

**Bord Gáis Energy Index**

# UNDERSTANDING ENERGY

April 2013

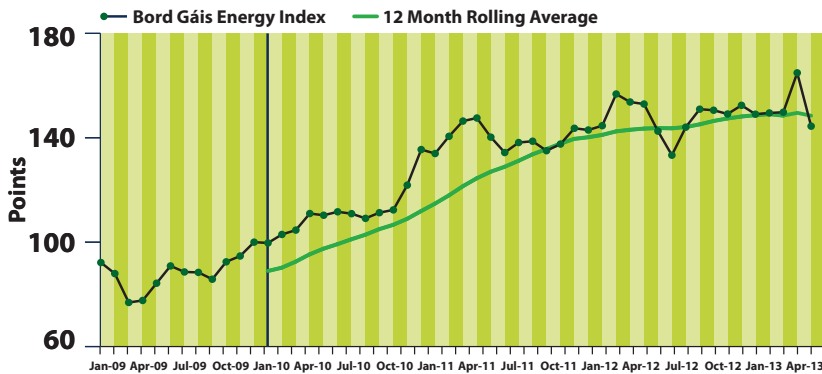


*think beyond*



# ENERGY INDEX FALLS AS WHOLESALE GAS PRICES EASE IN APRIL FROM RECORD HIGHS THE PREVIOUS MONTH

## Bord Gáis Energy Index (Dec 31st 2009 = 100)



1 Mth **-12%**    3 Mth **-3%**    12 Mth **-6%**

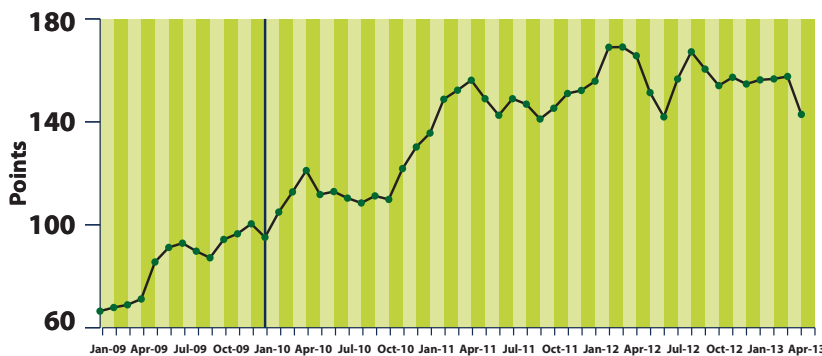
level was July 2012. Eroding oil demand in Europe, the restoration of North Sea output and diminished concern that political tension in the Middle East will disrupt the region's oil exports weighed on Brent crude prices. It remains to be seen whether global oil prices are at an inflection point or whether they will stabilise at or around USD\$100. The USD\$100 level appears to be an acceptable price for OPEC members at which they are willing to produce oil in current quantities. However, the shale oil revolution in North America is starting to change the global energy landscape and challenge the dominance and influence of OPEC producing countries. In the short term, markets will await further evidence of a global economic recovery and continue to closely monitor lurking geopolitical uncertainties to gauge whether they are willing to support or abandon oil as a means of generating a return. In a world with few investment options, equities and commodities such as oil are receiving support from yield hungry investors. However, as the dynamics of the globe's oil supply and demand evolve in the context of an uncertain economic recovery and the shale oil revolution, oil prices remain volatile and prone to swift shifts in sentiment.

## Summary:

Falling wholesale UK prompt gas prices was the dominant driver behind a record month-on-month drop in the Bord Gáis Energy Index in April. During April, the UK gas market shed much of the risk premium which had dominated the market in March amid rising gas supplies and lower demand. This meant that month-on-month, UK wholesale Day-ahead gas prices and Irish wholesale electricity prices eased back to more normal levels. However, in a historical context, these wholesale prices remain high. As UK priced gas fuels much of the electricity produced in Ireland, wholesale Irish electricity prices benefited from lower UK gas prices. Weaker Brent crude prices also contributed significantly to the month-on-month drop.

