Edison investment research

Rapidly weakening market backdrop

We believe the near-term outlook for oil prices remains bearish and see little scope for a renewed upsurge in 2012. A raft of economic statistics in the US and Europe combined with anti-inflation measures in the BRICS and rising OPEC production are all pointing to an underling loosening of the market over the balance of 2011. Financial deleveraging in the OECD probably implies significantly weaker medium-term oil demand than assumed by the bulls.

Supply/demand balance: Likely to loosen

Consensus forecasts call for modest oil supply deficits of about 0.2mmb/d in 2011 and 0.3mmb/d in 2012. However, these deficits are based on what we believe are implausibly high increases in demand of around 1.3mmb/d and 1.4mmb/d respectively, reflecting global GDP growth forecasts of over 4% pa. Given the deteriorating economic backdrop in the OECD and developing economies, consensus demand forecasts will, in our view, have to be scaled back to closer to 1mmb/d. In all likelihood this can be covered by non-OPEC output. Bearing in mind the recent IEA decision to release 60mm barrels of strategic reserves and the rise in OPEC production of 1.1mmb/d in June and July we could, in fact, be looking at supply surpluses in the months ahead.

Crude oil prices: Heavy downward pressure

Following the plunge of early May, crude oil prices again came under heavy pressure in late July and early August. Compared with the late July highs, Brent on August 8 was down $15/barrel while WTI was off $19/barrel. This left the two grades trading at around 5½ month and 8½ month lows respectively. The pressure on prices has stemmed from growing fears of a double-dip recession in the US and maybe elsewhere in the OECD, a deteriorating economic backdrop in the BRICS, continuing lacklustre demand data in the US and the intensifying debt crisis in Europe and the US. In the event of an emerging rout in prices we would expect OPEC to respond by cutting production.

Brent-WTI spread continues to widen

The Brent-WTI spread has continued to widen. After averaging $17.5/barrel in June and $19.1/barrel in July, the Brent premium rose to almost $23/barrel in early August. A further widening is a distinct possibility in the coming months, driven by a still relatively tight supply/demand balance for Brent and plentiful supplies of WTI, assisted by the release of strategic reserves. However, spreads of $40-50/barrel, as suggested in some quarters, may be excessive. The combination of low-cost feedstock and robust crack spreads for gasoline and diesel sharply boosted the profitability of US inland refineries in Q211.

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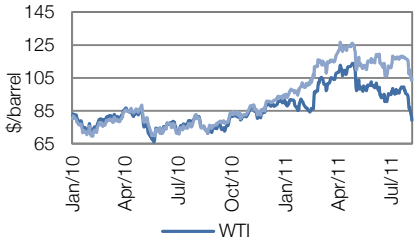
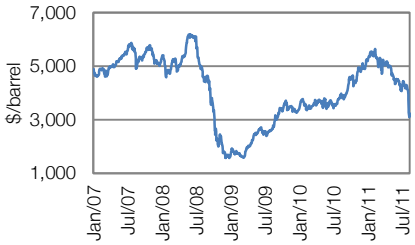
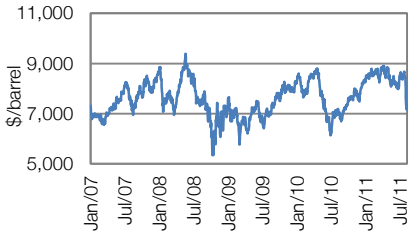
WTI vs Brent



AIM Oil & Gas Index



FTSE 350 Oil & Gas Index



Price trends

	WTI $/barrel	Brent $/barrel	Henry Hub $/mmbtu
2007	72.2	72.7	6.96
2008	99.8	97.7	8.89
2009	62.0	62.0	3.94
2010	79.5	79.7	4.37
2011e	92.8	109.2	4.28
2012e	89.0	102.0	4.60

Note: Prices are yearly averages

Crude oil market dynamics

Price overview: Precipitous fall late July/early August

Benchmark light crude prices trended flat between the sell-off in early May and the fourth week of July 2011. Subsequently there has been a precipitous fall not seen since the dark days of late 2008. Particularly in the case of WTI, prices softened through the first half of June. Added impetus to the downside was given by the IEA's announcement on 23 June to release 60mm barrels from the strategic reserves of the western world's 12 leading consuming countries. Between 23 and 27 June, prices dropped broadly $3 to $5/barrel. Weakness proved short lived. Prices rebounded strongly in the closing days of June and in early July returning them to roughly the levels in the middle of the former month. Between early and late July light crude prices in general and Brent in particular traded in a tight range. In the fourth week of July market sentiment again turned bearish, with prices rapidly gathering momentum through the first nine days of August .

In addition to the IEA's 23 June announcement on reserves, light crude prices have been driven by a variety of factors in recent weeks. The key ones have been a deteriorating economic backdrop, softening petroleum demand in the US, the sovereign debt crisis in Europe, the federal debt limit and related debt reduction impasse in the US and the downgrading by S&P of US sovereign debt from AAA to AA plus . The bulls have also expressed their concerns from time to time about the potential for supply tightness over the balance of 2011 and in 2012.

Arguably the bulls' concerns have been superseded by events. The news flow in recent weeks on the macro-economic front in the OECD world and to a lesser extent elsewhere can only be described as ghastly and potentially disastrous. Business and consumer confidence has been ebbing with a vengeance, economic activity has turned increasingly sluggish in both the US and Europe and growth appears to be slowing noticeably in the developing world. Not surprisingly perhaps, US petroleum market statistics have also been lacklustre at best, with softening demand clearly evident and inventories at very comfortable levels. Unlike during the first four months of 2011, the dollar has been neutral for light crude prices over the past two months.

Recent trends in Brent and WTI

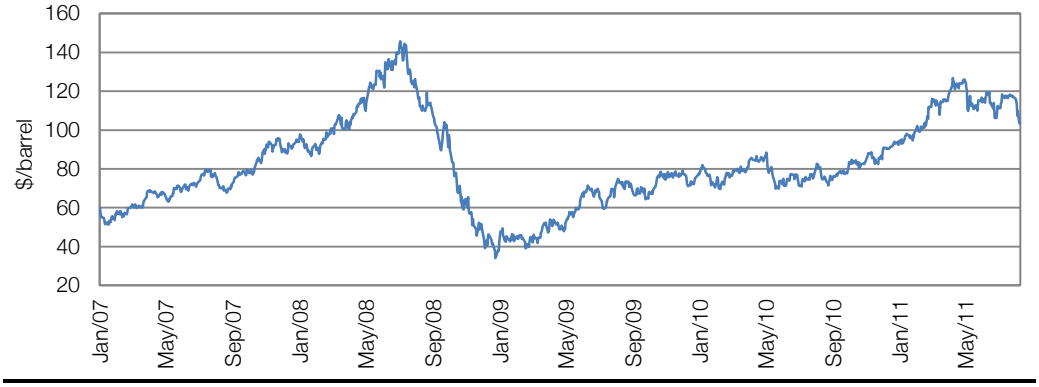
Brent, the key international light crude benchmark, ended May at $116.7/barrel, 8% under the 30-month 8 April high of $126.7/barrel. Through the first four trading days of June Brent dipped by $2.7/barrel before rebounding to $119.5/barrel, a high for the month, on 14 June. Over the following eight trading days Brent plunged $13/barrel to $106.2/barrel, a four-month low. This was driven, in part, by the IEA announcement on 23 June. Brent ended June at $111.7/barrel and averaged $113.8/barrel for the month. The latter compared with $114.5/barrel in May.

In the first five days of July Brent firmed to $118.4/barrel as supply concerns mounted in response to a number of outages in such places as Argentina, Canada, Yemen and most importantly the North Sea. Over the balance of the month Brent traded in a very tight trading range between roughly $116.5/barrel and $118/barrel. Brent closed July at $116.8/barrel, up a hefty 53% or $41/barrel on a year earlier. The average for June was $116.5/barrel.

In early August the downward pressure on Brent was less marked than for WTI but nonetheless was highly significant. The closing price on August was $103.5/barrel, around a 5½ month low.

There was a further decline to an intra-day low on 9 August of around $99/barrel, a level not seen since late January 2011 and $28/barrel or 22% below the April high.

Exhibit 1: Brent crude oil graph

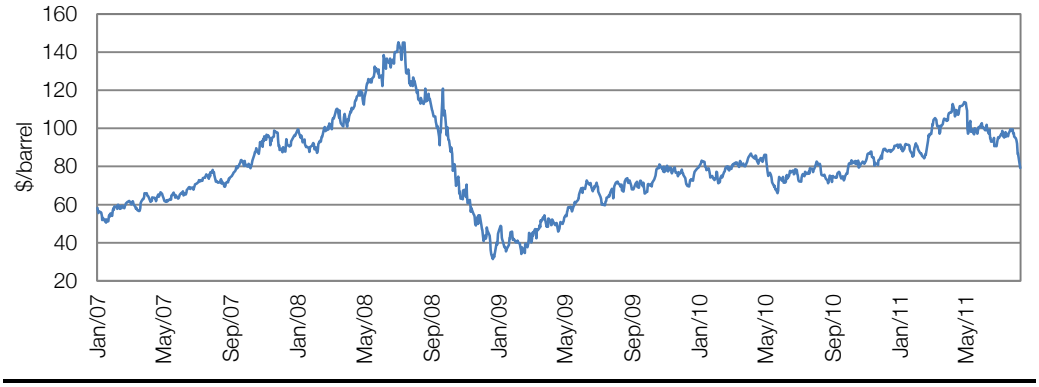


Source: Bloomberg

WTI, the inland US benchmark, has continued to lag Brent. After trading at around $100/barrel through the first 10 days of June, WTI fell roughly $9/barrel over the subsequent nine days. The price on 27 June of $90.6/barrel was a four-month low and $23.3/barrel below the April 29 high of $113.9/barrel. Over the last three days of June WTI rallied to $95.4/barrel. WTI in June averaged $96.3/barrel, down $5/barrel on the prior month.

