

Oil & Gas UK

2008 Activity Survey





**The United Kingdom Offshore
Oil and Gas Industry Association Limited**

2008 Activity Survey

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Foreword

Background

The Oil & Gas UK Activity Survey looks back at last year's achievements and forward to the likely levels of activity in the coming years based on real data supplied in confidence by all the leading operators working on the UKCS.

The importance of this industry has never been clearer, evidenced by the fact that this year our industry alone will supply 70% of the nation's energy needs and pay more than 30% of total UK corporation tax. But the story is not just about production and taxes. In addition we have a world leading supply chain which, besides servicing the UKCS, also exports oilfield goods and services across the globe and provides high quality, well paid employment for over 400,000 people throughout the UK.

The UK is clearly a mature oil and gas province but production has responded to strong investment in recent years, resulting in a slowdown in the annual decline rate from 7.5% to 5%. Our research shows that the basin has the potential to add 600 million barrels of oil and gas per year to the production base but crucially, this is dependent on substantial investment continuing to flow to the basin. Approximately £1 billion is required to develop and bring on-stream each 100 million barrels of production.

If the required level of investment is forthcoming, then, in 2020, UKCS production could satisfy 65% of the nation's needs for oil and a quarter of total UK gas demand - enough to cover all the gas we use in our homes. This would be a vital element in UK energy security and a major contribution to UK prosperity.

However...

Our industry is not immune from the effects of the global recession and banking crisis. In the short term we will inevitably experience a downturn in activity.

In 2008, capital investment in new and existing fields was approximately £5 billion, a marginal reduction on the previous year, despite the rise in oil prices. Investment could be sustained at this level if capital was readily available and commodity prices were robust. Based on the available projects within our survey, continued investment at this level could result in the recovery of up to 10 billion barrels of oil and gas. However experience teaches us that the current recession will lead to reduced investment and a reduction in the number of sanctioned investments. We expect capital investment to drop to somewhere in the region of £3.5 to £4.5 billion in 2009. If the economy does not begin to emerge from recession in 2009, this could fall much further in 2010, with a consequent knock on effect on employment.

Whilst we see no cause to revise our opinion that the total future potential of the basin is up to 25 billion barrels of oil and gas, the recovery of the last 15 billion barrels will require maintaining sufficient exploration activity to access those reserves. Exploration and appraisal activity in 2008 (109 wells) was roughly the same as in 2007. However, we expect a rapid reduction in 2009, for which 77 wells are currently planned and of which only 34 have a drilling rig committed. This compares with the prediction a year ago that 113 wells would be drilled in 2009.

Additionally, looking at the new developments now under consideration, our studies indicate that only a third of these 'break-even' at reported costs, a \$50 oil price and the current tax regime. When the oil price was last in the \$40-45 per barrel range, new developments were

subject to a tax rate of 40% but are now liable for 50%. This mismatch of tax rate and business environment, which includes a cost base which had doubled since oil was last at \$40 per barrel, is certainly detracting from the value of investment and contributing to the dampening of that investment. The UKCS has high unit costs relative to other oil provinces with which it competes for capital and this competitive disadvantage is even more obvious when oil prices are lower.

So....

Whilst the UK oil and gas industry undoubtedly has the potential to enhance security of UK energy supply and provide a significant positive contribution to the UK economy for decades yet to come, in the short term, like many other industries, it faces some severe challenges. Action therefore needs to be taken to maintain the flow of development capital, mitigate the reduction in exploration and appraisal activity and ensure that the capacity of the UK supply chain is not seriously eroded.

We should not forget that the UK-based oil and gas supply chain, which exports goods and services to the value of £6 billion a year, is now well-placed to take advantage of current sterling exchange rates to help increase its already impressive international export activity. Aberdeen in particular has an opportunity to leap ahead of other areas around the world and further enhance its position as the oil and gas field services hub for Europe and in some markets, the world.

The Government and industry however need to work hard, both together and in their separate ways, to ensure that critical investment and productive capacity is not irretrievably lost in the current recession so that the industry can emerge from it in good health.

What measures need to be taken?

First the industry needs to look to the measures which it can take to help sustain itself through this downturn. The cost base of the industry will adjust in response to the recession. However there are other actions which can be taken across the industry:

- Responsible action towards and within the supply chain throughout this period of adjustment is imperative. Individual suppliers and purchasers alike need to take responsibility to drive out unnecessary costs and some suppliers will also need to revise their expectations on margins in the new economic climate in order to help sustain activity and employment through the downturn.
- The industry has recently established several important codes of practice not available to it in the previous downturns. It is particularly important that these are followed at this time. The Supply Chain Code of Practice, including its requirement that suppliers are to be paid within 30 days, is a good case in point. The Commercial Code of Practice is another.
- Oil & Gas UK is another new actor on the scene and is committed to work with the industry to find ways to improve efficiency, including for example the work we have done to improve efficiency of operations during the summer maintenance season.
- The industry must also maintain its focus and delivery on safety and on training and skills development. Step Change in Safety and Opito – The Oil & Gas Academy have recently been reorganised to give better focus to and lead our efforts in these areas. The minimum industry safety training for offshore workers (MIST), about to be implemented across our industry, is an excellent, recent example of a collaborative action, in which both these organisations are involved, to improve safety, increase efficiency and drive out unnecessary cost across our industry.

But Government action is also needed and given the Government's recent and laudable policy to encourage the growth of the UK supply chain and to support the introduction of new and generally smaller oil companies to invest in UK oil and gas production, this help needs to address the requirements of a broad range of companies. As ever this industry makes no request for subsidy or handouts but we do call on the Government to:

- Help the smaller companies to continue with their development projects by assisting them to get access to debt financing from the banking sector, this type of finance having recently dried up almost entirely.
- Help the contractor companies, which provide the employment for the overwhelming majority of the people working in our industry, by assisting them to secure normal support from their banks on reasonable terms
- Help companies to maintain their exploration activity by accelerating the payment of the tax allowances eventually paid by the Government to the period when the well is actually being drilled
- Help to prevent the cost of regulations, including those emanating from the EU, having an unnecessary negative impact on investment and production of UKCS reserves. For example, our research shows that if there is a requirement for our industry to buy all its allowances at auction under ETS Phase III, it could result in the loss of up to one billion barrels of UK oil and gas production. This significant loss to the UK economy would provide no environmental benefit as the shut in UK production would merely be replaced by other production from elsewhere in the world, quite possibly with a greater CO₂ footprint.
- Help both established companies and the new smaller companies by delivering material improvements to the current tax regime so as to stimulate additional capital investment both through the current downturn and in the longer term. The Government's recent and constructive proposals regarding a value allowance to be set against the supplementary charge on corporation tax are a welcome step forward. However those proposals only target the development of small and technically challenging fields. Current economic imperatives require additional and broader measures that incentivise, for example, brownfield development and infrastructure life extension to help maximise hydrocarbon recovery. We have long argued that the overall tax burden on the mature UKCS must be reduced. Now the difficulties in attracting and maintaining investment to the UKCS for projects of all kinds have been suddenly and materially increased. Whilst we appreciate the constraints on Government finance, time is not on our side and we must urge that further steps are taken as soon as is reasonably possible to reduce the tax burden on the mature UKCS if the Government and the industry are to have any realistic hope of achieving their shared goal of maximising the recovery of the oil and gas reserves remaining on the UKCS.

With the global recession leading to a curtailment of investment by National Oil Companies across the globe there is now a growing danger that the credit crunch could be followed by an energy crunch well before the UK can hope to have completed its journey towards being a low carbon economy. From the standpoint of security of energy supply, our survey shows that the UK offshore oil and gas industry can be a very significant part of the UK's response to that threat. The steps taken now and over the next couple of years by both the industry and the Government to encourage and sustain investment in exploration for and development of UK oil and gas reserves will determine whether that can in fact be the case.

Malcolm Webb
Chief Executive
Oil & Gas UK

1. Introduction

Each year, Oil & Gas UK surveys exploration and development activity on the UK continental shelf (UKCS) jointly with DECC. This provides a forecast of potential exploration and appraisal drilling activity over the next two years and investment and new developments likely to occur over the next three to five years.