In April Brent crude prices hit their lowest levels this year and at times traded under the key USD\$100 level. The last time Brent crude traded below this

## Oil Index



\*Index adjusted for currency movements. Data Source: ICE

1 Mth **-9%**    3 Mth **-9%**    12 Mth **-14%**

Brent, Forties, Oseberg and Ekofisk crudes, which make up the Brent benchmark. Amid increasing supply, oil consumption in the most developed European economies is forecast to drop to 13.4 million barrels a day this year, the lowest since 1985 according to the International Energy Agency. According to Goldman Sachs, a growing overhang in European refinery capacity and strong competition for refined exports from US refineries and petrochemical producers is eroding European oil demand along with deteriorating economic activity.

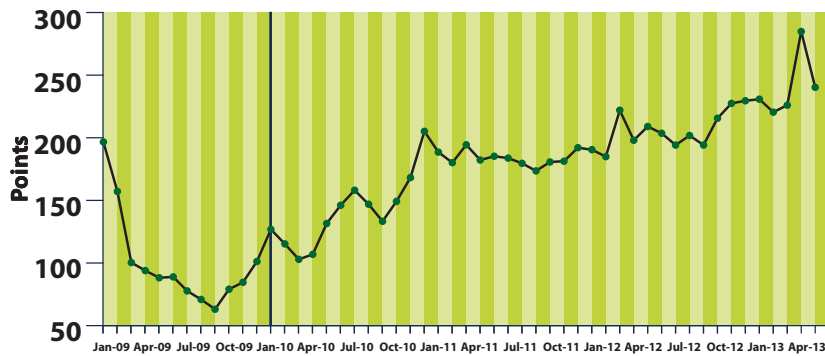
Geopolitical pressures eased somewhat in April as the International Atomic Energy Agency said that it will hold a meeting with Iran on 15th May aimed at enabling its inspectors to resume a stalled investigation into suspected nuclear bomb research. Inspections would clarify if Iran's nuclear programme is peaceful or otherwise. However, the likely use of chemical weapons in Syria has the potential to involve international forces in Syria to a greater degree and any escalation of the conflict could renew global oil supply concerns. On the economic front, underwhelming growth, manufacturing and industrial production numbers from China suggest that the world's number two economy is only recovering slowly. A mixed bag of economic releases from the US and a sombre assessment of European growth by the IMF added to the feeling that oil demand growth will be weak. An increasing spare-capacity among OPEC suppliers (pegged at 2.7 mb/d and 1 mb/d higher than last year) continues to weigh on prices.

## Oil

Month-on-month, in euro terms, the front month Brent crude oil price fell 9% or USD\$8. Brent crude prices suffered amid the restoration of North Sea output, reduced estimates for global demand and diminished concern that political tension in the Middle East will disrupt the region's oil exports. In April, Brent's premium to West Texas Intermediate (WTI) crude narrowed to less than USD\$10 a barrel for the first time in 15 months. WTI is the most traded crude oil grade in the US. Weakness in the WTI price this year has been contained as expanding pipeline capacity eased the glut at the US storage centre in Cushing. Despite flows through the Seaway pipeline remaining suboptimal, market perception of improved mobility is seen as a strong factor behind the narrowing gap.

The return of North Sea oil fields such as Buzzard and Elgin-Franklin after repairs will support the expected 1.5% daily export increase in North Sea

## Natural Gas Index



\*Index adjusted for currency movements.  
Data Source: Spectron Group

1 Mth **-16%**    3 Mth **9%**    12 Mth **15%**

British shores, the UK is now more dependent on Norwegian and Continental gas supplies.

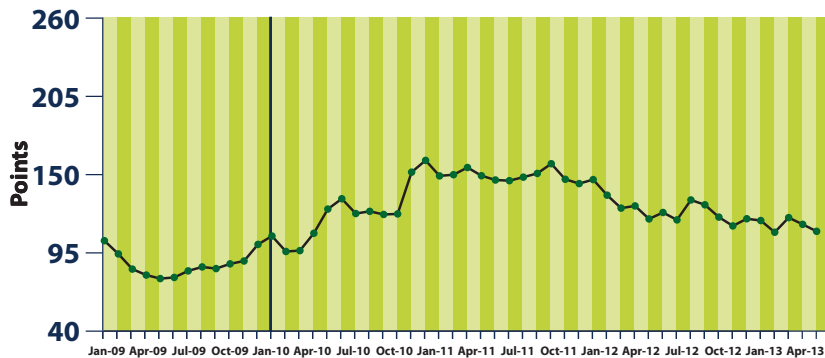
In light of the UK's reduced diversity of supply, it was interesting to see that the UK's largest household energy supplier signed a 20 year deal with a US company to import 1.75 million mt/year of LNG and deliveries are expected to start in 2018. That's equivalent to the demand of 1.8 million UK homes. The agreement was welcomed by the British government which sees it as step to diversify its energy mix and provide British consumers with a new long-term, secure and affordable source of fuel. Europe as a whole is looking to benefit from the shale gas revolution that is transforming the global energy landscape and it was reported in April that the EU is currently pressing for a mandate from its heads of state to begin negotiating with the US for a fair trade agreement to allow easier access to US shale gas.