In July, WTI trended moderately higher into the third week hitting a high of $99.6/barrel on 22 July. The trend reversed in the closing three days of July, taking WTI down to $95.7/barrel at month end. For July as a whole, WTI averaged $97.3/barrel, up slightly from the previous month. Downward pressure at month end was driven by a combination of a sizeable rise in US inventories that surprised the market, further evidence of slipping petroleum demand and more evidence of weakness in the wider US economy. Reflecting the deteriorating economic backdrop WTI plunged in early August hitting an 8 ½ month closing low of $81.3/barrel on 8 August. There was further weakness early on 9 August with WTI hitting an intra-day low of around $78/barrel, down $36/barrel or 32% on the end April high. As of 9 August WTI was trading roughly in line with a year earlier.

Exhibit 2: WTI crude oil price trend graph



Source: Bloomberg

Exhibit 3: WTI 2007-11 quarterly prices, $/barrel

	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	99.9
2009	43.2	59.7	68.1	76.0	62.0
2010	78.8	77.9	76.1	85.2	79.5
2011	93.9	102.3	89.1	86.0	92.8

Source: Bloomberg and Edison Investment Research

Exhibit 4: Brent 2007-2011 quarterly prices, $/barrel

	Q1	Q2	Q3	Q4	Average
2007	58.1	68.7	74.9	88.9	72.7
2008	96.5	122.2	115.9	56.2	97.7
2009	45.1	59.4	68.4	75.0	62.0
2010	76.8	78.6	76.4	86.9	79.7
2011	104.9	116.8	109.1	106.0	109.2

Source: Bloomberg and Edison Investment Research

Light crude spreads

WTI-Brent: Record WTI discount in early August

WTI started to trade consistently at a significant discount to similarly specified Brent in late 2010. During 2011 the discount has widened considerably. On a closing day basis the high point for the WTI discount in July was $21.7/barrel, but on an intra-day basis it exceeded $23/barrel. The WTI discount averaged $17.5/barrel and $19.1/barrel in June and July respectively. The average for the second quarter was $14.7/barrel, well up from the $11/barrel of the prior three months. During early August the WTI discount trended higher and on 5 August reached a record closing high of $22.9/barrel.

The reasons for the wide WTI discount remain as earlier in the year and reflect sizeable inventories at the NYMEX WTI pricing point of Cushing, Oklahoma, and a tight supply/demand position for Brent. The last mentioned stems from two factors. Firstly, light crude supply constraints stemming from prolonged outages at North Sea production facilities and the cessation of exports from Libya, a major source of high grade crude. Secondly, buoyant demand in China and elsewhere in the Far East for premium grade refinery feedstock. Note here that the tank farm at Cushing is effectively landlocked with no direct pipeline access to the Gulf Coast. Although oil could, in principle, be shipped from Cushing by rail or truck, the costs would be very high and together with sea freight might not be much different than the apparent arbitrage opportunity. It should also be noted that although the WTI and Brent specifications are similar they are not the same. There might therefore be costs involved in reconfiguring refineries for the different feedstock.

The key issue now is how the WTI-Brent spread will develop in the coming months. Some observers are suggesting a further widening to $40 or even $50/barrel over the next year or so. This is expected to be driven by a continuing supply build up at Cushing related to rising production in the Mid-Continent and Canada, releases from the US strategic petroleum reserve (SPR) and the enduring tightness in the supply of Brent.

While rising continental supplies of high-grade crude will probably continue to depress the price of WTI relative to Brent for the foreseeable future, we think that the above scenario for the spread may be too extreme. We see four countervailing factors that may constrain the widening tendency.

- The supply of Brent should increase post August given the completion of scheduled and unscheduled maintenance work on the Buzzard field facilities in the North Sea. This is the largest field in the UK sector and is capable of producing 200,000b/d which is probably more than double recent production rates. The supply of light sweet crudes in the Atlantic basin should also increase in the coming weeks following the recent completion of major maintenance projects at Angolan fields.
- Libyan exports should resume over the next 12 months reflecting the likely winding down of the civil war in the country. While we do not expect an early resumption of exports at the pre-war rate of about 1.4mmb/d, it would be surprising if they were not running at several hundred thousand barrels a day in the first half of 2012. This should help take some of the pressure off Brent given Libya's status as a supplier of premium grade crude. If Libya is not in a position to resume exports over the next 12 months it will be a major indictment of western foreign policy and military adventurism.
- Fast Eastern demand growth could slacken in 2012 in tandem with a possible business slowdown in the region. Potential negatives for demand include a lagged response to rising interest rates and growing signs of emerging surplus capacity across a broad swathe of industries.
- It is likely that refinery utilisation rates in the Mid-Continent and Midwest will be stepped up in response to the ready availability of feedstock and the highly profitable refining spreads now available to inland refineries. Note in this context that the Chicago area refineries and Ontario are linked by pipeline to Alberta. Furthermore, pipeline links are being upgraded from both Alberta and the rapidly expanding Bakken oilfields of North Dakota to Chicago area refineries.

Longer-term, the extension of TransCanada's Keystone XL pipeline from Cushing to the Houston/Port Arthur area should help alleviate the build up of inventories at the former location. In late July the US House of Representatives passed a bill committing the president to decide on the future of the planned expansion of the Keystone XL pipeline network by 1 November 2011. Given the undoubted security of supply and economic benefits, it would appear inconceivable that the Keystone XL pipeline will not be approved. However, there is the usual group of environmental objectors. Even if approval is given in the fourth quarter the expansion of Keystone XL will not be completed until late 2013 at the earliest.

Notwithstanding the potential moderating influences mentioned above, the WTI-Brent spread looks like being considerably wider in 2011 than we had previously been anticipating. After averaging $12.9/barrel in the first half we are now looking for $20.0/barrel in the second six months making $16.4/barrel for the full year. Previously we had been forecasting $12/barrel. Even assuming that the final phases of Keystone XL are given the go ahead, we would still expect WTI to trade at a significant discount to Brent of possibly over $5/barrel medium to long term. This reflects the expectation of a substantial supply build-up over the next few years from the Canadian oil sands

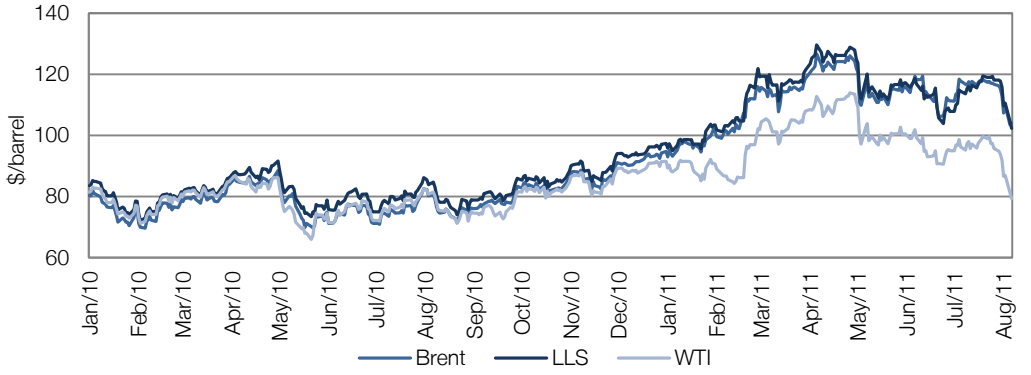
and shale sources at a time when supplies from the North Sea are likely to be in secular decline. The actual and prospective build-up of high-grade crude oil supplies is unquestionably a little publicised blessing for the US economy.

LLS-WTI: Hefty LLS premium

Light Louisiana Sweet (LLS) is a Gulf of Mexico sourced light crude with a specification similar to WTI and Brent. It has traditionally competed with waterborne imported grades at Gulf Coast refineries. LLS has traditionally traded at a dollar or so premium to WTI and perhaps $2-3/barrel to Brent. This year traditional relationships have broken down, as LLS has tracked Brent more closely than WTI. After averaging $4.2/barrel in the fourth quarter of 2010, the LLS-WTI spread widened to $15/barrel and $17.1/barrel in the first and second quarters of 2011 respectively. Prior to the IEA announcement on 23 June the LLS premium to WTI was running at about $20/barrel but subsequently narrowed to about $13/barrel. However, the narrowing proved short lived. Driven by the strength of Brent, LLS was trading at a premium to WTI of $22.5/barrel at end July. For the month of July the LLS premium averaged $18.5/barrel. In early August the premium widened to $24/barrel. Gulf Coast refineries using LLS as a feedstock have therefore suffered a major loss of competitiveness compared to inland refineries using WTI.

The normal LLS premium to Brent was reversed in early to mid June pointing to the underlying strength of the latter. During the second week of June the LLS discount to Brent was about $0.5/barrel but widened around mid month to $3.5/barrel before returning to a premium of $2/barrel or so between 20 and 22 June. The IEA announcement on 23 June and the release of sweet crude from the US strategic reserve resulted in a weakening of LLS and the re-emergence of a discount to Brent in the closing days of June. At its widest the discount was $3.8/barrel. LLS remained at a significant discount of $3/barrel or so in early July but towards the end of the month an LLS premium had re-emerged. This was $1.4/barrel on the last trading day. The swing back to an LLS premium was arguably indicative of an easing of the Brent supply tightness and a switch to more bearish market sentiment.

