# Natural Gas supply to Europe: Azerbaijan's energy policy Sevinj Mammadova\*

### Abstract

Azerbaijan is one of the key countries in the Caspian region that exports crude oil to the global energy market. However, the discovery of the huge natural gas reserves on its offshore territory, the start of negotia-

tions with Turkmenistan to establish a legal framework for constructing the Trans-Caspian Pipeline, and the recently signed gas agreements have also made Azerbaijan a major natural gas exporting country. Nowadays, supplying natural gas to European markets through the Southern Corridor is the main focus of Azerbaijan's energy policy. The Southern Corridor, a central part of the country's energy diversification policy, is the only westward route for exporting hydrocarbons from the Caspian.

Supplying natural gas through pipelines creates a long-term linkage and increases interdependency between suppliers and consumers, which in turn makes the process more vulnerable from the political point of view. By pursuing a multi-dimensional energy policy, Azerbaijan has taken a cautious and balanced approach, where political interests along with economic interests play a key role in defining priorities within the long-term energy projects. This paper analyzes Azerbaijan's natural gas supply policy focusing on specific factors affecting current pipeline politics, along with the shifting security dynamics within the Southern Corridor.

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C ince hydrocarbon reserves close **O** to traditional markets are being depleted, importing oil and natural gas from remote sources has become a way to meet Europe's growing energy demand. Indeed, the supply of hydrocarbons from remote sources through pipelines has brought new players with different interests to the traditional energy markets, shifting the power balance between consumers and suppliers. However, market mechanisms are not same for oil and gas. In contrast to oil, natural gas markets are still regionally fragmented and the market transformation process is incomplete.

In order to meet the growing energy demand and diversify its supply options by reducing natural gas monopoly in European markets, the European Union has launched the "southern gas corridor" initiative to enable the flow of natural gas to markets from the Caspian region. At its current stage the realization of the westward supply chain from the region has been slowed by certain impediments; however, by some positive developments have followed.

The major impediments can be characterized as follows. First, the landlocked nature of the Caspian region constrains supply options, and thus increases the dependency of the energy producing states on transportation systems in neighboring states. Since neither Azerbaijan nor Turkmenistan has direct access to the high seas, The boost of the investments in natural gas production and development of new pipeline projects based mostly on Azerbaijani gas have significantly increased Azerbaijan's role as an energy country.

they need transit pipelines to gain access to European energy markets. In fact, transit pipelines are more vulnerable to political and economical pressure along the supply chain. The lack of common regulations and gaps within the legal framework pose another challenge. As there is no open market structure for natural gas, most of the decisions are determined not by market mechanisms and dynamics but by long-term contracts. Finally, the geopolitical interests of Russia and Iran present problems for the materialization of the Trans Caspian Pipeline (TCP). In order to both preserve its energy monopoly in European gas markets and maintain control over gas transit routes from Central Asia, Russia is putting its efforts into blocking the construction of this pipeline, which would bypass its territory. Without Turkmen gas it makes no sense to talk about a longterm pipeline project with large export capacity.

The boost of the investments in natural gas production and development of new pipeline projects based mostly on Azerbaijani gas have significantly increased Azerbaijan's role as an energy country. Nowadays, the natural gas supply to Southern and Eastern European markets through the southern gas corridor is the main focus of Azerbaijan's energy strategy. Moreover, the initial supply of natural gas via the southern gas corridor is expected to flow from its Shah Deniz field, one of the world's biggest gas fields. Four main pipeline projects, Nabucco, the Trans – Adriatic - Pipeline (TAP), Interconnector - Turkey - Greece - Italy (ITGI) and South-East Europe Pipeline (SEEP) have been competing for the rights to bring Shah Deniz gas to Europe.

However, exporting natural gas from Azerbaijan faces challenges that follow from factors such as geopolitics, the region's landlocked geography, competing interests of key players, limits of transportation options, and the need for a transit pipeline to deliver natural gas to European markets. Consequently, the Azerbaijani government has established the following guidelines: a) avoid or minimize transit risks by owning the major share in export/energy infrastructure in transit states; b) diversify pipeline routes by developing multiple export options and; c) pursue a market-oriented policy.

