The spectre of weakening prices

Crude oil and refined product markets are in significant surplus currently which sets the scene for some near-term weakness in prices. A lacklustre price trend is also expected to extend into 2011 reflecting the likely persistence of well supplied markets and historically high inventories. Weak fundamentals relate to OPEC and non-OPEC supply additions and an increasingly lacklustre economic backdrop.

Crude oil supply/demand outlook

The upward trend in US and OECD inventories over the past year or more points to a crude oil market in surplus. Inventories are now close to 20-year and at least 12-year highs respectively. For 2010 we look for a supply surplus of at least 0.5mmb/d and approximate balance in 2011.

Crude oil prices

Light crude oil prices have trended broadly flat since the end of the third quarter of 2009. Prices firmed in the month to early August 2010 with West Texas Intermediate (WTI) hitting a recent high of $82.6/barrel. Subsequently, prices have come under significant pressure taking WTI down to $78.4/barrel on August 11, reflecting rising inventories and bearish US and China macroeconomic news. We expect light crude prices to be roughly unchanged on average between 2010 and 2011.

US natural gas prices

US natural gas prices have recovered modestly in 2010 from the lows of the third quarter of 2009. A renewed softening tendency of late, however, has taken prices back to marginal levels relative to fully accounted costs. Poor production economics could result in production cutbacks and scaled back imports and may result in a slightly firmer pricing environment in 2011.

Investment reflections

The AIM Oil & Gas Index has recovered strongly from the lows of late 2008 and has outperformed the FTSE 350 Oil & Gas Index. This partly reflects the heavy weighting of BP in the latter, but the AIM juniors have also benefited from some excellent stories in 2009/10. We see further potential for interesting news flow in the coming months from, among others, Faroe, Nighthawk, Gulf Keystone, Leni Gas & Oil, Petro Matad, Nautical Petroleum and Xcite.

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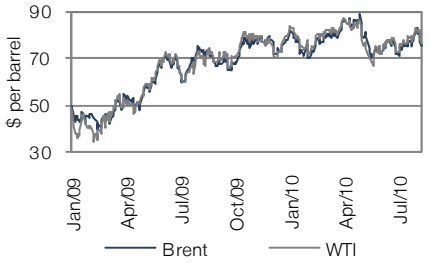
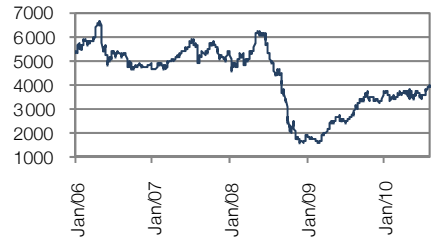
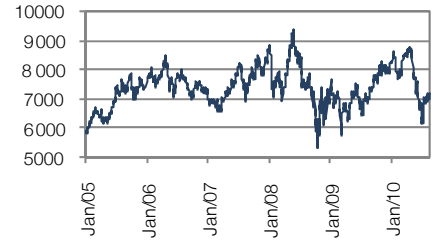
WTI vs Brent



AIM Oil & Gas Index



FTSE 350 Oil & Gas Index



Price trends

	WTI $/barrel	Brent $/barrel	Henry Hub $/mm Btu
2007	72.2	65.1	6.96
2008	99.8	97.3	8.89
2009	61.8	61.7	3.94
2010e	77.6	77.2	4.70
2011e	77.0	76.8	5.00

Note: Prices are yearly averages

Crude oil market dynamics

Price overview

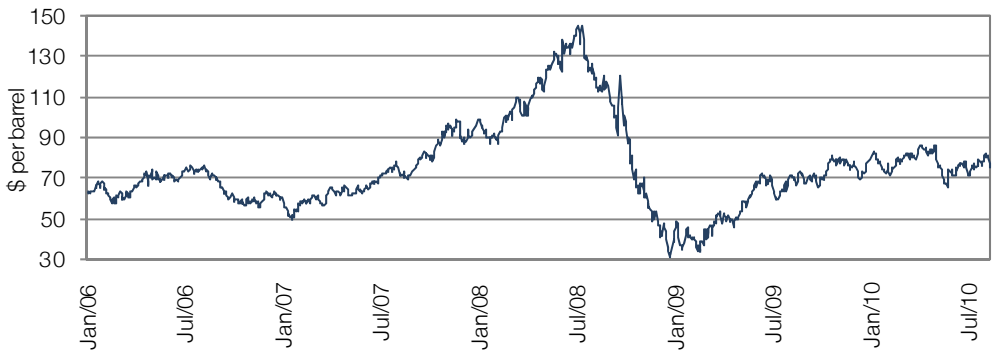
Recent price developments

Benchmark light crude oil prices have trended broadly flat since the end of the third quarter of 2009 after having rebounded strongly from the five-year lows of late 2008 and early 2009 over the prior eight or nine months. Between end September 2009 and early August 2010 WTI (West Texas Intermediate) has traded between a low of $65.96/barrel on 24 May and a high of $86.84/barrel on 6 April. Over the past 10 months WTI has averaged $78/barrel.

The ebb and flow in oil prices in 2010 has mainly reflected swings in sentiment concerning the direction of the world economy. The strong performance between January and early May reflected optimism on this score, while the sharp plunge over the following two or three weeks was a response to a bout of market pessimism related in large part to the European sovereign debt crisis. As concerns on this front have eased, prices have trended higher. The swings in oil markets in recent months have been strongly positively correlated with movements in the S&P 500 and inversely correlated to the strength of the dollar. Tending to keep a lid on oil prices over an extended period has been partly a perceived lacklustre world economic outlook and partly ample supplies as reflected by burgeoning inventories.

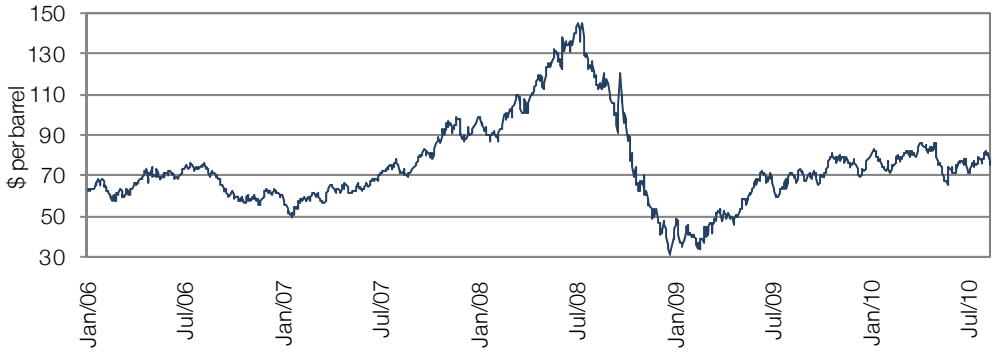
Over the past month or so, light crude prices initially showed signs of firming. WTI, for example, climbed from a recent low on 6 July of $71.98/barrel to $82.6/barrel, around a three month high, on 3 August. There was a particularly large gain on August 2 of $2.39/barrel driven it appears by positive stock market influences. Post 6 August WTI came under heavy pressure with the price down to $78/barrel by 11 August. This reflected further evidence of inventory building and bearish macro economic news flow related to the US and China. The WTI price on 11 August was up 12% from a year previously and 148% on the 22 December 2008 closing low of $31.41/barrel. Compared with the 3 July 2008 closing high of $145.29/barrel, WTI is down 46%.

