



# **EQUITIES**

• MSCI World Energy Index down 11.99% in May

**FUND NEWS** 

• Fund size \$93 million at end of May

June 2010

# OIL

- Oil falls \$20 from \$86 to \$66, before recovering to \$73
- BP's Macondo well still leaking, but containment efforts progressing

**REPORT HIGHLIGHTS** 

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- US natural gas price still around \$4/Mcf

- NATURAL GAS

- High storage levels and strong production continue to weigh on price



**Commentary and Review by portfolio manager** 





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### Chart of the Month

#### Top 10 largest oil spills, 1979-present

| Incident            | Date | Location            | Barrels Spilled ('000) |
|---------------------|------|---------------------|------------------------|
| First Gulf War      | 1991 | Persian Gulf        | 7,000                  |
| lxtoc1              | 1979 | Baha de Campeche    | 6,000                  |
| Nowruz Oil Field    | 1983 | Persian Gulf        | 2,000                  |
| Atlantic Express    | 1979 | Little Tobago       | 2,000                  |
| ABT Summer          | 1991 | Angola              | 1,850                  |
| Castillo de Bellver | 1983 | Cape Town, SA       | 1,800                  |
| Amoco Cadiz         | 1978 | Brittany, France    | 1,600                  |
| Macondo             | 2010 | Gulf of Mexico      | 1,240*                 |
| M/T Haven           | 1991 | Genoa, Italy        | 1,025                  |
| Odyssey             | 1988 | Nova Scotia, Canada | 1,000                  |
| Exxon Valdez        | 1989 | Alaska              | 260                    |

\*Based on 6 weeks at 20,000 bbl/day (April 20 - June 1) and 6 weeks at 10,000 bbl/day (June 1 - mid July, best estimate of well closure)

Source: Simmons Company International, Guinness Asset Management estimate (June 2010)



#### Oil Market - May 2010 Review



The West Texas Intermediate (WTI) oil price began May at \$86.15, which was just below the high for year, and fell sharply through the first three weeks of the month to reach a low on May 24 of \$65.96. The price then rallied in the final few days of the month to close at \$73.97. WTI has now averaged \$79.00 for the first 5 months of 2010.

Factors that weakened the WTI oil price in May included:

• Broad market declines. Fears over Greek sovereign debt, financial stability of the eurozone and slowing growth in China translated into broad equity market declines during the month. Having peaked for the year on April 23, the S&P 500 index fell 8.3% in May. This coincided with a weak commodity price environment generally, including oil.

• NYMEX futures position. The net non-commercial crude oil futures open position fell significantly throughout the month, weakening crude prices. It started the month at 110,000 contracts long (having been over 100,000 contracts long throughout March and April) and declined to 40,000 contracts long by the end of May. The net position last fell to this level in September 2009.

Factors that strengthened the oil price in May included:

• Gulf of Mexico oil spill. The oil spill from BP's Macondo well in the US Gulf of Mexico that started on April 20 worsened throughout May, with BP unable to find a method of capping the underwater well that has been leaking. Estimates of the flow of oil into the ocean have varied, but US government sources currently suggest that the likely range is between 12,000 and 19,000 barrels per day. On May 28, the US government announced a 6 month moratorium on drilling in deepwater regions of the Gulf of Mexico as safety concerns over offshore drilling are addressed. While a 6 month pause in drilling is unlikely itself to have a significant impact on oil production, any threat to oil production in the longer-term will inevitably push prices higher.



#### Speculative and investment flows

The New York Mercantile Exchange (NYMEX) net non-commercial crude oil futures open position remained contracted sharply in May. It opened the month at 110,000 contracts long, and declined each week to finish the month at 40,000 contracts long. This unwinding coincided with a decline in the oil price from mid \$80s to mid \$60s.



NYMEX Non-commercial net futures contracts: WTI November 2003 – May 2010 Source: Bloomberg/Nymex



## **OECD** stocks

The March 2010 Organization for Economic Cooperation and Development (OECD) total crude and product number published in the May International Energy Agency (IEA) Oil Market Report rose by 7 million barrels from 2,702 million barrels, giving a total stock of 2,709 million barrels (vs. 2,744 million barrels in March 2009). When expressed as number of days of demand cover (59.7 days), however, we see that we are still level with 2009 and at the top of the tight/loose spread of the last 10 years.

Preliminary indications for the April 2010 OECD total crude and product number (also published in the May IEA Oil Market Report) suggest that total OECD inventories rose by 47 million barrels, giving a total stock of 2,756 million barrels. While the market remains relatively loose at this level, our projections (in red) suggest that the stock level will return to within the 10-year range towards the end of the year.



**OECD total product and crude inventories – monthly 1998 to 2010** Source: IEA Oil Market Report (May 12 2010); Guinness Asset Management estimates

### Oil Market – Outlook

### Supply and demand recent past and 2010 forecasts

The table below illustrates the difference between the growth in world oil demand and non-OPEC supply over the last 9 years together with the IEA forecasts for 2009 and 2010. We have included an additional column in the table that shows our own estimates for global oil supply and demand in 2010 (GAM). As things stand, our forecasts are quite closely aligned to those of the IEA, except on non-OPEC supply.