This paper focuses on the export of natural gas from Azerbaijan to Europe and examines challenges associated with the delivery of natural gas via pipelines from the region. The paper opens with an explanation of Azerbaijan's energy policy, determined by natural gas demand from markets to the west. Then it identifies the impact of landlocked geography along with political and economic interests on export options and pipeline dynamics.

## Switching from oil to natural gas supply

In the two decades following the break up of the Soviet Union, the supply of hydrocarbon resources from Azerbaijan, Kazakhstan and Turkmenistan to world markets has become the center of energy policy debates. Within this constellation, Azerbaijan and Kazakhstan were generally seen as the main oil exporting countries, with Turkmenistan as a key natural gas supplier. Since the existing pipeline system from those countries was a part of the old Soviet transportation network, there was strong support from Turkey and Western countries for the development of new oil and gas pipelines in the east-west direction. Theoretically, that should help the energy-producing countries of the Caspian region to export their hydrocarbon resources independently to world markets without using the Russian pipeline system or traversing its territory.

The construction of new pipeline system leading from the Caspian Sea to world markets became a priority in the energy policy agendas of Western The construction of new pipeline system leading from the Caspian Sea to world markets became a priority in the energy policy agendas of Western and Caspian states.

and Caspian states. Since Moscow had other plans and visions for how to export the region's hydrocarbon resources, the outcome was mixed and they struggled to meet their initial objectives. From the beginning, Moscow blocked all pipeline projects crossing through the seabed, referring to environmental concerns and the unresolved legal status of the Caspian Sea. Hence, the initial attempts to construct a Trans-Caspian Pipeline system to export Kazak oil and Turkmen gas failed at the end of the 1990s. The dependence of Central Asian countries on the Russian pipeline system has limited transportation options, moderately in Kazakhstan and overwhelmingly in Turkmenistan.<sup>1</sup> Russia was able to maintain its monopoly over the natural gas supply from Central Asia to European markets during the first phase of Caspian energy development.

As soon as oil pipelines become operational in Azerbaijan, it started to export its hydrocarbon resources to world markets. During the first phase of Caspian energy development, the production and export of crude oil constituted the core of Azerbaijan's energy strategy and was the major base of its economy. Moreover, most foreign investments were directed towards the exploitation and development of oil fields. In contrast to oil, natural gas production has been developed as sideline, out of the limelight.

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The dynamic around Caspian energy changed in 1999, when the anticipated oil reserves in Azerbaijan's Shah Deniz field failed to materialize, and instead, a giant deposit of natural gas and condensate was discovered.<sup>2</sup> Shah Deniz is one of the world's largest gas-condensate fields, with over 1 trillion cubic meters (tcm) of gas.<sup>3</sup> This was a turning point not only in Azerbaijan's domestic energy policy, but also the region's, by significantly increasing Azerbaijan's natural gas export potential along with its crude

3 BP Caspian, Shah Deniz, http://www.bp.com/ sectiongenericarticle.do?categoryId=9006668&content Id=7015092 (accessed June 13, 2012).

<sup>1</sup> Mert Bilgin, "New prospects in the political economy of inner-Caspian hydrocarbons and western energy corridor through Turkey," Energy Policy, no. 37 (2007): pp. 6383–6394.

<sup>2</sup> Elshad Nasirov, "Azerbaijan's oil and natural gas industry - achievements and perspectives," Azerbaijan Focus, Januarry 2010: pp. 75-84.

oil capacity. Azerbaijan has entered into a new phase of its energy policy, shaped by the export potential for natural gas.

With the discovery of the Shah Deniz field, Azerbaijan became the main driving force behind the southern gas corridor, with Turkmenistan taking a backseat.4 Moreover, newly opened gas fields - Shafag, Asiman, Nakhchevan, Dan Ulduzu, Ashrafi, and Babek - have caused a tremendous shift in the country's energy policy. In the near future, Azerbaijan will be able to produce and export more natural gas than oil.5 After the Russian-Ukrainian gas crisis in 2006, the European Union began to push more intensively for the implementation of the southern gas corridor initiative. The crisis acted as a catalyst for the reopening of negotiations<sup>6</sup> over the southern gas corridor, putting energy demand in a new perspective. The push for the southern gas corridor has determined the second phase of the Caspian energy, which puts Azerbaijan at the center of the natural gas supply strategy.

