RUSSIA AND EUROPE'S MUTUAL ENERGY DEPENDENCE

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In the field of energy, Europe will be confronted with various risks in the next twenty years. Most notably, there is no clear alternative to fossil energy on a large scale with the possible exception of nuclear energy; yet few countries are able to pay for the large investment required by a nuclear industry. The need to ensure greater energy security and better regulation of energy supplies will turn energy policy into a much more politicized issue. Energy, already an important security concern, will continue to shape future military and political relations, especially if there is no other option other than oil and gas to satiate growing demand.

Many energy security issues in Europe take a strong east-west slant for geographic reasons: Russia is close to Europe; it possesses huge oil and gas reserves; and it is a natural energy supplier for the European Union. Economic and political interdependence between Russia and Europe is obvious over the long term, though it may seem less so in the short term, given Russia's reactions to recent energy projects in the region.

It is estimated that natural gas will constitute 22 to 29 percent of all world energy supplies in 2030, with the increase in demand stemming primarily from new gas power plants built in the next twenty years.[1] Natural gas is expected to be the second most important source of energy in Europe, just behind oil and shoulder to shoulder with coal (nuclear and renewable energy being a distant fourth and fifth respectively).[2] Indeed, the European Commission's *Second Strategic Energy Review* of 2008 forecasts that "Europe will continue to rely on oil and gas imports until 2020, despite efforts to switch to a low-carbon economy."[3]

European Union Gas: Between Dependence and Competition

To understand the tricky energy relationship between Europe and Russia, one must first understand Gazprom, the three main east-west gas pipeline projects currently underway, and the Russian oil and gas industries.[4]

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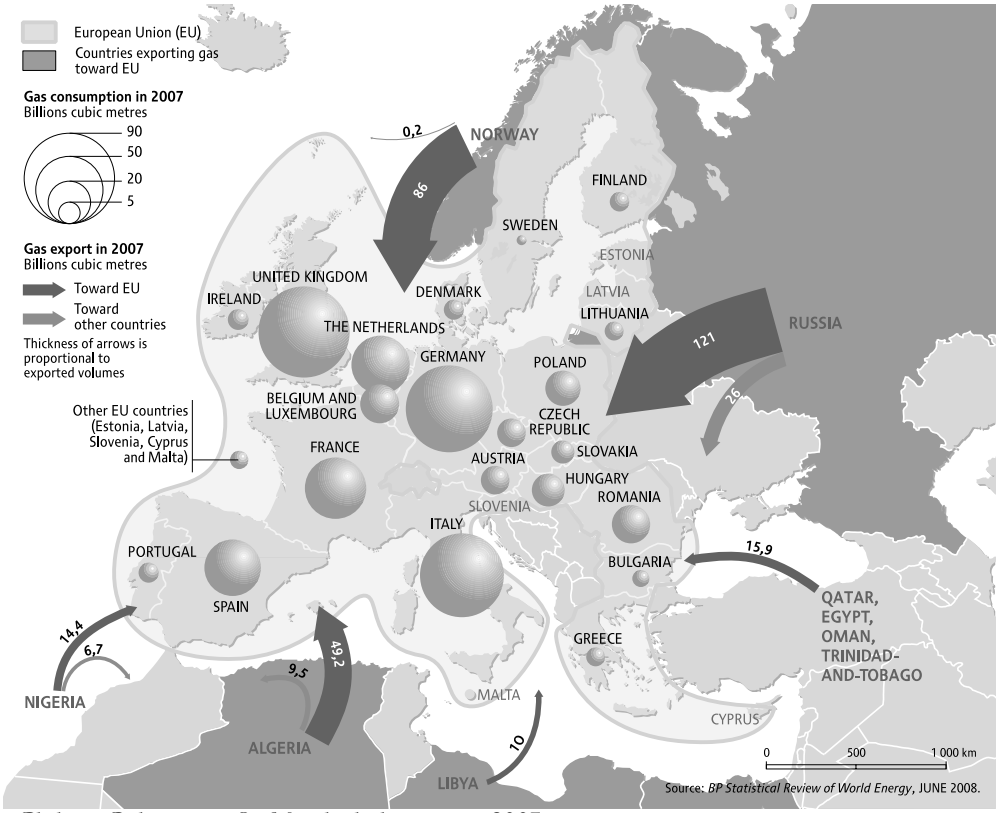
Figure 1: Gas pipeline projects throughout Europe



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The future of European gas markets is dependent on three gas pipeline projects: two supported by Russia (Nord Stream and South Stream) and one by Europe and Turkey (Nabucco), whose aims are to bring Caucasian gas to Europe.

The Nord Stream pipeline project or "North European Gas Pipeline" (NEGP) is a planned offshore pipeline running from Vyborg (Karelia) in Russia to Greifswald in Germany. The plan is to build two parallel pipes delivering 27.5 billion cubic meters (bcm) per year to Europe; the first pipe is to be built in 2010-2011 and the second in 2011-2012. The estimated cost of the project is €15-16 billion.

The project is managed by two German energy companies, BASF and E.ON, with each holding 20 percent of the shares; the Dutch gas company N.V. Nederlandse Gasunie has 9 percent of the shares and the Russian gas company Gazprom has the remaining 51 percent. This consortium is negotiating to sell the French company, GDF SUEZ, about 9 percent of the shares. This new interest in pipeline development is a consequence of the latest Russia-Ukraine gas crisis of 2009 which culminated in the temporary cutoff of gas delivery to Europe.

