
Gas Exports in Turkmenistan

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Executive Summary

The Caspian region has been at the center of attention since Europe began seeking alternative routes to natural-gas resources. Turkmenistan has the potential to become an important gas exporter to Europe.

As a landlocked country, Turkmenistan until recently has relied on post-Soviet pipeline infrastructures. The Central Asian republic has been at the mercy of Moscow's energy policy, which overlaps its foreign policy.

At the same time, the revenue from gas exports is an essential part of the Turkmen national budget. This prompted Ashgabat to look for energy partners bypassing Russian territories. It started to convey natural gas first to Iran and then to China. This gave Turkmenistan strong leverage *vis-à-vis* Moscow.

Ashgabat has not decided to export every gas molecule eastward, but, in jeopardizing its relations with Moscow, it expects more than empty pledges from Europe.

On the other hand, a simple question emerges: Does Europe really need alternative sources? The answer is in the hands of Gazprom and Russian policymakers.

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Introduction

The European energy sector faces some significant changes in the near future. This is especially true in the wake of the Fukushima catastrophe; as a result of nuclear phasing-out, natural- gas demand is expected to rise. At the same time, Europe is still seriously dependent on Russian gas exports.¹ It has sought to find alternative export routes for the last ten years. Until now, no projects to achieve this have materialized.

Under the four EU-sponsored pipeline proposals, it is planned to transport gas from the Caspian region, which has no direct European access. These projects are in competition for the potential sources. Azerbaijan, the Caucasian republic, has been the focus of attention since the discovery of the Shah Deniz offshore gas-field. The field's second phase could be the basis of the Southern Gas Corridor.

Turkmenistan is the other potential gas exporter. However, the landlocked country suffers from some geopolitical hurdles when it comes to feeding its gas into the European gas network. The only viable possibility is the pipeline through the Caspian Sea. But the Trans-Caspian Gas Pipeline project is blocked by the dispute over the Caspian Sea's legal status.

The Central Asian country has the potential to supply high-volume gas in every possible direction within a few years: the untapped South Yolotan gas field is reported to be the second largest in the world, with its 21 trillion cubic meter reserves.² However, without substantial foreign investment, the process of developing this highly promising field will be slow. Western companies are hampered by corruption, lack of legal framework, inside contracts and human-rights abuses. Meanwhile, China has become the main sponsor of Turkmen development.

The post-Soviet state has tightened its ties with China since the inauguration of the Central Asia-China pipeline, which was the

¹ A total of 31.5% of gas consumed in Europe comes from Russia. This is expected to grow when the Nord Stream pipeline between Russia and Germany enters into operation. Eurostat, <http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Energy_production_and_imports>, last accessed 28 July 2011.

² According to the most recent assessment by Gaffney, Cline & Associates' (GCA).

first significant export route from Turkmenistan that by-passed the Russian gas export infrastructure. Along with the new Iranian gas pipeline, the Chinese export route gave Turkmenistan strong leverage that strengthened its ability to bargain with Russia. However, these export routes do not hurt Russian interests that much, since Moscow's main objective for the moment is to keep Turkmen gas away from the lucrative European energy market.

This study focuses on the Russian-European energy “chess game”, in which Turkmenistan could have an important, maybe decisive role. The first part presents the nature of the Turkmen-Russian (energy) relationship. The second chapter looks at the Europe-Russia-Turkmenistan triangle, from the Caspian Sea's legal status and the Southern Gas Corridor projects to the South Stream. Finally, the last two chapters focus on Turkmenistan's alternative export routes, notably the Chinese and Iranian lines.

Figure 1: Existing and planned gas pipelines in Central Asia



Source: IEA, Ambassador Richard Jones, *The Politics of Central Asian and Caspian Energy*, Chatham House, 23-24 February 2010, http://www.iea.org/speech/2010/jones/chatham_house.pdf last accessed 1 September 2011.

Turkmenistan–Russia

The early years of independence

The dissolution of the Soviet Union could not change the legacy infrastructure of gas production and transport. While becoming the master of its own gas resources, Turkmenistan had to rely on the existing infrastructure to get its gas to market. Ashgabat was thus subject to the whims of Moscow's energy plans.

During the transition period, the Central Asian republic gradually lost its export capacity, partly as a result of reduced commercial demand from former Soviet Union (FSU) countries.³ This era was characterized by Turkmenistan struggling to make the post-Soviet states reimburse their gas-related debt. From the 1990s, intermediary companies, such as Itera, mediated in the gas transit disputes. However, the initial problem – namely, that the main Turkmen gas consumer, Ukraine, could not pay for the gas – dashed Turkmen hopes of getting its money back. To force payment, Ashgabat put pressure on Kiev by halting its gas exports on several occasions.

In 2002, Gazprom replaced Itera with another intermediary company, but still drawing on obscure personalities with businesses headquartered at post-office-box addresses around Europe. According to an agreement between Gazprom and Naftogaz (Ukraine), Eural TransGas Kft (ETG) was assigned to serve as intermediary in the supply of up to 36 bcm (billion cubic meters) of Turkmen gas per year to Ukraine, from 2003 to 2006. It is unclear whether, in the course of this period, Kiev paid more for the Turkmen gas than it should have or whether it paid at all, as the price was obfuscated by barter components in the pricing formula. Non-transparent transactions reinforced the impression that offshore intermediaries worsened gas security rather than fostering it, while enriching themselves substantially with margins at both ends.⁴

³ International Energy Agency (IEA), *Caspian Oil and Gas 1998*, IEA, Paris, 1998, p. 241.

⁴ International Energy Agency (IEA), *Perspectives on Caspian Oil and Gas Development 2008*, IEA, Paris, 2008, p. 15.

Meanwhile, Russia seriously cut the flow of Caspian gas westward in order to demonstrate its monopoly position in access to foreign markets. During the period of the Soviet Union, Turkmen gas was exported toward Ukraine via the Central Asia-Center pipeline, and the revenue was pooled and shared. This system continued in the first years of transition, but Moscow was less and less willing to lose money on a non-paying Ukraine and so assigned Turkmen gas to its poorest security risk. Ukrainian non-payment thus became a Turkmen problem. Until 1994 Russia established nominal quotas after European export which was 11% for Turkmenistan.⁵ But who knows how many Central Asian gas molecules were really exported to Europe, and how many remained in the Russian market? Finally, in 1995, Moscow stopped allowing Turkmen gas to flow through its territory.⁶ Consequently, Turkmen natural-gas production fell from 81.4 bcm in 1989 to 15.7 bcm in 1997.⁷

More than just gas

Needless to say, because it had no other export route than for a few bcm to Iran, the energy-revenue-based Turkmen economy was starved for years. The successive gas-related disputes were not the only issues casting shadows on Russo-Turkmen relations. *Vladimir Milov* highlights some of them in *"Ups and downs of the Russia-Turkmenistan relationship"*.⁸ The first important manifestation of an "anti-Russian" attitude, as the Russian elite considered it, was in 1996, when Ashgabat denied Russian participation in the Central Asian Summit where government leaders were to discuss the threat of Taliban expansion. The demonstration of a kind of positive neutrality was the fundamental element of Turkmen foreign policy at the time. In the name of neutrality, Ashgabat supported a regime that was originally approved by the USA but which became a "great source of instability in the Central Asian region". Furthermore, the new Russian-Turkmen relations had another energy dimension – the plan for a Trans Afghan Pipeline, which aimed to transmit Turkmen gas via Afghanistan to Pakistan. Because it would have been the second Turkmen gas export route bypassing Russia, Moscow considered this project unfriendly towards Russia. At the same time, Russian attitudes about the legal status of the Caspian Sea created problems in multiple dimensions. As Milov recalls, the Turkmen government had shifted from its initial position in the 1990s, refusing

⁵ D. Preyger, V. Omelchenko, "Problems of Turkmen gas export: view from Ukraine", *Central Asia and the Caucasus*, vol. 43, n°1, 2007, p.122.

