

# Gazprom's Monopoly and Nabucco's Potentials: Strategic Decisions for Europe

Nicklas Norling

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## Summary and Recommendations

Gazprom's dominance over the European natural gas market is increasingly becoming a concern among Europe's policy-makers. In barring European investors from the Russian market, demanding access to controlling distribution on the European market, while simultaneously exerting its leverage upon the CIS states, Russia has demonstrated its unreliability as a long-term supplier. Not limited to this, the Kremlin has also launched efforts to control the markets of other major European suppliers, such as Algeria. There are a number of legitimate explanations why European policymakers have failed to diversify natural gas supplies. These include distance to producers, the inelasticity of natural gas as a commodity, and the high investments needed to build new pipelines. The strength of these explanations pale, however, when compared to the strategic costs incurred. The combined effects of this are both a loss of geo-political ground and a strategic dependence on Russia.

However, there are other alternatives. Only 10% of Europe's gas imports originate directly from the Middle East and the South Caspian Sea region while roughly 40% and 30% are imported from Russia and North Africa (mainly Algeria), respectively. This is in spite of the fact that the Middle East and the South Caspian Sea region can produce cheaper gas and are closer than Western Siberia. The main purpose of the following assessment is to highlight this uncomfortable dependence for Europe, the geo-politics involved, and how the Caspian Sea region could contribute to Europe's energy diversification.

Should Europe invest all efforts available into realizing the Nabucco-pipeline, running from Turkey to Austria, via Bulgaria, Romania, and Hungary, with supplies likely to come from Turkmenistan and Azerbaijan, it could significantly improve diversification. The Baku-Erzurum pipeline forms a main artery from the Caspian Sea to Europe, but there is a missing link between Erzurum and European pipeline grids. Nabucco would fill this missing link. In view of the fact that Nabucco

has been primarily driven at the European level, it would also fill the missing link between the hitherto disparate energy policies of the European member states. As such, Nabucco is “much more than just about gas”; it could potentially be the glue that keeps both Europe’s common energy policy and Europe’s engagement with the states around the Caspian Sea together.

However, Europe’s options are continuously being narrowed down because of intense competition over supplies. Iran’s participation has also created both uncertainty among investors and frayed transatlantic relations. It is an irony that the issue of Iran has reached such proportions when it has little or zero ability to fill Nabucco. Iran is a net gas-importer and its shortages are most severe in the regions in which its pipeline exports to Europe necessarily must traverse.

As a consequence of Iran’s participation and uncertainty of supplies, investors are puzzled over how to finance Nabucco—a project which all, including the European Commission, seem to accord priority to, but which never seems to acquire enough momentum. To maintain the necessary momentum, the US and Europe need to form a joint strategy. This will involve some vital and necessary strategic decisions for Europe to take, but the benefits of these will disappoint neither the European states nor the states of Central Asia and the Caucasus.

1) To realize Nabucco there is a need to redouble the efforts in finding finance for the project. A precondition for this to happen is clarity and strong political support. Clarity, in turn, requires a clear assessment on where gas would come from, how much each actor would contribute to filling the pipeline, and when. Azerbaijan and Turkmenistan have demonstrated that they would be able to fill a bulk of the pipeline, most likely up to 20-25 bcm; which also is a conservative estimate. A joint push from Europe and the US in realizing this would probably also be met by a far more positive response among investors than relying on Iranian gas, which is far more uncertain. The air of prevailing uncertainty has made the EIB, EBRD, export credit agencies and others apprehensive over the seriousness of the project.



2) The US has demonstrated its commitment in supporting the trans-Caspian pipeline financially and politically. Since this, like Nabucco, is an essential link in the East-West corridor Europe can scarcely afford to align its strategy differently. Absent a link to Turkmen (and also Kazakh) supplies these countries may be lost to Russia and China beyond the foreseeable future.

3) The Nabucco-pipeline could serve as a major incentive for Turkmenistan and Azerbaijan to resolve their differences while its construction would also reignite the urgency of a trans-Caspian pipeline. In the end, these two projects stand or fall together.

4) Even Russia and Iran would benefit from the construction of Nabucco and a trans-Caspian pipeline. Greater competition will compel Russia to invest further in its energy industry. Iran, for its part, could focus its efforts on developing its LNG industry, which has far greater significance for both Europe and Iran in the longer term. It would also help keep the households in northern Iran warm. These households would be likely to suffer most from Iranian gas exports. Furthermore, Europe may well reward moderation with trade in energy once more moderate forces come to power. Committing to Iranian gas now would, however, reward an incumbent government which little deserves these rewards.

5) Despite claims to the contrary, Russia's long-term reliability as a supplier of natural gas is highly questionable. Regardless, no one would want to be dependent on only one set of pipelines or only one producer. At the same time, there is a need to be realistic. Russia will continue to remain the main supplier of natural gas to Europe and this will not change any time soon. To put pressure on Russia, the European Union needs to consolidate its efforts and convince the Russian Duma that it is in Russia's long-term interests to ratify the Energy Charter Treaty to which it is a signatory. This would prevent Russia from using monopolistic practices and gas cut-offs as a foreign policy tool. The decision by the European Commission on September 19 to limit Gazprom's expansion into Europe, combined with the Budapest

conference on Nabucco held a few days earlier, are the first steps from the EU in realizing this.

## I. Introduction

The dissolution of the USSR opened up the possibility of new energy routes spreading in all directions. Henceforth, the post-Soviet successor states would, in theory, no longer be forced to send their natural gas to Moscow only, but potentially sell to customers in Europe, South Asia, and East Asia alike. With a decreased dependence on the Russian market, these states would potentially have the chance to pursue an independent energy policy and independent path of development. In the majority of cases, however, this did not happen. The primary factors accounting for this are both structural and political. When the Soviet successor states became independent they inherited a continental pipeline system directed to Moscow only. This very tangible dependence has given the now sovereign states within the CIS little room for exploring other energy export-markets and options but the Russian one, and by extension, little room to maneuver their own policies.

A number of events in the 1990s and the 2000s have, however, put increasing pressure on Russia to relinquish this monopoly over Central Asian and Caucasian energy. A booming Chinese economy necessitates the freeing up of more energy resources while the Indian economy faces similar needs. Europe, for its part, has belatedly realized how its dependence on Russian gas threatens its long-term energy security. In effect, Europe has sought to diversify energy supplies by exploring the potentials of importing energy directly from the Caspian Sea region through a southern East-West corridor via Turkey. Not only will this corridor open up opportunities for the post-Soviet successor states, and primarily Azerbaijan, Kazakhstan, and Turkmenistan, to escape dependence on Russia but it could also form an essential component of Europe's energy diversification.

To say that Europe has taken full advantage of the existing possibilities is, however, an untruth. This is best illustrated by the fact that roughly 40% of Europe's total natural gas imports still originate in Russia while

30% comes from North Africa (mainly Algeria). There are a number of legitimate explanations why European policymakers have failed to diversify natural gas supplies. These include distance to producers, the inelasticity of natural gas as a commodity, and the large investments needed to build new pipelines. The strength of these explanations pale, however, when compared to the strategic costs incurred. The combined effects of this are both a loss of geo-political ground and a strategic dependence on Russia.

The inauguration of the Baku-Erzurum pipeline in 2006 is a major achievement in bringing Caspian gas from Azerbaijan to Turkey. Nonetheless, it only takes Caspian gas half the way to continental Europe. The link to European pipeline grids from Erzurum will remain incomplete until the planned Nabucco pipeline, designed to run from Turkey to Austria, via Bulgaria, Romania, and Hungary is constructed.

The pipeline was listed as a priority project by the European Commission in 2006 and 2007 and is currently in the "authorization phase." The authorization phase might, however, be better translated as "continued uncertainty" in view of the current Russian attempts to undercut it. By monopolizing the European market, flooding it with gas, and launching competing pipelines, Russia hopes to undermine Nabucco's relevance and perpetuate Europe's commitment to Gazprom.

Short-lived attempts to revive Nabucco have unfortunately been setback by hesitancy from participating states and energy companies to commit fully. Unrealistic expectations of filling Nabucco with Iranian gas have also created tensions between Europe and the US over the issue and delayed the project. It is a paradox that neither the US nor Europe seem to appreciate the meager potential that Iran actually possesses in filling Nabucco. Iran is currently a net-importer of gas, has severe gas-shortages in northern Iran, and the flow of gas in the Iran-Turkey pipeline is both low and uneven. Azerbaijan and Turkmenistan, in contrast, have lately emerged as the lynchpins of the project. Should the EU primarily focus their efforts on Azeri and Turkmen supplies, it would both send a signal to Ashgabat and Baku to resolve their differences and be an EU policy harmonizing better with the US strategy.

For this project to be realized there is a need to appreciate that this project is “about more than just gas.” Andris Piebalgs, the EU’s Energy Commissioner, went so far as to say that Nabucco’s construction would be an “embodiment of the existence of a common European energy policy.”<sup>1</sup> In essence: Nabucco’s construction would not only fill a missing link between Europe and the Caspian Sea, but also a missing link between the thus far disparate energy policies of the European member states.