On the NEGP project, the positions of different European actors are quite

divergent. The European Commission's energy commissioner confirmed the commitment to building the pipeline, but the European Parliament cautiously noted that the project contained "a wide political and strategic dimension for both the European Union and Russia…[and a] lack of institutional structures capable of responding adequately to the environmental and geopolitical security issues associated."[5] More recently, in January 2010, Polish Foreign Minister Radosław Sikorski labeled the Nord Stream pipeline project "a waste of European consumers' money."[6] In order to mitigate European opposition, former German Chancellor Gerhard Schröder was appointed head of the shareholders' committee and former Finnish Prime Minister Paavo Lipponen was hired as a consultant. Both are seen to have helped speed up the application process in their respective countries.[7] Despite some hostility to the project inside Europe, work will commence in April 2010 thanks to Sweden and Finland's recent decision to join the project (after being assured that environmental damages would be limited). The NEGP pipeline should be finished in 2012.

The South Stream pipeline is another Russian-backed project. Announced in June 2007, South Stream will transport Russian natural gas through the Black Sea to Bulgaria, Italy, Hungary, and Austria. The consortium for this project, South Stream AG, is a joint company comprised of Gazprom and ENI, Italy's main oil company. The leading French electricity group, Électricité de France (EDF), is also attempting to acquire a minority stake.[8] The South Stream project is planned to carry 63 bcm of natural gas per year. While its completion is expected by 2015, doubts have arisen regarding the project's feasibility: many commentators view South Stream as a rival to Nabucco with both projects racing against the clock for funding, market share, and press. Russia, for its part, claims that there is not enough gas to fill Nabucco (unless Nabucco uses Iranian gas, which is unlikely in the short term due to political instability there), and insists that South Stream's gas is safe and ready to be delivered to Europe.

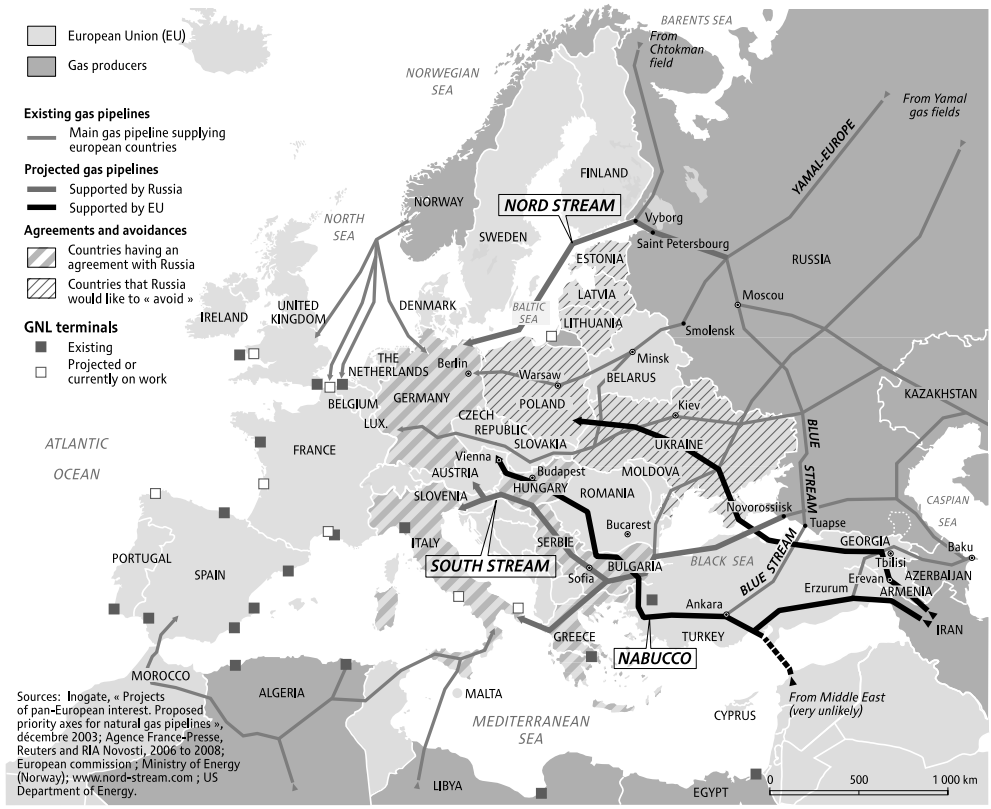
The Nabucco project is the only proposed natural gas pipeline without any direct Russian participation and, as such, is seen to be a rival to Russian ambitions in the region. It is planned to run from Erzurum in Turkey to Baumgarten an der March in Austria. It aims to diversify Europe's current natural gas suppliers and delivery routes, creating a southern corridor free of any Russian interest and supplies.

The project started in 2002 with a consortium of six companies, including OMV of Austria, MOL of Hungary, Bulgargaz of Bulgaria, Transgaz of Romania, BOTAŞ of Turkey, and RWE of Germany. Many European Union states, Turkey, Georgia, and the United States back the project, but there are doubts concerning the viability of its supplies. The main supplier is expected to be Azerbaijan, in

cooperation with Turkmenistan, Iraq, and Egypt. Excluding Russian reserves, however, Eurasia's main gas reserves are concentrated in and around the Persian Gulf, making Iran necessary as a major partner. Yet there are scant signs from Tehran that Iranian political and economic aspirations are similar to European ones with regard to oil and gas development in the next 20 years.

