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Commodities Research

4 March 2014

Energy Flash

The Russia-Ukraine crisis: Natural gas and oil market risks

Biliana Pehlivanova
+1 212 526 1170
biliana.pehlivanova@barclays.com

Michael Cohen
+1 212 526 3606
michael.d.cohen@barclays.com

www.barclays.com

- The escalation of political tensions between Russia and Ukraine has raised concerns about the security of European energy supply. Despite Europe's desire to reduce dependence on Russian natural gas imports, last year, Russian gas covered about 34% of European demand, up from 26% in 2010 when LNG imports soared. In this context, potential disruptions of Russian gas flows through Ukraine could have significant implications for the European gas market, and a secondary effect on oil demand.
- While the political situation has escalated drastically, Russian gas flows transiting Ukraine have not been part of the rhetoric so far and exports have continued uninterrupted. Indeed, with Europe relying on Russian gas for over 30% of its consumption, Ukraine meeting a major part of its needs with Russian gas, and Russia counting on gas exports as a major revenue source, all three sides would suffer economic consequences from a potential disruption.
- In the face of the current political stand-off, risks to a potential cut-off of gas flows through Ukraine cannot be ruled out. However, a halt of flows does not appear imminent at this time.
- If a disruption were to occur, two factors are likely to soften any effect on European natural gas markets compared with previous years: an expanded pipeline network that offers a greater degree of flexibility to divert gas flows to other routes; and high natural gas inventories in Europe.
- European natural gas and oil prices spiked on Monday, March 3, but have since moderated as the political situation appears to be calming down. Although renewed escalation of the political tensions could cause further spikes in European gas, crude, and heating oil prices, we believe upside risks are limited in magnitude and duration by high gas inventories and weak gas demand.
- In the case of a gas disruption, the oil price effect might be exacerbated by the well-below-average heating oil stock levels in Europe. These levels are far below the levels available during the 2009 crisis.
- The crisis could damage the US-Russian bilateral relationship, and could put at risk further US investment in the Russian energy sector.

Europe is highly dependent on Russian natural gas

Europe counts on Russian natural gas imports for over 30% of its supply…

The escalation of political tensions between Russia and Ukraine has raised concerns about the security of European natural gas supply, and caused European prices to spike on Monday, March 3. The UK National Balancing Point (NBP) prices for the prompt month jumped nearly 10% to 61.70 pence per therm ($10.28 per MMBtu) as of the close of Monday, March 3, 2014, according to Bloomberg. Prices have since moderated as the political situation appears to be calming down.

… and about half of that transits Ukraine

Despite Europe's desire to reduce dependence on Russian natural gas imports, last year, Russian gas covered about 34% of European demand, up from 26% in 2010 when LNG imports soared. Russia delivered about 167 Bcm (16.2 Bcf/d) to European consumers in 2013, according to International Energy Agency (IEA) pipeline flow data, of which 82 Bcm (8 Bcf/d) came through Ukraine (Figure 1).

Imports disruptions have severely cut European supplies in the past, but an expanded pipeline network and high inventories would soften any market effects this time

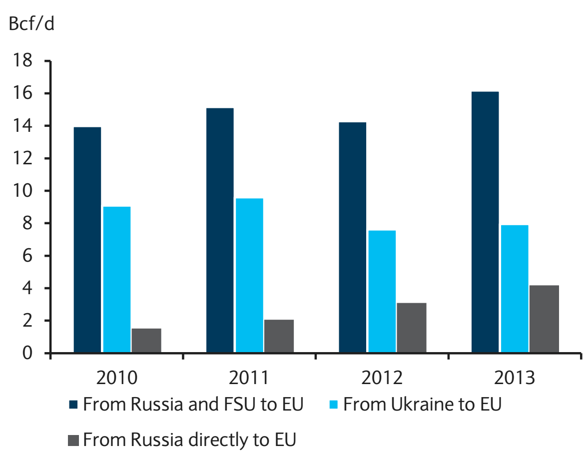
In this context, potential disruptions of Russian gas flows through Ukraine could have significant implications for European gas markets. Russia cut off flows of gas to Europe transiting Ukraine twice last decade, in January 2006 and again in January 2009. In each case, there was a notable effect on European markets, although the extended cuts in 2009 had far greater implication than the 2006 disruption.

