

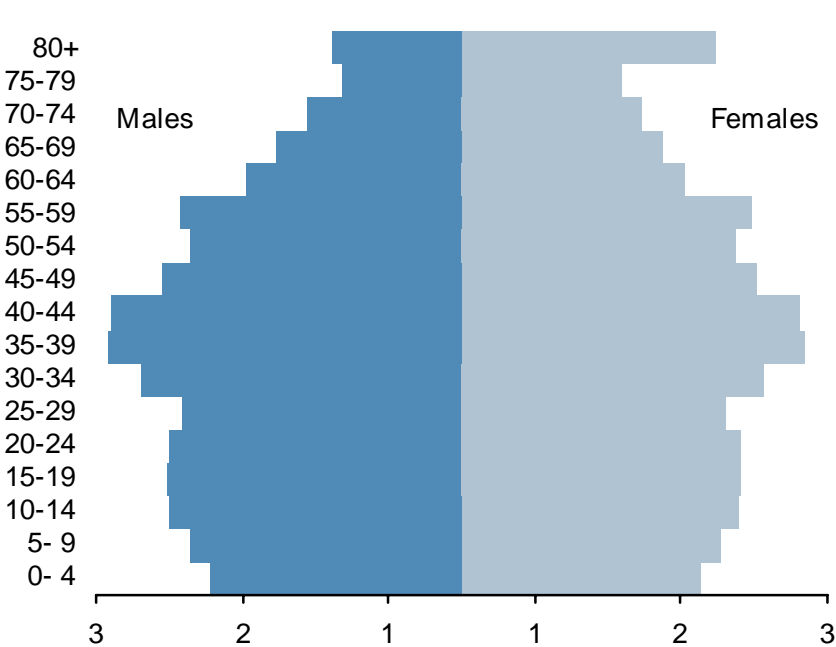


# The main causes of higher long-term prices

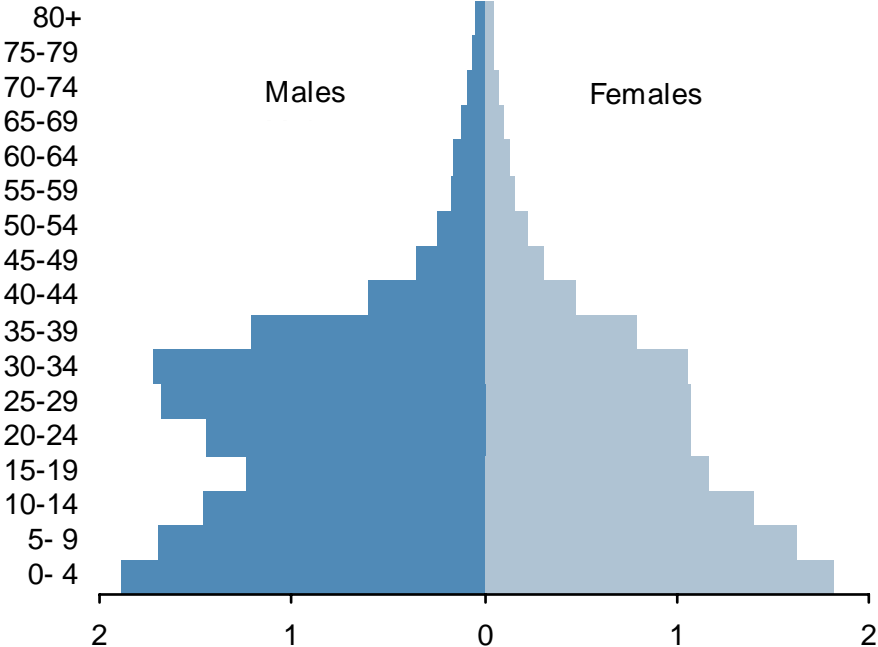
- Oil producing country policy. Faced with the consequences of demographic change due to high birth rates, key producers require higher long term averages
- The technological fixes in oil production used in the 1990s have begun to run out. Decline rates in mature non-OPEC producing areas have advanced, and cost curves moved up
- Lack of spare capacity in several energy industries, caused by a lack of investment in oil refining, US natural gas production, electricity distribution and transmission. As a result, the energy capacity overhangs of the 1990s have disappeared
- The return of geopolitics as a key driver of energy prices
- At higher prices, income elasticities of demand remained high once the short-run price elasticities had worked their way through
- Reduction of spare OPEC capacity, deepened by permanent capacity losses in Iraq and Venezuela