Exhibit 5: Recent trends in WTI, LLS and Brent graph



Source: Bloomberg

Other key international light benchmarks: Dubai discount to Brent narrows

Prior to the IEA's announcement to release reserves, a key feature of international crude markets was widening sweet to sour spreads. This reflected supply constraints in the North Sea and the cessation of Libyan exports following the outbreak of civil war in March. Both regions are, of

course, major sources of premium specification crudes. Sweet premiums remain historically high but have narrowed significantly in recent weeks in response to the IEA's decision to release strategic reserves of sweet grades plus greater availability of light crudes from the eastern Atlantic basin. Taking Dubai Fateh, a Gulf sourced light but relatively sour crude popular with Far Eastern refineries, there was a discount to Brent of as much as $9.1/barrel in early June but immediately after the IEA announcement on reserves the discount narrowed to $3.5 to $4.0/barrel. After rebounding to $10/barrel in early July, apparently reflecting the expectation of increasing Middle East supplies, the discount trended down over the balance of the month and into early August. On 9 August the Dubai discount stood at $3.7/barrel, well down on peak June/July levels and within shooting distance of the more typical $2-3/barrel.

The premium of Tapis, the ultra high specification Malaysian benchmark, to Dubai widened from a typical $7 to $8/barrel in early 2011 to unprecedented levels of approaching $17/barrel in early June. A narrowing to about $12/barrel occurred in the wake of the IEA reserves announcement. Subsequently, the Tapis premium has widened to about $14/barrel, which is possibly indicative of the still buoyant Far Eastern demand for sweet crude grades.

Interestingly, the discount of Brent to Bonny Light, the Nigerian ultra-low sulphur grade, has narrowed significantly from the highs in March and April of about $3.5/barrel in the wake of the outbreak of hostilities in Libya. The average Brent-Bonny discount in July was $2.1/barrel. This level, which is fairly typical from a historical perspective, was maintained in early August. The narrowing discount reflects the greater availability of supplies in the Atlantic basin, including from Nigeria and the plentiful supply position in the US. The release of supplies from the US SPR may well keep the Brent-Bonny spread suppressed in the near term, as supplies of the latter are forced to find markets on the eastern side of the Atlantic basin.

Exhibit 6: Recent benchmark light crude price table

Note: All prices are averages for the period shown other than where indicated.

	2010		2011							
$/barrel	Nov	Dec	Jan	Feb	Mar	Apl	May	Jun	Jul	Aug 10th
WTI	84.2	89.2	84.4	89.5	102.9	110.0	101.3	96.3	97.3	82.3
Brent	85.7	91.8	96.3	104	114.4	123.4	114.5	113.8	116.5	105.7
Dubai	83.7	89.1	92.4	100.3	108.6	115.7	108.5	107.5	110.0	100.7
Bonny	87.5	93.4	98.5	105.9	117.8	126.2	117.1	116.0	118.6	108.6
Tapis	91.6	95.2	101.2	107.7	118.7	129.2	121.9	122.3	124.2	114.3
LLS	88.2	94.4	97.9	106.3	117.6	126.0	116.5	113.2	115.8	105.3
Spreads										
WTI-Brent	(1.5)	(2.6)	(6.9)	(14.5)	(11.5)	(13.4)	(13.2)	(17.5)	(19.2)	(23.4)
Brent-Dubai	2.0	2.7	3.9	3.7	5.8	7.7	6.0	6.3	6.5	5.0
Brent-Bonny	(1.80)	(1.6)	(2.2)	(1.9)	(3.4)	(2.8)	(2.6)	(2.2)	(2.1)	(2.9)
Tapis-Dubai	7.9	6.1	8.8	7.4	10.1	13.5	13.4	14.8	14.2	13.6
LLS-WTI	4.0	5.2	13.5	16.8	14.7	16.0	15.2	16.9	18.5	23.0
LLS-Brent	2.5	2.6	1.6	2.3	3.2	2.6	2.0	(0.6)	(0.7)	(0.4)

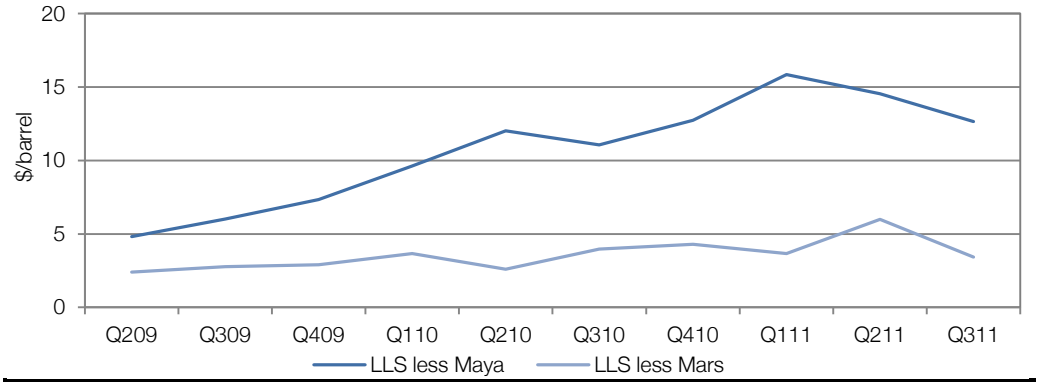
Source: Bloomberg

US heavy crude spreads: Waterborne heavy discounts narrow

US heavy crude discounts based on waterborne sourced supplies have narrowed significantly since peaking at historically high levels in April and May. For example, the discount of Mars, a medium sour grade sourced from the Gulf of Mexico, to LLS fell from an average of $6.8/barrel in May to $3.6/barrel at the end of July. This compares with average discounts of $3.7/barrel and $6/barrel in the first and second quarters of 2011 respectively and a longer-term average between 2004 and 2010 also of about $6/barrel. Maya, a Mexican heavy sour grade, was trading in April at an average $17.3/barrel discount to LLS, but by early July this had fallen to $8.7/barrel. Subsequently, the spread has widened and in late July was standing at $14.6/barrel which is broadly in line with the historical average.

The narrowing trend in heavy discounts in recent weeks largely stems from the decision to release reserves of high grade crude from the SPR. A secondary factor may well have been stepped up purchases of heavy grades by sophisticated Gulf Coast refineries attempting to take advantage of historically wide heavy crude discounts.

Exhibit 7: US medium and heavy discounts graph

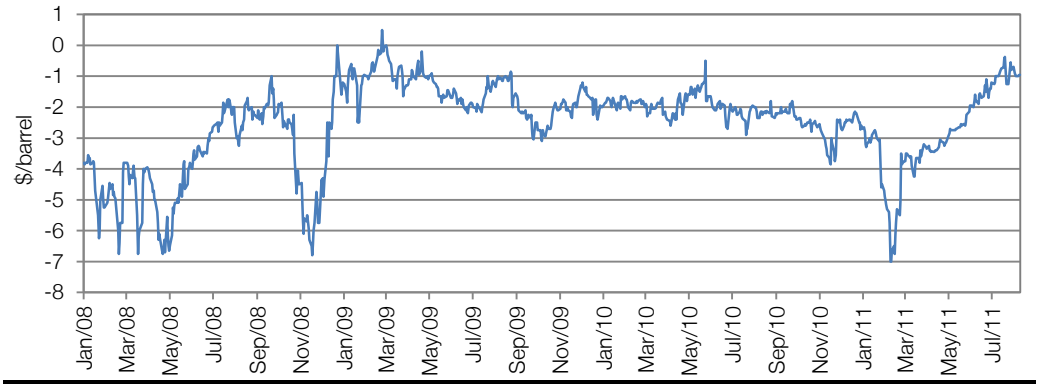


Source: Valero Energy

WTS-WTI discount: Historically narrow WTS discount

West Texas Sour (WTS) is a US inland medium sour grade with a specification similar to Mars and a delivery point of Midland, West Texas. Since peaking at about $7/barrel in February, the WTS discount to WTI has narrowed sharply and in early August was down to $0.7/barrel. This would appear unduly narrow given WTI's superior specification and compares with a longer-term historical discount of $3.5 to $4.0/barrel. The pronounced narrowing of the WTS-WTI spread over the past few months reflects the WTI supply build up and consequent weak price trend. Compared with Mars, WTS traded at a discount of $18.8/barrel at the end of July and of up to $21/barrel in early August. This is another indication of the feedstock advantages of inland refineries.