⁶ *Ibid.*, p.122.

⁷ BP, Statistical Review of World Energy 2011

⁸ V. Milov, "Ups and downs of the Russia-Turkmenistan relationship", in A. Dellecker, T. Gomart (eds.), *Russian Energy Security and Foreign Policy*, Routledge, 2011, p. 92.

to join the trilateral (Kazakh-Azeri-Russian) agreement on the division of the Caspian Sea. Later, the lack of such an agreement became the key stumbling block of every European initiative to import gas from Turkmenistan – albeit no-one ever really challenged Russian claims. Legal study groups popped up everywhere to determine the status of the Caspian; they never faced the reality of what precedents had already been set in the Caspian or the underlying motives of the Russians and Iranians. Moscow never concealed its intention to prevent Turkmen gas from flowing to Europe except through its own system, while Ashgabat sought ways to export its gas without crossing Russian territory. The third political issue that rubbed the Russian elite the wrong way was Turkmenistan's official withdrawal from the Commonwealth of Independent States (CIS). Even though the CIS had become somewhat symbolic by that time, Moscow considered this action a clear message and "a sign of further deterioration of the post-Soviet landscape".

Russia is ready to pay

Surprisingly, this last manifestation of Turkmen independence from Russia showed up when their relationship was on the mend at the beginning of this century. In 2003, Gazprom and Turkmenneftegaz signed a long-term agreement on Turkmen gas supply to Russia, for 25 years. This contract engaged Russia to purchase 5-6 bcm in 2004, rising to 6-7 bcm in 2005, 10 bcm in 2006, 60-70 bcm from 2007, and 70-80 bcm in 2009–2028.⁹ However, the Central Asia-Center (CAC) infrastructure was insufficient to transport the expected volume; hence negotiations took place about upgrading the aging system, and building another pipeline along the Caspian coast, bypassing Uzbekistan. Notwithstanding this agreement, Gazprom has never imported more than 45 bcm a year, an average far below a potential 80 bcm/y.¹⁰

Meanwhile, the boost of export volume in 2003 was linked to the partial resolution of a gas price dispute. It seemed, briefly, that Turkmenistan had won. But oil and gas prices started to increase dramatically in 2004, causing Ashgabat to conclude that the moment had come to renegotiate the contract. It is important to note that during these years Moscow was profiting handsomely from selling Turkmen gas to Europe at high international gas prices while paying Turkmenistan much lower prices. Ashgabat demanded that Moscow

⁹ IEA, 2008, *op. cit.*, p. 18.

¹⁰ V. Socor, "Russia resumes gas imports from Turkmenistan", *Asia Times*, 6 January 2010, <http://www.atimes.com/atimes/Central_Asia/LA06Ag02.html>, last accessed 1 September 2011.

pay twice the initial \$18-22/thousand cubic meters (tcm)¹¹ fully in cash, rather than partially through bartering. Turkmenistan President Saparmurat Niyazov put pressure on Moscow by cutting exports to Russia for a few months.¹² Finally, in 2006 a new price of \$44/tcm¹³ was accepted. This price rose gradually to \$150/tcm¹⁴ in 2008 thanks to favorable international circumstances and gas price linkages to oil prices.¹⁵ Meanwhile, after Niyazov's death, Gurbanguly Berdimukhamedov had taken over as head of state in 2006. His new foreign policy contributed substantially to initial success. Ultimately, when the two countries were seeking a new price formula for 2009–2028, Gazprom suddenly announced that it was willing to pay European prices from the next year. This was in response to skyrocketing European demand in early 2008, which everyone expected would continue into the future. Gazprom also expressed its intention to replace the annual price negotiations with a pricing formula based on the price that Europe pays for Russian gas exports, netted back by transport costs and adjusted by a vague factor never really explained.¹⁶ At the time of the announcement, Europe was purchasing Russian gas at an average of \$360/tcm, which soon rose to \$410/tcm.¹⁷ Some people in Gazprom never really understood why Moscow should pay more than it had a few years before. Considering the intensifying European interest in finding ways to bring Central Asian gas exports direct to Europe without passing through Russia, Moscow might have considered basing its strategy more on building strong relations with post-Soviet energy-rich states, than on trying to return to the old order. From a European point of view Turkmen gas at Russian/German border prices is not more attractive than Russian gas, especially when it is accessible only by building new pipelines.¹⁸

Outcome of the downturn of 2008–2009

The period of prosperity did not last long for Turkmenistan, as Gazprom was stricken severely by the evolving economic crisis, and demand for gas in Europe collapsed. Amid the global recession, apart

¹¹ J. Nanay, "Russia's role in the Eurasian energy market", in J. Perovic, W.R. Ortung, A. Wenger (eds.), *Russian Energy Power and Foreign Relations: Implications for Conflict and Cooperation*, Routledge, 2009, p.122.

¹² V. Milov, *op. cit.*, 95.o.

¹³ J. Nanay, *op. cit.*, p.122.

¹⁴ IEA, 2008, *op. cit.*, p. 11.

¹⁵ It is important to note that the rise of Turkmen gas prices contributed partly to the Ukraine-Russia gas disputes, which resulted several times in a suspension of gas transit.

¹⁶ IEA, 2008, *op. cit.*, p. 12.

¹⁷ R.Makhmudov, "Russia and Iran: Attempts to Implement New Strategic Steps in the Caspian-Central Asian Oil and Gas Industry", *Central Asia and the Caucasus* vol. 53, n°5, 2008, p. 89.

¹⁸ *Ibid.*, p.89.

from foreign demand, Russian domestic demand started to decline rapidly. The fall in European demand had many sources. First, the European Union released its Second Strategic Energy Review in 2008, which put an emphasis on energy security interdependence. This meant that Europe needed to find a way to reduce dependence on Russian natural-gas supply. Moreover, according to the Strategic Review, deep changes were in the offing in the European energy structure, including the promotion of energy efficiency. Meanwhile, Europe reacted to successive gas-transit suspensions (caused by the Ukraine-Russia gas disputes¹⁹), by broadening its gas storage capacity, and increasing imports from Norway, Algeria and Libya.²⁰ With the addition of falling oil prices from 2008 and other effects of the crisis in 2009, it is not surprising that Gazprom lost 20.8% of demand over the first four months of 2009.²¹ It should also be noted that about two-thirds of Gazprom's revenue is based on the European market, which amounts to only one-third of its production.²² Consequently, shrinking European gas demand has affected Russian energy policy for the next few years.

Initially, the Russian state budget for 2009 was based on an estimated oil price of \$95 per barrel and a \$450-500/tcm gas price.²³ Therefore, it did not seem particularly courageous for Moscow to offer Turkmenistan the market price it had sought for years. But when gas prices dropped to about \$200/tcm at the end of 2009, it would have been impossible for Gazprom to maintain earlier conditions in the agreement with Caspian states.²⁴ Gazprom gas-price negotiators should perhaps have lost their jobs over the lack of flexibility in the recent deal with Turkmenistan, but, when demand collapsed, Gazprom found an alternative way to lower gas imports from Turkmenistan. On 9 April 2009, the Davletbat-Dariyalyk pipeline (CAC-4) suddenly exploded at a point near the Uzbek-Turkmen border – allegedly because the dramatic drop in demand did not lead to a consequent drop in pipeline pressure – and ruptured.