# Two different demographic challenges

UK 2004



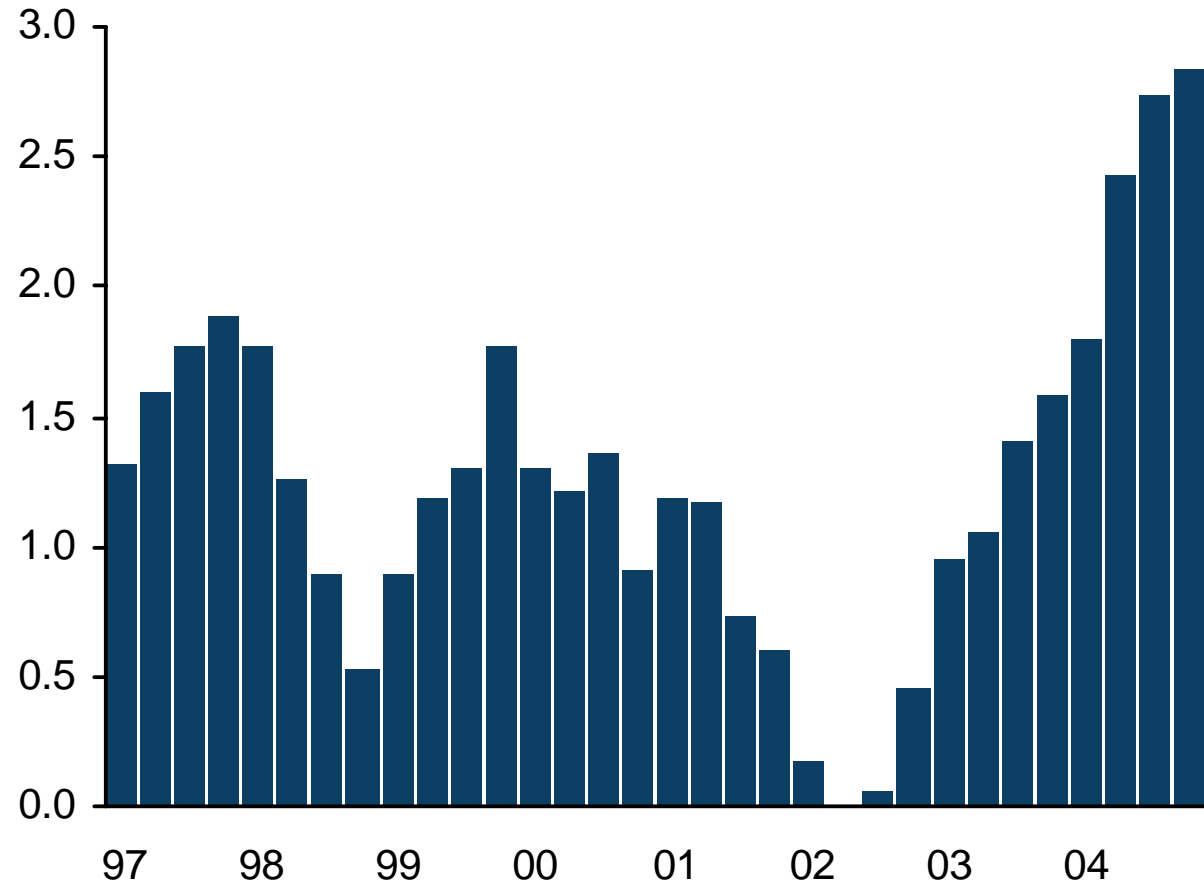
Saudi Arabia 2004



Populations (millions) by 5 year age cohorts

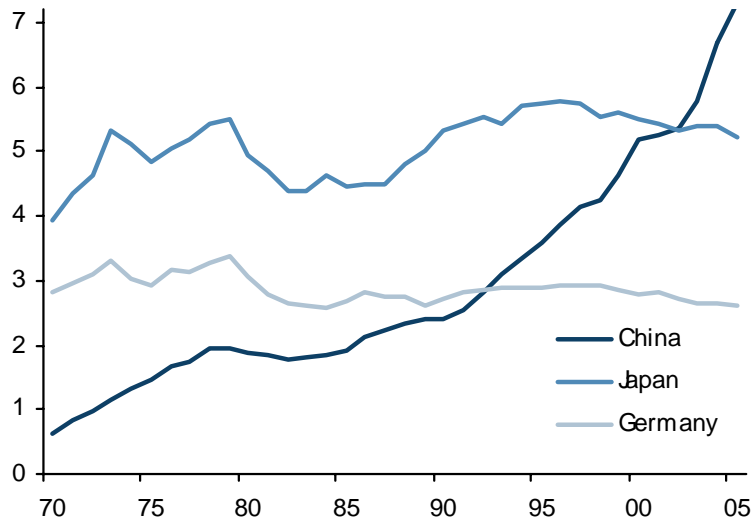