For this reason, plans for the pipeline—expected to be operational by 2015 with 31 bcm of natural gas per year—seem overly optimistic. An inter-governmental agreement between Turkey, Romania, Bulgaria, Hungary, and Austria was signed on 13 July 2009 to clarify the aims of the project, but a recent decision by Azerbaijan to consider joining South Stream could be a death blow to the project.[9]

Figure 2: European gas constraints in perspective



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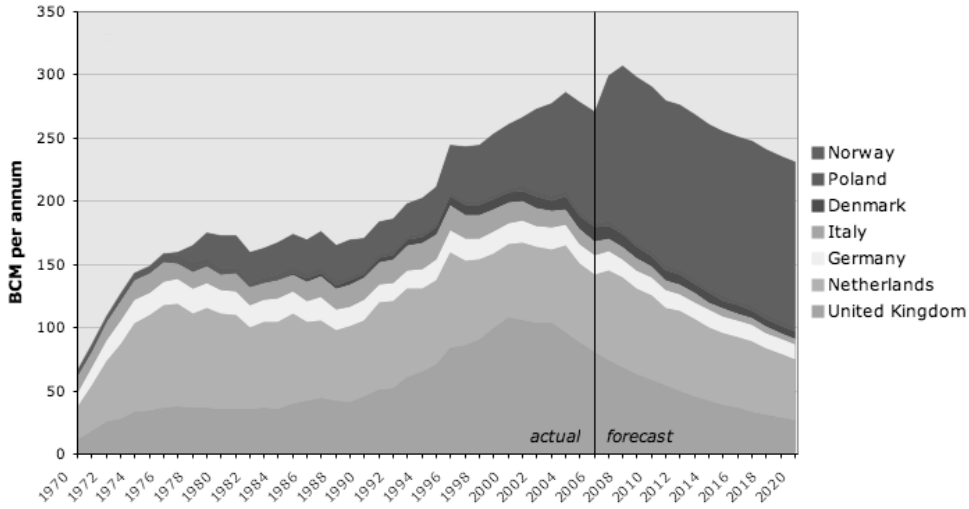
Supply Strategies

World gas reserves are abundant, with the potential for at least sixty years of consumption.[10] These reserves, however, are concentrated in a few countries such

as Iran, Qatar, and Russia. In Russia, there is no uncertainty about the quantity of gas available and the ability to exploit it properly. Gas production there will increase over the next twenty years, giving Russia the lead on gas markets for quite a long time provided that Gazprom and the Russian government agree to invest in key infrastructure and gas fields. Nevertheless, in contrast with the flexibility of oil markets, gas exports will still be dependent on pipelines and regional markets due to the prohibitive cost of delivering liquefied natural gas (LNG) via tankers to consumer areas.[11]

Inside the European Union, gas resources are undergoing a much-observed depletion, especially since European production started decreasing in the North Sea.[12] 2008 was certainly the peak year of European gas production, though new fields may still be found.[13] Falling production explains why supply from European fields will only meet around two thirds of continental European gas demand by 2015, and less than a quarter of demand by 2025.[14]

Figure 3: OECD Europe Gas Production and Conceptual Forecast



Source: OECD/IEA World Energy Outlook 2008, www.theoildrum.com.

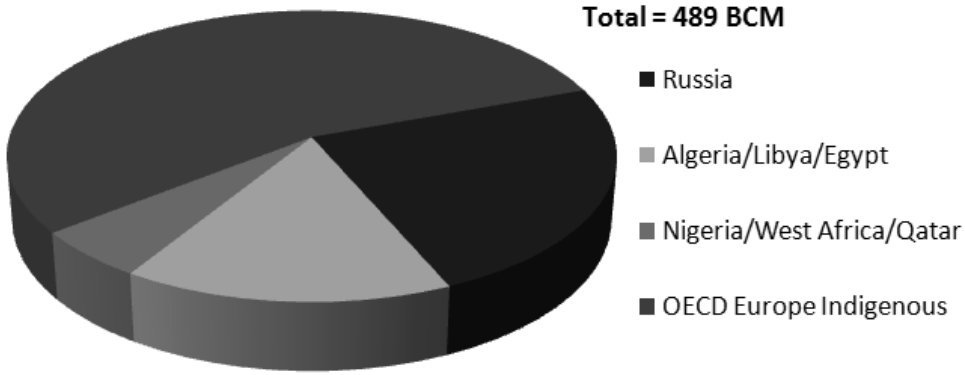
This situation will cause Europe to be increasingly dependent on gas exports from Russia. Russia, in turn, will be the key player in supplying gas to European countries, especially those that choose to abstain partially or entirely from nuclear industries, such as Germany and Italy.

The physical divide between Russian producers and EU consumers underscores the strategic positions of Ukraine, the Caucasus countries, and Central Asia. Russia has the means and the political will to create new routes and to make countries favorably disposed to its economic and political interests, regardless of

European policy.