| (million barrels per day)  | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010e | 2010e |
|--|------|------|------|------|------|------|------|------|------|------|-------|-------|
| (minor bures per day)  | 2000 | 2001 | 2002 | 2005 | 2001 | 2003 | 2000 | 2007 | 2000 | 2005 | IEA   | GAM   |
| World Demand   | 76.7 | 77.4 | 77.7 | 79.3 | 82.5 | 84.0 | 85.2 | 86.4 | 86.0 | 84.8 | 86.4  | 86.5  |
| Non-OPEC supply<br>(includes Angola and Ecuador for periods<br>when each country was outside OPEC <sup>1</sup> ) | 46.2 | 47.2 | 48.1 | 49.1 | 50.3 | 50.4 | 51.3 | 50.4 | 49.8 | 51.5 | 52.2  | 51.4  |
| Angola supply adjustment <sup>1</sup>  | -0.8 | -0.7 | -0.9 | -0.9 | -1.0 | -1.2 | -1.4 | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   |
| Ecuador supply adjustment <sup>1</sup>   | -0.4 | -0.4 | -0.4 | -0.4 | -0.5 | -0.5 | -0.5 | -0.5 | 0.0  | 0.0  | 0.0   | 0.0   |
| Indonesia supply adjustment <sup>2</sup>   | 1.2  | 1.2  | 1.1  | 1.0  | 1.0  | 0.9  | 0.9  | 1.0  | 1.0  | 0.0  | 0.0   | 0.0   |
| Non-OPEC supply<br>(ex. Angola/Ecuador and inc. Indonesia for all<br>periods)                                    | 46.2 | 47.3 | 47.9 | 48.8 | 49.8 | 49.6 | 50.3 | 50.9 | 50.8 | 51.5 | 52.2  | 52.0  |
| OPEC NGLs  | 3.1  | 3.4  | 3.7  | 3.9  | 4.2  | 4.3  | 4.3  | 4.3  | 4.4  | 4.7  | 5.4   | 5.4   |
| Non-OPEC supply plus OPEC NGLs<br>(ex. Angola/Ecuador and inc. Indonesia for all<br>periods)                     | 49.3 | 50.7 | 51.6 | 52.7 | 54.0 | 53.9 | 54.6 | 55.2 | 55.2 | 56.2 | 57.6  | 57.4  |
| Call on OPEC-12 <sup>3</sup>   | 27.4 | 26.7 | 26.1 | 26.6 | 28.5 | 30.1 | 30.6 | 31.2 | 30.8 | 28.6 | 28.8  | 29.1  |
| Iraq supply adjustment <sup>4</sup>  | -2.6 | -2.4 | -2.0 | -1.3 | -2.0 | -1.8 | -1.9 | -2.1 | -2.4 | -2.4 | -2.4  | -2.5  |
| Call on OPEC-11 <sup>5</sup>   | 24.8 | 24.3 | 24.1 | 25.3 | 26.5 | 28.3 | 28.7 | 29.1 | 28.4 | 26.2 | 26.4  | 26.6  |

<sup>1</sup>Angola joined OPEC at the start of 2007, Ecuador rejoined OPEC at the end of 2007 (having previously been a member in the 1980s)

<sup>2</sup>Indonesia left OPEC as of the start of 2009

<sup>3</sup>Algeria, Angola, Ecuador, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi, U.A.E. Venezuela

<sup>4</sup>Iraq has no offical quota

<sup>5</sup>Algeria, Angola, Ecuador, Iran, Kuwait, Libya, Nigeria, Qatar, Saudi, U.A.E. Venezuela

Source: 2000 - 2008 IEA oil market reports; 2009-10 May 2010 Oil market Report

The IEA currently estimate that global oil demand for 2009 was 84.9m b/day, comprising a decline of 2.2 million barrels per day (m b/day) in the OECD and an increase of 0.9m b/day in non-OECD territories from 2008. This means that when added to declines that have already occurred in the OECD in 2007 and 2008, (1.9m b/day), the total decline in the OECD between 2007 and 2010 will have been c.4m b/day, or 8%. This makes the 2006 -2009 demand destruction more like that seen in 1974 than in 1980 and towards the less severe end of what we expected.

#### OPEC

18 months ago at its extraordinary meeting on December 17, 2008, OPEC announced a new quota target of 25.0m b/day with effect from January 1, 2009. This amounted to a 4.2m b/day cut from the actual OPEC September 11, 2008 production level of 29.2m b/day. Since then quotas have remained unchanged.

OPEC production for May 2010 has initially been reported as 27.0m b/day, up 100,000 b/day from April. If this proves to be accurate, OPEC May compliance will have been at 2.2m b/day (~52%), down from a peak of around 3.8m b/day (~90%). Iran, Nigeria, Venezuela and Angola continue to be the principal over-producers. We have seen a steady pattern for several months now of OPEC edging up production to take advantage of oil prices around the \$75-85 range. Interestingly, recent OPEC rhetoric has suggested that they are happy to turn a blind eye to this faltering compliance for as long as the oil price remains around current levels.



OPEC met on March 17, 2010 in Vienna, Austria. They kept production quotas unchanged and issued the following statement:

"The Conference reviewed recent oil market developments, in particular supply/demand projections, as well as the outlook for 2010, and noted that, while the global economy is clearly rebounding from the late 2008 and early 2009 recession, with continued positive signals coming from the manufacturing and services sectors, serious threats remain. Downside risks include: the mounting and potentially unsustainable public debt in the most advanced economies; a degrading fiscal position which might lead OECD governments to tighten fiscal and monetary policy, despite rising unemployment; weak demand; persistent global imbalances; and rising protectionism.

The Conference further noted with concern that, although world oil demand is projected to increase marginally during the year, this rise will be more than offset by the expected increase in non-OPEC supply, meaning that 2010 is likely to witness a decline in the demand for OPEC crude oil for the third consecutive year. The persistently high OECD stock levels (estimated to currently stand at 59-61 days of forward cover i.e. well above their five-year average) indicate that there has been a contra-seasonal stock build in the first quarter 2010 and the overhang in terms of forward cover is expected to continue throughout the year.

In light of the foregoing, the Conference again decided to maintain the current oil production ceiling unchanged. Member Countries reiterated their commitment to their individually agreed production allocations, thereby complying fully with the decision taken by Oran Conference in December 2008, just as they reaffirmed their readiness to swiftly respond to any developments which might place oil market stability in jeopardy."



The 12-member group will meet next on October 17, 2010 in Vienna, Austria.

OPEC apparent production vs call on OPEC 2000 – 2010 Source: Bloomberg IEA Oil Market Report (May 12 2010) WWW.GAFUNDS.COM



### Supply looking forward

The non-OPEC world is struggling to grow production. The growth was 2% per annum between 1998-2003, 1% from 2003-2008 and is forecast 0.5% from 2008-2013 and we believe that has a good chance of not being realized. 2009 turned out a better year than previous years as a number of projects (such as BP's Thunderhorse) that had been long in the making eventually came good. Even so the outturn at 0.8m b/day is only around two-thirds of the original IEA forecast for non-OPEC supply growth in 2009 of 1.1m b/day (September 2008 estimate).

For 2010, the IEA's initial forecast of 0.8m b/day of growth, which always looked optimistic to us, has now been reduced to 0.7m b/day. This will not be helped by any slowdown in Gulf of Mexico drilling in the aftermath of the recent rig explosion.

Looking further ahead we must consider the impact of potential increases in supply from Iraq, an OPEC member that has no formal quota. The questions of how big an increase is likely, in what timescale, and the reaction of other OPEC members are all important issues. Our conclusion is that while an increase in Iraqi production is likely (say, 2-3m barrels over the next 5 years) it will be surprisingly easily absorbed by a combination of OPEC adjustment, if necessary, and peaking non-OPEC supply and continuing growth in demand from developing countries of 10 -15m bbls/day over the next 10 years. Iraqi production is currently running at 2.4 m bbls/day, down from a high of 3.6m bbls/day in mid 2000.