# Global oil demand has accelerated

Global oil demand growth, rolling four quarter average mb/d,

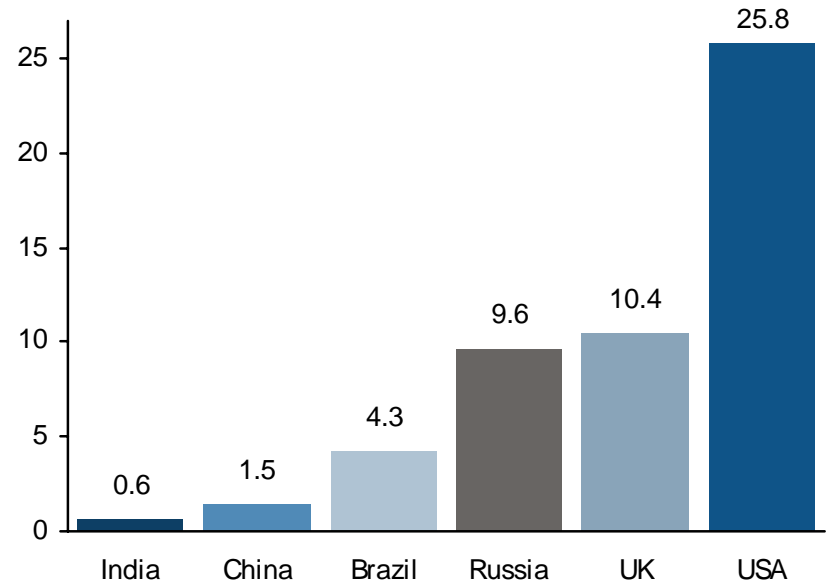


# China has become second largest oil market

(with low per capita consumption)