Different explanatory scenarios appeared on both sides of the Russian-Turkmen boundary. Ashgabat accused Gazprom of abrupt reduction of gas export volume, which caused the explosion. The Turkmen foreign minister denounced Russian action as a “unilateral

¹⁹ Ukraine's economy is severely dependent on Turkmen gas imports, so the Russia-Ukraine gas dispute in 2009 was heavily affected by new Turkmen export prices, granted by Moscow in 2008 after years of bargaining.

²⁰ I. Tomberg, "Euro-Russie: Le choix du préférable – Les perspectives énergétiques de Moscou", *Outre-Terre*, vol. 1., n°27, 2011, p. 29-44.

²¹ Ibid.

²² J. Lough, *Russia's Energy Diplomacy*, Chatham House, 2011.

²³ F. Umbach, "Energy security in Eurasia" in A.Dellecker, T.Gomart (eds.), *Russian Energy Security and Foreign Policy*, Routledge, 2011, p. 37.

²⁴ B. Pannier, "New era for Gazprom, as gas giant's fortunes plummet", *European Energy Review*, 12 June 2009, <<http://www.europeanenergyreview.eu/site/pagina.php?id=1083>>, last accessed 1 September 2011.

and egregious violation” of the export agreement between the two countries.^{25 26} On the other hand, Gazprom blamed the aging pipeline infrastructure and Turkmen negligence. While some Russian analysts took issue with a Turkmen strategy that sought to avoid the sudden fall of gas prices set in the former agreement, they saw a probable link between the timing of the explosion and the imminent Southern Corridor Summit in May 2009. What is more, Michael Laubsch, from the Bonn-based Eurasian Transition Group, described the blast as “a typical signal of the Turkmen government to play its pendular politics again, showing the West that it’s now a powerful nation and it also wants to struggle with the big Kremlin”.²⁷ Other observers saw the “accident” as a simple effort by Gazprom to block expensive Turkmen gas from displacing cheaper (lower-cost) Russian-sourced gas being exported for much greater profit to Europe. The latter suggestion seems more consistent with the failure to explain adequately the fact that it took months to repair a “technical” break in the pipe.

A plausible scenario is that what happened was a Russian response to the Turkmen decision to build the East-West pipeline, circumventing Russian territory. The pipeline exploded shortly after a summit between Presidents Berdymukhamedov and Medvedev that, presumably, did not end as Moscow had hoped. Russian companies were to take part in the East-West pipeline’s construction, which would have been an important spur of the Russian Caspian Coastal Pipeline project. But, a few days after the summit Turkmenistan announced an open tender for the construction of the pipeline. This meant the new pipeline could eventually become an important part of the European Southern Corridor project, if Turkmenistan were capable of building it on its own.²⁸

Finally, a few days after the pipeline explosion, Gazprom asked Turkmenistan to reduce gas deliveries by 90%.²⁹ This seems

²⁵ “Turkmenistan: Gas Blast Ignites Turkmen-Russian Row”, *Eurasianet*, 9 April 2009, <<http://www.eurasianet.org/departments/insightb/articles/eav041009b.shtml>> last accessed 1 September 2011.

²⁶ Only 27 hours before the blast, Russian technicians informed their Turkmen counterparts that they would “close the valves in the pipe to reduce the rate of flow”. Turkmenistan immediately demanded more time to complete all the preparations needed. But Russia refused to wait, which resulted in the explosion in spite of all Turkmen efforts to close the gas production fields. J. Roberts, “After war” in A. Dellecker, T.Gomart (eds.), *Russian Energy Security and Foreign Policy*, Routledge, 2011, p.182.

²⁷ B. Pannier, “Pipeline explosion raises tensions between Turkmenistan and Russia”, *European Energy Review*, 15 April 2009, <<http://www.europeanenergyreview.eu/site/pagina.php?id=937>>, last accessed 1 September 2011.

²⁸ J. Roberts, *Op. cit.*, p. 183.

²⁹ Turkmen President Orders Investigation Into Pipeline Blast, *Radio Free Europe Radio Liberty*, 13 April 2009, <http://www.rferl.org/content/Turkmen_President_Orders_Investigation_Into_Pipeline_Blast/1607842.html>, last accessed 1 September 2011.

to underpin the idea that the way things happened was in the direct interest of the Russian company.

Turkmen gas exports after the explosion

Following almost nine months of gas price dispute, at the end of 2009, Russia and Turkmenistan finally agreed (22 December 2009) on continuing gas deliveries but at a lower level. Over this period Turkmenistan was struck by a record GDP loss of 25%, as a result of the inoperative pipeline, which cost an estimated \$1 billion every month.³⁰ Gazprom proposed unilaterally to Turkmenistan that its gas export volume should be reduced by 80%, or its price cut by 40%.³¹ The new deal represented about 30 bcm in gas exports, but this volume was to be delivered over a long period, stretching to 2028.³² Ashgabat succeeded in striking a fair deal with Gazprom, as the latter consented to pay the approximate European prices (\$250/tcm).³³ Accordingly, on 9 January 2010, gas supply resumed, at a proclaimed level of 11 bcm for that year. Ultimately, in 2010, Turkmenistan exported only 9.68 bcm to Russia, 6.5 to Iran and 3.55 to China – a total of 19.73 bcm, which was only half of the Russian gas imports before the explosion.³⁴ Turkmenistan is eager to boost its gas supply as much as possible, especially after the bullish estimates of the South-Yolotan gas-field reserves. Undoubtedly, Ashgabat is only waiting for the green light to boost its Russian exports. Unsurprisingly, on the occasion of President Medvedev's visit to Turkmenistan, President Berdymukhamedov made this clear by pointing out: "Russia is our long-term partner, and so, based on existing bilateral agreements, we are ready to boost natural gas exports to Russia."³⁵ Still, Gazprom made it clear, several times, that it did not intend to increase its purchases from Turkmenistan.³⁶ Furthermore, several

³⁰ B. Pannier, "Medvedev Brings A Strong Hand To Gas Negotiations with Turkmenistan", *Radio Free Europe Radio Liberty*, 22 October 2010, <http://www.rferl.org/content/Medvedev_Brings_A_Strong_Hand_To_Gas_Negotiations_With_Turkmenistan/2196378.html>, last accessed 1 September 2011.; L. Anceschi, "External Conditionality, Domestic Insulation and Energy Security : The International Politics of Post-Niyazov Turkmenistan", *China and Eurasia Forum Quarterly*, vol. 8, n°3, 2010, p. 100.

³¹ Feng Dan, *Analysis on Natural Gas Geo-politics in Central Asia-Russia Region*, Overseas Investment Environment Department, CNPC Research Institute of Economics and Technology, Beijing, p.8.

³² I. Arinc, S. Elik, "Turkmenistan and Azerbaijan in European Gas Supply Security", *Insight Turkey*, vol.12., n°3, 2010, p. 183.

³³ L. Anceschi, *op. cit.*, p. 100.

³⁴ BP, 2011

³⁵ "Turkmenistan keen to boost gas exports to Russia: president", *AFP*, 22 October 2010.

