GUINNESS ATKINSON FUNDS

# Energy brief

Tim Guinness

**February 2012**

**Commentary and Review by portfolio manager Tim Guinness**

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*REPORT HIGHLIGHTS*

*FUND NEWS*

*• Fund size $151 million at end of January*

*OIL*

*• WTI oil price buoyed by supply threat from Iran after US & European decisions to implement sanctions. Libyan production had a good recovery - up to 925,000 barrels per day (b/day) in January*

*NATURAL GAS*

*• Henry Hub weak - first signs of shut ins and rig count falling quite sharply. Gas production (onshore) still strong – up 7 billion cubic feet (bcf)/day year-over-year (y-o-y)*

*EQUITIES*

*• MSCI World Energy Index up 2.3% in January, compared with S&P 500 Index up 4.5%*

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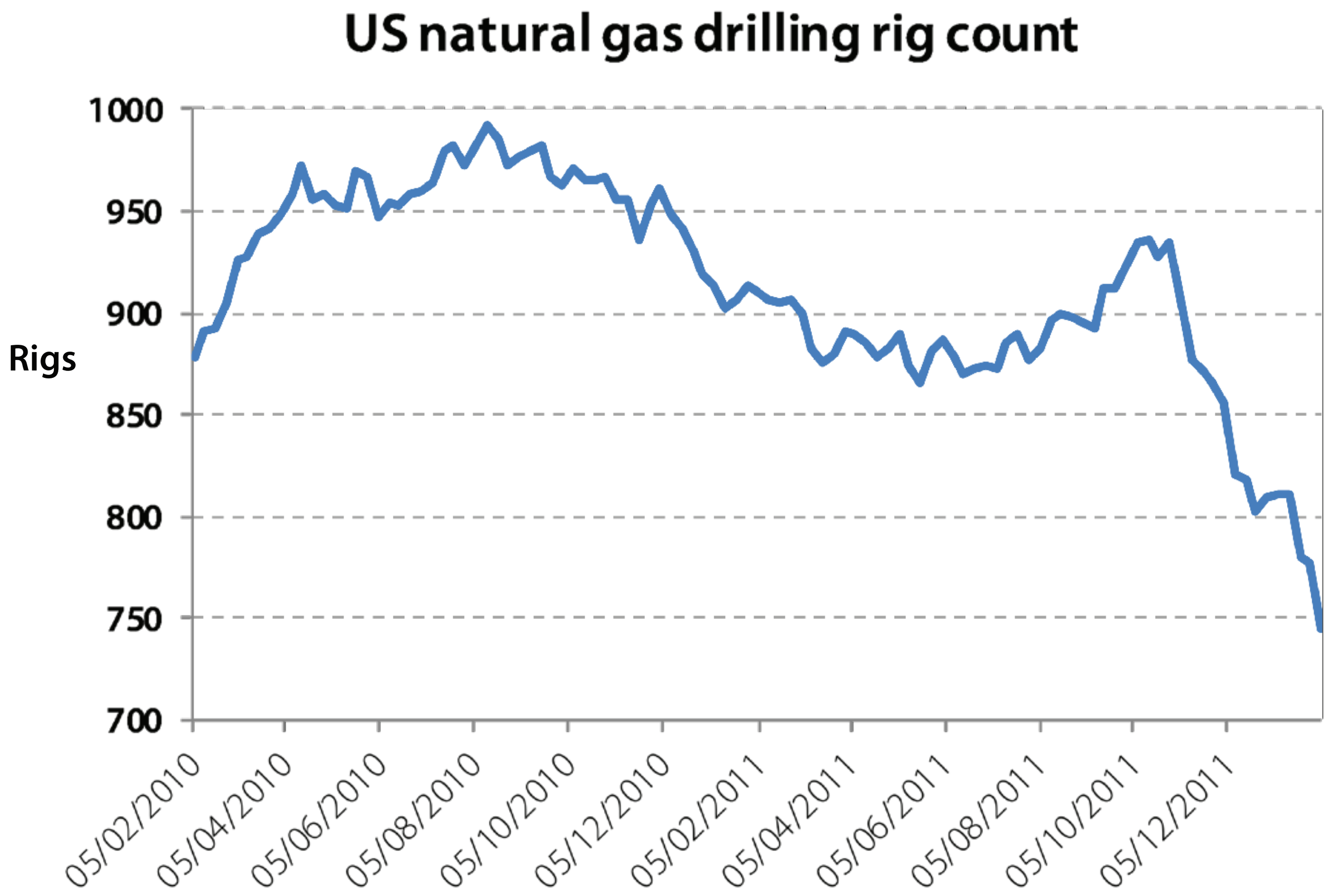
**Chart of the month:**

US natural gas drilling rig count has declined by 20% since the end of October 2011 in response to weak price. A declining rig count will help to balance the current oversupply of gas.




Source: EIA (January 2012)

## Oil Market – January 2012 Review


**Figure 1: Oil price (WTI $/barrel) 18 months July 31, 2010 to January 31, 2012**
Source: Bloomberg

The West Texas Intermediate (WTI) oil price began the year at $98.83. After a brief spike up to $103 in the first few days it fell back gradually below $100 and then traded sideways over the remainder of the month to end January at $98.48. As a reminder, WTI averaged $95.04 for the full year 2011.

January saw the gap continuing between the WTI and Brent benchmark oil prices that started at the beginning of 2011. The spread, which peaked at nearly $30 in September, has settled down at around the $10 level. Brent opened the year almost $10 higher than WTI (at $107.58) and closed the month around $12 higher (at $110.77). Brent averaged $110.98 in 2011.

Factors which strengthened the WTI oil price in January included:

- **Iranian tensions.** Relations between Iran and the West deteriorated further in January as European Union (EU) foreign ministers formally adopted an oil embargo against Iran over its nuclear program on January 23rd. 20% of Iranian oil is currently bought by the EU, with 20% bought by China, 17% by Japan and 16% by India. A decision was also taken to freeze the assets of Iran's central bank in the EU. Iran continued to threaten a blockage of the Strait of Hormuz, an event which remains unlikely but could have serious implications for the oil price in the short term.

- **Organization for Economic Co-operation and Development (OECD) inventory levels.** Despite a small increase in the reported November inventory level (the latest available data point), OECD oil stocks have now been below the five-year average for five consecutive months. At 2.65 billion barrels it is the lowest November inventory number since 2007.

- **Equity and commodity market strength.** Global markets started the year strongly. The MSCI World Index was up 5% in January, with the S&P500 Index up 4.5% and the S&P Goldman Sachs Commodity Index up 2.2%.

Factors which weakened the WTI oil price in January included:

- **Growing Libyan production.** From a low of 45,000 barrels/day in August, production from Libya has grown to 925,000 barrels/day. The pre-civil war level was 1.6million barrels/day. More recent reports from the national oil company suggest that the million barrel/day level has now been reached, with some operators aiming to be back at full production as early as April this year.
- **2012 demand forecasts lowered.** The International Energy Agency (IEA) has reduced its forecast for 2012 global oil demand by another 200,000 barrels/day. The revised number now stands at 90 million barrels/day, up from 89 million in 2011. The IEA forecast for 2012 demand as recently as July was for 91 million barrels/day.

### Speculative and investment flows

The New York Mercantile Exchange (NYMEX) net non-commercial crude oil futures open position moved higher in January. It started the year at 145,000 contracts long and moved steadily higher over the month to reach 178,000 contracts at the month end. This represents a meaningful long position and suggests that there remains considerable speculative premium in the current oil price – as we might expect, given the threat of Iranian conflict.