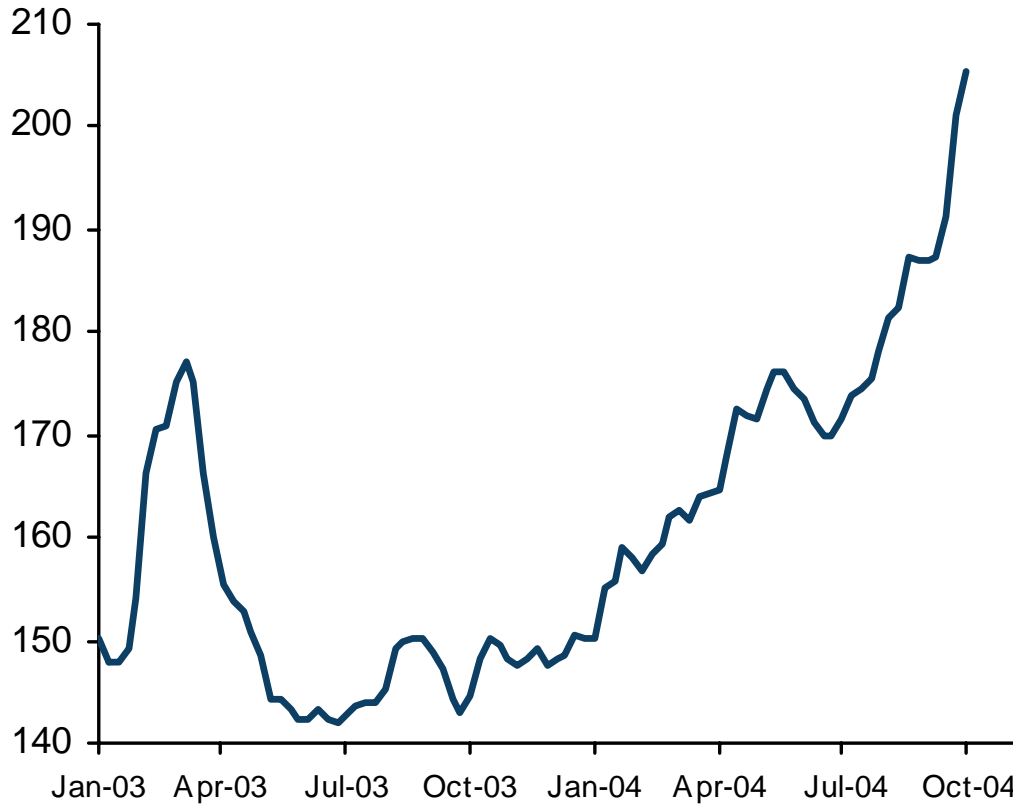


Oil demand, mb/d



Oil demand, barrels per capita per year

# US retail diesel prices have kept rising



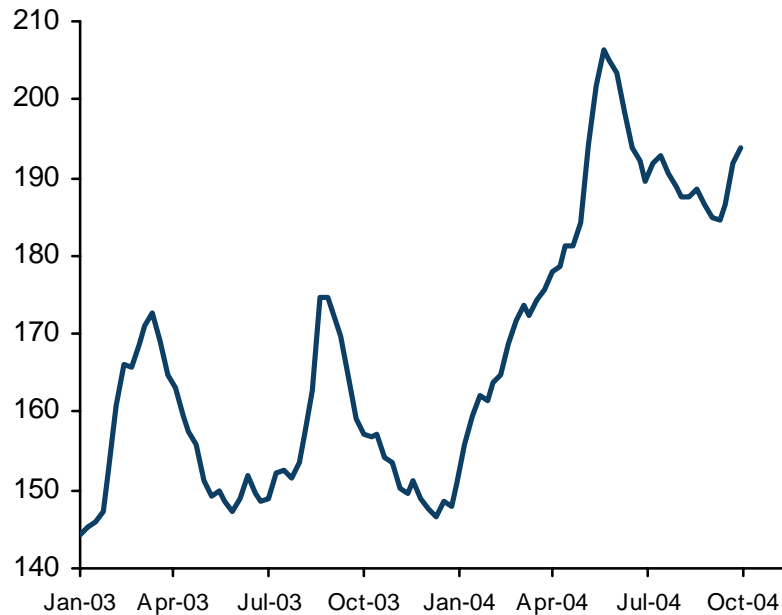
US national average retail diesel price (cents/gal)