Exhibit 8: WTS-WTI spread graph

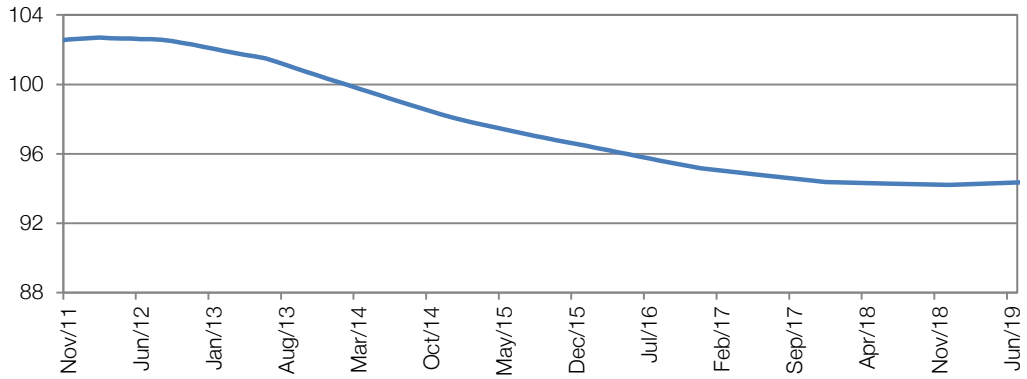


Source: Bloomberg

Forward curves: Brent backwardation declines

Brent remains in backwardation but the forward curve is flatter than two months ago presumably reflecting an easing of near-term Brent supply constraints. From a spot price on 10 August of around $102/barrel, the Brent forward curve stays broadly flat through August 2012 before dipping through end 2017 to $94/barrel. Subsequently, the curve is flat at around this level through end 2020. We would expect the Brent forward curve to flatten further in the coming months as the supply situation improves following the completion of planned and unplanned maintenance in the North Sea. A cessation of hostilities in Libya would have a similar impact given the implications for the greater availability of high grade crude oil on the eastern side of the Atlantic basin.

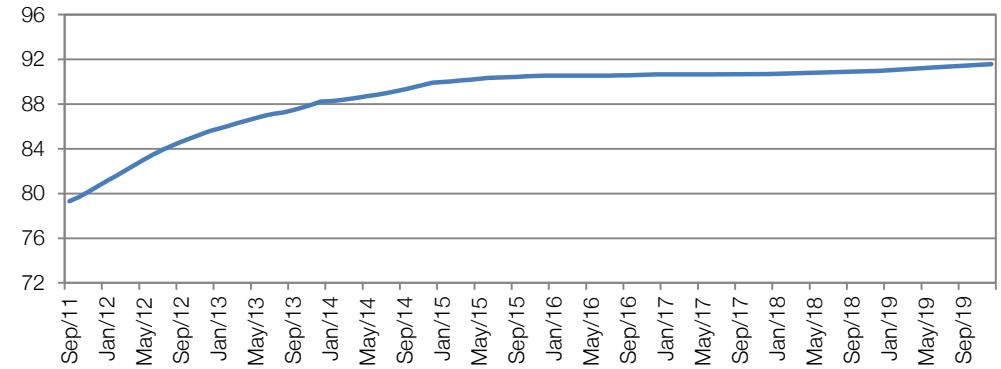
Exhibit 9: Brent forward curve graph, $/barrel



Source: Bloomberg

The WTI forward curve is now in significant contango for all dates through 2015 rather than 2013 two months ago. From a 10 August spot price of around $80/barrel the curve climbs to $90/barrel by end 2015 reflecting uncertainties regarding supplies and the potential for a tightening market. Between end 2015 and 2020 the curve is broadly flat at $90 to $91/barrel. Previously the WTI curve had been in backwardation between early 2013 and end 2016. Post 2016, the Brent-WTI spread based on the forward curves is about $3/barrel.

Exhibit 10: WTI forward curve graph, $/barrel



Source: Bloomberg

Supply/demand balance

Recent developments: Modest supply deficit in the first half of 2011

Based on IEA data, global oil demand in the first half of 2011 grew year-on-year by around 1.5mmb/d or 1.7% to 88.7mmb/d. Continuing a longer-term trend, OECD demand was off 0.3mmb/d to 45.3mmb/d, while non-OECD demand showed growth of 1.8mmb/d to 43.3mmb/d. Overall, growth on a year-on-year basis slowed significantly between the first and second quarters from 2.2mmb/d to 0.8mmb/d driven by weakness in the OECD area. So far in 2011 production globally has been reasonably buoyant but according to IEA data has fallen modestly short of demand growth. In the first half, the gain in production was about 1.2mmb/d with 0.3 mmb/d stemming from non-OPEC sources, 0.3mmb/d from OPEC crude oil sources and 0.6mmb/d from OPEC natural gas liquids (NGLs), which are not subject to quotas. Overall, during the first half there was a modest supply deficit of 0.3mmb/d which was met by a draw on inventories. However, OECD inventories, at least, were at historically high levels at the end of 2010 both absolutely and in terms of days supply.

Significantly, after a strong start to 2011, non-OPEC production lost momentum between the first and second quarters of 2011. Production in the latter period was, in fact, down 0.2mmb/d year-on-year reflecting a spate of maintenance related outages, strikes/civil strife and technical problems in such countries as Argentina, Canada, Norway, Sudan, UK and Yemen. These factors should, however, moderate in significance during the third quarter. OPEC crude production, particularly during the second quarter, was also depressed by the civil war in Libya. During the second quarter the loss from this source was about 1.5mmb/d. However, this was partly offset by rapidly rising production in Iraq and towards the end of the second quarter by sharply stepped up output in Saudi Arabia. In Iraq production is now running at about 2.7mmb/d, a 10-year high and 0.3mmb/d above the levels prevailing in late 2010. Driving the gains in Iraq has been by oilfield development in Kurdistan and the commencement of exports from the region. Saudi production increased between May and June by 0.7mmb/d to 9.7mmb/d, reflecting both strong domestic demand and a policy decision to increase supply to export markets in the wake of the extended outage in Libya. OPEC production in June, according to OPEC, averaged about 30.0mmb/d, up 0.85mmb/d on the previous month.

OPEC production remained on an upward trend in July according to industry sources and the IEA. Production it seems could be about 30.3mmb/d, the highest level since late 2008. The key drivers are expected to be Saudi Arabia and Angola, with the latter benefiting from completion of maintenance at BP's deepwater Greater Plutonio operations. Assuming production of 30.3mmb/d OPEC will still have surplus capacity of about 3.5mmb/d currently and 4mmb/d at planned end-year status.

Outlook: Consensus demand forecasts too bullish

The forecasts currently being made by the IEA, EIA (the statistical arm of the US Department of Energy) and OPEC for the global oil supply/demand balance in 2011 and 2012 are, not surprisingly perhaps, broadly similar. The EIA is the most bullish on demand with growth of 1.4mmb/d or 1.6% and 1.5mmb/d or 1.8% in 2011 and 2012 respectively. By comparison, the IEA is looking for growth in 2011 of 1.2mmb/d and the same 1.5mmb/d in 2012. OPEC's forecasts call for growth of 1.4mmb/d in 2011 and 1.3mmb/d in 2012. Supply gains are similar at 1.0 to 1.1mmb/d in 2011 and 1.1 to 1.3mmb/d in 2012. The upshot of the above are modest supply deficits before allowing for movements in OPEC oil production of 0.1 to 0.4mmb/d in 2011 and 0.2 to 0.5mmb/d in the following year.

We are sanguine about the supply deficits forecast for 2011 and 2012 by the IEA, EIA and OPEC. In the first place they are relatively small and we believe can be covered relatively easily by a combination of higher OPEC output and a rundown in still historically high inventories. In the latter context it should be noted that the deficit for 2011 could be more than offset on the IEA's scenario by the planned release of 60mm barrels from strategic reserves. More fundamentally perhaps, we would question the validity of oil demand forecasts that are based on the IMF's current world GDP growth projections. These call for gains of 4.3% (advanced economies 2.2%, emerging and developing economies 6.6%) and 4.5% (advanced economies 2.6%, emerging and developing economies 6.4%) in 2011 and 2012, respectively, and are relatively high growth rates by historical standards. We believe there are significant risks to the downside in both years. The key ones are as follows:

- Balance sheet deleveraging in the public and personal sectors of the advanced economies. This issue has barely commenced and is likely to be apparent as far as the eye can see. Deleveraging measures in the short term, at least, will inevitably detract from aggregate demand and hence economic growth.
- The lingering squeeze on discretionary consumer and business spending in the advanced economies of surging energy prices.
- Inflation and related interest rate pressures in the emerging and developing economies including Brazil, China and India. Brazil is also encountering a squeeze on competitiveness of its manufacturing sector due to a sustained appreciation in the real.
- A moderation of the investment boom in the developing world reflecting in part interest rate pressures and in part the emergence of surplus capacity across a wide swathe of industries. The construction and real estate sectors look particularly vulnerable. A hard landing in China cannot be ruled out in 2012/13. It might be added that the developing world is not immune to sluggish economic growth in the advanced economies.

We believe it is very likely that the IMF's economic growth forecasts will have to be downgraded, which will set the scene for a re-evaluation of petroleum demand in 2011 and particularly 2012. In our view it is quite conceivable demand growth forecasts will have to be scaled back to closer to 1mmb/d for both years. This would imply around balance in oil markets or even a surplus as far as 2012 is concerned.

The caveats

The key caveat to our sanguine view of the supply-demand balance is that there are no major interruptions to supply. Our main concern on this front is Iran, given the increasing difficulties of customers finding methods of payment that do not contravene US sanctions. The issue has recently come to the fore in the case of Indian refineries, which are understood to have outstanding payables with Iran of $5bn. Iran, not surprisingly, has suggested that supplies will be cut if the bills are not paid. Whether a solution to the payments impasse can be found is an open question. Certainly, from an oil supply perspective, the western policy of ever tightening sanctions against Iran is ill-advised. Not only could near-term supplies be constrained from a major source but oilfield maintenance and development will be circumscribed resulting in lower production capacity and, other things being equal, higher prices globally.

Another potential problem area in the coming months is Sudan. Following the recent secession of South Sudan, where about 75% of oil production is concentrated, a dispute has broken out between the two countries concerning pipeline tariffs to Port Sudan on the Red Sea coast, the only export terminal. The Sudanese government in Khartoum is demanding a hefty $22.8/barrel. Collectively, the two Sudanese entities produce about 0.45mmb/d of oil, the bulk of which is exported. Syria is also a potential flash point, but its production of about 0.35mmb/d is largely devoted to domestic consumption. So far, by all accounts, Syria's oil production has been little affected by civil strife in the country.