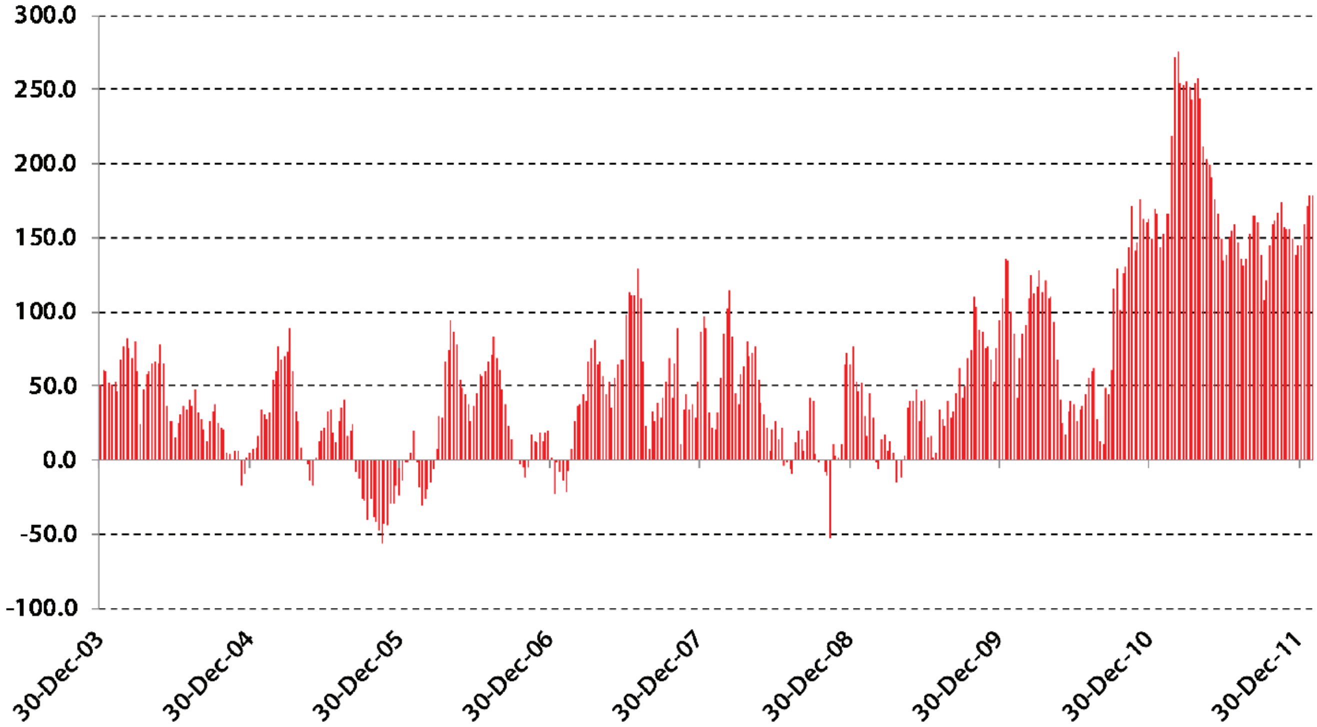



**Figure 2: NYMEX Non-commercial net futures contracts: WTI January 2004 – January 2012**
Source: Bloomberg/Nymex (February 2012)

## OECD stocks

The November 2011 OECD total crude and product number published in the January 2012 IEA Oil Market Report rose by 4 million barrels from 2,643 million barrels, giving a total stock of 2,647 million barrels. When expressed as number of days of demand cover (57.8 days), we see that we are below the November 2010 level (58.8 days) but towards the top of the tight/loose spread of 1998-2009.

Preliminary indications for the December 2011 OECD total crude and product number (also published in the January 2012 IEA Oil Market Report) suggest that total OECD inventories fell by 24 million barrels, giving a total stock of 2,623 million barrels.

What we have seen in September and October is a significant shift down in the absolute inventory level versus the 1998-2009 spread and versus the level seen in recent years, as shown in the graph below. This tightening has happened even as OPEC-12 production has increased to make up for lost Libyan production, and the IEA has released 60 million barrels of emergency reserve. Of course, OECD demand now is well below its all-time high, hence the fact that when expressed in terms of days' cover, the inventory level is still towards the top of the 10-year spread.

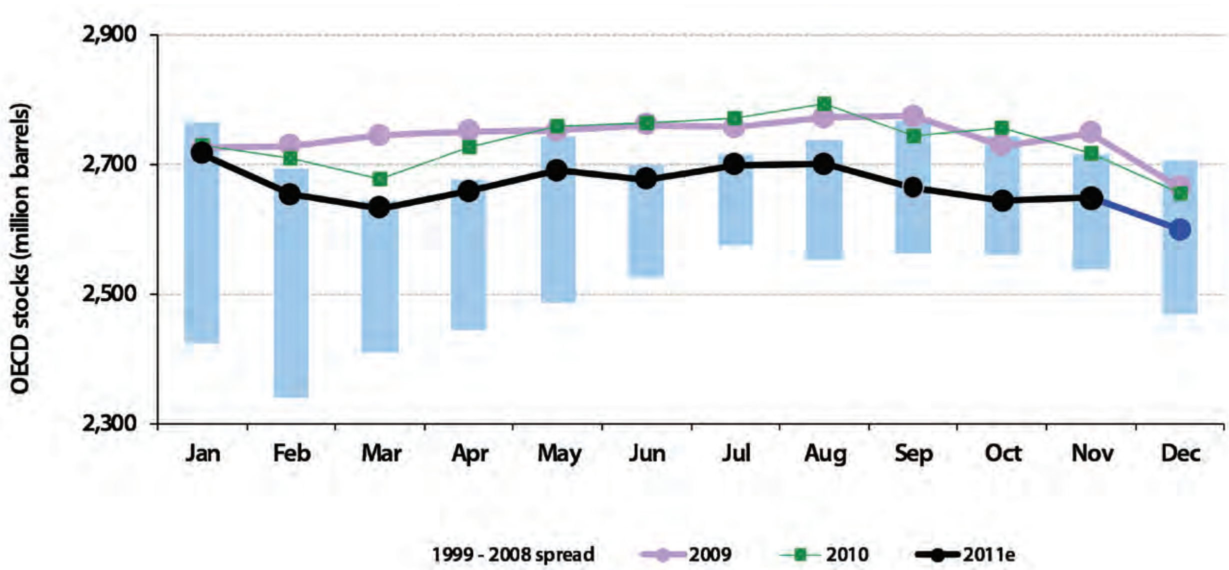



Figure 3: OECD total product and crude inventories – monthly 1998 to 2012
*Source: IEA Oil Market Report (January 2012); Guinness Atkinson Asset Management estimates*

## Oil Market – Outlook

The table below illustrates the difference between the growth in world oil demand and non-OPEC supply over the last 11 years together with the IEA forecasts for 2011 and 2012.

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010e | 2011e | 2012e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | IEA | IEA |
| World Demand | 76.7 | 77.4 | 77.7 | 79.3 | 82.5 | 84.0 | 85.2 | 87.0 | 86.5 | 85.5 | 88.2 | 89.0 | 90.0 |
| Non-OPEC supply (includes Angola and Ecuador for periods when each country was outside OPEC[1]) | 46.2 | 47.2 | 48.1 | 49.1 | 50.3 | 50.4 | 51.3 | 50.5 | 49.6 | 51.5 | 52.6 | 52.7 | 53.7 |
| Angola supply adjustment[1] | -0.8 | -0.7 | -0.9 | -0.9 | -1.0 | -1.2 | -1.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Ecuador supply adjustment[1] | -0.4 | -0.4 | -0.4 | -0.4 | -0.5 | -0.5 | -0.5 | -0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Indonesia supply adjustment[2] | 1.2 | 1.2 | 1.1 | 1.0 | 1.0 | 0.9 | 0.9 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Non-OPEC supply (ex. Angola/Ecuador and inc. Indonesia for all periods) | 46.2 | 47.3 | 47.9 | 48.8 | 49.8 | 49.6 | 50.3 | 51.0 | 50.6 | 51.5 | 52.6 | 52.7 | 53.7 |
| OPEC NGLs | 3.1 | 3.4 | 3.7 | 3.9 | 4.2 | 4.3 | 4.3 | 4.3 | 4.5 | 4.9 | 5.3 | 5.8 | 6.4 |
| Non-OPEC supply plus OPEC NGLs (ex. Angola/Ecuador and inc. Indonesia for all periods) | 49.3 | 50.7 | 51.6 | 52.7 | 54.0 | 53.9 | 54.6 | 55.3 | 55.1 | 56.4 | 57.9 | 58.5 | 60.1 |
| Call on OPEC-12[3] | 27.4 | 26.7 | 26.1 | 26.6 | 28.5 | 30.1 | 30.6 | 31.7 | 31.4 | 29.1 | 30.3 | 30.5 | 29.9 |
| Iraq supply adjustment[4] | -2.6 | -2.4 | -2.0 | -1.3 | -2.0 | -1.8 | -1.9 | -2.1 | -2.4 | -2.4 | -2.4 | -2.7 | -2.7 |
| Call on OPEC-11[5] | 24.8 | 24.3 | 24.1 | 25.3 | 26.5 | 28.3 | 28.7 | 29.6 | 29.0 | 26.7 | 27.9 | 27.8 | 27.2 |

[1]Angola joined OPEC at the start of 2007, Ecuador rejoined OPEC at the end of 2007 (having previously been a member in the 1980s)

[2]Indonesia left OPEC as of the start of 2009

[3]Algeria, Angola, Ecuador, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi, U.A.E. Venezuela

[4]Iraq has no offical quota

[5]Algeria, Angola, Ecuador, Iran, Kuwait, Libya, Nigeria, Qatar, Saudi, U.A.E. Venezuela

Source: 2000 - 2009: IEA oil market reports; 2010 - 11: 18 January 2012 Oil market Report

Global oil demand in 2011 was 2 million barrels per day (m b/day) up on the previous 2007 peak. This means the combined effect of the 2007-8 oil price spike and the 2008/09 recession was quite small and shrugged off remarkably quickly. The IEA forecast a further 1m b/day rise in demand in 2012, but the key variable driving this forecast – global GDP growth – is subject to uncertainty at present. We would not be at all surprised to see an outcome either noticeably lower or higher than this.