Exhibit 1: WTI crude oil price trend



Source: Bloomberg

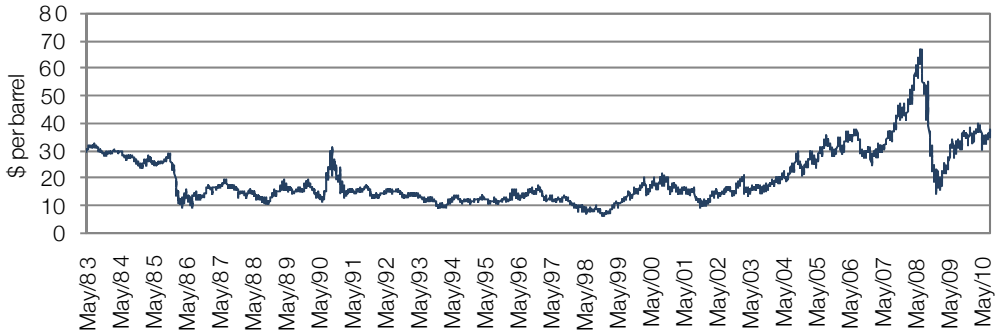
Exhibit 2: Brent crude oil price trend



Source: Bloomberg

In real terms WTI is trading slightly above the average for the period from early 2004, when oil prices started to take-off, to 2010. This implies that it has rarely been higher in real terms from the perspective of the past 20 or 30 years. According to Bloomberg data, WTI adjusted for inflation was trading on 11 August at $36/barrel (nominal WTI deflated by the US consumer price index starting in May 1983). This compares with averages of $33/barrel and $26/barrel for the period between 2004 and 2010, and 2000 and 2010 respectively. The only periods over the past 30 years when WTI has been higher in real terms than at present have been in the early 1980s and between late 2007 and the third quarter of 2008. The high for WTI in real terms was $67/barrel in July 2008 and the low $6.6/barrel in late 1998.

Exhibit 3: WTI inflation adjusted



Source: Bloomberg

Exhibit 4: WTI 2007/10 quarterly price scenario

Note: Quarterly data are averages.

$/bbl	Q1	Q2	Q3	Q4	Average
2007	58.1	65.0	75.2	90.5	72.2
2008	97.9	123.8	118.2	59.1	99.8
2009	43.2	59.7	68.1	76.0	61.8
2010	78.8	77.9	77.0	76.5	77.6

Source: Bloomberg and Edison Investment Research

Light crude spreads

WTI is an inland US light crude grade with low sulphur characteristics. Historically it has sold at a premium of $1 to $2/barrel to North Sea Brent crude reflecting the strength of demand in the US for high-grade feedstock for conversion into gasoline and the cost of shipping crude to the US from

other regions. In recent years, however, this relationship has become less pronounced and indeed WTI has on occasion traded at a discount to Brent. This occurred most notably in late 2008 and early 2009 when it reached over $10/barrel.

At the beginning of 2010 WTI was trading at a premium of about $2/barrel to Brent. During May however this reversed sharply to a discount which hit $5.71/barrel on 13 May. For the month as a whole the WTI discount averaged $2.7/barrel. As in 2008 and 2009 the swing to a WTI discount reflected a hefty build-up in inventories at the WTI basing point at Cushing driven by rising US production, increasing supplies from Canada and depressed refining activity. Significantly, Cushing is partially landlocked with pipeline connections from the Gulf Coast but only in the reverse direction indirectly. During June the WTI swung back to a modest premium, averaging $0.5/barrel and in July there was a further widening to $1.6/barrel as Cushing inventories slipped from record levels. At the beginning of August WTI was trading at close to parity with Brent. In the coming weeks it seems entirely possible that Brent will once again move to a significant premium to WTI due to continuing high inventories at Cushing and maintenance programmes reducing output in the North Sea.

The other key light crude spreads have followed a normal pattern in recent weeks. For example, in July low sulphur Nigerian Bonny light traded at a premium of $1.57/barrel on average to Brent while Brent traded on the same basis at a premium of $2.09/barrel to lower quality Dubai Fateh. In recent weeks the trend in Gulf light crude oil prices has tended to be soft relative to Brent reflecting a build-up of supply in the region. Consequently, by 3 August the Brent-Dubai-Fateh spread had widened to $4.8/barrel.

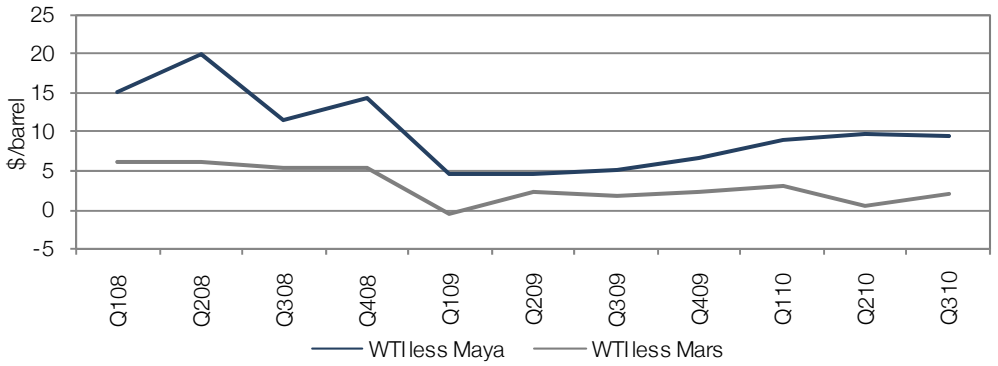
Historically, the most valuable of the major light crudes has been Malaysian-sourced Tapis, a very high grade sweet product with low transport costs to eastern Pacific margin markets. In July Tapis traded at an average premium to Brent of $5.12/barrel. The spread narrowed to $3.58/barrel in early August probably reflecting increasing competition from Middle East grades.

Heavy crude discounts

US heavy discounts to WTI narrowed sharply in late 2008 and early 2009, but have subsequently widened somewhat much to the gratification of sophisticated refineries with advanced coker and hydro-cracking equipment capable of handling such crudes. Taking Mars, a medium sour grade sourced from the Gulf of Mexico, the discount at the end of July was $2.20/barrel against an unusual and virtually unprecedented premium of $0.57/barrel in the first quarter of 2009. Maya, a Mexican-sourced heavy grade, at the end of July was trading at a discount of $9.59/barrel, well up on the $4.56/barrel of early 2009. Discounts have widened according to the leading independent refinery, Valero, due to a combination of increasing OPEC production of heavy crudes, high inventories of residual fuel oil and depressed usage of low quality medium/heavy sour crudes in South America due to refinery outages.

