

**Bord Gáis Energy Index**

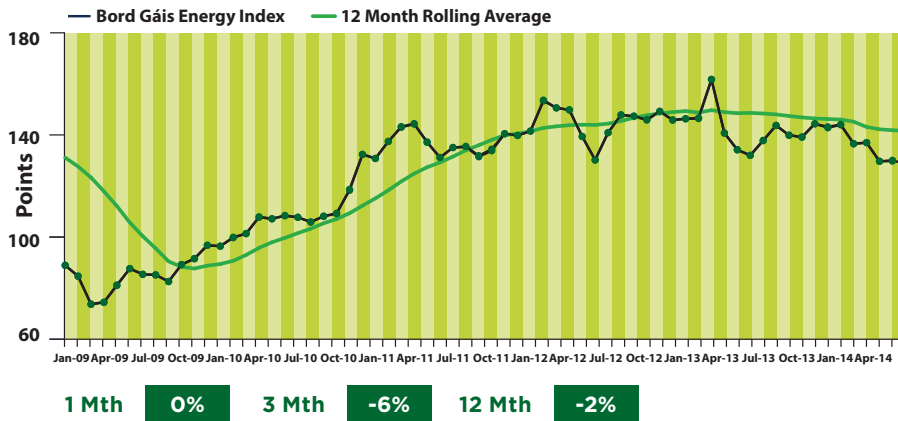
# UNDERSTANDING ENERGY

June 2014



# Steep rise in wholesale oil prices offsets natural gas price decline as Bord Gáis Energy Index remains unchanged

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



## Summary

The Bord Gáis Energy Index was unchanged month-on-month in June with rising Brent crude oil prices again being offset by falling wholesale gas and electricity prices.

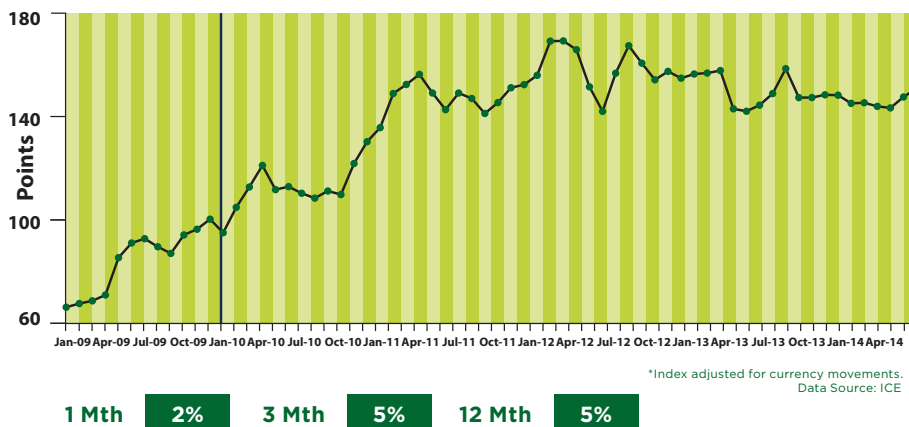
In June oil markets were spooked by the menacing emergence of ISIL on the world stage and traders were alarmed by the nature of the current bout of violence in Iraq and scale of ISIL's territorial grab. Events in Iraq again demonstrate the deep sectarian divide that exists in a region that supplies vast quantities of oil to the world. Oil traders are concerned that right now the world has very limited extra production capacity at its disposal and the loss of Iraqi oil, or further supply disruptions, would result in oil price spikes.

Wholesale gas prices continued to soften in June amid bumper supplies and this softening fed through to lower electricity prices with gas being the most significant cost in the production of electricity.

In June 2014 the Index stood at 133.

In June BP said in its annual statistical review that US output had grown by 1.1million b/d in 2013 to reach 10million b/d, the highest since 1986 (the figure includes crude, tight oil, oil sands and natural gas liquids). The increase is being attributed to the massive investment in shale and other tight formations and the US achieved the world's largest increase in oil production last year. This soaring output was a key factor in keeping oil prices from rising in 2013 following a further period of oil supply disruptions mainly in the Middle East. According to BP, oil prices in 2013 were "extremely stable" with volatility at its lowest since the early 1970s. Despite this increase in production, the US has effectively banned the export of crude oil since the early 1970s and this ban is now being called into question for two reasons. Firstly, because of the volume of tight oil being produced, refineries are reportedly asking for a discount from producers. Allowing exports would enable tight oil producers to obtain world market prices which would lead to higher investment in US production. Secondly, this increased investment would help the US to optimise its production capabilities which, given recent events in Libya and Iraq, would potentially help to stabilise global prices into the future. This stability and some erosion of the power of traditional producers would be to the advantage of the US politically. According to BP, oil remains the world's leading fuel, accounting for 33% of global energy consumption. Evidence of the strength of the tight oil boom was further revealed when North Dakota hit the landmark 1 million b/d output figure. Put in a global context, 115 countries produce crude oil but only 20 produce more than 1million b/d. The growing political and economic importance of energy independence was on show again in June with the news that Germany is to consider new laws that would allow for shale gas drilling.