### OPEC

Three years 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-11 September 2008 production level of 29.2m b/day. Since then, quotas remained unchanged until the OPEC meeting on December 13, 2011, at which OPEC made the following statement:

*"In light of the foregoing and given the demand uncertainties, the Conference decided to maintain the current production level of 30.0 mb/d, including production from Libya, now and in the future. The Conference also agreed that Member Countries would, if necessary, take steps (including voluntary downward adjustments of output) to ensure market balance and reasonable price levels. In taking this decision, Member Countries confirmed their preparedness to swiftly respond to developments that might have a detrimental impact on orderly market developments. Given the ongoing worrying economic downside risks, the Conference directed the Secretariat to continue its close monitoring of developments in supply and demand, as well as non-fundamental factors, such as macro-economic sentiment and speculative activity, keeping Member Countries abreast at all times."*

The 30m barrel figure includes 2.7m for Iraq, so in effect 25.0m for OPEC -11 has been moved up to 27.3m. In some ways this number is irrelevant; members had been producing well in excess of the previous quotas, with the December production number for OPEC-11 at 28.0m b/day. Indeed, the fact that they declined to give county-by-country quotas at all suggests that the quota system is of diminishing importance. This is consistent with the view that OPEC as a group are less effective at managing the oil market and their production when the oil price is at the higher end of the range as it is now but have shown themselves to be effective at cutting production when the oil price weakens significantly – as they did three years ago, in December 2008.

The table below shows changes in production among OPEC-12 since the start of the year. If this data proves to be accurate, it suggests that the shortfall caused by the Libyan crisis has now been more than made up by the other members. Saudi production alone is up 1.4m b/day, and total OPEC-12 production is 1.72m b/day higher than December 2010. Given that OECD oil inventories have been tightening in recent months, it suggests that the higher level of OPEC production has being absorbed fairly easily so far this year.

| | 31-Dec-10 | 31-Jan-12 | Change |
|---|---|---|---|
| Saudi | 8,250 | 9,650 | 1,400 |
| Iran | 3,700 | 3,545 | -155 |
| UAE | 2,310 | 2,585 | 275 |
| Kuwait | 2,300 | 2,650 | 350 |
| Nigeria | 2,220 | 2,140 | -80 |
| Venezuela | 2,190 | 2,310 | 120 |
| Angola | 1,700 | 1,785 | 85 |
| Libya | 1,585 | 925 | -660 |
| Algeria | 1,260 | 1,270 | 10 |
| Qatar | 820 | 800 | -20 |
| Ecuador | 465 | 490 | 25 |
| OPEC-11 | 26,800 | 28,150 | 1,350 |
| Iraq | 2,385 | 2,750 | 365 |
| OPEC-12 | 29,185 | 30,900 | 1,715 |

Source: Bloomberg LP (February 2012)

Near term OPEC production levels will be influenced by the on-going situation in Libya. While there is significant uncertainty regarding the timing of a recovery in the Libya's production, we think that other members will scale back supply somewhat as Libya production rises. This may be sooner than originally thought.

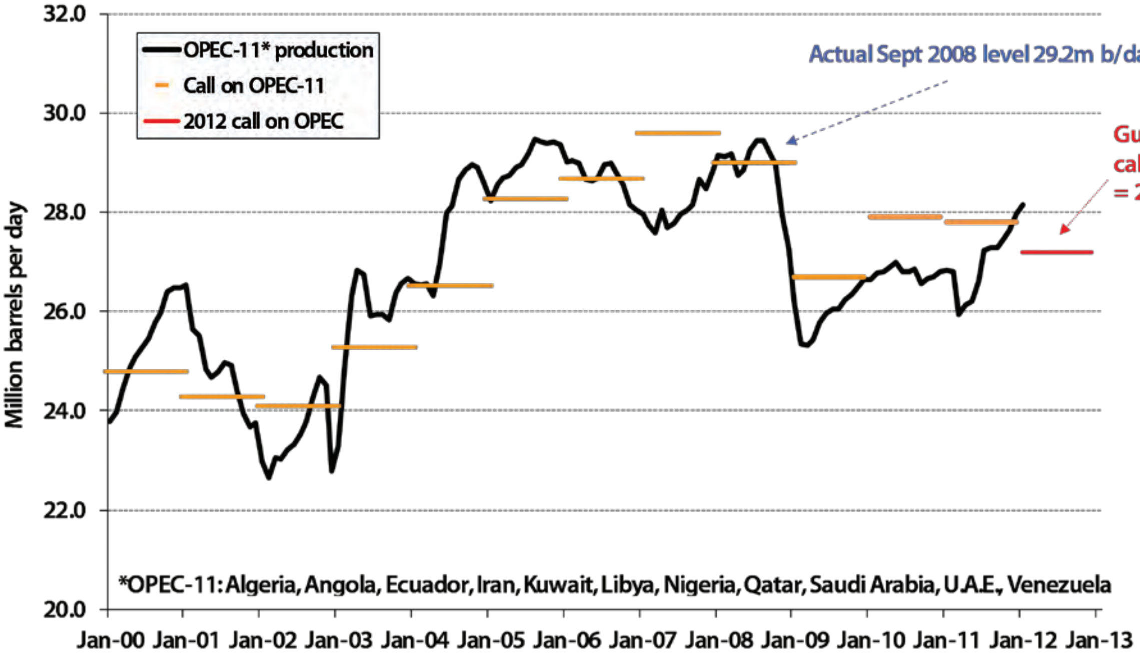



**Figure 4: OPEC apparent production vs. call on OPEC 2000 – 2012**
Source: Bloomberg/IEA Oil Market Report (January 2012)

**Supply looking forward**

The non-OPEC world is struggling to grow production meaningfully. The growth was 2% per annum between 1998-2003, 1% from 2003-2008 and is forecast to be 1.5% from 2008-2012.

Non-OPEC production growth for 2011 is currently forecast at 0.1m b/day (up by just c.0.2%), having been forecast as high as 0.8m b/day at the start of the year. Since then, supply growth in every region except North America has been revised down. In 2010 non-OPEC supply growth came in at 1.1m b/day, despite a slowdown in Gulf of Mexico drilling in the aftermath of the April 2010 rig explosion. The IEA currently forecast non-OPEC supply growth of 1m b/day in 2012, reflecting a greater pipeline of new project start-ups than 2011 and the return of various fields that have undergone heavy maintenance this year.

Looking further ahead we must consider the impact of potential increases in supply from Iraq. 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 may be possible (say, 2-3m barrels over the next 5 years), if it occurs it will be surprisingly easily absorbed by a combination of OPEC adjustment, if necessary, weak non-OPEC supply growth and continuing growth in demand from developing countries of 10-15m b/day over the next 10 years. Iraqi production is currently running at 2.75m b/day, down from a high of 3.6m b/day in mid-2000.

**Demand looking forward**

The International Energy Agency (IEA) forecast for growth in non-OECD demand in 2012 is 1.4m b/day, up from growth of 1.2m b/day in 2011 but down from 2.2m b/day in 2010. The components of this growth can be summarized as follows:

| mb/day | Demand 2009 | Demand 2010 | Demand 2011 | Demand 2012 | Growth 2010 | Growth 2011 | Growth 2012 |
|---|---|---|---|---|---|---|---|
| Asia | 18.19 | 19.46 | 20.13 | 20.90 | 1.27 | 0.67 | 0.77 |
| M. East | 7.53 | 7.81 | 7.97 | 8.26 | 0.28 | 0.16 | 0.29 |
| Lat. Am. | 5.99 | 6.30 | 6.49 | 6.67 | 0.31 | 0.19 | 0.18 |
| FSU | 4.18 | 4.47 | 4.69 | 4.74 | 0.29 | 0.22 | 0.05 |
| Africa | 3.33 | 3.39 | 3.33 | 3.48 | 0.06 | -0.06 | 0.15 |
| Europe | 0.71 | 0.68 | 0.70 | 0.71 | -0.03 | 0.02 | 0.01 |
| | 39.93 | 42.11 | 43.31 | 44.76 | 2.18 | 1.20 | 1.45 |

**Figure 5: Non-OECD oil demand**
Source: IEA Oil Market Report (January 2012)

As can be seen, the main area of decline in growth is in Asia, followed by the Former Soviet Union (FSU) and Latin America. A word on China demand growth: of the 1.45m b/day of non-OECD growth forecast for 2012, China represents 0.4m b/day (28%). As recently as 2010, growth from China (1m b/day) represented 45% of total non-OECD demand growth (2.2m b/day). The Middle East, other areas of Asia, and Latin America are all central to the developing world's industrialization and urbanization thesis and are sometimes overlooked.

As regards OECD demand in 2012, the IEA are forecasting a small decline (0.3m b/day) with North America and Europe down and the Pacific up slightly. These forecasts depend heavily on the assumption used for global GDP growth. The IEA's forecast of 1m b/day demand growth is based on global GDP growth of 3.9%. They also forecast that global GDP growth of 2.6% would leave oil demand flat year-on-year from 2011 to 2012.

### 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 $65-$85 for the subsequent 20 months. In November 2010 it moved above this range, spiking to over $110 and Brent to over $125 with the loss of Libyan production. Most recently, WTI has corrected to $90-$100 and Brent to $100-$110: these feel like sensible trading ranges for the time being, absent any significant developments in or around Iran.