#### Demand looking forward

We share the IEA's view that growth in non-OECD demand in 2010 is likely to be greater than the 0.9m b/day in 2009: they forecast non-OECD demand for 2010 at 40.9m b/day (up by around 1.6m b/day (+4%), driven mainly by higher consumption in China and the Middle East. We think this forecast is about right.

Turning to OECD demand, a number of commentators have focussed on the fact that 2008 and 2009 are the first two consecutive years of North American oil demand decline since the early 1980's. However, we think the global perspective is more illuminating: the 2007-9 global demand decrease of 1.6m b/day equates to less than 2%, which does not seem very big given the scale of the banking crisis and the global slowdown. And if the IEA's forecast for global oil demand in 2010 is accurate at 86.4m b/day, this year the world will consume as much oil as it ever has done (matching the 2007 peak).

#### **Conclusions about oil**

From the low of \$31.42 on December 22, 2008 we have seen the oil price (WTI) recover to above \$70 by May 2009, and range trade around \$70-85 for the past 12 months. An oil price at the top end of this range is not particularly supported by the immediate supply/demand and inventories balance, which shows that though OPEC cuts match demand destruction, inventories remain high. We have talked for a while now of an oil trading range for 2009 of \$60 to \$80; we are not surprised then by the recent fall in the oil price to around the middle of this range.



The table below illustrates our target oil price estimates against WTI oil prices, and for comparison, the rises in percentage terms that we have seen in the period from 2002 to 2009.

|                                       | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009  | 2010e | 2011e |
|---------------------------------------|------|------|------|------|------|------|------|-------|-------|-------|
| Average<br>WTI (\$)                   | 26.1 | 31.2 | 41.7 | 56.6 | 66.1 | 72.2 | 99.9 | 61.9  | 60-80 | 70-90 |
| Change <sup>+</sup><br>y-o-y<br>(\$)* | -    | 5.1  | 10.5 | 14.9 | 9.5  | 6.1  | 27.7 | -38.0 | +8.1  | +10.0 |
| Change <sup>+</sup><br>y-o-y<br>(%)   | -    | +20% | +34% | +36% | +17% | +9 % | +38% | -38.% | +13%  | +15%  |

*e* = *estimate* + *using midpoint* \*-*year-over-year* 

Source: Bloomberg, Guinness Asset Management estimates (June 2010)

#### Natural Gas Market – April 2010 Review

The US spot natural gas price (Henry Hub, Louisiana) opened May at \$3.94 per Mcf (1000 cubic feet) and traded up steadily over the month to reach a high of \$4.42 on May 18. The price then fell back over the final week to end the month at \$4.31.

The 12-month gas strip price (a simple average of settlement prices for the next 12 months' futures prices) also finished up slightly in May, rising from \$4.73 to \$5.00.



Henry Hub Gas spot price (\$/Mcf) 18 months – October 31 2008 to May 31 2010 Source: Bloomberg

Factors that strengthened the US gas price in May included:

• **Robust demand data.** Total US gas demand for the first three months of 2010 (the latest data points available) was 6% higher than the 5 year average. While unusually cold weather contributed to a spike in heating-led demand over this period, the data also points towards the likelihood of a reasonable recovery in 2010 demand versus 2009.

Energy

Factors that weakened the US gas price in May included:

• **Production growth.** Despite the low natural gas price environment, onshore natural gas production in the US continues to rise. The most recent data from the Energy Information Administration (EIA) is for March, and shows onshore gas production at a new peak of 58.0 billion cubic feet per day (Bcf/day), up 0.9 Bcf/day from the previous month. We do not believe that this growth in production can continue indefinitely with \$4 natural gas and expect to see either reduced spending by the exploration companies or an improved commodity price environment by the end of 2010.

• **Storage level.** Injections of gas into storage in May continued the trend seen in March and were higher than the historic average. The storage level at the end of May was 271 Bcf above the 5 year average.

#### Natural gas storage

Swings in the supply/demand balance for US natural gas should, in theory, show up in movements in gas storage data. The following graph shows the 12 month gas strip price (in black) against the amount of gas in storage expressed as the deviation from the 5 year storage average (in green). Swings in storage have frequently been a leading indicator to movements in the gas strip price.





**Deviation from 5yr gas storage norm vs gas price 12 month strip** Source: Bloomberg, EIA (June 2010)



The surplus of gas in the second half of 2008 can be seen in gas storage data, with the inflection point in storage occurring in July 2008 and the storage line moving from negative (i.e. deficit) to positive (i.e. surplus) territory at the end of the year. This coincided with the gas strip price falling from a peak of over \$13 in July to around \$6 by the end of the year. The surplus continued to build in the first 8 months of 2009, helping to push the gas strip price below \$5 (from February to September 2009) for the first time since 2003. We then saw a period of tightening during the 2009/10 winter (move up in green line), helped by a severe cold weather induced spike in demand. However, as we alluded to above, this trend has now reversed, as mild spring weather and stable supply has caused an inventory build and a weakening in the gas price.

We have been asserting that the moment when the storage line turns decisively will likely be a coincident indicator for the start of a sustained gas price recovery. With the rig count moving higher, production increasing, and winter demand behind us the timing of the recovery is increasingly difficult to pinpoint, but we remain confident of a move up from \$4-\$5 over the course of 2010.

#### Natural Gas Market - Outlook Supply & demand recent past

The sharp contraction in the gas price between July 2008 and November 2009 reflects the fact that supply/demand fundamentals changed materially.

The supply side fundamentals for natural gas in the US are driven by 5 main moving parts: onshore and offshore domestic production, net imports of gas from Canada, exports of gas to Mexico and imports of liquefied natural gas (LNG). In 2007 and 2008 onshore production grew at an accelerating pace as gas shales were developed using advances in horizontal drilling and "fraccing" techniques; by contrast offshore production and imports from Canada and of LNG were declining.

On the demand side, industrial gas demand and electricity gas demand, each about a third of total US gas demand, are key. Commercial and residential demand, which make up the final third, have been fairly constant on average over the last decade, although yearly fluctuations due to the coldness of winter weather can be marked. Growth in gas market share of the residential and commercial heating market has been balanced by efficiency gains.

Industrial demand tends to trend up and down depending on the strength of the economy, the level of the US dollar, and the differential between US and international gas prices. Until mid-2008, a weaker dollar, high international gas prices and a strong economy saw industrial demand recovering after declining in the first half of this decade. Not surprisingly, 2009 demand was weaker: industrial demand was 20.3 Bcf/day vs 21.8 Bcf/day for 2008. However, this demand reduction was less than we feared and was not accompanied by falls in demand elsewhere. Overall demand for 2009 was down 1-2% year-on-year (1.1 Bcf/day). Year to date (to March, which is the most recent data point), industrial demand is up 4% year on year.