### The New Eurasian Continent and Geo-politics

Although the USSR disintegrated almost two decades ago, policy-makers, not least Europeans, have been slow to appreciate the full possibilities that emerged with this monumental event. One of the most fundamental features of the new political landscape was the reconfiguration of the Eurasian continent. Whereas the Cold War boundaries effectively divided Europe and Asia and Eurasia was strictly confined to Soviet territory, the collapse of the USSR opened up an artificially divided super-continent with immense potential for reintegration. The main factor that binds, and will bind, this super-continent is trade in energy and goods—the same integrating factor that tied it for millennia through the Silk Roads.<sup>2</sup> The nexus of this continental network will center on the resource-rich post-Soviet successor states in Central Asia and the Caucasus.

The particular complementarities of the Eurasian economies, consisting of both larger energy consumers and producers, also make Eurasia ideally suited to interlocking interdependence. Several impediments and problems still remain for the full possibilities to be realized, however. Among these, old thinking and the strict pursuit of short-term interests seem to be most problematic. Geo-politics have often also trumped the

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<sup>1</sup> Quoted in Vladimir Socor, “Nabucco Pipeline Back on Track,” *Eurasia Daily Monitor*, September 19 2007.

<sup>2</sup> For the most comprehensive account of this process to date, see S. Frederick Starr Ed. *The New Silk Roads: Transport and Trade in Greater Central Asia* (Washington DC: CACI & SRSP, 2007).

potential gains to be derived from the free market, and the historical interdependence characterizing the Eurasian region has been damaged by zero-sum thinking and blunt geo-strategic alignments. This pertains especially to the energy sector, in which the direction of pipelines and the flow of goods and oil/gas is more a result of politics than market logic and economic rationality.

For example, instead of building a second “Yamal” pipeline from Russia to Germany transiting Belarus and costing around \$2-2.5 billion, Russia and some European states have chosen the option instead of a Baltic undersea pipeline costing around \$12 billion (or \$8-10 billion by Russian estimates). In practice, this means that Russia can cut supplies to Belarus without cutting supplies to Western European customers—should Minsk’s policies be contrary to Moscow’s interests.<sup>3</sup> Meanwhile, Iran’s potential of exporting gas to India and Pakistan has been obstructed because of pressure from the United States, while the states of Central Asia have had their options curtailed as a result of Russia’s control and ownership of the pipeline system in the region.

What makes pipelines and natural gas carry such strategic importance are primarily the means of transportation and market access. While oil has a global market and is shipped mainly via tanker, natural gas is primarily delivered via pipeline (with the exception of Liquefied Natural Gas (LNG) which can be delivered via sea-transport) and the market is subsequently limited to the length of the pipeline. In consequence, natural gas cannot be exported globally or sold at any spot market to the prevailing world market price.<sup>4</sup> Since the pipeline binds consumer with producer and excludes everyone else, natural gas often carries greater strategic significance than oil because of the dependency relationship and political leverage the pipeline creates.

This dependency is best manifested in the downstream supply line Central Asia-Russia-Europe. While the Central Asian states are

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<sup>3</sup> Svante E. Cornell et al., *The Wider Black Sea Region* (Uppsala: CACI & SRSP, 2006).

<sup>4</sup> Friedemann Muller, “The Role of Iran and the Region for global energy supply,” in Ed. Eugene Whitlock, *Iran and Its Neighbors: Diverging Views on a Strategic Region* (German Institute for International and Security Affairs, July 2003), p. 69.

continuously being underpaid for their gas, Europe is forced to pay a price far above what would be the case if energy was imported directly from the Central Asian and Caucasian states. In the early 2000s, for instance, Russia imported gas from Turkmenistan at the price of \$57 per thousand cubic meters (mcm). This gas was then consumed domestically while Russian gas was exported to Europe at a price of \$250 per/mcm.<sup>5</sup> It is no wonder that Russia uses all means necessary to block Europe from engaging directly with the Central Asian states, primarily Kazakhstan and Turkmenistan. Turkmenistan today gets paid around \$100 per/mcm but Russia still obtains a profit share which could be considered unjust; yet such anachronistic colonial arrangements continue to persist. In sum, even though formally sovereign and independent, the post-Soviet successor states are still being short-changed on their full economic potential.

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<sup>5</sup> Cornell et al., *The Wider Black Sea Region*, p. 78-79.

## 2. Circumstances Requiring Europe to Diversify Gas-supplies

Few signs today point to Russia altering its use of energy as a political tool, which materialized with Putin's ascendancy to power. The Russian energy-strategy under Putin has essentially consisted of three components:

- Reasserting state-control over the energy sector by dismantling private companies;
- Controlling CIS gas production for domestic consumption and/or re-exports to Europe;
- Dominating the European market by crowding out other producers, controlling downstream delivery, while maximizing all export outlets.

A structural precondition that has enabled Russia to pursue this strategy has been the gas pipeline system it inherited from the USSR. This pipeline-grid, called Central-Asia-Center, supplied 90 bcm per year of Central Asian gas during Soviet times. The Central Asian states have been unable to keep up with these levels, but Russia still controls all downstream gas from the region.<sup>6</sup>

This year, Russia's contracted volume with Kazakhstan, Uzbekistan, and Turkmenistan totals 56 bcm, of which Turkmenistan contributes around 40 bcm, Uzbekistan 9 bcm, and Kazakhstan 7 bcm. Even if this volume is substantially lower than during Soviet times, the Caspian Sea region's full potential has also yet to come online. Extraction will grow

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<sup>6</sup> With the partial exception of the small-diameter pipeline from Turkmenistan to Iran.



substantially when the peak period of 2011-2012 starts, making it all the more important to counter Russia's hegemony over these supplies.<sup>7</sup>

Moscow currently has four main gas-pipelines to Europe: Transbalkan 1, Transbalkan 2, Yamal, and the recently completed Blue Stream pipeline. It was not until the US and Europe started to invest in the development of an alternative East-West corridor (via Turkey and bypassing Russia) that Moscow reacted and launched its own initiatives.<sup>8</sup> The construction of Blue Stream should be seen in light of the increasing competition for the South European market and the vacuum that it represented.

The Blue Stream pipeline runs from Russia's Black Sea coast under the Black Sea to Turkey and was inaugurated in 2005. In 2010, the \$2.5 billion pipeline will have a full operational capacity of 16 bcm per year and is operated and built by Gazprom and Italy's ENI.

Since then, an additional two pipelines have been proposed: Blue Stream 2 following a similar route to Blue Stream, and South Stream which is planned to run from Russia's Black Sea coast, on the seabed, to Bulgaria, finally terminating in Italy. South Stream will have a planned capacity of 30 bcm per year. The project is directly rivaling the Nabucco project (mentioned above) since Bulgaria is a main transit country in this project also and the pipeline is mainly intended for the South European market.<sup>9</sup> In pace with Nabucco's postponement, Gazprom has lobbied both Hungary and Austria to be Moscow's main energy hubs in Central Europe and has pledged to build underground gas-storage sites in the countries should they commit to the Blue Stream 2 pipeline instead of Nabucco.<sup>10</sup>

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<sup>7</sup> "Russia Surging Farther Ahead for Central Asian Gas," *Eurasia Daily Monitor*, May 16 2007.

<sup>8</sup> These include, for instance, the recently proposed upgrade of an upstream pipeline running from Turkmenistan via Uzbekistan, Kazakhstan, to Russia as well as downstream pipelines to Europe.

<sup>9</sup> Vladimir Socor, "Bulgaria seduced by South Stream gas project?" *Eurasia Daily Monitor*, September 14 2007.

<sup>10</sup> Vladimir Socor, "No Commitment to Nabucco Means Preference for Gazprom," *Eurasia Daily Monitor* May 10 2007.

Not limited to this, Russia has also made attempts to purchase and acquire controlling stakes of distribution networks in Europe. Gazprom now has a presence in 17 EU countries in various forms: either as joint ventures or subsidiaries, and it has also been able to control parts of the distribution. For example, Gazprom has made a distribution deal with Wintershall—the largest producer of crude oil and natural gas in Germany—in the joint venture Wingas which Gazprom owns fifty percent of. The company controls both Europe's largest underground gas depot and 2000 km of pipelines in Germany.<sup>11</sup> Gazprom's inroads into Europe have not gone unnoticed, however, especially in context of the current European liberalization of the energy sector. On September 19, 2007 the European Commission took the initiative to formulate a draft law regulating "third actors" domination of European gas distribution networks. "Third actors" is a euphemism for Gazprom, which currently supplies Europe with 25% of its gas needs. Should Gazprom conquer this market as well, it would control both the downstream gas to Europe and distribution within Europe itself.

