

Bord Gáis Energy Index

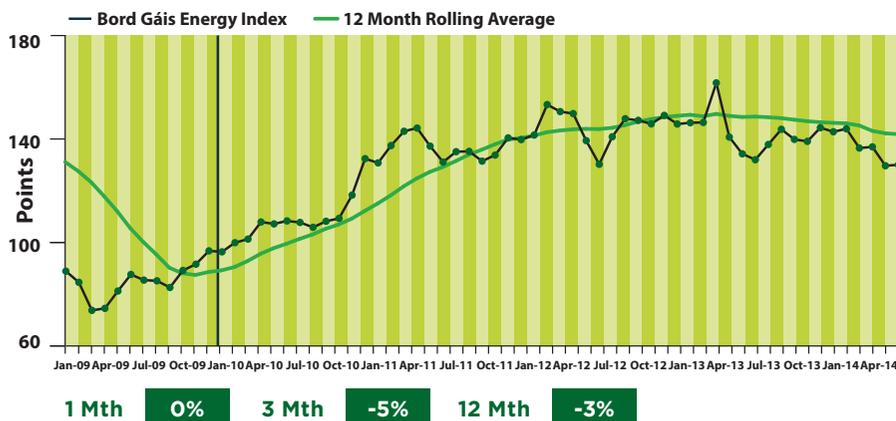
UNDERSTANDING ENERGY

May 2014



Rising oil prices offset falling gas and electricity prices to leave the Bord Gáis Energy Index unchanged

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



Summary

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

At close to US\$110, the dated Brent crude price is trading at the upper end of the trade range it has occupied for the last year. With global oil demand expected to increase over the summer months, Saudi Arabia is expected to increase its output to meet this rise. Against the backdrop of numerous geopolitical tension points, the market is conscious that any unforeseen need for significantly large volumes in the months ahead will test the globe's ability to supply the oil the world needs and this is keeping prices high.

Bumper gas supplies, robust stocks and falling demand have combined to push wholesale gas prices to three and a half year lows. The softness seen in gas prices helped to suppress Irish electricity prices as UK gas is used to power large sections of Ireland's fleet of thermal power plants.

In May 2014 the Index stood at 133.

In May it was reported that two officials in the Obama administration announced that the US' de facto ban on US crude exports was being studied. With US production surging, thanks to the tight oil boom, many upstream operators and integrated majors have begun to push for an end to the ban. This is because much of the oil being produced is classed as "light, sweet" crude that refineries in the US are not optimised to use. The US largely bans exports of crude under restrictions imposed by Congress in the wake of the 1973 Arab oil embargo. Many are convinced that an increasingly severe wellhead price discounting and reduced producer investment will ultimately convince US lawmakers to amend or repeal the existing US crude export ban. This could potentially reduce the price Europeans pay for oil but OPEC always has the ability to lower production in order to maintain higher prices. However, the political sensitivity around petrol prices in the US and the potential for these to rise should the ban be lifted will be a cause of concern in the White House. Fracking and horizontal drilling has released large quantities of oil and gas in the US and this has facilitated the Obama administration to unveil attempts to curb carbon dioxide emissions. In late May the administration announced a proposal to seek to limit emissions from power plants that are responsible for about a third of US CO₂ emissions. The Environmental Protection Agency's (EPA) Clean Power Plan seeks to cut carbon emissions by 30% by 2030. The use of shale gas, fracked from huge reserves in Pennsylvania, Texas and elsewhere, has already helped the US to curb its carbon. But coal is still a major factor in energy production, accounting for about 40% of electricity. However, according to Statoil, shale gas will not be developed in Europe anytime soon due to the continent's population density and the lack of fiscal and popular support.

Oil Index



Oil

Month-on-month the front month Brent crude price rose 3% in euro terms. A weaker euro versus the US Dollar added additional upward price pressure for euro zone buyers of crude. In US Dollar terms, the month-on-month price move was just over 1%. At US\$109.41, the front month Brent crude price remains at the upper end of the tight price range which the global benchmark has been trading in for over the last year.