Generally speaking, the majority of incremental electricity demand over the last few years has been met by gas rather than coal, nuclear or hydro power. While electricity demand has grown 1-2% per annum (pa), gas demand for electricity generation has grown by on average 5% pa (1 Bcf/day per year). The numbers for 2009 show small year-on-year growth (3-4%), and the data to March 2010 shows further growth of 0.4 Bcf/day (3%).

# **Supply Outlook**

#### Fall in Rig Count

The most important immediate short term supply driver is the sharp drop in the onshore rig count since September 2008. The rig count dropped from a peak of 1,606 gas land rigs in September 2008 to a trough of 677 rigs in August 2009. Most recently the rig count has recovered quite strongly, back to 967 at the end of May, but it is still down substantially from the peak. Onshore supply has crept up and is now 1 Bcf/day above the peak: as I mentioned earlier, we do not believe this growth in production will continue with natural gas at \$4 and expect that either capital spending by the exploration companies will be reduced, or the natural gas price will move up.



**US natural gas production 2005 – 2009 (Lower 48 States)** Source: EIA (June 2010)

### Liquid natural gas (LNG) arbitrage

The UK national balancing point (NBP) gas price, which serves as a proxy to the European traded gas price, was up 4% in dollar terms from \$5.10 to \$5.30, which left it considerably higher than the US gas price at the end of the month. US LNG imports fell slightly in May from 1.2 Bcf/day to 1.1 Bcf/day and well down on the 2.3 Bcf/day seen in January. This could be explained by the higher gas price in Europe drawing spot LNG cargoes to the UK and Europe.



#### Canadian imports into the US

In 2009 they were down approximately 9% (around 0.85 Bcf/day) versus 2008. Falling rig counts, a less attractive royalty regime enacted in 2007, and increased demand from Canadian oil sands development are all factors at work here. Interestingly, 2010 first quarter data shows Canadian imports in early 2010 have begun to pick up again, but this may turn out to be a purely seasonal effect.

#### **Demand Outlook**

Total US gas demand for 2009 was down 1.1 Bcf/day compared to 2008. This is less than the 5-6 Bcf/day we feared a year ago. January-March demand numbers show a significant jump, with total demand up 6% versus the 5 year average for these months. We know that this was largely a cold weather effect but remain confident that with post-recession industrial recovery, 2010 demand will surprise to the upside.

#### Other

### Relationship between gas price and other energy commodity prices in the US

The oil/gas price ratio (\$ per bbl WTI/\$ per mcf Henry Hub) of 17.2x at the end of May was well outside the more normal ratio of 6-9x. If oil averages, say, around \$70 in 2010, and the relationship between the oil and gas price returns to its longer-term average of 6-9x, this implies the gas price increasing back to around \$9 once the gas market has returned to balance.

The following chart of the front month US natural gas price against heating oil (No2), residual fuel oil (No5) and coal (Sandy Barge adjusted for transport and environmental costs) seeks to illustrate how coal and residual fuel oil switching provide a floor and heating oil a ceiling to the natural gas price. The gas price has now bounced off the coal price support level, both having declined steeply over the past 12 months, whereas the residual and heating oil prices are well above gas and coal.



Natural gas price (black) vs residual fuel oil (light blue) and heating oil (dark blue) and Sandy Barge (adjusted) (green) 2000 – 2010 Source: Bloomberg LP (June 2010)



#### Conclusions about US natural gas

We believe the period of extreme relative weakness in the US natural gas price to be nearing an end. Natural gas at \$4 is well below the marginal cost of supply, and as demand recovers this year and the reduced rig count holds back new supply we expect the price to make a meaningful recovery.

#### **Guinness Atkinson Global Energy Fund Performance Review**

The main index of oil and gas equities, the MSCI World Energy Index, was down 11.99% over the month of May. The S&P 500 was down 7.98% in May. The Fund was down 11.90% over the month, outperforming the MSCI World Energy Index by 0.09% (all in US dollar terms).

Within the Fund, May's stronger performers were Pioneer Natural Resources, Swift Energy, Bill Barrett, Encana and Chesapeake. Poorer performers were Helix Energy, Swift Energy, Noble Energy, Transocean and Dragon Oil.

Performance data quoted represent past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance of the Fund may be lower or higher than the performance quoted. For most recent month-end and quarter-end performance, visit www.gafunds.com/performance.asp or call (800) 915-6566.

The Fund imposes a 2% redemption fee on shares held for less than 30 days. Total returns reflect a fee waiver in effect and in the absence of this waiver, the total returns would be lower.

Performance data does not reflect the redemption fee and, if deducted, the fee would reduce the performance noted.

| Inception date<br>June 30, 2004 | Full Year<br>2008 | Full Year<br>2009 | 1 year<br>(annualized) | Last 2 years<br>(annualized) | Last 5 years<br>(annualized) | Inception to<br>end 2009<br>(annualized) | Since<br>Inception<br>(annualized) |
|---------------------------------|-------------------|-------------------|------------------------|------------------------------|------------------------------|--|------------------------------------|
| Global Energy<br>Fund           | -48.56%           | 63.27%            | 66.13%                 | -5.25%                       | 12.35%                       | 18.38%                                   | 17.70%                             |
| MSCI World<br>Energy Index      | -37.88%           | 26.98%            | 36.67%                 | -7.89%                       | 6.88%                        | 11.96%                                   | 11.2%                              |
| S&P 500 Index                   | -37.00%           | 26.47%            | 49.77%                 | -3.71%                       | 1.92%                        | 1.65%                                    | 2.51%                              |

#### Performance as of March 31, 2010

Gross expense ratio: 1.42%



| Inception date<br>June 30, 2004 | Full Year<br>2008 | Full Year<br>2009 | 1 year<br>(annualized) | Last 2 years<br>(annualized) | Last 5 years<br>(annualized) | Inception to<br>end 2009<br>(annualized) | Since<br>Inception<br>(annualized) |
|---------------------------------|-------------------|-------------------|------------------------|------------------------------|------------------------------|--|------------------------------------|
| Global Energy<br>Fund           | -48.56%           | 63.27%            | 5.68%                  | -19.25%                      | 9.80%                        | 18.44%                                   | 15.21%                             |
| MSCI World<br>Energy Index      | -37.88%           | 26.98%            | 0.52%                  | -19.69%                      | 5.29%                        | 11.93%                                   | 8.94%                              |
| S&P 500 Index                   | -37.00%           | 26.47%            | 21.05%                 | -9.70%                       | 0.31%                        | 1.65%                                    | 1.28%                              |

# Performance as of May 31, 2010

Source: Bloomberg

#### Buys/Sells

In May we sold our holding in Cenovus Energy. Cenovus, a Canadian oil sands and natural gas producer, was spun out of our holding in Encana in November 2009. In its place we purchased Bill Barrett Group, which we started to buy in April, to take this holding to a full position in the portfolio. Bill Barrett is an onshore US natural gas producer which looks particularly attractive on proven reserve and cash flow metrics.