Commercial and technological change will create new maritime gas routes thanks to the robust development of LNG industries. LNG development will reduce the cost of gas from offshore sources and will have a deep impact on the way gas markets function. One can only wonder what Russian attitudes toward LNG will be or what the relationship between Europe and the United States on maritime gas exports will look like if Russia becomes one of the United States' main gas suppliers. Presidents Bush and Putin did try to sign a bilateral agreement in 2006 during a meeting that took place alongside the Asia-Pacific Economic Cooperation summit.[15] For the time being, however, the prospect of Russia becoming a lead gas supplier to the United States is unlikely due to the lack of Russian infrastructure in the Kola Peninsula and the lack of ships ready to export gas from Russia to the United States. Putin has nonetheless been uneasy with Russia's dependence on European markets; Russian natural gas exports might only account for 25 to 30 percent of the European Union's gas needs, but constitute 90 percent of Russia's gas exports.[16]

Figure 4: OECD Europe Sources of Gas Supply 2006

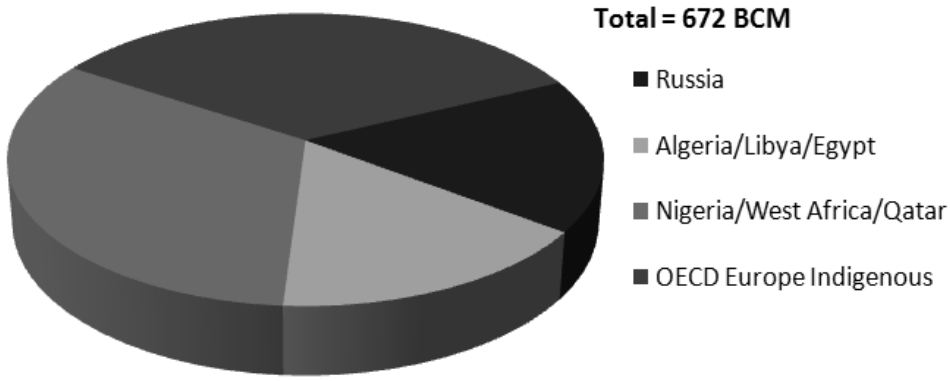


Source: OECD/IEA World Energy Outlook 2008, www.theoildrum.com.

Whatever the Russian attitude is, its strategy will influence European energy policies on oil and gas.[17] The still-growing European dependence on Russia, if renewable and energy efficiency do not meet European needs, could double by 2020. By then, Russian gas is expected to comprise 55 percent of European gas consumption, compared to 25 percent today.[18] The Caspian Sea and Ukraine will thus play a more important strategic role than ever, not only because of their importance to Russia in controlling new pipelines, but also because of their neces-

sity in keeping the southern corridor open to bring Iranian, Azeri, and Turkmen gas to Europe over the next twenty years.

Figure 5: OECD Europe Sources of Gas Supply 2020



Source: OECD/IEA World Energy Outlook 2008, www.theoildrum.com.

Through Gas Pipeline Projects, Russia Aims to Gain a Foothold in Various European Energy Sectors

Russia's economy is heavily dependent on oil and natural gas exports, and at the same time, Russia plays a defining role in the European energy sector as the largest exporter of oil and natural gas to the European Union.[19] In light of this situation, the main challenges Europe will face in its relationship with Russia will be shaped by four realities:

First, energy (and gas in particular) is the only economic sector in Russia that is reasonably efficient. Except for arms and minerals, Russia has no other credible exports. Toys, washing machines, clothes, and other manufactured goods are exported to Europe from all over the world, but very few of these products come from Russia. President Dmitry Medvedev admitted as much in September 2009:

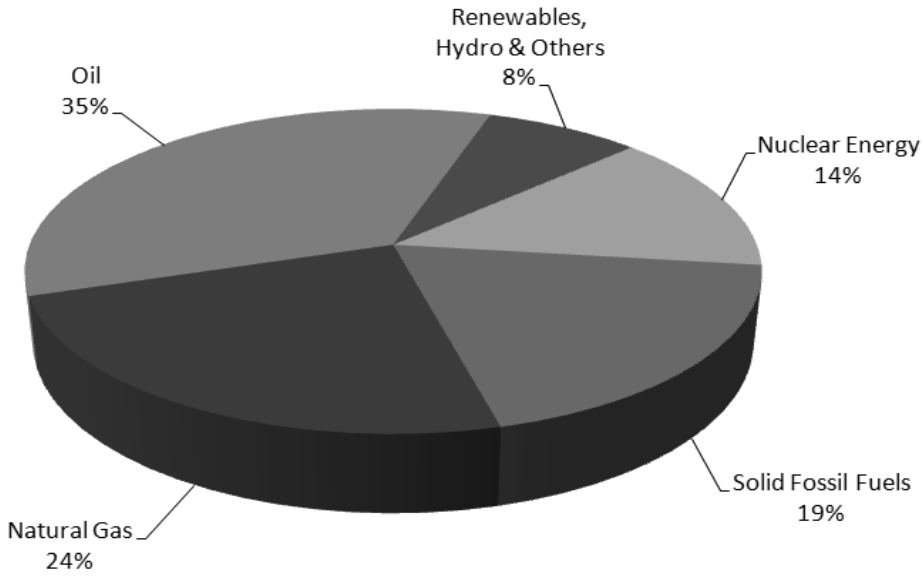
> Achieving leadership by relying on oil and gas markets is impossible. We must understand and appreciate the complexity of our problems. We must frankly discuss them in order to act. In the end, commodity exchanges must not determine Russia's fate; our own ideas about ourselves, our history and future must do so....These ills include centuries of economic backwardness and the habit of relying on the export of raw materials, actually exchanging them for finished products.[20]

This acknowledged weakness makes Russia dangerous for European negotia-

tors because it has no other option but to sell its oil and gas at a price high enough to protect Russia's domestic stability.