The table below summarizes our view by showing our oil price forecasts for WTI and Brent against their historic levels, and rises in percentage terms that we have seen in the period from 2002 to 2010.

| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012e |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Average WTI ($) | 26.1 | 31.2 | 41.7 | 56.6 | 66.1 | 72.2 | 99.9 | 61.9 | 79 | 95 | 85 |
| Average Brent ($) | 25.1 | 28.9 | 38.5 | 54.7 | 65.5 | 73.2 | 97.1 | 62.5 | 80.8 | 111 | 95 |
| Average Brent/WTI | 25.6 | 30.1 | 40.1 | 55.7 | 65.8 | 72.7 | 98.5 | 62.2 | 79.9 | 103.0 | 90 |
| Average Brent/WTI Change y-o-y* ($) | - | 4.45 | 10.1 | 15.6 | 10.2 | 6.9 | 25.8 | -36.3 | 17.7 | 23.1 | -13 |
| WTI Change y-o-y* (%) | - | 17% | 33% | 39% | 18% | 10% | 35% | -37% | 28% | 29% | -13% |

Source: Bloomberg, Guinness Atkinson Asset Management estimates (February 2012)
*year-over-year

We think the most likely scenario going forward is that we will see the average price of Brent and WTI remain in a trading range of $80-$100 per barrel, with tightness in supply being dampened by weak economic growth in the US and Europe and any significant price weakness below $80 (average) prevented by OPEC cuts.

In the short term, with the Libya crisis resolving itself, any MENA-associated uncertainty of supply should be falling. We would be remiss, however, if we did not highlight our concern that the Syria unrest is particularly worrying. With Hezbollah and Iran backing the Alawite/Shia minority government and Saudi sources financing the arming of Sunni rebels in Syria, there is a worrying risk that Iran responds by trying to destabilize the Shia (oil producing) eastern region of Saudi Arabia. Added to which, the continuing rhetoric between Iran and the West, with the now very real threat of oil embargoes, underlines that we are only one ill-judged military move away from another oil spike.

## Natural gas storage –January 2011 in review

The US spot natural gas price (Henry Hub) opened the month at $2.98 per Mcf (1000 cubic feet) and traded down sharply over the first three weeks of the month to a low of $2.25, before recovering a small amount to $2.73 at the month end. The spot gas price averaged $4.00 in 2011, down from $4.38 in 2010 and still significantly below the average in each of the previous 5 years (2005-2009).

The 12-month gas strip price (a simple average of settlement prices for the next 12 months' futures prices) also declined over the month, falling from $3.30 to $3.14. The strip price averaged $4.35 in 2011, having averaged $4.86 in 2010 and $5.25 in 2009.


**Figure 5: Henry Hub Gas spot price ($/Mcf) 18 months – July 31, 2010 to January 31, 2012**
Source: Bloomberg (February 2012)

Factors which weakened the US gas price in January included:

- **US production growth.** The November data (latest available) from the Energy Information Agency indicated that onshore US natural gas production, at 68.1 Bcf/day, is 7.2 Bcf/day (11.8%) over the November 2010 level. The principal areas of onshore dry gas production growth over this period have been Louisiana (Haynesville shale) and Pennsylvania (Marcellus shale).

There has also been a growing contribution from associated gas production – i.e. gas produced as a by-product of oil wells.

- **Storage levels.** At the end of January, the total storage level of natural gas in the US was 550 Bcf (23%) above the 5 year average. Withdrawals of gas from storage this winter have been well below the seasonal average, driven by fundamental oversupply and warmer than average weather, which has reduced heating demand. There are concerns that the high level of gas in storage today will result in storage reaching its capacity later in the year before the end of the gas injection season.

Factors which strengthened the US gas price in January included:

- **Production shut-ins.** Two major US gas producers announced in January that they would be curtailing production in response to the very weak price. Chesapeake announced on January 20th that they would be immediately shutting in 0.5 Bcf/day of dry gas production, with the potential to shut in up to 1 Bcf/day, while ConocoPhillips later announced that they would curtail 0.1 Bcf/day of production. The combined shut-in of 0.6 Bcf/day represents around 1% of total onshore gas production. The 12 month gas strip rose by 7% following Chesapeake's announcement.

- **Falling gas drilling rig count.** The US natural gas directed rig count (reported by Baker Hughes) declined from 809 to 745 rigs during January. Since the end of October, the rig count has declined by 189 rigs (20%). The falling rig count reflects a suspension of activity in areas that are no longer economic to drill, given the highly depressed gas price. While there is a likely to be a reasonable lead time between a fall in the rig count and a fall in production, it provides a signal that US gas production growth should moderate later this year.

**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.

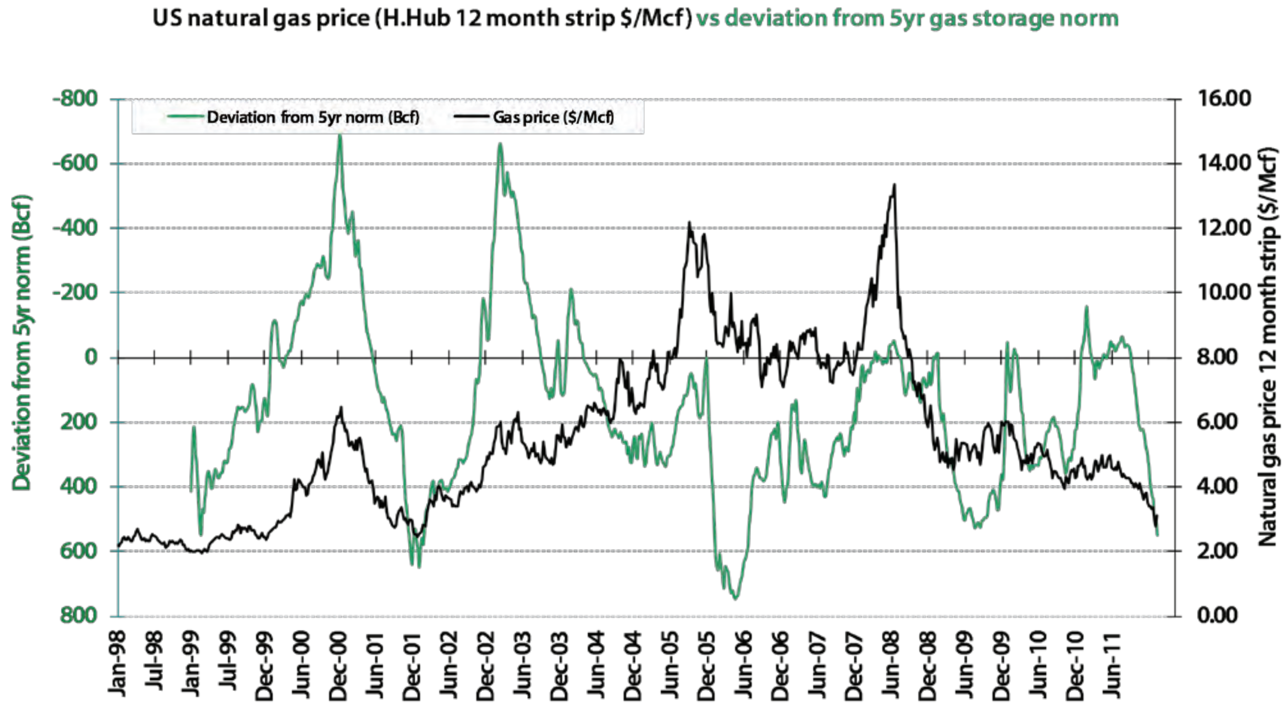



**Figure 6: Deviation from 5yr gas storage norm vs. gas price 12 month strip**
Source: Bloomberg, EIA (February 2012)

The surplus of gas in the second half of 2008 and 2009, a result of oversupply during the recession, 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 over this 18 month period. This coincided with the gas strip price falling from a peak of over $13 in July to below $5. An unusually cold 2009/10 winter boosted demand and pushed the gas storage level back into balance, only for oversupply to persist again for much of the rest of 2010. This has contributed to the gas strip remaining below $5. Over the past 12 months, a cold 2010/11 winter followed by a hot summer tightened storage again, with storage levels staying around the 5 year average for much of this period. However, most recently, milder weather conditions have coincided with an oversupply of gas into storage – a key factor in the anaemic price response we have seen since the summer.

We watch movements in gas storage closely, as it is likely to be a coincident indicator, weather adjusted, for the start of a sustained gas price recovery.

## Natural Gas Market - Outlook

**Supply & demand recent past**
The depressed gas price that has persisted in the US since the middle of 2008 reflects the fact that supply/demand fundamentals have been materially different to preceding years.

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). Of these, onshore supply is the biggest component, making up over 80% of total supply. In 2007 and 2008 onshore production grew at an accelerating pace as gas shales were developed using advances in horizontal drilling and "fraccing" techniques, offsetting declines in offshore production and imports from Canada and of LNG. Total supply fell in 2009 as onshore production declined, but it has grown again very strongly in 2010 and 2011 as horizontal drilling has accelerated once more.

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.

Industrial demand (of which around 30% comes from petrochemicals) 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. Between 2000 and 2009 industrial demand was in steady decline, falling from 22.2 Bcf/day to 16.9 Bcf/day. Since 2009 the lower gas price (particularly when compared to other global gas prices) and recovery from recession has seen demand rebound, up in 2011 to 18.6 Bcf/day.

Total gas demand is forecast for 2011 at 71.1 Bcf/day, up by 2.9 Bcf/day (4.3%) vs. 2010 and 5.8 Bcf/day (8.8%) vs. the 5 year average. The principal contributors to the increase in 2011 vs. 2010 are exports to Canada (+0.7 Bcf/day), industrial demand (+0.7 Bcf/day), power generation (+0.5 Bcf/day) and exports to Mexico (+0.5 Bcf/day).

Overall, while gas demand in the US has been reasonably strong over the past 3 years, it has been trumped over this period by a rise in onshore supply, resulting in the gas price generally remaining low.