³⁶ M. Ritchie, "Turkmenistan Turns to China for New Loan", *Energy Intelligence Group*, London, 7 May 2011.

new Russian gas-fields were reported by Gazprom to be coming on line. For example, the Yamal Peninsula deposit was expected to produce 15 bcm in 2011, thus making Turkmen gas even less attractive for Gazprom.³⁷

Caspian Coastal Pipeline (Prikaspijsky)

In 2007, when Russia regarded Turkmenistan as an essential element in its gas export policy, and Moscow was willing to pay more and more for Central Asian gas, a new agreement was come to, on Turkmen gas deliveries to Russia of up to 70–80 bcm/y to Russia. However, this was far more than what the existing pipeline infrastructure could carry. In view of this high expectation for the availability of Turkmen gas, it was a part of Moscow's strategy to purchase as much Caspian natural gas as possible, to undermine European pipeline construction targets, notably the Trans-Caspian pipeline and the Nabucco project. To thwart European plans, Russia created another project, the South Stream, which is based on almost the same scenario, but drawing on Russian-sourced or Caspian gas via Russian territory. The trilateral declaration, signed by both Turkmenistan and Kazakhstan, engaged the Caspian countries to convey natural gas in an initial proportion of 10 bcm/y/country to Russia that would then flow to the South Stream. Turkmenistan would contribute by constructing a new pipeline (East-West) from eastern Turkmenistan. The declaration binds the participating countries to construct on their own the spur that goes through their territories. Moscow offered financial and technical aid to Turkmenistan, but finally the project was put aside, as European natural-gas demand had seriously fallen. However, Russian Deputy Prime Minister Igor Sechin declared in 2010 that "this project is not frozen. It is just a matter of priorities."³⁸ Meanwhile, Ashgabat is seeking international partners to build the East-West pipeline, which might connect to a potential European export route, excluding Russia.

Short-term outlook for Russia-Turkmenistan relations

Russia has resumed Turkmen gas imports, even though for the moment these are not necessarily needed to satisfy its export obligations. From a Russian point of view, Turkmenistan is and will be an essential energy partner, as European gas demand eventually will

³⁷ B. Pannier, 22 October 2010, *op. cit.*

³⁸ AFP, 22 October 2010, *op.cit.*

rebound. For now, Moscow's main strategy *vis-à-vis* Turkmenistan is to protect existing and potential export routes where the Central Asian state could arise as a competitor.³⁹ Russia would strengthen its position by participating in projects such as the TAPI pipeline or the exploration of Block 21, in the Turkmen sector of the Caspian shore. Although Turkmenistan is on the best path to diversify its export routes as much as possible, Russia will be its strategic partner for the coming years.

³⁹ "Russia/Turkmenistan: Gas partnership revived?" *Economist Intelligence Unit-Business Eastern Europe*, 25 October 2010.

Europe–Russia–Turkmenistan

Caspian region the focus of European interest

Since the dissolution of the Soviet Union, Europe has sought direct access to the energy-rich Caspian region. This interest has only grown with the Russian/Ukrainian natural-gas transit disputes. But, of the Caspian states, landlocked Turkmenistan seems the furthest source on the horizon. The Georgian war and the Ukrainian gas disputes (the last one being in 2009), stimulated proposals for a “South Corridor” for piping gas to Europe through Turkey, but the economic downturn has deferred the realization of such initiatives. Even if there is now a stronger emphasis on energy efficiency, LNG, gas storage facilities and renewables, Europe still needs to diversify its gas import sources and routes, not only with LNG but also with new pipelines. The abundant Caspian resources are ostensibly the best situated to fulfill European “pipe dreams”.

“The Caspian smells of blood”

A major stumbling block in the way of European objectives has been the legal status of the Caspian Sea. The most viable route for a pipeline from Turkmenistan to Europe is across the Caspian Sea. For years the five littoral states – Iran, Turkmenistan, Kazakhstan, Russia and Azerbaijan – have not reached an understanding, essentially because Russia and Iran do not want an agreement. First and foremost, this pipeline would challenge the Russian monopoly over Caspian access to the European gas market, so Moscow seeks to thwart any European endeavor to get direct access to Turkmen gas resources.

The subject of negotiation is the dilemma of whether the Caspian Sea is a lake or a sea. If it is a sea, according to international law, within 12 nautical miles of the baseline it is regarded as a territorial sea, which is the sovereign territory of the littoral state. And up to 200 nautical miles, it is considered as an Exclusive Economic Zone (EEZ), where the coastal country has absolute rights to exploit natural resources. It is important to note that the Caspian Sea is not much wider than one potential EEZ. It becomes even more

complicated if the Caspian is a lake, as there is no international convention for lakes. In practice, transboundary lakes are divided different ways, often along the middle line, while riparian states have sole sovereignty over natural resources, water surface and shipping in their national sectors.⁴⁰ Whether this is a real issue or a “red herring”, it remains a convenient impediment so that Russia can block Caspian transit. Russia came to terms with Kazakhstan and Azerbaijan, as they all shared their part of the Caspian Sea, through bilateral agreements. Azerbaijan and Russia possess 19%, while the Kazakh part represents a share of 29%. Iran never acknowledged these accords: indeed, Teheran insists on the equal sharing of the Caspian Sea. Since its coast justifies a share of less than 12%, this would give Iran a much greater share. Turkmenistan’s position is not clear, as it has changed its viewpoint several times since the collapse of the Soviet Union.⁴¹

Without defined national zones, offshore natural-gas and oil fields are the focus conflict. There have been disputes about offshore fields between all littoral states.

Azerbaijan has unresolved conflicts with both Turkmenistan and Iran. First, Ashgabat claimed that the Azeri and partly the Chirag gas-fields belonged to Turkmenistan. Azerbaijan proposed a joint development agreement, which Turkmenistan refused. Additionally, the disputed fields are involved in Azerbaijan’s “contract of the century” that a consortium of foreign oil companies and the country signed in 1994 for developing the three fields (Azeri, Chirag and Guneshli). This conflict has not been resolved. Besides, the two post-Soviet countries have a disagreement about the Kupaz offshore field. The origin of this dispute is almost the same as for the fields mentioned above. Azerbaijan signed an agreement with Lukoil and Rosneft for joint exploitation. Ashgabat resented this, declaring that Kupaz was in Turkmen territory. Azeri President Heydar Aliyev proposed to his Turkmen counterpart, President Niyazov, that they develop the field together, but he refused this proposal. As a result, the two presidents did not meet for over a decade. In 2007, new Turkmen President Gurbanguly Berdimukhamedov began negotiations with Chevron about developing of the Kupaz field. Azerbaijan offered joint exploitation to Ashgabat in 2009. Instead of responding directly to the proposal, the Turkmen President declared

⁴⁰ B. Janusz, *The Caspian Sea Legal Status and Regime Problems*, Chatham House, 2005, p. 3.

⁴¹ “Caspian status talks ‘progressing not as fast as desired’ – Russian official”, *Azernews*, 1 June 2011, http://www.azernews.az/en/Nation/33293-Caspian_status_talks_%E2%80%98progressing_not_as_fast_as_desired%E2%80%99_Russian_official last accessed 1 September 2011.

an intention to call for international arbitration to finally put an end to this dispute.^{42 43}

Azerbaijan, meanwhile, has a long-frozen dispute with Iran over the Alov offshore field. Baku signed a Production Sharing Agreement in 1998 with Western oil companies to explore the field through seismic operations. Iran objected to Azerbaijan's unilateral decision, and insisted that Baku end its operations until the establishment of the Caspian Sea's legal status. Azerbaijan ignored Teheran's request. The dispute reached a crescendo in 2001, when Iran sent a warship and two military aircraft to menace two Azeri vessels assessing the field in the name of BP. This dispute has not been resolved either, and awaits resolution of the Caspian legal regime.⁴⁴

This last example highlights the risk that Caspian disputes over offshore fields could intensify into armed conflict. As Turkmen President Saparmurat Niyazov said during a Caspian summit, in 2002, "the Caspian smells of blood".⁴⁵

New offshore fields are expected to be discovered in the future, which means the number of disputed fields will probably increase. Even resolved conflicts, such as the one between Russia and Kazakhstan,⁴⁶ could break out again, resulting in new strained lines within the region.⁴⁷

The Caspian standoff has persisted for more than 20 years. The differing standpoints have not been reconciled, even after the last session of the Caspian working group, held in Moscow in July 2011. Russia and Iran insist on a legal agreement signed by all five littoral states. Teheran and Moscow constantly assert their wish to exclude other parties from the negotiations, referring to the US and Europeans. Iran will not change its position; it wants to preclude US-backed energy projects in its proximity. In addition, Teheran could lose the most if the Caspian is not divided equally. Meanwhile, Russia

⁴² S. Karbuz, "The legal status of the Caspian Sea: Implications on Caspian Resources Development and Transport in Global Energy for the Mediterranean", *Global Energy for the Mediterranean*, Bi-annual publication n°6, 6 July 2010, p. 22.