Second, Europe is an unavoidable partner for Russian energy companies. Over 70 percent of Russian crude oil production is exported; 60 percent of Russian crude oil and 90 percent of Russian gas go to the European Union.[21] Russian crude oil meets 15 percent of European oil needs. Japan, China, and the United States are still emerging markets for Russia and it remains unknown if these countries will play an important role for the Russian energy industry in twenty years. Europe will continue to be Russia's main energy export outlet and LNG will bring more uncertainties to Russia than to Europe because LNG from Africa or the Middle East provides Europe with a real alternative to Russian gas over the long-term.

Figure 6: Primary Energy Consumption in the European Union



Source: Enerdata, European Commission.

Third, dependence is a two-way phenomenon. As stated above, the Russian gas network is 90 percent dependent on European markets. To build new networks, the industry needs to invest labor, money, and time. Russia does not have any new cards to play; it is displaying a tough attitude in gas contract negotiations because Russian negotiators know they do not have a "BATNA" (best alternative to a negotiated agreement). Indeed, some 40 percent of Russian public money comes from European oil and gas markets.[22] Between 75 and 80 percent of Russian export revenues are directly linked to the European Union energy market.[23] Strangely,

European leaders do not realize how fragile Russia is when considering their own energy dependence.

Fourth, oil and gas are part of a game of blackmail, lies, and fear between Russians and Europeans. Chechnya, human rights in Russia, Kaliningrad, and minorities in the Baltic States are considered minor challenges to Russia in comparison to the issue of energy. Because energy is now a question of life or death for Russian revitalization and prosperity, these issues do not have the same importance in Russian policymaking. For Europe too, access to energy is crucial to its future economic success. This explains why Europeans are cautious when responding to any crisis in Ukraine or around the Black Sea, as they want Russia to continue supplying them with oil and gas.

In relation to these four points, Europeans should consider three key security matters:

First, Europe must maintain a stable security situation around its borders to prevent Russia from bullying its neighbors. Instability in Ukraine, the Balkans, or in the Caucasus mountains always has a price. If Russia bullies states such as Georgia, or gains control of the Baku-Tbilisi-Ceyhan (BTC) pipeline or any project aimed at developing the southern corridor, Europe will lose its already imperiled credibility in the area. The physical control of key infrastructure and oil and gas routes is vital, as is the independence of European refineries, European oil and gas companies, and European plants.

Oil and gas are part of a game of blackmail, lies, and fear between Russians and Europeans.

Second, Europe must keep its technological advantage, which is like a form of insurance in the oil and gas game. Protection of innovative technologies and companies able to help limit future energy consumption will give Europe a trump card to play with actors such as Russia and China. France already organizes key-technology exercises to help delineate the line between strategic and non-strategic sectors. The rest of Europe should do the same in the energy field and should examine other ways to protect its technological advantage.

Third, economic security must be reinforced by monitoring money flows. Monitoring is key to preventing financial circulation from Russia to countries known for ranking high on the Organization for Economic Co-operation and Development's list of corruption.[24] Switzerland, which is not an EU member, or Cyprus, might be best situated to handle these tasks.

Strategic Perceptions: Russian and European Points of View

Differing Russian and European interests will have an impact on strategic per-

ceptions at both ends of the European continent. Europe should develop political and strategic tools to answer Russia's challenges on energy and security but negotiations have thus far been a free-for-all in which European energy companies move from one agreement to another without any unified, regional strategy.

The construction of a balanced gas partnership and energy security through stability of supply will require the EU to develop a different attitude toward Russia. In the long term, Europe must stand firm on issues like Ukraine, Nabucco, and Russian activity in Central Asia. Aware of Europe's dependence on imported Russian oil and gas, Russia still believes it has the upper hand in negotiations. But blackmailing Europe is not the right answer for Russia, which likes to think of itself as a victim of the Cold War, trying to take its revenge on "plutocratic westerners." This mindset should change, though it is unclear how and when this will occur. Paradoxically, it will be harder to make Europeans, especially Germans and Italians, understand that there is no favored position in the long-term with Gazprom. The value of long-term contracts and perceptions of energy security can be undermined if there is someone playing new, innovative cards. Again, LNG can play two roles: it can help Europe to bring gas from the Middle East, and it can give Russia, if it builds its own LNG industry, a way into Asian and North American markets.

Leaving aside the thorny question of who is going to be the winner on LNG, Russia and Europe will still need each other in the next twenty years for three reasons.

First, investment in the gas sector must grow at 5 percent of GNP per year in order to meet the energy needs in developed and emerging countries.[25] Although someone will have to pay for this investment, it is doubtful that Russia is going to be the banker, for various practical reasons. It will need an industrial and financial partnership with western companies such as BP, Total, GDF SUEZ, ENI, E.ON, and RWE. Russia will also need western money to help reduce its level of domestic energy consumption, which is relatively high compared to western standards of energy efficiency. Russia is the world's second-largest consumer of gas after the United States, even though its economic power is only one tenth the size.[26] Russia wastes a major part of its potential exports on its inefficient internal market.

Second, Russia will need to export its energy to Europe because it will take time before China's market develops to the same scale; the Chinese are using their own coal before letting Russian gas become a major source for their energy.

Third, fixed geography means that the easiest roads to external markets lie somewhere around the northern European plain. Pipelines are most preferably set on plains rather than mountains so that transit countries such as Hungary, Ukraine, Poland, and Belarus will continue to play a major role.

