

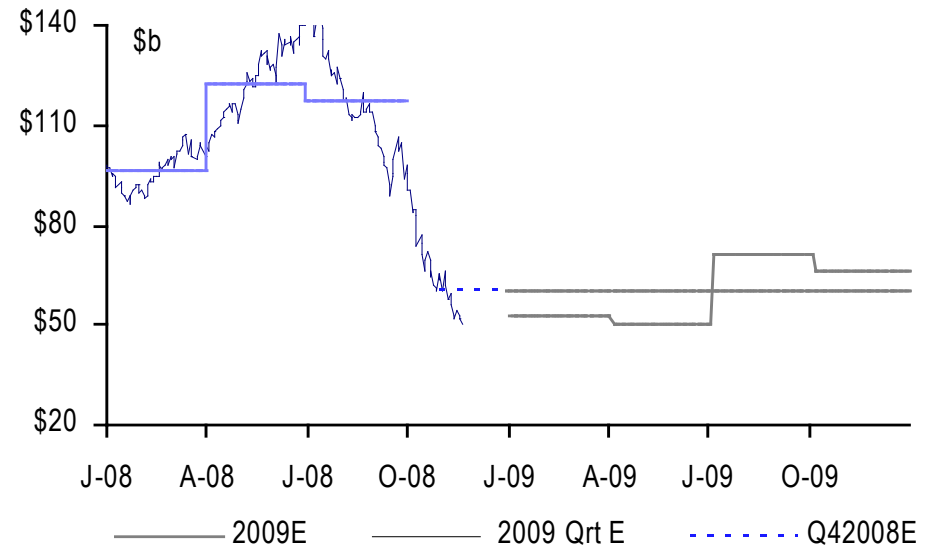
# Outline: A twisted story of fundamentals & price

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- ◆ Our oil price deck includes our short-term view (current year plus two); projections for the medium term and “normalised”
- ◆ What’s new, short term: Great macro uncertainty + politics
  - Oil demand scenarios/sensitivities and consumer politics
  - Supply side setbacks, geo-politics and Opec
- ◆ The easy part, the medium term: “demand constrained by supply”
  - It’ll take a few years before, again, oil demand grows
  - Quantifiable limits to capacity growth out to 2015

# UBS Oil price forecast for 2009

Brent futures, prompt contract daily close (actual and UBS forecast). Near-term we anticipate further downside, before quarterly averages climb back up to normalised in H2'09



Long dated oil prices, WTI 2-year out contract's daily close, compared with our new normalised-price forecast and with the fiscal break-even oil price for key, oil exporting, Gulf Cooperation Council members, as reported by the IMF in October

Source: Bloomberg, IMF, and UBS



# UBS Oil price forecast deck

## UBS Oil price forecasts for Brent and WTI 2008 through 2013, and "Normalised"

|                   |                 |           |         |               |         |         |         |         |              |          |          |          |          |              |        |        | Normalized |
|-------------------|-----------------|-----------|---------|---------------|---------|---------|---------|---------|--------------|----------|----------|----------|----------|--------------|--------|--------|------------|
| <b>Brent</b>      | <b>2007A</b>    | 3Q08A     | 4Q08E   | <b>2008E*</b> | 1Q09E   | 2Q09E   | 3Q09E   | 4Q09E   | <b>2009E</b> | 1Q10E    | 2Q10E    | 3Q10E    | 4Q10E    | <b>2010E</b> | 2011E  | 2012E  | 2013E      |
| New forecast      | <b>\$ 72.66</b> | 117.15    | \$ 60   | <b>\$ 99</b>  | \$ 53   | \$ 50   | \$ 71   | \$ 66   | <b>\$ 60</b> | \$ 69.00 | \$ 74.00 | \$ 81.00 | \$ 76.00 | <b>\$ 75</b> | \$ 85  | \$ 95  | \$ 85      |
| Old forecast      |                 |           | \$ 106  | \$ 111        | \$ 113  | \$ 100  | \$ 101  | \$ 106  | \$ 105       |          |          |          |          | \$ 116       | \$ 136 | \$ 155 | \$ 95      |
| Diff %            |                 |           | -43%    | -10%          | -53%    | -50%    | -30%    | -38%    | -43%         |          |          |          |          | -35%         |        |        |            |
| \$                |                 |           | \$ (46) | \$ (11)       | \$ (60) | \$ (50) | \$ (30) | \$ (40) | \$ (45)      |          |          |          |          | \$ (41)      |        |        |            |
| Futures*          |                 |           |         |               | \$ 56   | \$ 61   | \$ 64   | \$ 67   | \$ 63        |          |          |          |          | \$ 73        | \$ 79  | \$ 82  | \$ 85      |
| Sell side Average |                 |           |         | <b>\$ 104</b> |         |         |         |         | <b>\$ 87</b> |          |          |          |          |              |        |        |            |
| <b>WTI</b>        | <b>2007A</b>    | 3Q08A     | 4Q08E   | <b>2008E*</b> | 1Q09E   | 2Q09E   | 3Q09E   | 4Q09E   | <b>2009E</b> | 1Q10E    | 2Q10E    | 3Q10E    | 4Q10E    | <b>2010E</b> | 2011E  | 2012E  | 2013E      |
| New forecast      | <b>\$ 72.23</b> | \$ 118.22 | \$ 60   | <b>\$ 100</b> | \$ 55   | \$ 50   | \$ 70   | \$ 65   | <b>\$ 60</b> | 70       | 75       | 80       | 75       | <b>\$ 75</b> | \$ 86  | \$ 96  | \$ 86      |
| Old forecast      |                 |           | \$ 108  | \$ 112        | \$ 115  | \$ 100  | \$ 100  | \$ 105  | \$ 105       |          |          |          |          | \$ 117       | \$ 137 | \$ 156 | \$ 96      |
| Diff %            |                 |           | -44%    | -11%          | -52%    | -50%    | -30%    | -38%    | -43%         |          |          |          |          | -36%         |        |        |            |
| \$                |                 |           | \$ (48) | \$ (12)       | \$ (60) | \$ (50) | \$ (30) | \$ (40) | \$ (45)      |          |          |          |          | \$ (42)      |        |        |            |
| Futures*          |                 |           |         |               | \$ 58   | \$ 61   | \$ 65   | \$ 66   | \$ 66        |          |          |          |          | \$ 74        | \$ 79  | \$ 81  |            |
| Sell side Average |                 |           | \$ 85   | <b>\$ 106</b> | \$ 88   | \$ 88   | \$ 90   | \$ 90   | <b>\$ 85</b> | \$ 81    | \$ 82    | \$ 84    |          | \$ 89        | \$ 94  | \$ 93  |            |

\* We took ICE cleared calendar swaps, average settlement in last 9-days trading.

## Our normalised oil price reflect Global Oil Co's normal upstream returns

|              |            | 2008  | 2009  | 2010  | 2011  | 2012  | 2013         |
|--------------|------------|-------|-------|-------|-------|-------|--------------|
| <b>BRENT</b> | <b>New</b> | \$ 73 | \$ 75 | \$ 78 | \$ 80 | \$ 83 | <b>\$ 85</b> |
|              | <b>Old</b> | \$ 81 | \$ 84 | \$ 87 | \$ 89 | \$ 92 | \$ 95        |
| <b>WTI</b>   | <b>New</b> | \$ 73 | \$ 75 | \$ 78 | \$ 81 | \$ 84 | <b>\$ 86</b> |
|              | <b>Old</b> | \$ 74 | \$ 76 | \$ 79 | \$ 82 | \$ 85 | \$ 87        |

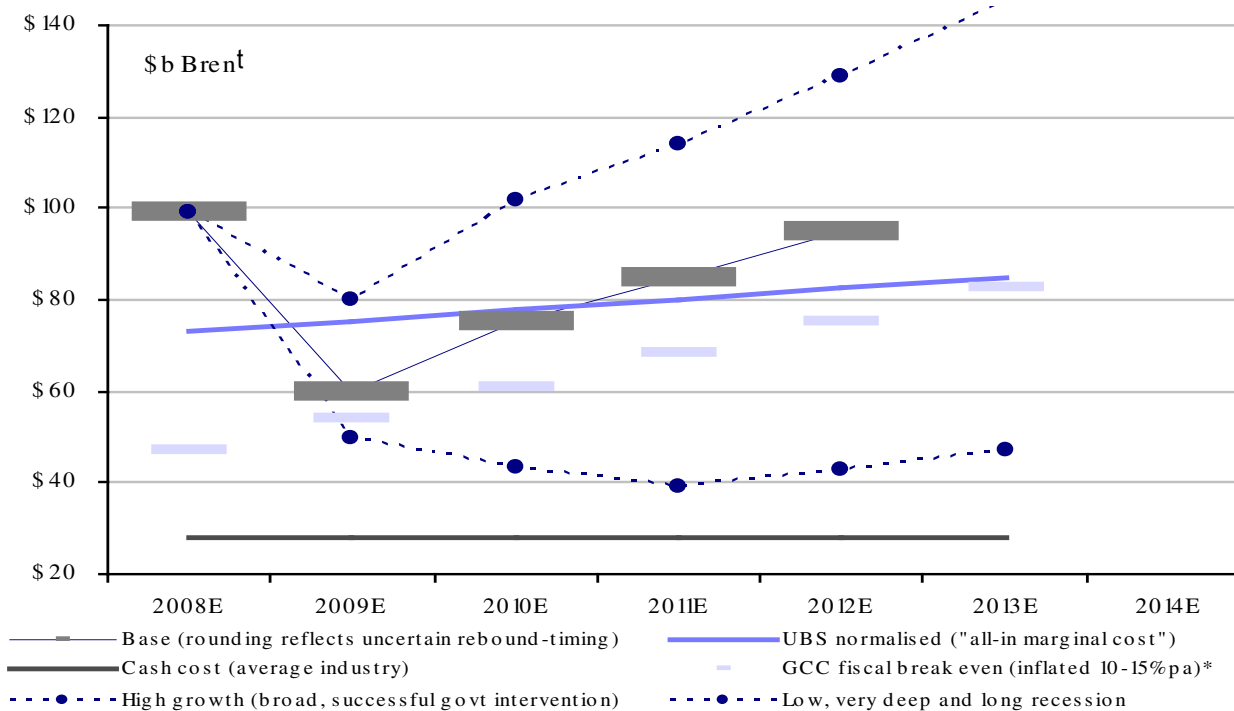
Source: Bloomberg, Thompson First Call and UBS



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# UBS Oil price forecast deck

Points of resistance, or reference, for prices, including sovereign producers' fiscal break-even assessments, our normalized price curve and cash operating costs



Source: Bloomberg, IMF, Thompson First Call and UBS



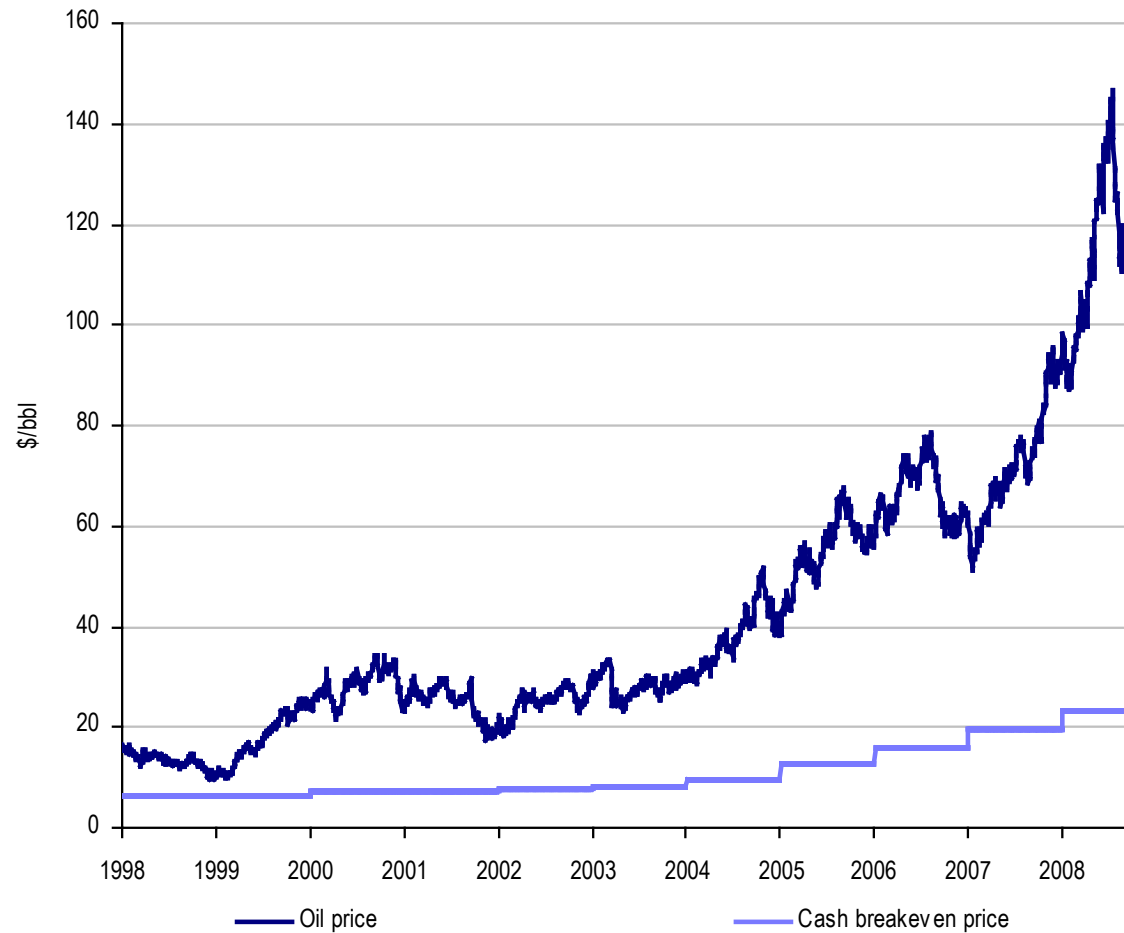
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# Near term: Uncertainty & politics

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- ◆ Oil demand base case, scenarios and sensitivities, as well as consumer politics
- ◆ Supply events, trends, geo-politics
- ◆ Opec back at center stage

# How low can oil prices go?



Source: UBS



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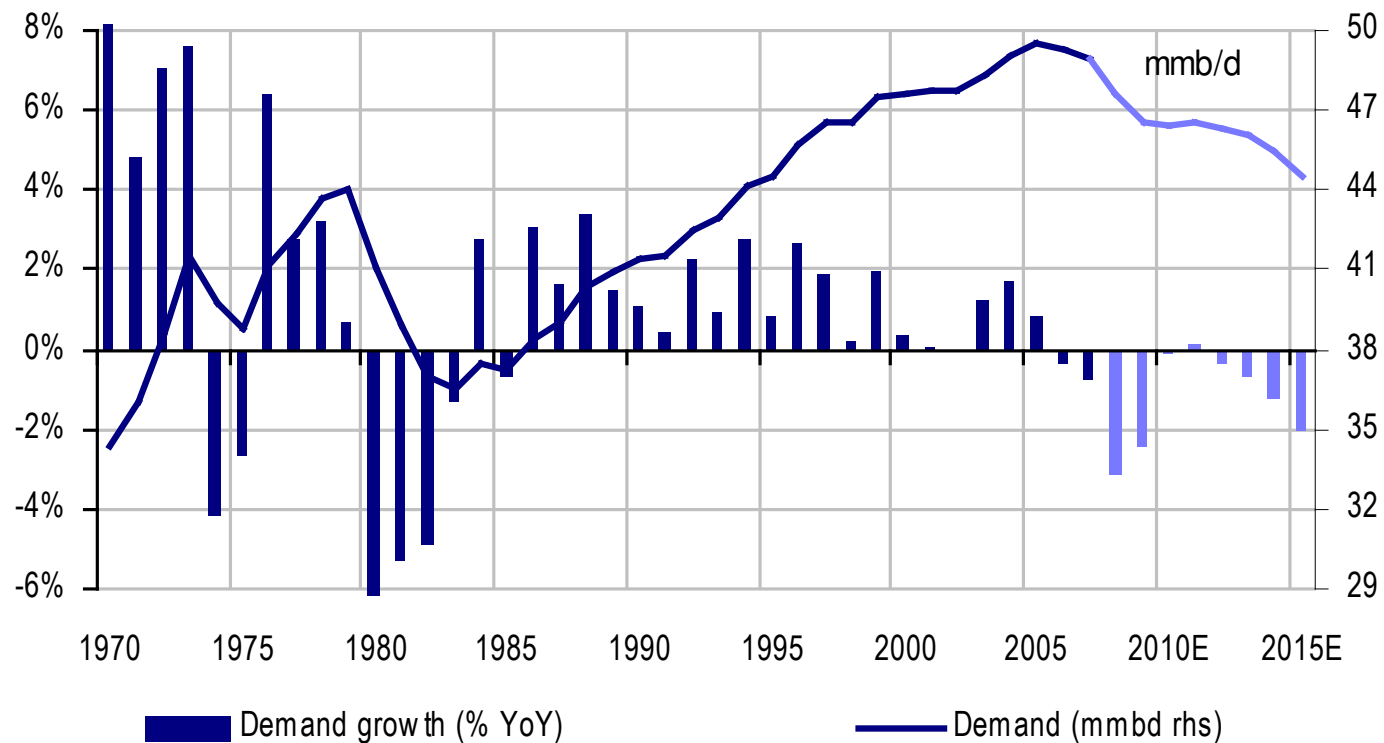
# Taking down expectations for oil demand growth

|                  | 2007<br>Oil Demand<br>in MBblsd | 2007<br>last 5-yr<br>average<br>pa % chg | 2008E       | 2009E<br>y/y %<br>Growth | 2010E        |             |
|------------------|---------------------------------|--|-------------|--------------------------|--------------|-------------|
| <b>Global</b>    | <b>85,974</b>                   | <b>1.1%</b>                              | <b>1.9%</b> | <b>0.1%</b>              | <b>-0.4%</b> | <b>1.3%</b> |
| <b>N America</b> | <b>25,527</b>                   | <b>+0.4</b>                              | <b>+1.1</b> | <b>-4.6</b>              | <b>-2.4</b>  | <b>+0.5</b> |
| Canada           | 2,364                           | +2.9                                     | +2.6        | -1.5                     | -0.7         | +0.9        |
| Mexico           | 2,119                           | +2.0                                     | +1.7        | +0.4                     | -1.1         | +0.6        |
| USA              | 20,680                          | -0.0                                     | +0.9        | -5.6                     | -2.9         | +0.4        |
| <b>S America</b> | <b>5,714</b>                    | <b>+6.4</b>                              | <b>+3.3</b> | <b>+3.4</b>              | <b>+0.2</b>  | <b>+1.6</b> |
| Brazil           | 2,444                           | +6.5                                     | +2.1        | +5.4                     | +1.2         | +1.6        |
| <b>Europe</b>    | <b>16,055</b>                   | <b>-2.2</b>                              | <b>+0.1</b> | <b>-0.6</b>              | <b>-2.6</b>  | <b>-0.7</b> |
| France           | 1,950                           | -1.6                                     | -0.3        | -0.1                     | -1.5         | -0.8        |
| Germany          | 2,456                           | -8.8                                     | -2.0        | +3.0                     | -2.8         | -0.8        |
| Italy            | 1,702                           | -2.3                                     | -1.9        | -3.9                     | -1.6         | -0.8        |
| UK               | 1,763                           | -2.7                                     | +0.3        | -5.4                     | -5.8         | -3.6        |
| Other Europ      | 8,184                           | -0.1                                     | +1.3        | -0.1                     | -2.3         | -0.0        |
| <b>FSU</b>       | <b>3,999</b>                    | <b>-4.0</b>                              | <b>+0.7</b> | <b>+5.8</b>              | <b>-1.6</b>  | <b>-1.0</b> |
| <b>Mideast</b>   | <b>6,734</b>                    | <b>+6.0</b>                              | <b>+5.3</b> | <b>+5.8</b>              | <b>+4.4</b>  | <b>+3.2</b> |
| <b>Africa</b>    | <b>2,965</b>                    | <b>+4.4</b>                              | <b>+2.8</b> | <b>+3.8</b>              | <b>+2.5</b>  | <b>+4.0</b> |
| <b>Asia-Pac</b>  | <b>24,980</b>                   | <b>+1.9</b>                              | <b>+2.9</b> | <b>+1.6</b>              | <b>+1.2</b>  | <b>+2.6</b> |
| China            | 7,468                           | +4.9                                     | +7.7        | +5.2                     | +4.0         | +5.6        |
| India            | 2,932                           | +6.1                                     | +4.2        | +5.3                     | +3.7         | +4.0        |
| Japan            | 5,007                           | -3.7                                     | -1.2        | -3.5                     | -1.6         | -1.2        |
| South Korea      | 2,214                           | +1.6                                     | +0.6        | -2.5                     | -4.2         | -1.0        |
| <b>OECD</b>      | <b>49,177</b>                   | <b>-0.8</b>                              | <b>+0.5</b> | <b>-3.1</b>              | <b>-2.4</b>  | <b>-0.1</b> |
| <b>Non-OECD</b>  | <b>36,797</b>                   | <b>+3.7</b>                              | <b>+4.0</b> | <b>+4.3</b>              | <b>+2.1</b>  | <b>+2.9</b> |

Source: IEA, DoE, OPEC; national statistics agencies including OMV, AFP, UP, ANP, PTT, CERI; national oil companies, including PEMEX, international oil companies including BP and its Statistical Review of World Energy; Reuters, Bloomberg; UBS estimates and forecasts.