# US gasoline futures at all-time highs

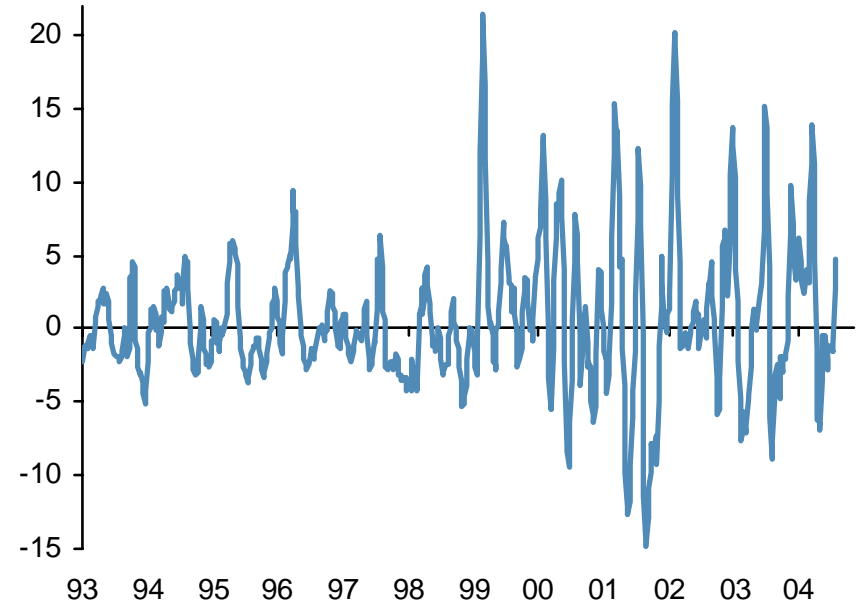
(monthly averages, cents per gallon)



# Dislocations cause spikes and volatility

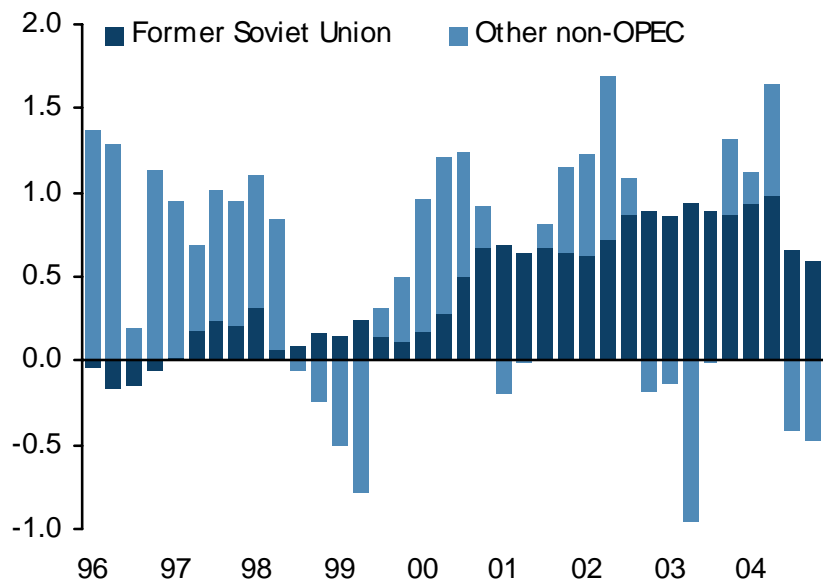


The US regular gasoline retail price (cents/gal) reached an all-time record in May