It is recognised that the business environment is continuing to change rapidly. Whilst most of the data were collected as recently as November and December 2008, we have sought to reflect the impact of recent events on future activity and outlook for the UKCS.

The surveys encompass the plans of the Trade Association's member companies who operate oil and gas fields on the UKCS and includes the activities of non-operators, promote licencees and other explorationists, covering over 70 companies in all. It also considers the wider supply chain, many of whom are also members of Oil & Gas UK.

Oil & Gas UK is provided with exploration plans, production profiles, capital expenditure, operating costs, tariffs and decommissioning costs by field. Projects are categorised by probability of development within the next five years on the following basis:

- "Probable" activities: have a probability of greater than 50% of proceeding
- "Possible" activities: have a probability of 50% or less of proceeding

The survey reflects production from:-

- "Sanctioned investments": fields which are already in production or have already received investment approval
- "Incremental developments": which covers further development of existing producing fields more usually referred to as "Brownfield" developments
- "New field developments": which are new fields typically tied back to existing infrastructure.

The following summarises the analysis carried out by Oil & Gas UK; further details will be provided in our Economic Report to be published in July 2009.

It should be noted that, as in previous years, Oil & Gas UK has slipped the data for new projects, reflecting the probability of proceeding with the investment. This approach effectively smoothes short term peaks in activity yet retains a coherent projection of overall reserves and investment activity.

2. Summary

The following summarises the key findings of the 2008 Activity Survey. A summary table providing key metrics is appended to this report.

Reserves

- The survey reports an 8% increase in potentially recoverable reserves
- The biggest increase came from new field developments
- Of the 56 new field developments reported, half are less than 15 million boe¹
- The breakeven oil price for new field investment is now above \$40

Production

- In 2008 production averaged 2.63 million bpd², a decline of 5% on 2007
- The same decline is expected in 2009
- The decline rate has slowed from the 7.5% per annum seen in the period 2002-7
- If capital investment is not sustained the rate of decline will increase

Capital Investment

- Capital investment in 2008 at £4.8 – 5 billion was 6% lower than in 2007
- Against the backdrop of a particularly difficult business environment, it is estimated:
 - Investment will fall to somewhere between £3.5 – 4.5 billion in 2009
 - Investment in 2010 could decline further to the range of £2.5 – 4 billion

Operating Costs

- Total operating expenditure rose by 11% to £6.8 billion in 2008
- This is expected to decline to £6.4 billion in 2009
- Unit operating costs rose by 10 – 15% in 2008

Exploration & Appraisal (E&A)

- 109 E&A wells were drilled in 2008 and discovered around 300 – 400 million boe
- Overall technical success rate was reported at 30%
- Finding costs per barrel rose by around 25%
- 77 E&A wells are planned for 2009, of which 34 are firm (i.e. with rig commitment)
- The prediction a year ago was that 113 wells would be drilled in 2009
- For 2010 only 10 wells were advised in this survey: a year ago the number was 30

Recent cost and tax increases are not sustainable

- Costs of new field developments were typically 10-15% higher than a year ago,
- The costs of potential brownfield developments rose more steeply
- Oil prices in January 2009 of \$40-45/bbl are similar to those last seen in 2004, since when costs and the rate of supplementary corporation tax have both doubled

¹ Barrels of oil equivalent

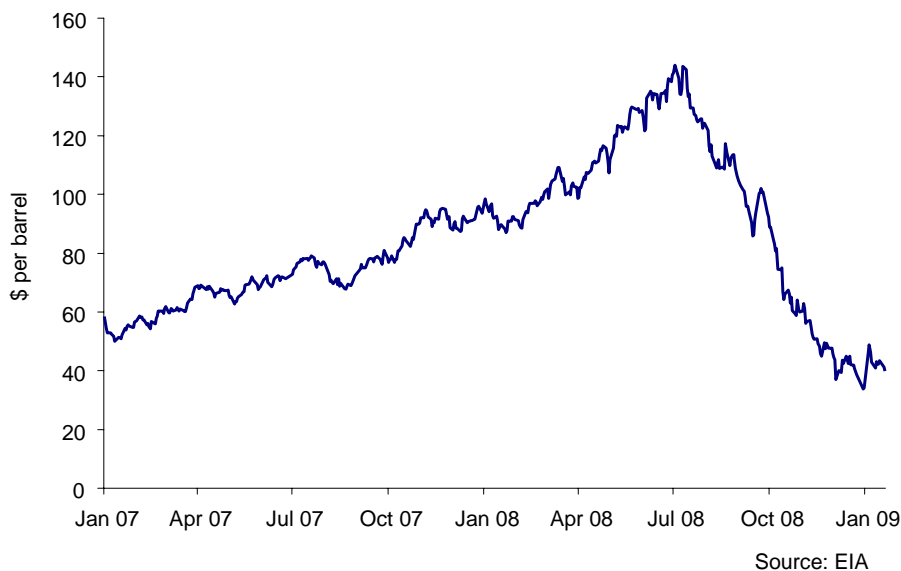
² Barrels per day

3. Oil and Gas Prices

2008 was a year of two halves. Oil prices started 2008 at around \$90/bbl, rising rapidly to peak at over \$145, subsequently falling back to below \$40/bbl by the end of December. Oil averaged \$97/bbl during 2008 compared with an average of \$73 in 2007. Oil prices in January 2009 were around \$40-45/bbl and are back in a range last seen in 2004, before the last 10 percentage point increase in the supplementary charge on corporation tax (SCT).

The decline in the exchange rate has also had an impact, with UK oil now worth 30% more in sterling terms (using current exchange rates of around 1.45 \$/£) than it would have been if last summer's exchange rate of 2.00 \$/£ still prevailed.

Figure 1: Daily Brent Oil Price 2007 - 2009

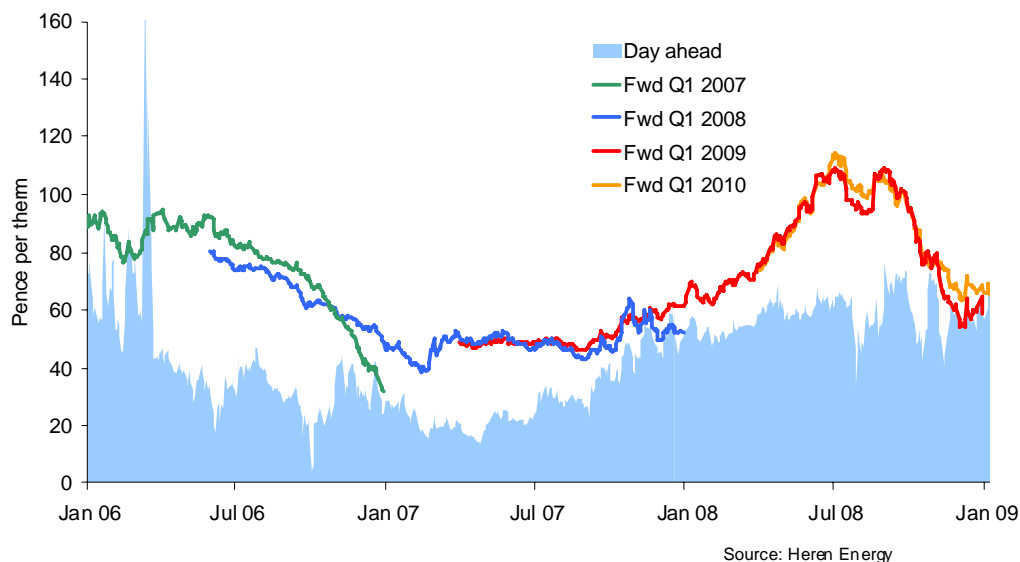


The gas price has followed a similar, if not quite so dramatic path as the oil price. The annual day ahead gas price for 2008 averaged 58 p/th, and was nearly double the gas price seen in 2007 of 30 p/th.

The rise in gas prices appeared more pronounced because of the very low prices in the early part of 2007, reflecting the abundance of supply during that period. Day ahead gas prices remained volatile throughout 2008. They rose to a peak of around 70 p/th in September 2008 and averaged around 60 p/th over Q2/Q3 2008.