Russia seems to recognize that it has to show signs of better understanding toward European worries over gas suppliers. When the crisis occurred between Ukraine and Russia in January 2009, Russia unveiled a new international proposal on energy cooperation, which included a gas transit agreement, and addressed key questions of energy security. The project, "Conceptual Approach to the New Legal Framework for Energy Cooperation," identifies avenues of cooperation between Russia and Europe in the field of energy, such as transit routes and the security of supplies.[27] There is also a proposal for a new international energy treaty, something Russia first offered in 2008.

The draft was described by President Medvedev as a "basic document, which defines issues of cooperation in the sphere of energy, including proposals on a transit agreement."[28] This document seems to be directly inspired by the last Russia-Ukraine crisis, which Russia leveraged to promote the need for a new legal basis to reorganize energy relationships between nations: "The existing bilateral arrangements and multilateral, legally-binding norms governing international energy relations have failed to prevent and resolve conflict situations, which makes it necessary to efficiently improve the legal framework of the world trade in energy resources."[29]

The draft agreement is also partly dedicated to the issue of transit. It seeks to introduce principles to establish transit tariffs and to oblige all parties to ensure the proper fulfillment of transit requirements by their corporations. It also codifies that transit interruptions and reductions, which are of high significance for Eastern European countries like Hungary, Poland, and the Baltic States, are unacceptable. Furthermore, it promotes the responsibility of the parties for losses incurred and proposes the establishment of specific bodies to address emergency situations.

Arkady Dvorkovich, President Medvedev's top economic aide, said that this document would "essentially replace the Energy Charter…We are offering a new fully-fledged legal base for future energy cooperation…We are talking not only about gas or oil, but also about all energy products, including nuclear fuel, electricity, coal, and the rest of the goods in which we trade, in which countries in the energy sphere trade…Despite the many discussions and even promises, the current international legislation did not cover nuclear energy."[30]

The draft agreement proposes that Russia get free access to world markets—even though Russia has never been denied this right—and that no limit would be imposed on investment in any of the various energy sectors. The agreement is a means to get Europe to give free access to its industries and infrastructure without examining the issue of who is really in charge of Gazprom, Lukoil, and other Russian energy companies. While Moscow wants free access to western technology, it has yet to explain what it will provide to its European partners in return.

Russia has not succeeded, as President Medvedev has acknowledged, in the diversification of its economic activities since 1991. If natural resources are left out, Russia has only maintained its arms and space industry—though neither has produced a new product for world markets in the last ten years—and Moscow is still knocking on the door of the World Trade Organization. It is not difficult to see why Russia is unable to turn away from the old Soviet model to something closer to the Chinese model; the way the Russian government currently functions does not help the country to rid itself of its old social and political habits. Infrastructure is poor. As an example, Moscow's outskirts—not to mention areas such as Novossibirsk or Irkutsk—are still far from having decent roads and efficient public transportation.

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Other Middle and Low Income Countries are Able to Industrialize and Target Markets. Why Not Russia?

Russia's leaders admire China's success and are seeking to find similar ways to modernize the country. They believe China's "authoritarian modernization" is a model worth emulating, in so far as China's communist party advanced the country's economy without needing to grant its citizens many democratic rights and freedoms.

Due to minerals, oil, and gas, Russia's GDP rose from nearly $200 billion in 1999, to $1.3 trillion in 2007. Gold and currency reserves rose from $12.7 billion in 1999 to nearly $500 billion in 2007. The reserves of the Stabilization Fund reached over $150 billion. Although Russia was able to confront the global financial crisis that started in 2008, the crisis showed how weak and undiversified the Russian economy was. In fact, Russia had been suffering from a form of "Dutch disease" for the last fifteen years.[31] Last October, as described by *Ria Novosti*, "President Medvedev identified priorities for the domestic economy's modernization, with energy efficiency, information technology, civilian nuclear energy and pharmaceuticals outlined as target areas."[32]

While relying too much on gas, at least Russia knows it is central to the world gas system and is confident that it will be increasingly so in the next twenty years. In the future, gas will be the second leading fuel after oil. President Putin therefore understood that Moscow had to reorganize the oil and gas sector between 2003 and 2008 before it was too late. This attitude has had three different consequences.

First, in the upstream sector, Russia found a way to reorganize the whole gas

sector of the former Soviet Union around Gazprom. In the energy field, Russia is taking control of Central Asia, making Kazakhstan, Turkmenistan, and Azerbaijan its accomplices. It continues to look for a way to build a gas cartel along the lines of OPEC. When Iran and Venezuela began pushing for the creation of such a syndicate, however, the Kremlin was not too keen on creating an organization for negotiating with the European Union or China with such unpopular partners as Iranian President Mahmoud Ahmadinejad.

Second, Russia had attempted to obtain properties rights or leverage on transit tools in Ukraine, Central Asia, Belarus, and even inside the European Union. It appears that while the Eastern Bloc no longer exists, gaining control of energy assets is a way of reasserting Russian strength.