#### Supply challenges

The landlocked nature of the Caspian region constrains supply options for the region's hydrocarbon resources to world markets. In order to export hydrocarbon resources upstream, countries need transportation facilities in neighboring countries. This requires a reliable transit corridor that can efficiently serve the requirements not only of upstream countries, but also midstream and downstream countries. It will increase the dependency of landlocked energy exporters on transit states, due to a relative lack of flexibility in finding alternative transportation routes. Furthermore, under certain conditions transit pipelines might cause difficulties for natural gas supply from landlocked areas.

Oil can be transported to world markets from Azerbaijan by pipelines, railway and then by sea tankers. In contrast to oil, transporting natural gas is far more expensive and there are only two options for its delivery: pipelines and Liquefied Natural Gas (LNG).

The production and export of crude oil from landlocked areas is a quite different process than production and export of natural gas. Oil can be transported to world markets from Azerbaijan by pipelines, railway and then by sea tankers. In contrast to oil,

<sup>4</sup> Friedbert Pflüger, "The Southern Gas Corridor: Reaching the Home Stretch," European Energy Review, January 12, 2012, http://www.europeanenergyreview.eu/site/pagina. php?id=3455&print=1 (accessed January 13, 2012).

<sup>5</sup> Azerbaijan's proven oil reserves are estimated at 2 billion tons.

<sup>6</sup> The first round of negotiations to supply natural gas to European markets from the Caspian region started in 1998. US government proposed and supported construction of the Trans Caspian Pipeline. That time Turkmenistan was seen as only potential country able to supply natural gas to Europe.

transporting natural gas is far more expensive and there are only two options for its delivery: pipelines and Liquefied Natural Gas (LNG). However, there are two main constraints that limit the LNG option. The first is the issue of relative cost. LNG is cost-competitive with pipelines only over distances in excess of 4000 km. In other words, if the gas is to be transported over a shorter distance, it is cheaper to use pipelines.<sup>7</sup> The second constraint is geography. Given that the LNG tanker is an oceanfaring vessel, access to the high seas is a key requirement. For these reasons, pipelines are needed to deliver natural gas from Azerbaijan and the region.

Nevertheless, once the pipeline is built, it will create a long-term linkage between upstream, midstream and downstream countries. Any interruption to the flow would risk devaluing the entire investment both upstream and downstream of the pipeline.<sup>8</sup> By comparison, oil is a bit different. Since there exists a global oil market, the producer can sell the product to any buyer and the consumer can easily shift from one seller to another. But the natural gas supply strategy requires a carefully designed accurate, market-oriented policy. Nevertheless, once the pipeline is built, it will create a long-term linkage between upstream, midstream and downstream countries.

The transportation of natural gas by pipeline from Caspian upstream countries to European markets is the only relevant export option at the moment. However, there are a number of factors that pose challenges to the supply of natural gas via the trans-Caspian pipeline system from Turkmenistan to Azerbaijan. Since the TCP has to be constructed through the seabed, it is likely that Russia and Iran will object, based on their geopolitical

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interests, which they generally conceal behind environmental concerns and the issue of the unresolved legal status of the Caspian Sea. Russia is interested in maintaining control over the transportation of Turkmen gas , while Iran will favor the new supply of Turkmen gas through its own territory, which could also lead to the lifting or softening of economic sanctions. According to officials of both states, the construction of TCP will only be possible with the full agreement of all the littoral states. Thus

<sup>7</sup> Paul Stevens, Transit Troubles: Pipelines as a source of conflict, Royal Institute of International Affairs (London: Chatham House, 2009), p. 23.

<sup>8</sup> ESMAP, "Cross-Border Oil and Gas Pipelines: Problems and Prospects," Annual Report (2003).