However, the recovery in heavy crude discounts has only been partial. In 2005 and 2006, it should be remembered, the Mars and Maya discounts to WTI were running at about $7 and $15/barrel respectively. The persistence of historically low discounts for heavy sour crude is arguably surprising, but probably relates in large part to continuing high WTI inventories at Cushing. Valero is of the view that heavy discounts will widen in due course given the expected increase of supplies of heavy Canadian crude on the Gulf Coast.

Exhibit 5: Medium and heavy sour crude oil dicsounts



Source: Valero Energy

Supply/demand balance

Supply

World oil supply hit an all-time peak of about 87mmb/d in July 2008. Over the following nine months supply fell to about 83.5mmb/d reflecting OPEC production cutbacks. Between the first quarters of 2009 and 2010 supply trended higher, reaching a peak of 86mmb/d in February 2010. This partly reflected moderate slippage in the OPEC quota regime and partly rising production from non-OPEC sources. Since the first quarter of 2010, world production has softened marginally and in June, according to OPEC, was running at 85.7mmb/d, 2.5% above a year previously.

Non-OPEC supply has shown moderate but significant gains in recent years. Conventional crude oil production increased by about 0.7% pa between 2005 and 2009 while total supply, including OPEC natural gas liquids (NGLs), rose by slightly more at 0.9% pa. Total non-OPEC supply in 2009 increased by 1mmb/d and averaged 55.5mmb/d, split 51.2mmb/d crude and bio-fuels and 4.3mmb/d OPEC NGLs (not subject to quota).

Prospects for non-OPEC output for 2010 as a whole appear bullish subject to the usual caveats concerning operational problems, strikes, adverse weather conditions, terrorist activity and geo-political developments. OPEC and the International Energy Agency (IEA) are looking for gains, including OPEC NGLs, of 0.95mmb/d and 1.40mmb/d respectively while the Energy Information Administration (EIA), the statistical arm of the US Department of Energy, is forecasting an increase of 1.20mmb/d. In terms of crude oil and bio-fuels, the key drivers are expected to be the US, India, Brazil, Colombia, Oman, Russia, Azerbaijan and Kazakhstan. Significantly, Russian production has recently been running at record levels of over 10mmb/d benefiting in part from favourable tax treatment on new fields. For NGLs and non-conventional oil output the main contributors look like being Saudi Arabia, Qatar and the UAE. Particularly significant in the case of Saudi Arabia is the bringing on-stream in the third quarter of 2010 of the giant Khursaniyah natural gas processing facilities.

Over the balance of 2010 we would expect the current OPEC quota regime to remain unchanged given that light oil prices are within the desired range of $70 to $80/barrel. OPEC crude production will therefore probably continue at around recent levels of 29.2mmb/d. All told, we would expect total global oil supply for 2010 to come in at around 86mmb/d, up 2% or 1.8mmbbls on a year previously.

OPEC's current sustainable crude oil production capacity is 35.2mmb/d so the spare capacity is a significant 6mmb/d. Following major capacity expansion in Saudi Arabia over the past two years or so combined with the scaling back of production in 2008/09, the margin of spare capacity is far greater now than was the case three or four years ago when it fell to about 2mmb/d. According to the IEA, OPEC production capacity is expected to slip by a modest 0.4mmb/d in 2011 due to natural decline, but post 2013 it should again trend higher reflecting new projects, particularly in Iraq and Saudi Arabia. Current OPEC planning calls for capacity additions of 1.9mmb/d by 2015. The key wild cards for OPEC capacity in the medium term are Iran and Venezuela. This reflects in part depletion in mature production zones and in part political issues that could adversely impact capital investment aimed at both maintaining current operations and expanding capacity.

The outlook for non-OPEC supply growth is reasonably positive for 2011. The IEA is looking for a gain of 1.0mmb/d, while the EIA and OPEC are both forecasting an increase of 0.9mmb/d. In all three cases the gains are weighted towards OPEC NGLs, which are forecast to increase by 0.6mm to 0.7mmb/d. The key positives for crude oil production in 2011 are capacity additions in Brazil, Canada, Ghana and Oman. In the case of Brazil production should be buoyed in 2011 by several offshore start-ups in the pre-salt zone, including a pilot operation at the giant Tupi field. Production in Brazil in 2011 could be up 0.2mmb/d to over 2.9mmb/d. It is worth noting that as recently as 2005 Brazilian production was under 2mmb/d. Output in Canada in 2011 is expected to run at around 3.37mmb/d, up 0.11b/d on a year earlier, driven to a large degree by oil sands projects. Ghana should begin to benefit in 2011 from the commencement of operations at the Jubilee offshore project. Elsewhere in Africa, production is expected to commence late in 2011 at the first of the large scale Albertine Basin projects in Uganda.

A major area of uncertainty surrounding the outlook for non-OPEC output in 2011 is the US in the light of the Macondo well blow-out and subsequent moratorium on drilling in the deepwater of the Gulf of Mexico (GOM). Importantly, the trend decline in US crude oil production since 1970 was modestly reversed in 2009 by a combination of Bakken shale oil resource development in North Dakota and Montana and the deepwater GOM in particular. Production for the year came in at 7.2mmb/d, well up from the 6.7mmb/d of the previous year. In the year-to-date July 2010 US production has, in fact, risen 3.5% from a year ago. For 2010 as a whole the EIA is looking for a gain in US production of 75,000b/d, but expects the drilling moratorium to curb output in the third quarter by 31,000b/d and by 82,000b/d in 2011. The IEA has suggested that if the moratorium is extended into 2011 the impact by 2015 could be 100,000 to 300,000b/d.

Demand

World crude oil demand fell in 2008 from a year earlier by 0.3% and by a further 1.7% to 84.4mmb/d in 2009. The absolute decline of 1.5mmb/d in 2009 was the largest since the early 1980s. This was very much driven by OECD markets where there was a decline of 4.4%. The broad consensus among forecasters for 2010 is for modest global crude oil demand growth, which is indeed borne out by the year-to-date performance.

Out of the three major governmental forecasting agencies, OPEC has the most bearish prognostications for global crude oil demand growth in 2010 and 2011 with gains of 0.95mmb/d or 1.2% and 1.0mmb/d or 1.2% respectively. The IEA by contrast is expecting gains of 1.77mmb/d in

2010 and 1.35mmb/d in 2011. The EIA is fairly close to the IEA position with increases of 1.5mmb/d in both years. All three forecasters are suggesting that demand in the OECD world will be flat to down in both years reflecting efficiency enhancement/fuel conservation measures and relatively weak economies. Practically all the growth will therefore be driven by the developing world. Taking the two markets, China and the Middle East, that have shown the strongest growth in recent years the IEA is forecasting hefty gains in 2010 of 9.1% and 4.5% respectively. However, a slowdown in China to 4.7% is forecast for 2011.