## Oil Index



## Oil

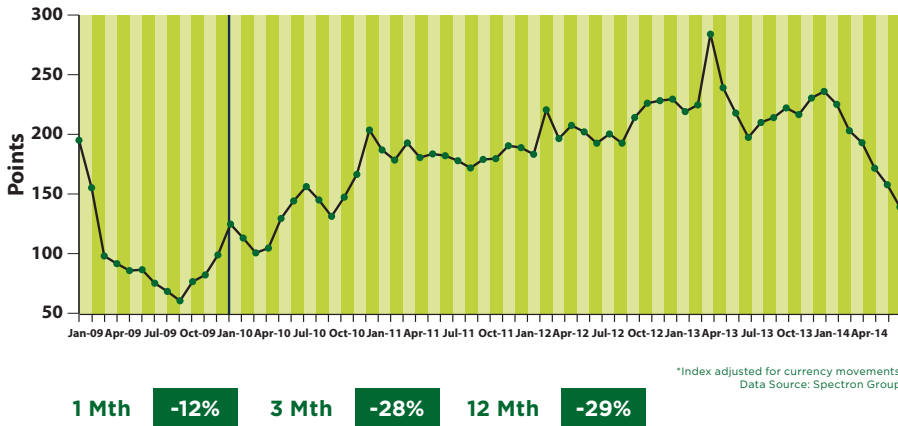
Month-on-month the front month Brent crude price rose 2% in euro terms as the front month Brent crude oil price hit its highest level this year in reaction to the seizure of territory in the north and west of Iraq by the Islamic State in Iraq and the Levant (ISIL). The impact of this escalation in violence in Iraq has increased the threat to global oil supplies with spare capacity already being thin.

So far ISIL's actions have not triggered any actual supply disruptions as the vast majority of Iraq's crude oil production and exports are located in the far south of the country (in April the southern region produced 2.6million b/d of a total production of 3million b/d). The Kurdish region of north Iraq is reportedly producing 250,000 b/d of which 120,000 b/d are being exported via a pipeline to the Turkish port of Ceyhan. Even before ISIL's actions, exports from the region now controlled by ISIL were virtually zero following the bombing by

militants in March of the Kirkuk-Ceyhan pipeline. By targeting Iraq's oil facilities (such as the Baiji refinery), ISIL is attempting to cripple government revenue and energy supplies and thus destabilise Iraq as a sovereign entity. To disrupt Iraq's export volume of approximately 2.7million b/d, ISIL fighters would reportedly need to pass both Baghdad and a number of key Shia religious sites on their way to the southern oilfields, and/or overcome close to 200,000 elite troops in the Kurdistan Regional Government. Despite what appears to be some security around Iraq's oil exports, oil production in the south will be running at a high level of stress. This extra stress, coupled with an estimated loss of 3.5million b/d of oil production due to varying constraints in Libya, Iran, Syria, South Sudan, Yemen, Venezuela and Nigeria, has raised concerns that any unexpected outages from this point forward could send the globe's spare production capacity into the "danger zone". OPEC's spare capacity is currently around 3million b/d but this is expected to shrink as Saudi Arabia ramps up output to meet higher global summer demand. In the unlikely event of a complete loss of Iraqi production, global spare capacity would be almost completely depleted and Brent crude prices would spike, perhaps to record highs.

Despite the significant drop in Libya's oil production to just 150,000 b/d, hopes that exports could increase received a tentative boost on the news of the restart of Elephant field, the reopening of the Marsa al-Hariga terminal and the possible reopening of the Es Sider export terminal. In early July news broke that Libya's government had resumed control of Es Sider and Ras Lanuf, the two eastern oil terminals that were being held by rebels. The government said the move ended the country's oil crisis. Nuclear talks between Iran and the P5+1 are now at a critical stage with just days to go before the 20 July deadline. It is reported that the two sides remain some distance apart and developments in Iraq add an additional variable to an already complex equation. In June OPEC ministers agreed to extend the group's 30million b/d production ceiling through the remainder of 2014.