# OECD Oil demand and growth rates

OECD oil demand and growth rates. Since the shortages of the 1970s and attendant wholesale government intervention on the demand side, OECD oil use has continued to expand, recession or not. This year's contraction is extreme.



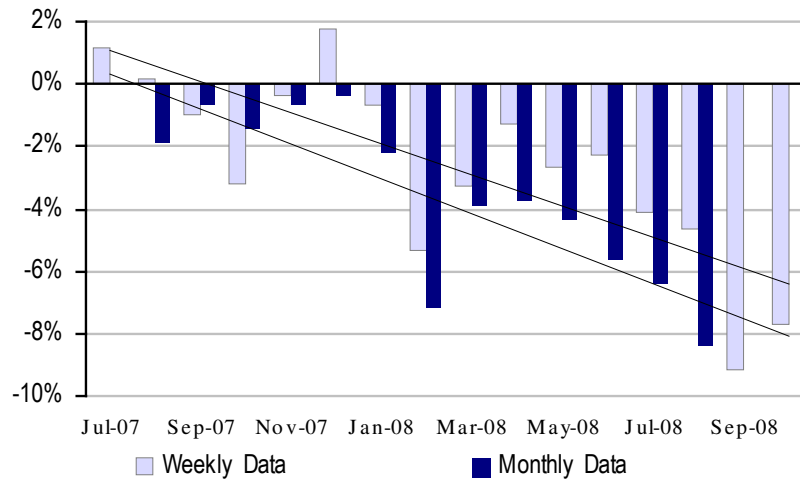
Source: UBS



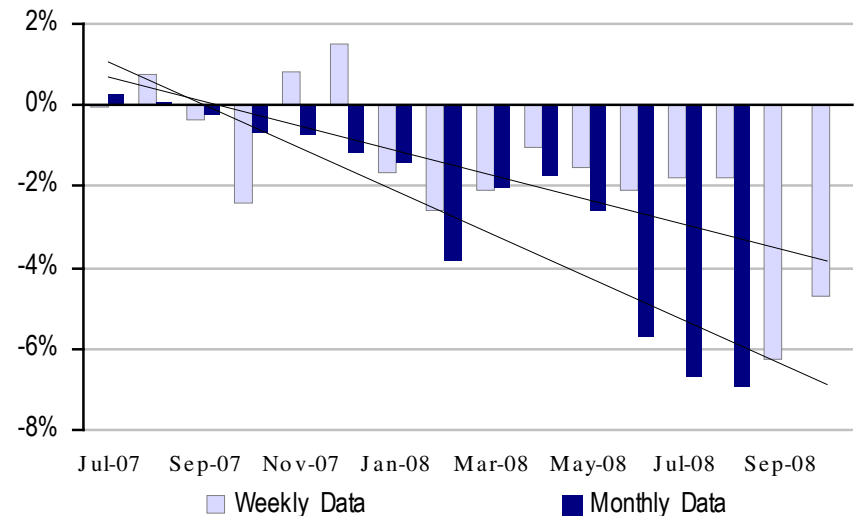
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# At the OECD core, US oil demand is falling fast

US oil demand is falling fast, faster than weekly data had estimated as both the deteriorating macro and high prices take their toll



Transport fuels make up 70% of US oil demand. In June/July their use fell much more sharply than can be explained by the macro economy

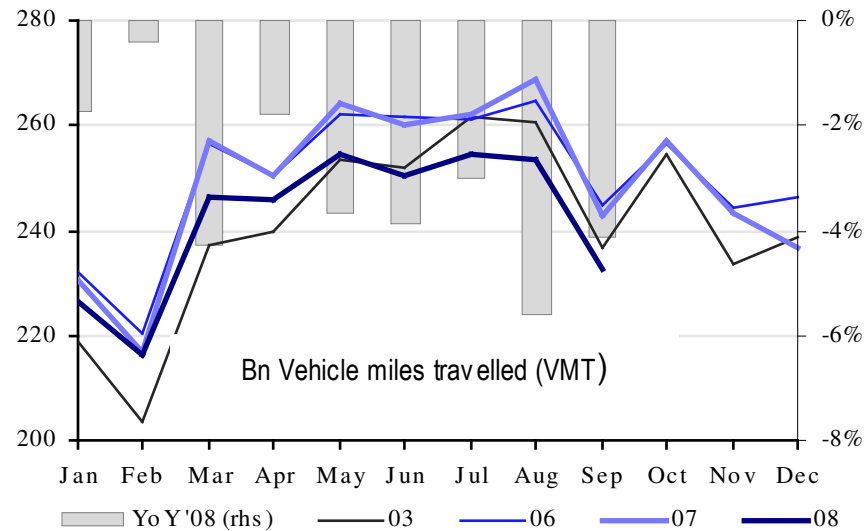


Source: IEA, UBS

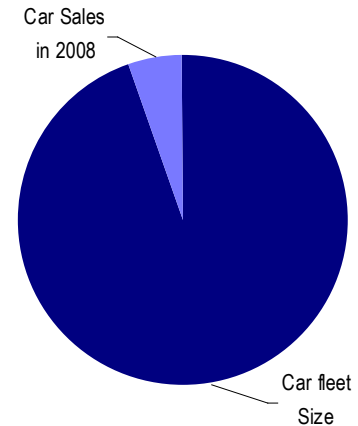


# US gasoline demand is down, people drive less

Clearly, Americans drove less, much less, this year. But why did they drive less? Was it the economy, or price; or both?



But it will take a while getting new, efficient cars on the road

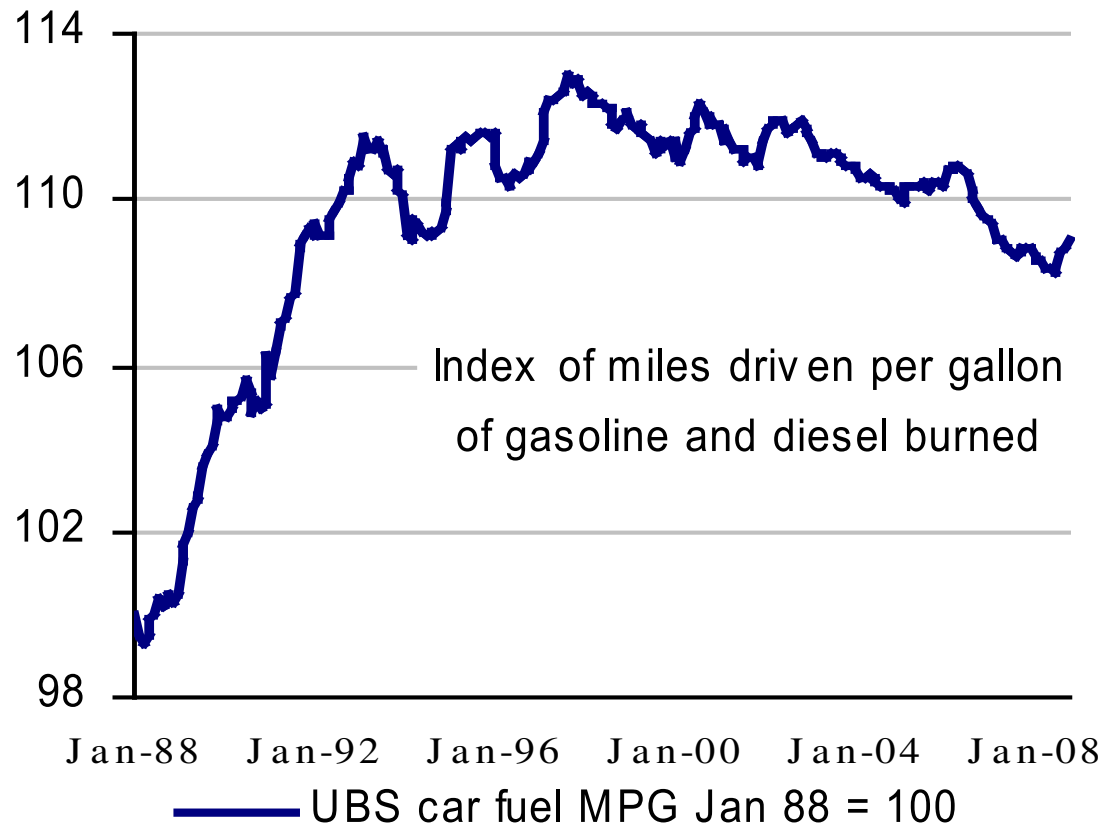


Source: Dept of Transport, UBS



# US fuel efficiency is not really improving

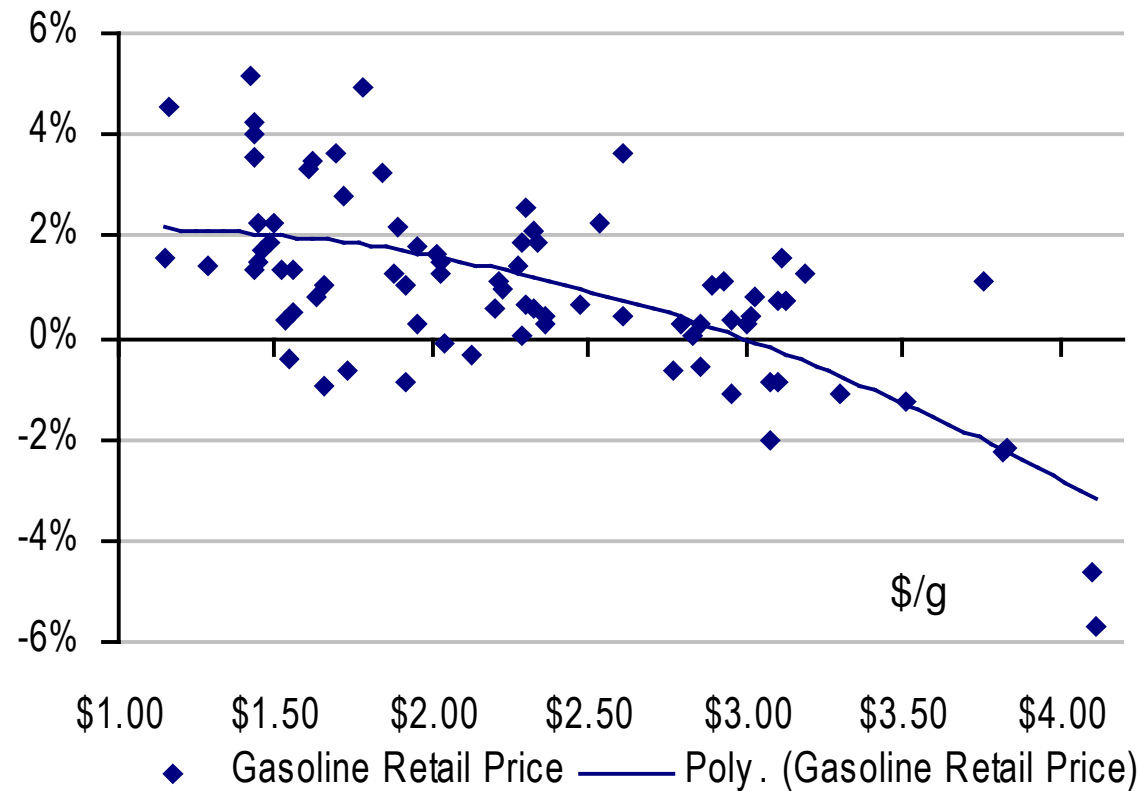
A less precise measure to be sure, but monthly data on fuel burned and miles driven show no sign of improving fuel efficiency either



Source: DoT, DoE and UBS

# A quick way to cut gasoline use: Drive up price

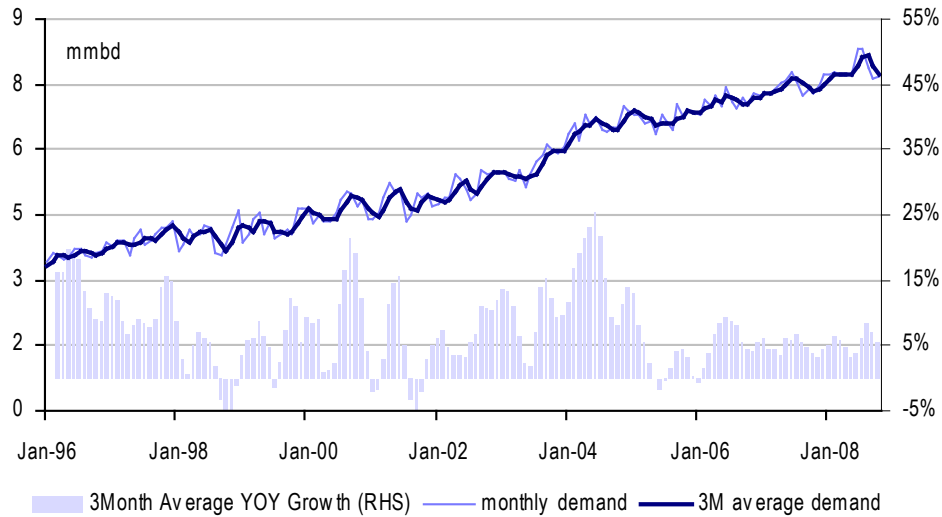
\$4 per gallon (\$5 for premium) appears to be the limit to what American drivers are willing to pay. Here we plot gasoline demand growth (% YoY) against retail gasoline prices, monthly (2002 through July)



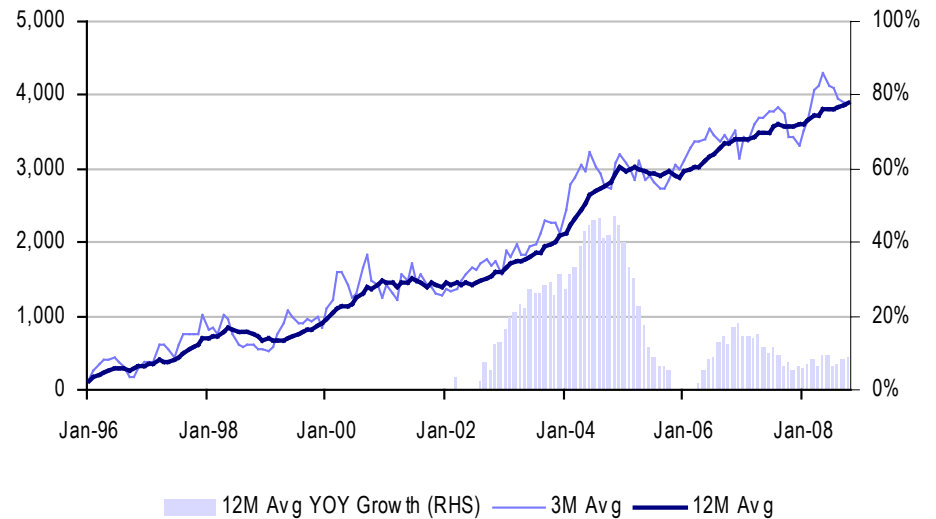
Source: UBS

# China's oil demand

China's implied demand by month from January 1996



... and China's net oil imports



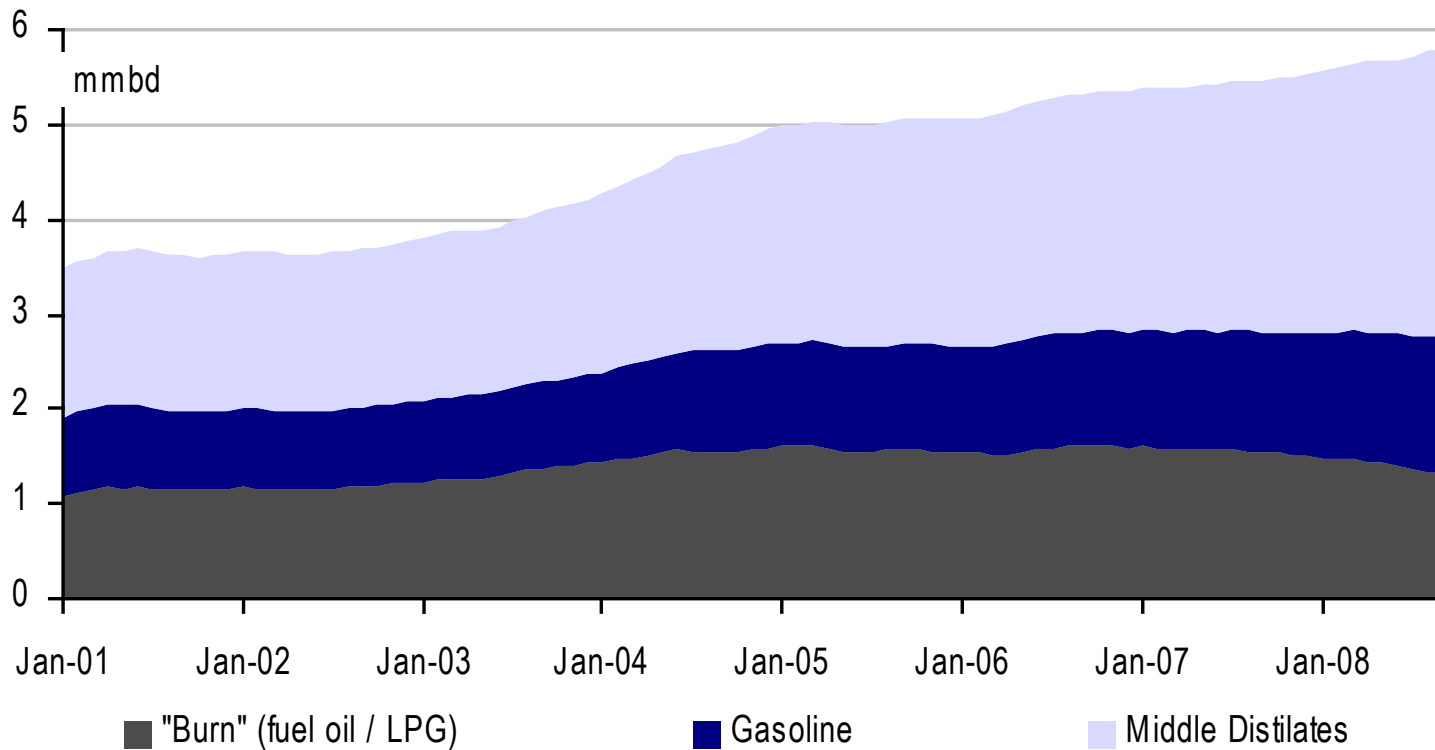
Source: UBS



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# China's oil demand

In China as well, oil demand is more and more driven by transport, and intensity likely to rise



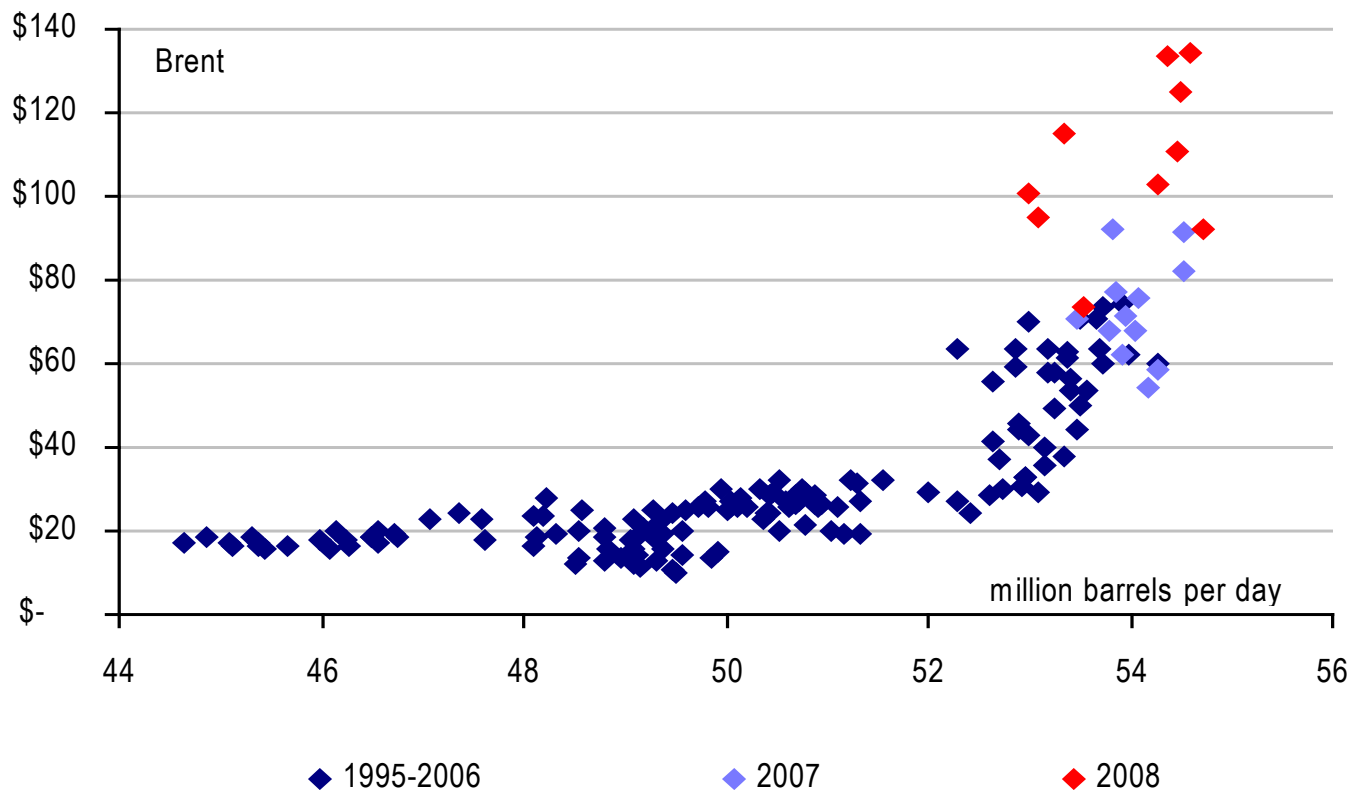
Source: UBS



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# Supply side concerns are real, and growing