#### Sector Breakdown

The following table shows the asset allocation of the Fund at May 31, 2010.

| (%)                          | 31 Dec<br>2006 | 31 Dec<br>2007 | 31 Dec<br>2008 | 31 Dec<br>2009 | 31 May<br>2010 | Change<br>in 2010 |
|------------------------------|----------------|----------------|----------------|----------------|----------------|-------------------|
| Oil & Gas                    | 95.4           | 103.5          | 96.4           | 96.1           | 100.1          | 4.0               |
| Integrated                   | 45.2           | 66.2           | 53.7           | 47.2           | 46.6           | -0.6              |
| Exploration and production   | 30.3           | 25.8           | 28.7           | 32.0           | 38.2           | 6.2               |
| Drilling                     | 9.9            | 8.1            | 5.2            | 8.4            | 6.8            | -1.6              |
| Equipment and services       | 3.4            | 3.4            | 6.4            | 5.4            | 4.8            | -0.6              |
| Refining and marketing       | 6.6            | 0.0            | 2.4            | 3.1            | 3.7            | 0.6               |
| Coal and consumables         | 3.3            | 2.5            | 2.3            | 0.0            | 0.0            | -                 |
| Construction and engineering | 0.0            | 0.0            | 0.4            | 0.4            | 0.3            | -0.1              |
| Cash                         | 1.3            | -6.0           | 0.9            | 3.5            | -0.4           | -3.9              |
| Total                        | 100            | 100            | 100            | 100            | 100            | -                 |

Source: Guinness Asset Management Basis: Global Industry Classification Standard (GICS)



# **Guinness Atkinson Global Energy Fund Portfolio**

The Fund at May 31, 2010 was on P/E ratios versus the S&P 500 Index at 1089.41, as set out in the table. (*Based on S&P 500 'operating' earnings per share estimates of \$49.51 for 2008, \$56.86 for 2009 and \$81.72 for 2010*). This is shown in the following table:

| At May 31, 2010               | May 31, 2010 2007 |            | 2009       | 2010       |  |
|-------------------------------|-------------------|------------|------------|------------|--|
| Fund PER                      | 7.2               | 6.6        | 14.5       | 10.6       |  |
| S&P 500 PER                   | 13.2 22.0         |            | 19.2       | 13.3       |  |
| Premium<br>(+)/Discount (-)   | -45.5%            | -70.0%     | -24.5%     | -20.3%     |  |
| Average oil price<br>(WTI) \$ | \$72.2/bbl        | \$99.9/bbl | \$61.9/bbl | \$79.0/bbl |  |

Source: Standard and Poor's; Guinness Asset Management Ltd

### **Portfolio Holdings**

Our **integrated** and similar stock exposure (c.36%) is comprised of a mix of mid-cap, mid/large-cap and large-cap stocks. Our four large caps are Royal Dutch Shell, BP, Chevron and Total. Mid/large and mid-caps are ENI, StatoilHydro, ConocoPhillips, Marathon, Hess, Repsol and OMV. At the end of May the median PER of this group was 8.5x 2010 earnings. We have one Canadian integrated hold-ing, Suncor, which merged in 2009 with PetroCanada. The company has significant exposure to oil sands and as a result stands on a relatively high PER.

Our **exploration & production** exposure (c.37%) gives us exposure most directly to rising oil and natural gas prices. We include in this category non-integrated oil sands companies, as this is the GICS approach. The stocks here with oil sands exposure are; OPTI Canada, Nexen and Canadian Natural Resources. The pure E&P stocks are all largely in the US (Anadarko, Forest, Newfield, Pioneer Natural Resources, Swift, Chesapeake and Bill Barrett) with Encana largely Canada-based, and two more (Apache and Noble) that have significant international production. One of the key metrics behind five of the E&P stocks held is low enterprise value /proven reserves (Noble, Forest, Swift, Pioneer and Bill Barrett). All of the E&P stocks held also provide exposure to North American natural gas and include three of the industry leaders (Apache, Chesapeake, Encana) and one of the more gas/ international exploration focused company (Anadarko). In PER terms, the group divides into two: (i) Apache, Chesapeake, Forest, Newfield and Swift all with quite low forward PERs (7x – 11x 2011 earnings) and (ii) Anadarko, Noble, Pioneer, Encana and Bill Barrett all with higher forward PERs (13x – 21x 2011 earnings). We use forward PERs because 2008 and 2009 earnings for this group are heavily distorted by the extreme oil and gas price volatility over this period on one hand and one off items such as reserve writedowns, refinancings and hedging on the other.

We have exposure to four (pure) **emerging market** stocks. Two are classified as integrateds by the GICS (Gazprom and PetroChina) and two as E&P companies (JKX Oil and Gas and Dragon Oil). Gazprom is the Russian national oil and gas company, which produces approximately a quarter of the European Union gas demand and trades on 4x 2010 earnings. PetroChina is one of the world's largest integrated oil and gas companies and has significant growth potential and advantages as a Chinese national champion. Dragon Oil is an oil and gas E&P focused on offshore Turkmenistan in the Caspian Sea and trades on 8x 2010 earnings. JKX is a gas focused E&P company with production in the Ukraine and trades on 6x 2010 earnings. We also hold Repsol which is classified as an emerging market integrated, although in reality it is a Spain/Argentina hybrid. It trades on 9.4x 2010 earnings.



We have useful exposure to **North American oil service** stocks. On 2008 earnings they are all trading with PERs of between 4.0 and 11.4 - Transocean (4.0x), Helix (4.5x), Unit (6.0x), Patterson UTI (5.9x), and Halliburton (11.4x). We should caution these are cyclical peak earnings. Looking forward, Helix and Transocean are on single digit PERs (2011) and Unit is on 10.6x. Halliburton, however, is on 11.7x 2011 and Patterson UTI is only just profitable. We own Halliburton because we think it is the best value of the large service companies; Patterson gives exposure to a recovery in the rig count and should appreciate substantially if it approached 2008 levels in the next few years.

Our **independent refining** exposure is currently in the US in Valero, the largest of the US refiners, which is currently trading at significant discount to book and replacement value and at a valuation level that values its 2005 – 2007 earnings on under 3x.