Russia does not make a secret of the consequences which would follow a European ban on Gazprom's activities in Europe. In the words of Gazprom CEO Miller: "Attempts to limit Gazprom's activities in the European market and to politicise questions of gas supplies, which are in fact entirely within the economic sphere, will not produce good results (...) It should not be forgotten that we are actively seeking new markets such as North America and China."<sup>12</sup> To an extent, Miller is correct. It should be acknowledged that Europe is a crucial customer to Russia but Europe currently needs Russia more than Russia needs Europe. Russia has been strengthened by so enormous an access to its neighbours' resources, and this is why Russia is able to set the terms of agreements. The weakness Europe has displayed in getting Russia to reciprocate on liberalization is a good example of how Europe has painted itself into a corner. Should Russia start cutting gas-supplies in response to the recent

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<sup>11</sup> "Energy: EU Throws down gauntlet to Russia's Gazprom," *RFE/RL*, Sep. 19 2007.

<sup>12</sup> "Gazprom warns EU to let it grow," *BBC News*, April 20 2006.

decision taken by the European Commission on September 19, the value of diversification will become all the more apparent.

Another side-effect of Russia's dominant position is a neglect of long-term investments into its energy infrastructure. In consequence, most Russian fields are today stagnating or are unable to increase production. With the partial exception of Siberia's large Zapolarnoye-field,<sup>13</sup> the large gas-fields in Western Siberia of Degoy, Nadim, and Purtazowskoy have all reported declining production.<sup>14</sup> Without ownership-unbundling, the Russian energy industry is unlikely to provide incentives for investments into the networks but will be driven rather by short-term profit interests. This will not change unless the Russian energy industry is opened up to competition both from abroad and from within.

Indeed, the recently inaugurated Blue Stream pipeline should largely be viewed in light of increasing competition for the European market. This competition is welcome, but Europe has so far ignored the fact that Gazprom and European energy firms often play by very different rules. Naively convinced that the supply and demand of energy could be left to the invisible hand of the market, Europe has failed to see the need for state support in projects contradicting the Kremlin's interests. This imbalance has resulted in a far more expedient and determined process in Russia than Europe when Moscow's strategic interests are at stake. The Nabucco project could prove to be one of the most vital links for Europe's supply diversification. Yet it risks being undermined by Russia-proposed pipelines which some European companies (such as ENI, Bulgargaz, and Hungary's MOL), as a consequence of European indecisiveness, seem to find more appealing.

The uncertainty surrounding Russia's long-term stability as a producer suggests that Russia cannot be considered a reliable solution in the longer run. This is all the more so considering that 40% of Europe's gas imports come from Russia and of which 80% passes through Ukraine, thus marking an urgent need for new import channels. Resource-rich Central

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<sup>13</sup> Cornell et al., *The Wider Black Sea Region*, p. 75.

<sup>14</sup> Energy Forum Report, Prague, Czech Republic, October 23-24 2006, Eastern Institute, p.32.

Asia and the Caspian Sea region here appear as attractive options: not least in the context of growing European energy consumption, especially in natural gas.

### **Russia's Energy Policy: Implications for Europe**

Europe's projected increase in natural gas imports is currently set to double from 200 billion cubic meters (bcm) in 2002 to 400 bcm by 2030.<sup>15</sup> Europe's total demand for natural gas at present stands at 540 bcm, of which 150 bcm comes from Russia,<sup>16</sup> and the current increase in consumption is currently being met by additional Russian supplies.

Considering this dependency and forecasts predicting the rise in consumption, by far the most perplexing aspect of the EU's energy policy is the slow pace by which it has failed to assert and pursue its interests in the Caspian Sea region directly and build pipeline links outside the control of Gazprom and Transneft.

For example, in the strategy toward Central Asia for 2002-2006, it was merely stated that the EU "will take an interest" in Caspian and Central Asian energy resources rather than acknowledge its strategic value both for the EU and Central Asia.<sup>17</sup> While Russian energy is a convenient way for Europe to avoid making long-term investments in energy infrastructure, it undermines both Europe's political leverage over Russia while jeopardizing the stability and resilience of Europe's economy should disruptions occur.

That analysis has, however, only partly been acknowledged by European decision-makers. One explanation for this is the divergence of interests and difference in priorities among EU member states. Gazprom has also succeeded in splitting the EU from forming a strong common energy policy by courting Germany, Italy, and France with favorable bilateral deals. Gerhard Schröder, Silvio Berlusconi, and Jacques Chirac were not

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<sup>15</sup> Cornell et al., *The Wider Black Sea Region*, p. 75.

<sup>16</sup> "EU: Exploring Its Energy Options," *Stratfor*, Jan. 3, 2006.

<sup>17</sup> EU Strategy Paper 2002-2006 for Central Asia, available at <[http://ec.europa.eu/external\\_relations/ceeca/rsp2/02\\_06\\_en.pdf](http://ec.europa.eu/external_relations/ceeca/rsp2/02_06_en.pdf)>

late in exploiting such opportunities. Gerhard Schröder himself has referred to Nabucco and Europe's supply diversification to the Caspian Sea as "nonsense."<sup>18</sup>

Gazprom's strategy of undermining a common European energy policy could perhaps best be captured by the appointment of two executives of Italian ENI to its board of directors on September 19, 2007. This very same day, the European Commission launched its new strategy on how to avoid Gazprom's dominant position in Europe.

### Why Russia is not a Long-Term Option

Sticking to the Russian option may be a cost-effective strategy for Europe in the short-run; but it is not a long-term strategy. There are many reasons why Russia will be an unreliable supplier but the most important one is grounded in Europe's ability to pursue an independent policy. The fact that Russian leverage over Europe is already strong enough to undermine Europe's attempts to consolidate a common energy policy does not bode well for Europe's long-term energy security.

Although the Energy Charter signed by both Russia and the European states is supposed to regulate energy relations between Russia and Europe, Russia has ratified neither the Energy Charter Treaty nor the Transit Protocol (which the other CIS states have done) while Europe has not enforced it fully. The Transneft/Gazprom monopoly on downstream supplies to Europe is (primarily in terms of antitrust violations) in clear violation of the Energy Charter signed in 1991; but Europe has so far refrained from enforcing its consumer rights.

Part of the explanation for this is that Europe fears being cut-off completely if such an action were to be taken. But this does not suffice as an explanation in itself, and there is also a need to account for the lack of political will. The EU member states want to negotiate with Russia on a bilateral basis and this, as a consequence, undermines the collective and stronger bargaining position a unified EU strategy would have.<sup>19</sup>

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<sup>18</sup> "Nabucco Line Polarizes Gas Debate," *Platts*, September 26 2007.

<sup>19</sup> As remarked by Keith Smith during the 17th Economic Forum in Krynica, Poland, 2007.

Although this may be bound to change with the more assertive leadership of Chancellor Angela Merkel in Germany, it is unlikely that this poor coordination and lack of political will could be solved overnight. To put it bluntly, short-term national interests have gained the upper hand at the expense of Europe's long-term supply and the CIS states' ability to assert their independence. It is a paradox that EU has taken Microsoft to court on breaching the European Commission's antitrust ruling while simultaneously appeasing Gazprom in the very same question.<sup>20</sup>

### **Russia's Entry into Other Markets and Coordination of Production Policies**

Another source of concern for Europe should be Russia's expansion into other markets and the emerging coordination of production policies with other gas producers. Even if the idea of a gas-OPEC— which has been circulating the past year—ought to be considered distant, Russia's emerging coordination with both Iran and Algeria nevertheless indicates how Russia strives to control also the southern inlets to Europe.

Although Russia has enjoyed a complete monopoly over the Armenian market, it has now voluntarily de-monopolized it by supporting the construction of the Iran-Armenia pipeline. Why? The primary reason accounting for this is Russia's and Iran's division of markets: in compensation for giving Iran entry to the Armenian market, Russia will gain access to develop Iran's gas fields, and, in effect, shut Europe out from them in the longer term.<sup>21</sup> Moreover, by demanding the diameter of the Iran-Armenia pipeline to be reduced from 1420 millimeters to 700 millimeters, Russia also avoids the further transit of Iranian gas. In consequence, there is no risk that Iran will expand to other Russian markets should it, against all odds, increase gas-exports north.

Moscow's strategy of investing in all other gas fields but its own can also be observed elsewhere; Algeria is one example. On August 4, 2006,

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<sup>20</sup> Ibid.

<sup>21</sup> Vladimir Socor, "Iran-Armenia Gas Pipeline: Far More than Meets the Eye," *Eurasia Daily Monitor*, March 21 2007.