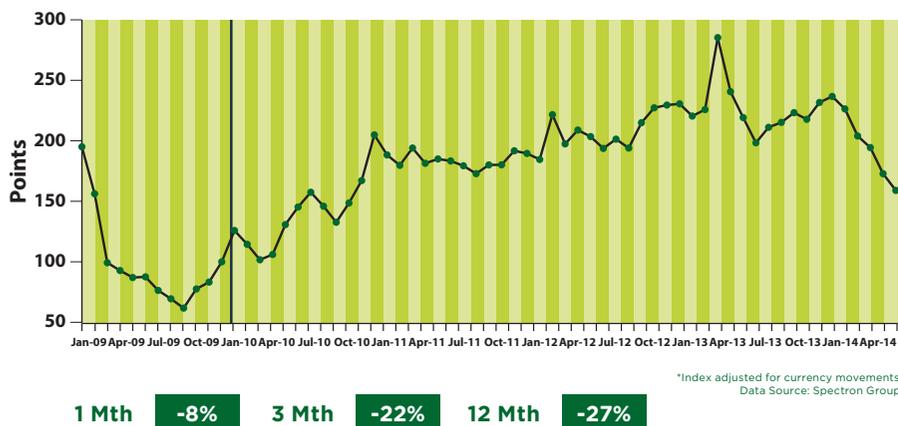
Geopolitical tensions continued to simmer in May and 12 months on from the start of the protests and strikes that have crippled the Libyan oil sector, the outlook for Libyan production remains very uncertain. During the month it was reported that Libyan production had fallen to just 160,000 b/d which is significantly below the 1.5 - 1.6million b/d that was being produced before the current spate of unrest ignited one year ago. At the beginning of the month there were hopes that talks would result in the reopening of eastern oil ports and western oilfields but these hopes again faded amid

dispute and re-occupation of sites by protestors. With Nigeria and Venezuela also producing well below potential and a slower than expected rise in Iraq's output, other OPEC members are producing as much oil as they can to balance the market. As a result, only Saudi Arabia has any significant output capacity to spare. This lack of spare capacity, the fear of further geopolitical tensions that could disrupt existing oil supplies and the need for Saudi Arabia to produce extra oil to meet rising seasonal demand in the months ahead, is supporting prices at the US\$110 level. Saudi Arabia can potentially produce an additional 2-2.5million b/d of oil but, should it be required to do so, the market's nerve will be tested and prices will react. At the start of the year the expectation was that OPEC would cut its output target of 30million b/d for the second half of 2014 at its Vienna meeting on June 11 on the expectation that Iranian, Libyan and North American oil would flood the market. This flood has yet to materialise and OPEC is expected to maintain its current production target. Since the introduction of this 30million daily target 30 months ago, oil prices have been remarkably stable albeit at a relatively high level.

The interim deal struck between six world powers and Iran at the end of 2013 is set to expire by July 20 and efforts are being made to reach a final long-term agreement currently. The fourth round of negotiations were held in Vienna in May but it was reported that no progress was made. As a result of sanctions, the world has lost 1million b/d of oil. Iranian crude production in April was 2.83million b/d with export volumes of 1.11million b/d. As a result of numerous other geopolitical tensions, a further 2million b/d of oil is missing from the markets currently. Growing North American production has played a role in easing these supply constraints but any further disruptions will nudge prices higher.

Further weakening of the euro versus the US Dollar as a result of possible measures by the ECB to tackle low inflation and attempts to boost euro zone growth could make Brent crude prices more expensive for euro zone buyers.