## Natural gas

With temperatures across Britain starting to improve, the average Day-ahead gas price for April was 16% lower month-on-month as the UK gas market shed much of the risk premium which dominated the market in March. March occurred as the coldest seen in the UK for 51 years.

UK Gas demand in April started to ease back to seasonal norms that reduced the need for home heating. Supplies of gas to the UK also received a boost with an increasing number of ships delivering LNG arriving at British shores and piped gas from Norway was strong throughout the month. A sign that the market stresses experienced in March (prompt wholesale gas prices spiked to record highs as the demand for gas exceeded supplies) started to ease during the month was evident when the UK started to export surplus gas supplies to Belgium for the first time since early January. However, because of the aggressive depletion of gas held in UK storage facilities this winter, the UK may have to break from the norm and import gas from the Continent this summer to replenish stock levels if LNG deliveries in the months to come are thin. This increased demand for storage injections could support wholesale gas prices. With declining North Sea gas production and decreasing LNG deliveries to

## Coal Index



\*Index adjusted for currency movements.  
Data Source: ICE

1 Mth **-4%**    3 Mth **1%**    12 Mth **-7%**

generation, European coal prices are expected to remain at or around current levels.

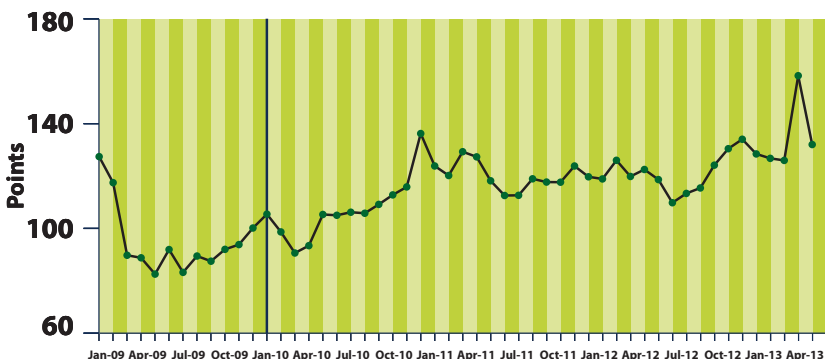
However, China will continue to set the tone for internationally traded seaborne prices as coal is a dominant feature of its energy sector, fuelling the bulk of its installed power generation. As the world's largest importer of thermal coal, China has lifted growth in the seaborne market to an average annual rate of 7.2% over the five year period to 2012. However, with increasing competition from domestic producers, high stocks and low power demand, Chinese demand for international coal is currently subdued. Indeed, some experts expect 2013 could be a watershed event for the seaborne market if import volumes to China contract year-on-year. This would be the first time this happened since the global financial crisis in 2007-2008.

## Coal

During April European coal prices continued to fall as the Atlantic basin remains overly supplied. In this bearish environment, prices hit a three year low at the start of the month before rebounding modestly. Falling coal and carbon prices have supported coal based electricity generation across Europe at the expense of gas powered plants.