Algerian gas-company Sonatrach and Gazprom signed a memorandum of Russian gas-exploration in the country. At the event, Putin cancelled nearly \$5 billion of Algerian debt saying that “trade with Algeria is more beneficial than debt repayment.”<sup>22</sup> This was followed up in March with news circulating that Gazprom plans to secure a deal with Portugese Amorim Energia. Amorim Energia owns 33,34% of Galp Energia which, in turn, holds a quota on supplying the Medgaz gas pipeline being built between Algeria and Spain.<sup>23</sup>

Needless to say, Gazprom’s entries into the South-European and Algerian gas markets are not in Europe’s interest. Since Russian and Algerian supplies make up nearly all of Europe’s gas-imports, a Gazprom-controlled Algerian market would form a third component in its strategy of encircling and controlling gas inlets to Europe. Apart from controlling downstream supplies from Russia and Central Asia, purchasing assets on the European distribution market, Gazprom would now also influence the suppliers making up Europe’s “diversification.”

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<sup>22</sup> “Algeria, Russia: Europe’s Natural Gas Dilemma,” *Stratfor*, August 9 2006.

<sup>23</sup> “Gazprom to Send Gas from Algeria to Southern Europe,” *Alexander’s Oil and Gas Connections*, March 12 2007.

### 3. Natural Gas-supplies in the Caspian Sea Region

Europe's options of energy diversification in natural gas are relatively few in the short-term. Forecasts of Europe's gas supply suggest that Algeria, Russia, and the North Sea will double their present supplies to Europe by 2030,<sup>24</sup> further underscoring the importance of diversification. The recently inaugurated Baku-Erzurum pipeline, the Interconnector Turkey-Greece-Italy, and the Greenstream pipeline from Libya to Italy mark important additional sources of gas; but they need to be complemented by other supplies. These will primarily be found in the Caspian Sea region and the Middle East, either to be transported via pipeline (in the former case) or in the form of Liquefied Natural Gas (LNG) (in the latter case).

Europe is also virtually surrounded by gas. 80% of world natural gas supplies are located within a radius of 4,500 km from Central Europe. Four-fifths of these supplies are located in Western Siberia, North Africa (plus Nigeria), the South Caspian/Gulf region, and in Europe. Still only 1% of Europe's gas imports originate in the Middle East and the South Caspian Sea. This is in spite of the fact that the Middle East and the South Caspian Sea region can produce cheaper gas and are closer than Western Siberia.<sup>25</sup>

LNG will be significant as a long-term alternative source of energy for Europe. But Europe's combined LNG import facilities are currently limited to handle only 76 bcm per year. The potentials of importing LNG are rapidly expanding, however. For example, Spain has constructed a number of new LNG terminals in the past 5 years including Cartagena II, Barcelona II, and one in Bilbao while two new terminals are being constructed in Galicia and Valencia. In Italy, LNG terminals are being constructed by the north Adriatic coast and in Brindisi with scheduled

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<sup>24</sup> See [www.nabucco-pipeline.com](http://www.nabucco-pipeline.com)

<sup>25</sup> Muller, "The Role of Iran and the Region for global energy supply."



completion in 2008. In the UK, an LNG terminal in the Isle of Grain became operational in 2005 while a number of extensions to already existing terminals are being constructed.<sup>26</sup> All together, 18 new LNG terminals will have been completed by 2010 with a combined capacity of receiving 59 bcm per year.<sup>27</sup>

This alone will not fill Europe's supply gap, however, and neither will trade in LNG have equal political effects as the redirection of pipeline routes do. In a way, trade in natural gas is a zero-sum game. Unless Europe grabs as much natural gas as it possibly can from the Caspian Sea region, Russia and China will.

With regards to nuclear power, Europe could potentially expand this but the opposition to nuclear energy in Europe limits the full exploration of this option. Even if Europe was to construct capacity to become self-sufficient through nuclear energy, this would be a multi-billion dollar effort requiring finance which today is nonexistent. The sole remaining option is natural gas imports from Turkmenistan, Azerbaijan, Kazakhstan, to some extent Iran, and in the longer run, Iraq, Egypt, and Libya.<sup>28</sup> Europe and the US have already engaged Azerbaijan, Georgia, and Turkey, in the so-called East-West corridor, by constructing both the Baku-Erzurum natural-gas pipeline and the Baku-Ceyhan oil-pipeline.

### **The East-West Energy Corridor**

With the completion of the Baku-Ceyhan oil pipeline in 2005 and the Baku-Erzurum gas pipeline in 2006, two important arteries of Europe's energy diversification materialized. These two pipelines, together with the development of the Azeri-Chirag-Gunashli oilfield and the Shah Deniz gas-field, form part of a strategic corridor called *Azerbaijan-Turkey-Georgia pipelines system*, or the "East-West Corridor".

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<sup>26</sup> Council of the European Union, Report from the Commission to the European Parliament, (SEC (2006) 1059, p. 15.

<sup>27</sup> "Global Market Brief: Europe Loosens the Energy Ties that Bind to Russia," *Stratfor*, August 21, 2007.

<sup>28</sup> *Ibid.*

This corridor is designed to circumvent Russia's control of the regional pipeline and transit system and to acquire direct access to Caspian supplies in Azerbaijan, Turkmenistan, and Kazakhstan. The corridor, when completed, will transport energy supplies from Kazakhstan and Turkmenistan across the Caspian to Azerbaijan from where it will be piped through Georgia, Turkey, and eventually end up in European markets.

The main ambition in terms of natural gas has so far been to build a trans-Caspian natural gas pipeline from Turkmenistan on the Caspian Sea's Eastern shore to Baku, Azerbaijan, from where it will be piped further through the 16 bcm Baku-Erzurum pipeline running from Azerbaijan to Turkey. The trans-Caspian pipeline's construction has, however, been postponed due to the legal disputes over the Caspian Sea, high costs, tense relations between Azerbaijan and Turkmenistan, and controversies regarding the overall feasibility of the project.

#### *The Strategic Significance of the Caspian*

The extent of the Caspian's reserves of oil and natural gas has been contested but few would today deny that they remain significant.<sup>29</sup> Estimates vary, but a common approximation is that the natural gas reserves of the Caspian Sea amount to 232 trillion cubic feet (Tcf) while annual production in 2005 stood at 5 Tcf. With regards to oil, proven reserves are estimated at 40-50 billion barrels. The comparatively small domestic markets of the Caspian littoral states, combined with high productive capacity, have led them to be attractive options for diversification. Since extraction in the Caspian region is expected to reach its complete potential around 2011-2012, this makes it all the more important to have links completed quickly as the full capacity comes

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<sup>29</sup> It should be acknowledged, however, that estimations on the Caspian's capacity are often used for political purposes: while the US on the one hand has been trying to play up the figures to attract investors, Russia and Iran have tried to downplay the amount of recoverable energy.

online.<sup>30</sup> A useful yardstick of the strategic significance of Central Asia and the Caucasus is that the combined gas reserves of Kazakhstan, Turkmenistan, and Azerbaijan are estimated to add up to Russia's total export capacity alone.<sup>31</sup> In sum, not only would Europe's engagement with this region have political benefits, but it would also make commercial sense.

An additional benefit of Caspian gas and oil is that it is controlled neither by OPEC nor Russia. This makes it one of a few sources of energy located both in proximity to Europe and outside of the control of these two dominant players. In the last decade, other states have invested major efforts to tap into these supplies: China with the recently inaugurated Atasu-Alashankou pipeline running from Kazakhstan to Western China; while India, Pakistan, and Afghanistan have put priority on a potential realization of the trans-Afghan pipeline, running from Turkmenistan through the South Asian subcontinent.

There are a number of gas fields in the Caspian Sea which will be of particular importance to Europe; primarily Shah Deniz in Azerbaijan (and other offshore fields on Azeri territory such as Nachchivan and Gunashli). Shah Deniz alone is estimated to contain 1 tcm of gas and has 450 bcm of proven reserves.<sup>32</sup> The field is being developed by a consortium led by BP Amoco and the field began its first shipments to Europe via Turkey on July 23 this year.<sup>33</sup> Since the pipeline is in its start-up phase, the flow is limited but nevertheless supplies the newly inaugurated *Interconnector* pipeline Turkey-Greece.

The disputed offshore field in between Turkmenistan and Azerbaijan, which Azerbaijan calls Kyapaz and Turkmenistan Sardar, will also likely be of significance to Europe should the dispute over it be resolved and infrastructure built. Moreover, Turkmenistan's Block 1 field, and especially the Magtymguly/East Livanov section within it, has been

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<sup>30</sup> As noted by one of the participants to the roundtable of Energy and Conflict Prevention in Eurasia held in Stockholm, May 2007.

<sup>31</sup> Ibid.

<sup>32</sup> Ibid.

<sup>33</sup> "EU: A New natural Gas Pipeline, a New Hope," *Stratfor*, July 25 2007.

found to contain large reserves of gas condensate and is currently being developed by Petronas. This field has equal capacity to Shah Deniz with an estimated 1 trillion cubic meter of associated gas (i.e. natural gas accompanying crude oil deposits).

The gas from this field may, however, go into the Central Asia-Center (CAC) pipeline system if the memorandum signed between Petronas and KazTransGas signed in June 2006 materializes.<sup>34</sup> This is, however, uncertain considering that an onshore terminal in Giyanly needs to be built for gas to be routed into the CAC. Thus, gas from this field could potentially end up on European markets if the Turkmen government and Petronas find a European proposal of an undersea pipeline to Azerbaijan more compelling.