Out of the three demand growth scenarios given above, we believe that OPEC's is the most plausible. This reflects, firstly, the view that economic growth will probably be more sluggish in late 2010 and 2011 than currently reflected in the forecasting models used by the IEA and others and, secondly, intensifying pressure to improve fuel efficiency even in the developing world. Regarding the first point, the principal forecasting agencies tend to base their forecasts on the IMF's economic growth predictions. Currently, these call for gains of 4.5% and 4.3% in 2010 and 2011 respectively. While over 4% is probably feasible for 2010 given the year-to-date performance, 4.3% looks far too optimistic for 2011 bearing in mind the waning recovery in the OECD world, lingering sovereign debt problems, tightening regulation across a wide swathe of economic activity and potential overheating issues in the developing world. In our view, economic growth of 3% or so is more likely for 2011 which would suggest crude oil demand growth of 1mmb/d or less.

Assuming global economic growth averaging 3% pa, we believe medium-term crude oil demand is unlikely to grow by more than 1% pa. This would take demand to about 91mmb/d by 2015

Market balance

Based on inventory movements and levels in both the OECD and the US the crude oil market appears very well supplied as, indeed, OPEC is often fond of pointing out. OECD inventories have been on a rising trend since mid 2008 and by May of 2010 stood at 2,757mmbbls, which was the highest level since at least the late 1990s and was equivalent to a historically high 61 days of demand. Assuming that non-OPEC supply increases by about 1mmb/d in 2010, this alone should be sufficient to cover our expectations of global demand growth. Bearing in mind that OPEC crude output is also likely to be up by 0.5mm to 0.6mmb/d in 2010 the supply/demand balance for the year looks like being very comfortable even if demand growth is as high as the 1.5mmb/d suggested by the IEA.

The global supply/balance could tighten modestly in 2011in the event of either the IEA or the EIA scenarios and assuming unchanged OPEC production. As we have noted, however, demand growth may be somewhat weaker than postulated by either organisation. Assuming that demand grows by about 1mmb/d non-OPEC production capacity should be sufficient to fill the void, thereby leaving the market in approximate balance. We would also argue there is likely to be the potential to draw down inventories from elevated current levels. In the final resort if demand surges or if non-OPEC supply is adversely impacted by an exogenous event OPEC, if it wishes, now has the capacity to step-up output by, say, 0.5mmb/d in short order. This in practice would probably be achieved by slippage in the quota regime as prices rose.

Medium term we take a sanguine view of the global crude oil supply/demand balance. This reflects two factors. Firstly, it is our view that growth will be modest given the outlook for sluggish

economic development in the OECD world and the ongoing drive for fuel efficiency, particularly in the automotive field. Secondly, we see scope for significant capacity expansion in both the non-OPEC and OPEC countries net of depletion. As far as non-OPEC is concerned key medium-term supply drivers will be the development of the Canadian oil sands in Alberta, the bringing on-stream of the giant Kashagan oilfield in the Caspian basin and the development of the giant pre-salt discoveries offshore Brazil and potentially elsewhere in the Atlantic basin. Regarding OPEC the most influential project will be the development of already discovered major fields in Iraq. By 2015 it is not fanciful to believe that Iraqi production could be approaching 5mmb/d or more than double current levels. Significantly, Iraq is not subject to OPEC quota restrictions and furthermore is not likely to be so if it boosts capacity as planned.

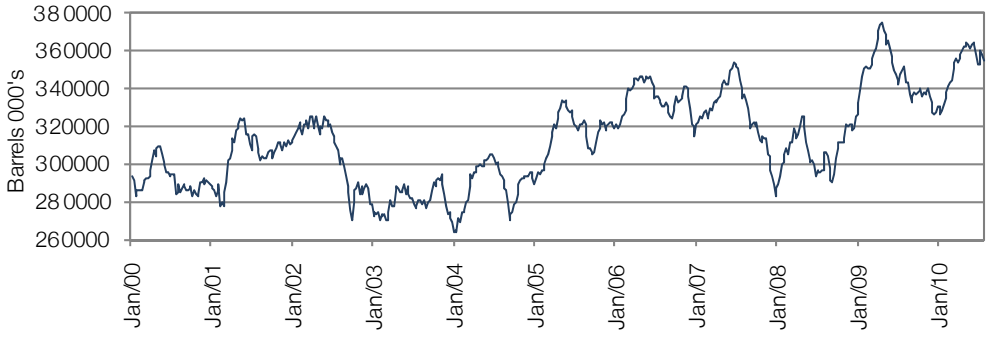
US inventories

Crude oil

US crude oil inventories are close to the highest level in 20 years. Based on Department of Energy (DOE) data, inventories at the end of July stood at 358mmbbls, which is 2% under the 2010 21 May high of 365mmbbls and 2.4% up on a year earlier. Compared with the 20 year high of 375mmbbls recorded in May 2009, inventories are down 5%. Over the past month crude inventories have trended broadly flat, which contrasts with the normal seasonal downward tendency and implies that there is a substantial buffer ahead of the peak weeks of the hurricane season in September and October. Since 2000 crude inventories have averaged 313mmbbls.

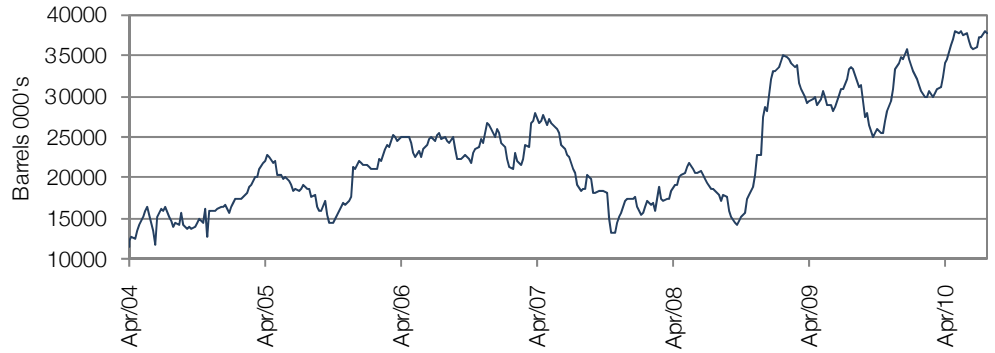
Crude inventories at the Cushing, Oklahoma WTI basing point and the world's largest tank farm have been climbing in recent weeks and at end July had reached 37.8mmbbls. This is very close to the 14 May peak of 37.9mmbbls, the highest level since the DOE began reporting Cushing inventories in April 2004. Cushing's theoretical shell capacity is put at 46mmbbls, but spare capacity of 20% is normally left for safety, blending and maintenance purposes. Currently, utilisation is slightly above the implied practical limit, suggesting that arriving barrels may have to be quickly sold on the market. This may put pressure on prices.