⁴³ S. Abbasov, "Azerbaijan: No Jitters over Turkmenistan's Caspian Sea Threat", *Eurasianet*, 28 July 2009, <<http://www.eurasianet.org/departments/insightb/articles/eav072909.shtml>>, last accessed 1 September 2011.

⁴⁴ "Caspian status talks 'progressing not as fast as desired' – Russian official", *op. cit.*

⁴⁵ C. Doyle, "Caspian Sea Stalemate Leaves Azerbaijan on Edge", *Eurasianet*, 28 April 2002, <<http://www.eurasianet.org/departments/business/articles/eav042902.shtml>> last accessed 1 September 2011.

⁴⁶ In 2002, by signing an agreement, Russia and Kazakhstan resolved their dispute about some offshore fields. They agreed to develop the fields jointly.

⁴⁷ S. Karbuz, *op. cit.*, p. 22.

is quite happy to have the Caspian issue unresolved, in order to frustrate European pipeline dreams hopes.

The Trans-Caspian Gas Pipeline

The concept of a Trans-Caspian Gas Pipeline emerged for the first time in 1998, when US companies, Bechtel and General Electric, started negotiating with Turkmenistan about gas exports via Azerbaijan to the growing Turkish market. Ankara and Washington agreed on financing the proposal. The driving force of the US position was that Washington sought to prevent Caspian gas flowing to Iran. Indeed, American fears were not unrealistic, as the first Iranian-Turkmen gas pipeline had already been built in 1997, albeit only with a small capacity. In 1999 Turkmenistan and Turkey signed a 30-year agreement on gas exports, and in the same year the five countries involved, along with the transit states, signed an intergovernmental declaration on the legal framework. Construction remained on a theoretical level, for several reasons. Presumably, the project lost its impetus when BP-Amoco⁴⁸ announced in 1999 that the company had discovered the Shah Deniz offshore gas-field in Azerbaijan. Turkish natural-gas needs could be more easily satisfied than via a costly sea-bed pipeline. In addition, the countries involved could not strike a deal on transit prices and the share of contribution to exports between Azerbaijan and Turkmenistan, while Turkmen President, Saparmurat Niyazov demanded an unreasonable bonus for signing.⁴⁹

Yet the Trans-Caspian Gas Pipeline project has not been forgotten. Ukraine-Russia gas disputes in 2006 and 2009 seriously affected the European sense of energy security and led to considerable loss of confidence in Gazprom. The importance of export routes circumventing Russian territories was highlighted.

Essentially, there are three ways to transport Turkmen gas to Azerbaijan and then Europe. First, via LNG or CNG. In July 2010, Eni proposed building an LNG export terminal on the Turkmen Caspian coast. The CEO of the company spoke about a potential capacity of 4-5 bcm/y.^{50 51} However, this scenario is unlikely, due to high costs and low volume potential, raising questions about the project's viability.

⁴⁸ The two companies merged in 1998.

⁴⁹ R.M.Cutler, "Turkmen gas almost in reach", 15 January 2009, <http://www.robertcutler.org/blog/2009/01/turkmen_gas_almost_in_reach.html> last accessed 1 September 2011.

⁵⁰ It is important to note that Eni is involved in the Russian South Stream gas pipeline project. In 2010 the company proposed the fusion of the rival Nabucco and South Stream in order to decrease costs. Russia rejected the proposal.

⁵¹ Economist Intelligence Unit, 25 October 2010, *op. cit.*

Another option is a link between existing Azeri and Turkmen offshore platforms via a 100 km sub-sea pipeline.⁵² In addition, the Malaysian company Petronas announced in 2011 that it would develop one of Turkmenistan's offshore blocks in the Caspian Sea and have 5-10 bcm/y of natural gas later that year. The company had earlier relied on the Russian Caspian Coastal Pipeline, which has not advanced for years. Therefore Petronas might profit from a European destination via the Caspian Sea.⁵³

Finally, the most popular scenario is a new sea-bed pipeline. The 300 km shore-to-shore pipeline is a European priority for the Southern Gas Corridor project, which aims to transport Caspian gas to Europe, bypassing Russian territory. In 2008 the EU and Turkmenistan signed a memorandum of understanding to supply gas through (presumably) a trans-Caspian pipeline.⁵⁴ Later that year RWE and OMW established the Caspian Energy Company, for the purpose of finding viable scenarios for the construction of a trans-Caspian pipeline. In May 2011, European Commission President Jose Manuel Barroso emphasized that "the most attractive" possibility for Turkmen gas to get to Europe would be "to build a pipeline via the Caspian Sea".⁵⁵ The feasibility study of this project is foreseen in 2011.

The Trans-Caspian Gas Pipeline proposition faces some real hurdles as the legal status of the Caspian Sea is not resolved. However, the two countries concerned, Azerbaijan and Turkmenistan, declared several times over the last two years that they want the right to determine pipeline routes in their national sectors.⁵⁶ What is more, Turkmenistan has demanded the advice of the United Nations to resolve the Caspian Sea legal issue.⁵⁷ A possible solution would be for the two Caspian states to keep separate their disagreement on some offshore fields, and the joint construction of the trans-Caspian pipeline. This scenario is more and more in the spotlight and the Polish European presidency has announced its willingness to mediate between Baku and Ashgabat to promote the pipeline project. Even if a political solution between the two Caspian countries is found, however, Iran and Russia will still try to block the European-backed pipeline by requiring ecological and legal studies in the future. At the same time, the question remains: What would Iran and Russia do if

⁵² J. Roberts, *op. cit.*, p. 179.

⁵³ R.M. Cutler, "Iraq opens door to Nabucco", 6 January 2011, <http://atimes.com/atimes/Middle_East/MA06Ak01.html> last accessed 1 September 2011.

⁵⁴ S. Karbuz, *op. cit.*, p24.

⁵⁵ R.M. Cutler, "Turkmenistan hails energy talks", *Eurasianet*, 20 May 2011, <http://www.atimes.com/atimes/Central_Asia/ME20Ag01.html> last accessed 1 September 2011.

⁵⁶ Ibid.

⁵⁷ R.M. Cutler, "Euro mediation bid in Caspian stand-off", *Asia Times*, 17 June 2011, <http://www.atimes.com/atimes/Central_Asia/MF17Ag01.html> last accessed 1 September 2011.

Europe finally took a strong decision about building the pipeline. Would they intervene seriously?

Should progress be made in identifying a viable trans-Caspian solution, then we will see whether Azeri President Aliyev is ready to have Turkmen gas transiting Azerbaijan before his own gas is flowing to Europe.

Southern Gas Corridor – Rival projects

European concerns about energy security multiplied in 2009, when a Russia-Ukraine gas dispute disrupted gas to 17 European countries.⁵⁸ The EU Energy Security and Solidarity Action Plan (within the *Second Energy Review*) highlights the need for a Southern Gas Corridor that conveys natural gas from the Caspian and Middle East, to improve security of supply.⁵⁹ The Southern Gas Corridor has been one of the EU's highest energy priorities since 2008. It covers four (initially three) natural-gas export routes whereby it is intended to transport Central Asian gas to Europe. Apart from the well-known Nabucco gas pipeline project, the EU identified as of strategic importance the Trans-Adriatic Pipeline (TAP), White Stream, and ITGI (Interconnector Turkey-Greece-Italy). These projects are also involved in the Trans-European Networks – Energy (TEN-E) programme.