Two factors are likely to soften any effect of a disruption compared with previous years:

- **An expanded pipeline network offers a greater degree of flexibility to divert gas flows to other routes and make up for a part of potential losses.** Pipeline flow data from the IEA show that imports of gas from Russia directly to European countries have risen from 1.5 Bcf/d in 2010 to 4.2 Bcf/d in 2013. This is largely as a result of the start of operations of the Nord Stream pipeline. With a capacity of 55 bcm (5.3 Bcf/d) and 2013 flows of about 23 bcm (2.2 Bcf/d), the pipeline could allow up to 27 Bcm (2.5 Bcf/d) of Ukrainian gas flows to be re-routed. Europe also imported 41 bcm (4.1 Bcf/d) through Belarus, which suggests close to full utilization of capacity. If flows through Ukraine were to halt, this would cut supplies to Hungary, Poland, Romania, and the Slovak Republic at Ukrainian border crossings, but the shortfall would reverberate throughout the European pipeline network. In the 2009 cut-off, several countries fully dependent on Russian gas saw all of their supply halt, including Bulgaria, Serbia, Bosnia and Herzegovina, Macedonia, and Moldova. The same counties would likely suffer in the case of a potential disruption of Russian gas flows through Ukraine this time. However, a redirection of some volumes to

FIGURE 1

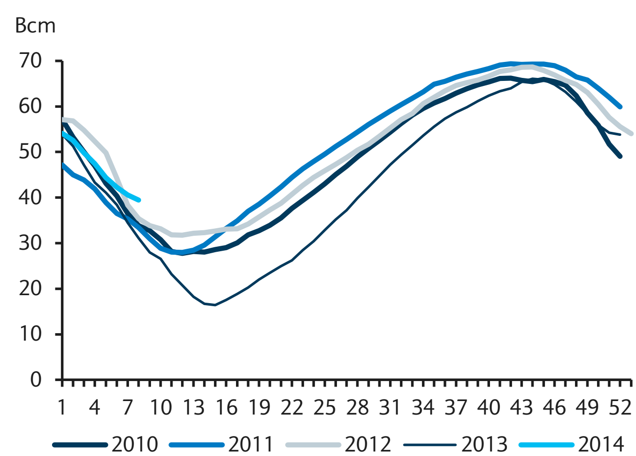
European natural gas pipeline imports from Russia



Source: IEA, Barclays Research

FIGURE 2

European natural gas storage levels



Source: Gas Infrastructure Europe, Barclays Research

Nord Stream would increase gas supplies to Germany, Holland, and the Czech Republic through the NEL and Opal pipelines which connects to Nord Stream.

- **Natural gas storage levels in Europe are higher than historical norms** (Figure 2). European natural gas consumption has weakened considerably in the past few years, as a result of the economic woes. Depressed industrial consumption and an exceptionally warm winter have left European natural gas inventories well above seasonal norms. Gas Infrastructure Europe puts total European stocks at 39.5 Bcm as of February 24, 2014, 27% above last year's levels, and 31% above the five-year average inventory for the reference week. Comfortable stocks would certainly cushion a potential disruption in the short term, even one lasting several weeks. While the continued escalation of the political tensions could cause further volatility and spikes in European natural gas prices, upside risks are limited in magnitude and duration by high inventories and weak demand.