# Energy brief

# Portfolio at May 31, 2010

#### Guinness Atkinson Global Energy Fund 31 May 2010

|                                  |             |      |         | V      | Vtd. Av. | 2008          | 2009       | 2010         | 31/03/2010    |
|----------------------------------|-------------|------|---------|--------|----------|---------------|------------|--------------|---------------|
| Stock                            | ID_SEDO     | Curr | Country | % of   | Mkt.     | <b>B'berg</b> | B'berg     | B'berg       | Mkt. Cap. (bn |
| Stock                            | L1          | cun. | country | NAV    | Cap.     | mean PER      | mean PER   | mean PER     | USD)          |
| Integrated Oil & Car             |             |      |         |        |          |               |            |              |               |
| Boyal Dutch Shell PLC            | B09CBI 4    | FUR  | NI      | 3 4 4  | 614      | 59            | 113        | 84           | 178 5         |
| BP PI C                          | 0798059     | GBP  | GB      | 3.06   | 5.45     | 5.3           | 9.2        | 6.8          | 170.5         |
| Chevron Corp                     | 2838555     | USD  | US      | 3.59   | 5.47     | 6.5           | 14.4       | 8.5          | 152.3         |
| Total SA                         | B15C557     | EUR  | FR      | 3.34   | 4.56     | 6.1           | 10.9       | 8.4          | 136.6         |
| ENI SpA                          | 7145056     | EUR  | п       | 3.25   | 3.06     | 5.5           | 10.7       | 8.2          | 94.2          |
| Statoil ASA                      | 7133608     | NOK  | NO      | 3.26   | 2.41     | 7.1           | 12.8       | 8.8          | 73.9          |
| ConocoPhillips                   | 2685717     | USD  | US      | 3.58   | 2.79     | 4.9           | 14.3       | 8.4          | 78.1          |
| Repsol YPF SA                    | 5669354     | EUR  | ES      | 3.51   | 1.02     | 7.4           | 14.2       | 9.5          | 29.0          |
| Marathon Oil Corp                | 2910970     | USD  | US      | 3.80   | 0.85     | 4.8           | 16.9       | 9.9          | 22.4          |
| Hess Corp                        | 2023748     | USD  | US      | 3.29   | 0.67     | 7.3           | 27.8       | 10.9         | 20.5          |
| OMV AG                           | 4651459     | EUR  | AT      | 3.46   | 0.39     | 4.2           | 11.1       | 7.4          | 11.3          |
|                                  |             |      |         | 37.57  |          |               |            |              |               |
| Integrated Oil & Gas - Canada    | 0010400     |      | ~       |        |          |               |            |              |               |
| Suncor Energy Inc                | B3NB1P2     | CAD  | CA      | 3.60   | 1.83     | 10.1          | 30.4       | 20.2         | 50.8          |
| Integrated Oil & Gas - Emorgin   | a markat    |      |         |        |          |               |            |              |               |
| PetroChina Co Ltd                | 6226576     | нкр  | нк      | 3 70   | 12 10    | 11.6          | 123        | 0.8          | 3203          |
| Gazprom QAQ                      | 5140989     |      | RU      | 1 73   | 230      | 5.1           | 57         | 9.0<br>4.6   | 138.1         |
| dazpioin ono                     | 5140505     | 050  |         | 5.43   | 2.55     | 5.1           | 5.7        | 1.0          | 150.1         |
| Oil & Gas E&P                    |             |      |         | 5115   |          |               |            |              |               |
| Apache Corp                      | 2043962     | USD  | US      | 3.30   | 1.13     | 8.0           | 16.1       | 9.1          | 34.2          |
| Anadarko Petroleum Corp          | 2032380     | USD  | US      | 1.92   | 0.69     | 9.2           | nm         | 28.3         | 35.9          |
| Chesapeake Energy Corp           | 2182779     | USD  | US      | 3.69   | 0.57     | 6.3           | 9.0        | 7.4          | 15.4          |
| Noble Energy Inc                 | 2640761     | USD  | US      | 2.99   | 0.38     | 8.4           | 17.6       | 17.9         | 12.7          |
| Newfield Exploration Co          | 2635079     | USD  | US      | 3.68   | 0.25     | 16.6          | 10.2       | 11.0         | 6.9           |
| Forest Oil Corp                  | 2712121     | USD  | US      | 1.78   | 0.05     | 6.4           | 13.7       | 14.2         | 2.9           |
| Pioneer Natural Resources Co     | 2690830     | USD  | US      | 2.59   | 0.17     | 22.7          | nm         | 31.0         | 6.5           |
| Bill Barrett Corp                | B04M3T1     | USD  | US      | 3.65   | 0.05     | 12.0          | 19.3       | 16.0         | 1.4           |
| Swift Energy Co                  | 2867430     | USD  | US      | 1.96   | 0.02     | 4.0           | 136.9      | 16.8         | 1.2           |
|                                  |             |      |         | 25.57  |          |               |            |              |               |
| Oil & Gas E&P - Canada           |             |      | ~       |        |          |               |            |              |               |
| EnCana Corp                      | 2/93193     | CAD  | CA      | 1.26   | 0.30     | 5.2           | 10.4       | 20.9         | 23.4          |
| Canadian Natural Resources Ltd   | 21/15/3     | CAD  | CA      | 3.61   | 1.45     | 11.2          | 7.6        | 11.4         | 40.2          |
| OPTI Canada Inc                  | B00B307     | CAD  |         | 0.38   | 0.45     | 0.0           | 20.7       | 15.5         | 0.57          |
| Insignia Energy I td             | B3C1G52     |      |         | 0.004  | 0.00     | nm            | nm         | nm           | 0.07          |
| insignia Energy Eta              | 0505052     | CAD  | CA .    | 8.61   | 0.00     |               |            |              | 0.07          |
| Oil & Gas E&P - Emerging mark    | <b>kets</b> |      |         |        |          |               |            |              |               |
| Dragon Oil PLC                   | 0059079     | GBP  | GB      | 1.57   | 0.06     | 8.3           | 12.1       | 7.8          | 3.8           |
| JKX Oil & Gas PLC                | 0469742     | GBP  | GB      | 1.69   | 0.01     | 6.8           | 7.2        | 5.9          | 0.7           |
| Afren PLC                        | B067275     | GBP  | GB      | 0.14   | 0.00     | nm            | 112.3      | 13.1         | 1.38          |
| Coastal Energy Co                | B0L57F7     | CAD  | CA      | 0.31   | 0.00     | nm            | 21.4       | 3.4          | 0.47          |
| Falkland Oil & Gas Ltd           | B030JM1     | GBP  | GB      | 0.16   | 0.00     | nm            | nm         | nm           | 0.29          |
| WesternZagros Resources Ltd      | B28C175     | CAD  | CA      | 0.02   | 0.00     | nm            | nm         | nm           | 0.14          |
| Pantheon Resources PLC           | B125SX8     | GBP  | GB      | 0.09   | 0.00     | nm            | nm         | nm           | 0.04          |
| S                                |             |      |         | 3.99   |          |               |            |              |               |
|                                  | 001/51484/4 |      |         |        |          |               |            |              | 27.0          |
| Iransocean Ltd                   | B3KFWW1     |      |         | 0.91   | 0.25     | 4.0           | 4.8        | 6.8          | 27.8          |
| Patterson-OTT Energy Inc         | 20/203/     |      | 05      | 2.40   | 0.05     | 5.9           | nm<br>15.5 | 58./<br>12.4 | 2.1           |
|                                  | 2923033     | 030  | 03      | 6 77   | 0.07     | 0.0           | 13.3       | 12.4         | 2.0           |
| Fauinment & Services             |             |      |         | 0.77   |          |               |            |              |               |
| Halliburton Co                   | 2405302     | USD  | US      | 2.91   | 0.79     | 11.4          | 19.0       | 17.3         | 27.3          |
| Helix Energy Solutions Group Inc | 2037062     | USD  | US      | 1.75   | 0.02     | 4.5           | 18.8       | 15.0         | 1.4           |
| Shandong Molong Petroleum M      | BOOLNZ8     | HKD  | HK      | 0.10   | 0.00     | 7.2           | 13.9       | 9.0          | 0.42          |
|                                  |             |      |         | 4.76   |          |               |            |              |               |
| Oil & Gas Refining & Marketing   | 9           |      |         |        |          |               |            |              |               |
| Valero Energy Corp               | 2041364     | USD  | US      | 3.75   | 0.42     | 3.4           | nm         | 19.4         | 11.1          |
|                                  |             |      |         |        |          |               |            |              |               |
| Kentz Corp Ltd                   | B28ZGP7     | GBP  | GB      | 0.32   | 0.00     | 13.8          | 13.6       | 11.5         | 0.40          |
| Cash                             |             |      |         | 0.26   |          |               |            |              |               |
| Casil                            |             |      | Total   | -0.30  |          |               |            |              |               |
|                                  |             |      | rotar   | 100.00 |          |               |            |              |               |