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given the geopolitical situation in the region, Baku will avoid open confrontation with Moscow and instead prioritize the development of the production of its own reserves rather than actively supporting export projects from Turkmenistan. Moreover, aside from political support, there are no commercial players who are ready to finance TCP.<sup>9</sup>

The most important fact about natural gas supply by pipelines is that the delivery must involve transit states. Transit lines are extremely vulnerable to political manipulation and economic pressure, which will siphon off any profitability in what is a zero-sum game between the pipeline owner and the transit country.<sup>10</sup> Moreover, due to the high costs, the time it takes to mobilize investors and to build the pipelines, along with the geographical limitations, energy-importing and energy-exporting states are constrained in their supply venue options, and it takes years to establish alternative routes if a transit

state disrupts the supply flow.<sup>11</sup>

The current pipeline politics surrounding the supply of natural gas to Europe presents a complicated picture. From the beginning, there have been several pipeline projects competing for the right to bring natural gas from the Shah Deniz field to European markets at the initial stage of the southern gas corridor. Four main projects were involved in this race: Nabucco, TAP, ITGI and SEEP. There are also two other pipeline projects - the Trans-Anatolian-Pipeline and the Trans-Caspian Pipeline - that comprise key components of the southern gas corridor. All of these projects have different motivations and constitute elements of various gaming strategies between players.

#### Gas negotiations and TANAP

The recent transit gas agreements signed between Azerbaijan and Turkey and follow-up agreement on the construction of Trans-Anatolian-Pipeline (TANAP) have brought the southern corridor close to its realization, and at the same time, have shifted the dynamics within pipeline politics, making Azerbaijan the major natural gas producing and exporting country.

As history shows, there are specific challenges and success stories for transit pipelines. If the transit state

<sup>9</sup> Friedbert Pflüger, "The Southern Gas Corridor: Reaching the Home Stretch," European Energy Review, January 12, 2012, http://www.europeanenergyreview.eu/site/pagina. php?id=3455&print=1 (accessed January 13, 2012).

<sup>10</sup> Paul Stevens, "A History of Transit Pipelines in the Middle East: Lessons for the future," in 4th International Conference of the International Boundaries Research (Dundee: Center for Petroleum and Mineral Law and Policy, 1996), 1-16.

<sup>11</sup> Avinoam Idan and Brenda Shaffer, "The Foreign Policy of Landlocked Post Soviet States," Post Soviet Affairs (Bellwether Publishing) 27, no. 3 (2011): 241-268..

is dependent on foreign development investment and also is an off-taker from the line, as in the case of Georgia, it will be less concerned about supply disruption. On the other hand, the dynamics of transit pipelines have made the obsolescing bargain model an important consideration in terms supply security risks. Essentially, the concept runs on the principle that time changes the bargaining relations between governments and foreign corporations.<sup>12</sup> Once they have been built and have started to operate, transit pipelines are vulnerable to the obsolescing bargain, whereby the transit state achieves a more favorable position as a result of shifting bargaining powers. As Vernon describes, "almost from the moment that signature dried on the document, powerful forces go to work that renders the agreement obsolete in the eyes of the host government"<sup>13</sup>. In the current case, obsolescing may take the form of renegotiations of transit terms and changes in payment procedure. Negotiations between Turkey and Azerbaijan over the transit terms of Shah Deniz phase I provide a key example of this.

Shortly after the discovery of the Shah Deniz field, Baku and Ankara signed a purchase and sale agreement for the delivery of 6.6. bcm of natural gas per year to Turkey via SCP startFor Baku, the prize to be won from renegotiating a transit agreement had three dimensions: an acceptable transit fee, relatively fair price for natural gas sold in Turkey, and access to other European markets through Turkey.

ing from 2007. According to the gas agreement signed in 2001, Turkey paid relatively low price with respect to the high transit fee for the natural gas from the first phase of Shah Deniz production. In order to make this low price more acceptable for Baku, it was agreed that it would be renegotiated one year after the start of gas deliveries to Turkey<sup>14</sup>. For Baku, the prize to be won from renegotiating a transit agreement had three dimensions: an acceptable transit fee, relatively fair price for natural gas sold in Turkey, and access to other European markets through Turkey.