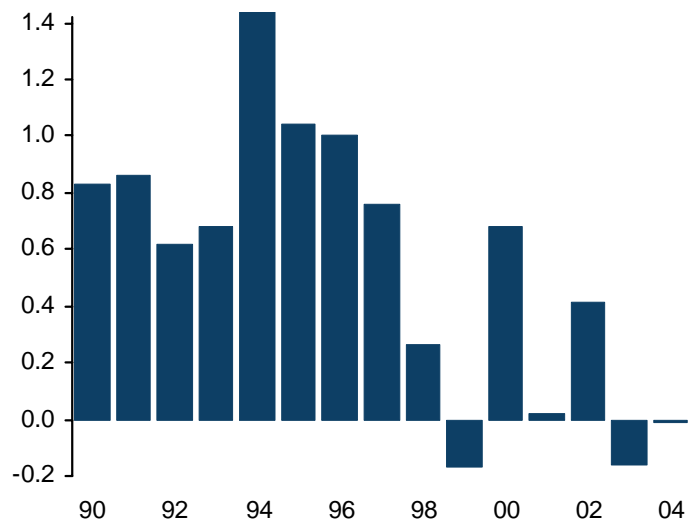


The % M/M momentum of US retail gasoline prices has shown far greater swings since 1999

# Non-OPEC supply growth composition



Non-OPEC supply growth driven by the FSU



Outside the FSU, growth has stalled

# Hurricane Ivan impacts on US production



Total US oil production, monthly and 12-month average, mb/d

# Balances Indicate Tightness for World Production and Refining Capacity in Q4 of 2004 and 2005

Barclays Capital	2003	Annual change	04Q1	04Q2	04Q3	04Q4	2004	Annual change	05Q1	05Q2	05Q3	05Q4	2005	Annual change
<b>Demand</b>	<b>79.1</b>	<b>1.58</b>	81.8	80.5	81.7	83.9	<b>82.0</b>	<b>2.84</b>	83.9	82.5	83.6	85.9	<b>84.0</b>	<b>2.01</b>
OECD demand	<b>48.4</b>	<b>0.75</b>	49.8	48.1	48.9	50.2	<b>49.3</b>	<b>0.85</b>	50.2	48.5	49.3	50.6	<b>49.6</b>	<b>0.38</b>
non-OECD demand	<b>30.7</b>	<b>0.82</b>	31.9	32.4	32.8	33.7	<b>32.7</b>	<b>1.99</b>	33.7	34.0	34.3	35.3	<b>34.3</b>	<b>1.63</b>
<b>Non-OPEC supply</b>	<b>48.7</b>	<b>0.72</b>	49.7	49.6	48.9	49.6	<b>49.5</b>	<b>0.78</b>	50.0	50.1	49.6	50.2	<b>50.0</b>	<b>0.50</b>
non-OPEC excluding FSU	<b>38.4</b>	<b>-0.16</b>	38.8	38.5	37.8	38.4	<b>38.4</b>	<b>-0.01</b>	38.7	38.6	38.1	38.7	<b>38.5</b>	<b>0.13</b>
FSU	<b>10.3</b>	<b>0.88</b>	10.9	11.1	11.1	11.2	<b>11.1</b>	<b>0.79</b>	11.3	11.5	11.5	11.5	<b>11.4</b>	<b>0.37</b>
OPEC NGLs/ condensates	<b>3.4</b>		3.6	3.6	3.8	3.8	<b>3.7</b>		3.8	3.8	3.9	3.9	<b>3.9</b>	
Call on OPEC crude and stocks	<b>27.1</b>	<b>0.53</b>	28.6	27.2	29.0	30.5	<b>28.8</b>	<b>1.74</b>	30.1	28.6	30.1	31.8	<b>30.2</b>	<b>1.34</b>
OPEC crude	<b>27.1</b>	<b>1.66</b>	28.3	28.4	29.5	29.6	<b>28.9</b>	<b>1.86</b>	30.0	30.1	30.1	30.1	<b>30.1</b>	<b>1.15</b>
OPEC excluding Iraq	<b>25.8</b>	<b>2.42</b>	26.2	26.4	27.9	28.0	<b>27.1</b>	<b>1.30</b>	28.2	28.2	28.1	28.1	<b>28.2</b>	<b>1.04</b>
Stockbuild	<b>0.0</b>		-0.3	1.1	0.5	-0.9	<b>0.1</b>		-0.1	1.5	0.0	-1.7	<b>-0.1</b>	

**In all, the time curve suggests that we are not playing with bubbles...**