US inventories

Crude oil: Seasonally high

US crude inventories remain at historically high levels both absolutely and relative to supply. Based on EIA data, commercial inventories peaked at the end of May at 373.8mm barrels and then trended down broadly in line with the seasonal pattern over the following seven weeks to 351.7mm barrels. In a move that surprised the market, inventories rose to 354.0mm barrels in the week to 22 July possibly aided by a release from the SPR. There was a further increase to 355.0mm barrels on 29 July. This left commercial inventories slightly above the top end of the range for the time of year. In terms of days' supply, inventories for the week ending 29 July were equivalent to 23.0 days marginally down on the 23.1 days of a year previously, but well in line with the average of 22 to 23 days for the period since 2000.

Exhibit 11: US crude oil inventories graph

Source: Bloomberg

Cushing: Surprising slippage in recent weeks

Inventories at the Cushing tank farm, the world's largest, have continued to slip in recent weeks. In the week ended 29 July they stood at 36.0mm barrels, down 1.1mm barrels on the prior week and 5.9mm barrels under the 8 April 2011 record of 41.9mm barrels. Compared with a year ago, inventories were off 1.9mm barrels in the most recent period. Given the overall trend in US inventories of late, the continuing dip at Cushing is surprising. It may reflect pipeline and other logistical issues. Recently there have been pipeline outages on the Keystone pipeline, while severe weather has interrupted freight train shipments from North Dakota to Cushing. Cushing's inventories currently are equivalent to 78% of the effective capacity of 45.9mm barrels. The shell capacity of 55mm barrels is in the throes of being increased by 10mm barrels.

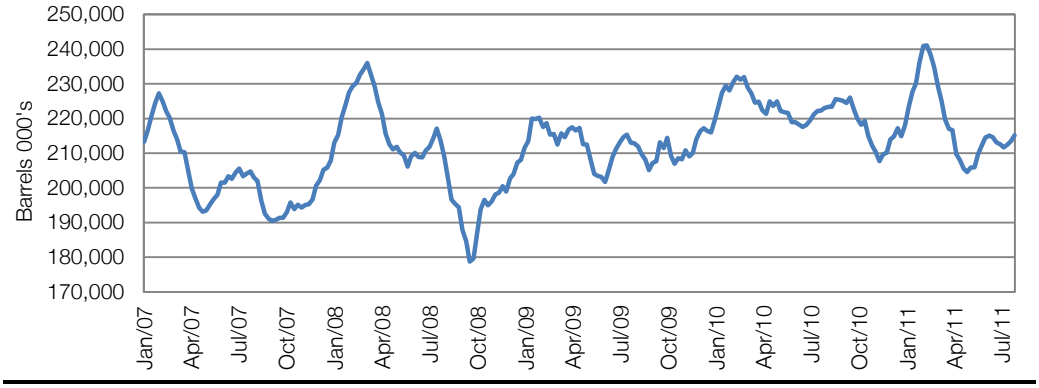
Exhibit 12: Cushing crude inventory graph

Source: Bloomberg

Gasoline: Seasonally high

The trend in US gasoline inventories has been seasonally firm of late. For the week ended July 27 inventories came in at 213.5mm barrels, up 1.7mm barrels on the previous week and 9.4mm barrels on the May low. They are now close to the upper limit of the average range for the time of year. In terms of days of supply, gasoline inventories on 29 July were the equivalent of 23.7 days, the same as a year ago and within the normal range on a longer term perspective.

Exhibit 13: US gasoline inventory graph



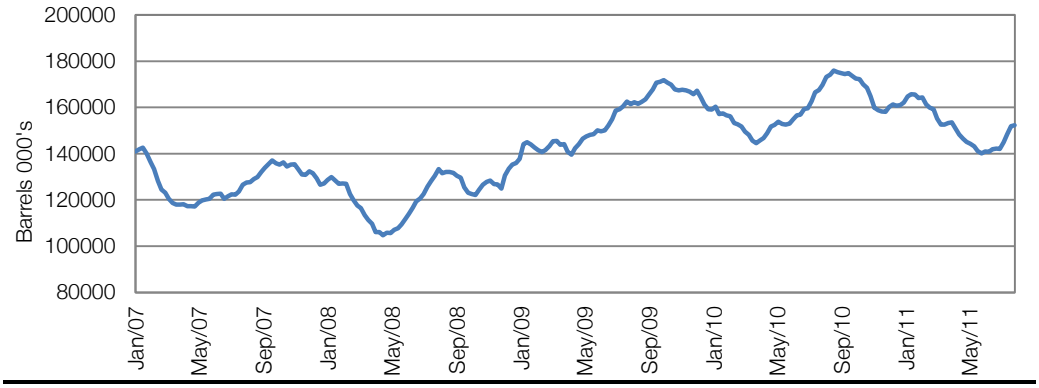
Source: Bloomberg

Distillates: Trending higher

US distillate inventories have also trended higher for a number of weeks. In the week ended July 29 they were 152.3mm barrels, reflecting gains of 0.4mm barrels from the prior week and 12.1mm barrels from the 27 May low. Inventories currently are towards the high end of the average range for the time of year. In terms of days' supply, distillate inventories at the end of July were equivalent to 42.9 days. Although below the 47.6 days of 2009 and the 48.7 days of 2010, the latest distillates days' supply are well above the average between 2000 and 2008 of around 35 days.

Overall, we would say that there is nothing unusual about refined product inventories presently. Arguably they are on the high side but not drastically so. The upward trends of recent weeks are probably indicative of lacklustre demand. Meanwhile refinery utilisation at just under 90% is running slightly below year earlier levels of about 91%.

Exhibit 14: US distillate inventory graph



Source: Bloomberg

Refinery crack spreads: US inland remain historically high

US refinery crack spreads based on inland feedstock have remained robust in recent weeks and are at historically high levels. Based on Bloomberg data, the Gulf Coast/WTI 321 crack spread (the margin before refining costs on converting three barrels of WTI into two barrels of gasoline and one of diesel) was $31.7/barrel on 2 August. This is close to the recent high of $32.9/barrel recorded on 10 May in the wake of the plunge in feedstock costs at the time. As we have noted before, current crack spreads have only been exceeded since 2000 for very short periods on three

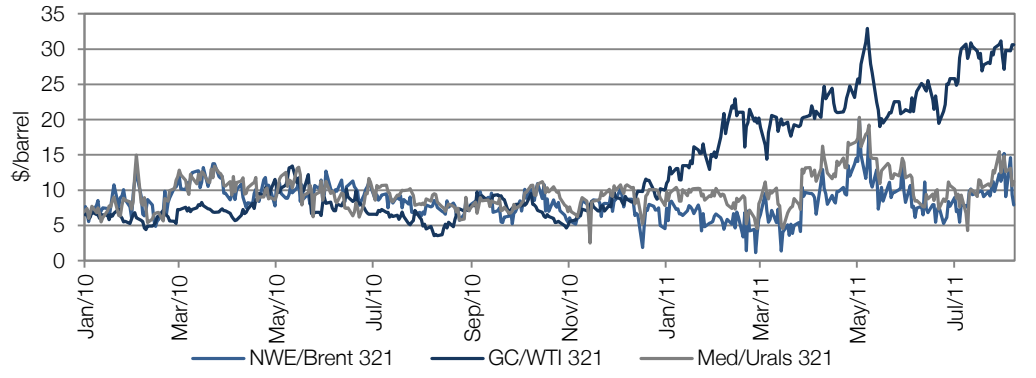
occasions. These were post Hurricane Katrina in September 2005, the boom in oil product markets in mid 2007 and following the collapse in crude oil prices in September 2008.

Taking the year-to-date August, Gulf/WTI 321 crack spreads are indeed looking impressive with a gain from around $10/barrel at the end of 2010 and an average for the period of $21.4/barrel. The key reasons for the strong showing reflect a combination of the plunge in feedstock costs since early May and the lagged response of refined product prices. Indicative of the favourable backdrop is that Gulf Coast gasoline and diesel prices have fallen by moderate 12% and 6% respectively since end April, while WTI is off by a considerably greater 17% over the same period. Similarly, since the end of 2010 the gains in gasoline and diesel of around 22% have comfortably outpaced the roughly 3% increase in WTI. Of course, the backdrop is considerably less favourable for those refineries dependent on higher-cost waterborne feedstock.

The ability of US refiners to sustain historically high crack spreads in the face of falling feedstock costs and lacklustre final product demand is arguably surprising. It might have been thought that utilisation rates would have been stepped up to take advantage of the attractive spreads. Looking at EIA data for the Midwest (the main beneficiary of low cost feedstock) there is, however, no indication that this has happened. The utilisation rate here averaged 94% in June and 92% in July, which is not greatly different than a year ago although, admittedly, above the rates elsewhere in the US. Particularly if the US economy maintains the sluggish trend of recent months we believe US crack spreads could come under pressure in the coming weeks.

Crack spreads remain considerably lower in Europe than the US, although there has been clear evidence of a widening trend in recent weeks. The NWE/Brent spread, for example, was $11 to $12/barrel in early August against lows in June and July of about $5.5/barrel, while the Mediterranean/Urals 321 spread has been as high as $15.5/barrel in recent days, well up from $8 to $9/barrel for much of June and July. Spreads in Europe in late July and early August tended to be supported by softening feedstock prices.