Forward winter gas prices for Q1 2009 rose to a peak above 105 p/th in June and July and then fell back to around 55-60 p/th by the end of 2008. Actual prices for Q1 2009 have since been trading mainly in this range reflecting the current supply demand balance and the lagged effects of the rapid decline in oil price over the latter half of 2008.

Figure 2: Daily NBP Day ahead and Forward Gas Prices 2006 – 2009



4. Reserves

The latest Activity Survey shows that business plans developed in the latter half of 2008 may lead to the recovery of up to 9.6 billion boe over the next three decades. This is some 0.7 billion boe higher than in last year's survey, both measured from 1.1.09 forward.

The survey includes:

- 6.1 billion boe from existing fields and currently sanctioned investments
- 2.1 billion boe from new field developments
- 1.4 billion boe from brownfield developments

It should be noted that the 9.6 billion boe covers a range of probabilities of recovery reflecting both the underlying economics as well as the technical challenges posed by many of these developments. The survey captures proven and probable reserves (greater than 50% probability) which total 8.7 billion boe and possible reserves (less than 50% probability) of 0.9 billion boe.

The increase in the potential reserves base must in part reflect a response to the high oil price seen in recent years, though it is questioned how many of these reserves can be developed in the current environment.

New Fields

The survey identifies 56 potential new field developments, of which half are less than 15 million boe in size. The total reserves covered by new field developments are 1 billion boe higher than a year ago.

The survey shows the break-even oil price for new field developments is now averaging above \$40/bbl. Based on a \$50 oil price and at indicated costs, only around a third of these projects, covering some 0.7 billion boe, have robust economics. Around a third of potential new field developments are considered marginal at \$50 and the remaining third are considered to be uncommercial. A reduction in the cost base would significantly improve the commerciality on many of these opportunities, as would a reduction in the overall tax burden.

Brownfield (incremental) Opportunities

The survey identifies 111 potential brownfield opportunities, developing 1.4 billion boe of new production. This is a similar volume and number of projects to that estimated in last year's survey.

Ultimate Recovery

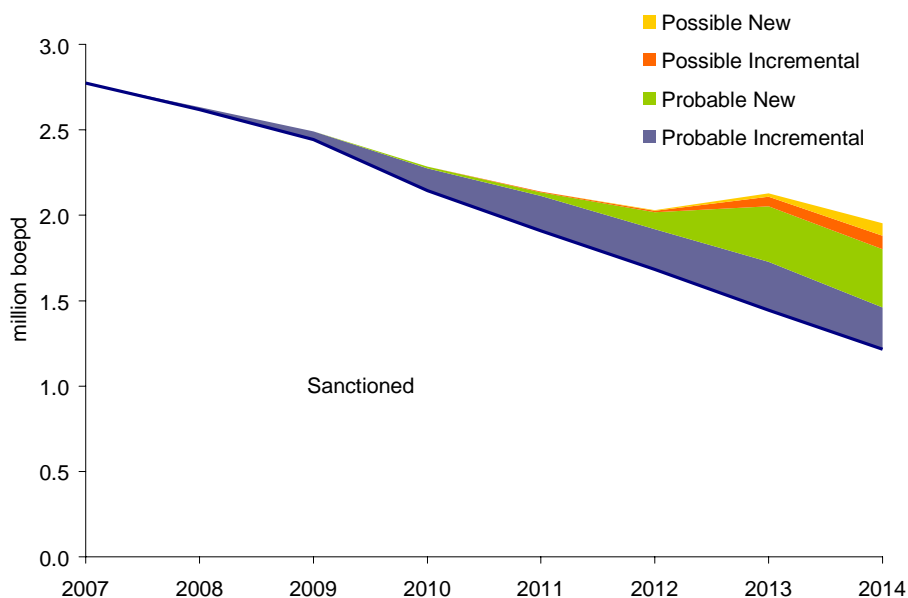
Oil & Gas UK estimates that there are still somewhere up to 25 billion boe to be recovered from the UKCS over time, of which the results of exploration could ultimately contribute around 5–8.5 billion boe.

It is also estimated that exploration added 300-400 million boe of new oil and gas resources during 2008. However these volumes are not reflected in the investment and production forecasts provided in this survey, because further work will be required to mature their development.

5. Production

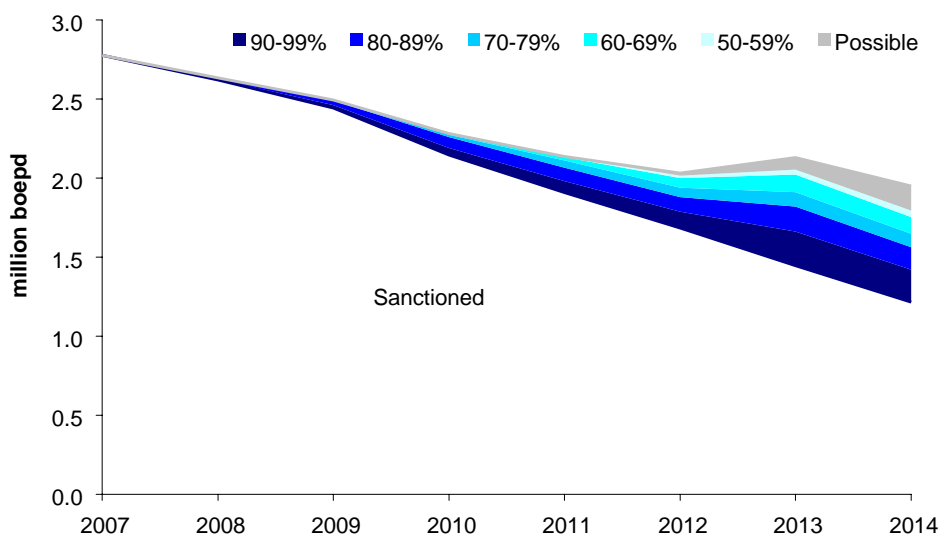
UKCS production was 2.63 million boepd (~ 1 billion boe) in 2008, 5% lower than in 2007. Production is estimated at 2.5 million boepd per day in 2009, 5% lower again than in 2008. Oil production alone was down 5.2%, whilst gas production fell 4.8%.

Figure 3: UKCS Oil and Gas Production 2007 – 2014 (assuming sustained investment)



The overall production decline rate has slowed to 5% from the 7.5% per annum seen over the period 2002-7, in part responding to the step up in capital investment witnessed in 2005-6. The natural decline rate of the basin (ie. with no further capital investment) is 15% per annum.

Figure 4: UKCS Oil and Gas Production 2007 – 2014 (reflecting the probability of new developments)

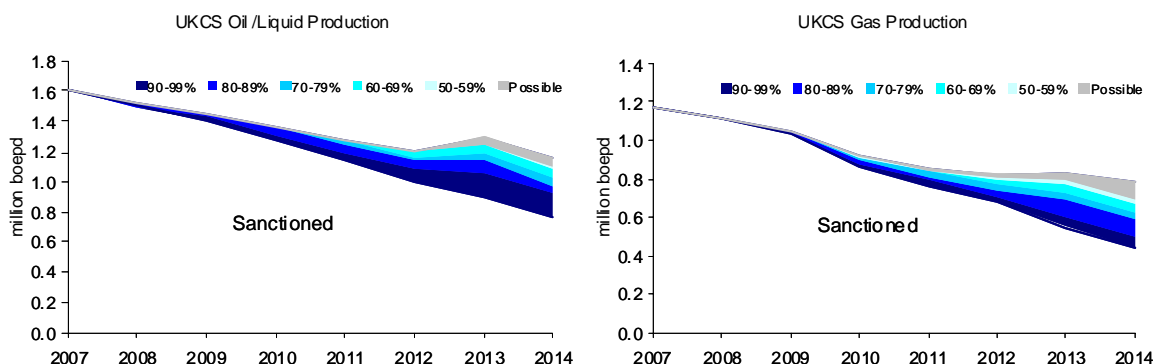


If investment were to be sustained at around £5 billion a year over the next five years the production decline rate would average 4-5% per annum. However, if investment drops off, production will be affected and the decline rate will again accelerate post 2010.

If all the investment projects which have been identified could be delivered, we could see some 16 new fields brought on-stream in 2011, rising to 20 in 2012. The scenario shown also anticipates gas production potentially commencing from West of Shetlands by 2013/14 though this is by no means a certainty and assumes infrastructure is put in place within this timeframe.