All in all, Turkmenistan's gas reserves are estimated to come close to both Russia's and Iran's natural gas supplies but figures still remain highly uncertain and speculative. The country's energy resources have also been, more or less, under Moscow's monopoly until now. For Europe's concerns, Turkmenistan's offshore fields in the Caspian Sea will be of most relevance considering both factors of distance and more intense competition with China and Russia for Turkmenistan's onshore fields.

Turkmenistan initially formed part of the East-West energy corridor but when Azerbaijan emerged not only as a transit country, but also as a significant producer with the discovery of the Shah Deniz field, the viability of building a trans-Caspian pipeline diminished. Not least because of the gas already committed to Moscow and the uncertainty of whether Turkmenistan could fulfill its commitments.<sup>35</sup> Former Turkmen President Niyazov's displayed unwillingness to appreciate the workings of contemporary energy development also undermined any agreement on the issue.<sup>36</sup> However, with the death of Niyazov in 2006 it appears as if

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<sup>34</sup> "Petronas starts production from the Diyarbekir field—Turkmenistan," *International Oil Letter*, Vol 22, Issue 30 (31 July 2006).

<sup>35</sup> Cornell et al., *The Wider Black Sea Region*.

<sup>36</sup> Robert Cutler, "New Chance for Trans-Caspian pipeline" *Asia Times*, February 28 2007. [http://www.atimes.com/atimes/Central\\_Asia/IB28Ago1.html](http://www.atimes.com/atimes/Central_Asia/IB28Ago1.html)

the direction of Turkmen gas can increasingly lead away from Russia to the opening up of opportunities to Europe.

Ashgabat also seems to signal such intentions. Turkmenistan has signed a number of exploration agreements with China and a pipeline connecting the two countries is in a fairly advanced stage. Even if the new Turkmen President initially displayed a willingness to remain within the Russian orbit, now that he has consolidated his position,<sup>37</sup> Turkmenistan seems intent on exploring all available options, including participating in bringing Turkmen gas to Europe which Turkmen President Berdimuhammedov has also publicly endorsed.

The East-West corridor has partly unlocked Russia's energy monopoly while Azerbaijan and Kazakhstan appear as the two states that have been most able to break free from this dependence. Both are now in a position whereby they can assert their sovereignty and explore more options available to them. But to realize the full potential of the East-West energy corridor and its ability to bring Caspian gas to Europe there is need a need to involve Turkmenistan. For this to happen there is a need to bring Turkmenistan's gas to the western shore of the Caspian Sea. However, gas from the Caspian Sea cannot reach further than Turkey and Greece unless the Nabucco pipeline is built. As such, these projects are very much dependent on each other.

### **Europe's Decisive Moment**

Should Europe delay Nabucco (see Map 1 below) further, the alternative scenario is not difficult to predict. Both Europe and the Central Asian/Caucasian states (primarily Turkmenistan, Azerbaijan, and Kazakhstan) stand at a decisive moment in history; they could either diversify gas supplies or continue to be dependent on only one producer (in the former case) or one customer (in the latter case).

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<sup>37</sup> As noted by one of the participants to the roundtable of Energy and Conflict Prevention in Eurasia held in Stockholm, May 2007.

Map 1: The Nabucco Pipeline



Source: Transgaz

Europe's options in natural gas are limited and the Caspian Sea region presents the best opportunity for Europe's diversification in natural gas. Nevertheless, absent a speedy implementation of Nabucco and other potential outlets for their gas, the Central Asian states will not be able to withstand Moscow's pressure. There exists today an opening for Europe to transport both Central Asian and Caucasian gas through the East-West corridor but this may be shut if rapid action is not taken.

That Russia moves aggressively to eliminate these options is also evident. The declaration of intent signed between Putin, Berdimukhamedov, Karimov, and Nazarbayev in May this year on upgrading the infrastructure connecting their countries along the Caspian Sea coast is indicative of this. A restoration of this Soviet-era upstream infrastructure to a planned 90 bcm could effectively block the Central Asian states' other export channels by tying up most of their gas supplies to Moscow.<sup>38</sup> This is scarcely in the interest of the Central Asian states, yet quite a natural reaction to Moscow's intimidation of its neighbors.

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<sup>38</sup> "Russia Surging Farther Ahead for Central Asian Gas," *Eurasia Daily Monitor*, May 16 2007.

Declaration of intent is, however, not the same thing as a contract<sup>39</sup> and there is still time for Europe to alter the Central Asian states' strategic calculus. Considering the fact that Europe pays Russia around \$30 billion annually for gas, and that Europe needs to invest roughly \$150-\$200 billion into its infrastructure network up until 2020 for natural gas supplies (including new pipelines from Russia and Algeria),<sup>40</sup> investing \$6.2 billion in Nabucco does not seem like a bad option. Nevertheless, since the project primarily will be financed by private means it also needs to be commercially sound. This necessitates guaranteed and stable supplies, which remains uncertain in view of Europe's failure to pursue a coherent strategy.

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<sup>39</sup> Europeans have often wrongly equated the gas-agreements in place between the Central Asian states and Russia as legally binding. For instance, the 25 year agreement signed between Russia and Turkmenistan in 2003 is often misleadingly referred to as a "contract." Russia, of course, has an interest in making Europeans believe this since Europeans would take this as evidence that Central Asian supplies are already fully committed, and, thereby, justifying inaction. See *Ibid.*

<sup>40</sup> Muller, "The Role of Iran and the Region for global energy supply", p. 69.

#### 4. Nabucco—Europe's Missing Link

The previous discussion should have made clear that there are two clashing currents in Central Eurasia's gas-sector today. On the one hand, Russia is vehemently trying to keep these states within its orbit to continue its anachronistic way of doing business with these states. On the other hand, the Central Asian/Caucasian states have been signaling for years that they seek other outlets. The Nabucco pipeline, connecting Turkey with continental Europe, is the essential link to realize these emerging opportunities and tie these states to Europe.

The timeline of the Nabucco project is tentative so far, but the first phase of the pipeline is expected to be in operation around 2012 while construction is planned to start in 2009. In the first construction phase, a link will be built between Baumgarten in Austria and Ankara in Turkey. When this phase is completed (according to the Nabucco consortium) the already existing pipeline links between the Turkish/Georgian and Iranian borders will be used to allow the pipeline to start operation. The capacity will, however, be limited to 8 bcm. The second construction phase will begin in 2012 and be ongoing until the end of 2013, when the links between the Turkish border to Georgia and Iran are expected to be completed.

After this, additional compression stations will be installed at key points of the pipeline to incrementally increase the pipeline's full capacity to 25,5-31 bcm per year.<sup>41</sup> Two-thirds of this is expected to reach Baumgarten whereas the remainder is the expected offtake in the transit countries. Estimates suggest that in the high scenario, 16 out of 31 bcm per year will be supplied to Europe, and in the low case scenario, 13,5 out of 25,5 bcm per year.<sup>42</sup>

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<sup>41</sup> See [www.nabucco-pipeline.com](http://www.nabucco-pipeline.com)

<sup>42</sup> F. Yesim Acollu, "Major Challenges to the Liberalization of the Turkish Natural Gas Markets," Oxford Institute of Energy Studies, November 2006.



The Nabucco consortium consists of Austria's OMV, Hungary's MOL, Romania's Transgaz, Bulgaria's Bulgargaz, and Turkey's Botas. A sixth partner is expected to be announced soon and the most likely candidates are Germany's RWE or Gaz de France.

There are, however, several impediments and question marks that need to be straightened out before this project will materialize. These relate primarily to: 1) Who will actually fill the pipeline and how? 2) What will be the *exact* role of Iran?

### **Nabucco and Sources of Supply**

It still remains undecided where sources of supply for Nabucco will actually come from. Although Nabucco initially was intended to pipe gas from Iran and the Middle East primarily, the construction of the Baku-Erzurum gas pipeline and the development of Shah Deniz have made Azeri supplies more attractive in the short run. The re-emergence of Turkmenistan on the strategic maps of Europe and the US has also made this country a potential lynchpin in the project next to Azerbaijan. Recent visits to these countries by high-level officials connected with either Nabucco, or the development of Azerbaijan's resources, is indicative of this.

For example, only a few days after the Budapest conference on Nabucco in mid-September, the UK's energy minister, Malcolm Wicks, paid visits to both Turkmenistan and Azerbaijan. British energy company BP is the main stakeholder in both the development of the Shah Deniz field and the Baku-Erzurum pipeline consortium. This was followed with a visit by Austria's Economics Minister Martin Bartenstein to the very same countries; Austria's OMV is the leading stakeholder in the Nabucco consortium. And recently, in October 2007, EU foreign policy chief Javier Solana visited Ashgabat to start negotiations on Nabucco,<sup>43</sup> further indicating Turkmenistan's and Azerbaijan's emerging roles as the central suppliers to the pipeline.

