Written by Richard B. Andres, Michael Kofman and Micah J. Loudermilk Tuesday, 15 March 2011 00:00

Tensions between Ukraine and Russia are not new, but their resurgence bodes ill for European energy security. This latest dispute between Europe's largest natural gas supplying state and its key gas transit state should be a warning flag to Europe that, despite efforts by the IMF and other countries, the underlying causes of the dispute that left Europe without gas for heating and electricity in 2009 remain unresolved and require European intervention. Below we describe the nature of the problem and propose an approach for addressing one of Europe's most important energy security problems.

For some time, Europe has been vulnerable to gas disputes between Russia and Ukraine as Russia supplies over 40% of the European Union's gas and 80% of this arrives via Ukrainian pipelines. The situation is likely to worsen significantly in the future as dwindling domestic supplies and burgeoning demand are projected to result in a 37% increase in gas imports for Europe by 2030. This dependence, however, is not one-sided. Russia relies on European gas exports for 20% of its government's operating budget and needs Ukrainian pipelines to transport the gas to market. Ukraine is similarly not immune since it depends heavily on Russian gas for domestic energy use.

The dispute between Russia and Ukraine has its roots in the Cold War economic relationship between the Soviet Union and Ukraine. As part of its satellite system, the USSR built the Ukrainian pipeline system to supply Eastern Europe with gas from Russia and its Central Asian republics. Over time, many Eastern and Central European countries became dependent on gas subsidies for their industries, heating, and electricity generation. Decades of cheap gas supplies led to incredibly inefficient domestic industries, and removing subsidies has proven politically difficult. In the post-Cold War era, while Russia has sought to raise the prices that Ukraine pays for gas, Ukraine has habitually used its near monopoly on gas transit routes from Russia to Europe to push back.

After numerous disagreements, the pricing dispute came to a head in 2005 following the Orange Revolution when Ukrainian citizens elected a president perceived to be anti-Russian. Russia immediately reduced its gas subsidy to Ukraine, and in the murky events that followed natural gas was briefly cut off to European markets. Those same tensions persisted throughout the next several years, and the lack of resolution culminated in a 2009 standoff that left Europeans without access to Russian gas for over a week.

The gas politics of 2005 represented a sea change in the relationship between Russia and Ukraine. Prior to the 2004 elections, the dispute between the two countries had revolved almost entirely around pricing. After the Orange Revolution, however, it became clear that Russia also viewed gas prices as a political weapon to punish Ukraine for its decisions and as a lever to push Ukraine out of its increasingly Western orbit.

By 2010, Russia's approach appeared to have worked. In elections held that year, amid worsening relations with Russia and devastating economic problems, Ukraine repudiated the Orange Revolution by electing the original 2005 pro-Russian candidate Victor Yanukovich to the presidency. With Yanukovich in power, Russia quickly agreed to a new gas pricing arrangement that lowered prices from agreed levels and was widely perceived as a return to the policy of subsidized Russian gas prices for friendly states.

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In reality, political hype aside, the new gas pricing deal did little more than bring Ukraine's prices in line with the rates paid by other European consumers as a result of the growing gas glut and falling market prices. At the same time, the political dimension of the gas dispute continued as the price renegotiation was packaged with a Ukrainian extension of Russian basing rights for its Black Sea Fleet. Ukraine committed to fixed import volumes and gave Russia a basing extension in exchange for a gas pricing arrangement that is questionable on commercial terms alone. It settled for paying the Western European market rate in a complex deal with poorly defined terms of implementation. While the basing agreement is self executing, Russia can continue to play with the terms of the gas pricing deal if it chooses to seek further concessions in the future. Ukraine's leaders are already voicing what can only be described as buyer's remorse.

## The dynamics of the duel

For European gas customers affected by Russia and Ukraine's gas quarrel, the fundamental problem is the underlying incentive structure of the relationship between the two countries. On the surface, the problem is that the two states cannot come to an agreement—or stick with an agreement—about how much Russia should pay for access to Ukraine's pipelines and how much Ukraine should pay for Russian gas. This disagreement leads to a game of brinksmanship in which each threatens to cut off gas flows to Europe if the other will not back down. For Ukraine, a breakdown in negotiations means losing access to the gas that powers its industry and heats it homes. For Russia, a stalemate means losing access to the European markets its needs to fund government operations, and, worse yet, it means being seen as an undependable supplier to markets that are poised to look elsewhere for solutions to their energy needs.