Third, in the downstream sector, Russian companies (Gazprom, VTB Bank, Rosneft) have been looking for opportunities to buy gas distribution, storage facilities, and strategic hubs such as Zeebrugge. Although they tried and failed to purchase Centrica in the United Kingdom, other attempts have succeeded, such as with WINGAS in Germany. A few states have signed agreements with Russia, including Germany and Italy. France, not wanting to be ignored if planned Russian transit projects come to fruition, is also trying to obtain an agreement. Indeed, Gérard Mestrallet, chairman of GDF SUEZ, met Vladimir Putin in July 2009 to speak about LNG, power networks, and Nord Stream.[33]

Nord Stream is one of Russia's many instruments to promote its energy and transit interests in Europe.[34] Gazprom proposed that its German partners, E.ON and BASF, or its Dutch partner, Gasunie, sell a portion to GDF SUEZ. Russia wants to cooperate with the French company in order to have on board the three main European continental states. It also wants GDF SUEZ's industrial capacity for LNG. An agreement was thus signed in November 2009 between GDF SUEZ, the Russian government, and Gazprom to acquire a 5.26 percent stake in VNG (Verbundnetz Gas Aktiengesellschaft), the German company in charge of the gas pipeline, and in exchange to allow GDF SUEZ to participate in the planned Nord Stream pipeline under the Baltic Sea.[35]

Russia plans to build a LNG plant in the Yamal Peninsula, where it has huge reserves of natural gas, and has proposed the involvement of foreign investors. It is, however, running late in the development of its LNG sector. Indeed, its first plant was only opened in February 2009, in Sakhalin.[36]

Russia uses these three energy lines (upstream, transit, and downstream) to seek dividends in three different fields:

Political dividends: Russia uses its energy supplies when confronted with international crises, such as those that occurred in Georgia and Ukraine. These countries put themselves in a more precarious position, energy-wise, by not giving

up the pursuit of NATO membership. Russia wants to keep its zone of influence in what it calls its "near abroad."

Strategic dividends: Russia is still looking for a way to instigate the political separation between Europe and the United States that it could not achieve during the Cold War. This will remain a long-term strategic goal for Moscow. Russia still hopes to have a say in European affairs, and follows local events in countries such as Latvia or Hungary closely.

Economic dividends: Russia knows it has a limited ability to produce goods for its domestic market. The use of oil and gas revenues for the benefit of government networks, mafias, or intelligence departments does not help develop local industrial capacity. Russia is thus looking for the power it lost abroad, being unable to gain new strength from internal industrial and economic progress.

European states have adopted disorganized and divergent strategies toward Russia in the last ten years while Russia has clearly pursued the goal of dividing Europe.

European states have adopted disorganized and divergent strategies toward Russia in the last ten years while Russia has clearly pursued the goal of dividing Europe. In this situation, EU member states have a right and a duty to present a common position vis-à-vis Russia and to demonstrate that there are positions which are unacceptable to all member states. Europe has to find ways to diversify its energy supplies, to find new suppliers, to develop its own industries (nuclear, renewable, or any other form of local energy sources), and to avoid too much dependence on Russia. If Russia is not the right supplier for Europe, an alternative supplier, such as Saudi Arabia or Norway, should be pursued.

The battle for European markets dramatically intensified a few years ago. Russia used gas, just as it used missiles in the 1980s to disorganize NATO and to shake up the German position in the western alliance. The European Union certainly is aware of these past political realities, but it is questionable whether it can manage its tricky relationship with one of its main partners. Europeans are still waiting for a common stance to emanate from Brussels.

It is justifiable for Russia to develop a national strategy in its own self-interest. Russia has become a stowaway of the European Union, influencing decisions without being a member. In this context, it is not surprising that on 20 August 2009 the Russian Federation officially informed the Depository of the Energy Charter Treaty and the Protocol on Energy Efficiency and Related Environmental Aspects that it did not intend to become a contracting party.[37] The Energy Charter,

signed on 17 December 1991, established a legal framework to develop international energy cooperation between European states, including Russia. It consisted of trade, transit, and investment principles and the contracting parties' final intentions to negotiate a binding treaty to stabilize energy relations on the European continent.[38] At the time Russia left the Energy Charter, it signed an energy agreement with Germany and created a German-Russian energy agency on 16 July 2009.[39] The move provoked little reaction; no one criticized the German government because every other government thought it could do the same. Alexandre Dumas wanted the musketeers to be "one for all, all for one" but Europe is acting by the motto, set forth in Gerard Oury's 1971 film "Delusions of Grandeur," of "one for all, every man for himself."

Internal European Division

While there is not one sole state to blame, Germany played a key role in facilitating divergent approaches within Europe toward Russia. Examples abound of German companies enmeshed in North Stream. Germany has a unique energy strategy that explains its current position; the Russian-German partnership developed because Germany knew that the political decision regarding its nuclear industry would have consequences for its dependence on Russia. Germany does not have any oil companies of worldwide scale or any energy companies active in the Middle East. Russia is its only option because Germany chose oil and gas as an energy source and made a rational choice in investing in Russian energy interests. It is worth noting that this arrangement can be reversed should its investments be deemed too risky for future German governments.

It is in the interest of Russia to be Europe's biggest supplier of energy and a reliable partner.

A European agreement with Russia should thus be based on the possibility of creating a sustainable competition between the two, in favor of the Europeans, but moderate enough to allow the Russians to save face. Three offers can give credibility to a position that will be acceptable to the Russians:

First, a long-term agreement with Russia on the northern corridor (Nord Stream) must be based on a guarantee that a southern corridor is feasible. Nabucco is currently on the shelf but must eventually be constructed to handle Iranian gas when it floods the market (the question is not *if* but when). Russia can even take a stake in the project. The European Union must demonstrate that European projects are open to countries with transparent, business-minded perspectives and that decisions are not merely political. It is in the interest of Russia to be Europe's

biggest supplier and a reliable partner.