## Natural Gas Index



seen since May 2010 when the market was still in recovery mode following the crash of 2008 and had yet to be hit by the rise in Asian LNG demand in the wake of the Japanese Fukushima nuclear disaster. The UK is currently experiencing a steady flow of Qatari LNG tankers but this traditionally eases in July as summer air-conditioning peaks in Asia. However, with softening Asian prices, LNG tankers have been scheduled to arrive in the UK in early July and this bodes well for supplies in the short-term. UK power generators' natural gas consumption surged to a 16-month high in June as weaker gas prices triggered an increase in profit margins for gas-fired power plants.

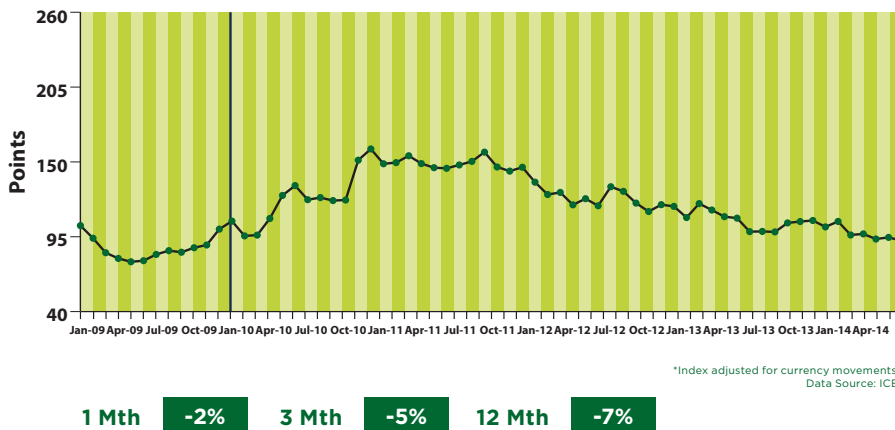
Despite a major gas transit pipeline in Ukraine carrying gas from Russia to Europe being hit by an explosion and the decision by Moscow to cut off supplies to its neighbour over the long-running payment dispute, forward gas prices continued to weaken as Russian gas supplies to Europe have been uninterrupted. However, if the standoff between Ukraine and Gazprom continues into autumn when Ukraine's domestic gas demand starts to rise, any siphoning of gas bound for Western Europe by Ukraine could start to apply some tension in the market. According to Gazprom, Ukraine owes US\$4.5 billion for 11.5 bcm of gas delivered in November, December, April and May. Naftogaz is looking to renegotiate its contract with Gazprom to lower the gas price, but recent media reports quoted Naftogaz CEO Andriy Kobolev as saying that Ukraine wants to reconsider the transit contract as well. Naftogaz is looking to pay US\$268 per unit for Russian gas which is the price set for the first quarter of this year, while Gazprom insists that Ukraine must first repay its debt before a cut in gas prices can be discussed. Gazprom has indicated it is ready to reduce the price to US\$386 per unit from US\$486 per unit now.

## Natural Gas

In euro terms the average Day-ahead gas price for June was 12% lower month-on-month as bumper supplies continued to push prompt prices lower for the sixth consecutive month running. At 39.48p a therm, the June average Day-ahead gas was the lowest monthly average price since May 2010. The Day-ahead price in June 2013 averaged at 59.74p a therm. The mild winter has left UK gas facilities at a whopping 83% full at the end of June compared to 57% at the same time last year, according to Gas Infrastructure Europe data. As reported previously, the fullness of the UK's gas in store is a factor weighing on gas prices as the demand for gas in the months ahead will be lower because the need to replenish stocks in advance of winter 14/15 will ease. According to the Met Office mean temperatures during the past winter were their fifth highest on record.