Trans-Adriatic Pipeline (TAP)

The TAP pipeline project, designed by the Swiss EGL Group, is based on gas exports to Europe from the Caspian Sea and the Middle East. The 520 km pipeline would go from Greece, near Thessaloniki, via Albania, then cross the Adriatic Sea to terminate in Italy's southern Puglia region. The project would also stimulate natural-gas facilities in Albania. TAP's shareholders are EGL (42.5 %), Norwegian Statoil (42.5 %) and E.ON Ruhrgas of Germany (15%). The envisaged capacity is 20 bcm/y, with a 10 bcm/y initial volume. TAP, like the other projects for a Southern Gas Corridor, chose the Azeri Shah Deniz gas-field's second phase (SD-2) as its primary source of gas. Therefore, the decision of the Shah Deniz Consortium about the selection of the gas transportation route, in late 2011, is crucial for TAP. The first supplies to pass through the TAP pipeline would be in 2017 when SD-2 will start gas production. Statoil holds a 25.5% stake in the Shah Deniz Consortium as well, which

⁵⁸ Feng Dan, *op. cit.*

⁵⁹ EU Energy Security and Solidarity Action Plan: 2nd Strategic Energy Review (MEMO/08/703), 13 November 2008, Brussels, <<http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/08/703&type=HTML>> last accessed 1 September 2011.

could give TAP a great advantage over other European projects. Additionally, the project's assessed costs are €1.5 billion, which is favorable compared to Nabucco's declared costs (€7.9 billion).⁶⁰

ITGI (Turkey-Greece-Italy Interconnector)

ITGI is a collection of pipelines aimed at fostering security of supply in the Southern European and Balkan countries. It consists of upgrades of the Turkish Grid, Interconnector Turkey-Greece (ITG), Interconnector Greece-Italy (IGI) and Interconnector Greece-Bulgaria (IGB), with a capacity of up to 3–5 bcm/y. The IGI would transport about 9 bcm/y of natural gas, and consist of two parts, 600 km onshore in Greece and 200km offshore (IGI Poseidon), crossing the Ionian Sea. The ITG has been in operation since 2007. Thus, Greece is receiving Azeri natural gas through Turkey. The overall ITGI (including IGB) project is promoted by the European Commission, and enjoys European financial assistance⁶¹. ITGI's shareholder Edison⁶² underlines the key benefit of the project in claiming that "most of the infrastructure required by the ITGI Project is already in operation, so it's the cheapest and fastest way to open the Caspian route".⁶³ A further advantage could arise if the planned Bulgaria-Romania and the Bulgaria-Serbia interconnectors are built.⁶⁴

SOCAR, Azerbaijan's state-owned oil and gas company, has a 10% stake in the Shah Deniz Consortium, which in late 2011 will select which European project will have access to the first 10 bcm/y of the SD-2. The company prefers ITGI to other plans, as it provides direct access to the Greek market, which is expected to grow by 2.3 bcm/y by 2015.⁶⁵ Azerbaijan targets the Italian market as well, which is apparently a perfect destination, given the North African unrest.⁶⁷

⁶⁰ Nabucco was originally budgeted at €7.9 billion in a feasibility study of 2005, but according to an internal study it may cost €14 billion to complete the pipeline. J. Dempsey, "European Pipeline Project Faces Formidable Obstacles", *The New York Times*, 7 March 2011, <<http://www.nytimes.com/2011/03/08/business/global/08nabucco.html?pagewanted=all>> last accessed 1 September 2011.

⁶¹ The EU offered €100 million for the construction of the Greece-Italy branch of the ITGI.

⁶² ITGI's shareholders: Edison (Italy), Depa (Greece), Botas (Turkey). Botas is an equal shareholder in the Nabucco pipeline project.

⁶³ Opening the Southern Gas Corridor through ITGI pipeline, Edison <<http://www.edison.it/media/ITGIpipeline.pdf>> last accessed 1 September 2011.

⁶⁴ Ibid.

⁶⁵ A. Giamouridis, "Natural gas in Greece and Albania: Supply and Demand Prospects to 2015", Oxford Institute for Energy Studies, December 2009.

⁶⁶ "Nabucco will need second gas source or face higher costs", *European Gas Markets*, 15 June 2011.

⁶⁷ White Stream Consortium, <<http://www.gueu-whitestream.com/main.php?id=1&lang=eng>> last accessed 1 September 2011.

In short, ITGI is cheaper, and may be more advanced than the Nabucco pipeline project, but the targeted capacity is only a third of Nabucco. The question, then, is whether Europe needs more than 10 bcm/y in natural-gas imports from the Caspian region to increase its energy security by reducing reliance on Russia, and how soon it needs more.

White Stream

The White Stream pipeline project is at an early stage.⁶⁸ However, it aims to enter into operation in 2017, like the other European projects, which are also based on the Shah Deniz gas-field's second phase. The initial capacity of the pipeline would be 8 bcm/y, which would be boosted to 16 bcm/y and later to 32 bcm/y. The construction would take place in three stages; first, an offshore pipeline across the Black Sea from Georgia to Romania, joining existing onshore infrastructure and compression facilities. From Constanta in Romania the line would go into Italy along the route of the Pan-European Oil Pipeline.⁶⁹ This phase would be based on the Southern Caucasus Pipeline (SCP), which has a maximum of 20 bcm/y capacity. Indeed, SCP was the first significant gas export route circumventing the Russian gas export grid. The US strongly supported the project. Further stages would enlarge offshore pipelines (to Romania and probably Ukraine) and onshore spurs (parallel to existing SCP). The White Stream Consortium includes the White Stream Pipeline Company Ltd, registered in the UK, and GUEU Inc, registered in the US.⁷⁰

Nabucco

The Nabucco pipeline project is often portrayed in newspapers and political speeches as the "little pet" of the EU. Even though it is only one of the four priority proposals, the European Commission does not hide its preference for Nabucco. However, the Commission's support is not equally shared by all European countries. Their preferences, apparently, are diverse – from the Russia-backed South Stream to European projects other than Nabucco.

Nabucco was first proposed in 2002, but it came into prominence only at the end of the decade, as the EU realized more and more the need to diversify its gas imports. Initially, Nabucco Gas Pipeline International GmbH included five companies: Botas (Turkey), Bulgargaz (Bulgaria), Transgaz (Romania), MOL (Hungary) and OMV (Austria). The German RWE joined the group in 2008 as the sixth

⁶⁸ An Environmental Impact Assessment is foreseen before the execution of the project.

⁶⁹ R.M. Cutler, "Europe Focuses on Southern Energy Corridor", 4 March 2010, <http://www.robertcutler.org/blog/2010/03/europe_focuses_on_southern_ene.htm> last accessed 1 September 2011.

⁷⁰ White Stream, *op. cit.*

member. The shareholders hold equal stakes (16.67%). The consortium will cover 30% of the costs, and the remaining 70% will be provided by loans, of which up to €2 billion will be granted by the European Investment Bank, €1.2 billion by the European Bank for Reconstruction and Development, and up to €800 million by the International Finance Corporation.⁷¹ The project plans to bring natural gas from different sources to several destinations. “This makes it somewhat unusual, since most long-distance gas pipelines are developed by the producers of the gas or by producers in cooperation with consumers.”⁷² Formerly, even Iran and Egypt emerged as potential suppliers alongside Azerbaijan, Turkmenistan and Iraq, which remain on the list of declared sources. The maximum capacity of 31 bcm/y would be achieved in two stages. Construction would start in 2013 and gas deliveries in 2017.