Conventional crude oil output growth ex Iran, Iraq, Kuwait, Mexico and Saudi Arabia (states where the industry has no access) has hit the proverbial brick wall. Here we plot monthly crude oil output against corresponding average Brent futures prices



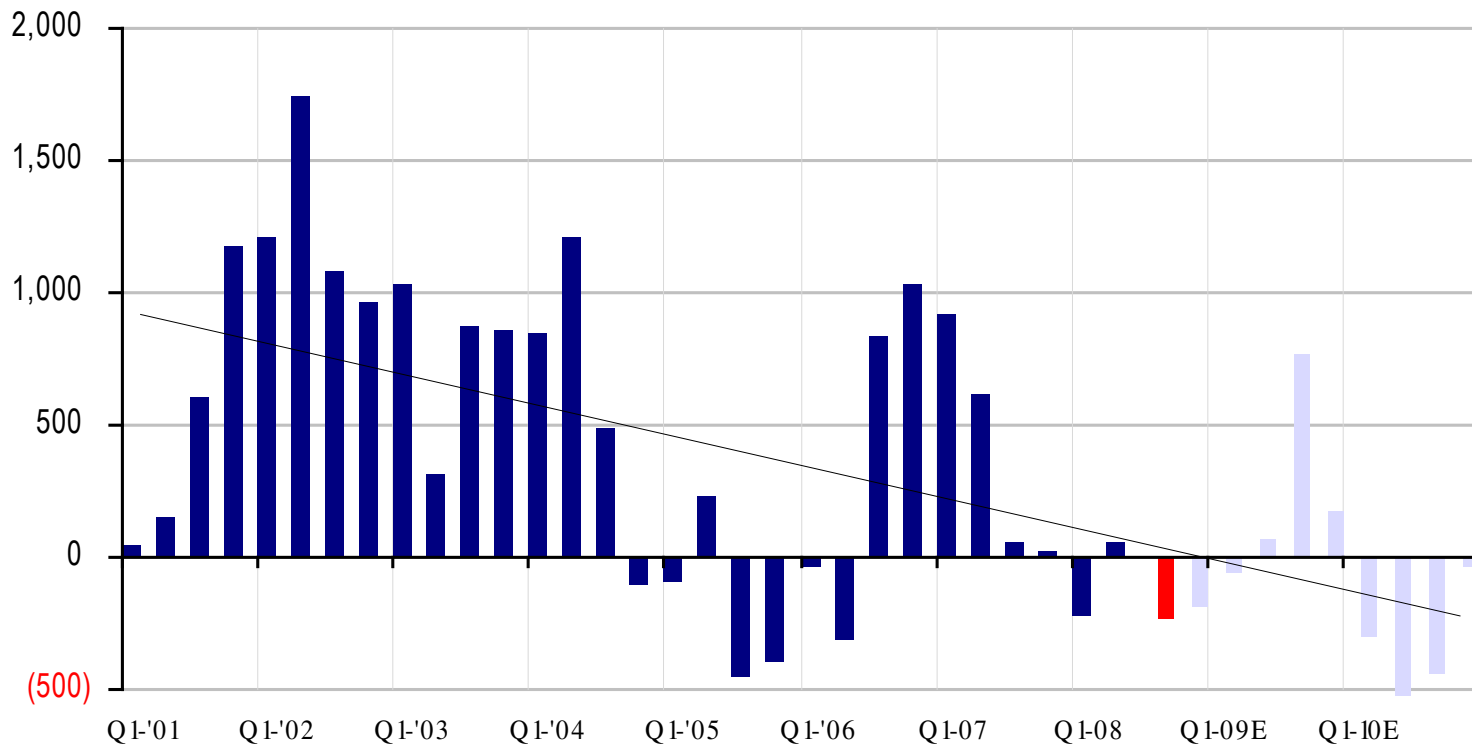
Source: UBS, Bloomberg



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# ... non-Opec production is falling

Year-over-year growth of all non-Opec oil supplies, by quarter in kbd



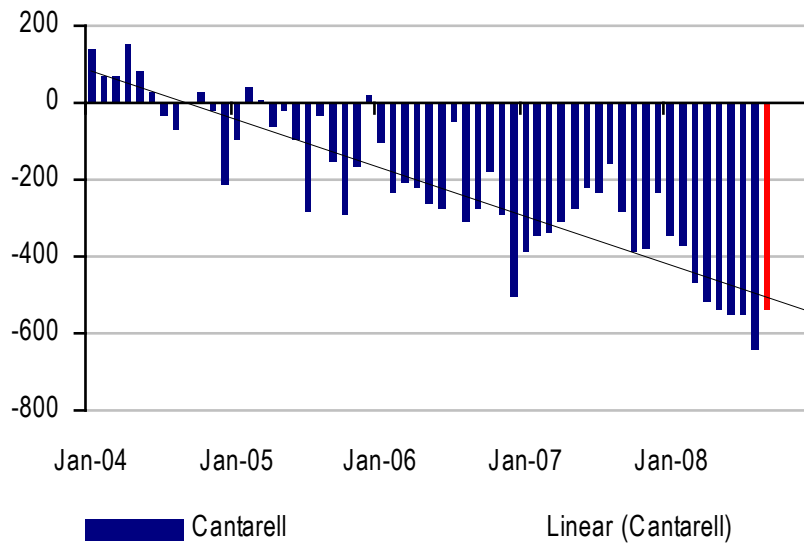
Source: UBS



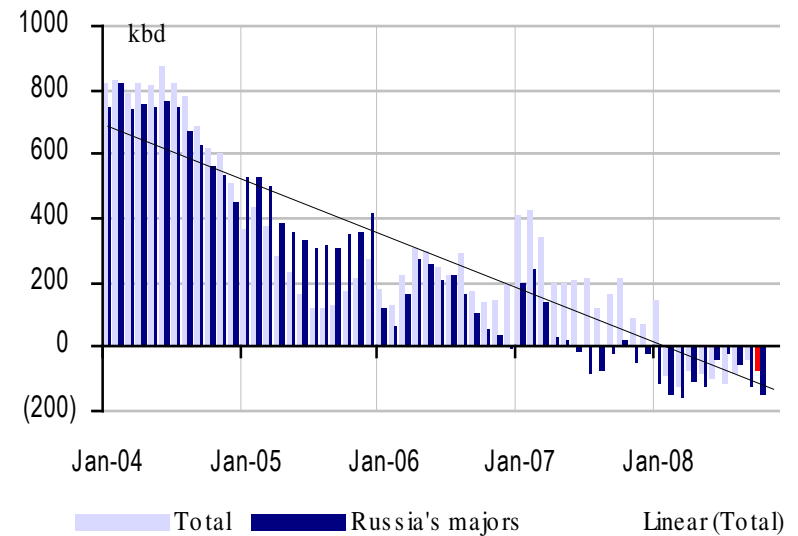
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# News this year from Mexico & Russia

Mexico's oil production is falling fast, because output at its crown-jewel Cantarell field is collapsing (here we plot that field's year-over-year decline each month, kbd)



Russia's oil output grinds lower

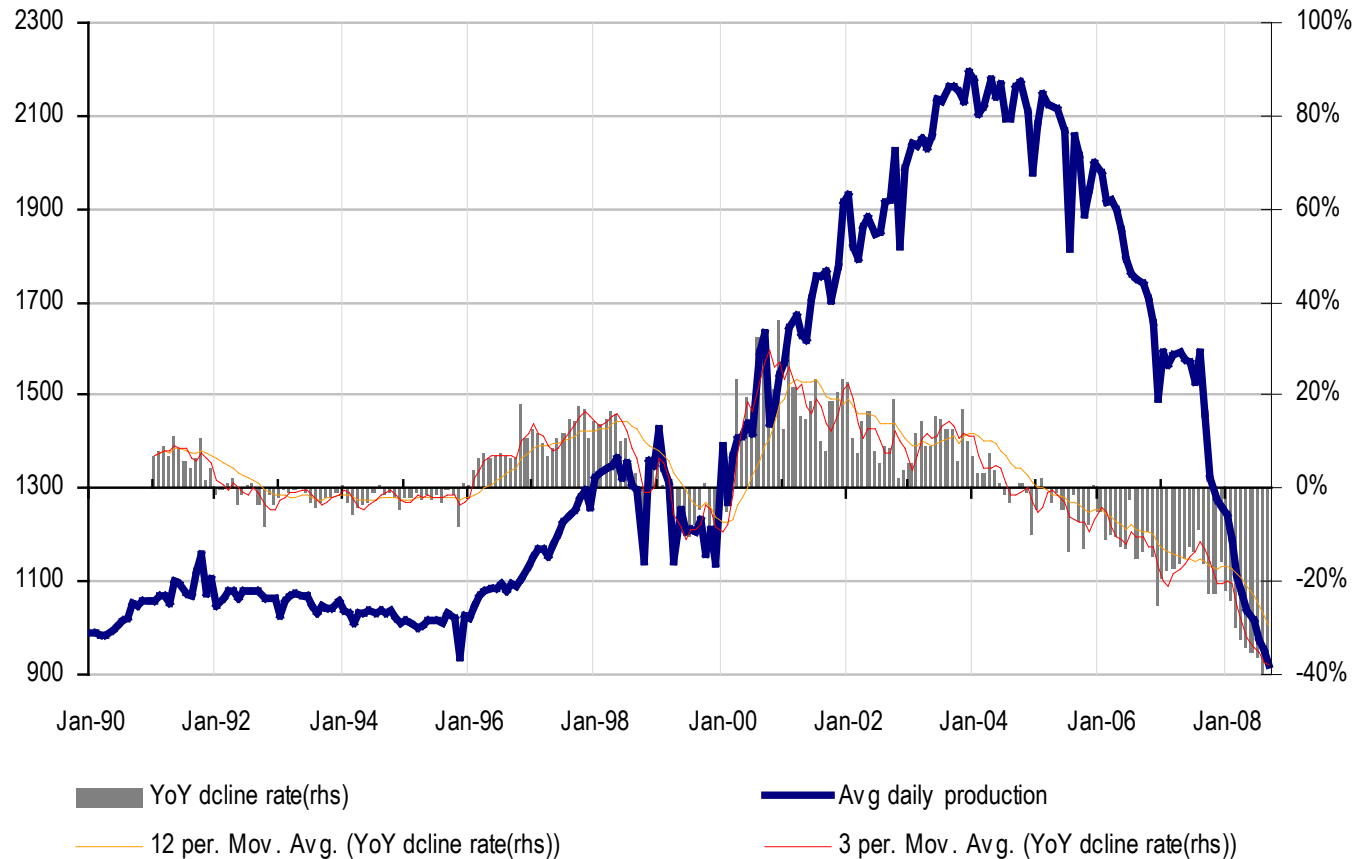


Source: Reuters, Bloomberg, Pemex, Energy Ministry of Russia, UBS



# The point about decline rates – Mexico's extreme

A long history of production at the second largest non-Opec field, Mexico's Cantarell. Decline rates are accelerating, fast. Latest y/y decline rate is -38%, y/y, in September

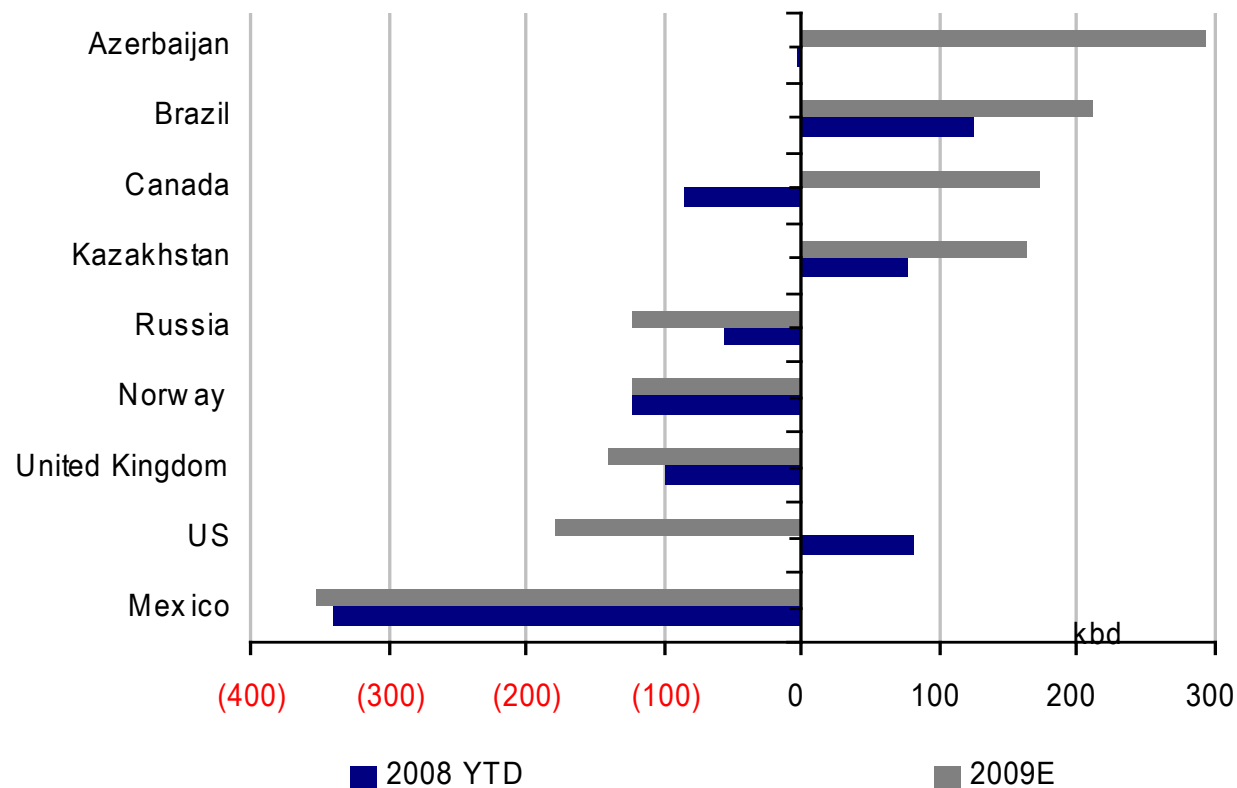


Source: Pemex UBS



# Non-Opec failed this year, will it fail in 2009 too?

Non-Opec oil producers: So far this year they have woefully underperformed. We expect them to do better next year. We plot actual production changes in 2008 (through September) and our forecast for 2009. (All oil, including NGLs, bio-fuels etc.)



Source: UBS



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# What about Opec?

Opec has spare capacity, but manages supply. Here we list the group's recent production and capacity. Opec cut supply and helped reduce inventory last year. This year it kept production in check (and flows from Nigeria fell). We expect more restraint this Fall

| (mmbd)         | UBS production assessment |             |             | Opec Secretariat | Old Nov 1   | New         | What effect:               |             | Break Even                          |
|----------------|---------------------------|-------------|-------------|------------------|-------------|-------------|----------------------------|-------------|-------------------------------------|
|                | Aug-08                    | Sep-08      | Oct-08      | Tally Sep-08     | "Target"    | Target      | Decline from Sept official | UBS est     | oil price for 2008 fiscal account** |
| Algeria        | 1.34                      | 1.21        | 1.29        | 1.41             | 1.36        | 1.29        | -0.1                       | 0.1         | \$ 56                               |
| Angola         | 1.72                      | 1.73        | 1.73        | 1.77             | 1.90        | 1.80        | 0.0                        | 0.1         |                                     |
| Ecuador        | 0.50                      | 0.50        | 0.50        | 0.50             | 0.51        | 0.48        | 0.0                        | 0.0         |                                     |
| Iran           | 3.90                      | 3.93        | 3.73        | 3.95             | 3.82        | 3.62        | -0.3                       | -0.3        | \$ 90                               |
| Kuwait*        | 2.63                      | 2.75        | 2.61        | 2.59             | 2.53        | 2.40        | -0.2                       | -0.4        | \$ 33                               |
| Libya          | 1.54                      | 1.74        | 1.69        | 1.72             | 1.71        | 1.62        | -0.1                       | -0.1        | \$ 47                               |
| Nigeria        | 1.96                      | 1.80        | 1.93        | 2.00             | 2.16        | 2.05        | 0.0                        | 0.2         |                                     |
| Qatar          | 0.86                      | 0.85        | 0.86        | 0.86             | 0.83        | 0.79        | -0.1                       | -0.1        | \$ 24                               |
| Saudi Arabia*  | 9.56                      | 9.09        | 8.92        | 9.38             | 8.94        | 8.48        | -0.9                       | -0.6        | \$ 49                               |
| UAE            | 2.65                      | 2.69        | 2.65        | 2.60             | 2.57        | 2.43        | -0.2                       | -0.3        | \$ 23                               |
| Venezuela      | 2.33                      | 2.33        | 2.30        | 2.36             | 2.47        | 2.34        | 0.0                        | 0.0         |                                     |
| <b>Opec-11</b> | <b>29.0</b>               | <b>28.6</b> | <b>28.2</b> | <b>29.1</b>      | <b>28.8</b> | <b>27.3</b> | <b>-1.8</b>                | <b>-1.3</b> |                                     |
| Iraq           | 2.32                      | 2.16        | 2.31        | 2.23             |             |             |                            |             | \$ 111                              |
| Spare Cap      | 2.0                       | 2.6         | 2.9         | 2.1              |             |             |                            |             |                                     |
| Capacity       | 31.0                      | 31.2        | 31.1        | 31.2             |             |             |                            |             |                                     |

\*Include "Neutral Zone" production of 550-600kbd \*\* Source: IMF Regional Economic Outlook, Oct 2008

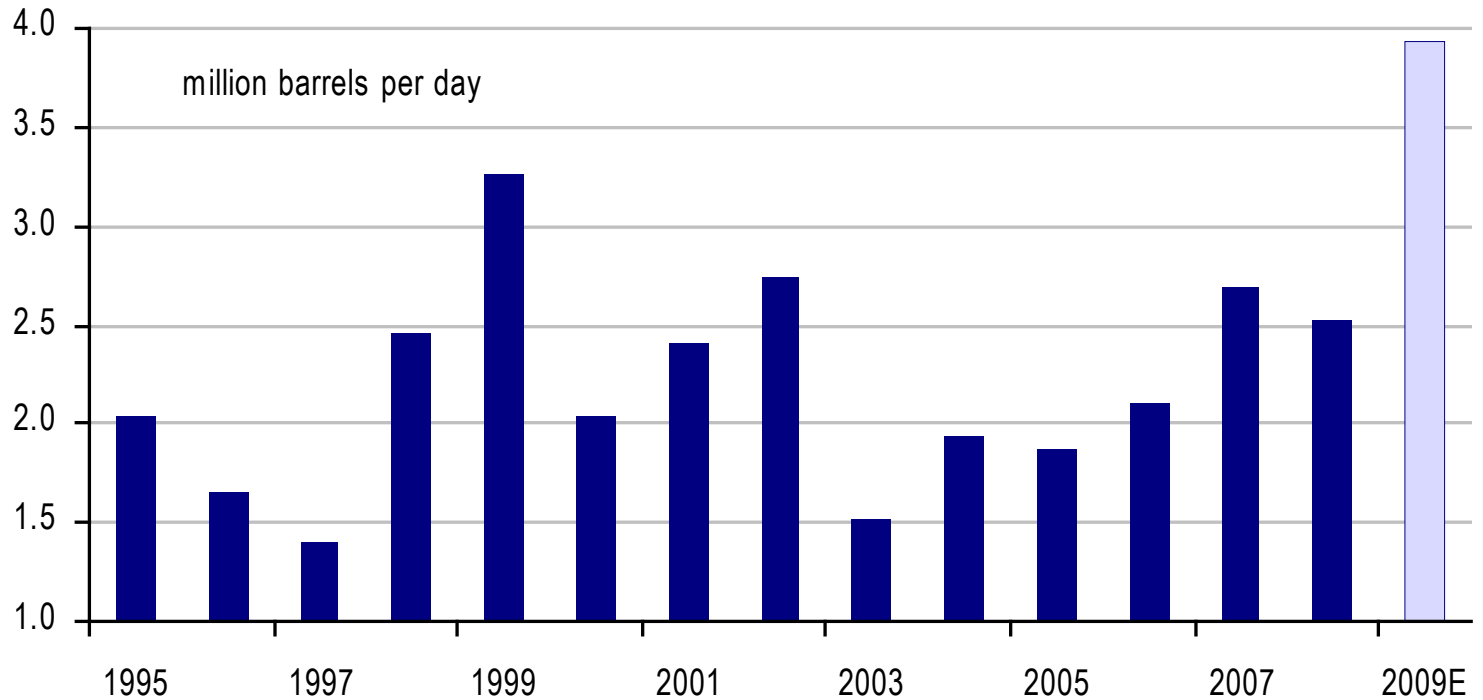
Source: Opec Secretariat, Petrologistics, UBS



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# Spare capacity should rise next year

Global spare crude oil production capacity (annual average)