The Day-ahead gas prices in June reached levels not

## Coal Index



## Coal

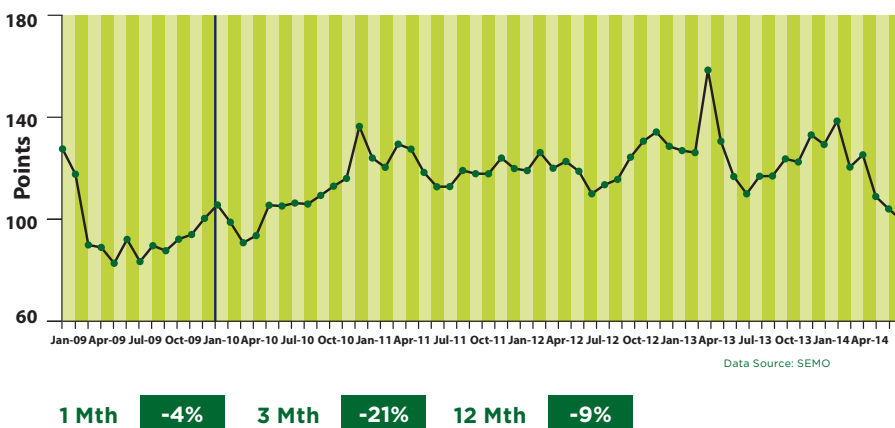
In euro terms the ICE Rotterdam Monthly Coal Futures contract fell 2% month-on-month and at US\$73.20 / mt, the ICE Rotterdam Monthly Coal Futures price closed the month at its lowest level since September 2009. Barring any major supply cuts, there is nothing to support prices with sources pointing out that supply-demand fundamentals in Europe remain bearish, with ample supply and high stocks at ports and utilities being met by a lack of demand. Weakening European gas prices are also helping to erode Europe's demand for gas. For example, the drop in UK natural gas prices has made the fuel more profitable than coal for more inefficient coal generation power plants in the country's energy mix, putting additional weight on the already depressed coal market.

Having recorded a closing low of US\$72.25 on June 24, prices recovered marginally toward the end of the month on the news that the rail line transporting coal from the mines owned by Cerrejon, Colombia's largest

thermal coal producer, to its port had been blocked by protesting security workers. The main cause of the protests was reportedly Cerrejon's changing of its security contractor, which could mean the loss of as many as 600 jobs. Prices rose as traders feared that Cerrejon port stocks would be depleted due to the lack of supplies and that this would restrict exports to Europe. However, the six-day dispute was resolved before the end of the month and coal railings quickly resumed.

Despite tensions between Russia and the West, it was reported that there was no scarcity of Russian material in June and the market has seen plenty of Russian offers to sell gas into the European market, despite weak prices.

## Electricity Index



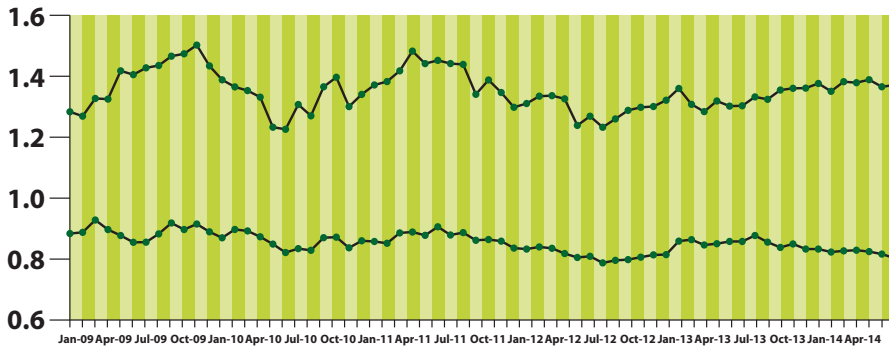
## Electricity

In June the monthly average Irish wholesale electricity price fell a further 4% month-on-month as a result of softer wholesale gas prices (as gas powered generation dominates the generation mix on the island of Ireland the price of imported gas from the UK has a significant influence on Irish wholesale electricity prices).

Despite the 12% month-on-month drop in the monthly average Day-ahead wholesale gas, and softening European coal prices, the average 'clean spark' in Ireland rose by approximately €2/MWh to close to €13.50/MWh (the 'clean spark' is the theoretical gross margin of a gas-fired power plant from selling a unit of electricity, having bought the fuel required to produce this unit of electricity and the cost of abating the carbon emitted). This rise supported electricity prices in the month. In a European and Irish context, and in

an internationally competitive environment, €13.50/MWh remains a strong 'clean spark', particularly given that we are in the summer period when demand softens. The rising spark was a result of low wind volumes, falling gas prices and the requirement to start and run some inefficient plant due to outages which removed more efficient power generators from the system in June.