Many projects identified in last year's survey have still to attract investment funding and have therefore slipped out in time. As a result, production is again lower in the short term than anticipated in last year's survey and only recovers above last year's forecast in the middle of the next decade. New projects which start-up in 2015 and beyond ultimately boost production in the later half of the next decade by circa 250,000 boepd compared with last year's survey. It should be noted that half the projected production in 2014-5 comes from investments which are yet to be sanctioned, emphasising the need for investment to be sustained at the current rate.

Figure 5: UKCS Oil and Gas Production 2007 – 2014



6. Investment and Expenditure

Capital Investment

Estimated capital investment in 2008 was £4.8–5 billion, continuing the downward trend from a peak of £5.6 billion in 2006, despite the rise in oil prices over the period. The relative decline in investment over the period is all the more telling when cost inflation is considered and highlights the competitive challenge faced by the UKCS.

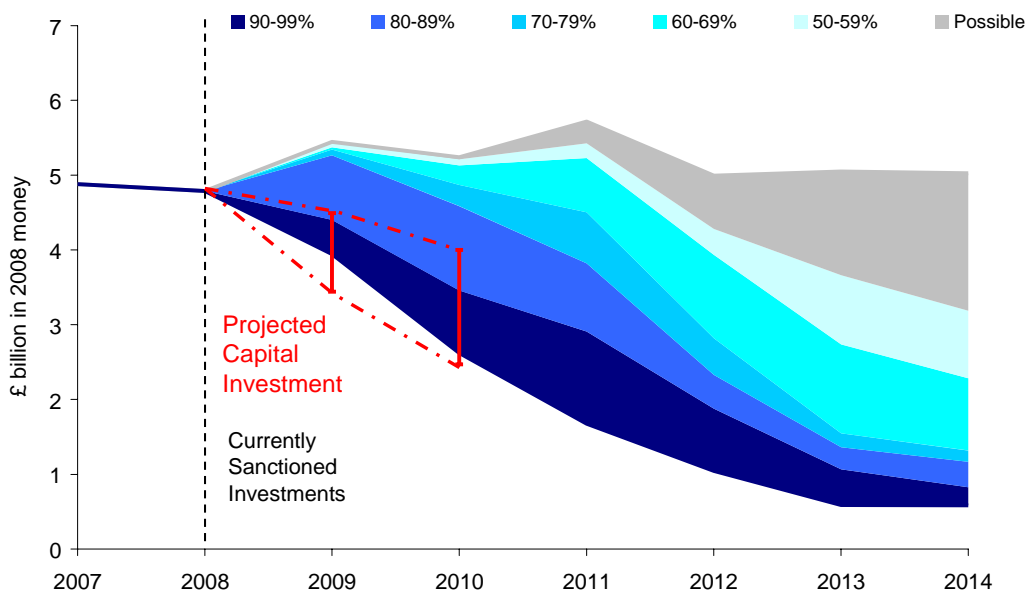
In an unconstrained world, capital investment in 2009–12 could be sustained at or around £5 billion per annum based on the existing portfolio of opportunities, albeit higher oil and gas prices would be required to support many of these investments. However, current market conditions combined with the lack of access to capital or equity markets will significantly suppress investment.

Despite the fall in capital expenditure over the last two years, it appears that investment in the UKCS has been approaching capacity limitations over the period. On the positive side, there is still a broad range of commercial opportunities which could attract investment in the right circumstances. However capital is now being severely rationed and it is difficult to see investment forthcoming in large quantities for anything but the most attractive of projects at this time.

Bearing in mind the current business environment, it is anticipated that capital investment in 2009 will fall to a range of £3.5 – 4.5 billion and could decline to £2.5 – 4 billion in 2010. This projection is consistent with the investment response seen in the period 1998–2000, during the last sharp downturn in oil price, where it took two years for the full impact to be felt. It should however be noted that investment plans for 2010 will be greatly determined by events during this next half year.

Recent work reported in the Oil & Gas UK Economic Report published in July 2008 showed that each £1 billion of investment provides employment for around 20,000 across the supply chain. Any fall off in investment will have a consequential impact on employment by the industry, though how quickly the impact will be felt will depend on investor's long term perspective on the future of the UK's offshore oil and gas industry.

Figure 6: UKCS Investment Outlook
(reflecting probability of new developments)



The survey covers capital investment of £44 billion, £26 billion (60%) of which could be made within the next five years. £14 billion is required to be invested in currently sanctioned projects and existing fields. Investment of £18 billion will be required to develop all the 56 new fields over time and a further £12 billion will be required to develop the current portfolio of brownfield projects (this also includes £0.7 billion on infrastructure projects which do not directly enhance production). Whilst there are similar brownfield volumes to last year's survey (around 1.4 billion boe), the total capital required to develop them is around £3 billion (33%) higher.

Operating Costs

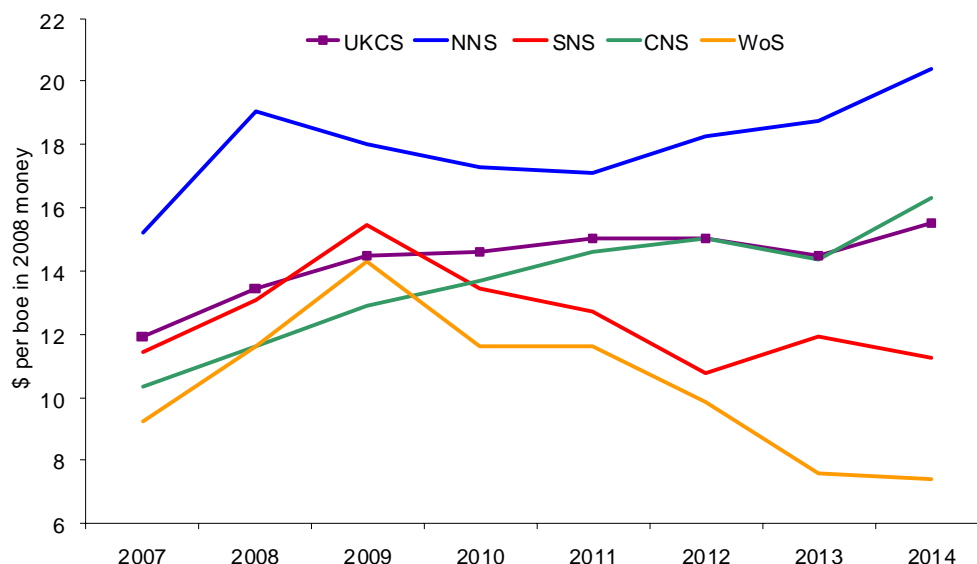
Total operating expenditure to enable recovery from existing fields rose by 11% to £6.8 billion in 2008, up from £6 billion in 2007. Whilst there is sustained strong expenditure throughout the industry to improve safety and maintain the integrity of assets, there is undoubtedly a strong element of inflation.

It is anticipated that operating expenditure in 2009 will only react slowly to changes in the business environment as most costs are a function of production and fairly static in the short term. It is expected operating costs will be reduced in 2009 by around 5% to around £6.4 billion with the potential for a further reduction in 2010 to around £6 billion. Again this projection is consistent with experience in the late 1990's. However, the big difference is that production peaked over that period where as it is now declining at 5% per annum, leading to a rapid increase in unit operating costs.

Declining production combined with an increase in operating costs means unit operating costs (UOC) have risen in dollar terms by 10-15% to around \$13.5/boe in 2008. It is essential that investment is sustained to bring on new production. Without this, UOC would soar and make the UKCS uncompetitive.

The survey shows that over the next five years, in addition to the £10 billion investment already committed in sanctioned and existing projects, a further £16 billion will need to be invested to keep unit operating costs flat at around \$14 per boe. Undoubtedly field operators will intervene if unit operating costs escalate, either by seeking to attract new production, fundamentally changing the mode of operations or ultimately by decommissioning the asset.