Ankara had its own interests in this energy game, which cast a shadow on the gas agreement between Baku and Ankara.<sup>15</sup> Renegotiations that began in 2008 reached a deadlock, since both sides had different positions concerning transit terms. Turkey was neither willing to pay more for the Azerbaijani gas, nor to reach

<sup>12</sup> Barbara Jenkins, "Reexamining the "Obsolescing Bargain": A Study of Canada's National Energy Program," International Organization (The MIT Press), 1986: 139-165.

<sup>13</sup> Raymond Vernon, Sovereignity at Bay: The Multinational Spread of US Enterprises (New York, 1971).

<sup>14</sup> Samuel Lussac, "A Deal at Last: A bright future for Azerbaijani gas in Europe?," Central Asia and Caucasus Institut Analyst, 2010.

<sup>15</sup> Stanislav Pritchin, "Azerbaijan's New Gas Strategy," Turkish Policy, 2010: 123-127.

an agreement on a reduced transit fee. Moreover, Ankara expressed its intention to buy and resell gas from the Shah Deniz field in European markets. In the context of the growing international importance of the southern gas corridor, Turkey wanted to become an energy hub for the EU and aspired to be the owner of transit gas or to easily obtain 15 percent of fuel volume for transportation.<sup>16</sup> It was an unacceptable deal either for

Baku or for the EU. Turkey is aware of its importance as a key transit state within the supply chain, which provides it with useful bargaining power and political leverage.

If all parties feel they are benefiting from the project, they will have an incentive to stick with it and to work out any conflicts or disputes that may arise.<sup>17</sup> After two years of negotiations, both parties were able to agree on the new transit terms. Since the Turkish energy market is a major consumer of Azerbaijani gas and Azerbaijan is a key energy supplying country within the southern corridor initiative, both parties need each other in order to implement their commercial interests and to achieve certain policy objectives. By agreeing on new transit terms, Azerbaijan and Turkey solved the problems related to the transit fee, gas price and volume of natural gas supplied from Shah Deniz phase I.

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However, the key step toward the realization of natural gas supply route from Azerbaijan to European markets was another gas agreement between Turkey and Azerbaijan, on Shah Deniz phase II. It was believed that after signing this agreement, around Caspian energy dilemma could be easily resolved. The second round of negotiations was even tougher, and prolonged discussions over a new gas agreement led to growing uncertainty around the implementation of the east-west supply chain.

Bilateral negotiations over the terms of new gas contracts went on for more than year, with supply volume and transit terms as the particular areas of contention. Setting long-term fixed transit terms has always been a difficult and controversial issue. Since there is no 'objective' or 'fair' way to set transit fees, the outcome, in the form of the transit agreement, depends upon relative bargaining power and the skill with which that power deployed by either the transit government or the transit pipeline company.<sup>18</sup>

<sup>18</sup> Paul Stevens, Transit Troubles: Pipelines as a source of conflict, Royal Institute of International Affairs (London: Chatham House, 2009).

<sup>16</sup> bid.

<sup>17</sup> ESMAP, "Cross-Border Oil and Gas Pipelines: Problems and Prospects," Annual Report (2003).

At the end of 2011, in Izmir, Azerbaijan and Turkey signed new gas agreements over the price, volume and transit fee, establishing legal and commercial terms for gas transit from Azerbaijan to Turkey and to Europe through the territory of Turkey. The Izmir agreements also reshuffled the cards in the competitive tender, whereby the Shah Deniz producers' consortium in Azerbaijan was choosing a pipeline route to Europe from four options.<sup>19</sup> The turning point, and indeed the unexpected outcome of the negotiations, was the Azerbaijani initiative to construct a new pipeline: the Trans-Anatolian-Pipeline from the eastern border of Turkey to its western boundary. Azerbaijan's State Oil Company (SOCAR) will own 80%, and two Turkish national companies, Botas and Turkish Petroleum will each have 10%. As the main owner in the pipeline project, Azerbaijan will control the allocation of transportation capacities and other key decisions. However, Shah Deniz consortium members<sup>20</sup> can also join to the project as third parties, with relatively small shares. With Tukey as an active partner in the new project, investing and undertaking risks, it has a real incentive to prevent disruption in supply flow. Every successful pipeline project features a well-balanced and usually sophisticated alignment of the interests of all stakeholders.<sup>21</sup>

TANAP is Azerbaijan's direct road to Europe, which will run from the Georgia-Turkey border to the Turkey-Bulgaria border, where it will connect with the European supply network. The key advantage of the project is its scalability. The planned capacity of the pipeline is 16 bcm per year in the first stage, with an increase to 24 bcm per year in the second stage, when production of natural gas grows and Turkmen gas becomes available for export to Europe. Obviously, it is more prudent to build the pipeline with capacity, which will meet the initial throughput needs and later can be upgraded, when there will be more gas available for export.