Source: UBS



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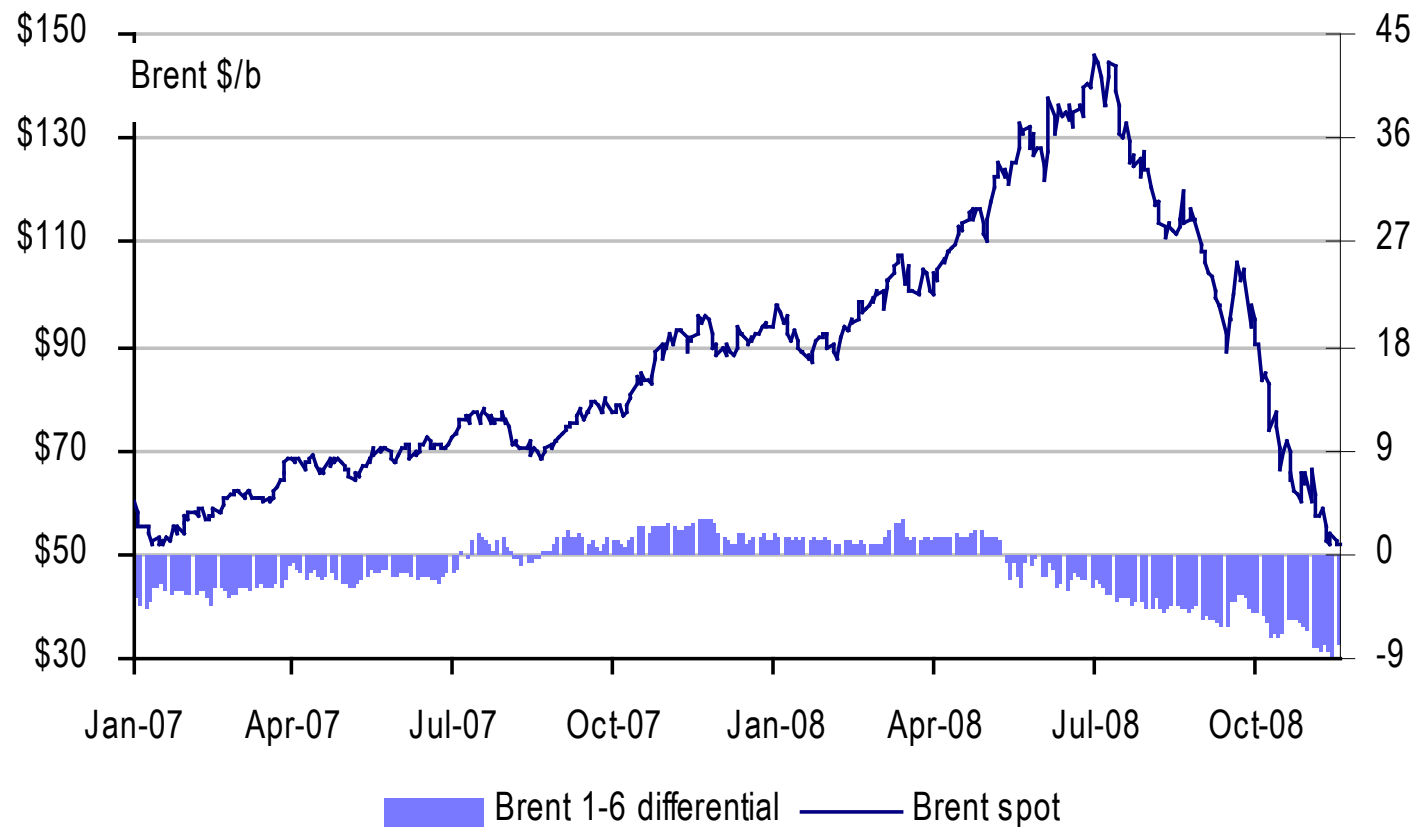
# Opec politics are again getting more interesting

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- ◆ Hawks vs GCC: Iran, Venezuela, Libya, Algeria, Nigeria, Ecuador and Angola were arrayed against Saudi Arabia, Kuwait, the UAE and Qatar
- ◆ Saudi fears: An Iran emboldened by Russia and Iraq split into three “-stans”
- ◆ Might Russia join Opec? Or why was Igor Setchin, the deputy Prime Minister of the Russian Federation in Vienna in September?
- ◆ How long can Saudi Arabia remain part of the ‘solution’ to global economic/financial problems?

# Oil market fundamentals and financial flows

Brent futures spot (daily close) and difference between spot and 6-months out contract. A positive difference, backwardation, signals tight markets. Fundamentals turned weaker in May/June and have deteriorated since.

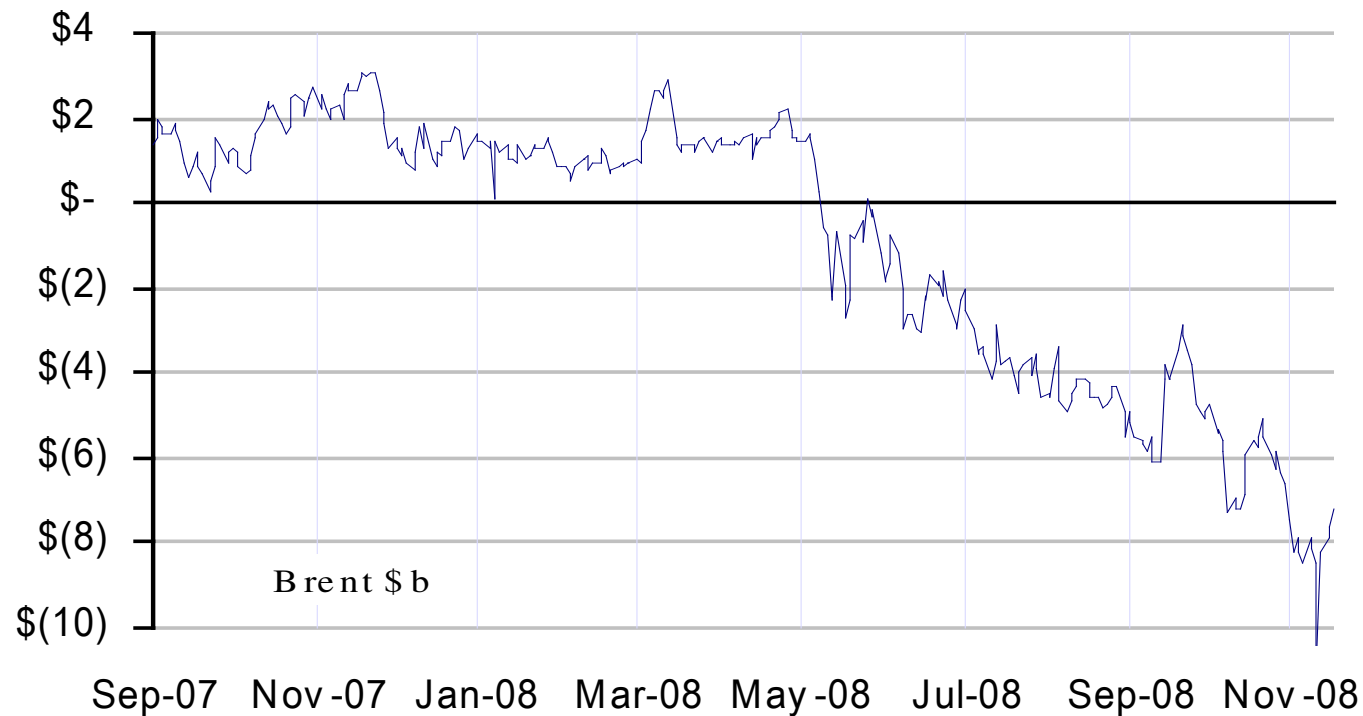


Source: Bloomberg, UBS



# Oil futures markets: A deep contango for Brent

Those Brent futures time-spreads (price of prompt contract less price of 6-month deferred, daily) are still struggling to turn in a bullish direction.



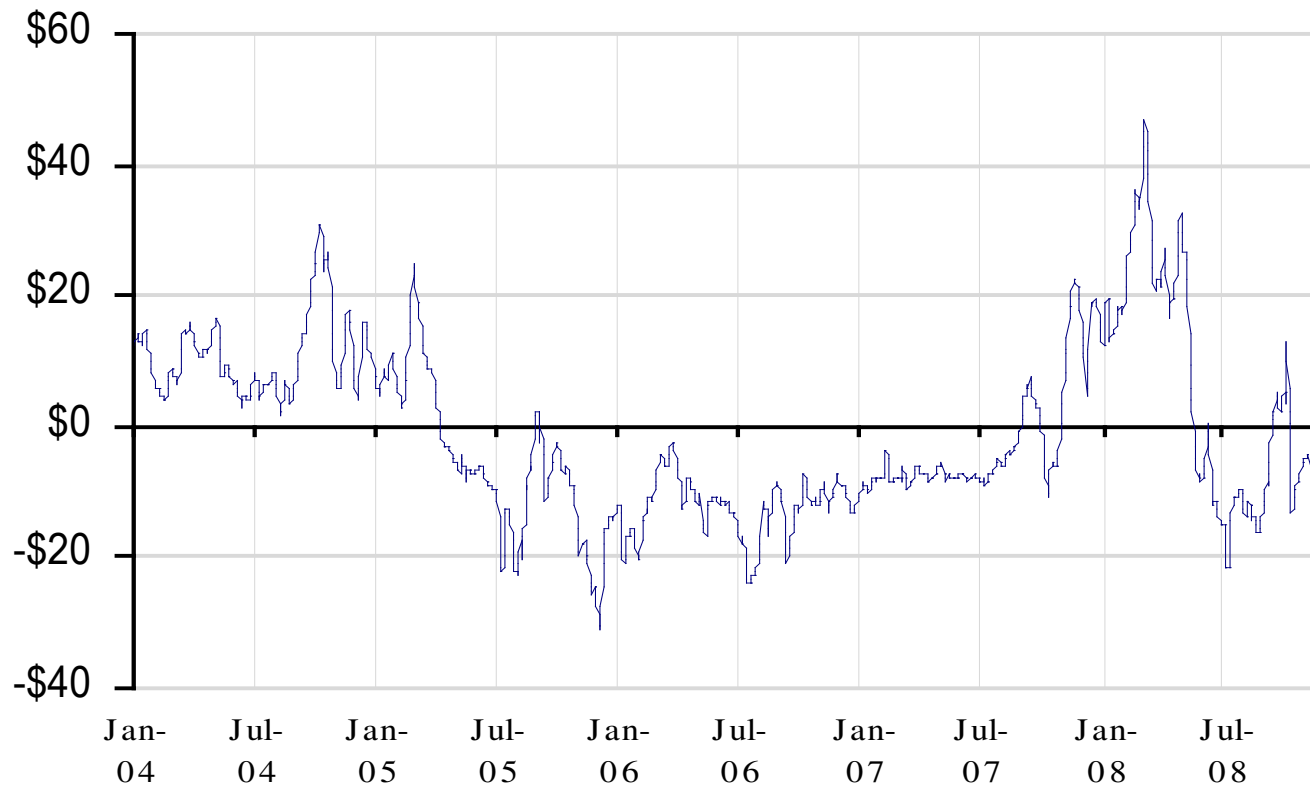
Source: Bloomberg, UBS



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# Spot-premiums of IPE Gasoil futures

Similarly, time-spreads of the Gasoil contract, which reflect middle distillate fundamentals, turned negative in June. They should rebound and turn positive into winter, but have so far failed to do so, after a valiant attempt to rally in September.

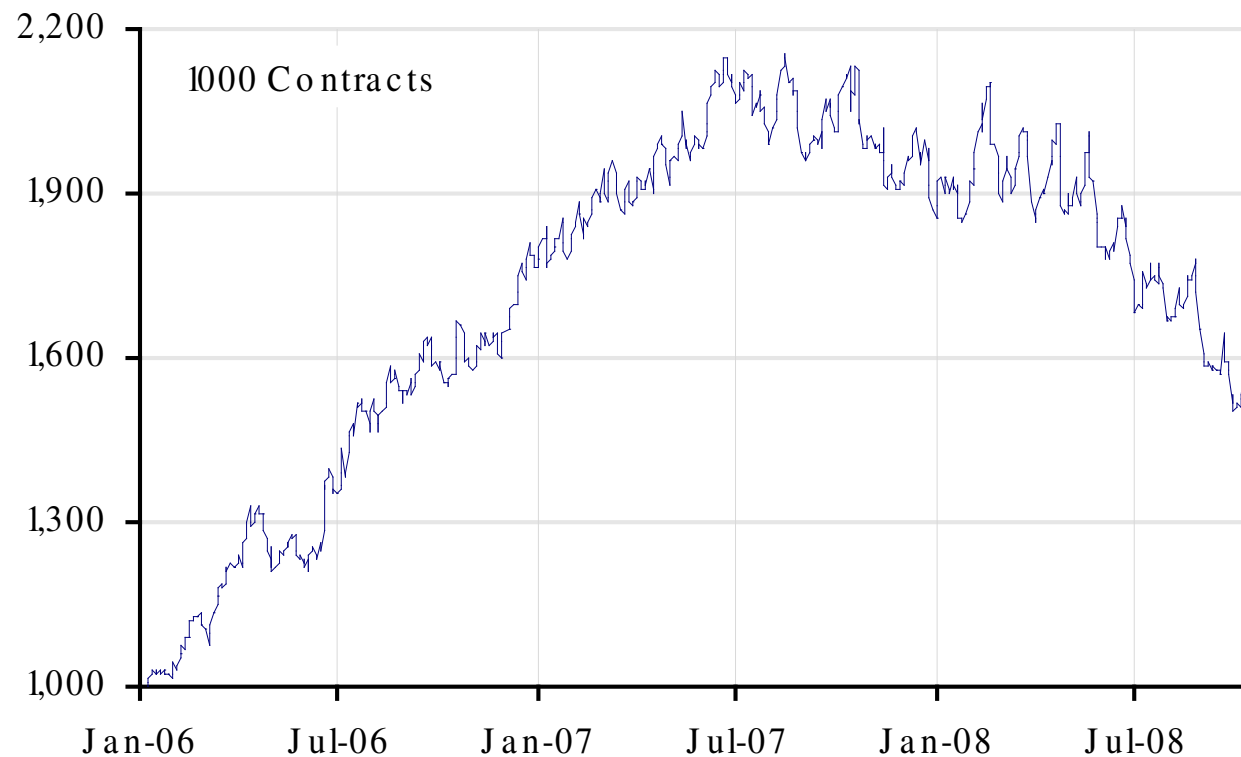


Source: Bloomberg, UBS



# Financial headwinds: Oil futures markets shrank

WTI crude oil futures' open interest, combined totals of both on ICE & Nymex, have trended lower since the middle of last year. Markets are still shrinking thanks to de-leveraging, dis-investments, index outflows & repositioning.



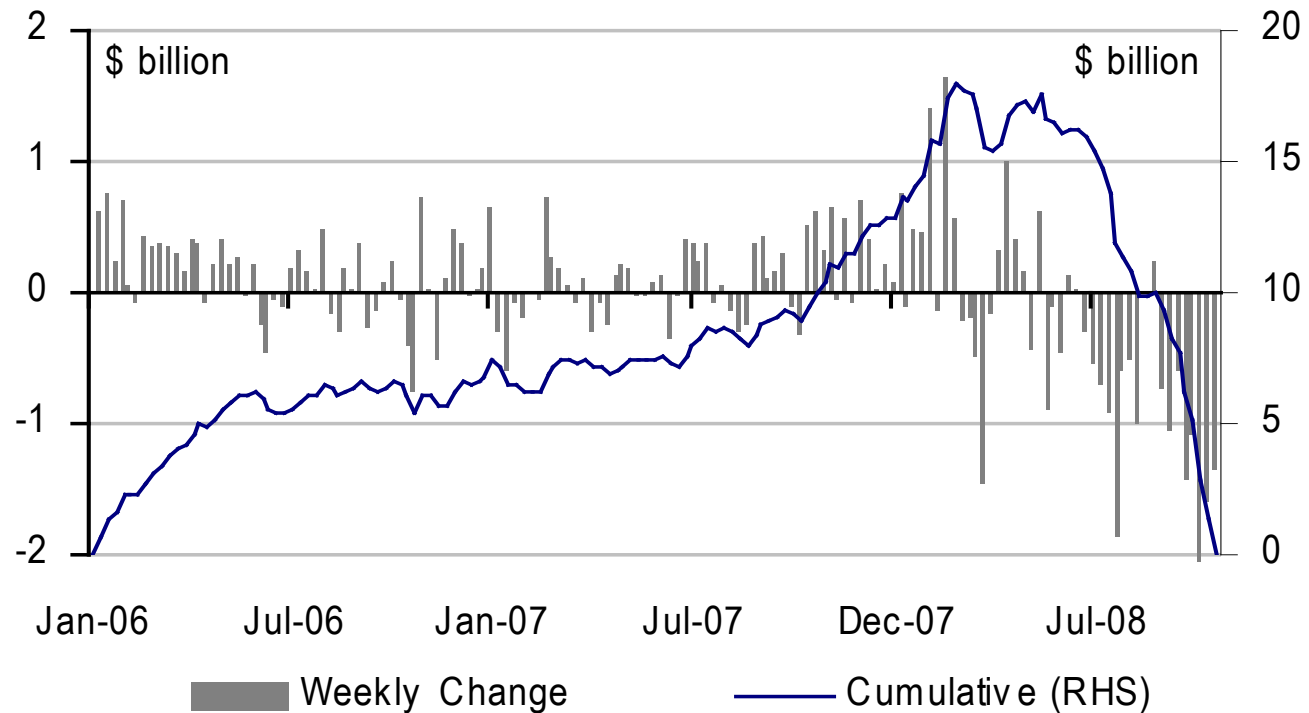
Source: UBS



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# Commodity index inflows, and outflows

In the third quarter of 2008 as much money was taken out of agricultural holdings by commodity index investors as was put in in the preceding two years, judging from our interpreting of reported flows into and out of agricultural commodities -- which should parallel index flows for energy contracts



Source: UBS



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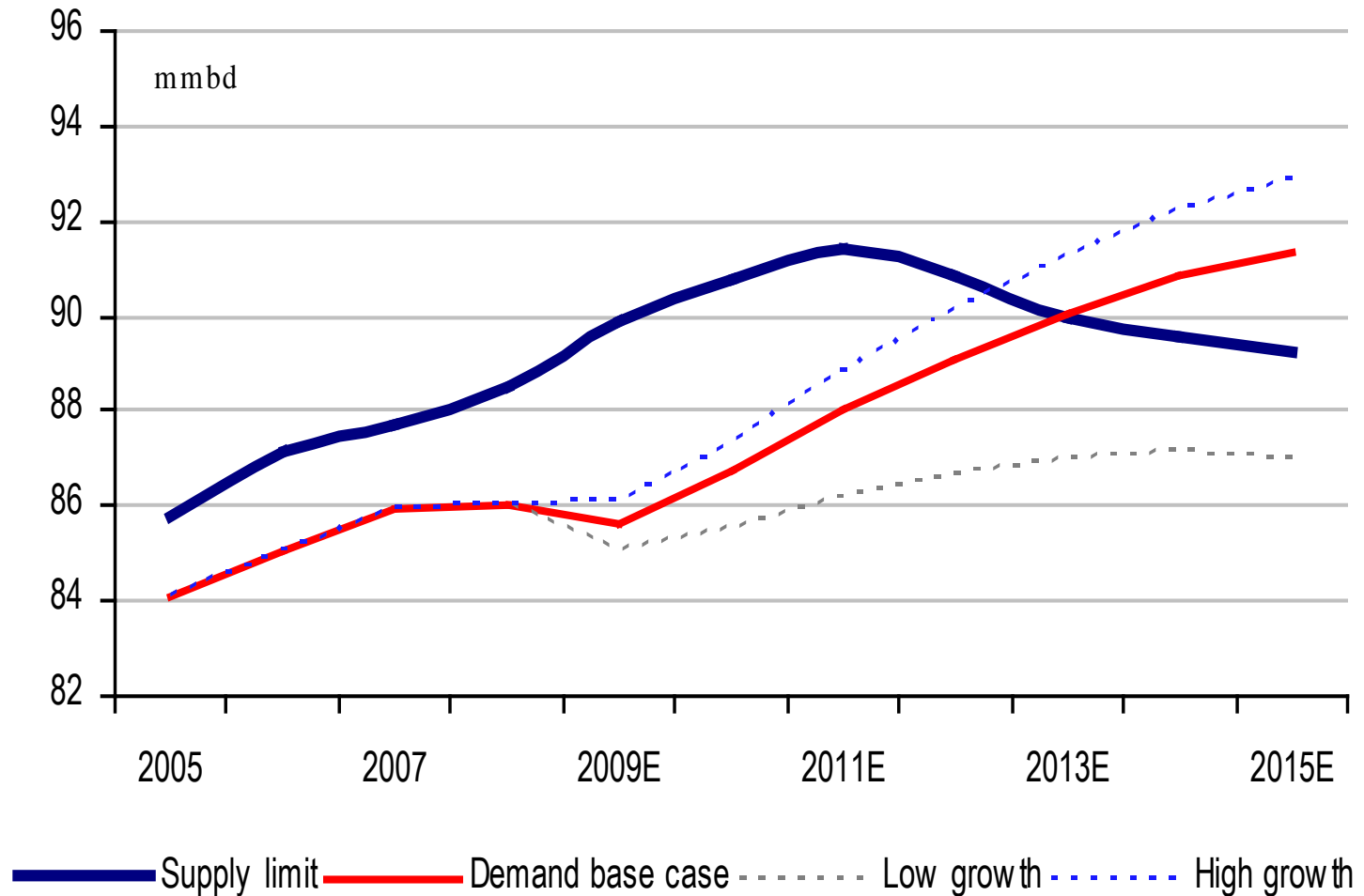
# “demand constrained by supply” (postponed)

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- ◆ Medium term scenarios, a picture of a 1000 words
- ◆ Why long-dated futures prices began to venture far higher than cost-of-supply calculations warrant
- ◆ A big picture S&D balance
- ◆ Medium term demand drivers
- ◆ Supply constraints quantified through 2015

# Scarcity in a nutshell (the 1,000 word picture)

Our medium-term outlook remains structurally bullish for oil prices



# Long-dated oil prices: Extraction or use?

Two-year out WTI futures have averaged \$71/b in the last two years. Their 100-day moving average stayed within one standard deviation of that \$71 average, despite significant volatility since April 2006 through Dec '07. We think long-dated prices were gravitating toward the real 'cost' of "extraction"

Already in January that 100-day moving average busted out through the 2-standard deviation barrier. We could no longer explain this long-dated price with all-in, cost-of-supply driven "normalised" prices.