Figure 7: Unit Operating Costs by Region (assuming sustained investment case)

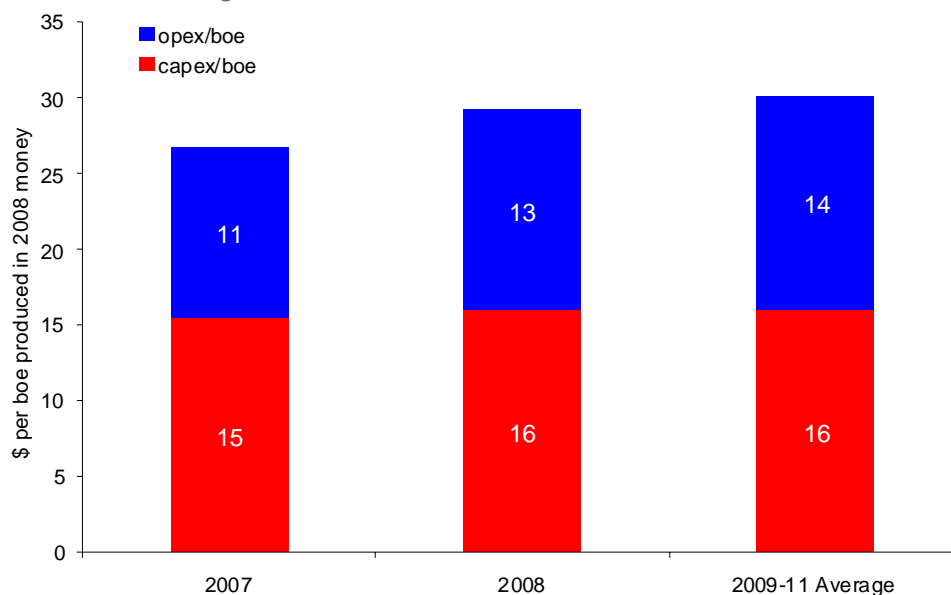


Unit Technical Costs

Capital costs to develop new fields continued to increase in 2008 with the survey showing them to be typically 10-15% higher than in 2007 averaging at around £10.5/boe (\$16/boe). However the capital cost per barrel for brownfield (incremental) developments appears to have risen much more rapidly and is circa 15-20% higher than a year ago.

In 2008, the cost of developing and producing a barrel of oil or gas equivalent (unit technical cost) rose by 12% compared with 2007 to around \$29/boe. It should be noted that the quoted unit technical costs exclude the costs of investment finance, exploration and appraisal drilling and general onshore expenses for the venture.

Figure 8: UKCS Unit Technical Cost 2007 - 2011

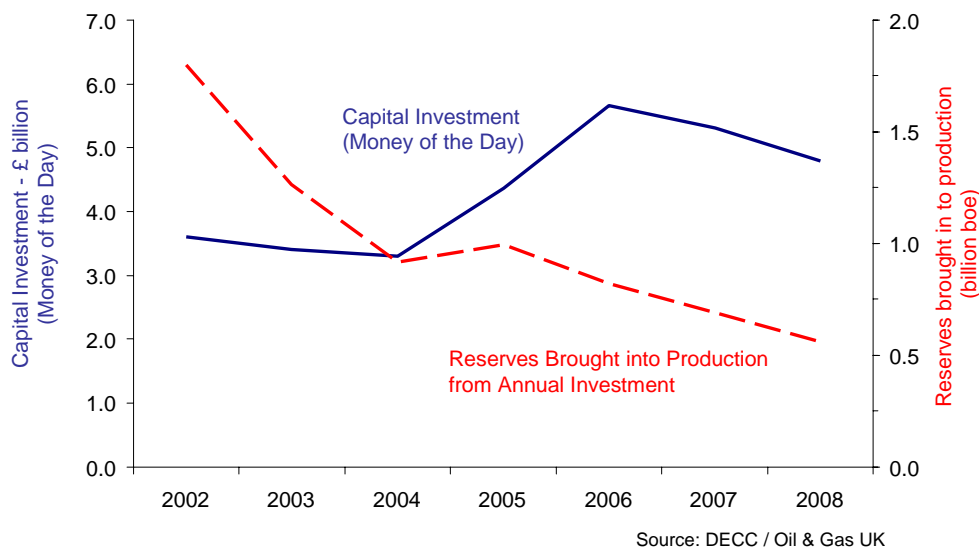


Capital Efficiency

There has continued to be a decline in capital efficiency over recent years. The cost of developing a barrel of oil or gas is now around three times higher than in 2002. As a result, although capital investment has risen, the total volume of oil and gas being developed has declined.

To illustrate this, capital investment has been compared over the last six years on an annual basis against the volumes of oil and gas brought on-stream. Whilst total capital investment was up by half in 2008 compared with 2002, it now only develops around a third of the oil and gas. This trend may have been acceptable as oil prices rose; however it is clearly unsustainable in the current environment. Any reduction in costs will improve capital efficiency and enhance the productive outlook for the UKCS.

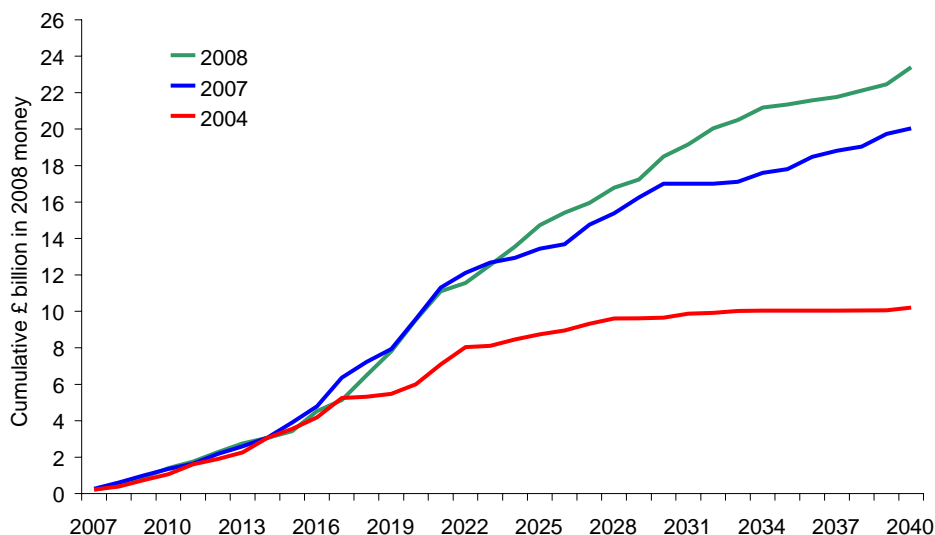
Figure 9: Reserves Brought into Production from Annual Capital Investment 2002 – 2008



Decommissioning

Total spending on decommissioning of the UKCS through to 2040 is now forecast to reach £23 billion, 15% higher than was expected a year ago. Over the last three years decommissioning dates have moved out as a result of the rise in oil prices. However, there is a risk that lower oil and gas prices will now bring decommissioning dates forward.

Figure 10: UKCS Decommissioning Costs 2007 – 2040

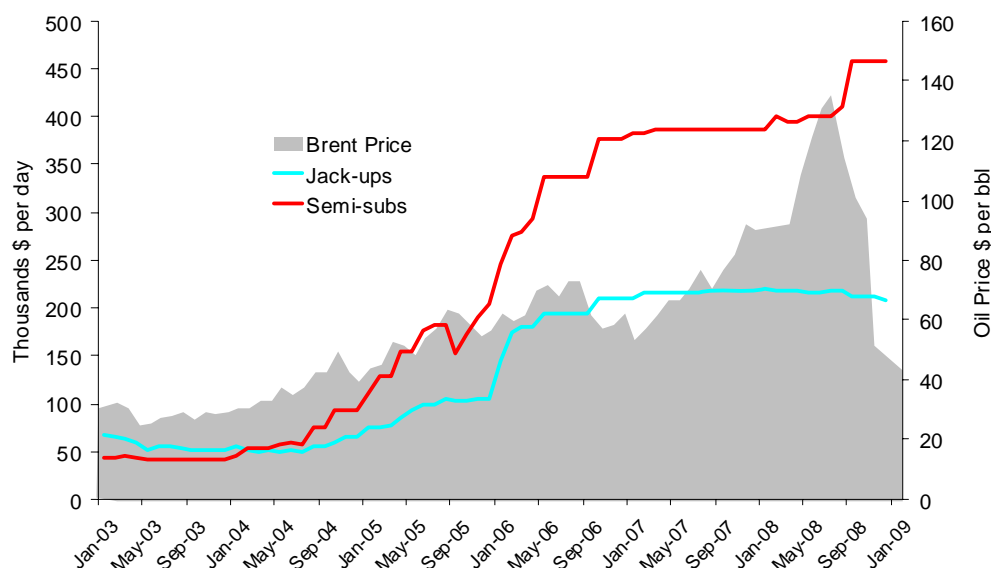


7. Drilling Activity

Newly contracted semi-submersible drilling rig day rates were in the range of \$400,000 - 450,000 per day in 2008, with jack-ups in the range of \$200,000 - \$225,000 per day, representing what now appears to have been the peak of the market. The drilling rig market faces a real dilemma; it has invested heavily to increase capacity over the last three years, and whilst many of these new rigs have been contracted, they have yet to enter service. At the same time, drilling activity will decline, the more so the longer the current business environment prevails.