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<sup>43</sup> "Eu in talks on Nabucco gas project," *Gulf Times*, October 10, 2007.

Other actors interested in taking a share of Nabucco today include Egypt, Iraq, Libya, Iran, and Saudi Arabia. However, the lack of infrastructure (or in Iran's case, lack of gas) impedes these states from filling it.<sup>44</sup> The Arab Gas Pipeline could potentially connect with Turkey, but the scant 2-4 bcm per year that AGP could contribute is relatively insignificant. The main focus will therefore be on Azerbaijan and Turkmenistan. Iran will also be included in this assessment since it figures as one of Nabucco's key suppliers.

### *Azerbaijan*

As it stands today, Azerbaijan is the only country which has concluded an agreement on supplying Nabucco.<sup>45</sup> The Shah Deniz field will thus fill the first phase of the project. When the project enters its second phase, sources of supply are more uncertain. According to the operator BP, Shah Deniz's capacity will be limited to the production of around 8-12 bcm of natural gas per year in 2011-2012, and will be unable to fill both the Interconnector Turkey-Greece-(Italy)<sup>46</sup> and Nabucco alone. Even though Azeri President Ilham Aliyev has claimed that Shah Deniz could supply Europe with as much as 50 bcm annually,<sup>47</sup> these figures should be treated with caution. Nonetheless, 10-12 bcm is a conservative estimate and the ultimate production will likely be much higher. Additional Azeri supplies

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<sup>44</sup> If gas is to be piped from Egypt or Saudi Arabia there is a need to build pipelines from scratch as these states lack the infrastructure to support such a commitment, making both these options unlikely. Second, even if Iraqi Kurdistan, where energy supplies would come from, is remarkably stable compared to the rest of Iraq, and Kirkuk has a link to Ceyhan in Turkey, it is still uncertain if any investor would venture into a project of Nabucco's magnitude relying on Iraq. See: "EU: Exploring Its Options," *Stratfor*, Jan 3 2006.

<sup>45</sup> Thomas Kreyenbuhl, "Iran-Turkey Gas Deal Gives new Hope for EU Nabucco Pipeline," *World Politics Review*, October 9 2007.

<sup>46</sup> The Interconnector pipeline, stretching from Turkey to Greece and with a planned extension to Italy, came into operation on August 10 this year. The pipeline will have an initial capacity of transporting 8 bcm per year but could potentially be upgraded to 22 bcm; supplies will mainly come from Shah Deniz.

<sup>47</sup> Vladimir Socor, "Caspian Gas Plentiful Now for Nabucco Pipeline Project," *Eurasia Daily Monitor*, May 10 2007.

could also come from the fields of Nachchivan and Gunashli or untapped gas reserves under the Azeri-Chirag-Guneshli offshore oilfields.

However, the Baku-Erzurum pipeline has a maximum capacity of 16 bcm, of which Georgia has a right to take 5% of the annual gas flow.<sup>48</sup> This implies that Baku-Erzurum will be will only be able to fill far less than half (with supplies to the *Interconnector* deducted) of Nabucco unless the pipeline is upgraded. This necessitates that a large diameter pipeline is connected to the Georgian border, and this also seems to be the plan.<sup>49</sup> These combined could potentially supply Nabucco almost to its full capacity. A precondition for this is, however, the further development of Azerbaijan's gas-fields as well as additional contributions from sources other than Shah Deniz.

### *Iran*

Iranian gas has been regarded as the most likely option to fill Nabucco second to Azerbaijan; but the circumstances surrounding its nuclear program have made Iran an uncertain factor.<sup>50</sup> An additional factor of uncertainty is that Iran does not currently have any export capacity as a result of its high domestic consumption. As such, Iran will likely have a hard time even filling the 2.8 bcm per year it promised to Nabucco in 2005. Turkey is currently Iran's only export outlet for natural gas but the flow has so far been uneven. The 20 bcm Tabriz-Erzurum pipeline operates far below full capacity and is currently only delivering around 7 bcm per year.<sup>51</sup> The Tabriz-Erzurum pipeline has also been vulnerable to attacks by PKK militants and numerous explosions have disrupted its operation. As recently as September 10, 2007, the pipeline's operation was again disrupted by an explosion 5 km inside of the Turkish border.<sup>52</sup> It is

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<sup>48</sup> BP, South Caucasus Pipeline website at:

<<http://www.bp.com/genericarticle.do?categoryId=9006670&contentId=7014371>>

<sup>49</sup> See <http://www.nabucco-pipeline.com/project/project-timeline/index.html>

<sup>50</sup> Vladimir Socor, "Strategic Issues Facing the Nabucco Project," *Eurasia Daily Monitor* September 20 2007.

<sup>51</sup> "Iran listens for pipes of peace," *Petroleum Economist*, February 2007.

<sup>52</sup> "Iran-Turkey pipeline blast cuts gas flow," *Reuters*, September 10 2007.

uncertain how the Nabucco consortium could sustain yet another pipeline linking Turkey with the Iranian border.<sup>53</sup>

Iran's major gas fields are also located in the Persian Gulf and mainly in the giant South Pars field, estimated to contain 47% of Iran's proven natural gas reserves. In consequence, European investments will be needed to improve the development, efficiency, and transportation from these fields in the longer term if intended for Nabucco. The development of South Pars, however, is primarily intended for domestic consumption and LNG exports.

Moreover, even if Iran currently has a north-south gas infrastructure from the Persian Gulf to northern Iran, this is already fully committed to supplying Iran's domestic gas-needs. This Soviet-era trunk line was launched in the 1970s and runs from Iran's southern fields to Astar in northern Iran and through Baku. However, these exports to the USSR only could be sustained for 10 years as a result of growing domestic needs. Indeed, Iran has even held discussions with Azerbaijan on importing natural gas from the country to relieve gas shortages in northern Iran. It is inconceivable how Iran is supposed to export gas when it cannot supply its own needs.

Indeed, despite having the second largest gas-reserves in the world, Iran is a net gas-importer. In 2005, and with a domestic consumption reaching as high as 8.6 bcf/d, Iran was a net-importer of roughly 200 million cubic feet of gas per day, and domestic demand is expected to grow with 7% annually in the next decade.<sup>54</sup> These growing domestic needs have also affected the flow in the Tabriz-Erzurum pipeline. In early January 2007, exports through Tabriz-Erzurum went down to zero following cold weather and increased domestic consumption in Iran.

Similar to Russia, Iran's investments in its energy industry have also lagged far behind. The International Energy Agency estimates that \$165 billion of investments up until 2030 will be required to meet Iran's

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<sup>53</sup> See <http://www.nabucco-pipeline.com/project/project-timeline/index.html>

<sup>54</sup> Iran Stuck in Neutral: Energy Geopolitics Hinder Iran's Oil and Gas Industry's Development," *Energy Tribune*, December 11 2006.

ambitious production goals. Other estimates point to that Iran by 2015 will have zero incomes on energy exports due to the deficit of production and the high domestic consumption.<sup>55</sup>

There are thus many unfulfilled preconditions for Iran supplying Nabucco: First, the diameter for Iran's north-south pipeline grid needs to be expanded and a link needs to be added between Qazwin northwest of Tehran to Tabriz;<sup>56</sup> Second, Iran's fields in the Persian Gulf need to be developed; Third, Iran's domestic consumption of natural gas needs to be curbed substantially. This is unlikely to happen when the US Iran-Libya Sanctions Act is still in place, rendering any such project impossible under current circumstances. If it were to happen, it would be a decades-long process as well. With the rapid development of LNG technology, the gas supplies in the Persian Gulf will also likely be shipped in the future making investments in pipelines unnecessary.

It is unclear what calculations the Nabucco consortium has used when assessing Iran's export potentials. Nonetheless, plans for building an additional connection to the Iranian/Turkish border exist.<sup>57</sup> This may partly be motivated by the prospects of routing Turkmen supplies overland via northern Iran. But as will be explored below, such a solution also has its problems.

#### *"The Turkmenistan-Iran-Turkey pipeline"*

Absent a trans-Caspian pipeline, a second option which has figured is to utilize already existing pipelines from Turkmenistan to Turkey via Iran.<sup>58</sup> The Korpjeje-Kurt Kui gas pipeline, running from Turkmenistan to Iran with a maximum capacity of 13 bcm, is currently underutilized

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<sup>55</sup> Tehran's Oil Dysfunction, CFR Backgrounder <[http://www.cfr.org/publication/12625/tehrans\\_oil\\_dysfunction.html](http://www.cfr.org/publication/12625/tehrans_oil_dysfunction.html)>, accessed on March 2 2007.

<sup>56</sup> Hedayat Omidvar, "Iran's Aggressive Natural Gas Expansion Plans." *Energy Tribune*, September 17 2007.