Markets were looking for a demand destruction level of oil prices, putting a value on "use".



Source: Bloomberg and UBS

# Our medium term balance doesn't add up

UBS's extended global oil balance (11 years, 2005 through 2015E) ...

| mmb/d                       | 2005        | 2006        | 2007        | 2008E       | 2009E       | 2010E       | 2011E       | 2012E       | 2013E       | 2014E       | 2015E       |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Demand</b>               |             |             |             |             |             |             |             |             |             |             |             |
| OECD America                | 25.6        | 25.4        | 25.5        | 24.3        | 23.8        | 23.9        | 24.0        | 23.9        | 23.6        | 23.0        | 22.1        |
| OECD Europe                 | 15.7        | 15.7        | 15.3        | 15.2        | 14.8        | 14.7        | 14.6        | 14.6        | 14.6        | 14.7        | 14.7        |
| OECD Asia Pac               | 8.6         | 8.5         | 8.3         | 8.1         | 8.0         | 7.9         | 7.9         | 7.8         | 7.8         | 7.7         | 7.6         |
| <b>OECD</b>                 | <b>49.8</b> | <b>49.6</b> | <b>49.2</b> | <b>47.7</b> | <b>46.5</b> | <b>46.4</b> | <b>46.5</b> | <b>46.3</b> | <b>45.9</b> | <b>45.4</b> | <b>44.4</b> |
| FSU                         | 4.0         | 4.2         | 4.0         | 4.2         | 4.2         | 4.1         | 4.1         | 4.1         | 4.1         | 4.1         | 4.0         |
| China                       | 6.7         | 7.1         | 7.5         | 7.9         | 8.2         | 8.6         | 9.2         | 9.7         | 10.4        | 11.0        | 11.7        |
| Other Asia                  | 8.8         | 8.9         | 9.2         | 9.4         | 9.5         | 9.8         | 10.0        | 10.3        | 10.6        | 10.9        | 11.2        |
| South America               | 5.2         | 5.4         | 5.7         | 5.9         | 5.9         | 6.0         | 6.1         | 6.1         | 6.2         | 6.2         | 6.3         |
| Mideast                     | 6.0         | 6.4         | 6.7         | 7.1         | 7.4         | 7.7         | 7.9         | 8.2         | 8.5         | 8.8         | 9.2         |
| Africa                      | 2.8         | 2.8         | 3.0         | 3.1         | 3.2         | 3.3         | 3.4         | 3.5         | 3.6         | 3.6         | 3.7         |
| <b>Non-OECD</b>             | <b>34.3</b> | <b>35.5</b> | <b>36.8</b> | <b>38.4</b> | <b>39.2</b> | <b>40.3</b> | <b>41.6</b> | <b>42.8</b> | <b>44.1</b> | <b>45.5</b> | <b>46.9</b> |
| <b>Total</b>                | <b>84.1</b> | <b>85.1</b> | <b>86.0</b> | <b>86.0</b> | <b>85.7</b> | <b>86.7</b> | <b>88.0</b> | <b>89.1</b> | <b>90.1</b> | <b>90.8</b> | <b>91.3</b> |
| <b>Supply</b>               |             |             |             |             |             |             |             |             |             |             |             |
| Americas                    | 17.7        | 17.8        | 17.9        | 17.7        | 17.5        | 17.2        | 17.5        | 17.3        | 16.9        | 16.7        | 16.6        |
| Europe                      | 5.8         | 5.4         | 5.2         | 4.9         | 4.6         | 4.4         | 3.9         | 3.5         | 3.1         | 2.8         | 2.5         |
| FSU                         | 11.8        | 12.2        | 12.8        | 12.8        | 13.1        | 13.1        | 13.0        | 13.0        | 13.2        | 13.6        | 13.9        |
| Africa                      | 2.4         | 2.6         | 2.7         | 2.9         | 3.0         | 3.0         | 3.0         | 2.9         | 2.9         | 2.9         | 2.9         |
| Mideast                     | 1.8         | 1.7         | 1.6         | 1.6         | 1.6         | 1.7         | 1.6         | 1.6         | 1.5         | 1.4         | 1.4         |
| Asia                        | 8.0         | 8.0         | 8.0         | 8.2         | 8.5         | 8.7         | 8.6         | 8.6         | 8.6         | 8.5         | 8.3         |
| <b>Non-Opec Supply</b>      | <b>47.4</b> | <b>47.8</b> | <b>48.2</b> | <b>48.1</b> | <b>48.4</b> | <b>48.1</b> | <b>47.6</b> | <b>46.9</b> | <b>46.2</b> | <b>45.9</b> | <b>45.6</b> |
| <b>Opec Crude Oil</b>       | <b>30.4</b> | <b>30.8</b> | <b>30.5</b> | <b>31.1</b> | <b>30.3</b> | <b>30.9</b> | <b>31.9</b> | <b>33.7</b> | <b>34.9</b> | <b>34.6</b> | <b>34.4</b> |
| Opec 11                     | 28.6        | 28.9        | 28.5        | 28.8        | 27.9        | 28.3        | 26.5        | 27.9        | 28.7        | 28.1        | 27.7        |
| <b>Opec non-crude</b>       | <b>4.2</b>  | <b>4.3</b>  | <b>4.4</b>  | <b>4.6</b>  | <b>5.1</b>  | <b>5.5</b>  | <b>5.9</b>  | <b>6.1</b>  | <b>6.2</b>  | <b>6.3</b>  | <b>6.4</b>  |
| <b>Processing Gain</b>      | <b>2.1</b>  | <b>2.1</b>  | <b>2.1</b>  | <b>2.2</b>  | <b>2.3</b>  | <b>2.4</b>  | <b>2.5</b>  | <b>2.5</b>  | <b>2.6</b>  | <b>2.7</b>  | <b>2.8</b>  |
| <b>Total</b>                | <b>84.1</b> | <b>85.0</b> | <b>85.2</b> | <b>86.0</b> | <b>86.1</b> | <b>86.8</b> | <b>88.0</b> | <b>89.2</b> | <b>90.0</b> | <b>89.5</b> | <b>89.2</b> |
| <b>memo:</b>                |             |             |             |             |             |             |             |             |             |             |             |
| <b>Capacity</b>             | <b>85.8</b> | <b>87.1</b> | <b>87.7</b> | <b>88.5</b> | <b>89.9</b> | <b>90.8</b> | <b>91.4</b> | <b>90.8</b> | <b>90.0</b> | <b>89.5</b> | <b>89.2</b> |
| Spare                       | 1.7         | 2.1         | 2.5         | 2.5         | 3.8         | 3.9         | 3.4         | 1.6         | 0.0         |             |             |
| Relative                    | 2.0%        | 2.5%        | 3.0%        | 2.9%        | 4.5%        | 4.5%        | 3.9%        | 1.8%        |             |             |             |
| <b>To Balance</b>           |             |             |             |             |             |             |             |             |             |             |             |
| <b>Implied stock change</b> | <b>-0.0</b> | <b>-0.1</b> | <b>-0.8</b> | <b>+0.0</b> | <b>+0.4</b> | <b>+0.1</b> | <b>-0.1</b> | <b>+0.1</b> | <b>-0.1</b> | <b>-1.3</b> | <b>-2.1</b> |
| <b>OECD stock cover</b>     | <b>51.0</b> | <b>53.5</b> | <b>52.6</b> | <b>56.7</b> | <b>58.0</b> | <b>57.4</b> |             |             |             |             |             |

OECD oil demand perks up one last time

Real demand growth limited to China, emerging market Asia and the Middle East

Non-Opec peaks

2012-'13 global production peaks

Capacity growth limit

Too little supply and/or too much demand

# ... the balance has most risk on the demand side

## UBS's extended global oil balance (11 years, 2005 through 2015E) ...

| Demand                   | 2005                                | 2006         | 2007         | 2008E        | 2009E        | 2010E        | 2011E       | 2012E        | 2013E        | 2014E        | 2015E        |
|--------------------------|-------------------------------------|--------------|--------------|--------------|--------------|--------------|-------------|--------------|--------------|--------------|--------------|
| OECD America             | 0.7%                                | -0.6%        | 0.4%         | -4.6%        | -2.4%        | 0.5%         | 0.6%        | -0.5%        | -1.3%        | -2.4%        | -4.0%        |
| OECD Europe              | 0.9%                                | 0.1%         | -2.4%        | -0.8%        | -2.7%        | -0.8%        | -0.4%       | 0.0%         | 0.0%         | 0.5%         | 0.5%         |
| OECD Asia Pac            | 0.9%                                | -1.4%        | -1.6%        | -2.6%        | -2.0%        | -0.7%        | -0.5%       | -0.6%        | -0.7%        | -0.9%        | -1.0%        |
| <b>OECD</b>              | <b>0.8%</b>                         | <b>-0.5%</b> | <b>-0.8%</b> | <b>-3.1%</b> | <b>-2.4%</b> | <b>-0.1%</b> | <b>0.1%</b> | <b>-0.4%</b> | <b>-0.8%</b> | <b>-1.2%</b> | <b>-2.1%</b> |
| FSU                      | 0.5%                                | 5.3%         | -4.0%        | 5.8%         | -1.6%        | -1.0%        | 0.0%        | 0.0%         | 0.0%         | -1.0%        | -2.0%        |
| China                    | 1.9%                                | 6.0%         | 4.9%         | 5.2%         | 4.0%         | 5.6%         | 6.4%        | 6.1%         | 6.2%         | 6.4%         | 6.5%         |
| Other Asia               | 1.5%                                | 1.0%         | 2.9%         | 2.5%         | 1.6%         | 2.8%         | 2.4%        | 2.8%         | 2.8%         | 2.7%         | 2.7%         |
| South America            | 2.0%                                | 3.9%         | 6.4%         | 3.4%         | 0.2%         | 1.6%         | 1.6%        | 0.7%         | 0.9%         | 0.6%         | 0.6%         |
| Mideast                  | 5.2%                                | 5.6%         | 6.0%         | 5.8%         | 4.4%         | 3.2%         | 3.4%        | 3.4%         | 3.7%         | 3.7%         | 4.1%         |
| Africa                   | 4.5%                                | -0.4%        | 4.4%         | 3.8%         | 2.5%         | 4.0%         | 3.4%        | 2.7%         | 2.1%         | 1.4%         | 1.4%         |
| <b>Non-OECD</b>          | <b>2.5%</b>                         | <b>3.6%</b>  | <b>3.7%</b>  | <b>4.3%</b>  | <b>2.1%</b>  | <b>2.9%</b>  | <b>3.1%</b> | <b>3.0%</b>  | <b>3.1%</b>  | <b>3.0%</b>  | <b>3.1%</b>  |
| <b>TOTAL DEMAND</b>      | <b>1.5%</b>                         | <b>1.2%</b>  | <b>1.1%</b>  | <b>0.1%</b>  | <b>-0.4%</b> | <b>1.3%</b>  | <b>1.5%</b> | <b>1.2%</b>  | <b>1.1%</b>  | <b>0.8%</b>  | <b>0.5%</b>  |
| <b>Global GDP growth</b> | <b>4.4%</b>                         | <b>4.9%</b>  | <b>4.8%</b>  | <b>3.0%</b>  | <b>1.3%</b>  | <b>2.9%</b>  | <b>3.5%</b> | <b>3.5%</b>  | <b>3.5%</b>  | <b>3.5%</b>  | <b>3.5%</b>  |
| <b>Supply</b>            | <b>Year to Year change in mmb/d</b> |              |              |              |              |              |             |              |              |              |              |
| Americas                 | -0.3                                | 0.2          | 0.0          | -0.2         | -0.2         | -0.3         | 0.3         | -0.3         | -0.4         | -0.2         | -0.1         |
| Europe                   | -0.4                                | -0.4         | -0.2         | -0.3         | -0.3         | -0.3         | -0.5        | -0.4         | -0.4         | -0.3         | -0.3         |
| FSU                      | 0.4                                 | 0.5          | 0.5          | 0.0          | 0.3          | 0.0          | -0.1        | 0.0          | 0.2          | 0.4          | 0.3          |
| Africa                   | 0.1                                 | 0.2          | 0.1          | 0.1          | 0.1          | 0.0          | 0.0         | 0.0          | 0.0          | 0.0          | 0.0          |
| Mideast                  | -0.1                                | -0.1         | 0.0          | 0.0          | 0.0          | 0.0          | -0.1        | 0.0          | -0.1         | -0.1         | -0.1         |
| Asia                     | 0.1                                 | 0.1          | 0.0          | 0.2          | 0.3          | 0.1          | -0.1        | 0.0          | 0.0          | -0.1         | -0.1         |
| <b>Non-Opec Supply</b>   | <b>-0.2</b>                         | <b>0.4</b>   | <b>0.4</b>   | <b>-0.1</b>  | <b>0.3</b>   | <b>-0.4</b>  | <b>-0.4</b> | <b>-0.7</b>  | <b>-0.7</b>  | <b>-0.3</b>  | <b>-0.3</b>  |
| <b>Opec Crude Oil</b>    | <b>0.8</b>                          | <b>0.4</b>   | <b>-0.3</b>  | <b>0.6</b>   | <b>-0.9</b>  | <b>0.6</b>   | <b>1.0</b>  | <b>1.8</b>   | <b>1.2</b>   | <b>-0.3</b>  | <b>-0.2</b>  |
| Opec 10                  | <b>1.1</b>                          | <b>0.2</b>   | <b>-0.4</b>  | <b>0.4</b>   | <b>-1.0</b>  | <b>0.5</b>   | <b>-1.8</b> | <b>1.3</b>   | <b>0.9</b>   | <b>-0.6</b>  | <b>-0.4</b>  |
| <b>Opec non-crude</b>    | <b>0.3</b>                          | <b>0.1</b>   | <b>0.1</b>   | <b>0.2</b>   | <b>0.5</b>   | <b>0.4</b>   | <b>0.4</b>  | <b>0.2</b>   | <b>0.1</b>   | <b>0.1</b>   | <b>0.1</b>   |
| <b>Processing Gain</b>   | <b>0.1</b>                          | <b>0.1</b>   | <b>0.0</b>   | <b>0.1</b>   | <b>0.1</b>   | <b>0.1</b>   | <b>0.1</b>  | <b>0.1</b>   | <b>0.1</b>   | <b>0.1</b>   | <b>0.1</b>   |
| <b>TOTAL SUPPLY</b>      | <b>1.0</b>                          | <b>1.0</b>   | <b>0.2</b>   | <b>0.8</b>   | <b>0.0</b>   | <b>0.8</b>   | <b>1.1</b>  | <b>1.3</b>   | <b>0.7</b>   | <b>-0.5</b>  | <b>-0.3</b>  |

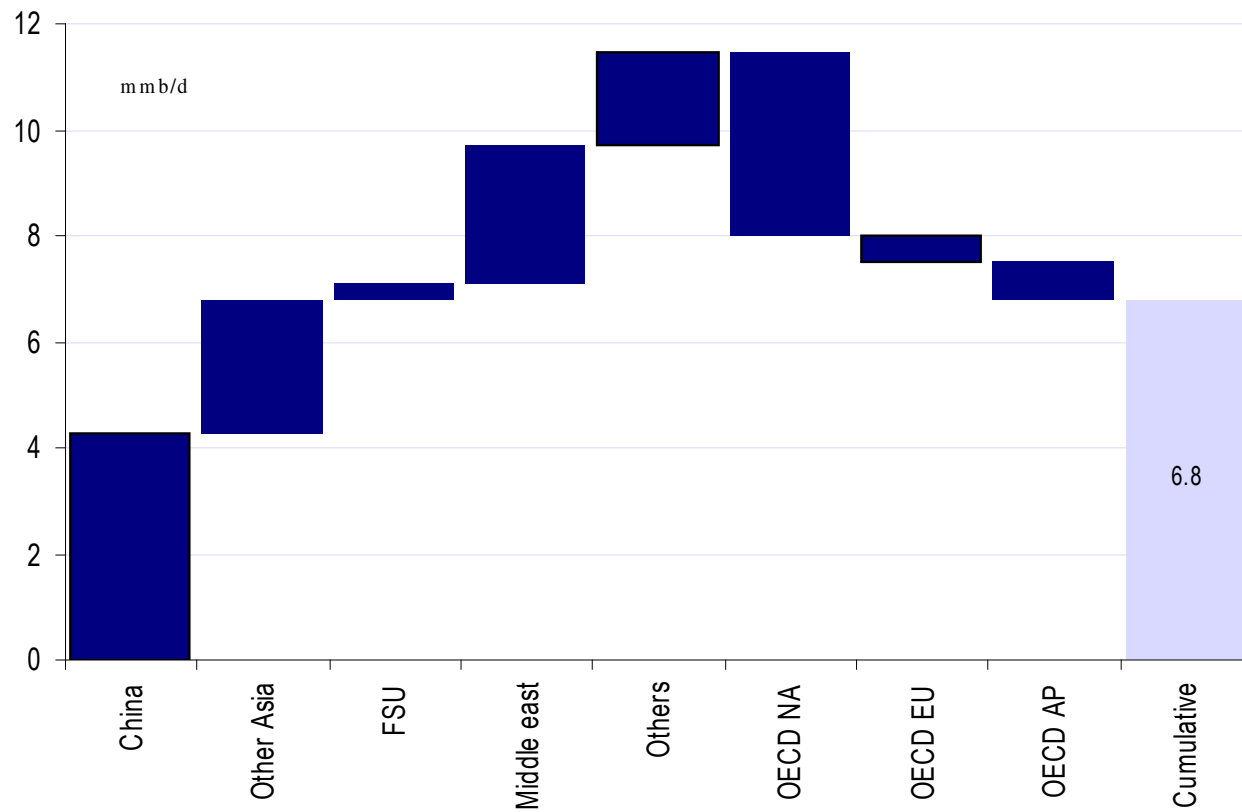
Biggest down-side risk

Biggest up-side risk

Source: IEA, UBS and assessments based on historical data partially sourced from the IEA, DoE, OPEC; national energy statistics agencies including OMV, AFP, UP, ANP, PTT, CERI; national oil companies, including PEMEX, international oil companies including BP and its Statistical Review of World Energy; Reuters, Bloomberg;

# Global oil demand, where we see growth

Our forecast oil demand growth in the 2007-2015 time frame



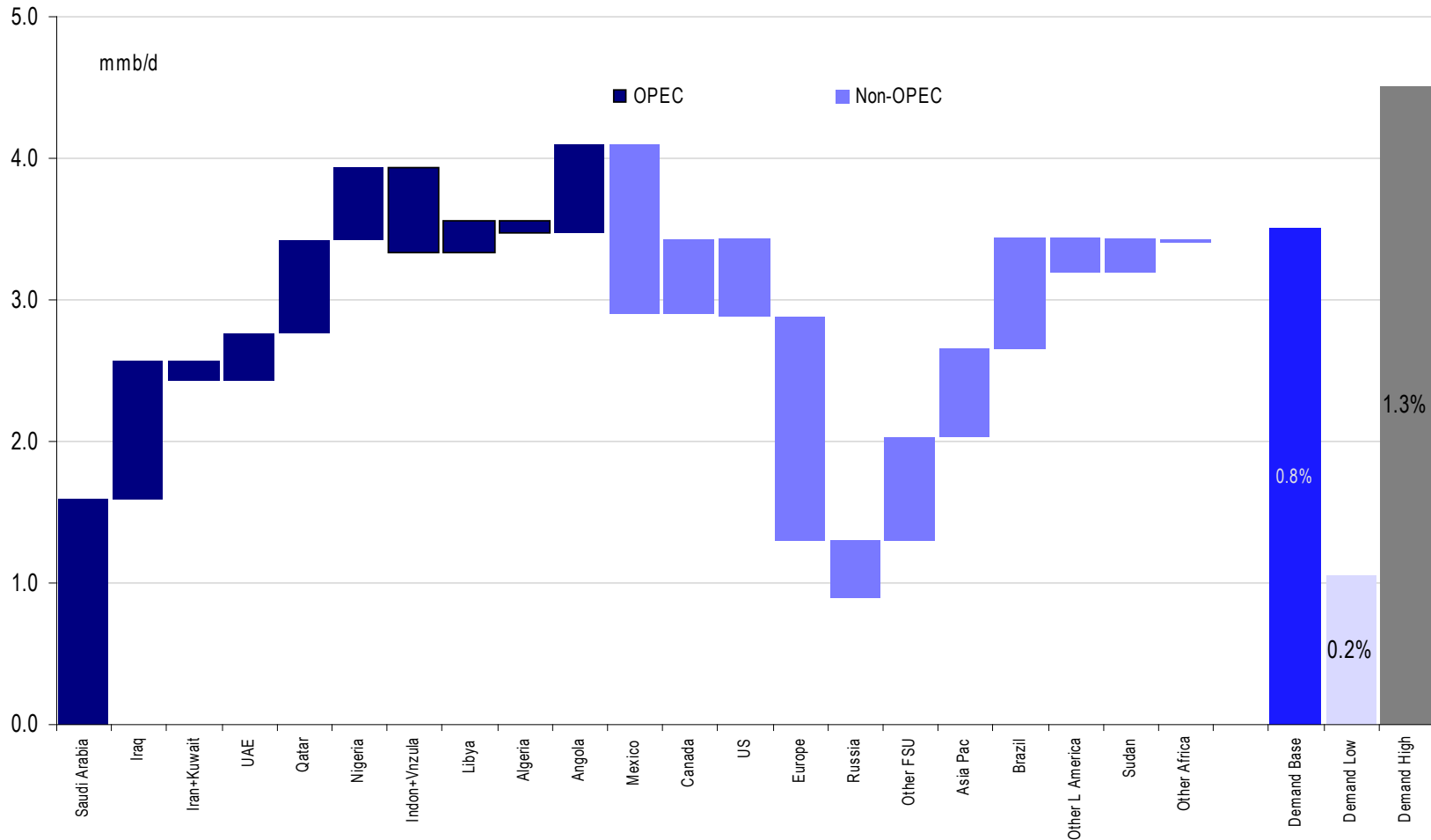
Source: UBS



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# The easy part is the supply side, 5-years 2007-'12