It should be noted that whilst platform based drilling has also increased in cost since 2004 it still remains a fraction of the cost incurred using a semi-submersible or jack-up.

Figure 11: North Sea Rig Rates 2003-2009
(excludes platform based drilling)



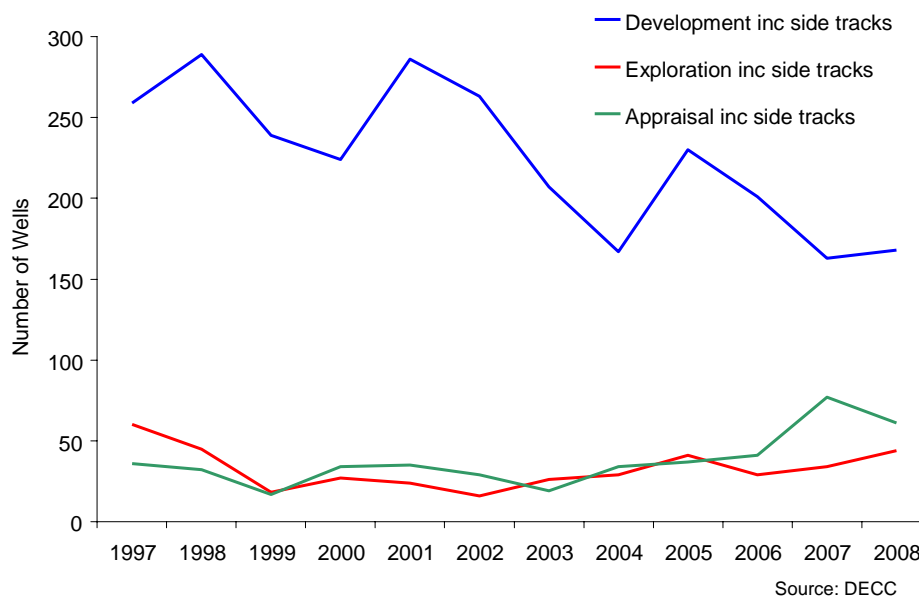
Source: Platts

Development Drilling

A total of 168 development wells were drilled in 2008, very similar to the number reported in 2007. This comes after a steady decline in development drilling activity since 2001/2 which will have an impact on the productive capacity of the UKCS. This reduction in the decline rate may in part reflect the step up in capital investment witnessed in 2005-6.

In a more normal year, around 45% of capital invested would be directed at well costs and development drilling activity. However, there are already signs in the current climate that development drilling is being cut back in response to the pressures on capital budgets.

Figure 12: UKCS Drilling Activity 1997 – 2008



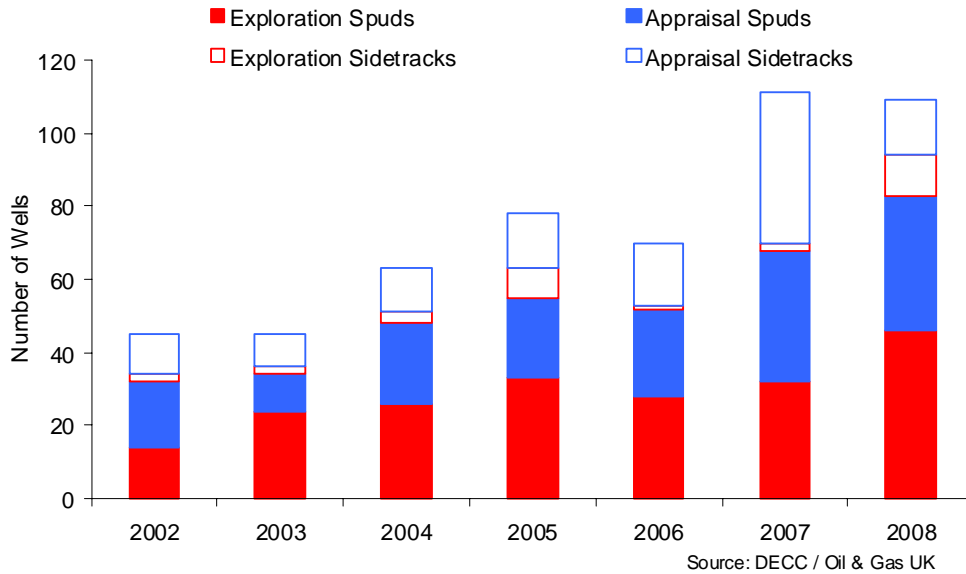
Exploration and Appraisal (E&A) Activity

2008 was another strong year for E&A activity. The Oil & Gas UK survey reported 109 E&A wells (including side tracks) being drilled in 2008, similar to the number seen in 2007. First indications are that around 300 – 400 million boe of potential commercial volumes were discovered last year. The ultimate development of these resources will depend on a range of commercial factors including access to capital, evolution of drilling and development costs and the outlook for oil and gas prices.

There has been a steady growth in the number of E&A wells since 2004, with the most rapid acceleration in the period since 2006, driven up on rising oil prices and increasing access to capital from equity markets over the period. This trend has also been reinforced by the fallow process and the availability of promote and frontier licences which have increased the availability of opportunities. There was a step up in the number of exploration wells drilled in 2008 which rose by 10% to constitute 40% of the total number of E&A wells drilled last year. This trend towards exploration is anticipated to continue in 2009, in part encouraged by licence obligations.

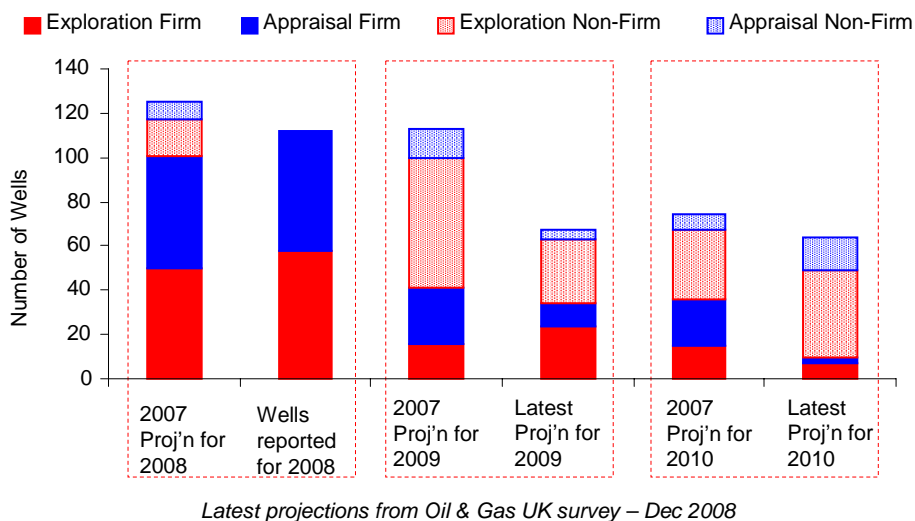
Overall, the technical success rate in 2008 was reported at 30%. Well costs continued to rise, driven higher on the back of strong rig rates and the increasing cost of drilling materials. Overall expenditure on E&A activity in 2008 was estimated to be around £1.4 billion, 25% higher than seen in 2007. This same cost trend was seen in exploration activity with finding costs per barrel also reported to have increased by 25% on average over the last year.