Exhibit 15: Recent trends in crack spreads GC/WTI 321 crack spread graphs



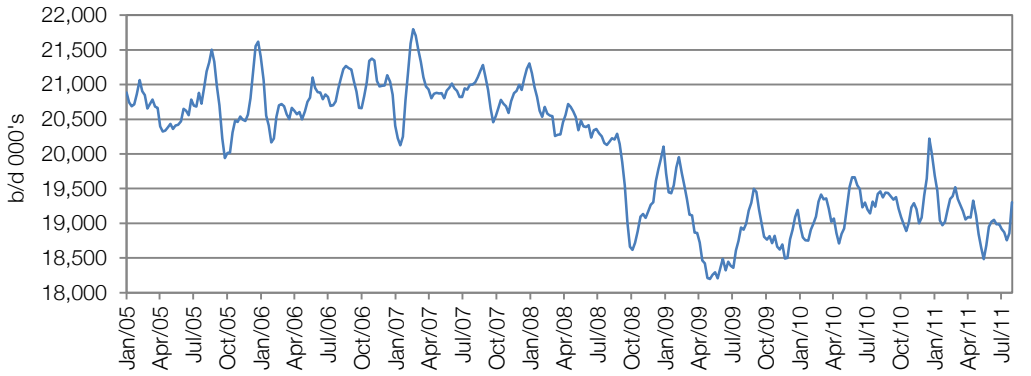
Source: Bloomberg

US refined product demand: Softening trend continues

Evidence of softening US petroleum product demand has become more pronounced in recent weeks. Based on EIA data for products supplied (a proxy for demand) during the four weeks ending July 29, demand overall was down on a year earlier by 2.0% to 18.9mmb/d. Gasoline, the largest product group, showed a year-on-year decline in the latest four week period of 3.6% to

9.07mmb/d. However, distillates were up 1.7% to 3.55mmb/d, while kerosene, residual fuel oil and propane/propylene were off 0.6%, 11.4% and 14.4% respectively. The large derived miscellaneous items group in the latest four-week period was up 2.6% on a year earlier. Cumulatively in 2011, US petroleum product has fallen 0.8% year-on-year. This is about twice the rate of decline as two months ago. In terms of product groups the year-on-year movements have been as follows: gasoline -0.8%, kerosene +2.3%, distillates +0.2%, residual fuel oil +0.9%, propane/propylene -4.6% and miscellaneous -2.0%.

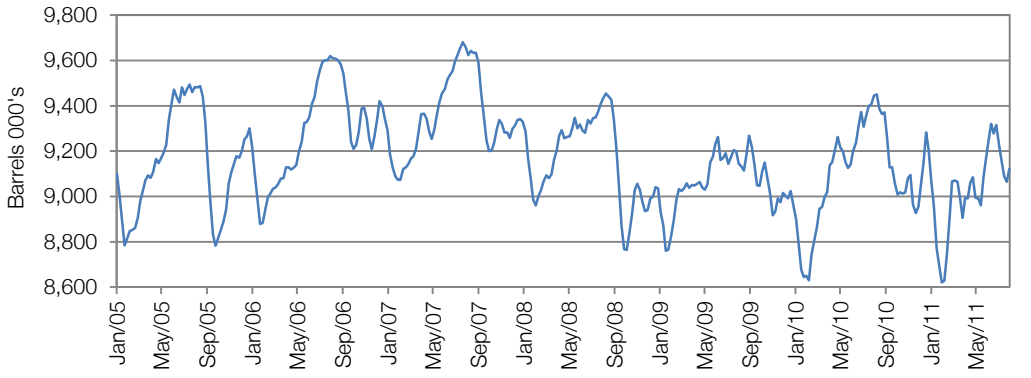
Exhibit 16: US petroleum products supplied



Source: EIA

Softness in petroleum demand is consistent with an increasingly sluggish US economy. Continuing high levels of unemployment have been particularly significant for gasoline consumption, given the prevalence of commuting by car in the US. As we have noted before, however, soft economic activity is not the whole story regarding slipping petroleum demand. Other factors include improving fuel efficiency across the light vehicle fleet and fuel conservation measures. The former reflects in part a changing vehicle mix and in part technological advances. As far as fuel conservation is concerned there is a certain amount of anecdotal and statistical evidence that high real gasoline prices are influencing driver behaviour. A recent Bloomberg survey, for example, showed that miles driven had fallen modestly so far in the US this year. Doubtless, this has been given added impetus by the weak economy.

Exhibit 17: US gasoline supplied

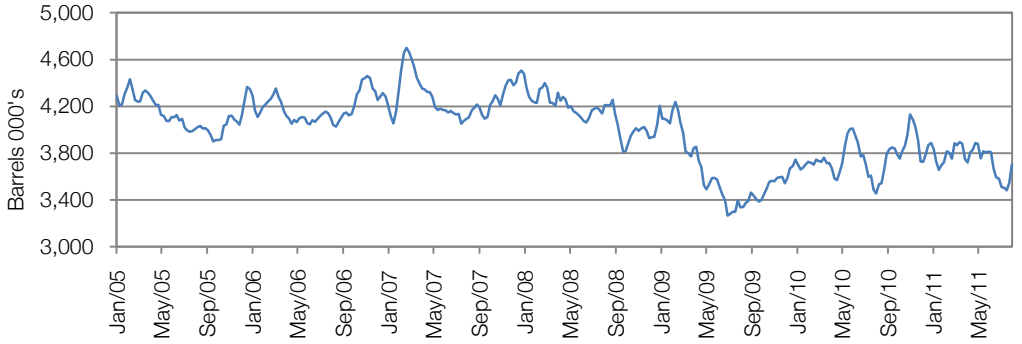


Source: EIA

Hard pressed drivers received some modest respite over the past three months to early August due to a dip in retail gasoline and diesel prices. Between the early May peaks and 1 August the average retail price for gasoline dropped by 6% to $3.71/gallon while diesel was off by 4.5% to

$3.94/gallon. Compared with a year earlier the former was up $0.98/gallon and the latter $1.01/gallon or 34%. The plunge in WTI of around $17/barrel between late July and early August could, if sustained and assuming no change in refining margins, result in a fall in retail gasoline and diesel prices of over 20 cents/gallon by mid August.

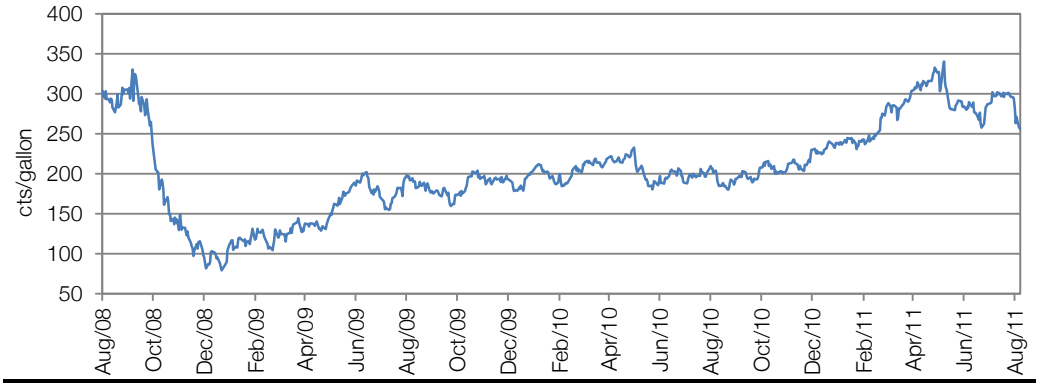
Exhibit 18 US distillates supplied



Source: EIA

The EIA is currently forecasting US petroleum product demand to increase by 0.2% in 2011 and 0.7% in 2012. The former constitutes a downgrade from earlier forecasts while the latter is unchanged. We believe that given current trends both forecasts are looking vulnerable. In particular, a significant decline of over 1% and quite possibly closer to 2% is looking increasingly likely in our view in 2011. Flat to down demand also appears on the cards for 2012.

Exhibit 19: US GC wholesale gasoline price graph



Source: Bloomberg

Exhibit 20: US Petroleum product demand trend, mmb/d

Note: Data relate to yearly averages.

	2004	2005	2006	2007	2008	2009	2010	2011e	2012e
Gasoline	9.11	9.16	9.25	9.29	8.99	9.00	9.03	8.97	9.03
Other	11.62	11.64	11.44	11.39	10.51	9.77	10.12	10.21	10.29
Total	20.73	20.80	20.69	20.68	19.50	18.77	19.15	19.18	19.32

Source: EIA

Crude oil price outlook: Potential for further downward pressure

The bullish near-term case for oil has been dealt a hefty blow in recent weeks. Rather than a rapidly tightening market in the third and fourth quarters of 2011, predicated on surging demand for crude in the developing world and severely constrained supplies, we have a market that is practically swimming in oil with downward pressure on prices. The apparent transformation in the marketplace reflects a number of developments as follows:

- The IEA's decision to release strategic reserves.
- Stepped up OPEC production.
- A raft of US statistics pointing to a significant business slowdown or worse. The potential for a US double dip recession is now looking very real and indeed the bond market appears to be predicting one. As of early August, US two-year Treasuries were yielding a mere 0.27%, while the yield on the 10-year was only 2.47%. The former is below the lows plumbed post Lehman while the latter is rapidly heading towards post Lehman lows.
- The emergence of a tightening US fiscal policy stance. Although the recently announced debt reduction measures are by no means aggressive in relation to the scale of the debt burden, it is important to note that the economy in future will be functioning without a fiscal safety net. Furthermore fiscal policy is likely to be tightened further in the near to medium term.
- An intensification and broadening of the European sovereign debt crisis. In this regard the enveloping of Italy and Spain into the maelstrom has been particularly salutary.
- Lacklustre economic news flow emanating from China.