For Azerbaijan, the logic of TANAP derives from the concept that the best guarantee for a full pipeline operation lies in owning both the production and the line. TANAP was not only a crucial step toward the realization of the southern corridor, but has also determined the priorities of Azerbaijan's energy policy. First, by owning transportation infrastructure in the transit country, Azerbaijan minimizes transit risks; it is important that the energy supplier has a good reputation and is able to promise supply secu-

<sup>19</sup> Vladimir Socor, "Azerbaijan and Its Gas Consortium Partners Sign Agreements With Turkey," Jamestown Foundation, November 1, 2011, http://www.jamestown.org/ single?no\_cache=1&tx\_ttnews%5Btt\_news%5D=38603&tx\_ ttnews%5BbackPid%5D=7&cHash=6bc581ad046414cd39c92 f3b174/9fc (accessed January 16, 2012).

<sup>20</sup> Shareholders in the Shah Deniz consortium are: BP (25.5%), Statoil Hydro(25.5%), Total(10%), LukAgip(10%), SOCAR(10%), NICO (10%) and TPAO (9%). BP, Statoil and Total have expressed their interest to buy share in TANAP.

<sup>21</sup> ESMAP, "Cross-Border Oil and Gas Pipelines: Problems and Prospects," Annual Report (2003).

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rity. Second, TANAP demonstrated that to maximize the profit from the supply chain, Azerbaijan would be more than just an energy producing country, by becoming involved in different parts of the southern gas corridor. Once Azerbaijan can sell its gas directly to European customers at the Turkish-Bulgarian border, it has become an active player in international energy markets. Finally, TANAP enables Azerbaijan to use its own transportation infrastructure for the transit of natural gas from other producers. In other words, the spare pipeline capacity can be hired by other gas producers to supply natural gas to Europe.

The projection of TANAP has influenced pipeline dynamics across the whole supply chain. From a wider perspective, TANAP is a gamechanger, with multiple ramifications from Ashgabat and Baku to Vienna and Brussels.<sup>22</sup> With the emergence of the new pipeline project in the southern gas corridor, the level of uncertainty around the Caspian gas politics has increased as well as shifting the power relations between different players. TANAP has different implications for the initial southern gas corridor projects and the Trans-Caspian Pipeline.

#### The economics of transit pipelines

For a long time, Nabucco "classic"23 was the only strategic pipeline project with the objective of transporting natural gas from the Caspian region to Europe. It gained strong political and financial support from the European Commission, due to its design capacity and market destinations, which also provided a rational solution for transporting Azerbaijani and Turkmen gas to South Eastern Europe. After several adverse developments, Nabucco lost momentum and credibility. Moreover, Nabucco anticipated capacity of 31 bcm looked overly optimistic, given that Turkmen gas has not yet crossed the Caspian Sea to the South Caucasus.<sup>24</sup> A critical mass of throughput needs to be in place before the project war-

169

<sup>22</sup> Vladimir Socor, "Trans-Anatolia Gas Pipeline: Wider Implications of Azerbaijan's Project, "Jamestown Foundation, January 5, 2012, http://www.jamestown.org/single/?no\_ cache=1&tx\_ttnews%5Btt\_news%5D=38846&tx\_ttnews%5 BbackPid%5D=7&cHash=dc04cb9a31540c9f38bd052aac6 cd360 (accessed January 12, 2012).

<sup>23</sup> Nabucco "classic" refers to the initial design of the pipeline project. According to Nabucco's initial design, the pipeline at 31 bcm annual capacity and 3300 km length would run from the Turkish-Georgian border to Baumgarten in Austria, transiting the territory of Turkey, Bulgaria, Romania, Hungary and Austria. Moreover, the pipeline project overruns its initial costs estimated at 8 bn. euros.