Colombian coal exports in February dropped over 46% year-on-year to 3.5 m/mt following a series of labour disruptions and environmental sanctions which shut in the bulk of the country's exports between February and March. Since late March, prices have dropped off to three year lows as Colombian supplies came back online, creating an oversupply in the Atlantic coal market which is putting pressure on prices. Looking ahead, experts forecast that the European thermal coal market looks capped at the USD\$90/mt price level on a two to three year view with stable demand. The bulk of the expected 160 m/mt a year demand is expected to be met by Colombia (90 - 100 m/mt) and Russia (20 m/mt). The US is expected to be the swing supplier, displacing South African coal to Europe. With Colombian exports expected to rise by up to 30 m/mt a year and European coal demand growth forecast to be hindered by competition from gas and nuclear

## Electricity Index



Data Source: SEMO

1 Mth **-17%**    3 Mth **4%**    12 Mth **8%**

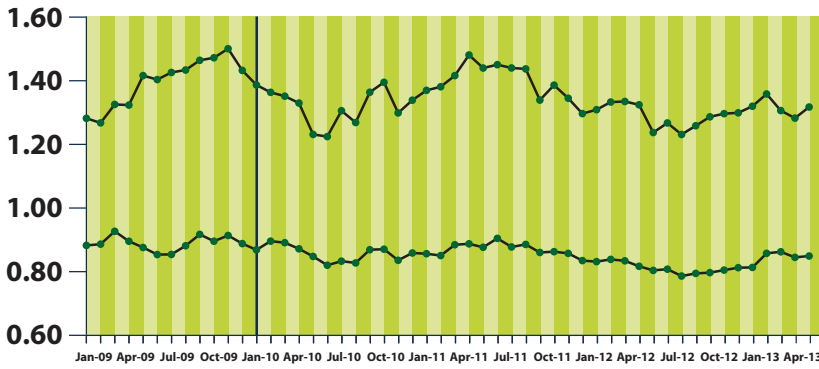
## Electricity

In April Irish wholesale electricity prices fell 17% as the three main components that make up the price of electricity (UK wholesale gas prices, carbon and 'spark') all lost value. With milder weather and increasing gas supplies to the UK, Ireland's cost of producing electricity benefited from lower wholesale UK gas prices. An additional factor that lowered the cost of wholesale power was that only the most efficient gas plants were called upon to produce power. This materialised as the volume of electricity generated from wind turbines increased and demand started to erode as temperatures and the number of day-light hours increased. This meant that there was a reduced requirement for gas plants to produce and only the cheapest were utilized.

In April carbon prices fell to all time lows as members of the European Parliament voted against a proposal from the European Commission to seek an agreement with national governments on a plan to back-load 900 million EU Allowances from auctions in 2013-15, and sell them in 2019-20. In the wake of the global economic slowdown and reduced economic activity, the aim of the back-loading proposal was to attempt to curb a growing oversupply of carbon credits

which has been eroding the cost of abating carbon since 2009. There is a view that economically there are some short-term advantages for businesses as power plants, factories and other fixed installations pay less for the carbon they emit. Lower costs are welcome at a time when EU economies are struggling to grow. As other economic regions do not face similar carbon costs, a low price helps Europe compete. However, environmentalists and carbon investors say high prices are necessary because low carbon prices are failing to send an adequate price signal for low carbon investments. If it is cheap to emit carbon, utilities and businesses have little incentive to invest in new technologies. A failure to 'green' the economy will mean that the EU will remain fixed and overly dependent on fossil fuels and perhaps vulnerable to future shortages and price spikes. The environmental impact of a low carbon price is being felt already as the amount of electricity generated from coal is rising at annualised rates of as much as 50% in some European countries. Coal is by far the most polluting source of electricity, with more greenhouse gas produced per kilowatt hour than any other mainstream fossil fuel.

## FX Rates



1 Mth	3%	3 Mth	-3%	12 Mth	-1%	EURUSD
1 Mth	0%	3 Mth	-1%	12 Mth	4%	EURGBP

Despite the euro zone's ongoing economic weakness, as evidenced by a continued contraction in both manufacturing and service sectors, the euro gained versus the US Dollar as the market began to reassess how aggressive the ECB will be in May with its key rate decision. While a reduction in the interest rate usually weakens a currency, in late April traders chose to focus on the benefits to the euro-region economy of a so-called accommodative monetary policy. Despite a mixed bag of economic releases on the state of the US economy, a weaker than expected growth rate in the first quarter created some concern that the world's biggest economy is also struggling and this weighed on the US Dollar.

## FX rates

In April the euro was unchanged versus the British Pound but gained versus the US Dollar.