The key question now is how much downside remains in the coming months now that prices in the case of WTI and Brent have dropped 32% and 22% respectively from their April peaks. We believe the answer is significant bearing in mind the fragile economic environment and the scope for negative news flow. Significant in this context is defined as 10% to 15% on a spot basis, which could imply WTI down to $70/barrel and Brent to around $90/barrel. We would not expect a collapse in WTI to anything like the lows of around $31/barrel seen post Lehman, unless there is another similar cataclysmic event. In the event of an emerging rout, OPEC will in all probability seek to underpin prices by cutting production as on other occasions.

The bulls are still arguing for a renewed round of tightening supplies and rising prices in 2012. The theory is that with 4% world economic growth the oil market will rapidly tighten leading to prices surging into the stratosphere. This, indeed, might be vaguely plausible if it is believed the world economy will grow by 4%. We would suggest the accumulation of statistical evidence over several months along with the intensification of the debt crisis not only in Europe but now the US is pointing to significantly slower growth in 2012 and probably beyond. In the event that the bulls are correct and that light oil prices surge in 2012 to perhaps $130/barrel or even more, we think that such levels are unlikely to endure in the fragile economic environment prevailing. In all probability, such an event would trigger a recession in the OECD world followed by a death spiral in oil prices. One of the few positives for the world economy currently is that oil prices have indeed come under significant pressure in recent months.

For the foreseeable future we suspect that the world economy will be subject to the discipline of bond market vigilance and financial deleveraging. The upshot is likely to be sub 4% economic growth globally and more like 1% to 2% in many OECD countries. Welcome to what PIMCO (the world's largest bond fund manager) has referred to as the new normal.

We are broadly maintaining the drift of our benchmark light oil forecasts for 2011 and 2012. Demand growth we think will be fairly subdued reflecting a lacklustre economy and should be comfortably covered by supply gains. However, given recent developments in oil markets and the world economy, we are slightly lowering our WTI price forecast for 2011 from $95.0/barrel to $92.8/barrel. Ironically perhaps, our forecast for Brent rises slightly for 2011 from $107.2/barrel to $109.2/barrel. This stems partly from the strength of Brent in July and partly our assumption of a $20/barrel spread between WTI and Brent in Q3 and Q4. Previously we had been using $13/barrel and $12/barrel respectively. Our quarterly price scenarios for 2011 are as follows: WTI Q1 $93.9, Q2 $102.3, Q3 $89.1, Q4 $86.0; Brent Q1 $104.9, Q2 $116.8, Q3 $109.1, Q4 $106.0. For 2012 we are maintaining our forecasts for WTI at $89.0/barrel. In the case of Brent we have raised our forecast for 2012 from $101/barrel to $102/barrel to reflect a reconsideration of spreads.

Our forecasts continue to assume normal weather patterns and no political upheavals in major oil producing regions resulting in production cutbacks. We are also assuming no US QE3. Following the spate of weak economic data of late there has been speculation that a new round of monetary stimulus will be implemented in the US. The problem with monetary stimulus programmes is that markets are wise to the potential impact on prices as the American economist Milton Friedman pointed out long ago. At the end of the day they tend merely to inflate the prices of financial assets and commodities. Any initial benefits in terms of activity are ultimately offset by the squeeze on disposable income of higher commodity prices (including gasoline and diesel) and, quite possibly, long-term interest rates. For this reason we think it unlikely that QE3 will be implemented. If it is, oil prices will probably respond upwardly very quickly. However, demand is likely to be adversely impacted with a lag, thereby setting the scene for a subsequent price fall.

Exhibit 21: WTI and Brent price trends, $/bbl

	2003	2004	2005	2006	2007	2008	2009	2010	2011e	2012e
WTI	31.1	41.5	56.6	66.1	72.2	99.8	62.0	79.5	92.8	89.0
Brent	28.9	38.3	54.5	65.4	72.7	97.7	62.0	79.7	109.2	102.0

Source: Bloomberg and Edison Investment Research

US natural gas market

Production/consumption: Robust production growth in 2011

US natural gas production has remained robust of late driven by the large scale development of shale plays over the past five to 10 years. In May, the most recent month for which data is available, production climbed from a year previously by 6.7% to 1.95tcf. The cumulative year-on-year increase in the first five months of 2011 was slightly lower at 6.0%, resulting in production of 9.33tcf. Pipeline exports to Canada and Mexico have remained buoyant while imports of LNG have continued to slide and are now negligible at 0.4bcf/d. As a result, there has been a further significant narrowing of the net import balance in the first five months of 2011 to 890bcf from 1,181bcf a year earlier.

US natural gas consumption has tended to lag production in 2011, but has gained momentum as the year has progressed driven by high temperatures boosting air conditioner usage. Taking data for May, consumption was up on a year by 2.7% while during the first five months of 2011 there has been a gain of 2.0%. Industrial and power generation markets have continued to drive growth with year-on-year gains of 3.1% and 4.6% respectively. By contrast, residential markets have declined 0.9% while those for commercial are off 0.2%. Temperatures were running at very high levels across large parts of the US in July, so natural gas demand has probably remained reasonably buoyant in recent weeks. After a period of seasonally normal temperatures along the eastern seaboard in early August, temperatures are expected to move sharply higher across much of the US around mid month, which will once again boost air conditioner usage.

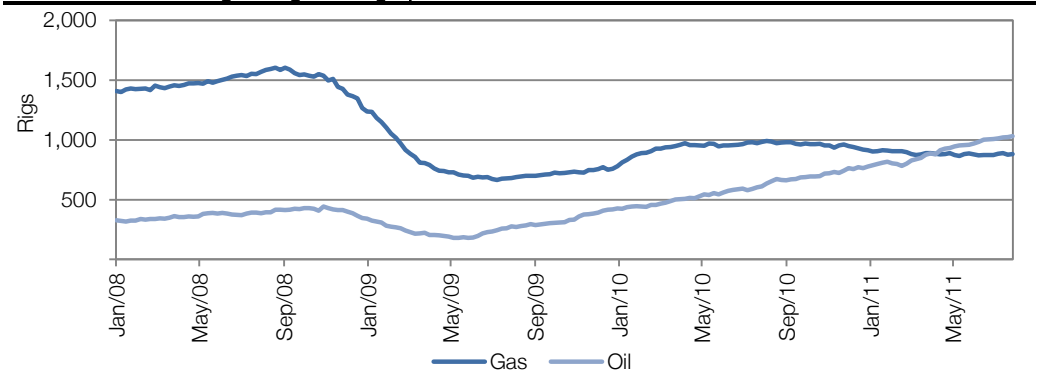
Reflecting the continuing robust trend, the EIA has again increased its forecast for US natural gas production in 2011. It is now looking for growth of 5.8% to 65.4bcf/d or 23.9tcf, against 4.5% previously. In 2012 the EIA is forecasting considerably slower growth in production of 0.6% reflecting the lagged impact of the decline in drilling activity over the past two or three years. The bulk of the increase is expected to be concentrated in the first three quarters. The EIA's consumption growth forecast for 2011 has also been raised from 1.4% to 2.0%. For 2012 consumption is forecast to be roughly unchanged on the assumption of a decline in heating days in the Midwest and West.

Drilling activity: Surprisingly stable in recent months

US natural gas drilling activity has trended down from the highs of August 2010, but since March 2011 the trend, surprisingly perhaps in view of soft gas prices, has been broadly flat. Based on Baker Hughes data, the natural gas rig count was 883 for the week ending 5 August. This was up six from the previous week and three since end March. Compared with the 13 August high of 992, the gas rig count currently is off by 109 or 11%. Against the high in recent years of 1,606 in late August 2008 the rig count currently is down 45%. To some extent the US gas rig count is being supported by lease commitments.

US drilling activity continues to be re-directed from natural gas to shale oil plays in the Great Plains states, which hold out the prospect of much more promising economics. The Baker Hughes US oil rig count has surged from under 200 in mid 2009 to 1,031 in early August 2011. The latter is the highest in at least 25 years.

Exhibit 22: Baker Hughes rig count graph



Source: Bloomberg

Inventories: Comfortable

US natural gas inventories remain at comfortable levels. Based on EIA data, inventories were 2,758bcf on July 29, down 186bcf on the abnormally high level of a year earlier and 112bcf on the five year average of 2,826bcf. Inventories, however, remain within the five-year historical range for the time of year. Given the robust production trend, we would expect gas inventories to remain within the historical range over the balance of 2011, subject to the caveat that there are no major weather related interruptions to production.

Price trend and outlook: Heading into the marginal zone

US natural gas prices came under heavy pressure in late July and early August, much as for oil and other commodities. Taking the benchmark Henry Hub quote at Erath, Louisiana (NYMEX delivery point), there was a fall of 14% between the July 20 high of $4.64/mmbtu and the closing level on 5 August of $4.00/mmbtu. The latter was around a 4½ month low and 17% below a year previously. At the lowest priced hub, Opal Wyoming, the price on 5 August was $3.82/mmbtu while at the highest at Agua Dulce, Texas it was $4.65/mmbtu. The downward pressure in late July and early August was mainly driven by the same macro-economic concerns as for other commodities, but also reflected a moderation in temperatures along the eastern seaboard after the recent heat wave. The Henry Hub price currently remains at less than 50% of the UK NBP level of $8.18/mmbtu and is about a third of international LNG rates. Clearly, in terms of both oil and gas the US has major energy cost advantages currently.