The Fund's portfolio may change significantly over a short period of time; no recommendation is made for the purchase or sale of any particular stock.



### **Concluding Comments**

The fund weathered May quite reasonably, despite holding BP. May was a disappointing month both for equities generally and energy equities especially. As mentioned earlier in this report, May saw the S&P 500 down 7.98%, the MSCI World Energy Index down 11.99% with your fund down 11.90%, very much in line with this. One of the reasons for this is that our portfolio construction rules (30 equally weighted positions) limits the damage done by any one stock. For BP to lose one third of its value therefore only has a 1.1% effect, added to which we held many stocks that were completely unexposed to deepwater oil and gas production.

The broad equity markets were hit by worries about Greek, Spanish and Italian fiscal deficits overstraining the eurozone and reigniting a banking crisis. Energy equities had also to contend with the Macondo oil spill in the Gulf of Mexico. The spill had significant stock market price impacts not just on BP but on every oil and gas exploration and production company or oil service or drilling company with Gulf of Mexico or offshore drilling interest.

These corrections mean that energy equities, albeit up 13.58% (MSCI World Energy Index), have now lagged the broad market since the dark days of the beginning of 2009 (S&P500 up over the same period by 24.57%).

Our view is that the eurozone worries are overdone and that the broad market should get increasing support from recovering US housing starts and motor industry sales – both of which should recover from their current depressed levels for multiple quarters in succession. Add to this our conviction that the stock market impact of the Macondo spill on already good value energy equities is much overdone, and you may not be surprised that we see this as a classic, when there is blood on the streets, buying opportunity for energy investors. Recapping:

- The oil price is stabilizing in a \$70 -80 range
- US natural gas prices look to have bottomed and we believe are beginning to recover. From a late March bottom around \$4.50/mcf the 12 month forward strip has, as we write, jumped to \$5.22
- Energy equity valuations the fund is on 2010 and 2011 prospective PERs of 10.6X and 8.4X are well below the broad market (S&P500 on 15.5X at 1100 and \$71 eps top down consensus)
- The broad market fall looks like a bear correction in a bull recovery, not a renewed bear market. Recovering US housing starts and motor industry sales provide new global growth support, picking up any slackening in last 12 month's global growth engine - China.
- The efforts by BP to contain Macondo oil spill look to be starting to work.

In conclusion, energy equities should represent a good store of value and potential for above average returns if the oil price stabilizes around the level sought by OPEC (\$60 - \$80/ barrel) and the gas price recovers to something approaching the marginal cost of production (\$6-\$7/mcf). We believe this the most plausible scenario.



Looking at the fundamentals for oil, the strength of the recovery in oil demand continues to be impressive in the non-OECD region: the data from China on oil imports (despite a small dip) and car/ vehicle sales is very strong. In the OECD data points are also now signalling at least a bottoming of demand declines. It is remarkable to note, in fact, that if the IEA's forecast for world oil demand in 2010 up 1.6m b/day proves accurate, this year will already see a new record for oil consumption, surpassing the previous peak in 2007. On the non-OPEC supply front, the struggle to grow production continues; the initial forecast from the IEA of 0.8m b/day growth has been reduced to 0.7m, and may suffer further if drilling in the Gulf of Mexico is slowed down. On the negative side, oil inventories remain loose, and there is clearly a tension in the market between this looseness and the improving fundamentals together with trade and commodity index fund, either as a hedge against a weak dollar or rising inflation or anticipating macro improvement.

In the US natural gas market we believe our long predicted snap-back in the US natural gas price is now starting.

Overall, the Fund continues to seek to be well placed to benefit from the oil and gas price environment described above and to enable investors to benefit from the recovering picture in energy markets described above.



The Fund's holdings, industry sector weightings and geographic weightings may change at any time due to ongoing portfolio management. References to specific investments and weightings should not be construed as a recommendation by the Fund or Guinness Atkinson Asset Management, Inc. to buy or sell the securities. Current and future portfolio holdings are subject to risk.

Mutual fund investing involves risk and loss of principal is possible. The Fund invests in foreign securities which will involve greater volatility, political, economic and currency risks and differences in accounting methods. The Fund is non-diversified meaning it concentrates its assets in fewer individual holdings than a diversified fund. Therefore, the Fund is more exposed to individual stock volatility than a diversified fund. The Fund also invests in smaller companies, which involve additional risks such as limited liquidity and greater volatility.

