

Turmoil in the Credit Markets: The Impact on the Oil & Gas Sector

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The 'Credit Crunch' and Impact on the E&P Sector

E&P Company Type	Lower oil prices	Restricted Availability of Credit
Majors <ul style="list-style-type: none"> Conservative hurdle rates & large-scale developments Funding investment from cash flow May hold onto cash and cut share buy-backs 	Limited Impact	Limited Impact
Mid-Tier IOCs <ul style="list-style-type: none"> Mix of external project finance dependence and funding from cash flow Some may need to review or phase investments 	Possible Exploration Cuts	Review Investment Plans
Independents <ul style="list-style-type: none"> Less conservative hurdle rates & marginal developments Much heavier dependence on external finance May cut back exploration and delay investment plans 	Exploration Cuts	Delayed Investment Plans
NOCs <ul style="list-style-type: none"> Availability of credit for project finance may force review of investment plans in some cases 	Limited. Opec members lobby for quota cuts	Review Investment Plans

Impact of Lower Oil Prices and Restricted Availability of Credit

Source: Douglas-Westwood

The impact of recent turmoil in the financial markets is likely to be limited within the high-cost deepwater sector, as the largest developments are typically led by major international oil companies that are funding from cash flow and are less reliant on external finance.

These companies are also basing developments on much lower (more conservative) oil price assumptions and as a result are less likely to cut back investment due to short-term oil price movements.

We expect the main impact to be within the smaller independents and perhaps also the mid-tier IOCs that are reliant on external finance.

"Petrobras decides on its investments by looking at the long term. We don't think the crisis will affect our capital expenditure"
 Jose Sergio Gabrielli, Petrobras, 22nd October 2008

"[Husky Energy] will base spending plans on its expectations for free cash flow"
 John Lau, Husky Chief Executive, 22nd October 2008

"We've not experienced any business impact from equity and credit market volatility... we continue to believe in the long-term fundamentals of the industry"
 David Lesar, Halliburton CEO, 21st October 2008

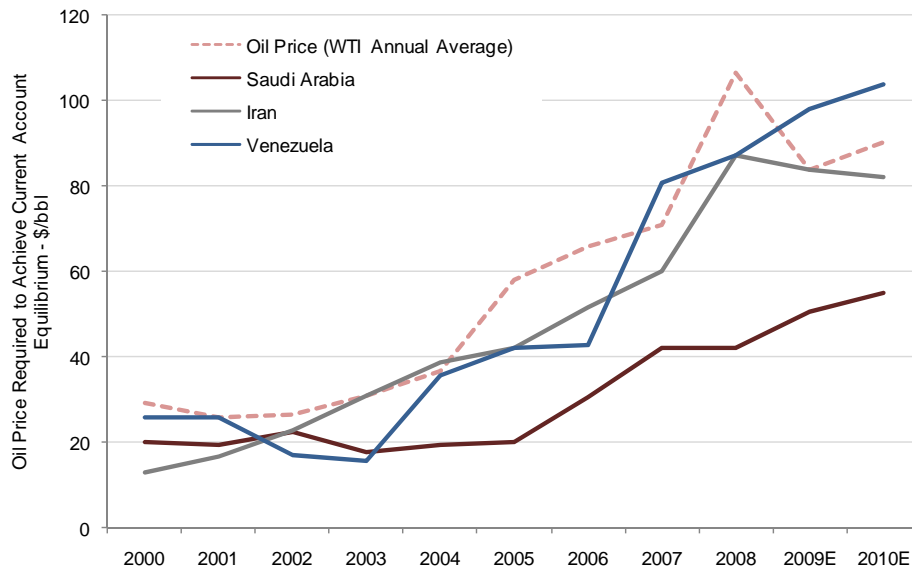
"The present low share prices of some global resources companies offer good opportunities for us"
 Jiang Jemin, PetroChina Chairman, 24th October 2008

"We will be spending \$125 billion over the next five years. Everything that we have indicated is intended to go forward"
 Rex Tillerson, ExxonMobil CEO, 24th October 2008

"You can't as an industry afford to stop investing. If you stop investing, the (oil) supply can drop as much as 10% in a year"
 Jay Pryor, Chevron VP, 31st October 2008

Reaction to the financial turmoil has been mixed. Some operators have openly stated that their investment plans are unchanged, whilst others are reviewing spending. Stock market price movements have promoted some oil companies, such as BP and PetroChina, to admit that they see a number of attractive acquisition opportunities.