At a deeper level the problem is that Ukraine's gas transit system is so old, decrepit, and corrupt that it offers both Ukraine and Russia an overwhelming incentive to make deals and then cheat on them. After the Orange Revolution, for instance, Ukraine agreed to Russia's higher prices for gas but then claimed that it had lost eight billion cubic meters (bcm) of Russian gas. Due to the opacity and decrepitude of its infrastructure, Ukraine could make the claim with at least some degree of plausibility. Similarly, in both the 2006 and 2009 gas shutoffs to Europe, Ukraine was able to blame the absence of technical gas in the pipelines for decreased gas flows to Europe and subsequently transfer blame to Russia. The lack of transparency similarly benefits Russia, which can also make equally un-provable allegations against Ukraine.

The problem of aging infrastructure is compounded by the fact that both Russia and Ukraine's energy industries are state-controlled, and their business negotiations are largely conducted by national leaders. As a result, gas contracts are not constrained by market discipline and are subject to political considerations and to the context of relations between the two countries. On one side, this has resulted in Russia being able to use gas policy to separate Ukraine from the West, while on the other it has caused Ukraine to regularly lock itself into unaffordable prices and import volumes well above domestic requirements. The recent gas deal signed between Russia and Ukraine after Yanukovich's election is a case in point. Not only was it linked to Ukraine's 25-year extension for the Russian Black Sea Fleet basing rights in the Crimea, it also resulted in Ukraine promising to import 40 bcm per year, an amount well above its domestic demand.

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#### **Solutions**

The dynamics described above have resulted in a situation that destabilizes Europe's gas supply and provides Russia with cover to use gas as a political lever against Ukraine and potentially against Europe. IMF loans to Ukraine and recent agreements with Russia have provided a temporary degree of stability, but finding long-term solutions in the near future are imperative to provide for both Ukraine's fiscal future and for Europe's energy security. Currently, four main potential solutions are on the table, each of which we discuss below.

# New pipelines

Arguably the simplest way to alleviate the supply problem between Russia and Europe is to dilute Ukraine's centrality by building alternative pipelines—an option which Gazprom is currently pursuing in the Nord and South Stream lines. While in theory this should alter the transit dynamic, the reality is considerably different. Even if both pipelines are built and operate at maximum capacity—something that is unlikely to happen—they will only add between 85 and 120 bcm of capacity to the system. Meanwhile, analyses of projected growth predict a European demand increase of 200 bcm by 2025.

In addition to supply problems, neither the Nord nor South Stream pipeline is yet operational. The South Stream exists only on paper, is plagued by logistical problems, and has stalled due to the global financial crisis and the current natural gas glut. While the Nord Stream pipeline is currently under construction, Gazprom has delayed developing the Shtokman field to supply the pipeline. Even if both the Nord and South Stream come online in the near future, overall European demand will still increase at a rate faster than the compensation provided.

To further complicate the situation, it is doubtful that Russia can secure sufficient gas to fill the new pipelines as Shtokman remains undeveloped and a new pipeline between Turkmenistan and China will reduce Russia's ability to obtain abundant and cheap Central Asian gas. New natural gas pipelines may reduce Russia's complete dependence on Ukraine, but its transit system will remain an integral piece of the puzzle.

## IMF reforms

Given the large number of internal problems within Ukraine, another option to bring stability to Europe's natural gas supply is to reform the country's energy sector. Inefficient, state-controlled, corrupt and bankrupt, Ukraine can easily be blamed as the source of Europe's energy insecurity. The crux of the problem is that Ukrainian citizens pay far below market rates for their natural gas use, and since politicians are reluctant to push up prices the state is forced to support Naftogaz at a rate amounting to three percent of Ukraine's GDP. Lasting reform cannot occur without significant increases in gas costs—approaching market value—for Ukraine's residential and commercial consumers.

The IMF, in its latest round of negotiations with Ukraine, has recognized the necessity of domestic price increases as part of a broader plan to stabilize Naftogaz's finances and to eliminate its enormous budget deficits. A 29-month, \$15.1 billion loan, finalized in late 2010, contains numerous provisions for reform of the Ukrainian gas sector—namely, the gradual raising of domestic prices to import-parity and the adoption of a price-setting mechanism to depoliticize public utility price setting. Under the IMF's aggressive deficit-cutting plan, all of

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Naftogaz's deficits would be eliminated in 2011 and Ukraine would seek World Bank backing to fund infrastructure modernization in 2012.

However, with Ukraine's citizens cash-strapped, such increases will prove unpalatable, while Gazprom, under financial pressure itself and seeking to maximize profits, is unlikely to dole out price cuts. Ukraine's leaders have committed to gradual increases of domestic energy prices as part of the IMF deal, but it remains to be seen whether or not they will implement these politically costly reforms or if this effort will die like so many other initiatives. Ultimately, while reforms have the potential to improve the operations of Ukraine's energy sector, they will prove extremely difficult in the near term and will not solve recurring disputes between Ukraine and Russia over gas prices as Ukraine seeks to ease the financial pain of energy cost increases on its citizenry.