MSCI World Energy Index is the energy sector of the MSCI World Index (an unmanaged index composed of more than 1400 stocks listed in the US, Europe, Canada, Australia, New Zealand, and the Far east) and as such can be used as a broad measurement of the performance of energy stocks. Indices do not incur expenses and are not available for investment.

The S&P 500 Index is a broad based unmanaged index of 500 stocks, which is widely recognized as representative of the equity market in general. The MSCI World Energy Index is an unmanaged index composed of more than 1,400 stocks listed on exchanges in the U.S., Europe, Canada, Australia, New Zealand and the Far East. They assume reinvestment of dividends and capital gains and exclude management fees and expenses. They are not available for investment.

Price to earnings ratio (PER) reflects the multiple of earnings at which a stock sells.

Earnings per share (EPS) is calculated by taking the total earnings divided by the number of shares outstanding.

Enterprise value is defined as the market capitalization of a company plus debt minus total cash and cash equivalents.

The Price to Earnings (P/E) Ratio is calculated by dividing current price of the stock by the company's trailing 12 months' earnings per share.

Cash flow measures the cash generating capability of a company by adding non-cash charges (e.g. depreciation) and interest expense to pretax income.

This information is authorized for use when preceded or accompanied by a prospectus for the Guinness Atkinson Global Energy Fund. The prospectus contains more complete information, including investment objectives, risks, charges and expenses related to an ongoing investment in the Fund. Please read the prospectus carefully before investing.

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#### Appendix: Oil and Gas Markets, Historical Context

For the oil market, the period since the Iraq Kuwait war (1990/91) can be divided into two distinct periods: the first 9-year period was broadly characterized by decline. The oil price steadily weakened 1991 - 1993, rallied between 1994 –1996, and then sold off sharply, to test 20 year lows in late 1998. This latter decline was partly induced by a sharp contraction in demand growth from Asia, associated with the Asian crisis, partly by a rapid recovery in Iraq exports after the UN Oil for food deal, and partly by a perceived lack of discipline at OPEC in coping with these developments.

The last 9 years, by contrast, have seen a much stronger price and upward trend. There was a very strong rally between 1999 and 2000 as OPEC implemented 4 m b/day of production cuts. It was followed by a period of weakness caused by the rollback of these cuts, coinciding with the world economic slowdown, which reduced demand growth and a recovery in Russian exports from depressed levels in the mid 90's that increased supply. OPEC responded rapidly to this during 2001 and reintroduced production cuts that stabilized the market relatively quickly by the end of 2001.

Then, in late 2002 early 2003, war in Iraq and a general strike in Venezuela caused the price to spike upward. This was quickly followed by a sharp sell-off due to the swift capture of Iraq's Southern oil fields by Allied Forces and expectation that they would win easily. Then higher prices were generated when the anticipated recovery in Iraq production was slow to materialize. This was in mid to end 2003 followed by a much more normal phase with positive factors (China demand; Venezuelan production difficulties; strong world economy) balanced against negative ones (Iraq back to 2.5 m b/day; 2Q seasonal demand weakness) with stock levels and speculative activity needing to be monitored closely. OPEC's management skills appeared likely to be the critical determinant in this environment.

*Oil price (WTI \$) last 20 years. Source: Bloomberg* 



By mid 2004 the market had become unsettled by the deteriorating security situation in Iraq and Saudi Arabia and increasingly impressed by the regular upgrades in IEA forecasts of near record world oil demand growth in 2004 caused by a triple demand shock from strong demand simultaneously from China; the developed world (esp. USA) and Asia, excluding China. Higher production by OPEC has been one response and there was for a period some worry that this, if not curbed, together with demand and supply responses to higher prices, would cause an oil price sell off. Offsetting this has been an opposite worry that non OPEC production could be within a decade of peaking; a growing view that OPEC would defend \$50 oil vigorously; upwards pressure on inventory levels from a move from JIT (just in time) to JIC (just in case); and pressure on futures markets from commodity fund investors.

Since 2005 we saw a further strong run-up in the oil price. Hurricanes Katrina and Rita that devastated New Orleans caused oil to spike up to \$70 in August 2005, and it spiked up again in July 2006 to \$78 after a three week conflict between Israel and Lebanon threatened supply from the Middle East. OPEC implemented cuts in late 2006 and early 2007 of 1.7 million barrels per day to defend \$50 oil, and with non-OPEC supply growth at best anaemic, demonstrated that it could act a price-setter in the market, at least so far as putting a floor under it.

Continued expectations of a supply crunch by the end of the decade, coupled with increased speculative activity in oil markets, contributed to the oil price surging past \$90 in the final months of 2007 and as high as \$147 by the middle of 2008. This latest spike was brought to an abrupt end by the collapse of Lehman Brothers and the financial crisis and recession that followed, all of which contributed to the oil price falling back by early 2009 to just above \$30. OPEC responded decisively and reduced output, helping the price to recover in 2009 and stabilize in the \$70-80 range where it sits today.



North American gas price last 19 years (Henry Hub \$/Mcf) Source: Bloomberg



With regard to the US natural gas market, the price traded between \$1.50 and \$3/Mcf for the period 1991 - 1999. This was followed by two significant spikes up to \$8-10/Mcf, one in late 2000 and one early in 2003. The spikes were caused by very tight supply situations because there is an underlying problem with supply in the rapid depletion of North American gas reserves. On both occasions, the price spike induced a spurt of drilling, which brought the price back down. More recently we have seen another period of very firm (over \$5/Mcf) gas prices followed by a hurricane induced spike. Since the big spike in late 2005, the gas price has traded mainly in the \$6-\$8 range, with a significant move down precipitated by the collapse of Amaranth in 2006, and most recently a new but short-lived spike in 2008 above \$10. In 2009, a very weak period below \$4 as progress achieved in 2007-8 in developing shale plays boosted supply while the 2009 recession cut demand. The response to this has been a dramatic fall in the US gas land rig count, which should lead to a rebalancing in the market by 2010. The effects of this are currently playing out.

North American gas prices are important to many E&P companies. In the short-term, they do not necessarily move in line with the oil price, as the gas market is essentially a local one. (In theory 6 Mcf of gas is equivalent to 1 barrel of oil so \$60 per barrel equals \$10/Mcf gas). It is a regional market more than a global market because LNG imports cannot rapidly respond to increased demand because of the high infrastructure spending needed to increase capacity but that is slowly becoming less true as LNG infrastructure is put in place.