**Supply Outlook**

*Change in Rig Count*

While the onshore drilling rig count remains an important driver of gas supply, the picture has become muddied over the past two or three years by the accelerating shift from vertical to horizontal drilling. The sharp drop in the onshore rig count since September 2008, when the rig count dropped from a peak of 1,606 gas to a range of 650 – 1,000 rigs ever since, contributed to a slowdown in the growth of onshore production but has so far failed to cause a decline. Why is this? Firstly, the composition of the rig count has changed, with a shift to more powerful 'premium' rigs, some capable of doing two or three times the work of a smaller 'conventional' rig. Hence, a lower rig count today is producing more gas than a higher rig count in 2008. Secondly, the number of oil directed land rigs has grown significantly, to 1,225 rigs at the end of January 2012, up by over 1,000 rigs since the trough for oil drilling in June 2009. While these rigs are drilling primarily for oil, they also produce an amount of associated natural gas which is contributing to the overall supply picture.

As a result, onshore supply has continued to rise and is now around 19% above the peak in 2008 before the rig count collapsed. But as we mentioned earlier, we do not believe this growing excess in production over demand can continue indefinitely with natural gas trading well below the marginal cost of supply. Either capital spending by the exploration companies will be reduced, lowering production, or natural gas demand stimulated by the low gas price will move up to rebalance the market.

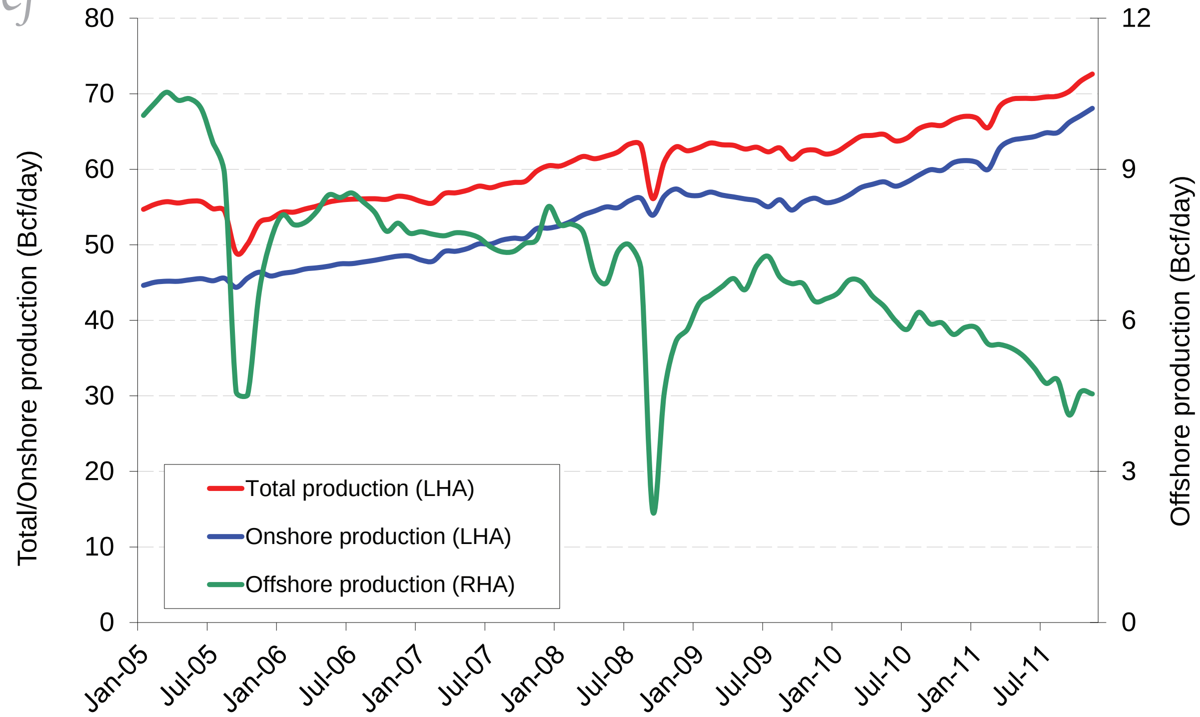



**Figure 7: US natural gas production 2005 – 2011 (Lower 48 States)**
Source: EIA (February 2012)

*Liquid natural gas (LNG) arbitrage*
The UK national balancing point (NBP) gas price – which serves as a proxy to the European traded gas price – rose in January and is still at a significant premium to the US gas price ($9.20 versus $2.73). LNG supplies to the UK have been somewhat constrained, particularly in light of strong demand for LNG to Asian markets have, helping to support the price in recent months. US LNG imports remained below 1 Bcf/day in January, as cargoes took advantage of the higher prices in Europe and Asia.

*Canadian imports into the US*
Net Canadian imports of gas into the US dropped from 9 Bcf/day in 2007 to 6 Bcf/day in 2011. This was initially driven by falling rig counts and a less attractive royalty regime enacted in 2007, and it has accelerated due increased domestic demand from Canadian oil sands development. Although the Canadian rig count has recovered somewhat, we expect net imports to continue to decline.

**Demand Outlook**

Total gas demand is forecast to have grown to an all-time high in 2011 of 71.1 Bcf/day, up by 2.9 Bcf/day (4.3%) vs. 2010. The principal contributors to the increase in 2011 vs. 2010 are exports to Canada (+0.7 Bcf/day), exports to Mexico (+0.5 Bcf/day) and industrial demand (+0.7 Bcf/day). We expect gas demand to grow in 2012 to a new all-time high, surpassing 2011, although the percentage growth is likely to be smaller than that seen in 2011.

Looking out further, the low US gas price has stimulated various initiatives that are likely to have a material impact on demand from 2015/16 onwards. The most significant is the group of LNG export terminals in the US and Canada which are in the planning stages. We can identify a pipeline of six terminals which would add nearly 11 Bcf/day to total US demand (15%), with first production in late 2015. Inevitably some will be delayed and some never built, but nevertheless, we think this will be a meaningful source of new demand. Industrial demand may also grow thanks to the construction of new petrochemical plants: Dow Chemical and Chevron Phillips have large new Gulf Coast facilities planned for 2017, the first new crackers to be built in the US since 2001.

We also believe that gas will continue to take the majority of incremental power generation growth in the US. The combined cycle gas turbine fleet (CCGT) operated in 2010 at 39% of capacity versus the coal fleet at 70% of capacity. The CCGT fleet will not reach 70% anytime soon (it is not all in the 'right place' geographically), but we do expect it to grow its market share and add several Bcf/day to gas demand over the next few years.

**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 36.1x at the end of January was well outside the more normal ratio of 6-9x. If the oil price averages around $90 in 2012 and the relationship between the oil and gas price returning to its longer-term average of 6-9x, this would imply the gas price increasing back to around $6-9 once the gas market has returned to balance.  This is quite a thought and a long way away from current market sentiment.

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 is now below the coal price support level, indicating that coal to gas switching for power generation is likely to accelerate in the short term.


**Figure 8: Natural gas price (black) vs. residual fuel oil (light blue), heating oil (dark blue) and Sandy Barge (adjusted) (green) 2000 – 2011**
Source: Bloomberg LP (February 2012)

## Guinness Atkinson Global Energy Fund Performance Review

The main index of oil and gas equities, the MSCI World Energy Index, was up by 2.34% in January. The S&P 500 was up by 4.48% over the same period. The Fund was up by 5.64% over this period, outperforming the MSCI World Energy Index by 3.30% (all in US dollar terms).

Within the Fund, January's stronger performers were Afren, JA Solar, Petrominerales, Trina Solar and Transocean. Poorer performers were Penn Virginia, Carrizo, ConocoPhillips, Patterson and Chesapeake.

### Performance as of December 31, 2011

| Inception date 6/30/04 | Full Year 2009 | Full Year 2010 | 1 year (annualized) | Last 2 years (annualized) | Last 5 years (annualized) | Inception to end 2010 (annualized) | Since Inception (annualized) |
|---|---|---|---|---|---|---|---|
| Global Energy Fund | 63.27% | 16.63% | -13.19% | 0.64% | 3.14% | 18.16% | 13.24% |
| MSCI World Energy Index | 26.98% | 12.73% | 0.76% | 6.58% | 3.28% | 12.06% | 10.45% |
| S&P 500 Index | 26.47% | 15.06% | 2.12% | 8.41% | -0.25% | 3.61% | 3.60% |

### Performance as of January 31, 2012

| Inception date 6/30/04 | Full Year 2009 | Full Year 2010 | 1 year (annualized) | Last 2 years (annualized) | Last 5 years (annualized) | Inception to end 2011 (annualized) | Since Inception (annualized) |
|---|---|---|---|---|---|---|---|
| Global Energy Fund | 63.27% | 16.63% | -14.39% | 5.81% | 4.31% | 13.24% | 14.07% |
| MSCI World Energy Index | 26.98% | 12.73% | -2.97% | 10.85% | 4.29% | 10.45% | 10.69% |
| S&P 500 Index | 26.47% | 15.06% | 4.22% | 12.81% | 0.33% | 3.60% | 3.96% |

Source: Bloomberg
Gross expense ratio: 1.25%

*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.*

### Buys/Sells

There were no buys or sells during the month.