Natural Gas Index



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, some analysts are predicting that these LNG tankers will continue to arrive in the UK. The quick pick-up at Papua New Guinea LNG and more volumes from Australia's North West Shelf are helping to depress Asian prices for spot cargoes into Japan and South Korea. The average send out from the South Hook LNG terminal in May was approximately 45mcm, which hasn't been significantly higher than the previous two years. Forward gas prices continued to weaken in May as the threat of gas supply disruption through the Ukraine subsided following the payment by Ukraine of US\$786.3 million to Russian natural gas giant Gazprom for gas supplies in February and March. Debt for unpaid imported gas totalled US\$2.2 billion at the beginning of March (based on a unit price of US\$268.80) and by the end of May this had increased by another US\$2.9 billion (based on a price of US\$485.50). Ukraine stopped making payments for Russian gas imports in March, shortly after Russia's armed forces occupied Crimea, a Ukrainian Black Sea peninsula. The annexation, along with the steep gas price hike, triggered a dispute over gas debts with Russia threatening to cut off gas supplies to Ukraine on June 3 unless Ukraine made a payment by June 2. At the time of writing, Russia and Ukraine have still failed to resolve the gas debt and price dispute.

Natural Gas

In euro terms the average Day-ahead gas price for May was 8% lower month-on-month as falling seasonal demand and bumper supplies combined to push prompt prices lower for the fifth consecutive month running. At 44.48p a therm, the May average Day-ahead gas price recorded a three and a half year low. In 2013 the Day-ahead price in May averaged at 65.88p a therm. The mild winter left UK gas stocks at 72% full at the end of May compared to 31% at the same time last year. 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.

Day-ahead gas prices in May reached levels not seen since late 2010 when the market was still in recovery mode following the crash of 2008 and

Coal Index



due to the mild winter and the current shoulder season. Combined coal stocks at Dutch discharge terminals were reportedly topping 6 million mt, a level they did not reach last year until September. Dutch discharge terminals were close to 3 million mt at this time last year. Despite an oversupplied European market, it was reported that Russian thermal coal producers were going to continue pushing production levels higher due to their fixed mining costs. This could prove to exacerbate an already oversupplied European market.

Despite tensions between Russia and the West, Russian coal export flows into Europe remained unaffected by the crisis in Ukraine in May, and there were no supply disruptions to push European spot pricing to the upside during the month.

Coal

In euro terms the ICE Rotterdam Monthly Coal Futures contract was 1% higher month-on-month as a stronger Dollar versus the euro pushed wholesale prices higher for euro zone buyers of coal. The euro's weakness corresponded to European Central Bank President Mario Draghi's comments saying that it was ready to ease monetary policy in June if needed (see the FX Rates section for further detail). Coal prices in US Dollar terms continued to weaken during the month and closed at an 11 month low of US\$74.75 at the end of May.

Market participants attribute lower European physical prices to the supply glut being reinforced by the restart of US miner Drummond's Colombian coal exports last month and low demand following a mild winter season. In general, sources have pointed out that supply-demand fundamentals remain bearish, with ample supply and high stocks at ports and utilities being met by a lack of demand

Electricity Index



In Irish context, €11.62/MWh remains a strong 'clean spark', particularly given that we are in the summer period when demand softens.

Electricity

In May the monthly average Irish wholesale electricity price fell by 4% month-on-month primarily 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). In May, 45% of Ireland's demand was met by power plants burning gas, an increase of 11% on April's level. Wind in May met 12% of the Island's electricity demand, a 2% drop month-on-month.

Month-on-month the average 'clean spark' in May fell by approximately €0.50/MWh to €11.62/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). In a European and

FX Rates



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

The British Pound received a boost month-on-month on the back of further evidence of an expanding economy. The OECD upgraded their outlook for UK growth to 3.2% in 2014 and it expects the long-awaited pick-up in business investment to begin (the second estimate of Q1 GDP showed that business investment rose and that the economy was 3.1% larger than this time last year). Releases showed that the services, manufacturing and construction sectors continued to expand in April. The unemployment rate fell again in the three months to March to 6.8% and retail sales surged to their fastest pace of growth in more than a decade.