Exhibit 6: US crude oil inventories



Source: Bloomberg

Exhibit 7: US Cushing oil inventories

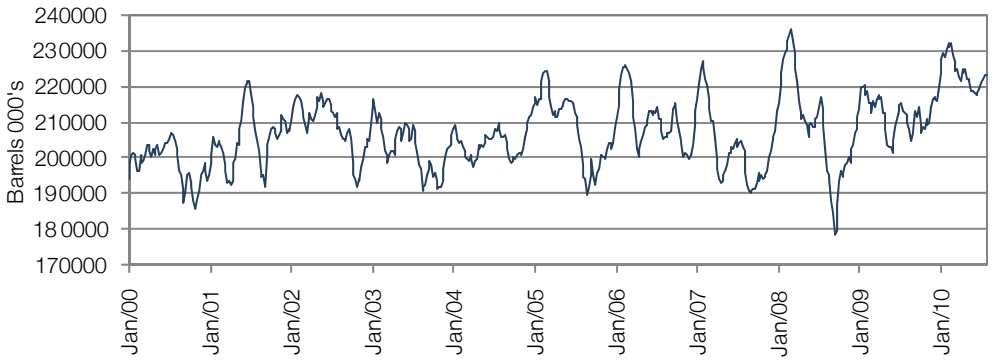


Source: Bloomberg

US gasoline inventories are also close to historical highs. Furthermore, the trend over the past two months has been decidedly upward when seasonally it might have been expected to be in the opposite direction. According to DOE data, gasoline inventories at the end of July 2010 stood at 223mmbbls, up 2% on the end May level and 5% on a year earlier. They are also running about 8% above the average for the period since 2000 but are lagging the 18 year high of 236mmbbls recorded in July 2008 by 5%.

Rising gasoline inventories are symptomatic of lacklustre demand and sharply higher refinery utilisation since the end of 2009. Gasoline imports by contrast have been lagging prior year levels for most of 2010. With gasoline margins now coming under significant pressure it is possible that refining runs and hence inventories will be scaled back in the coming weeks.

Exhibit 8: US gasoline inventories



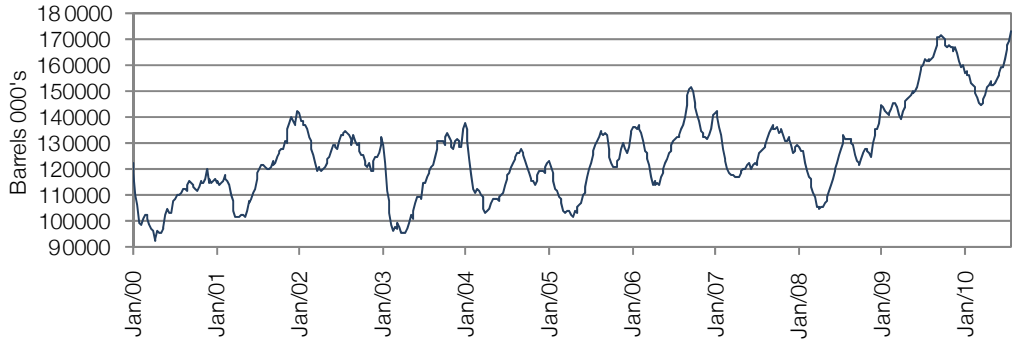
Source: Bloomberg

Distillates

As is usually the case during periods of economic weakness, US distillate demand (diesel, heating oil, kerosene and fuel oil) was hit particularly hard in the recent recession. This contributed to a surge in inventories from historically relatively low levels of 105mmbbls in the second quarter of 2008 to at least a 20-year high of 172mmbbls in October 2009. Following the normal seasonal rundown in late 2009 and early 2010, distillate inventories have rebounded in recent months and are now very close to the earlier high. At the end of July 2010 inventories stood at 170mm barrels, 5% above a year earlier and around 20% above the five year average for the time of year. Compared with the average since 2000, distillate inventories are about 35% higher currently.

Burgeoning distillate inventories is another reason we would expect refineries to rein back production in the coming weeks.

Exhibit 9: US distillate inventories



Source: Bloomberg

Refinery crack spreads

US crack spreads slumped to historically very depressed levels in the fourth quarter of 2008 due to a collapse in refined product prices. At the low point in early November the NYMEX WTI 321 crack spread (the gross margin on converting three barrels of WTI into two barrels of gasoline and one of diesel) was a mere $2/barrel which resulted in hefty losses for the refiners. Spreads however firmed noticeably through the first half of 2009, in response to sharply lower refinery utilisation, with the NYMEX WTI 321 hitting $19.6/barrel briefly in February. During the second quarter the spread was trending around $10/barrel, a reasonably profitable level by historical standards.

During the third quarter of 2009 the WTI 321 spread narrowed considerably reflecting weakness in refined product prices while crude trended strongly upward. At $3.4/barrel the spread was approaching the depths plumbed the previous year. Crack spreads widened in the closing months of 2009 and more particularly through the first five months of 2010 as refined product prices firmed following a prolonged period of very low refinery utilisation. The recent peak for the WTI 321 spread was a highly lucrative $16.9/barrel on 13 May. The dramatic widening in spreads has, not surprisingly, transformed the profitability of the refiners and resulted in a swing from heavy losses to sizeable profits in many instances. Crack spreads, however, have narrowed significantly since May under the burden of a sharp drop in refined product prices and a relatively stable WTI input cost environment. In early August 2010 the NYMEX WTI 321 spread was around $9.5/barrel. As Valero has noted, however, this is still a relatively good level from a historical perspective and implies comfortably profitable operations for the bulk of refiners. For perspective the NYMEX WTI 321 crack spread has averaged $8.6/barrel since 2000.

The key question now concerning crack spreads is whether these can be maintained at $9.5-10.0/barrel in the coming months or whether high inventories for gasoline and particularly distillates will put pressure on refined products prices and hence spreads. Assuming a lacklustre demand picture, it may be difficult to hold the line on spreads over the balance of 2010 unless refinery runs are aggressively pared back.

Exhibit 10: NYMEX WTI 321 crack spread

Source: Bloomberg

US product demand

The US accounts for almost 25% of world petroleum demand and because of its size and the availability of statistics, developments here are often taken as indicative of broader trends globally. US petroleum product demand fell by 10% between 2005 and 2009 from 20.8mmb/d to 18.7mmb/d. This was the largest fall since 1978 to 1983 when there was a drop of 19%. The fall in the most recent period also erased the growth in demand over the previous 11 years. Declining demand reflected both recessionary forces and fuel efficiency and conservation measures. Gasoline consumption, by far the largest element of US petroleum product demand, held up relatively well in recent years, showing only a modest decline of 4% post 2007, when recessionary forces began to take hold. The more industrially orientated products such as diesel, fuel oil, naptha and kerosene, however, saw declines of closer to 15% from peak to trough.

The evidence for 2010 points to a modest recovery in US petroleum product demand. Based on EIA data, the implied demand for crude was still down 3% year-on-year in the first quarter, but was up 2% in the second quarter and by 4.9% in July. In the year-to-date crude oil demand is higher by 0.4%. Not surprisingly perhaps, the picture is similar for gasoline and distillates with year-to-date gains of 0.3% and 0.2% respectively. For July gasoline demand was 2.1% higher year-on-year, while distillates showed a more robust gain of 8.7%. Jet kerosene demand was hit hard in recent years by recessionary forces and aggressive fuel conservation measures by the airlines, but in 2010 demand for this product has rebounded solidly with a year-to-date gain of 4.2%, based on API (American Petroleum Institute) data.