<sup>57</sup> See the website of the Nabucco Consortium, <<http://www.nabucco-pipeline.com/project/project-timeline/index.html>>

<sup>58</sup> "Turkey offers route to Europe for Iranian and Turkmen gas" *Eurasia Daily Monitor*, July 19 2007.

and could potentially connect in northern Iran with the 20 bcm Tabriz-Erzurum pipeline or the Nabucco pipeline planned to link with the Iranian border.<sup>59</sup>

This solution ignores, however, that the gas supply shortages in northern Iran are also expanding, thereby partly explaining why Tabriz-Erzurum is not filled in the first place. According to Seyyed Reza Kasaiizadeh, the managing director of the National Iranian Gas Company (NIGC), annual gas imports from Turkmenistan will also increase from the current 6 bcm to possibly reach 14 bcm in 2008 in order to sustain growing Iranian domestic demand. As such, there will not be enough room in the Korpeje-Kurt Kui gas pipeline which will necessitate the construction of a new parallel pipeline, which, in turn, is unlikely when the Iran-Libya Sanctions Act is still in place. Austria's OMV, the leading member of the Nabucco consortium, has already demonstrated that it conforms to the regulations of ILSA when it cancelled its deal to develop Iran's South Pars field.

Although Iran and Turkey are currently strengthening their ties in the natural gas sector, the agreements signed between them need to be assessed with all this taken into consideration. For example, on July 17 this year, Turkey and Iran signed an agreement whereby Turkey will act as a transit country for 30 bcm per year from Iran to Turkey, and of which 10 bcm will be of Turkmen origin.<sup>60</sup> In context of the arguments presented above, it is uncertain how this deal will ever materialize.

### *Turkmenistan*

Turkmenistan, in contrast, has emerged as the most likely candidate in filling Nabucco next to Azerbaijan, if supplies can be piped across the Caspian or from Turkmenistan's off-shore fields. The shift of leadership in Turkmenistan has also removed the main stumbling block to the trans-Caspian pipeline. Both in terms of a potential opening up of Turkmenistan's gas reserves to other customers than Russia, but also

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<sup>59</sup> Vladimir Socor, "Turkey Offers Route to Europe for Iranian and Turkmen Gas," *Eurasia Daily Monitor*, July 19 2007.

<sup>60</sup> "Turkey: Kurds, Iran and Prodding the United States," *Stratfor*, July 17 2007.

through Turkmen president Berdymukhameddov's demonstrated willingness of an Azerbaijan-Turkmenistan rapprochement. Coinciding with the CIS summit in St Petersburg in June 2007, Turkmenistan announced that it would reopen its embassy in Baku while both parties also expressed their wish to jointly explore the Kapaz/Serdar field.<sup>61</sup> Should this conflict be resolved, Kapaz/Serdar has the potential together with Turkmenistan's off-shore Block I field to fill Nabucco. Block I could also connect with the Azeri-Chirag-Ghuneshli field if an undersea pipeline is built between the respective off-shore platforms. Such a solution would also avert the need for a coast-to-coast pipeline, which, in turn, would circumvent Russia from protesting the project on "legal grounds."<sup>62</sup> These recent events combined with an improvement in bilateral relations between Turkmenistan and Azerbaijan also explains the recent visits of high-level officials to these countries.

### The Transit States

Besides finding supplies for Nabucco, an additional factor which risks undermining the pipeline's construction is Gazprom's lobbying of the Central European transit states to commit to the competing South Stream pipeline instead. The combined effects of European indecisiveness have also effectively played into Gazprom's hands and made many of the partners in the Nabucco consortium wary if Nabucco will ever materialize. In effect, they have displayed unwillingness to conclusively commit to either South Stream or Nabucco.

The position that many East and Central European states find themselves in also make them vulnerable to Gazprom's pressure. Hungary, for instance, depends on Gazprom for 80 percent of its deliveries while it simultaneously tries to pursue the Nabucco project. Hungary has also hesitated in committing fully to the project, thereby making Hungary the "weak link" in the consortium. The decision to

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<sup>61</sup> Rovshan Ismayilov, "Azerbaijan and Turkmenistan Probe Rapprochement," *Eurasianet*, June 18 2007.

<sup>62</sup> Vladimir Socor, "Caspian Gas Plentiful Now for Nabucco Pipeline Project," *Eurasia Daily Monitor*, May 10 2007.

either commit to South Stream or Nabucco has also spurred a fierce domestic debate between the socialist-led government and the opposition. Gazprom's offer has not bolstered Hungary's incentives to stay in Nabucco either.

To win over some of the skeptics in the Hungarian government, and to compete with Gazprom, there is a need for creative and redistributive policies within the Nabucco consortium itself. One solution is that the transit revenues from Nabucco are shared within the consortium, and that Austria's OMV allocates parts of Nabucco's gas storage sites to Hungary to keep the project attractive.<sup>63</sup> This would be a far better option than the recent take-over bids OMV has launched against the Hungary's MOL.

### **Financing Nabucco**

The main factor determining whether the project will get off the ground or not, is if its investors decide that Nabucco's commercial value warrants the associated risks. Obviously, unless financing is assured the project cannot start. Clarity is a precondition for investors as regards supplies for Nabucco, and at what level of gas-flow the project would start making commercial sense.

When financing Nabucco, one may favorably look to the process by which the Baku-Ceyhan pipeline was financed and built. Useful lessons could here be learnt of how a politically-driven and risky project in the end turned out to be commercially sound.

The Baku-Ceyhan pipeline was financed through a 30% equity stake by the consortium, while the remaining 70% was in the form of debts. These debts were split over a number of different sources: including multilateral development banks, export credit agencies, and private commercial banks. The \$3.6 billion pipeline received \$500 million from the European Bank for Reconstruction and Development (EBRD) and the IFC; export credit agencies provided a total sum of \$1.36 billion of which \$580 million

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<sup>63</sup> Vladimir Socor, "Strategic Issues facing the Nabucco Project," *Eurasia Daily Monitor*, September 20 2007.



came from the Japanese bank for International Cooperation, \$160 million from the US Export-Import Bank, and \$100 million from the UK's Export Credit Guarantees Department.

Even though a trans-Caspian pipeline was conceived as necessary for the project to make financial sense in the longer term, the project was able to commence even if this issue remained undecided. The trans-Caspian pipeline from Kazakhstan to Baku is yet to be constructed but high oil prices have rendered the BTC profitable in any case, even if it only runs on half of its capacity.

Nothing precludes the Nabucco pipeline from a similar financing structure and implementation. The European Investment Bank has already committed itself to financing nearly one-third of the \$6.2 billion project, while the Nabucco Consortium is in negotiation with EBRD on additional funding. As with the Baku-Ceyhan pipeline, 70% of the financing for the project is expected to come from bank loans.<sup>64</sup> The question of Iran has, however, created unnecessary uncertainty, deterred US investors, while making the EIB wary of Iran's participation. In view of Iran's poor potential in acting as a supplier to Nabucco, it is unclear why this should be a source of contention since the consortium may commit to other producers that are more favorable.

Azerbaijan and Turkmenistan appear as the most likely candidates in these endeavors, while additional supplies could come from Kazakhstan, Egypt, Libya, Iraq, and hopefully Iran if political circumstances allow and export capacity is raised. Supplies from Azerbaijan and Turkmenistan could fill most of Nabucco's potential and would also fit in well with the US strategy toward the region. In conclusion, the main strategic decision facing European policy-makers today is: 1) to prioritize tying up Azerbaijani and Central Asian supplies and keep the trans-Atlantic relationship intact, or 2) pursue a strategy which would drive a wedge between US and Europe in exchange for negligible Iranian amounts of gas.

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<sup>64</sup> "Europe Commits to Nabucco Pipeline," *Bank Information Center*, September 24 2007.

## 5. Strategic Decisions Facing Europe

Choosing between continued reliance on Gazprom, engaging Iran, or disengaging from both Iran and Russia, will inadvertently involve both benefits and costs. Yet this paper argues that the single most important factor is that Europe and the US pursue a coherent strategy, involving some degree of new thinking. So far, Europe has showed little commitment to either.

While the US has demonstrated dedication to the further development of the East-West energy corridor, Europe has been indecisive and demonstrated little political will to diversify energy supplies and maintain healthy trans-Atlantic relations. This is ironic since the US's primary concern with developing the East-West corridor in the first place was to assist Europe to diversify energy away from Russia. European policy-makers have shown little appreciation while Gazprom has strengthened its dominance over Europe's gas supply. Hence a fundamental change in Europe's strategy seems long overdue.

The single most important factor for realizing Nabucco is time, and this is also where the dilemma lies. Europe needs to assure the private investors in the Nabucco consortium that the project is commercially viable. How then should Europe make a speedy implementation of Nabucco, maintain healthy trans-Atlantic ties, and counter Gazprom at the same time? And, simultaneously, ensure investors that the project is profitable?