Cumulative changes in global oil production-capacity, broken down by significant producers 5 years through 2012, annual averages (and 3 demand-growth scenarios)

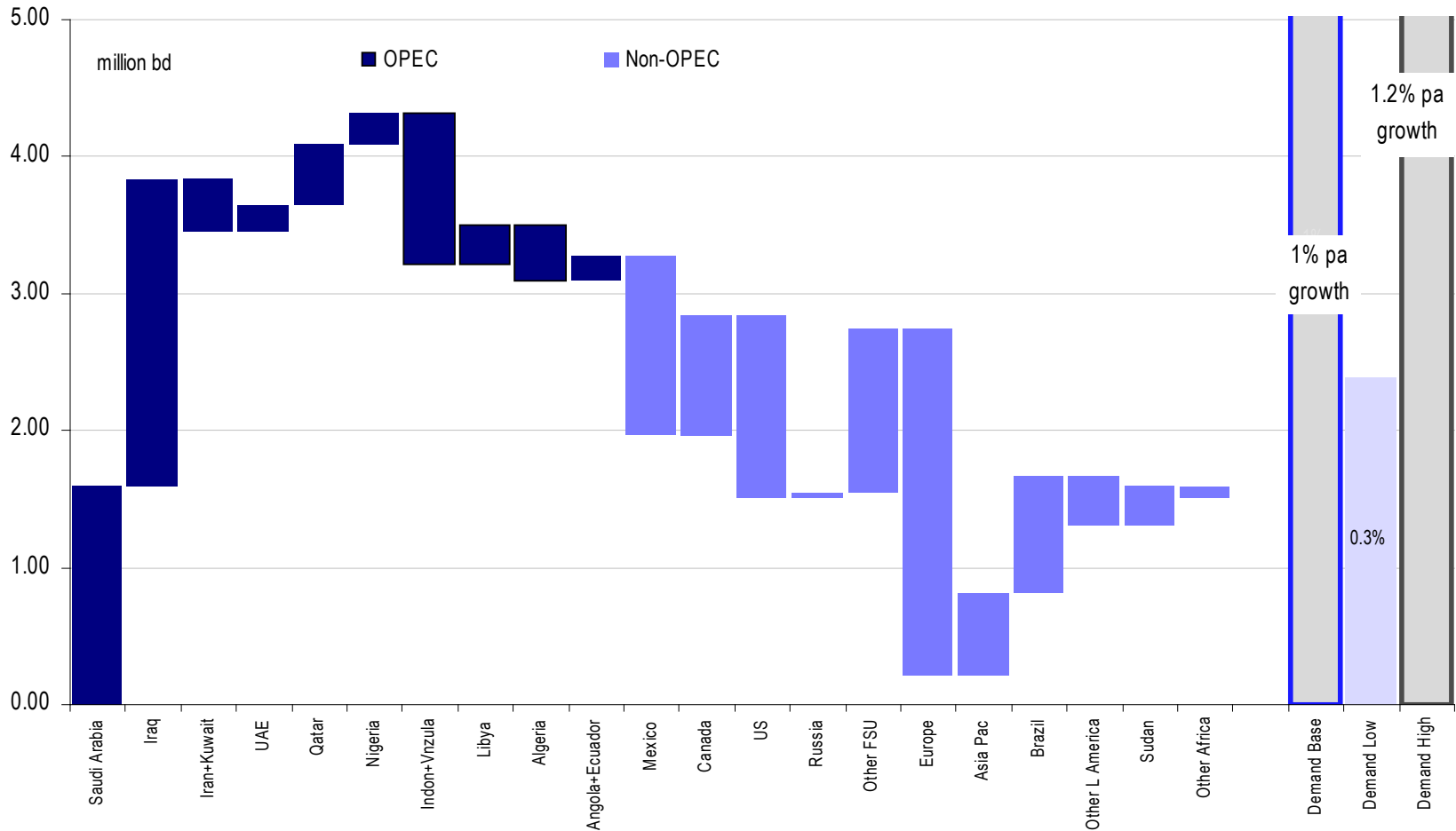


Source: UBS



# The easy part of our medium-term forecast

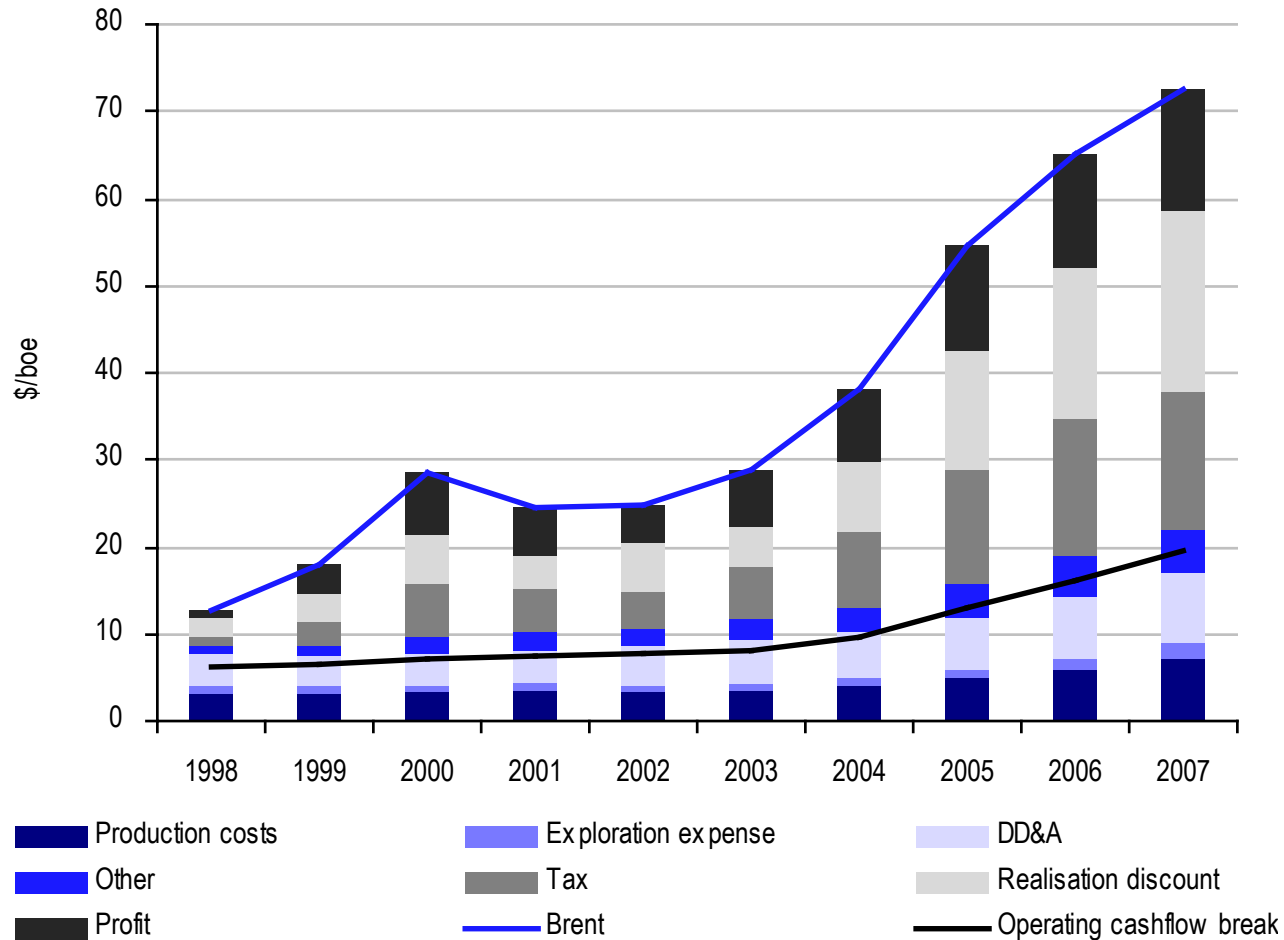
Cumulative changes in global oil production-capacity by significant producers through 2015, annual averages set against demand-growth scenarios



Source: UBS

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# Low prices hurt upstream activity. What's needed?



Source: UBS



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# Conclusion

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- ◆ The oil cycle is a long one.
- ◆ Prices will likely cycle off a floor and into a rising ceiling
- ◆ We need answers on the macro (e.g. when will the credit crunch ease?) to know where price will go in the shorter term
- ◆ In all this the supply side is too easily forgotten, a key question is how much damage will low prices do to capacity

# UBS Global Supply Estimates

Global oil supplies (inclusive of all liquids including crude oil, natural gas liquids, bio-fuels and processing gains)

|                      | Oil Supply<br>in kbd |               |               |               |               |               | year-over-year change<br>in kbd |              |              |             |              |             |
|----------------------|----------------------|---------------|---------------|---------------|---------------|---------------|---------------------------------|--------------|--------------|-------------|--------------|-------------|
|                      | 2007                 | Aug-08        | Sep-08        | Oct-08        | Q3-08         | 2008E         | 2007                            | Sep-08       | Sep-08       | Q3-08       | YTD          | 2008E       |
| <b>Global Oil</b>    | <b>85,220</b>        | <b>85,590</b> | <b>84,260</b> | <b>85,290</b> | <b>85,730</b> | <b>86,030</b> | <b>+200</b>                     | <b>-800</b>  | <b>-800</b>  | <b>+720</b> | <b>+1130</b> | <b>+800</b> |
| Opec all oil         | 34,880               | 35,890        | 35,360        | 35,220        | 35,890        | 35,720        | -220                            | +130         | +130         | +870        | +1190        | +850        |
| Opec 11 crude        | 28,450               | 28,980        | 28,610        | 28,210        | 29,030        | 28,800        | -400                            | -50          | -50          | +510        | +690         | +350        |
| Non Opec             | 48,210               | 47,390        | 46,530        | 47,680        | 47,530        | 48,090        | +400                            | -1020        | -1020        | -230        | -130         | -120        |
| Processing gains     | 2,140                | 2,320         | 2,360         | 2,390         | 2,310         | 2,220         | +20                             | +90          | +90          | +90         | +70          | +80         |
| <b>North America</b> | <b>14,770</b>        | <b>14,660</b> | <b>13,290</b> | <b>14,120</b> | <b>14,270</b> | <b>14,460</b> | <b>+40</b>                      | <b>-1440</b> | <b>-1440</b> | <b>-420</b> | <b>-290</b>  | <b>-310</b> |
| US                   | 7,440                | 7,600         | 6,460         | 7,090         | 7,280         | 7,490         | +100                            | -850         | -850         | -50         | +130         | +40         |
| Canada               | 3,320                | 3,370         | 3,160         | 3,410         | 3,290         | 3,280         | +140                            | -160         | -160         | -70         | -100         | -30         |
| Mexico               | 3,480                | 3,120         | 3,080         | 3,020         | 3,120         | 3,140         | -210                            | -460         | -460         | -320        | -340         | -340        |
| <b>South America</b> | <b>6,920</b>         | <b>6,920</b>  | <b>6,920</b>  | <b>6,950</b>  | <b>6,900</b>  | <b>6,880</b>  | <b>-160</b>                     | <b>+0</b>    | <b>+0</b>    | <b>-30</b>  | <b>-70</b>   | <b>-40</b>  |
| Venezuela            | 2,550                | 2,400         | 2,400         | 2,370         | 2,400         | 2,390         | -140                            | -150         | -150         | -140        | -150         | -150        |
| Brazil               | 2,050                | 2,230         | 2,250         | 2,300         | 2,220         | 2,210         | +60                             | +200         | +200         | +150        | +110         | +150        |
| <b>Europe</b>        | <b>5,590</b>         | <b>4,850</b>  | <b>5,160</b>  | <b>5,460</b>  | <b>5,140</b>  | <b>5,350</b>  | <b>-200</b>                     | <b>-170</b>  | <b>-170</b>  | <b>-210</b> | <b>-240</b>  | <b>-240</b> |
| Norway               | 2,560                | 2,270         | 2,350         | 2,440         | 2,410         | 2,440         | -210                            | -100         | -100         | -80         | -120         | -130        |
| United Kingdom       | 1,630                | 1,170         | 1,400         | 1,610         | 1,330         | 1,540         | +0                              | -80          | -80          | -120        | -100         | -100        |
| <b>FSU</b>           | <b>12,970</b>        | <b>12,660</b> | <b>12,800</b> | <b>12,750</b> | <b>12,900</b> | <b>13,020</b> | <b>+510</b>                     | <b>+50</b>   | <b>+50</b>   | <b>-60</b>  | <b>+90</b>   | <b>+50</b>  |
| Russia               | 10,070               | 10,030        | 10,040        | 10,070        | 10,030        | 10,020        | +220                            | -20          | -20          | -60         | -50          | -50         |
| Kazakhstan           | 1,380                | 1,420         | 1,400         | 1,530         | 1,440         | 1,480         | +50                             | +0           | +0           | +60         | +60          | +100        |
| Azerbaijan           | 870                  | 520           | 670           | 460           | 740           | 840           | +210                            | +70          | +70          | -80         | +50          | -30         |

Source: See Next page



# UBS Global Supply Estimates

|                           | Oil Supply<br>in kbd |               |               |               |               |               | year-over-year change<br>in kbd |             |             |              |              |             |
|---------------------------|----------------------|---------------|---------------|---------------|---------------|---------------|---------------------------------|-------------|-------------|--------------|--------------|-------------|
|                           | 2007                 | Aug-08        | Sep-08        | Oct-08        | Q3-08         | 2008E         | 2007                            | Sep-08      | Sep-08      | Q3-08        | YTD          | 2008E       |
| <b>Middle east</b>        | <b>25,700</b>        | <b>26,970</b> | <b>26,530</b> | <b>26,250</b> | <b>26,910</b> | <b>26,540</b> | <b>-310</b>                     | <b>+590</b> | <b>+590</b> | <b>+1160</b> | <b>+1150</b> | <b>+840</b> |
| Saudi Arabia              | 10,290               | 11,060        | 10,590        | 10,450        | 10,850        | 10,630        | -410                            | +140        | +140        | +490         | +510         | +340        |
| Iran                      | 4,320                | 4,240         | 4,270         | 4,080         | 4,330         | 4,240         | +70                             | +110        | +110        | +120         | -50          | -80         |
| UAE                       | 3,160                | 3,280         | 3,320         | 3,310         | 3,310         | 3,270         | -50                             | +120        | +120        | +120         | +100         | +110        |
| Kuwait                    | 2,690                | 2,740         | 2,860         | 2,720         | 2,830         | 2,740         | -80                             | +180        | +180        | +170         | +100         | +50         |
| Iraq                      | 2,080                | 2,350         | 2,180         | 2,340         | 2,300         | 2,360         | +120                            | -50         | -50         | +130         | +330         | +280        |
| <b>Africa</b>             | <b>10,780</b>        | <b>10,820</b> | <b>10,760</b> | <b>10,930</b> | <b>10,870</b> | <b>11,060</b> | <b>+300</b>                     | <b>-120</b> | <b>-120</b> | <b>+20</b>   | <b>+300</b>  | <b>+280</b> |
| Nigeria                   | 2,290                | 2,180         | 2,030         | 2,160         | 2,150         | 2,210         | -80                             | -430        | -430        | -230         | -90          | -80         |
| Algeria                   | 2,180                | 2,190         | 2,070         | 2,150         | 2,130         | 2,140         | +30                             | -100        | -100        | -60          | -50          | -40         |
| Libya                     | 1,800                | 1,700         | 1,900         | 1,850         | 1,770         | 1,840         | -40                             | +110        | +110        | -20          | +50          | +50         |
| Angola                    | 1,710                | 1,770         | 1,780         | 1,770         | 1,840         | 1,920         | +300                            | +100        | +100        | +140         | +260         | +210        |
| <b>Asia</b>               | <b>8,490</b>         | <b>8,710</b>  | <b>8,800</b>  | <b>8,820</b>  | <b>8,740</b>  | <b>8,710</b>  | <b>+20</b>                      | <b>+300</b> | <b>+300</b> | <b>+270</b>  | <b>+190</b>  | <b>+220</b> |
| Indonesia                 | 950                  | 990           | 990           | 990           | 990           | 980           | -100                            | +40         | +40         | +40          | +30          | +30         |
| China                     | 3,760                | 3,800         | 3,810         | 3,830         | 3,820         | 3,820         | +60                             | +70         | +70         | +90          | +50          | +60         |
| India                     | 830                  | 840           | 850           | 840           | 840           | 840           | +20                             | +10         | +10         | +0           | +10          | +10         |
| <b>Memo:</b>              |                      |               |               |               |               |               |                                 |             |             |              |              |             |
| Non opec Incl Angola,Ecdr | 49,260               | 49,650        | 48,810        | 49,950        | 49,860        | 49,150        | +680                            | -930        | -930        | -100         | +130         | +90         |
| Opec Excl. Angola,Ecdr    | 33,820               | 33,620        | 33,080        | 32,950        | 33,560        | 34,670        | -500                            | +40         | +40         | +730         | +930         | +640        |

Source: IEA,DOE,OPEC; national energy statistics agencies including OMV,AFP,UP,ANP,PTT,CERI; national oil companies ,including PEMEX ,international oil companies including BP and its Review of world energy; Reuters, Bloomberg; and UBS estimates and forecasts.