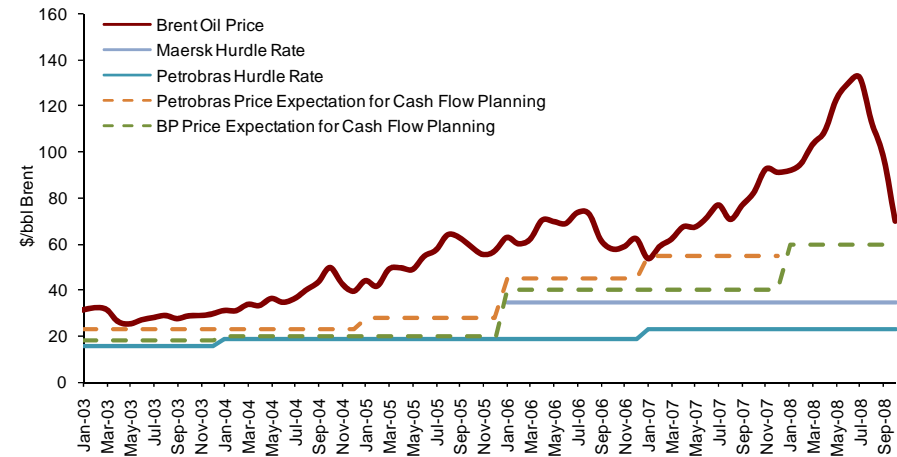
Oil Prices & the Role of OPEC



Oil Prices & Current Account Equilibrium

Source: FT & IMF

- OPEC members have increased spending and implemented investment plans as oil prices have risen over the last five years
- Oil price falls put pressure on some of these countries that now face a current account deficit and will push hard for production cuts
- OPEC’s October decision to cut output by 1.5 million bpd has had little impact on prices. Additional cuts could follow.

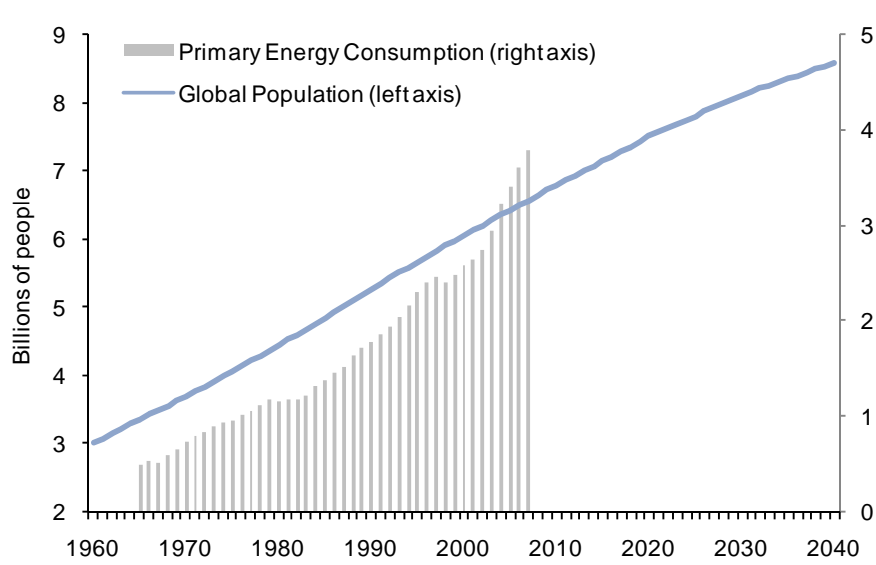


Oil Prices & Project Sanctioning

Source: Douglas-Westwood

- Developments currently underway are unlikely to be affected
- Smaller independents are likely to start reviewing investment plans
- A strong growth in oil prices occurred whilst project hurdle rates increased more modestly
- Oil prices have fallen back from highs of July 2008 but remain at historically high levels and above oil companies stated 'hurdle rates'.