Before Europe can come to terms with what strategic decisions need to be taken, it is first necessary to appreciate what *not* needs be debated. This pertains to no less than one of the project's perceived backbones. It is incomprehensible how the issue of Iran has been able to determine the debate about Nabucco when Iran has so little capacity to support it.

## Iran: A Misguided Debate

It should be acknowledged that Iran's gas reserves will make it a serious long-term option for Europe if Iran ceases its pursuit of the full nuclear cycle and improves its domestic political climate. This may very well happen in the near future. The results of the 2008 parliamentary elections and 2009 presidential elections will for sure be interesting to follow, especially since reformist forces are regaining strength after the defeat of Khatami in 2005.<sup>65</sup> Nonetheless, even if this would happen and a compromise reached over Iran's nuclear program, it will take decades before Iran is a major gas-exporter.

In spite of this, the debate on Nabucco has largely been guided by Iran's participation. The US has vehemently opposed Iran supplying Nabucco with gas, which has caused strains on the trans-Atlantic relationship. As put by Deputy US Assistant Secretary of State Matthew Bryza: "We support Nabucco as a way to help Europe diversify with Caspian gas – but not Iranian gas".<sup>66</sup> The European Union, for its part, seems unable to acknowledge that Iranian gas for export does not exist and conceives the sole impediment to be political. For instance, European Commission energy spokesman Ferran Tarradellas Espuny recently stated that: "In 2011, we hope that the situation in Iran is going to get better than it is now so we can get gas from Iran."<sup>67</sup> Moreover, the Nabucco Consortium has listed the potential suppliers, among which Iran is conceived to be one of the primary ones, but has so far avoided the question of how Iran ultimately will free up gas for export, let alone the political consequences caused by its involvement.

In the center of this misguided debate stands the European Investment Bank (EIB), confounded by the mixed messages and how it should finance a project involving Iran. As put by Thomas Barrett, a senior

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<sup>65</sup> As seen, for instance in the 2006 local council election in which reformist forces scored victories.

<sup>66</sup> Quoted by Judy Dempsey, "Guessing Game Focuses on European Energy," *IHT*, September 21 2007.

<sup>67</sup> Kostis Geropoulos, "EU Bets all on Nabucco, Shrugs off South Stream," *New Europe News*, June 30 2007.

official at the EIB, on the question of Iran's inclusion: "We need clarity." Other statements by the EIB also indicate how the question of Iran impacts thinking within the institution. In referring to Iran, Dusan Ondrejicka, a spokesman for the EIB stated: "This Nabucco project will be fully operational [only] in the second decade of the present century, and many people hope that by that time, many of these [political] issues will be solved."<sup>68</sup>

It is a paradox that the Nabucco project's postponement and Iran's participation largely is the result of a non-issue. The consequences are also uniformly unfortunate for all actors involved. It has both caused a trans-Atlantic rift over the issue while US-Turkey relations have deteriorated. At the same time, other options, such as that of a trans-Caspian pipeline, have been overshadowed by Iran's unrealistic participation. True, Azerbaijan is also currently a net-importer of gas, but in difference to Iran, Azerbaijan has fields which are currently being developed as well as infrastructure to transport gas from the Caspian Sea to Turkey. Iran has infrastructure from Tabriz to Erzurum, but not gas to sustain it, which makes it a less likely supply alternative to Europe's energy security in the short term.

This is not to say that Iran's shipment of LNG to Europe in the future should be precluded. Nor is it to say that purchasing energy from Iran could eventually become an important component to reward moderation in Iran, by both the US and the EU. Rather the issue here is that Iran's export of natural gas northward to Europe is a question which should be set apart from the Nabucco project. It is also not clear why the current Iranian gas destined for Turkey by necessity should be intended for Nabucco. The modest amounts of Iranian gas exports destined for Turkey so far are ear-marked for Turkey's domestic needs.

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<sup>68</sup> Quoted in "Caspian: EU invests in New Pipeline," *RFE/RL*, June 27 2006.

*Why the “Dividing the Project into Phases Solution” may do more Harm than Good*

It has been proposed that the project’s division into two phases could be a feasible solution so as to start construction of the project while at the same time waiting for additional supplies to emerge. The logic is that since the first stage between Baumgarten in Austria and Ankara in Turkey essentially relies on already existing Turkish capacity and supplies from the Turkish pipeline system, this stage could be initiated without a conclusive decision regarding the second stage.<sup>69</sup> At the same time, then, it would demonstrate how the project is moving forward. Nevertheless, a major shortcoming with this is that Turkish gas essentially means Russian gas. Filling Nabucco with Russian gas would be pointless since the rationale behind the project is to reduce dependence on Russia for Europe and the Central Asian/Caucasian states—not increase it. Worse, if the second phase is not initiated, the Nabucco consortium and the EU would essentially have invested their money in a further inlet for Russian gas and thus eliminating the sole existing option for Europe’s diversification in natural gas.

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<sup>69</sup> John Roberts. Testimony for House of Commons Foreign Affairs Committee Inquiry into 'Global Security: Russia': Testimony concerning Russia, the Caspian and the EU from an energy security perspective. UK House of Commons, June 10 2007.

## 6. Conclusion and Recommendations

The preceding discussion should have made clear that Nabucco is “much more than just about gas.” If the issue was only over whether Nabucco could supply Europe with an additional 25,5-32 bcm of natural gas per year, this pipeline would not qualify to be Europe’s missing link. Nabucco’s benefits go far beyond this. Nabucco could potentially be the glue that keeps both Europe’s common energy policy and Europe’s engagement with the states around the Caspian Sea together. If supplied with Azeri and Turkmen gas Nabucco would significantly improve Europe’s energy diversification. It would also promote additional outlets for Turkmen gas while guaranteeing Azerbaijan a long-term income. More importantly, it would indicate a long-term commitment from the European side which would compel the Central Asian and Caucasian states to pursue a more balanced and independent policy. In effect, no longer would they be little more than appendages to Russia, but rather independent and sovereign states.

Europe’s options are continuously being narrowed down because of intense competition over supplies, while Turkmenistan’s opening up to the outside world will require Europe to make a speedy implementation of the project. Iran’s participation has, however, created both uncertainty and undermined transatlantic relations. In consequence, investors are puzzled over how to finance Nabucco—a project which all, including the European Commission, seem to accord priority to but which never seems to acquire enough momentum.

To maintain the necessary momentum, the US and Europe need to form a joint strategy. This will involve some vital yet necessary strategic decisions for Europe to take; the benefits of which will not disappoint anyone.

1) To realize Nabucco there is a need to redouble the efforts in finding finance for the project. A precondition for this to happen is clarity and

strong political support. Clarity, in turn, requires a clear assessment on where gas would come from, how much each actor will contribute to filling the pipeline, and when. Azerbaijan and Turkmenistan have a demonstrated ability to fill a bulk of the pipeline, likely up to 20-25 bcm, which also is a conservative estimate. A joint push from Europe and US in realizing this would also likely be met by a far more positive response among investors than relying on Iranian gas, which is far more uncertain. The air of uncertainty prevailing has made the EIB, EBRD, export credit agencies and others apprehensive of the seriousness of the project.

2) The US has demonstrated its commitment in supporting the trans-Caspian pipeline financially and politically. Since this, like Nabucco, is an essential link in the East-West corridor Europe can scarcely afford to align its strategy differently. Absent a link to Turkmen (and also Kazakh) supplies, these countries may in the future be lost to Russia and China.

3) The Nabucco-pipeline could serve as a major incentive for Turkmenistan and Azerbaijan to resolve their differences. Its construction would also reignite the urgency of a trans-Caspian pipeline. In the end, these two projects stand or fall together.

4) Even Russia and Iran would benefit from the construction of Nabucco and a trans-Caspian pipeline. Greater competition will compel Russia to invest further in its energy industry. Iran, for its part, could focus its efforts on developing its LNG industry, which has far greater significance for both Europe and Iran in the longer term. It would also help keep the households in northern Iran warm. These households would be likely to suffer most from Iranian gas exports. Furthermore, Europe may well reward moderation with trade in energy once more moderate forces come to power. Committing to Iranian gas now would, however, reward an incumbent government which little deserves these rewards.

5) Despite claims to the contrary, Russia's long-term stability as a supplier of natural gas is highly questionable. Regardless, no one would want to be dependent on only one set of pipelines or only one producer. At the same time there is a need to be realistic. Russia will continue to

remain the main supplier of natural gas to Europe and this will not change any time soon. To put pressure on Russia, the European Union needs to consolidate its efforts and convince the Russian Duma that it is in Russia's long-term interests to ratify the Energy Charter Treaty, to which it is a signatory. This would prevent Russia from using monopolistic practices and gas cut-offs as a foreign policy tool. The decision by the European Commission on September 19 to limit Gazprom's expansion into Europe combined with the Budapest conference on Nabucco held a few days earlier are the first steps from the EU in realizing this. The successful construction of Nabucco would also signal to Moscow that it will face a harder time in its "divide and conquer" strategy that serves to undermine the forging of a unified European energy policy.