# Russian ownership

At the recent Davos meeting, Yanukovich argued that the best solution is for Russia to invest into Ukraine's decrepit gas infrastructure—a move that would modernize the transit system and increase its capacity by 20 to 60 bcm. Conversely, Russia is currently pouring money into the Nord and South Stream pipelines in an effort to bypass Ukraine's infrastructure. In truth, neither of these solutions would go far toward solving the underlying problem for Europe, Ukraine, or Russia.

Yanukovich contends that a \$5 billion Russian investment in Ukrainian infrastructure will yield similar or better results than the \$25 billion being spent on the South Stream pipeline, which Russia is pursuing instead. Ukraine is in a difficult position as it seeks to modernize since it does not have the money to fund the projects itself. At the same time, Ukraine also needs to keep Russia placated to preserve affordable import bills.

Problematically, Russia has historically demonstrated interest only in agreements where it obtains the dominant interest with minority partners that defer to Gazprom. Late last year, following an agreement between the EU and Ukraine on cooperation in Ukrainian infrastructure modernization, Gazprom announced that it would seek a joint partnership with Naftogaz, bluntly stating that Russian funding of the modernization would accompany a merger between the two companies. This move affirmed beliefs that future Ukrainian negotiations with Gazprom will only come as part of a larger discussion on at least partial Russian ownership of Ukraine's infrastructure.

Yanukovich and Ukraine are running out of cards to play against the Russians, having already exchanged an extension of Russian basing rights in the Black Sea for a 30% reduction in gas prices. As Ukraine's negotiating position weakens, opportunities grow for Gazprom to achieve its ultimate goal – acquisition and control of the Ukrainian infrastructure and consolidated control over the gas flow to Europe. Ukrainians cherish pipeline ownership as part of their national sovereignty and a key source of leverage, but they cannot survive on IMF loans forever, or even afford to maintain this infrastructure on their own. Without active European involvement and investment Russia will continue to chip away at Ukraine until it acquires a controlling share of its energy infrastructure.

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# European investment

In a desperate search for balance, Ukraine could prove more receptive to European investment. Indeed, the proposal for greater EU investment that emerged from the March 2009 International Investment Conference on the Modernization of Ukraine's Gas Transit System was a good first step in this direction. Opening Ukraine to foreign investment and partnership with the EU represents a practical step towards resolving the volatility of gas disputes and the problems plaguing Ukrainian energy infrastructure.

While the European Union is both willing and able to invest money in a modernization and reform program for Ukraine's energy, European financial capital will come with strings attached—including demands for market transparency, privatization of Naftogaz, and raising domestic prices to market levels. In addition to much-needed funds, an EU presence would bring modernization to the transit infrastructure and transparency into natural gas transport, and would limit the ability of either Ukraine or Russia to use technical issues as a negotiating tactic.

This option would also limit the possibility that future disputes will turn into energy crises. Given Europe's dependence on both Ukraine and Russia for its natural gas, breaking the bilateral nature of the gas negotiations carries a host of benefits for Europe, providing a degree of stability and a mediator-role in the event of gas disputes. Such an arrangement would also provide Ukraine with an invested ally and financial capital, and would provide Russia with a long-term and stable energy partner. It would raise significant capital for Naftogaz, ameliorate Russian leverage in disputes, and bring greater transparency to an otherwise cloudy process.

# **Bottom line**

Ultimately, the foundation for an energy security framework that ensures stability of supply to Europe will not be found in a single solution. Alternative pipelines will relieve some of the pressure on Ukraine, but will further consolidate Russia's control of the European gas market. Internal reform within the country is also imperative as Ukraine needs funds in the immediate future, and monies from the IMF and the EU are contingent upon substantive domestic changes to the Ukrainian gas market. Short-term pricing renegotiations will not solve Ukraine's long-term fiscal problems, and Europe will face future gas interruptions unless the EU takes a more active role in the process.

Similarly, without greater investment, Gazprom will likely force Ukrainian cession of ownership rights over its pipeline network in future negotiations over gas prices and modernization aid. Barring major reform, Russia's past willingness to use natural gas as a political weapon is probably indicative of its future actions towards Europe.

The dire state of the Ukrainian economy and the recent election of a Russian-friendly government should provide the EU with the necessary impetus to act. Time is a factor as Ukraine's position continues to weaken. Ukraine cannot be viewed as a business opportunity alone, but rather as a long-term partner imperative to ensure European energy security. While partnership with the EU will not fully fix the Ukrainian energy sector, it is certain to reduce the volatility of future pricing disputes and is the only solution that does not leave Europe's security solely in Russian hands.

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