# UBS global oil balance detail

| UBS Supply/Demand Balance (MMBbl/d) |             |             |             |             |             |             | -1.8        | -2.2        | -2.4        |             |             |             |             |
|-------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                                     | 2006        | 2007        | Q1-08       | Q2-08       | Q3-08       | Q4-08E      | 2008E       | Q1-09E      | Q2-09E      | Q3-09E      | Q4-09E      | 2009E       | 2010E       |
| <b>Demand</b>                       |             |             |             |             |             |             |             |             |             |             |             |             |             |
| OECD America                        | 25.4        | 25.5        | 24.8        | 24.5        | 24.0        | 24.0        | 24.3        | 23.9        | 23.6        | 23.7        | 23.9        | 23.8        | 23.9        |
| OECD Europe                         | 15.7        | 15.3        | 15.2        | 14.9        | 15.3        | 15.3        | 15.2        | 14.7        | 14.5        | 15.0        | 14.9        | 14.8        | 14.7        |
| OECD Asia Pac                       | 8.5         | 8.3         | 8.9         | 7.8         | 7.5         | 8.3         | 8.1         | 8.7         | 7.6         | 7.4         | 8.2         | 8.0         | 7.9         |
| <b>OECD</b>                         | <b>49.6</b> | <b>49.2</b> | <b>48.9</b> | <b>47.2</b> | <b>46.8</b> | <b>47.6</b> | <b>47.7</b> | <b>47.3</b> | <b>45.7</b> | <b>46.0</b> | <b>47.0</b> | <b>46.5</b> | <b>46.4</b> |
| FSU                                 | 4.2         | 4.0         | 4.2         | 3.9         | 4.5         | 4.4         | 4.2         | 4.3         | 3.9         | 4.3         | 4.2         | 4.2         | 4.1         |
| China                               | 7.1         | 7.5         | 7.7         | 7.9         | 7.9         | 7.8         | 7.9         | 8.0         | 8.2         | 8.3         | 8.2         | 8.2         | 8.6         |
| Other Asia                          | 8.9         | 9.2         | 9.5         | 9.7         | 9.1         | 9.3         | 9.4         | 9.6         | 9.8         | 9.2         | 9.5         | 9.5         | 9.8         |
| South America                       | 5.4         | 5.7         | 5.7         | 5.9         | 6.1         | 5.9         | 5.9         | 5.6         | 5.9         | 6.1         | 5.9         | 5.9         | 6.0         |
| Mideast                             | 6.4         | 6.7         | 7.0         | 7.3         | 7.4         | 6.8         | 7.1         | 7.3         | 7.7         | 7.7         | 7.1         | 7.4         | 7.7         |
| Africa                              | 2.8         | 3.0         | 3.1         | 3.1         | 3.0         | 3.1         | 3.1         | 3.2         | 3.2         | 3.1         | 3.2         | 3.2         | 3.3         |
| <b>Non-OECD</b>                     | <b>35.5</b> | <b>36.8</b> | <b>37.9</b> | <b>38.6</b> | <b>38.7</b> | <b>38.2</b> | <b>38.4</b> | <b>38.8</b> | <b>39.5</b> | <b>39.5</b> | <b>39.0</b> | <b>39.2</b> | <b>40.3</b> |
| <b>TOTAL DEMAND</b>                 | <b>85.1</b> | <b>86.0</b> | <b>86.9</b> | <b>85.9</b> | <b>85.5</b> | <b>85.8</b> | <b>86.0</b> | <b>86.0</b> | <b>85.1</b> | <b>85.5</b> | <b>86.0</b> | <b>85.7</b> | <b>86.7</b> |
| <b>Supply</b>                       |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Americas                            | 17.8        | 17.9        | 17.8        | 17.7        | 17.5        | 17.6        | 17.7        | 17.6        | 17.5        | 17.7        | 17.3        | 17.5        | 17.2        |
| Europe                              | 5.4         | 5.2         | 5.1         | 4.9         | 4.7         | 5.0         | 4.9         | 4.8         | 4.7         | 4.4         | 4.7         | 4.6         | 4.4         |
| FSU                                 | 12.2        | 12.8        | 12.9        | 12.9        | 12.7        | 12.7        | 12.8        | 13.1        | 13.2        | 13.2        | 13.1        | 13.1        | 13.1        |
| o/w Russia                          | 9.8         | 10.1        | 10.0        | 10.0        | 10.0        | 10.1        | 10.0        | 10.0        | 9.9         | 9.9         | 9.8         | 9.9         | 9.6         |
| Africa                              | 2.6         | 2.7         | 2.8         | 2.9         | 2.9         | 2.9         | 2.9         | 3.0         | 3.0         | 3.0         | 3.0         | 3.0         | 3.0         |
| Mideast                             | 1.7         | 1.6         | 1.6         | 1.6         | 1.6         | 1.6         | 1.6         | 1.6         | 1.6         | 1.6         | 1.7         | 1.6         | 1.7         |
| Asia                                | 8.0         | 8.0         | 8.1         | 8.2         | 8.2         | 8.3         | 8.2         | 8.4         | 8.5         | 8.6         | 8.6         | 8.5         | 8.7         |
| <b>Non-Opec</b>                     | <b>47.8</b> | <b>48.2</b> | <b>48.4</b> | <b>48.3</b> | <b>47.5</b> | <b>48.2</b> | <b>48.1</b> | <b>48.4</b> | <b>48.5</b> | <b>48.4</b> | <b>48.4</b> | <b>48.4</b> | <b>48.1</b> |
| <b>Opec Crude Oil</b>               | <b>30.8</b> | <b>30.5</b> | <b>31.4</b> | <b>31.3</b> | <b>31.3</b> | <b>30.6</b> | <b>31.1</b> | <b>30.3</b> | <b>30.2</b> | <b>30.3</b> | <b>30.3</b> | <b>30.3</b> | <b>30.9</b> |
| Opec 11                             | 28.9        | 28.5        | 29.1        | 28.9        | 29.0        | 28.2        | 28.8        | 27.9        | 27.8        | 27.9        | 27.8        | 27.9        | 28.3        |
| <b>Opec non-crude</b>               | <b>4.3</b>  | <b>4.4</b>  | <b>4.5</b>  | <b>4.5</b>  | <b>4.6</b>  | <b>4.7</b>  | <b>4.6</b>  | <b>4.9</b>  | <b>5.0</b>  | <b>5.1</b>  | <b>5.2</b>  | <b>5.1</b>  | <b>5.5</b>  |
| <b>Processing Gain</b>              | <b>2.1</b>  | <b>2.1</b>  | <b>2.1</b>  | <b>2.1</b>  | <b>2.3</b>  | <b>2.3</b>  | <b>2.2</b>  | <b>2.2</b>  | <b>2.2</b>  | <b>2.4</b>  | <b>2.4</b>  | <b>2.3</b>  | <b>2.4</b>  |
| <b>TOTAL SUPPLY</b>                 | <b>85.0</b> | <b>85.2</b> | <b>86.4</b> | <b>86.2</b> | <b>85.7</b> | <b>85.8</b> | <b>86.0</b> | <b>85.8</b> | <b>85.9</b> | <b>86.2</b> | <b>86.3</b> | <b>86.1</b> | <b>86.8</b> |
| <b>To Balance</b>                   |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Implied global stock change         | -0.1        | -0.8        | -0.5        | 0.3         | 0.2         | 0.0         | 0.0         | -0.2        | 0.8         | 0.7         | 0.3         | 0.4         | 0.1         |
| OECD stock change                   | 0.2         | -0.3        | -0.1        | 0.4         | 0.5         |             |             |             |             |             |             |             |             |
| OECD stock cover                    | 53.5        | 52.6        | 54.3        | 55.6        | 55.6        | 56.8        | 56.8        | 58.8        | 59.0        | 58.4        | 58.5        | 58.5        | 58.3        |

Source: See next page



# UBS global oil balance, year-to-year changes

| Demand (% change Y-o-Y)             | 2006         | 2007         | Q1-08        | Q2-08        | Q3-08        | Q4-08E        | 2008E        | Q1-09E        | Q2-09E        | Q3-09E        | Q4-09E        | 2009E        | 2010E        |
|-------------------------------------|--------------|--------------|--------------|--------------|--------------|---------------|--------------|---------------|---------------|---------------|---------------|--------------|--------------|
| OECD America                        | -0.6%        | 0.4%         | -3.3%        | -3.4%        | -6.1%        | -5.7%         | -4.6%        | -3.9%         | -3.9%         | -1.2%         | -0.7%         | -2.4%        | 0.5%         |
| OECD Europe                         | 0.1%         | -2.4%        | -0.2%        | -0.5%        | -0.4%        | -2.1%         | -0.8%        | -3.0%         | -2.9%         | -2.4%         | -2.3%         | -2.7%        | -0.8%        |
| OECD Asia Pac                       | -1.4%        | -1.6%        | -0.5%        | -0.7%        | -4.7%        | -4.5%         | -2.6%        | -2.5%         | -2.4%         | -1.6%         | -1.4%         | -2.0%        | -0.7%        |
| <b>OECD</b>                         | <b>-0.5%</b> | <b>-0.8%</b> | <b>-1.8%</b> | <b>-2.1%</b> | <b>-4.1%</b> | <b>-4.4%</b>  | <b>-3.1%</b> | <b>-3.4%</b>  | <b>-3.3%</b>  | <b>-1.7%</b>  | <b>-1.3%</b>  | <b>-2.4%</b> | <b>-0.1%</b> |
| FSU                                 | 5.3%         | -4.0%        | 4.8%         | 4.9%         | 11.0%        | 2.7%          | 5.8%         | 2.0%          | 0.0%          | -4.0%         | -4.0%         | -1.6%        | -1.0%        |
| China                               | 6.0%         | 4.9%         | 5.8%         | 3.8%         | 7.2%         | 4.4%          | 5.2%         | 3.0%          | 3.4%          | 4.9%          | 4.9%          | 4.0%         | 5.6%         |
| Other Asia                          | 1.0%         | 2.9%         | 4.3%         | 2.2%         | 1.9%         | 1.5%          | 2.5%         | 1.4%          | 1.4%          | 1.6%          | 1.9%          | 1.6%         | 2.8%         |
| South America                       | 3.9%         | 6.4%         | 4.1%         | 4.7%         | 3.8%         | 1.3%          | 3.4%         | -0.1%         | 0.2%          | 0.2%          | 0.2%          | 0.2%         | 1.6%         |
| Mideast                             | 5.6%         | 6.0%         | 5.2%         | 7.8%         | 6.7%         | 3.6%          | 5.8%         | 4.4%          | 4.4%          | 4.5%          | 4.4%          | 4.4%         | 3.2%         |
| Africa                              | -0.4%        | 4.4%         | 3.4%         | 4.2%         | 3.7%         | 3.7%          | 3.8%         | 2.6%          | 2.5%          | 2.5%          | 2.5%          | 2.5%         | 4.0%         |
| <b>Non-OECD</b>                     | <b>3.6%</b>  | <b>3.7%</b>  | <b>4.7%</b>  | <b>4.4%</b>  | <b>5.3%</b>  | <b>2.8%</b>   | <b>4.3%</b>  | <b>2.2%</b>   | <b>2.1%</b>   | <b>2.0%</b>   | <b>2.0%</b>   | <b>2.1%</b>  | <b>2.9%</b>  |
| <b>TOTAL DEMAND</b>                 | <b>1.2%</b>  | <b>1.1%</b>  | <b>0.9%</b>  | <b>0.7%</b>  | <b>0.0%</b>  | <b>-1.3%</b>  | <b>0.1%</b>  | <b>-0.9%</b>  | <b>-0.9%</b>  | <b>0.0%</b>   | <b>0.2%</b>   | <b>-0.4%</b> | <b>1.3%</b>  |
| <b>Supply (MMBbld change Y-o-Y)</b> | <b>2006</b>  | <b>2007</b>  | <b>Q1-08</b> | <b>Q2-08</b> | <b>Q3-08</b> | <b>Q4-08E</b> | <b>2008E</b> | <b>Q1-09E</b> | <b>Q2-09E</b> | <b>Q3-09E</b> | <b>Q4-09E</b> | <b>2009E</b> | <b>2010E</b> |
| Americas                            | 0.2          | 0.0          | -0.1         | -0.3         | -0.3         | -0.2          | -0.2         | -0.3          | -0.2          | 0.2           | -0.3          | -0.2         | -0.3         |
| Europe                              | -0.4         | -0.2         | -0.4         | -0.2         | -0.2         | -0.2          | -0.3         | -0.3          | -0.3          | -0.2          | -0.2          | -0.3         | -0.3         |
| FSU                                 | 0.5          | 0.5          | 0.1          | 0.2          | -0.1         | -0.1          | 0.0          | 0.2           | 0.3           | 0.5           | 0.4           | 0.3          | 0.0          |
| o/w Russia                          | 0.2          | 0.2          | 0.0          | -0.1         | -0.1         | 0.0           | 0.0          | 0.0           | 0.0           | -0.2          | -0.3          | -0.1         | -0.3         |
| Africa                              | 0.2          | 0.1          | 0.1          | 0.2          | 0.2          | 0.2           | 0.1          | 0.1           | 0.1           | 0.1           | 0.0           | 0.1          | 0.0          |
| Mideast                             | -0.1         | 0.0          | 0.0          | 0.0          | 0.0          | 0.0           | 0.0          | 0.0           | 0.0           | 0.1           | 0.1           | 0.0          | 0.0          |
| Asia                                | 0.1          | 0.0          | 0.1          | 0.2          | 0.2          | 0.3           | 0.2          | 0.3           | 0.3           | 0.3           | 0.3           | 0.3          | 0.1          |
| <b>Non-Opec Supply</b>              | <b>0.4</b>   | <b>0.4</b>   | <b>-0.2</b>  | <b>0.1</b>   | <b>-0.2</b>  | <b>-0.1</b>   | <b>-0.1</b>  | <b>0.1</b>    | <b>0.2</b>    | <b>0.9</b>    | <b>0.2</b>    | <b>0.3</b>   | <b>-0.4</b>  |
| <b>Opec Crude Oil</b>               | <b>0.4</b>   | <b>-0.3</b>  | <b>1.2</b>   | <b>1.2</b>   | <b>0.6</b>   | <b>-0.5</b>   | <b>0.6</b>   | <b>-1.1</b>   | <b>-1.1</b>   | <b>-1.0</b>   | <b>-0.2</b>   | <b>-0.9</b>  | <b>0.6</b>   |
| Opec 11                             | 0.2          | -0.4         | 0.8          | 0.8          | 0.5          | -0.6          | 0.4          | -1.2          | -1.1          | -1.2          | -0.4          | -1.0         | 0.5          |
| <b>Opec non-crude</b>               | <b>0.1</b>   | <b>0.1</b>   | <b>0.1</b>   | <b>0.2</b>   | <b>0.2</b>   | <b>0.3</b>    | <b>0.2</b>   | <b>0.4</b>    | <b>0.5</b>    | <b>0.5</b>    | <b>0.5</b>    | <b>0.5</b>   | <b>0.4</b>   |
| <b>Processing Gain</b>              | <b>0.1</b>   | <b>0.0</b>   | <b>0.1</b>   | <b>0.0</b>   | <b>0.1</b>   | <b>0.1</b>    | <b>0.1</b>   | <b>0.1</b>    | <b>0.1</b>    | <b>0.1</b>    | <b>0.1</b>    | <b>0.1</b>   | <b>0.1</b>   |
| <b>TOTAL SUPPLY</b>                 | <b>1.0</b>   | <b>0.2</b>   | <b>1.2</b>   | <b>1.4</b>   | <b>0.7</b>   | <b>-0.2</b>   | <b>0.8</b>   | <b>-0.6</b>   | <b>-0.3</b>   | <b>0.5</b>    | <b>0.5</b>    | <b>0.0</b>   | <b>0.8</b>   |

Source: IEA, DoE, OPEC; national energy statistics agencies including OMV, AFP, UP, ANP, PTT, CERI; national oil companies, including PEMEX, international oil companies including BP and its Statistical Review of World Energy; Reuters, Bloomberg; and UBS estimates and forecasts.

# Global Oil Balances of IEA and Opec ...

## International Energy Agency

| MMBbid                        | 2006 | 1Q07 | 2Q07 | 3Q07 | 4Q07 | 2007 | 1Q08 | 2Q08 | 3Q08E | 4Q08E | 2008E | 1Q09E | 2Q09E | 3Q09E | 4Q09E | 2009E |
|-------------------------------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>DEMAND</b>                 |      |      |      |      |      |      |      |      |       |       |       |       |       |       |       |       |
| <b>OECD</b>                   | 49.6 | 49.8 | 48.2 | 48.8 | 49.8 | 49.2 | 48.9 | 47.2 | 47.0  | 48.2  | 47.8  | 47.9  | 46.3  | 46.5  | 47.6  | 47.1  |
| FSU                           | 4.1  | 4.1  | 3.9  | 4.2  | 4.3  | 4.1  | 4.1  | 4.1  | 4.4   | 4.3   | 4.2   | 4.2   | 4.2   | 4.5   | 4.5   | 4.3   |
| China                         | 7.2  | 7.3  | 7.7  | 7.5  | 7.6  | 7.5  | 7.9  | 8.0  | 8.1   | 7.9   | 7.9   | 8.2   | 8.2   | 8.2   | 8.3   | 8.2   |
| <b>Non-OECD</b>               | 35.5 | 36.4 | 36.9 | 36.9 | 37.3 | 36.9 | 38.0 | 38.6 | 38.5  | 38.4  | 38.4  | 39.2  | 39.6  | 39.4  | 39.6  | 39.5  |
| <b>Global Demand</b>          | 85.1 | 86.2 | 85.1 | 85.7 | 87.1 | 86.1 | 86.9 | 85.8 | 85.5  | 86.6  | 86.2  | 87.1  | 86.0  | 85.9  | 87.3  | 86.5  |
| <b>SUPPLY</b>                 |      |      |      |      |      |      |      |      |       |       |       |       |       |       |       |       |
| <b>Non-Opec Supply</b>        | 49.2 | 50.0 | 49.7 | 49.2 | 49.7 | 49.6 | 49.9 | 49.8 | 48.9  | 50.1  | 49.7  | 50.9  | 50.2  | 49.8  | 50.3  | 50.3  |
| Opec Crude Oil                | 31.6 | 30.9 | 30.7 | 31.2 | 31.9 | 31.2 | 32.4 | 32.2 | 32.4  |       |       |       |       |       |       |       |
| Opec NGLs                     | 4.7  | 4.7  | 4.7  | 4.8  | 4.8  | 4.8  | 4.9  | 4.9  | 5.1   | 5.4   | 5.1   | 5.6   | 5.8   | 6.0   | 6.1   | 5.9   |
| <b>SUPPLY</b>                 | 85.5 | 85.5 | 85.2 | 85.1 | 86.5 | 85.6 | 87.1 | 86.9 | 86.5  |       |       |       |       |       |       |       |
| Implied Stockbuild            | +0.4 | -0.7 | +0.0 | -0.6 | -0.7 | -0.5 | +0.3 | +1.1 | +1.0  |       |       |       |       |       |       |       |
| <b>Call on Opec+stocks</b>    | 31.2 | 31.5 | 30.7 | 31.8 | 32.6 | 31.6 | 32.1 | 31.1 | 31.4  | 31.1  | 31.4  | 30.6  | 29.9  | 30.1  | 30.8  | 30.4  |
| Change in Call on Opec+Stocks | -0.1 |      |      |      |      | 0.4  |      |      |       |       | -0.2  |       |       |       |       | -1.0  |

## Opec Secretariat

|                               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>DEMAND</b>                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>OECD</b>                   | 49.3 | 49.7 | 48.2 | 48.7 | 49.8 | 49.2 | 48.9 | 47.2 | 46.9 | 49.0 | 48.0 | 48.3 | 46.5 | 46.3 | 48.6 | 47.4 |
| FSU                           | 3.9  | 3.9  | 3.7  | 4.0  | 4.3  | 4.0  | 4.0  | 3.9  | 4.2  | 4.4  | 4.1  | 4.0  | 3.9  | 4.3  | 4.5  | 4.2  |
| China                         | 7.2  | 7.5  | 7.8  | 7.7  | 7.4  | 7.6  | 8.0  | 8.2  | 8.1  | 7.8  | 8.0  | 8.4  | 8.6  | 8.5  | 8.2  | 8.4  |
| <b>Non-OECD</b>               | 35.3 | 36.2 | 36.6 | 36.9 | 37.1 | 36.7 | 37.8 | 38.2 | 38.4 | 38.4 | 38.2 | 38.8 | 39.2 | 39.5 | 39.5 | 39.3 |
| <b>Global Demand</b>          | 84.6 | 85.9 | 84.8 | 85.6 | 86.9 | 85.9 | 86.7 | 85.4 | 85.3 | 87.4 | 86.2 | 87.1 | 85.7 | 85.8 | 88.1 | 86.7 |
| <b>SUPPLY</b>                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>Non-Opec Supply</b>        | 48.9 | 49.8 | 49.4 | 49.0 | 49.5 | 49.4 | 49.7 | 49.8 | 48.7 | 50.4 | 49.6 | 50.8 | 50.3 | 50.0 | 50.5 | 50.4 |
| Opec Crude Oil                | 31.4 | 30.5 | 30.6 | 31.0 | 31.7 | 31.0 | 32.1 | 32.1 | 32.4 |      |      |      |      |      |      |      |
| Opec non-Crude                | 4.1  | 4.2  | 4.3  | 4.4  | 4.6  | 4.4  | 4.5  | 4.7  | 4.8  | 4.9  | 4.7  | 5.1  | 5.2  | 5.5  | 5.6  | 5.4  |
| <b>Total Supply</b>           | 84.4 | 84.5 | 84.4 | 84.4 | 85.9 | 84.8 | 86.2 | 86.5 | 85.9 |      |      |      |      |      |      |      |
| Implied Stockbuild            | -0.2 | -1.4 | -0.4 | -1.2 | -1.0 | -1.1 | -0.5 | +1.1 | +0.6 |      |      |      |      |      |      |      |
| <b>Call on Opec+Stocks</b>    | 31.6 | 31.9 | 31.1 | 32.2 | 32.8 | 32.1 | 32.5 | 30.9 | 31.8 | 32.1 | 31.9 | 31.2 | 30.2 | 30.3 | 32.0 | 30.9 |
| Change in Call on Opec+Stocks | 0.9  |      |      |      |      | 0.5  |      |      |      |      | -0.2 |      |      |      |      | -1.0 |

\* Opec's "call on Opec" calculation = total demand - non-Opec supply - Opec non-crude. The Secretariat also includes Angola in Opec as of January 1 2007

Source: International Energy Agency and Organization of Petroleum Exporting Countries