The start dates for Nabucco were originally scheduled for 2012 and 2016, but since it essentially depends on the Azeri Shah Deniz 2 gas-field, which will only start gas production in 2017, the project was postponed by one year. The first stage of construction is a new pipeline of about 2,000 km from Turkey to Baumgarten (Austria). The second phase would be a pipeline from Turkmenistan to Azerbaijan (the above-mentioned Trans-Caspian Gas Pipeline), with another spur to Iraq. If Azeri exports reach 23–25 bcm/y, an additional pipeline would have to be laid, as the maximum capacity of the South Caucasus Pipeline is 20 bcm/y.⁷³ ⁷⁴ The overall capacity will be divided, following an open-season process. Shareholders would control 50% of the 31 bcm/y capacity, while the remaining 15 bcm/y will be distributed to third parties on equal conditions.⁷⁵

The European community has expressed more and more doubt about the viability and credibility of the Nabucco project. The delay of construction has cast a shadow over Nabucco’s future. Thus, the agreement between transit countries and the Consortium was a significant boost in June, 2011. Energy ministers from the states involved (Turkey, Bulgaria, Romania, Hungary, Austria) signed bilateral project-support agreements with the Nabucco consortium. Energy Commissioner Günther Oettinger described the significance of the event by claiming that “Nabucco has made the final step from a

⁷¹ European Investment Bank (EIB), “EIB, EBRD and IFC start appraisal of Nabucco pipeline”, *EIB*, 6 September 2010, <<http://www.eib.org/about/press/2010/2010-142-eib-ebd-and-ifc-start-appraisal-of-nabucco-pipeline.htm>>, last accessed 1 September 2011.

⁷² J. Roberts, *op. cit.*, p. 177.

⁷³ *Ibid.*, p. 179.

⁷⁴ BP, “South Caucasus Pipeline” <<http://www.bp.com/sectiongenericarticle.do?categoryId=9006670&contentId=7015095>>, last accessed 1 September 2011.

⁷⁵ “Prospects for exports of Caspian gas: Diversification of supply sources and guarantee”, *Trend News Agency*, 26 April 2011.

project to reality”.⁷⁶ Whether his claim was justified or not, it is true that agreements among resource countries are essential to the final decision about the investment. BP, which runs the Shah Deniz consortium, pledged to select an export route project by October 2011.⁷⁷ However, the company has expressed a preference for low-volume (low-cost) projects like the ITGI or TAP.⁷⁸ This could be a final nail in Nabucco’s coffin.

Nabucco’s source: Iraq

Nabucco counts on natural-gas exports from Iraq’s Kurdish region, at about 2–3 bcm/y.⁷⁹ In 2009, OMW and MOL, two members of the Nabucco consortium, each bought a 10% stake in Pearl Petroleum, which is partly responsible for domestic-gas deliveries from the Khor Mor gas-field (near Kirkuk).⁸⁰ In 2010, RWE, another member of the consortium, signed a gas cooperation contract with the Kurdish Regional Government (KRG), pledging support for development of KRG’s gas infrastructure, which could contribute to future Nabucco exports.⁸¹

The Bagdad government, however, rejected this contract, as it did with other PSAs (Production Sharing Contracts) coming from the region. Bagdad considers invalid every agreement with foreign companies that is not approved by the federal government. However, the elections of 2010 gave some hope for foreign companies eager to invest in Kurdistan gas-fields. Prime Minister Nouri al-Maliki promised to acknowledge Kurdish PSAs in return for KRG’s support in the upcoming elections. Even though he reaffirmed this pledge in an interview, the federal government has still not implemented it.⁸²

It is important to note that Iraqi energy policy focuses mostly on oil issues, which has an important impact on its gas policy. According to the Iraqi constitution, natural resources belong to all Iraqi people, so revenues coming from these sources are distributed centrally. Another article in the constitution exempts from this rule those regions that suffered from economic discrimination during a certain period. This is aimed at fostering the development of these areas, by giving them this recompense. But this point is not made

⁷⁶ M.Champion, “Nabucco Signs Pipeline Accords”, *The Wall Street Journal*, 8 June 2011, <<http://online.wsj.com/article/SB10001424052702304259304576373073966863028.html>> last accessed 1 September 2011.

⁷⁷ Ibid.

⁷⁸ Nabucco partner responds to BP doubts over proposed pipeline, *Central Asia Newswire*, 19 April 2011, <<http://centralasianewswire.com/Energy/Nabucco-partner-responds-to-BP-doubts-over-proposed-pipeline/viewstory.aspx?id=3862>>, last accessed 1 September 2011.

⁷⁹ J. Roberts, *op. cit.*, p. 178.

⁸⁰ S.Wilkin, “The Effects of Baghdad politics on Kurdistan gas prospects”, *Ifri*, March 2011, p. 4., < <http://www.ifri.org/?page=detail-contribution&id=6468>>, last accessed 1 September 2011

⁸¹ Ibid.

⁸² Ibid, p. 3.

fully clear in the constitution, so the federal government could impede foreign companies in the Kurdish region by referring to the first, rather general rule.⁸³

As for Nabucco, Deputy Prime Minister for Energy Matters Hussein al-Shahristani has emphasized several times in interviews that Iraq has nothing to do with Nabucco. He never fails to underline that European and Turkish companies do not have the right to sign contracts with the KRG without federal permission. Regarding gas exports, al-Shahristani claims that there is no surplus on the national gas market, as the government is planning to build big power plants in the future, and even if there is some surplus, it would be exported to neighboring countries, such as Turkey, Syria, Lebanon, Jordan and other Gulf countries, which need gas.⁸⁴

At the same time, Kurdistan Minister of Natural Resources Ashti Hawrami has sought to galvanize Nabucco supporters by saying: "According to the estimates of the government ... Kurdistan has about 106 to 212 trillion cubic meters of gas. If we have 106 trillion cubic meters of natural gas in Kurdistan, then we can supply Nabucco with natural gas for 100 years".⁸⁵

In view of the above, Iraq has the potential to become one of Nabucco's sources in the long term, if the federal government and the Kurdish region can cooperate to enhance mutual benefits, rather than undermine each other's position.

Nabucco's source: Turkmenistan

Turkmenistan is Nabucco's potential source for its second phase under the condition of an export route via the Caspian Sea. As negotiations about the Caspian Sea's legal status are caught in a stalemate, Turkmenistan's participation in the Nabucco project is pending. However, this issue is more complex than a legal question about the construction of a potential Trans-Caspian Gas pipeline. In the EU-Russia-Turkmenistan triangle, Ashgabat uses its relations with Brussels as a bargaining chip against Moscow. Meanwhile, Russia tries to undercut European interests in the region. Moscow intended to cement its position in Turkmenistan's gas sector in the last decade; this cumulated in a generous agreement for up to 80 bcm/y Turkmen gas for export at European prices discounted by

⁸³ *Ibid*, p. 1-2.

⁸⁴ "Hussein Shahristani, Iraqi DPM for energy, to Rudaw: Tying Kurdistan with Nabucco is impossible, we've warned Turkey & Europe", *Rudaw Newspaper*, 23 May 2011, <<http://www.iraqenergy.org/library/interviews.php?detailof=37&content=Hussein-Shahristani,-Iraqi-DPM-for-energy,-to-Rudaw:-Tying-Kurdistan-with-Nabucco-is-impossible,-we%92ve-warned-Turkey-&-Europe->>>, last accessed 1 September 2011.