The EIA is looking for US petroleum product demand to increase by 0.20mmb/d and 0.17mmb/d for 2010 and 2011 respectively. This would equate to growth rates of 1.1% in 2010 and 0.9% in 2011 and would take demand in the latter year to 19.1mmbbls, still some way off the peak levels in 2006/07 of slightly under 20.7mmb/d. Assuming moderate economic growth, we believe the EIA's forecasts for demand are plausible.

A key issue for US petroleum product demand relates to the future trend in gasoline usage. Between 2000 and 2007 US gasoline demand rose at a relatively rapid 1.7% pa driven by a reasonably buoyant economy and positive changes in the vehicle fleet mix over a long period. A case can now be made that the high-water mark for US gasoline demand was reached in 2007 at about 9.3mmb/d. The key factor here is tightening US federally mandated CAFE (corporate

average fuel economy) standards, which will progressively raise the fuel consumption of the new vehicle fleet by around 30% by mid decade. There may also be a modest change in buyer tastes underway and consequent switch in demand to lower fuel consumption vehicles. A trend improvement in vehicle fuel consumption combined with structural falls in fuel usage in the petrochemicals, heating and power sectors is leading the IEA to forecast a slight decline in US petroleum demand in 2011.

Crude oil price outlook

Crude oil prices could come under pressure in the coming weeks and may indeed trend down over the balance of 2010. The key negatives potentially weighing on prices are a slack supply/demand balance and historically high inventories not only for crude but also refined products. Underlying weak petroleum industry fundamentals is an economy that is probably losing momentum and may indeed be entering a longer period of sluggish activity along the lines of Pimco's (the world's largest bond fund) 'new normal' hypothesis. Broadly this suggests that over the current decade economic growth will be significantly lower than over the past 20 or so years due to deleveraging in the consumer, banking and government sectors, a rolling back of globalisation and tightening government regulation across a broad swathe of the economy.

Our bearish view abstracts from a sudden eruption of geo-political tension in an oil producing region or facility outages related to weather or technical factors. Historically, the second half of the third quarter has been associated with the peak in the hurricane season in the GOM. This year, however, in common with 2009 and contrary to earlier expectations, the hurricane season has been muted. Some weather forecasters have, in fact, recently downgraded their expectations for hurricanes in the GOM over the balance of the year. With a modicum of good fortune there will quite probably be no major supply interruptions due to hurricanes in 2010.

As far as geo-politics is concerned, the key issue is Iran given its importance as an oil exporter and the ongoing dispute with the west over its nuclear ambitions. The sanctions regime applied to Iran has recently been tightened and is now increasingly targeting imports of refined product, the Achilles Heal of the economy. Whether or not the dispute will ultimately lead to a cessation of crude oil exports from Iran and a wider disruption to supplies from the Persian Gulf is an open question. However, given the potentially calamitous consequences of a cessation or even a disruption of Gulf crude supplies, any precipitate military action against Iran or searches of Iranian vessels on the high seas, as called for by the latest UN resolution, would seem unlikely in the near term at least. Venezuela also constitutes an area of geo-political concern bearing in mind the growing hostility of President Hugo Chavez to the US supported government in neighbouring Colombia. It should be remembered, however, that Chavez is well known for his bluster and is in any case dependent financially on crude oil exports to the US.

WTI has averaged about $78/barrel in the year-to-date early August 2010 and $77.4/barrel so far in the third quarter. Allowing for some softening in the coming weeks from early August levels of over $80/barrel, we would expect WTI to average about $77/barrel in the third quarter of 2010 as a whole. Assuming no major hurricane disruption and a recurrence of the fairly mild temperatures that have tended to characterise the late fall and early winter in Western Europe and North America in

recent years, WTI is expected to average $76.5/barrel in the fourth quarter. The implied average for 2010 as a whole would be $77.6/barrel, 25% above a year previously.

We would not expect crude oil prices to be substantially different in 2011 given the likelihood of a well supplied market and continuing historically high inventory levels. Our forecasts call for WTI to average $77.0/barrel for the full year with a quarterly split as follows: Q1 $79, Q2 $77, Q3 $75, Q4 $77.0. In the event of sustained downward pressure on prices much below $70/barrel we suspect OPEC will attempt to bolster the market with a renewed round of production cuts. Success in this endeavour will depend very much on the robustness of the world economy at the time. In the event of a seriously lacklustre economy there is a distinct possibility that light crude prices could test $60/barrel over the next 18 months.

Exhibit 11: WTI and Brent price trends

Note: Time series data refer to yearly averages. 6 August 2010 YTD averages: WTI $78.19/barrel, Brent $77.42/barrel.

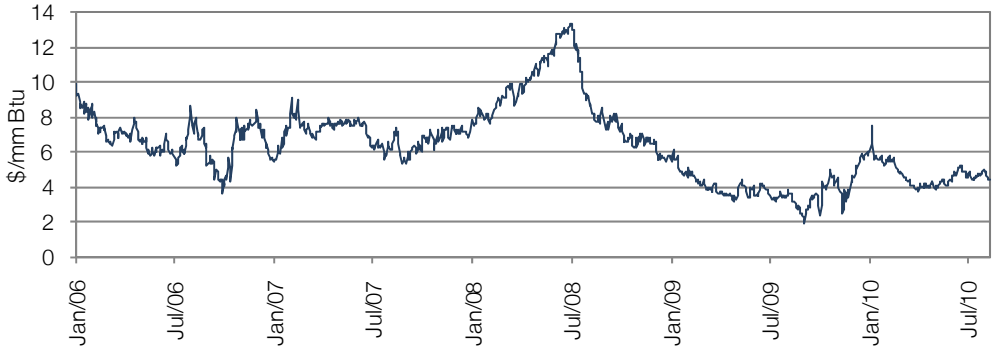
$/bbl	2002	2003	2004	2005	2006	2007	2008	2009	2010e	2011e
WTI	26.2	31.1	41.5	56.6	66.1	72.2	99.8	61.8	77.6	77.0
Brent	24.4	25.0	28.8	38.3	54.5	65.1	97.3	61.7	77.2	76.8

Source: Bloomberg and Edison Investment Research

US natural gas

US natural gas prices slumped in the second half of 2008 and remained on a downward trend for most of 2009. At the low point in September 2009 the benchmark Henry Hub quote at Erath, Louisiana was $1.88/mm Btu, down 86% from the April 2008 high of $13.31/mm Btu and a level not seen since 2001. With the onset of severe winter weather, the Henry Hub quote partially recovered in late 2009 and early 2010 reaching a recent peak of $7.5/mm Btu on January 7 of the latter year. By early April 2010, however, the Henry Hub quote was back down to $3.6/mm Btu. Strong demand from the power generation sector due to hot weather and heavy air conditioner usage in the Midwest and along the Eastern Seaboard drove the Henry Hub quote to a June 16 high of $5.17/mm Btu. Since then, however, the quote has trended down and on August 9 was at $4.5/mm Btu.