# Global oil balance of the US DoE ,UBS

## US Dept of Energy

|                               | 2006 | 1Q07 | 2Q07 | 3Q07 | 4Q07 | 2007  | 1Q08 | 2Q08 | 3Q08E | 4Q08E | 2008E | 1Q09E | 2Q09E | 3Q09E | 4Q09E | 2009E |  |
|-------------------------------|------|------|------|------|------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| <b>DEMAND</b>                 |      |      |      |      |      |       |      |      |       |       |       |       |       |       |       |       |  |
| <b>OECD</b>                   | 49.6 | 49.7 | 48.2 | 48.8 | 49.8 | 49.1  | 48.7 | 47.1 | 47.0  | 48.4  | 47.8  | 47.9  | 45.8  | 46.5  | 47.6  | 46.9  |  |
| FSU                           | 4.2  | 4.2  | 4.3  | 4.2  | 4.3  | 4.3   | 4.3  | 4.5  | 4.4   | 4.4   | 4.4   | 4.4   | 4.5   | 4.5   | 4.4   | 4.4   |  |
| China                         | 7.2  | 7.3  | 7.5  | 7.6  | 7.9  | 7.6   | 7.7  | 7.9  | 8.1   | 8.3   | 8.0   | 8.1   | 8.3   | 8.3   | 8.6   | 8.3   |  |
| <b>Non-OECD</b>               | 35.4 | 36.1 | 36.7 | 36.7 | 37.2 | 36.7  | 37.4 | 38.2 | 38.2  | 38.6  | 38.1  | 38.2  | 39.2  | 39.1  | 39.4  | 39.0  |  |
| <b>TOTAL DEMAND</b>           | 85.0 | 85.8 | 84.9 | 85.6 | 86.9 | 85.81 | 86.1 | 85.3 | 85.2  | 87.0  | 85.9  | 86.1  | 85.0  | 85.6  | 87.0  | 85.9  |  |
| <b>SUPPLY</b>                 |      |      |      |      |      |       |      |      |       |       |       |       |       |       |       |       |  |
| <b>Non-Opec Supply</b>        | 48.7 | 48.9 | 49.1 | 48.8 | 49.1 | 49.0  | 48.6 | 48.8 | 48.5  | 48.9  | 48.7  | 48.7  | 49.0  | 49.5  | 49.7  | 49.2  |  |
| Opec Crude Oil                | 31.3 | 30.4 | 30.6 | 30.9 | 31.6 | 30.9  | 32.1 | 32.3 | 32.7  | 31.9  | 32.3  | 31.3  | 31.0  | 31.2  | 31.1  | 31.1  |  |
| Opec Non Crude                | 4.5  | 4.5  | 4.5  | 4.5  | 4.5  | 4.5   | 4.6  | 4.6  | 4.7   | 4.7   | 4.7   | 4.9   | 5.2   | 5.5   | 5.9   | 5.4   |  |
| <b>Total Supply</b>           | 84.5 | 83.9 | 84.2 | 84.2 | 85.3 | 84.4  | 85.3 | 85.7 | 85.9  | 85.6  | 85.6  | 84.9  | 85.3  | 86.1  | 86.6  | 85.7  |  |
| Implied Stockbuild            | -0.4 | -1.9 | -0.7 | -1.3 | -1.7 | -1.4  | -0.8 | +0.4 | +0.7  | -1.4  | -0.3  | -1.2  | +0.3  | +0.5  | -0.5  | -0.2  |  |
| <b>Call on Opec+Stocks</b>    | 31.7 | 32.3 | 31.3 | 32.3 | 33.3 | 32.3  | 32.9 | 31.9 | 32.0  | 33.4  | 32.5  | 32.5  | 30.8  | 30.6  | 31.5  | 31.4  |  |
| Change in Call on Opec+Stocks | 0.7  |      |      |      |      | 0.6   |      |      |       |       | 0.2   |       |       |       |       | -1.2  |  |

## UBS

|                               | 2006 | 1Q07 | 2Q07 | 3Q07 | 4Q07 | 2007 | 1Q08 | 2Q08 | 3Q08E | 4Q08E | 2008E | 1Q09E | 2Q09E | 3Q09E | 4Q09E | 2009E |  |
|-------------------------------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| <b>DEMAND</b>                 |      |      |      |      |      |      |      |      |       |       |       |       |       |       |       |       |  |
| <b>OECD</b>                   | 49.6 | 49.8 | 48.2 | 48.8 | 49.8 | 49.2 | 48.9 | 47.2 | 46.8  | 47.6  | 47.7  | 47.3  | 45.7  | 46.0  | 47.0  | 46.5  |  |
| FSU                           | 4.2  | 4.0  | 3.7  | 4.0  | 4.3  | 4.0  | 4.2  | 3.9  | 4.5   | 4.4   | 4.2   | 4.3   | 3.9   | 4.3   | 4.2   | 4.2   |  |
| China                         | 7.1  | 7.3  | 7.6  | 7.4  | 7.5  | 7.5  | 7.7  | 7.9  | 7.9   | 7.8   | 7.9   | 8.0   | 8.2   | 8.3   | 8.2   | 8.2   |  |
| <b>Non-OECD</b>               | 35.5 | 36.2 | 37.0 | 36.7 | 37.2 | 36.8 | 37.9 | 38.6 | 38.7  | 38.2  | 38.4  | 38.8  | 39.5  | 39.5  | 39.0  | 39.2  |  |
| <b>TOTAL DEMAND</b>           | 85.1 | 86.1 | 85.3 | 85.6 | 87.0 | 86.0 | 86.9 | 85.9 | 85.5  | 85.8  | 86.0  | 86.0  | 85.1  | 85.5  | 86.0  | 85.7  |  |
| <b>SUPPLY</b>                 |      |      |      |      |      |      |      |      |       |       |       |       |       |       |       |       |  |
| <b>Non-Opec Supply</b>        | 49.9 | 50.6 | 50.3 | 50.0 | 50.5 | 50.3 | 50.5 | 50.4 | 49.8  | 50.5  | 50.3  | 50.6  | 50.7  | 50.8  | 50.8  | 50.7  |  |
| Opec Crude Oil                | 30.8 | 30.2 | 30.1 | 30.7 | 31.1 | 30.5 | 31.4 | 31.3 | 31.3  | 30.6  | 31.1  | 30.3  | 30.2  | 30.3  | 30.3  | 30.3  |  |
| OPEC Non Crude                | 4.3  | 4.3  | 4.4  | 4.4  | 4.4  | 4.4  | 4.5  | 4.5  | 4.6   | 4.7   | 4.6   | 4.9   | 5.0   | 5.1   | 5.2   | 5.1   |  |
| <b>Total Supply</b>           | 85.0 | 85.1 | 84.8 | 85.0 | 86.0 | 85.2 | 86.4 | 86.2 | 85.7  | 85.8  | 86.0  | 85.8  | 85.9  | 86.2  | 86.3  | 86.1  |  |
| <b>Call on Opec+Stocks</b>    | 30.8 | 31.1 | 30.6 | 31.2 | 32.1 | 31.3 | 31.9 | 30.9 | 31.1  | 30.6  | 31.1  | 30.5  | 29.4  | 29.6  | 30.0  | 29.9  |  |
| Change in Call on Opec+Stocks | 0.4  |      |      |      |      | 0.4  |      |      |       |       | -0.1  |       |       |       |       | -1.3  |  |

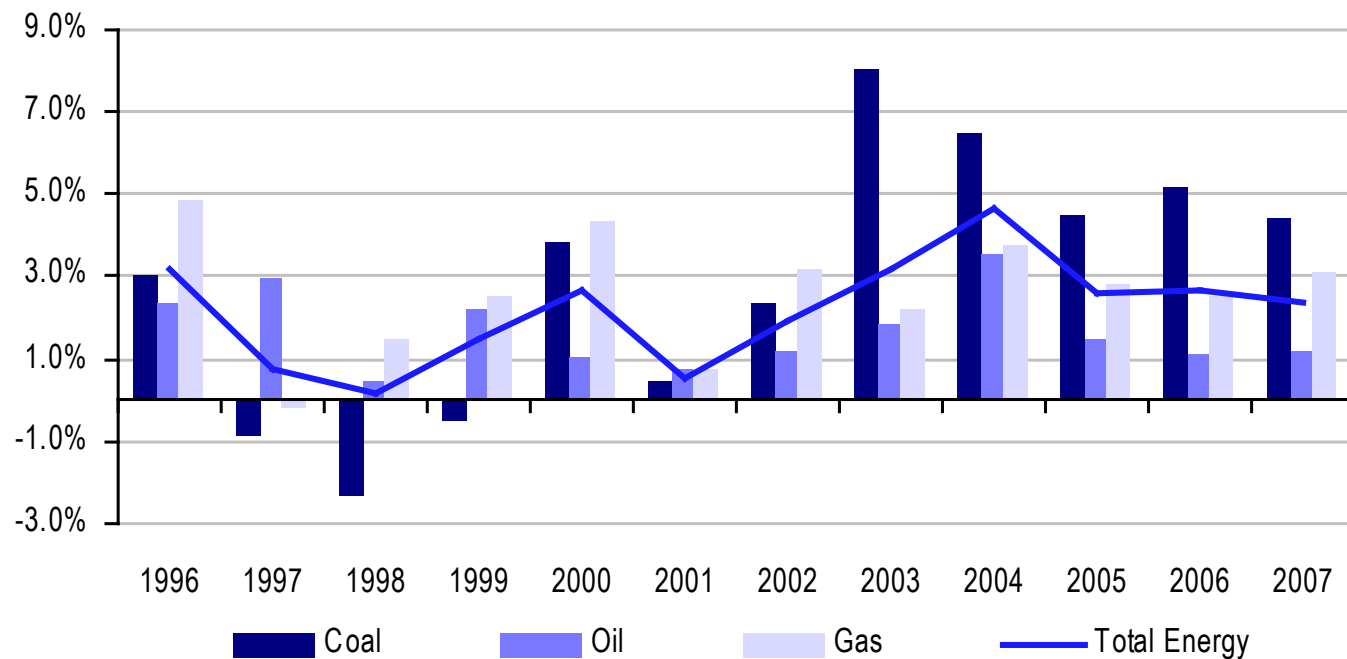
Source: US Department of Energy ,UBS



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# Another upside price risk links to broader energy

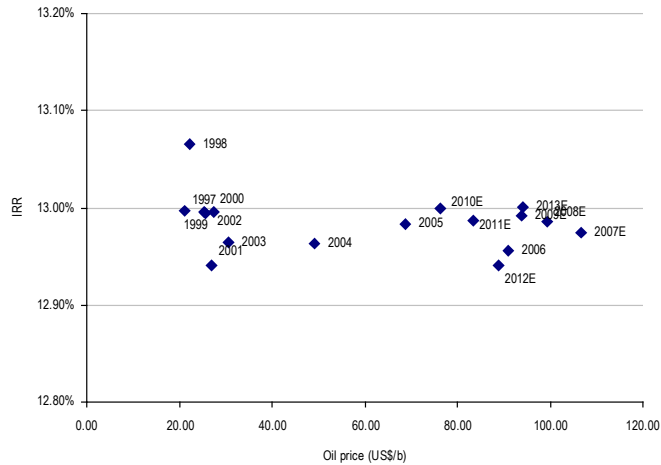
10-year of global energy demand growth (% y/y): Coal has captured the largest share of global energy growth from 2003-06; how long can that last?



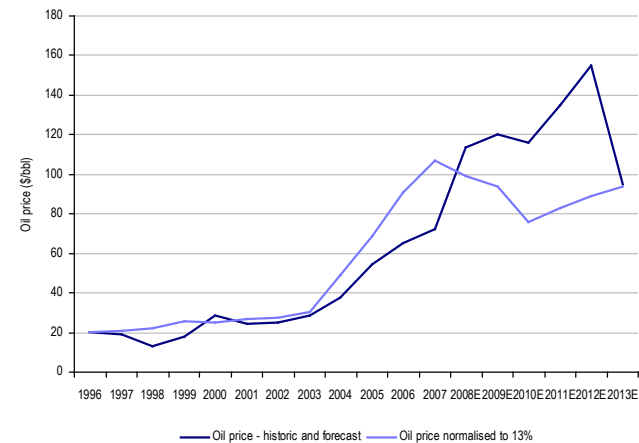
Source: BP Statistical Review of World Energy

# Supply-led normalised prices

Global OilCo – Oil prices scenarios generating c.13% IRR .



Comparison of historic/forecast oil prices and calculated normalised.



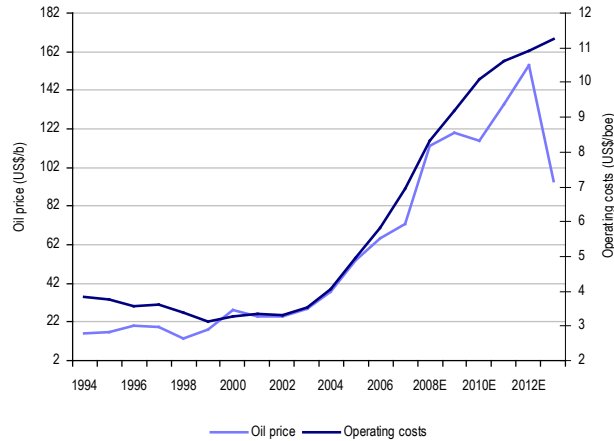
Source: UBS



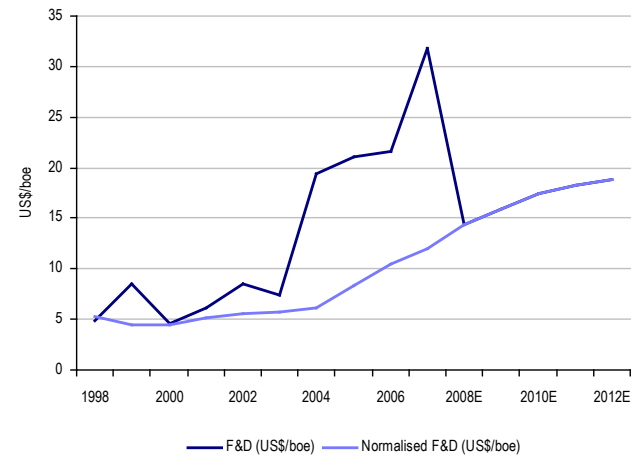
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# UBS GloCo

## Global OilCo operating costs and oil prices



## Global OilCo F&D history and projection

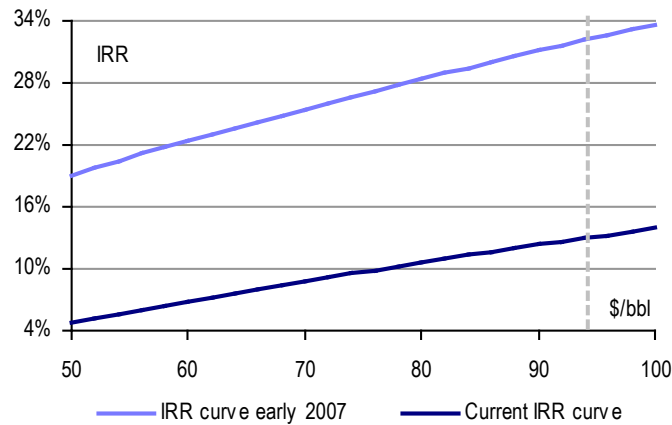


Source: UBS

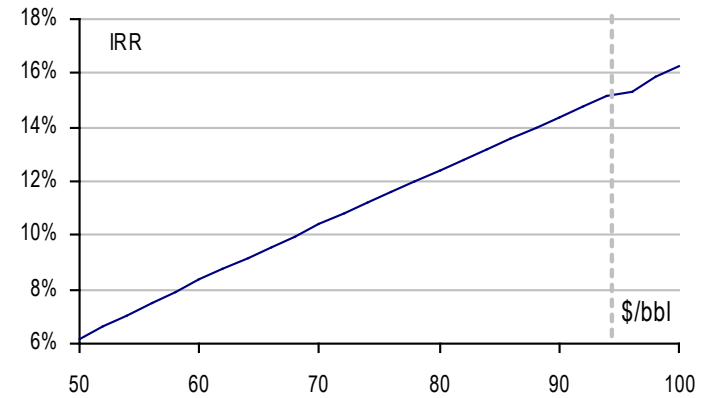


# UBS GloCo

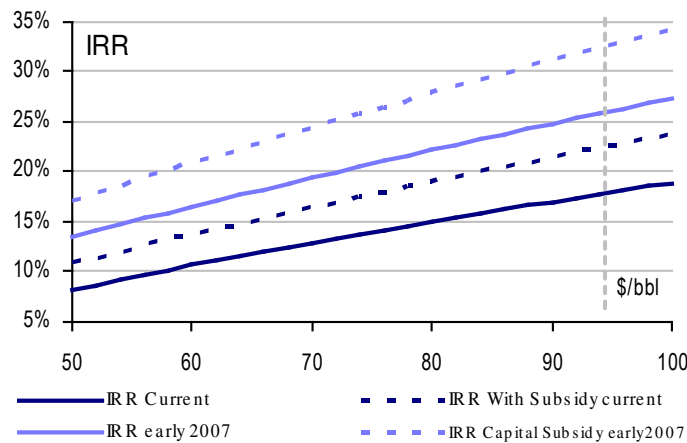
UBS Global OilCo IRR Sensitivity with oil prices



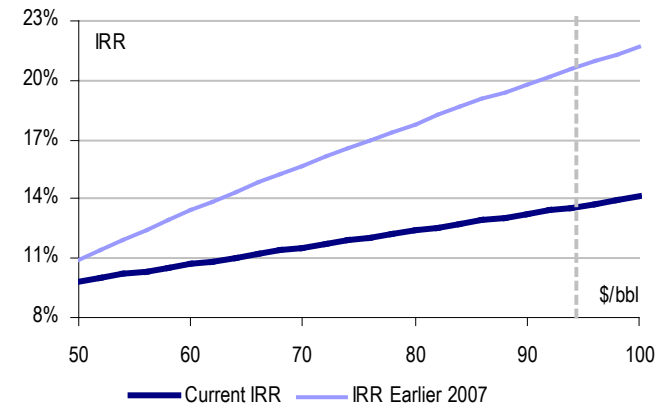
Tupi in Brazil IRR sensitivity with Oil prices



China CTL IRR sensitivity with Oil prices



Oil Sands in Canada IRR sensitivity with Oil prices

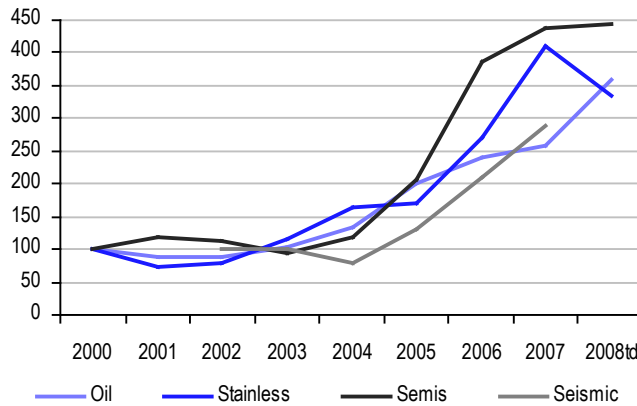


Source: UBS

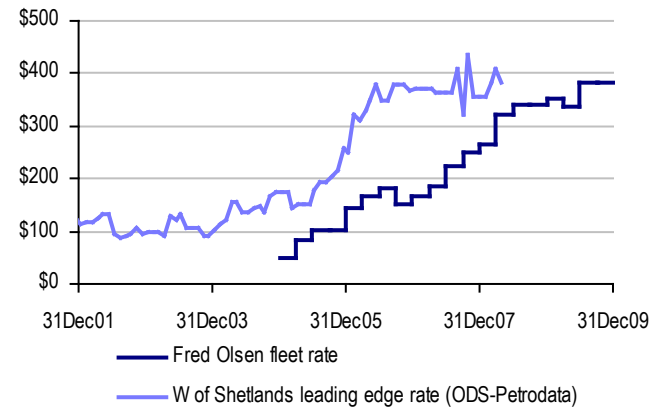


# Cost Trends

Seismic costs inflation isn't over yet, but day-rate inflation for semi-submersible deep-water drilling rigs appears to be leveling off



What's more, contracts that are already signed will extend capex inflation further out – along these lines



Source: UBS



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# Risk Statement and Analyst Certification

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Oil prices are extremely volatile in the short, medium and long term, as they are frequently affected by inherently unpredictable events, including natural disasters. In history, oil prices have proved consistently unpredictable because so many political, geological, and economic trends and events affect the supply of and demand for oil.

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## UBS Investment Research: Global Equity Rating Allocations

| UBS 12-Month Rating   | Rating Category | Coverage <sup>1</sup> | IB Services <sup>2</sup> |
|-----------------------|-----------------|-----------------------|--------------------------|
| Buy                   | Buy             | 56%                   | 36%                      |
| Neutral               | Hold/Neutral    | 35%                   | 33%                      |
| Sell                  | Sell            | 8%                    | 27%                      |
| UBS Short-Term Rating | Rating Category | Coverage <sup>3</sup> | IB Services <sup>4</sup> |
| Buy                   | Buy             | less than 1%          | 32%                      |
| Sell                  | Sell            | less than 1%          | 14%                      |

1:Percentage of companies under coverage globally within the 12-month rating category.

2:Percentage of companies within the 12-month rating category for which investment banking (IB) services were provided within the past 12 months.

3:Percentage of companies under coverage globally within the Short-Term rating category.

4:Percentage of companies within the Short-Term rating category for which investment banking (IB) services were provided within the past 12 months.

Source: UBS. Rating allocations are as of 30 September 2008.

## UBS Investment Research: Global Equity Rating Definitions

| UBS 12-Month Rating   | Definition  |
|-----------------------|---|
| Buy                   | FSR is > 6% above the MRA.  |
| Neutral               | FSR is between -6% and 6% of the MRA.   |
| Sell                  | FSR is > 6% below the MRA.  |
| UBS Short-Term Rating | Definition  |
| Buy                   | Buy: Stock price expected to rise within three months from the time the rating was assigned because of a specific catalyst or event.  |
| Sell                  | Sell: Stock price expected to fall within three months from the time the rating was assigned because of a specific catalyst or event. |

# Required Disclosures (Continued)

## KEY DEFINITIONS

**Forecast Stock Return (FSR)** is defined as expected percentage price appreciation plus gross dividend yield over the next 12 months.

**Market Return Assumption (MRA)** is defined as the one-year local market interest rate plus 5% (a proxy for, and not a forecast of, the equity risk premium).

**Under Review (UR)** Stocks may be flagged as UR by the analyst, indicating that the stock's price target and/or rating are subject to possible change in the near term, usually in response to an event that may affect the investment case or valuation.

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**Core Banding Exceptions (CBE)** : Exceptions to the standard +/-6% bands may be granted by the Investment Review Committee (IRC). Factors considered by the IRC include the stock's volatility and the credit spread of the respective company's debt. As a result, stocks deemed to be very high or low risk may be subject to higher or lower bands as they relate to the rating. When such exceptions apply, they will be identified in the Company Disclosures table in the relevant research piece.

Unless otherwise indicated, please refer to the Valuation and Risk sections within the body of this report.

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