At $4.00 or so, US natural gas prices are becoming distinctly marginal from an industry profitability perspective. While cash operating costs can probably generally be covered at around this price, the situation on a fully accounted basis is looking increasingly tenuous. If sustained for any length of time, a price of $4/mmbtu or less may not only lead to a cutback in drilling activity, but also shut-in wells.

Given increasingly marginal natural gas economics, we think it unlikely that there is much downside risk on a sustained basis to US gas prices from current levels, in the absence of a significant recession. Essentially, gas is a highly competitive fuel at anything like current prices. The caveat is that the US economy avoids a double-dip recession in the coming months. In the event of continuing sluggish economic development we believe the Henry Hub quote will range between $3.95/mmbtu and $4.50/mmbtu over the balance of 2011. Our forecasts call for the Henry Hub quote to average $4.28/mmbtu in the third quarter and $4.30/mmbtu in the fourth quarter. This implies $4.28 for 2011 as a whole which is unchanged from our previous forecast. We are also leaving our 2012 unchanged at $4.60/mmbtu. The increase from 2011 continues to reflect an assumed tightening in the supply/demand balance as production growth slows. There would probably be downside risk to the forecast in the event of a recession.

Exhibit 23: Henry Hub natural gas price trend

Note: Average price YTD August 11, 2011 $4.28/mmbtu

	2003	2004	2005	2006	2007	2008	2009	2010	2011e	2012e
$/mmbtu	5.63	5.85	8.79	6.72	6.96	8.89	3.94	4.37	4.28	4.60

Source: Bloomberg and Edison Investment Research

Exhibit 24: Henry Hub price trend graph

Source: Bloomberg

Exhibit 25: Henry Hub quarterly price scenario, $/mmbtu

	Q1	Q2	Q3	Q4	Average
2007	7.19	7.38	6.18	7.10	6.96
2008	8.66	11.37	9.06	6.45	8.89
2009	4.54	3.70	3.17	4.37	3.94
2010	5.15	4.15	4.32	3.86	4.37
2011	4.18	4.37	4.28	4.30	4.28

Source: Bloomberg and Edison Investment Research

Share price performance

UK indices: AIM juniors suffer from the flight from high risk assets

Junior E&P stocks have had a torrid time in recent weeks. As of 8 August, the AIM Oil & Gas Index was down 44% on the 7 February 2011 30-month high. The decline of around 28% since late July has been truly precipitous and has left the Index at around a two-year low and 21% below a year earlier. The more broadly based AIM Index has, of course, also come under heavy pressure of late but its decline of 25% since the February high was less pronounced than for the E&P juniors. For perspective, the FTSE 100 on 8 August was down about 17% from the February high.

The AIM junior E&P stocks have turned in one of the weakest sector performances in the recent downdraft. The acute weakness mainly reflects a flight from high-risk equity assets in general and those in the commodity space in particular amid growing signs of a major slowdown in the world economy and the intensifying debt crisis in Europe and the US. Interestingly, commodity stocks in general have come under far greater pressure of late than the underlying commodities, much as in mid 2008. In addition to the broad macro-economic woes, sentiment in the E&P juniors has been hit in recent months by several exploration and development setbacks. Sterling Energy's dry well on the Sangaw North block in Kurdistan, announced in early July, has been one of the more recent. Among the larger capitalisation stocks Cairn's recently announced dry well in Greenland waters has been a prominent example of a setback in a frontier zone. The juniors would, of course, be particularly vulnerable to an extended period of financial market turbulence, given heavy ongoing financing needs for exploration and development.

Until late July, the FTSE 350 Oil & Gas Index had only shown moderate signs of weakening and since the first quarter of 2011 had clearly outperformed the AIM juniors. However, between the high

in the fourth week of July and 8 August the FTSE 350 Oil& Gas Index slumped by 18% leaving it 20% below the 8 April peak. Compared with a year earlier, the FTSE 350 Oil & Gas Index on 8 August was roughly unchanged.

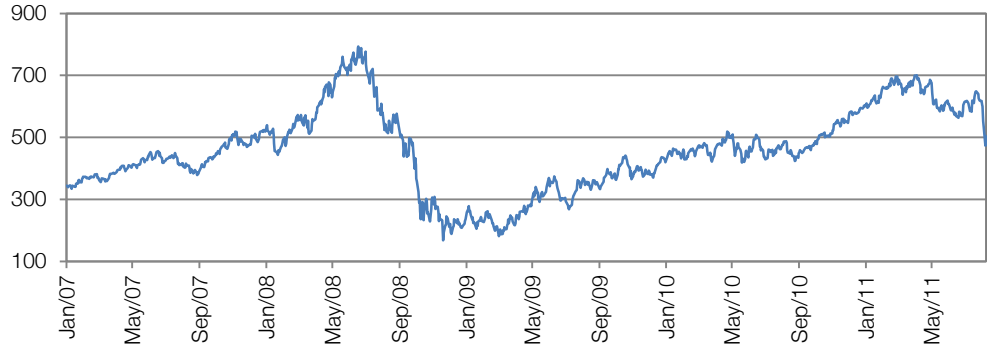
The key question now concerning oil and gas equities in general and the juniors in particular is how much mileage the stocks might have given the slump in share prices. The answer depends essentially on the view taken of the potential impact of the debt crisis and subsequent deleveraging for the world economy. If it is believed that the crisis is ephemeral and the world economy is still quite capable of growing at 4% pa plus as far as the eye can see, then there is probably a strong case for taking a positive stance. Alternatively, if the debt crisis is expected to result in an extended period of deleveraging and sluggish economic growth, which in our view is likely, then it might be concluded that the opportunities are less attractive. However, we would say that for the majors there will come a point where the price fall is sufficient to reveal compelling value on all the key valuation metrics. Given the ultra-low interest rate environment prevailing and furthermore likely to prevail over the short to medium term at least, a key one will be yield. In this context it is interesting to note that Royal Dutch Shell in early August was yielding a hefty 5.5%, more than double the US 10-year Treasury bond yield of 2.46%.

US indices: The majors emerge as yield plays

Large capitalisation US oil and gas stocks held up solidly in the second quarter of 2011 and for all but the final days of July. The S&P 500 Oil & Gas Index at the recent high on 22 July high was, for example, only a modest 3% under the 34-month high on 8 April. Between 22 July and 5 August this Index, however, dropped 25% which exceeded the decline in the FTSE 350 Oil & Gas Index. Compared with a year ago, the S&P 500 Oil & Gas Index was still up 5%. Significantly, the majors all sport dividend yields that look interesting compared to the US 10-year Treasury bond yield. Exxon, for example, was selling on a yield of 2.8% in early August, while Chevron and ConocoPhillips were on 3.5% and 4.2% respectively.

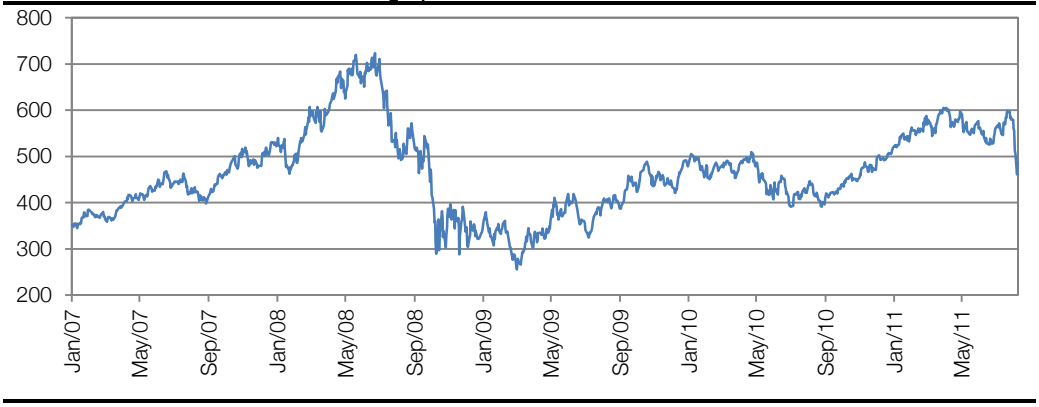
US mid-tier E&P stocks, not surprisingly, have come under similar pressure to the majors and large independents of late. Indicative of this was the 27% decline in the S&P 400 Oil & Gas Index of mid-tier US E&P stocks between the late July high and 8 August. On the latter date S&P 400 was down 32% on the 20 April 2011 high and 3% on a year earlier.

Exhibit 26: S&P 400 Oil & Gas Index graph



Source: Bloomberg

Exhibit 27: S&P 500 Oil & Gas Index graph



Source: Bloomberg

US independent refineries: Standout performers

A key area of strength in the energy sector over the past year has been the relatively obscure US inland independent refining sector. Significantly the sector largely uses inland sourced feedstock. In the year to late July 2011 stocks such as CVR Energy, Holly Frontier, Western Refining and Delek Holdings more than doubled. Despite falls of 20% 30% since late June the independent refiners remain the standout performers in the energy sector over the past year. The reason has been the dramatic widening in refining spreads, referred to earlier, for refineries using feedstock from inland sources priced at or around WTI. Recently announced second quarter results for the group show EBITDA more than doubling on a year-on-year comparison. Significantly, Holly Frontier is paying a special dividend of $1.00/share in August in addition to its regular quarterly pay-out of 15 cents/share.