Exhibit 12: Henry Hub price trend



Source: Bloomberg

The price performance of US natural gas has been significantly weaker in 2009 and 2010 than crude oil. As a result, the Henry Hub price now sells at a hefty 66% discount to WTI on an energy equivalent basis. US natural gas prices also stand at a hefty discount to international LNG prices which are running at roughly $7 to $8/mm Btu on deliveries to Europe and $12/mm Btu on deliveries to Japan. For perspective, the UK natural gas quote at the virtual NBP hub in early August was the equivalent of $7.1/mm Btu at an exchange rate of $1.59/£.

Depressed US natural gas prices reflect a swing into supply surplus in recent years with a vengeance. This is partly attributable to recessionary forces particularly in the industrial arena where gas is used as a heat source (re-heat furnaces in the steel industry, foundry melt shops), in electrical power generation and as a chemical feedstock, and partly buoyant supply. Overall in 2009, natural gas consumption dipped by 2% while production rose 3%. Furthermore, production has been on a noticeable rising trend since 2005 and has been comfortably outpacing consumption over the same period. At 21.9tcf, US gas production in 2009 was, in fact, the highest since 1973 and close to a record. Through the first five months of 2010 the supply/demand balance would have appeared to have tightened modestly given that consumption was up 3.9% while production and imports rose year-on-year by 2.1% according to EIA data. For the year as a whole the EIA is looking for a gain in consumption of 3.5%, a rise in production of 2.2% and a modest drop in imports so the market could be close to balance. Significantly, for 2011 the EIA is

looking for roughly flat US natural gas consumption and a 0.7% decline in domestic production driven by falling output in the GOM.

The game changer for production has, of course, been the development of large scale shale gas resources in recent years and technological advances in drilling and well completion techniques which have helped keep costs under control. Significantly, a consensus is emerging that the US now has gas resources that are adequate for over 100 years at present rates of consumption. Currently, we believe US natural gas production economics is fairly marginal on a fully accounted cost basis for the average producer. With lifting costs including royalties of only around $1.50/mm Btu on average, current natural gas prices nevertheless still provide significant headroom on an operating basis. Reflecting deteriorating economics over the past two years or so the gas related rig count fell sharply from a peak of 1,606 at the high point in August 2008 to 665 a year or so later. Since then there has been a surprising recovery to 983, although over the past few months the rig count has been pretty stable. There is anecdotal evidence that the exploration emphasis is now switching from shale gas to oil.

A key consequence of production surpluses in recent years has been the tendency for natural gas inventories to consistently run at historically high levels. Inventories ended the withdrawal season in March 2010 at a relatively high 1.64 tcf. Since then there has been a climb to 2.95 tcf which is very close to the year ago level and is also 8% above the five year average. Abstracting from any major supply interruptions in the GOM, it would now appear that going into the new withdrawal season starting in October that inventories will be similar to the 2009 level of 3.7 to 3.8 tcf.

The near-term outlook for US natural gas prices looks none too auspicious due to high inventories and forecasts for lower temperatures in the coming weeks along the Eastern Seaboard which may curb air conditioner use and hence power consumption. In the year-to-date early August the Henry Hub quote has averaged $4.70/mm Btu. The average for the third quarter so far has been $4.66/mm Btu. Allowing for some moderate softening from the current $4.5/mm Btu over the balance of August and into September, we think the average for the third quarter could also be roughly this level. Assuming a moderate seasonal firming in the fourth quarter to $4.8/mm Btu would result in an average for full year 2010 of $4.70/mm Btu, 19% up on a year earlier. For 2011 we forecast an increase in the Henry Hub quote to an average $5.0/mm Btu reflecting an anticipated slight tightening in the supply/demand relationship.

Exhibit 13: Henry Hub natural gas price trend

Note: 9 August 2010 YTD average $4.70/mm Btu.

	2003	2004	2005	2006	2007	2008	2009	2010e	2011e
$/mm Btu	5.63	5.85	8.79	6.72	6.96	8.89	3.94	4.70	5.00

Source: Bloomberg and Edison

Investment reflections

The recent past in retrospect

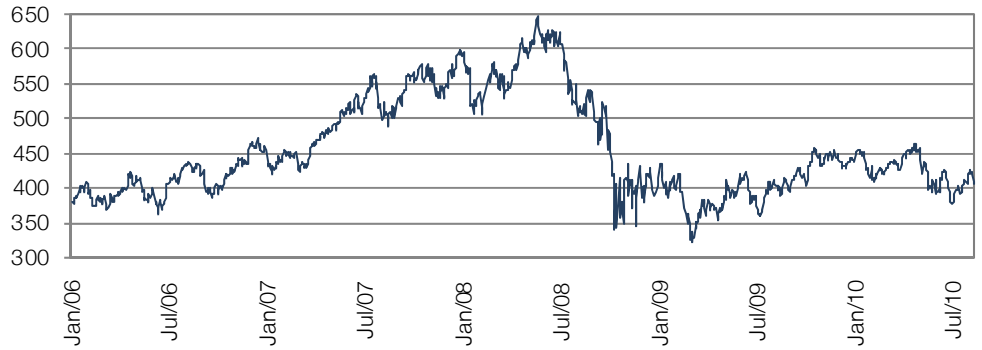
Oil and gas stocks generally peaked in May 2008 and not surprisingly this coincided with the all-time high for crude oil prices. The subsequent plunge in oil and gas stocks in the second half of 2008 and in early 2009 broadly paralleled the sharp fall in crude oil prices. By the late 2008 and early 2009 lows the FTSE 350 Oil & Gas and the junior-focused AIM Oil & Gas indices were down 43% and 75% respectively. At the low point in December 2008 the latter was, in fact, no less than 82% below the May 2006 all-time high. The picture was similar for the principal US indices with the S&P 500 Oil & Gas Index (integrateds plus heavyweight E&P independents plus refiners) and the S&P 400 (mid capitalisation E&P) down from peak to trough by 50% and 79% respectively.

Since the first quarter of 2009 there has been a partial recovery in the key oil and gas indices, but they still lag the 2008 highs by a significant margin. Importantly, over the past 18 months or so the juniors as represented by the AIM Oil & Gas Index and the mid capitalisation S&P 400 plays have outperformed their heavyweight peers. As of early August, the former has climbed 153% while the latter has surged 190% from their late 2008 lows. By comparison, the FTSE 350 Oil & Gas Index and the S&P 500 Oil & Gas Index have increased by a considerably more pedestrian 36% and 30% respectively.