<sup>24</sup> Vladimir Socor, ""Nabucco-West": Abridged Pipeline Project Officially Submitted to Shah Deniz Consortium," Jamestown Fondation, May 23, 2012, http://www.jamestown. org/single?no\_cache=1&tx\_ttnews%5Bswords%5D=8fd58 93941d69d0be3f378576261ae3e&tx\_ttnews%5Bany\_of\_the\_ words%5D=Nabucco&tx\_ttnews%5Bt\_news%5D=39403&tx\_ ttnews%5BbackPid%5D=7&cHash=14f7efa1e66ef7e25b71f9d f7b13dfff (accessed May 28, 2012).

rants serious consideration. An empty pipeline is very expensive.

Thus two factors are essential for the realization of a pipeline project: actual capacity and reliable financing. In contrast to the classic Nabucco project, the other three southern gas corridor projects are lower capacity, equal to the currently available 10 bcm of natural gas planned to be exported to Europe from Shah Deniz II at the first stage. According to economics of scale, pipelines are extremely capital-intensive activity and full capacity operation is important for profitability. As capacity throughput

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falls, the average cost of throughput rises exponentially and consequently severely damages any profitability inherent in the line.<sup>25</sup> Hence security of supply with respect to throughput is essential for profitable operations.

With the development of TANAP, Nabucco partially lost its appeal. Moreover, TANAP is more strategically important for Azerbaijan than the EU-backed pipeline project. Consequently, the Shah Deniz consortium will not support choosing Nabucco as a supply route for Azerbaijani gas. Gas pipelines tend to be natural monopolies, which implies With the development of TANAP, Nabucco partially lost its appeal. Moreover, TANAP is more strategically important for Azerbaijan than the EU-backed pipeline project.

that between two points only one line is desirable.<sup>26</sup>

When TANAP became a fundamental part of the southern gas corridor and entirely replaced the Turkish section of the Nabucco project, Nabucco had to be radically modified. The new context has led to the development of Nabucco-West at a fraction of the "old" Nabucco's length and cost, and with scalable capacity to accommodate growing gas volumes over time.<sup>27</sup> This enabled Nabucco's re-invention as a continuation pipeline from TANAP into Central Europe. Shorter and cheaper, the new Nabucco-West project, starting at Turkish-Bulgarian border and crossing through the territory of Bulgaria, Rumania, Hungry and Austria, is now more attractive as a possible supply route in the north direction.

High costs or absence of secure financing increase risks and threaten the viability of a pipeline project. This was the main problem faced by the ITGI pipeline project, which was in reality two projects in one: the

<sup>25</sup> Paul Stevens, "A History of Transit Pipelines in the Middle East: Lessons for the future," in 4th International Conference of the International Boundaries Research (Dundee: Center for Petroleum and Mineral Law and Policy, 1996), 1-16.

<sup>26</sup> Ibid.

<sup>27</sup> Vladimir Socor "Nabucco-West": Abridged Pipeline Project Officially Submitted to Shah Deniz Consortium.

### ITGI and TAP have been considered as similar projects.

Greek onshore section and IGI-Poseidon, linking Greece and southern Italy across the Ionian Sea. The current financial crisis sapped the project's credibility, making it unlikely that the pipeline infrastructure would have the required financing and be ready in time to deliver Shah Deniz gas to Southern European markets. This put ITGI in last place in the pipeline race.

In view of the fact that Azerbaijan is pursuing a multidimensional energy supply policy and is targeting different energy markets, TAP is top of the list for consideration as one of the potential routes, mainly in the southern direction.

ITGI and TAP have been considered as similar projects. Compared to ITGI, TAP does not have problems with financing, since its shareholders, Statoil, EGL and E.on Ruhrgas, are not local energy companies and have credible financial support. By connecting the Turkish-Greek interconnector with the Italian pipeline system across Albania, TAP can be considered a "missing link" within the South European supply chain. Furthermore, the project targets geographically vulnerable regions, namely the Western Balkans and Southern Europe, which suffer from a certain level of energy poverty. But as a transit pipeline needs to cross both non-EU and EU member states, the fragmentation of jurisdiction becomes an obstacle. The lack of common regulations can create certain gaps within the legal framework. To avoid this and to enable supply security it is necessary to reach agreements with all transit states in advance of construction. Moreover, involving the transit states in the project on a joint venture basis may reduce potential conflicts in the future.