Figure 13: UKCS Exploration and Appraisal Activity 2002 - 2008



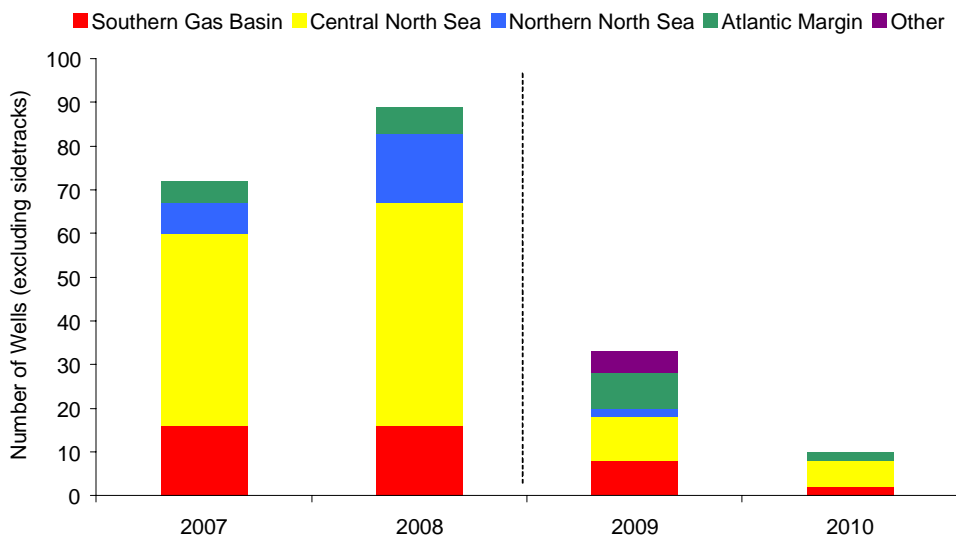
The survey shows that there is the potential for a rapid reduction in E&A drilling activity in 2009/10. Whilst the outcome for 2009 remains uncertain, the latest signs would suggest that E&A activity this year could be less than half that in 2008. The E&A survey shows only 34 firm wells (ie. with rig commitment), are planned for 2009 plus another 33 non-firm wells. It is anticipated that two thirds of the firm wells may be exploration wells in 2009. This compares with the prediction a year ago that 41 firm wells and 72 non-firm wells would be drilled in 2009. There has been a marked shift to exploration drilling, indicating that companies are focusing their resources on fulfilling licence drilling obligations and delaying appraisal activity. In 2010, only 10 firm E&A wells are advised in this survey whereas a year ago 30 firm wells were anticipated.

Figure 14: UKCS Exploration and Appraisal Activity in 2008 and Forecasts for 2009/10



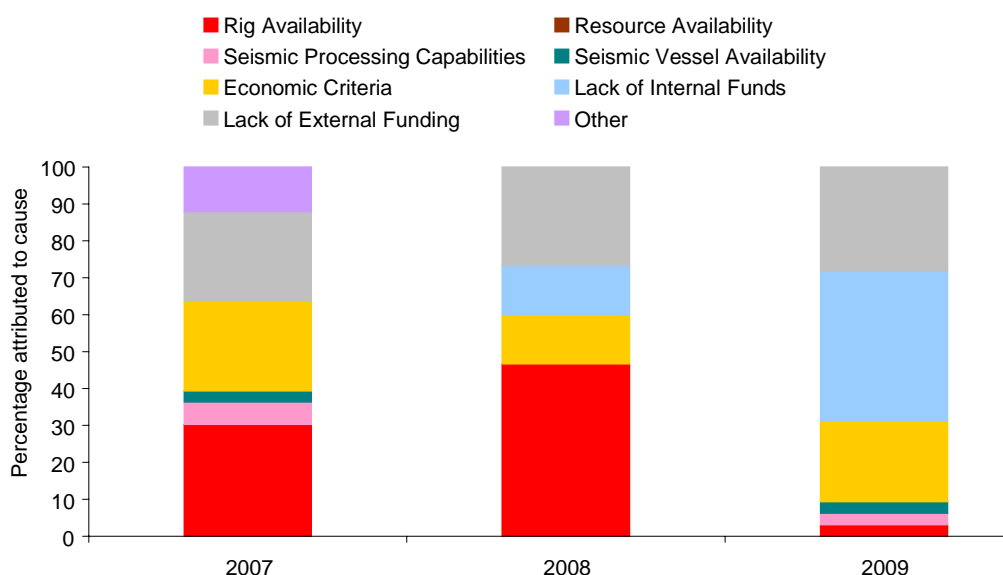
The Central North Sea continues to attract the biggest share of E&A activity, and this remains the case going forward.

Figure 15: Distribution of UKCS E&A Activity 2007 – 2010 (Firm Wells)



Despite concerns on the current business environment, many companies continue to retain a positive view of the exploration potential of the UKCS. However, it is clear that access to finance and current high well costs are fundamental constraints on activity.

Figure 16: Causes of Constraints in E&A activity

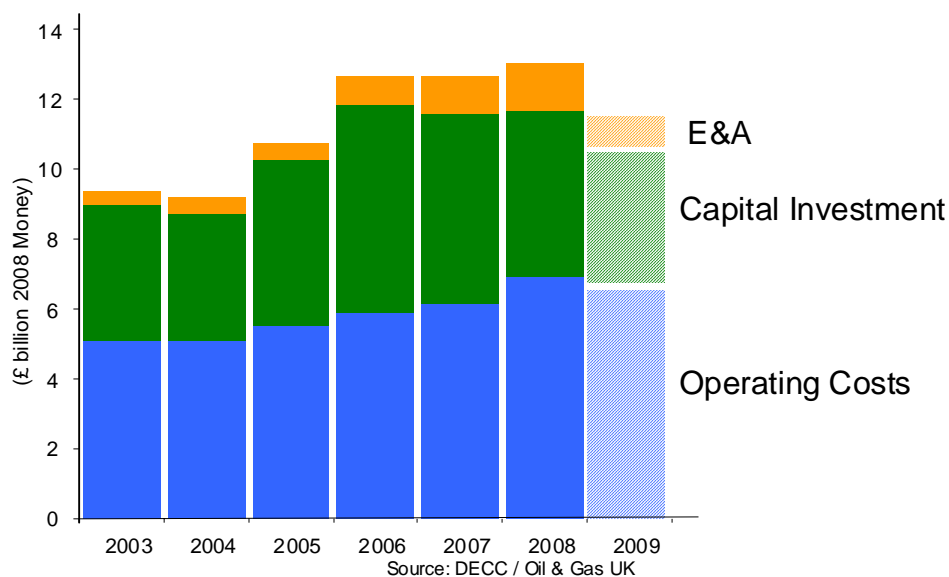


8. Business Outlook – short term challenge, long term opportunity

The rapid decline in oil price combined with the collapse in the capital and equity markets is placing a severe strain on the UK's oil and gas industry, for both oil and gas companies and their supply chain alike. The recession and falling oil price was expected to give rise to a slowdown in activity. However this has been further compounded by the freezing of the capital markets which is severely restraining new investment by smaller oil companies and will impact a broad swathe of companies within the supply chain. Those companies which have access to capital are now conserving it in the face of ongoing uncertainty. As a result even the most attractive of investment opportunities face global competition for funds.