Exhibit 14: S&P 400 E&P Index

Source: Bloomberg

Exhibit 15: S&P 500 Oil and Gas Index



Source: Bloomberg

Part of the explanation for the lagging performance of the heavyweight orientated UK and US indices is the Macondo well disaster that has heavily depressed the share prices of BP (65% owner and operator) and Anadarko Petroleum (25% working interest) between late April and July. As remedial action to cap the errant well gained traction the stocks regained some lost ground in July but continue to lag pre-blow out highs in late April. The FTSE 350 Oil & Gas Index has been particularly badly impacted by Macondo due to BP's heavy weighting of 30% in the Index. Compared with the pre-blow out high, the FTSE 350 Index remains down 20% while on the same basis BP is off 33% and Anadarko 25%. A further factor depressing US oil and gas stocks in the run-up to mid August has been bearish news on the US economy. Essentially the US integrateds and heavyweight independents have trended flat over most of the past year.

At the nadir in late 2008 and early 2009 the very future of the junior sector was being questioned by the market given the plunge in light crude oil prices to almost $30/barrel and the acute difficulty in raising finance. The subsequent recovery in the AIM Oil & Gas Index has arguably been impressive, although it is still lagging the 2008 peak by about 35%. In addition to the recovery in crude oil prices over the past 18 months or so, the juniors have been propelled by positive company specific news flow. Perhaps the best example has been Rockhopper Exploration, which appears to have made a potentially sizeable commercial discovery at its Sea Lion well, offshore the Falklands. It is also the first discovery in Falklands' waters. Another major development over the past year or so was Gulf Keystone's Shaikan-1 discovery in Kurdistan. Subsequently, Gulf Keystone has made further discoveries in different horizons on the same site and has been involved in another find in Kurdistan at Bijeel. Shaikan has company maker potential for Gulf Keystone subject to political antagonism between the provinces in Iraq being overcome. Unless an agreement is struck between Kurdistan and the central government on oil revenues the former is unlikely to have a high volume export route.

Faroe Petroleum, focused on the Atlantic Margin, Norwegian Sea and North Sea, has been another company with some excellent news flow in 2009 and 2010. Two discoveries were announced in the former year west of the Shetlands and a further two this year on the Halten Terrace, offshore Norway. Faroe has recently participated in the spudding of the potentially high-impact Anne-Marie well in the Atlantic margin and has an additional two wells planned in the same zone. It is perhaps not surprising that takeover rumours have recently surfaced surrounding Faroe. The company is, of course, 27.5% owned by Dana Petroleum, which itself is in bid talks with the Korea National Oil Corporation.

Nautical Petroleum's share price has performed strongly since the oil discovery at Catcher. Upcoming drilling activity at Kraken and a decision by Statoil as to whether to develop Mariner are near-term catalysts for Nautical's two significant prospects. A recent share placing and the elimination of a stock overhang also have removed uncertainties for investors, making it more likely that the company may see its share price moving towards the 266p core NAV valuation we have for the stock.

A particularly interesting item of news flow of late has been Petro Matad's Davsan Tolgoi discovery in Mongolia. The Tolgoi-1 exploration well was the first of a three-well programme in 2010 and is located to the east of the country on Block XX in the Tamtsag Basin. Block XX it should be noted

stands immediately to the south of Mongolia's largest oilfield, operated by the Chinese concern Daqing, a subsidiary of Petro China. Drilling has taken place on the Davsan Tolgoi anticline, the high point in the Tamtsag Basin and at Tolgoi-1 has encountered significant hydrocarbons and good quality reservoir sands. The remaining two wells scheduled for 2010 are expected to confirm the potential of the Davsan Togoi anticline. In addition to Block XX, Petro Matad has substantial acreage in Blocks IV and V in central Mongolia.

Investment view

The key question now concerning oil stocks is how much mileage do they have assuming a lacklustre near-term outlook for the oil price. In the case of the integrateds we believe the answer is not a great deal given their sensitivity to the oil price and also an uninspiring macroeconomic backdrop. It should, however, be noted that on a variety of criteria the valuations of the integrated majors are very undemanding. For example, excluding BP, prospective cash flow multiples for 2010 are in the 5x to 7x range and market capitalisation to sales revenue ratios are roughly 0.6x to 0.8x. The majors, with the exception of BP, also offer sizeable dividend payouts and sport yields that compare very favourably with the 2.8% available on 10-year Treasuries assuming, of course, no drilling debacles. Yields on the majors currently run as follows: Exxon 2.8%, Chevron 3.5%, Conoco Phillips 3.7%, Royal Dutch Shell 5.8%, Total 5.8% and ENI 6.2%.

In our view, at around current crude oil prices the majors, other than BP, remain interesting cash flow and dividend plays. For this to change crude prices would probably need to drop below $60/barrel on a sustained basis. For those seeking more excitement but not wishing to dabble in the high risk junior sector the emphasis should be on the mid tier E&P stocks in the US and UK stocks. They generally have the virtues of significantly rising production and exploration upside and may also be subject to takeover activity.

As far as the E&P juniors are concerned, we do not believe that in the aggregate they will be greatly impacted by a period of moderate crude oil price weakness. By and large they are not significant producers and are driven primarily by exploration and development related news flow. Generally, an oil price of $70/barrel will be more than adequate for viable exploration projects. Over the coming months the potential for interesting news flow among the AIM juniors should remain intact. Particularly well placed companies in this regard could be Faroe, Nighthawk , Leni Gas & Oil, Gulf Keystone, Range Resources, Petro Matad and Xcite.

Does BP have any mileage?

Since the Macondo well blow-out and Deepwater Horizon explosion, BP has lost over $60bn in market capitalisation. The response among sell-side analysts has tended to be that since potential expenses and liabilities associated with the Macondo disaster are unlikely to exceed this amount, BP is a buy and may also be a potential takeover target. However, we suspect that this is too glib a view for two reasons. Firstly, there is still great uncertainty regarding future liabilities, particularly with regard to fines and penalties. There is also a question mark over how much of the tab, if any, will be picked up by its partners and contractors. At the present time we know that BP has incurred direct costs relating to the spill of $6.1bn and has agreed to pay $20bn into an escrow account to compensate third parties for damages over a period of years.

In a worst case scenario, fines relating to the Macondo spill could be over $20bn. This is based on the estimated 4.9mmbbls released into the ocean and a maximum permissible fine of $4,300/barrel in the event that BP is found guilty of gross negligence or wilful misconduct. After allowing for some further costs relating to compensating the US Coast Guard, environmental clean-up and legal, it is quite easy to arrive at a total bill of at least $50bn. Admittedly this is before allowing for any defrayment via BP's partners and contractors. So far however BP's partners, Anadarko and Mitsui, have refused to cover their theoretical share of the costs.

The second point to note concerning the Macondo disaster is that BP is planning to sell $30bn of assets to finance the related costs. Importantly, this will materially reduce production and future cash flow along with dividend paying ability. Production, we believe, could drop in the near to medium term by at least 0.5mmb/d, possibly implying a $5bn per annum fall in pre-tax cash flow. This is about half the pre Macondo dividend payout. Another important matter in the months ahead will be BP's regulatory status in the US and particularly whether or not it will be able to retain its position as an operator. All told, we believe that a drop in BP's valuation post Macondo of $60bn or so is not unreasonable. In our view, BP is a greatly diminished company post Macondo with major near- to medium-term financial and reputational challenges.