### Sector Breakdown

The following table shows the asset allocation of the Fund at **January 31, 2012.**

| (%) | 31 Dec 2007 | 31 Dec 2008 | 31 Dec 2009 | 31 Dec 2010 | 31 Dec 2011 | 31 Jan 2012 | *Change YTD* |
|---|---|---|---|---|---|---|---|
| **Oil & Gas** | **103.5** | **96.4** | **96.1** | **93.2** | **98.5** | **97.3** | ***-1.2*** |
| Integrated | 66.2 | 53.7 | 47.2 | 41.2 | 39.6 | 38.6 | *-1.0* |
| Exploration and production | 25.8 | 28.7 | 32.0 | 36.9 | 41.5 | 41.2 | *-0.3* |
| Drilling | 8.1 | 5.2 | 8.4 | 6.3 | 6.0 | 5.6 | *-0.4* |
| Equipment and services | 3.4 | 6.4 | 5.4 | 5.3 | 6.6 | 6.7 | *0.1* |
| Refining and marketing | 0.0 | 2.4 | 3.1 | 3.5 | 4.8 | 5.2 | *0.4* |
| **Coal and consumables** | **2.5** | **2.3** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| **Solar** | **0.0** | **0.0** | **0.0** | **3.2** | **1.2** | **1.4** | **0.2** |
| **Construction and engineering** | **0.0** | **0.4** | **0.4** | **0.4** | **0.4** | **0.4** | **0.0** |
| **Cash** | **-6.0** | **0.9** | **3.5** | **3.2** | **-0.1** | **0.9** | **1.0** |
| **Total** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **0.0** |

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

### Guinness Atkinson Global Energy Fund Portfolio

The fund at January 31, 2012 was on P/E ratios versus the S&P 500 Index at 1312 as set out in the table. (Based on S&P 500 'operating' earnings per share estimates of $49.5 for 2008, $56.9 for 2009, $83.8 for 2010, $98.0 for 2011 and $105.6 for 2012). This is shown in the following table:

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|---|
| Fund PER | 8.5 | 7.6 | 16.2 | 10.6 | 9.2 | 8.3 |
| S&P 500 PER | 15.9 | 26.5 | 23.1 | 15.7 | 13.4 | 12.4 |
| Premium (+) / Discount (-) | *-47%* | *-71%* | *-30%* | *-32%* | *-31%* | *-33%* |
| Average oil price (WTI $) | $72.2/bbl | $99.9/bbl | $61.9/bbl | $79.5/bbl | $95.0/bbl | $90/bbl (est) |

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

### Portfolio Holdings

Our **integrated** and similar stock exposure (c.39%) is comprised of a mix of mid-cap, mid/large-cap and large-cap stocks. Our four large caps are BP, Chevron, Royal Dutch Shell, and Total. Mid/large and mid-caps are ENI, StatoilHydro, ConocoPhillips, Hess, and OMV. At the end of January the median PER of this group was 10.9x 2010 earnings. We have one Canadian integrated holding, Suncor, which merged in 2009 with PetroCanada. The company has significant exposure to oil sands and as a result stands on a relatively high 2010 PER but more attractive 2011 PER of 9.7x.

Our **exploration & production** exposure (c.41%) 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 Nexen and Canadian Natural Resources. The pure E&P stocks are all largely in the US (Marathon Oil, Forest, Newfield, Devon, Chesapeake, Carrizo, Penn Virginia) and two more (Apache and Noble) which 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, Penn Virginia). All of the E&P stocks held also provide exposure to North American natural gas and include two of the industry leaders (Devon and Chesapeake). In PER terms, the group divides roughly into two: (i) Marathon Oil, Apache, Chesapeake, Devon and Newfield all with quite low forward PERs (8x – 11x 2011 earnings) and (ii) Noble, Forest, Carrizo, and Penn Virginia with higher forward PERs (12x - 24x 2011 earnings, respectively). However, all look reasonably attractive on forward EV/EBITDA multiples.

We have exposure to eight (pure) **emerging market** stocks, , though all but one are half-units in the portfolio. Two are classified as integrateds by the GICS (Gazprom and PetroChina) and six as E&P companies (JKX Oil and Gas, Dragon Oil, Afren, Coastal, Petrominerales and Soco International). Gazprom is the Russian national oil and gas company which produces approximately a quarter of the European Union gas demand and trades on 4.5x 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 6.1x 2011 earnings. JKX is a gas focused E&P company with production in the Ukraine and also trades on 6.1x 2011 earnings. Afren focuses on offshore West African production and trades on 11.5x 2011 earnings (falling to 5.5x 2012 earnings). Soco International is an E&P company with production in Vietnam and exploration interests across East Africa in Angola, Democratic Republic of Congo and the Republic of Congo. Petrominerales is a Colombia-focuses E&P trading on 5.8x 2011 earnings.

We have useful exposure to **oil service** stocks. The stocks we own are split between those which focus their activities in North America (land drillers Patterson and Unit on 8.8x and 11.1x 2011 earnings) and those which operate in the US and internationally (Helix, Transocean and Halliburton on 11.0x, 33.3x and 11.1x 2011 earnings).

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 Marathon Petroleum Corporation, the refinery business spun out of Marathon at the start of July 2011. Marathon Petroleum has an attractive embedded midstream business which is likely to be spun off in 2012.

Our **alternative energy** exposure is currently a single unit split equally between two companies; JA Solar and Trina Solar. Both were loss making in 2011 due to dramatic falls in solar prices during the year. Trina is a Chinese solar module manufacturer and JA Solar is a Chinese solar cell manufacturer. Some measure of their recovery potential may be indicated by their 2010 PERs of 2.4x and 1.2x respectively.