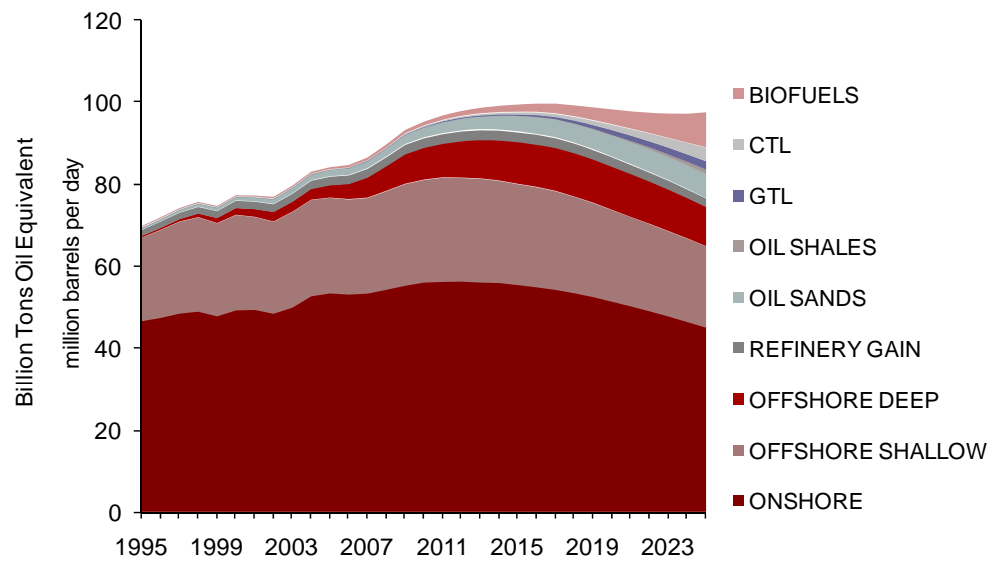
Oil – The Long-Term Fundamentals



Demand-Side – Set for Long-term Growth

Source: Douglas-Westwood, U N & BP

- GDP growth and population growth are key drivers of energy demand
- IEA forecast 106 million bpd oil demand by 2030
- Oil demand is price inelastic – there are few substitutes as a transportation fuel.



Supply-Side – Major Constraints Lie Ahead

Source: Douglas-Westwood & Energyfiles

- Decline in existing fields poses a challenge to future supplies
- The big opportunities are deepwater & unconventional sources
- Surging demand coupled with supply constraints have driven prices
- Global production may peak at ~100m bpd.

Increasing intensity of oilfield service & equipment supply will be needed for each marginal barrel

Short-term outlook

- Demand destruction & high levels of uncertainty
- Next year's expenditure budgets may be hit by a loss of confidence
- Order backlogs are at historically high levels and should carry a number of equipment/service companies through in the short term.

Mid-term

- Oil prices are still above most hurdle rates
- Most recent Energyfiles forecasts were based on oil price assumptions around \$80/bbl and increases over and above this level had not been factored in
- Exploration more likely to be hit than ongoing field developments
- Cost of inputs such as steel, labour etc. may reduce, as demand in other areas of the economy falls away. This could help oil sector project economics
- Impact of PSAs, tax, etc. mean that *realisable* \$/bbl has been low in many areas, particularly those dominated by NOCs.

Long-term

- Our view on the long-term supply situation is unchanged
- Focus on short-term demand issues and loss of focus on supply-side constraints could lead to another sharp 'supply crunch' when the global economy recovers.

- Major oil companies and those funding developments from free cash flow are likely to be least affected by the present financial turmoil. Current major developments seem to be moving forward largely unaffected
- Independent oil companies and marginal field developments are more likely to be impacted. Some cutbacks in exploration efforts and review of development plans is likely
- Once again OPEC will become an important force in driving oil prices
- Fundamental supply constraints will not disappear. Decline of oil production from existing fields is a major challenge and continued investment in the sector is vital if we are to avoid another 'supply crunch' and price spike in the short-term
- In the longer-term, our views are unchanged and global oil supply limits are likely to be tested again during the next decade.