## FX Rates



1 Mth	0%	3 Mth	-1%	12 Mth	5%	EURUSD
1 Mth	-2%	3 Mth	-3%	12 Mth	-6%	EURGBP

tackle euro-area deflation. The paths being taken by both central banks are in sharp contrast, as are the economic challenges. The ECB is concerned that the ultra-low borrowing costs are not filtering through to the real economy and are failing to drive investment and economic activity. These concerns have invoked an old idea of secular stagnation and that the euro-area cannot rely on normal market mechanisms, such as cutting interest rates, to spur growth further. With real interest rates unable to fall further and with the threat of deflation, there is a fear that further investment cannot be achieved and that consumer spending will be delayed resulting in a chronic demand shortfall. The implications of these considerations are that the presumption that normal economic conditions will return at some point is far from certain and that future euro-zone GDP will disappoint. The point is demonstrated by the Japanese experience, with GDP being lower than predicted a generation ago, even though interest rates have been at zero for many years.

## FX Rates

Month-on-month the euro was unchanged versus the US Dollar and weakened by 2% versus the British Pound on the news that the Bank of England Deputy Governor said that he would welcome an increase in interest rates as a sign that the economy was returning to normal. This news resulted in the British pound reaching its strongest level against the euro since September 2012. The pound received further support after the Bank of England Governor said on June 12 that borrowing costs may rise sooner than economists are expecting. Before the Governor's comments, the market reckoned that the first rise in UK rates would occur in spring of next year. After them, the date shifted to the end of this year.

According to the Deputy Governor, a return to higher interest rates in the UK is a strong indication that the economy is returning to normal and a demonstration that the economy is healing. As the UK is about to embark on the path of normalization, the ECB announced that it will take the deposit rate into negative territory and there is a growing expectation that it will start buying packaged securities in a bid to

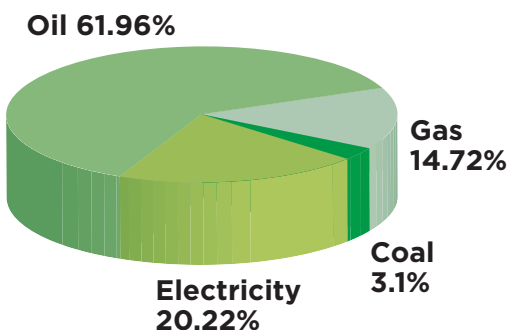
## Market Outlook

The threat to Iraq's oil production capabilities and export potential by the emergence of ISIL had a significant impact on global oil prices in June. With the globe's spare production capacity already thin and with OECD commercial inventories being below their five-year seasonal range, oil prices were already high before the escalation in violence in Iraq in anticipation of a rise in global demand over the summer months and beyond. According to the IEA, global oil demand is set to increase sharply from a low of 91.4million b/d in the first quarter of 2014 to a high of 94million b/d in the fourth quarter. Against this backdrop, a complete loss of Iraqi exports would have dramatic consequences for global oil prices and it is being reported that it would not be inconceivable for prices to surpass the record highs reached in July 2008 (above US\$145 intraday for Brent) with the world having no spare capacity anywhere. Iraq is OPEC's second largest crude producer. Against the loss of an estimated 3.5million b/d of global oil production over the last few years, surging North American production and increased output from Saudi Arabia has stabilized the market but the loss of Iraqi oil would perilously destabilise global oil supply-demand dynamics. However, the future course of the conflict is very uncertain and the majority of Iraqi oil is reportedly safe. The rise and now potential fall of ISIL could have many positive supply effects such as the reopening of the Kirkuk-Ceyhan pipeline and expansion of production and export from the Kurdistan region. It may also facilitate negotiations with Iran as the US and Iran have found some common ground in the opposition to the Sunni led ISIL. However, it is a concern that sect conflict in the Middle East region is spreading, intensifying and appearing intractable and such characteristics are not positive for oil prices. In addition, many of ISIL's most violent frontline fighters are believed to be Saudi nationals who may eventually come home, radicalised and brutalised by the conflict. This potentially makes Saudi Arabia, the world's largest exporter of oil, vulnerable to a backlash from ISIL by returning jihadists. The future security of Iraqi oil supplies is also of vital importance to the world. According to the IEA, Iraq is expected to account for about 60% of the growth in OPEC crude production capacity over the rest of this decade so stability in Iraq is essential if the world's consumption of oil is to be satisfied.

Despite a continued softening in wholesale gas prices, the Ukraine crisis and gas dispute rumbles on. At the start of July Ukrainian forces launched a full-scale military operation against pro-Russian separatists in the east following the end of a 10-day cease fire. Russia condemned Ukraine's operation, with President Vladimir Putin vowing to continue to protect ethnic Russians. The current gas dispute is taking place against this uncertain and potentially volatile backdrop which adds an extra layer of complexity to the current "Gas War".

## 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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