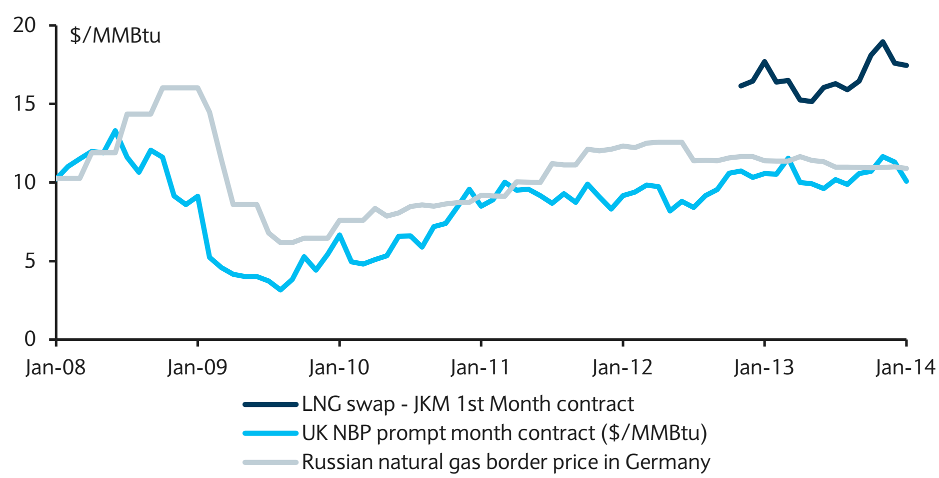
While the political situation has escalated drastically, Russian gas flows transiting Ukraine have not been part of the rhetoric so far and exports have continued uninterrupted. Indeed, with Europe relying on Russian gas for over 30% of its consumption, Ukraine meeting a major part of its needs with Russian gas, and Russia counting on gas exports as a major revenue source, all three sides would suffer economic consequences from a potential disruption. Today (March 4, 2014) , Gazprom said it would raise natural gas prices for Ukraine from April, following up on a warning issued earlier that Ukraine would lose the gas price discount if it does not meet agreed upon payments on an estimated $1.5bn dept as scheduled. Ukraine has informed Gazprom that it cannot pay for February gas deliveries according to Interfax. Russia had agreed to reduce gas prices to Ukraine from about $400 per thousand cubic meters to about $268.50 in December 2013. This would mean higher gas prices for Ukrainian consumers, but does not necessarily suggest greater risk to Russian gas exports transiting the country.

A halt of Russian gas flows through Ukraine does not appear imminent at this time

Risks to a potential cut-off of gas flows through Ukraine cannot be ruled out in the face of the current political stand-off; however, a halt of flows does not appear imminent at this time. Gazprom has strived to be perceived as a stable supplier in recent years, as its role of a dominant natural gas supplier to Europe was strongly challenged in 2009/10 with a drastic jump of cheaper spot LNG imports. Since then, global LNG markets have tightened significantly. With spot LNG prices near $17 per MMBtu, LNG imports are now much more expensive than Russian pipeline gas imports, which Bloomberg puts at $10.90 per MMBtu ("Russian Natural Gas Border Prices in Germany") (Figure 3). However, the implications of the 2009/10 disconnect between European spot gas and long-term contracted pipeline

FIGURE 3

European natural gas and global LNG prices, monthly



Source: Bloomberg, Barclays Research

import prices are still reverberating in a series of price disputes which have resulted in changes to the price structure of several of Russia's export agreements. This perspective is perhaps also increasingly in focus for Russia, as the US makes strides toward becoming a large LNG exporter later this decade, in part with the stated goal of helping Europe reduce its dependence on Russian supply. In this context, any effort to cut off gas supplied to Europe may harden the US resolve to pursue LNG exports as a way to support European allies.

In the near term, the significant premium of spot and contracted LNG prices to European natural gas benchmarks means that a potential gas disruption would have to be sizable and prolonged before LNG cargoes are called on to make up any supply shortfall. Thus, a spill-over effect on the LNG markets is highly unlikely at this time, in our view.