Overall US economic numbers were positive despite growth grinding to a halt in Q1. The US economy created an impressive 288,000 additional jobs in April and the unemployment rate fell from 6.7% to 6.3%. US manufacturing continued to expand in May, hitting a four year high, and consumer spending also continues to expand. US house prices rose in March but the pace of growth slowed month-on-month.

FX Rates

Month-on-month the euro weakened versus the US Dollar and was unchanged versus the British Pound. According to Bloomberg, the 18-nation currency tumbled 1% in May against a basket of nine developed-market peers, which was the most since it fell 1.7% in March 2013, as the ECB president said he was “comfortable” with providing further monetary stimulus. Despite leaving the benchmark rate unchanged at 0.25% on May 8, expectations were building last month that the ECB would cut 10 or 15 basis points in both the benchmark and deposit rates in their June meeting. This expectation weighed on the euro. After the May 8 meeting the ECB President said that the euro’s strength was a “serious concern” and that it was hurting its effort to boost consumer prices as the price of imported goods were held down. However, some analysts are of the opinion that unless the ECB introduces a bond buying programme, the euro’s strength will not be addressed.

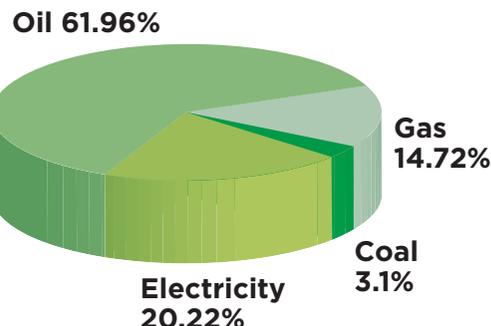
Market Outlook

Brent crude prices are currently at the higher end of the narrow US\$102 to US\$112 monthly range in which the global benchmark has traded over the past year. 3million b/d of oil production has remained off the global market for aboveground reasons for the past couple of years due to production restrictions in Libya, Iran, Syria, South Sudan, Yemen and Iraq. Because of these issues the world has been relying on high crude production from Saudi Arabia, Kuwait and the UAE. North American crude production, including tight oil from the US, has also been crucial in balancing the market. However, the primary holder of spare capacity is Saudi Arabia and this extra capacity is expected to be eroded this summer as the country increases oil production to meet higher seasonal global demand, including crude burn in its own power sector, which typically peaks in the summer months. As the global supply cushion is reduced, a “fear premium” could appear in the price of Brent crude oil amid numerous geopolitical tensions that have the potential to reduce further the world’s production ability. According to the IEA, in order to balance forecast demand, OPEC countries would need to hike Q3 14 production by 900,000 b/d from April levels (OPEC output rose by 405,000 b/d to 29.9million b/d in April). OECD commercial inventories are adding to the market’s tightness as they are well below their five-year seasonal range. Experts from Iran and the five permanent members of the UN Security Council - the United States, China, Russia, France, Britain plus Germany - are scheduled to hold a new round of talks on June 4-5 to work on the details of a possible comprehensive deal on Tehran’s nuclear program ahead of a high-level nuclear meeting slated for June 16 in Vienna. It is being reported that both sides in the negotiations over Tehran’s nuclear programme remain “some ways apart”. The immediate goal is to reach an agreement to contain and monitor Iran’s nuclear programme, with Tehran’s cooperation and consent.

On the potential Russian gas supply disruption, Gazprom has recently been showing signs of willingness to reduce the gas price from a unit price of US\$485.50 to about US\$385, while Ukraine has continued to insist on US\$268.80. Ukraine’s state run gas company is planning to file the lawsuit at the International Court of Arbitration in Stockholm to force Gazprom to reduce the price, but has delayed doing so in order to give the talks more time. Further standoffs are possible.

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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