Portfolio at January 31, 2012

| Guinness Atkinson Global Energy Fund 31 January 2012 | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Stock | Curr. | Country | % of NAV | 2006 B'berg mean PER | 2007 B'berg mean PER | 2008 B'berg mean PER | 2009 B'berg mean PER | 2010 B'berg mean PER | 2011 B'berg mean PER | 2012 B'berg mean PER | 2013 B'berg mean PER | 31/12/2011 Mkt. Cap. (bn USD) |
| Integrated Oil & Gas | | | | | | | | | | | | |
| Chevron Corp | USD | US | 3.1 | 13.2 | 11.7 | 9.1 | 20.1 | 11.1 | 7.7 | 8.1 | 7.7 | 211.9 |
| Royal Dutch Shell PLC | EUR | NL | 3.1 | 9.0 | 7.1 | 8.2 | 15.9 | 11.6 | 8.6 | 7.9 | 7.5 | 236.5 |
| BP PLC | GBP | GB | 3.4 | 6.8 | 6.8 | 5.5 | 9.6 | 6.6 | 6.6 | 6.5 | 6.3 | 135.5 |
| Total SA | EUR | FR | 3.3 | 7.4 | 7.5 | 6.5 | 11.6 | 8.7 | 7.8 | 7.5 | 7.1 | 121.0 |
| ConocoPhillips | USD | US | 3.1 | 6.9 | 7.0 | 6.4 | 18.9 | 11.5 | 8.0 | 8.2 | 7.7 | 96.8 |
| ENI SpA | EUR | IT | 3.5 | 6.0 | 6.5 | 6.0 | 11.9 | 9.0 | 8.4 | 7.6 | 6.9 | 83.1 |
| Statoil ASA | NOK | NO | 3.2 | 7.8 | 10.7 | 8.0 | 14.6 | 11.0 | 9.4 | 8.4 | 7.9 | 81.9 |
| Hess Corp | USD | US | 3.1 | 10.2 | 9.4 | 7.7 | 29.4 | 10.9 | 9.4 | 8.6 | 6.9 | 19.3 |
| OMV AG | EUR | AT | 3.4 | 4.9 | 4.8 | 3.9 | 10.1 | 6.3 | 7.5 | 6.2 | 5.4 | 9.9 |
| Suncor Energy Inc | CAD | CA | 3.7 | 14.0 | 14.5 | 10.8 | 32.7 | 21.8 | 9.7 | 10.2 | 8.9 | 45.5 |
| | | | 33.0 | | | | | | | | | |
| Integrated Oil & Gas - Emerging market | | | | | | | | | | | | |
| PetroChina Co Ltd | HKD | HK | 3.7 | 11.7 | 11.4 | 14.6 | 15.5 | 12.5 | 12.1 | 10.5 | 9.6 | 276.4 |
| Gazprom OAO | USD | RU | 1.9 | 6.8 | 6.6 | 5.8 | 6.4 | 4.9 | 3.2 | 3.6 | 3.9 | 126.2 |
| | | | 5.6 | | | | | | | | | |
| Oil & Gas E&P | | | | | | | | | | | | |
| Apache Corp | USD | US | 3.4 | 13.5 | 11.4 | 8.8 | 17.8 | 10.7 | 8.4 | 8.1 | 7.0 | 34.8 |
| Marathon Oil Corp | USD | US | 3.4 | 4.8 | 5.8 | 4.9 | 17.1 | 9.0 | 8.4 | 8.6 | 6.9 | 20.6 |
| Devon Energy Corp | USD | US | 3.2 | 10.1 | 9.2 | 6.4 | 17.7 | 10.7 | 10.3 | 9.9 | 8.2 | 25.0 |
| Chesapeake Energy Corp | USD | US | 2.9 | 5.9 | 6.6 | 6.0 | 8.5 | 7.2 | 7.5 | 10.1 | 6.1 | 14.7 |
| Noble Energy Inc | USD | US | 3.4 | 26.6 | 18.5 | 14.3 | 29.8 | 24.4 | 19.3 | 14.9 | 11.6 | 16.7 |
| Newfield Exploration Co | USD | US | 3.2 | 10.8 | 11.7 | 12.0 | 7.4 | 8.2 | 9.2 | 8.3 | 6.9 | 5.1 |
| Forest Oil Corp | USD | US | 1.6 | 5.0 | 5.3 | 3.1 | 6.7 | 7.7 | 12.0 | 12.1 | 9.0 | 1.5 |
| Carrizo Oil & Gas Inc | USD | US | 1.4 | 34.2 | 34.7 | 13.5 | 16.5 | 19.1 | 23.6 | 8.2 | 4.4 | 1.0 |
| Penn Virginia Corp | USD | US | 0.7 | 2.6 | 2.5 | 1.8 | nm | nm | nm | nm | nm | 0.2 |
| Bayfield Energy Holdings PLC | GBP | GB | 0.3 | nm | nm | nm | nm | nm | nm | 5.9 | 2.5 | 0.22 |
| Ithaca Energy Inc | CAD | CA | 0.5 | nm | nm | nm | nm | 15.8 | 15.4 | 6.9 | 4.6 | 0.55 |
| Triangle Petroleum Corp | USD | US | 0.4 | nm | nm | nm | nm | nm | nm | nm | 28.3 | 0.26 |
| Lone Pine Resources Inc | USD | GB | 0.4 | nm | nm | nm | nm | nm | 13.7 | 7.9 | 5.2 | 0.60 |
| | | | 24.9 | | | | | | | | | |
| Oil & Gas E&P - Canada | | | | | | | | | | | | |
| Canadian Natural Resources Ltd | CAD | CA | 3.4 | 27.2 | 18.8 | 12.2 | 16.5 | 16.4 | 17.5 | 11.5 | 9.5 | 41.1 |
| Nexen Inc | CAD | CA | 3.6 | 11.0 | 6.3 | 4.7 | 16.2 | 10.7 | 10.6 | 8.0 | 6.2 | 8.4 |
| | | | 7.0 | | | | | | | | | |
| Oil & Gas E&P - Emerging markets | | | | | | | | | | | | |
| Dragon Oil PLC | GBP | GB | 1.7 | 23.2 | 13.8 | 11.5 | 16.6 | 12.1 | 6.7 | 6.1 | 6.1 | 3.6 |
| Coastal Energy Co | CAD | CA | 0.9 | nm | nm | nm | 110.3 | 46.0 | 26.5 | 7.7 | 8.2 | 1.7 |
| Petrominerales Ltd | CAD | CA | 2.1 | 122.8 | 42.6 | 16.3 | 21.4 | 8.5 | 5.8 | 5.9 | 5.6 | 1.6 |
| Afren PLC | GBP | GB | 2.0 | nm | nm | nm | 159.4 | 29.9 | 11.5 | 5.5 | 5.5 | 1.4 |
| Soco International PLC | GBP | GB | 1.6 | 43.8 | 40.3 | 43.4 | 27.0 | 28.2 | 19.8 | 5.9 | 6.2 | 1.5 |
| JKX Oil & Gas PLC | GBP | GB | 0.8 | 4.5 | 3.5 | 4.4 | 4.7 | 5.2 | 6.0 | 4.2 | 4.3 | 0.4 |
| WesternZagros Resources Ltd | CAD | CA | 0.2 | nm | nm | nm | nm | nm | nm | 14.3 | 12.0 | 0.24 |
| Pantheon Resources PLC | GBP | GB | 0.0 | nm | nm | nm | nm | nm | nm | nm | nm | 0.02 |
| | | | 9.3 | | | | | | | | | |
| Drilling | | | | | | | | | | | | |
| Transocean Ltd/Switzerland | USD | US | 0.5 | 16.1 | 4.4 | 3.3 | 4.0 | 7.9 | 33.3 | 15.8 | 10.2 | 14.0 |
| Patterson-UTI Energy Inc | USD | US | 2.0 | 4.7 | 7.4 | 8.0 | nm | 27.9 | 8.8 | 7.4 | 6.9 | 3.1 |
| Unit Corp | USD | US | 3.1 | 6.7 | 7.9 | 6.7 | 17.2 | 14.9 | 11.1 | 9.7 | 8.8 | 2.2 |
| | | | 5.6 | | | | | | | | | |
| Equipment & Services | | | | | | | | | | | | |
| Halliburton Co | USD | US | 3.6 | 16.8 | 14.5 | 16.9 | 28.1 | 18.3 | 11.0 | 9.3 | 8.0 | 31.8 |
| Helix Energy Solutions Group Inc | USD | US | 3.0 | 5.8 | 4.9 | 6.7 | 28.4 | 31.2 | 11.1 | 10.2 | 8.9 | 1.7 |
| Shandong Molong Petroleum Machinery Co Ltd | HKD | HK | 0.0 | 8.8 | 6.1 | 4.1 | 11.2 | 4.4 | 6.1 | 3.6 | 3.0 | 0.50 |
| | | | 6.7 | | | | | | | | | |
| Solar | | | | | | | | | | | | |
| Trina Solar Ltd | USD | US | 0.8 | nm | 11.1 | 6.6 | 4.9 | 2.4 | 160.8 | nm | 10.6 | 0.5 |
| JA Solar Holdings Co Ltd | USD | US | 0.6 | 10.3 | 27.8 | 41.1 | nm | 1.2 | nm | nm | 11.1 | 0.2 |
| | | | 1.4 | | | | | | | | | |
| Oil & Gas Refining & Marketing | | | | | | | | | | | | |
| Marathon Petroleum Corp | USD | US | 1.5 | nm | nm | nm | nm | 21.5 | 5.6 | 7.6 | 6.9 | 11.9 |
| Valero Energy Corp | USD | US | 3.7 | 2.9 | 3.1 | 4.4 | nm | 15.1 | 6.0 | 6.7 | 5.9 | 11.8 |
| | | | 5.2 | | | | | | | | | |
| Construction & Engineering | | | | | | | | | | | | |
| Kentz Corp Ltd | GBP | GB | 0.4 | nm | 27.6 | 28.0 | 27.5 | 19.0 | 14.4 | 13.1 | 10.8 | 0.76 |
| | | | | | | | | | | | | |
| | | Cash | 0.9 | | | | | | | | | |
| | | Total | 100.0 | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | P/E | 8.7 | 8.5 | 7.6 | 16.2 | 10.6 | 9.2 | 8.3 | 7.1 | |
| | | | Med. PER | 9.0 | 7.9 | 6.7 | 16.5 | 11.0 | 9.4 | 8.1 | 6.9 | |

Research holding

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

In January the energy world continued to be dominated by three big themes: Middle East and North Africa (MENA) unrest, shale gas over-production and the Eurozone crisis.

MENA unrest strands included rising fears of some kind of disruption to oil flows through the Straits of Hormuz as tightening UN sanctions elicited heightened rhetoric from Iran; continuing demonstrations in Egypt over a slow democratisation progress; Syrian unrest involving Iran and Saudi in proxy conflict; and fears of Israeli action to try and halt Iran's nuclear program. All of this supported a WTI oil price around $100/bbl.

In the US high amounts of natural gas in storage after a warm late autumn, caused as much by strong shale gas production growth as by the weather, weakened the US natural gas price, taking it below $3/mcf.

The Eurozone crisis continued – for how many months have we repeated this refrain! - although investors seemed to be becoming increasingly inured by the issue and accepting of the thesis that (i) it will roll on for many months and (ii) that European politicians and Eurocrats will in the end hold most of it together (but perhaps shedding Greece and Portugal) whatever the short term cost to their economies. Mario Draghi's assumption of the helm at the European Central Bank (ECB) and extension of a European style of Quantitative Easing (QE) to its banking system has provided good short term relief to the stressed European interbank and sovereign debt markets.

World stock markets meanwhile started 2012 with a little bit of a flourish. The S&P500, European and Far Eastern markets were all up over the month.

The possibility continues of a renewed spike in the oil price from here, but absent a new flare-up in the Middle East, the slowing Eurozone economy and recovering Libyan supply should ease current tightness in the market.

Assuming a 'no big spike' scenario and that the WTI and Brent oil price falls back and converges on $90, we expect the demand dampening effect seen in early summer 2011 not to be repeated.

On the non-OPEC supply front, the struggle to grow production continues unchanged. The very low growth in 2011 of 0.1m b/day is followed (per the IEA) with a recovery to 1.0m b/day in 2012. 2011's weak growth reflects inter alia a weak project pipeline with, as summarised last month, lower production in the North Sea (-290k b/day), Indonesia (-60k b/day), Malaysia (-90k b/day), Yemen (-100k b/day), Syria (-60k b/day), FSU (-60k b/day), global biofuels (-10k b/day) and others (net -50k b/day) totalling -720k b/day. These declines nearly offset growth in US/Canada (380k b/day), Latin America (120k b/day), Russia (130k b/day), processing gains (70k b/day), China (80k b/day) which total 780k b/day.