To minimize the transit risks, TAP shareholders have invited Greek DESFA to enter into a joint venture. In addition, Albania has responded positively to the planning and construction of the pipeline through its territory. It sees the enormous opportunity entailed by integration into a transnational energy project of this scale, and further recognizes the advantages of becoming an energy-hub for the Balkans, as there are concrete ideas for building an interconnector from Albania to transport gas to its neighboring countries: the Ionian-Adriatic Pipeline. This would open up an entirely new market.<sup>28</sup> In view of the fact that Azerbaijan is pursuing a multidimensional energy supply policy and is targeting different energy markets, TAP is top of the list for consideration as one of the potential routes, mainly in the southern direction.

<sup>28</sup> Friedbert Pflüger, "The Southern Gas Corridor: Reaching the Home Stretch," European Energy Review, January 12, 2012, http://www.europeanenergyreview.eu/site/pagina. php?id=3455&print=1 (accessed January 13, 2012).

Any assessment of the southern corridor projects must include the South-East Europe Pipeline as one of the competing pipeline projects in the northern direction. The basic concept of the project is a restructured and substituted version of the Nabucco-West pipeline project, which plans to use existing nationally owned pipelines and interconnectors in South East Europe. Similar to what the TAP project offers in terms of the possibility for transferring gas to other Balkan states. SEEP could also deliver gas to additional countries along the route including Bulgaria, Romania, Hungary and potentially Croatia.<sup>29</sup> It does not look like a scalable project and does not leave any space for transporting Turkmen gas to Southern-Eastern European markets. In fact, SEEP is at present a concept, as opposed to a well-developed project.

#### Conclusion

Analyzing current developments around the Caspian energy improves understanding of the new dimension of Azerbaijan's energy policy. Focusing primarily on political and economic considerations, this paper illuminates a number of issues determined by energy export policy. Natural gas supply from the Caspian Sea to European markets is both expensive and complicated, since the landlocked nature of the region requires the involvement of transit states. At the same time, it is heavily influenced

29 Ibid.

by the geopolitical and commercial interests of the various actors.

The rise of natural gas production on Azerbaijan's offshore territory has completely changed the core drivers behind the southern gas corridor by increasing Azerbaijan's strategic significance in the east-west supply chain. Azerbaijan's geopolitical identity has undergone a transformation, with its shift from an oil-exporting to natural gas-producing country. The constraints and challenges of existing transportation have influenced Baku's energy policy decisions in three key directions, resulting in a strong tendency to a) avoid or minimize transit risks by owning the major share in export/energy infrastructure in transit states; b) diversify pipeline routes by developing multiple export options and; c) pursue a market-oriented policy. It is possible to observe all three concerns at the different stages in the pipeline politics of the southern gas corridor.

The main step toward reducing transit vulnerability has been the decision to construct the TANAP pipeline. As a long-term project with decisive advantages over other pipeline projects, this initiative has also significantly impacted pipeline dynamics in the region and has shaped Azerbaijan's future energy policy. Despite the fact that the TANAP replaces the Turkish section of Nabucco, it does not invalidate project's core aim. TANAP ends at the Turkish-Bulgarian border, and The main step toward reducing transit vulnerability has been the decision to construct the TANAP pipeline.

thus necessitates the continuation of the pipeline into Southern and Eastern European markets. In this case, Nabucco-West is a potential supply route to the north. On the other hand, given that Azerbaijan pursues a market-oriented policy and favors multiple export options, another supply route will be in the southern direction, which targets South European markets. In this case, TAP gains advantages over ITGI, because of its commercial viability and credibility.

The supply of Turkmen gas to European markets is still constrained by the geopolitical interests of Russia and Iran. Both regional actors will attempt to block the TCP project, allegedly based on legal and environmental grounds. As long as Turkmen gas does not cross the Caspian Sea, Azerbaijan will be the only country supplying natural gas to European markets through the southern corridor.