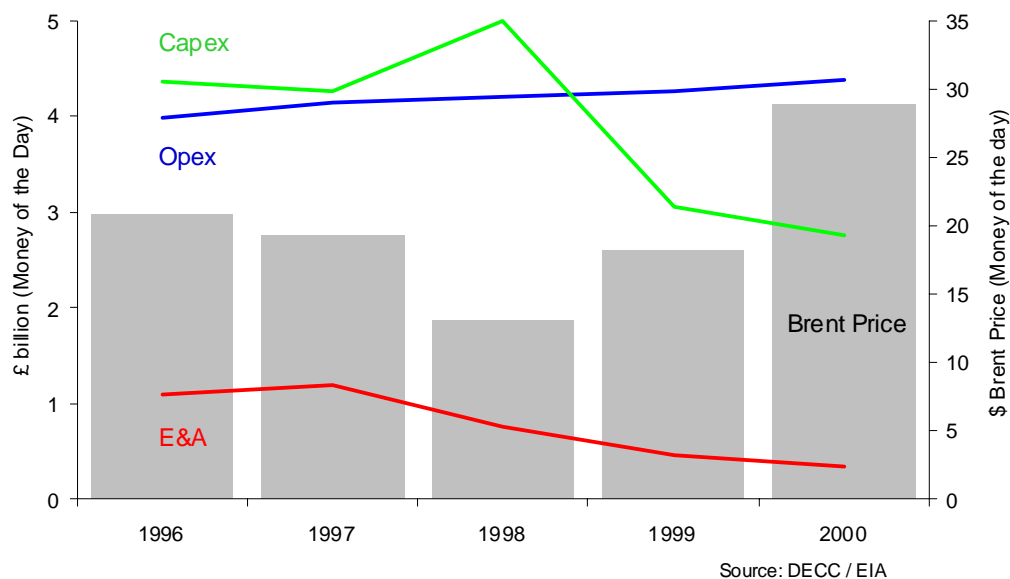
Capital costs are likely to decline over the coming year in response to the current business environment. However, this is more likely to help sustain investment at a reduced rate than lead to any increase in investment. Cost reduction will have a direct impact on investment economics and should improve the attractiveness of the overall portfolio over the long term, provided sufficient capacity is retained within the supply chain.

Figure 17: Oil & Gas UK - Tentative Projection of Future Expenditure



It may be possible to make a comparison with the period of 1998-2000 when the fall in oil price placed the industry under extreme pressure. This time around, the fall in oil price may not have such a severe impact, but the freezing of the capital markets may instead increase the threat to the future of this industry.

Figure 18: Trends in Investment and Expenditure 1996 – 2000

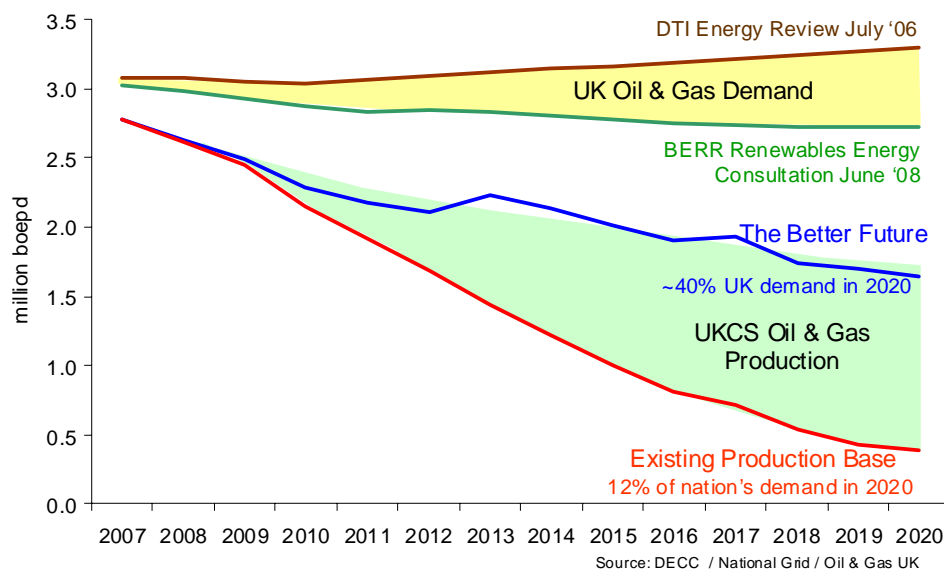


Investment fell by half over two years between 1998 and 2000 and took six years before it recovered to that seen in 1998. When the impact of inflation is considered, investment in real terms is still lower now than it was in 1998. Operating expenditure was less severely impacted and was effectively flat in nominal terms over the period 1997 – 1999, though it began to rise again thereafter.

E&A spend took the greatest hit and fell by two thirds over three years; it again took five to six years to recover. Across the supply chain there was a major reduction in capacity and employment between 1998 and 2000. The supply chain took seven or eight years to recover from that setback, though the loss of capacity has remained a fundamental constraint to the development of the UKCS in recent times.

Measures are needed to mitigate the worst of the impact of the anticipated reduction in activity for both exploration and production companies and their supply chain. The UK's offshore oil and gas potential will only be exploited to the full if there is a diverse mix of companies engaged in exploration and production across the UKCS. There needs to be a compelling value proposition for the whole industry, including both exploration and production companies and their supply chain. This industry is the largest single investor in productive assets in the UK economy, so ensuring ready access to capital will be crucial to sustain the longevity of the UKCS.

Figure 19: UKCS Oil and Gas Supply vs. UK demand



The UKCS has the ability to provide the nation with 40% of its oil and gas demand in 2020 if we can sustain investment in this mature basin. This can materially advantage the UK's security of supply and provide our oil and gas supply chain with the foundation it needs to continue to penetrate the worldwide market in oil and gas goods and services. Between now and 2030, it is estimated that \$26 trillion (2007 money) will be spent supplying global energy¹.

The UK oil and gas supply chain forms a key part of the wider UK energy sector and is well positioned to access this global demand for oil and gas and other forms of energy. UK-TI reports that the UK oil and gas supply chain exported goods and services worth some £4-5 billion per year in 2007, providing about a quarter of total exports from the UK's wider energy sector. We need to ensure that any downturn in activity across the UKCS during the year ahead is as short as possible to limit the risk of losing long term capacity.

¹ IEA World Energy Outlook 2008

Summary Table of Key Statistics

<i>Nominal</i>	2006		2007		2008		2009 Forecast
Total production	2.9 mln boe/d		2.8 mln boe/d		~2.63 mln boe/d		~2.5 mln boepd
Oil / liquids	1.6 mln boe/d		1.6 mln boe/d		~1.5 mln boe/d		~
Gas	1.3 mln boe/d 214 mln m3/d		1.2 mln boe/d 188 mln m3/d		~1.1 mln boe/d ~184 mln m3/d		~
Total (£bln)	£12 bln		£ 12.4bln		~£13.0 bln		~£10.5 - 12bln
Capex	£5.6 bln		£ 5.3 bln		~£4.8 bln		~ £3.5 - 4.5 bln
Opex	£5.6 bln		£ 6.0 bln		~£ 6.8 bln		~£6.4 bln
Exporation & Appraisal	£0.78 bln		£1.1 bln		~£1.4 bln		~£ 0.8 bln
Unit Technical Cost (\$/boe)	23		27		29		30
Unit Dev't Cost (\$/boe)	13		15		16		16
Unit Operating Cost (\$/boe)	10		12		13		14
Unit Technical Cost (£/boe)	12		14		16		21
Unit Dev't Cost (£/boe)	7		8		9		12
Unit Operating Cost (£/boe)	5		6		7		9
Oil price (avge)	\$ 65.2 per bbl		\$ 72.5 per bbl		\$97 per bbl		~
Gas price (avge – day-ahead)	44 p/th		30 p/th		58 p/th		~
Effective Oil Price	\$ 58 per bbl		\$ 56 per bbl		\$ 84 per bbl		~
Direct N. Sea tax revenues (Fiscal year)	£ 9.5 billion		£ 7.8 billion		~ £13.3 bln (FY 2008-9 PBR Dec'08)		~ £8.7 bln (FY 2009-10 PBR Dec'08)
Well drilled	incl. sidetracks	excl. sidetracks	incl. sidetracks	excl. sidetracks	incl. sidetracks	excl. sidetracks	34 firm wells (with rig slots) and 33 non-firm wells reported for 2009
Exploration	29	28	34	32	57	46	
Appraisal	41	24	77	36	52	37	
Development	192	109	163	84	168	72	
Total	262	161	274	152	277	155	
New field approvals	13		15		12		~
Incremental projects	15		6		10		~
New field start-ups (Excludes incrementals)	14 (213 mln boe)		20 (1,000 mln boe)		22 (383 mln boe)		~
Exploration Volumes Discovered	~ 500 mln boe		~ 300-400 mln boe		~300-400 mln boe		~