Another price supportive feature is the level of December OECD oil inventories. They are back at the 2000-2007 average and continue to stand at no more than eighth highest level of the twelve last years despite OECD strategic reserves release last summer.

In our view, absent an Iran/MENA crisis, the rate of recovery in Libyan production and rate of Saudi, Kuwait and United Arab Emirates (UAE) supply reduction in response have moved to center stage and will likely drive the evolution of inventories and oil prices over the next 9 months more than the changing picture in global demand or non OPEC supply.

In the US natural gas market, bearish sentiment prevails. Gas in storage is as high as it has ever been at this time of year. Our view that the current sub $4/mcf gas prices cannot persist continues to be tested. We continue to point to the extreme levels of divergence from traditional oil per barrel /gas per mcf and coal per tonne /gas per mcf ratios – these used to be in the 6 – 10x range now both are over 25x, as well as to gas prices in Europe and Asia which are 100% and 200% higher than in North America. Extreme ratios rarely last.

Our belief is that supply growth will eventually be constrained by economics of dry gas production, leading to a cut in dry gas drilling activity. The high marginal cost of the marginal shale mcf will lead to falling gas production from existing fields and compensate for the extra supply coming from hold-by-drilling activity and production of what is effectively "associated" gas in liquids rich shale beds and from new shale oil fields. However, when this will occur is the big question. A rebalancing of the gas market by oil and gas companies pulling back from over-drilling gas leases is necessary and is regularly being put off. Over the past 12 months the cold winter, warm summer, dropping imports from Canada and via LNG, rising exports to Mexico and falling Gulf of Mexico production contributed to that by preventing gas in storage from ballooning. Our working assumption for 2011 was that gas would recover to $5-6/Mcf by late 2011. That was clearly wrong and we do not see this occurring until probably 2013. The catalyst will likely be a large enough pull back in the rig count from the current level of around 2,000. If the gas rig count fell to 500-600 with the drop spread between horizontal and vertical drilling rigs pro rata to current split and the oil rig count held steady, that should do it.

The scenario of higher average oil price (WTI) in 2012 than in 2010 means the odds are good that energy equity earnings in 2012 will exhibit useful growth on 2010, albeit lower than 2011 .

Energy equity valuations (the fund is on 2010 PER of 10.6x at January 31, 2012 (2011 PER 9.2x) are well below the broad market (S&P500 15.7x/13.4x at 1,312 with $83.8 eps/$98.0 eps for 2010/2011 respectively).

The super-majors, to our way of thinking, are not expensive and non-majors have become increasingly good value thanks to 2H 2011 corrections. All this of course assumes the oil price stabilizes around the level now sought by OPEC (say WTI $85/ barrel vs. $79 2010 actual; $95 2011) and the gas price in due course recovers.

Energy equities are also one of the better inflation hedges. If we see dollar inflation of 30/50% over the next decade it will be surprising if oil and gas prices do not rise by a comparable percentage over that time frame.

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 developing picture in energy markets described above.

**Tim Guinness**
Chairman & Chief Investment Officer

**Will Riley, Ian Mortimer & Tom Nelson**
Fund Investment Team

Commentary for our views on Alternative Energy and Asia markets is available on our website. Please click here to view.

**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.

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.

S&P Goldman Sachs Commodity Index (GSCI) is a composite index of commodity sector returns which represents a broadly diversified, unleveraged, long-only position in commodity futures.

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.

Book Value is the net asset value of a company, calculated by subtracting total liabilities from total assets.

Enterprise value (EV) 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.

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

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## Appendix: Oil and Gas Markets, Historical Context

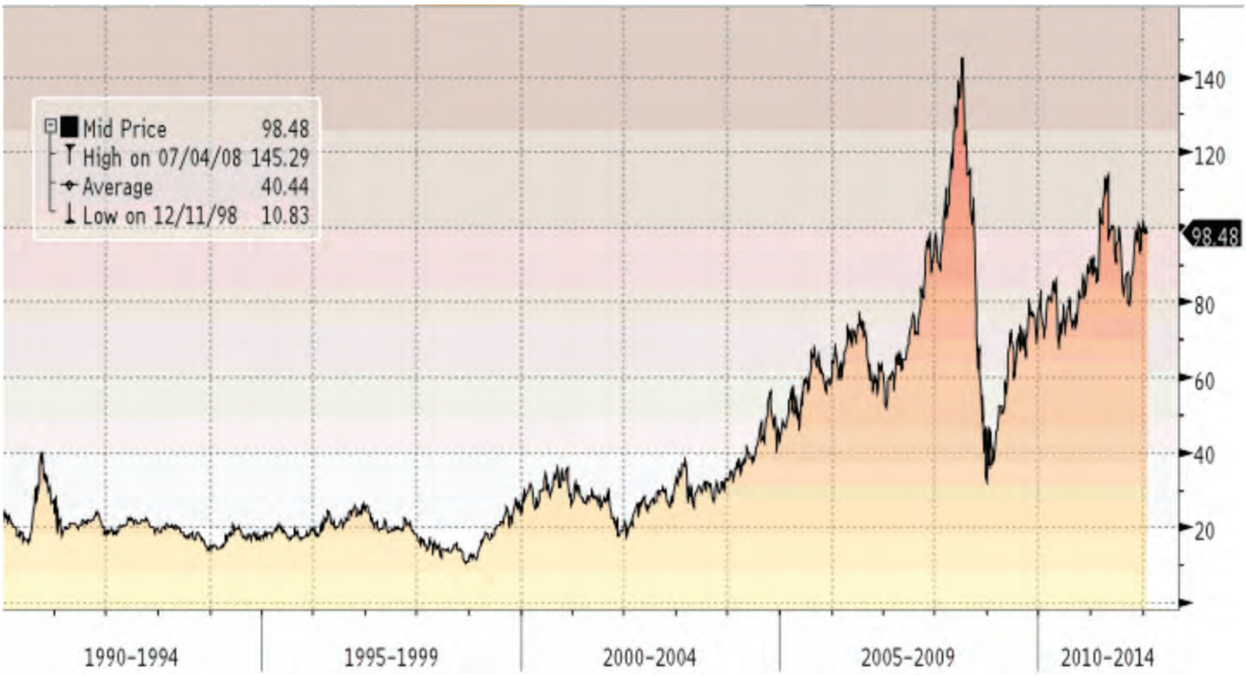


**Figure 9: Oil Price (WTI $) last 21 years.**
Source: Bloomberg

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.

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 as 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.

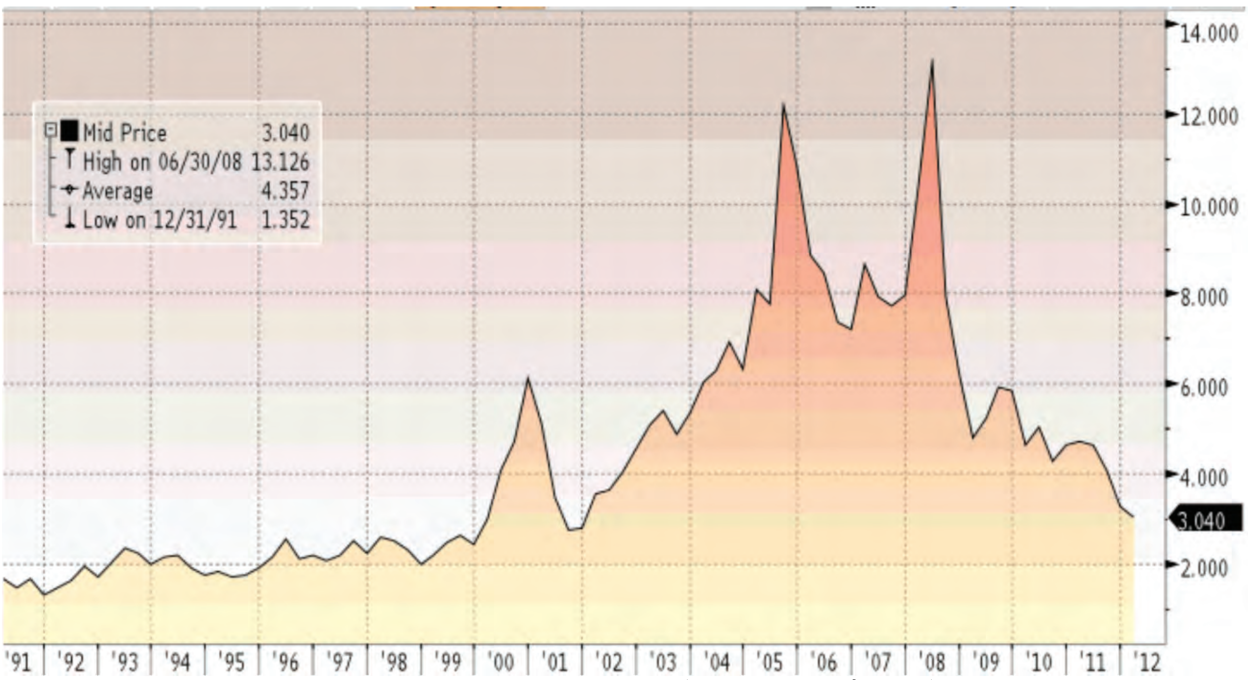


**Figure 10: North American gas price last 20 years (Henry Hub $/Mcf)**
Source: Bloomberg

With regard to the U.S. 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 U.S. 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.