The British Pound recouped losses seen earlier in the month as the Office for National Statistics revealed that UK GDP rose 0.3% in the first quarter and as a consequence the UK avoided a triple dip recession. Despite this positive news, the economy remains in the doldrums according to The Economist Magazine. In the G20 club of big economies, Britain's performance ranks second worst over the past five years, above only Italy's. Britain's weakness has been associated with an over dependence on financial services, which have suffered in recent years. The public sector is being cut to balance the books in an attempt to eradicate the budget deficit. The economy is overly dependent on European buyers of its goods and services and its banking system is not fit enough to provide lending to enterprise. The country's debt has also risen from GBP€600 billion in 2008 to GBP€1.1 trillion now. During the month, the ratings agency Fitch joined Moody's in downgrading the UK from AAA to AA+. It concluded that the UK did not merit the top rating given its higher debt profile and an austerity programme that is likely to last at least two parliaments.

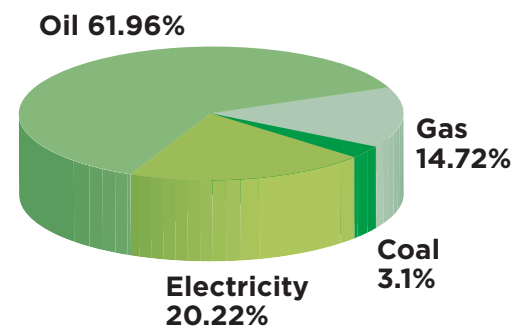
## Market Outlook

With a number of members having indicated that USD\$100 is an appropriate price for a barrel of Brent crude oil, barring any significant geopolitical event, prices in the near term should hover around current levels. Any softening in the price could see OPEC tightening output to prevent another price slide such as the one experienced in 2008/09. OPEC countries do recognise that shale oil production is changing the global energy landscape and some commentators are of the opinion that we are moving into an environment where a price of USD\$90 will become more of a price ceiling than a floor for the market. So far the impact of US shale oil production on international markets has been felt in the form of a sharp reduction in US imports of light sweet crude oils. But the global market could next see an 'onslaught' on Middle East crudes as Canadian exports increase to replace imports of heavier, sourer crudes to North America by 2015. To maintain access to refinery markets, Middle East exporters will have the challenge of having to either discount sales or shut production. In light of growing global oil supplies, OPEC supplies have climbed down from their peak, which has helped increase spare capacity to roughly 2.7 mb/d. For OPEC, there is also growing pressure from production growth within and from demand moderation outside. Weaker oil prices provide assistance to economies that are in need of re-balancing, including opening up further potential for monetary stimulus. Lower commodity prices also tend to boost spending power and domestic demand in those countries that are particularly large importers of commodities.

In the near term, limited appetite from refineries due to weakening refinery margins as well as an ongoing maintenance season will mean that prompt demand remains weak. Other factors that will weigh on prices include the global economic headwinds which could shape the perception of oil demand in the months ahead. Well documented weaknesses in the euro zone economy, a weak recovery in China and mixed economic releases from the US suggest that global economic growth remains a work in progress rather than a certainty. Geopolitical risks appear to have faded slightly for now but they will continue to lurk in the background. The clock continues to tick on Iran's nuclear work, Israeli military threats and deepening sanctions and talks between the West and Iran cannot last forever. Despite falling oil prices, record equity markets and tumbling gold prices suggest that markets are optimistic about a recovery in the global economy. If these indicators are correct, despite numerous pressures on oil prices, they could provide some support to oil prices in the months ahead.

## Re-weighting of Bord Gáis Energy index

Following the SEAI's 2011 review of energy consumption in Ireland, there was a 6.4% drop in overall energy consumption. Oil continues to be the dominant energy source with most of the oil used in transport and the remainder being used for thermal energy. For the purposes of the Bord Gáis Energy Index, the total final energy consumption in Ireland fell 1,089 ktoe (toe: a tonne of oil equivalent is a unit of energy, roughly equivalent to the energy content of one tonne of crude oil) between 2009 and 2011. This fall was made up of a 1,022 ktoe drop in oil consumption (down 13.5%), a 20 ktoe drop in natural gas (down 12.6%), a 7 ktoe drop in electricity (down 0.3%) and a 40 ktoe drop in coal (down 10.98%). The Bord Gáis Energy Index has been re-weighted in January 2013 to reflect the latest consumption data. The impact has been minimal and has resulted in slight reductions in the share of oil and gas and a slight increase in the weighting of electricity in the overall Index.



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