Second, Europe has to remind Russia that it cannot be a 21st century power without diversifying its economic base. Russia could remain a natural resource supplier, but it would not maintain its power in a world where China, Brazil, and India are becoming leading industrial nations. Russia's confrontational posture will eventually lead the Europeans to form industries and energy supplies which will not use Russian oil and gas resources on a large scale.

Third, North Stream can be realized in parallel with Nabucco and South Stream. More financial planning would help Russia rationalize its exports and use the pipes it plans to build in a more careful and efficient manner. Ending the enormous waste of natural resources within Russia would be real progress, leaving more oil and gas for export instead of being wasted in factories or flats where modern thermal insulation is nearly a luxury good. Through the exchange of good practices, Europe and Russia could establish gas exports for a better energy intensity. European states would help Russia in modernizing on a broad scale their gas and electricity meters, their doors and windows, and thermal regulators. For Europe, the idea is to offer its technological goods to limit energy waste, and to continue to buy Russian oil and gas, promising to not look for other ways to replace them.

Convincing Russia that it needs European support to open new oil and gas fields will be a little harder. Gazprom is clearly taking the risk of over-relying on available gas reserves, which are close to depletion. Russia is in danger of taking the plunge in gas demand from the 2008 financial crisis as an indicator of demand over the long term. In the field of energy, being short-sighted has a very high price tag, because it can take years from the moment new investments are made until new products arrive to world markets.

Finally, there is a need to plan a pan-European approach toward Russian energy concerns. Russia is only one challenge among many. Creating a common nuclear strategy for the European Union, for example, will also be an extremely complex challenge. Europe must concentrate on a few simple priorities and go further than simple policy papers on energy security, sustainable energy, and intelligent energy. A common European strategy might be a bit too much to ask for, but it is necessary if Europe wants to be a major player on the world energy stage. Understanding what is at stake is the easy task; offering a viable way forward will be the real challenge. In one way, European energy policy toward Russia is a classic example of what must not be done. The energy crises between 2001 and 2008 did not unify Europe; the energy interests of EU member states are still divergent. A French-German partnership on energy does not exist.

Three approaches must therefore be followed: diversify the supply side on European markets; limit all forms of energy consumption; and reinforce the secu-

rity of supplies on world markets—something hard to implement in times of economic crisis. The recent difficulties in creating a carbon tax in France remind us that it takes time to change an energy model. This is even more complicated when actors from the outskirts of the European Union, like Russia, are involved.

Over the long term, European gas industries should be reorganized. To create a European gas agency would be an interesting move, but no one knows what it would aim for. There was a sense of need and higher authority when the European Coal and Steel Community came into force in 1952, but that was another time, just after the Second World War, when the question was more about avoiding war between France and Germany. Before creating a new agency, European states should first make better use of the European gas coordination group—created by the 2004/67/CE directive to "facilitate the coordination of security of supply measures" between European Union member states.[40] This text should be modified to allow the coordination group to help determine a lasting European gas security policy. Such a group should be competent enough to draft development plans, hold discussions with producers (Russia, Qatar, and others), and represent the European Union inside international organizations such as the IEA. This group would be the real interface between European states and producers, including Russia.

Additionally, Europe must offer solutions to member states who are too dependent on Russian oil and gas. For many countries, however, choices are limited. For example, Lithuania recently closed its only nuclear power plant and it does not have enough financial resources to buy an EPR (a third-generation pressurized water reactor), the cost of which has been as high as €5.3 billion.[41] Gas could thus be the only alternative for Lithuania unless nuclear technology becomes more affordable.

Europe will have a stronger position vis-à-vis Russia if it develops its liquefied natural gas capacities and diversifies its suppliers. Russia will not be challenged unless Europe refuses to be threatened and blackmailed by threats over energy access. There is still a long way to go and the road is unfortunately paved with many obstacles.

Conclusions Regarding a European Energy Strategy Toward Russia

Europe's citizens and energy companies need a secure supply of energy at affordable prices in order to maintain their current high standard of living. Europeans are looking for ways to ensure such supplies. External dependence is increasing, however, and is now focused on a worryingly small number of countries: Russia; the Middle Eastern states, Iran, Iraq, and Saudi Arabia; and Caspian, ex-Soviet countries such as Kazakhstan, Azerbaijan, and Turkmenistan.

None of these countries, including Russia, have yet developed liberal open

markets and, in almost all of them, raw political power determines energy policy. Getting access to these resources also requires complex pipelines, which in the Russian case, pass through Belarus and Ukraine. The new Baltic pipelines will bypass Poland and the former Soviet satellites in the Baltic. In the Caspian case, problems are even more complex, with a choice of routes between Iran, Georgia, or Turkey—each country bringing their own set of political considerations and negotiations.

Russia remains a necessary partner for the European Union's energy security. The dash-for-gas as the preferred fuel for electricity generation makes gas, rather than oil, a global priority. Gas is cheaper when transported through pipelines than when shipped around the world in tankers for LNG, and Russia knows that it currently has the pipelines to provide the affordable gas that Europe needs.

Can Europe's growing dependence on Russian gas stay a purely economic matter or is it destined to become a source of serious political conflict in the near-term? The answer is not yet clear, though the need for cooperation is. For better or for worse, Russia and Europe must rely on one another for at least the next several decades.

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