OECD Europe distillate inventories in short supply

Heating oil inventories are well below five-year average

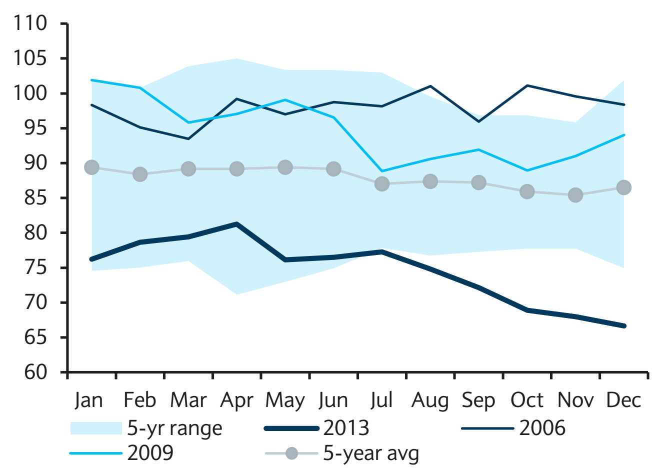
Oil markets jumped on Monday March 3, due to concerns about a military conflict. Though markets retreated on Tuesday, March 4, the possibility of a natural gas shutoff remains a reality and would require backup oil product supplies. The acute reaction was partly due to the low stock levels of heating oil, which remained well below the five-year average and 2009's levels at end-2013. In 2009, countries restricted trade of heavy fuel oil during the crisis, exacerbating the need for backup oil supplies. Gasoil futures have always increased to various degrees when these disruptions occur (Figure 5). According to the *Oxford Institute*, in Eastern Europe, there were reports of consumer fuel hoarding, possibly because of higher traffic levels or as a hedge against rampant inflation. Oil prices could also increase if Russia chooses to curb supplies of oil to Ukraine, forcing the country to import supplies from the world market. Ukraine consumed around 300 kb/d in 2013, of which around 50 kb/d was provided domestically. Russia provides most of the imports via the Southern Druzhba line, which is also used to export an additional 300 kb/d of oil to Slovakia, Czech Republic, Hungary, and Bosnia Herzegovina. Those exports account for around 8% of Russian crude exports to non-CIS countries and are exports that Russia is unlikely to put at risk. Therefore, until Europe exits the winter heating season, oil prices will remain sensitive to gas disruption risk.

Crisis puts long-term investments in the oil and gas sector in jeopardy

Russia is the second-largest crude and NGL producer in the world and it will need technology and knowledge to sustain oil output. Therefore, the more profound effect of this crisis may be on longer-term oil investment. The improvement in US-Russian relations in the aftermath of the 'reset' has also been accompanied by new strategic partnerships with the US and other Western companies. For example, ExxonMobil is working with Rosneft on a

FIGURE 4

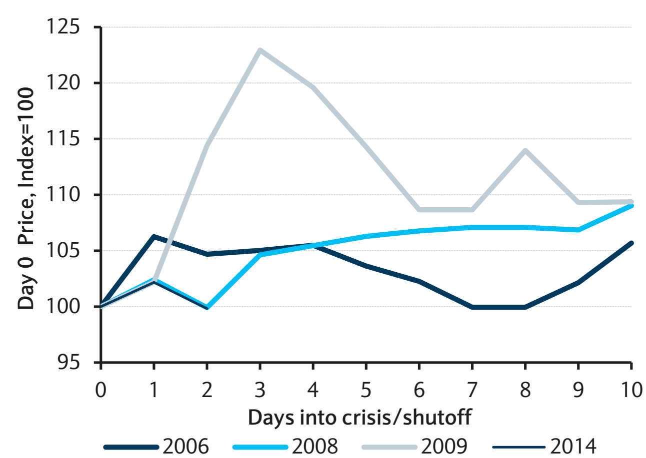
OECD Europe heating oil stocks are well below the five-year range, mb



Source: IEA, Barclays Research

FIGURE 5

ICE Gasoil price effect muted in 2014, given no physical disruption



Source: Bloomberg, Barclays Research

tight oil pilot project in Western Siberia, an exploratory well in Arctic's Kara Sea, and an LNG project. ExxonNeftegas Ltd. (ExxonMobil 30% share) recently completed an expansion at Sakhalin-1, but more development had been expected in the next decade in other parts of the area. These investments hang in the balance, given the prospect of US sanctions. Commercial negotiations may pause as the political relationship is normalized. Russia's companies will seek to maintain these beneficial partnerships, but US companies that seek further opportunities in Russia may find themselves at a disadvantage to other companies until the bilateral relationship improves again.

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