⁸⁵ "Kurdistan Says its Gas Can Quench Nabucco Pipeline for 100 Years", *Iraq Daily Times*, 5 April 2011, <<http://iraqdailytimes.com/kurdistan-says-its-gas-can-quench-nabucco-pipeline-for-100-years/>>>, last accessed 1 September 2011.

transport and a vague “Gazprom” factor. The economic downturn of 2008/9 disrupted these emerging relations, and Russia abandoned Turkmen gas imports after the explosion of the main gas pipeline between the two countries. Following nine months of price disputes, gas export restarted along the previously ruptured line but at a much reduced level (see chapter I: Turkmenistan Russia). About the same time, Ashgabat started to pursue a more independent gas policy that has undermined Russia’s dominant position. The inauguration of the Central Asia-China pipeline and the expansion of exports to Iran gave strong leverage to Turkmenistan. This redrew the energy equation between Russia and Turkmenistan. Even so, it did not mean that Turkmen President Berdymukhamedov ran to Brussels to sign contracts about European gas supplies. Apparently, Ashgabat is waiting for Europe’s definitive decision before considering seriously the country’s participation in European gas projects. As Berdymukhamedov affirmed in the Turkmen state media, “an important condition” for energy cooperation was that “the political will for the participating parties ... should be framed as an agreement [among] the EU, Turkmenistan and Azerbaijan”.⁸⁶

As long as Brussels is reluctant to set in stone its willingness to import Turkmen gas, Ashgabat must keep a close eye on Russia’s energy policy. As it is by no means certain that Moscow will continue to block Turkmen imports, Ashgabat has to pay attention to its energy diversification plans. That is why Berdymukhamedov always speaks vaguely of Turkmen interest in European projects. For example, in January 2011, he said the country was “ready to activate work along the European direction”, and “we have all the necessary conditions and many ways of delivering gas to Europe”.⁸⁷ It is also notable that Turkmen officials participating in international events tend to let those from other countries speak about details, while themselves speaking in general and often unclear terms.⁸⁸

Meanwhile, Turkmenistan has already started to build its East-West pipeline, with a capacity of 30 bcm/y.⁸⁹ This pipeline is perfectly situated to convey gas from the huge South Yolotan gas-field to the future Trans-Caspian Gas Pipeline and then to Nabucco. In addition, construction is to be finished in 2015, two years before Nabucco’s starting date. Russia and Turkmenistan initially intended to build a pipeline along the Caspian shore (Caspian Coastal Pipeline), by-

⁸⁶ R.M. Cutler, 20 May 2011, *op. cit.*

⁸⁷ “Turkmenistan says ready for energy partnership with EU”, *AFP*, 15 January 2011, <<http://www.eubusiness.com/news-eu/turkmenistan-energy.84n>>, last accessed 1 September 2011.

⁸⁸ C.A. Fitzpatrick, “Is Turkmenistan Letting Foreigners Do the Talking on the Trans-Caspian Pipeline”, *Eurasianet*, 19 March 2011, <<http://www.eurasianet.org/node/63109>> last accessed 1 September 2011.

⁸⁹ “Turkmenistan starts construction of East-West gas pipeline”, *RIA Novosti*, 31 May 2010, <<http://en.rian.ru/exsoviet/20100531/159233492.html>>, last accessed 1 September 2011.

passing Uzbekistan, but this basically political pipeline has been allowed to fall by the wayside, ostensibly a victim of the economic downturn. The pipeline's domestic parts were to be built by the countries involved, but Gazprom proposed to assist Turkmenistan in building the East-West pipeline. Finally Ashgabat decided to open an international tender in order to select participant companies.⁹⁰ This led to a freeze in relations between Turkmenistan and Russia, which might have contributed to Russia's decision to cut Turkmen imports (see chapter I: Turkmenistan–Russia).

The fact that Turkmenistan alone is building the pipeline could be a message for Europe that Ashgabat intends to put an end to the long-playing chess match in the EU-Russia-Turkmenistan triangle. But if Berdymukhamedov is going to take these risks, he will need meaningful support from Europeans – which is currently lacking.

Azerbaijan, the main brick in Southern Gas Corridor

Azerbaijan is the most important element in any Southern Gas Corridor project. Geographically the country does not face the same hurdles as the landlocked Central Asian countries. Therefore it has the potential to become the first-phase source of any European gas export route. Azerbaijan came into the European gas horizon when in 1999 BP-Amoco revealed the Shah Deniz gas-field. The first gas pipeline from the Caspian region to circumvent Russian territory was founded on the first phase of this gas-field. The South Caucasus Pipeline (Baku-Tbilisi-Erzurum) transports Azeri gas to the Turkish market, but it does not operate at maximum capacity, which means that a future Southern Gas Corridor project will not need to construct another pipeline for its first phase.

Shah Deniz Phase-1 will remain at around 8 bcm/y, while Phase-2 will add a further 16 bcm/y entering into operation in 2017.⁹¹ The second phase should have started in 2016, but in 2011 BP, the field's operator, announced some delays. This also changed the start date for Southern Gas Corridor projects. Meanwhile, BP also announced a delay in the selection of the European export route. The decision of the company will be "fatal" for the unselected projects, as without Azeri resources no program can go ahead. Since Azerbaijan

⁹⁰ It was reported that besides Turkmen State Concern, companies from China, Korea and the United Arab Emirates were also working on the construction of the pipeline. C.A. Fitzpatrick, "Turkmenistan: EU Gets Go-Ahead for Gas Talks, But is Ashgabat Ready?", *Eurasianet*, 24 July 2011, <<http://www.eurasianet.org/node/63937>>, last accessed 1 September 2011.

⁹¹ "Azerbaijan to build new pipeline for Shah Deniz II by 2017", *Reuters*, 30 November 2010, <<http://uk.reuters.com/article/2010/11/30/azerbaijan-gas-pipeline-idUKANT04911320101130>>, last accessed 1 September 2011.

has the luxury to choose between proposals, Baku is in no rush to sign definitive agreements about pipeline projects. That is why Azerbaijan was the only project partner absent from the signature ceremony for Nabucco's legal framework in June 2011.

Furthermore, companies working on Shah Deniz Phase-2 gave voice several times to their concerns about the European Commission-backed Nabucco project. On the one hand, they cast doubt on the viability of the initiative, as second-phase sources are apparently uncertain.⁹² On the other hand, the consortium prefers to avoid a situation where it gives its overall capacity to a project that finally runs aground, without any prospects.⁹³

European pipeline projects are not alone in competing for Azeri natural gas resources. Russia has, of course, shown interest in the Shah Deniz gas field. Energy relations between the two countries have had their ups and downs since the fall of the Berlin Wall. Until 2006 Azerbaijan had depended on Russian gas exports, but that year, Moscow wanted to increase gas prices in Armenia, Azerbaijan and Georgia. Baku finally decided to continue without Russian gas and, by building the South Caucasus Pipeline, it reduced Russian leverage on Georgia as well. Azerbaijan came to the front again in Moscow's energy policy in 2009, when Russia signed an agreement on Azeri exports.⁹⁴ Even though Azeri deliveries to Russia are not significant in volume (only 0.72 bcm last year⁹⁵) they have strategic significance and send a message to Europe.

The message reflects Azeri frustration with Europeans for not coming to them with a real offer to buy gas. Azerbaijan is not going to push a pipeline to Europe. European demand must *pull* the pipeline. This has not materialized because major European gas interests are ambivalent to negative about the concept of the gas-on-gas competition that will arrive in Europe with Caspian gas. This ambivalence, coupled with Turkey's efforts to extract greater value from transiting Azeri gas, has effectively blocked the pipeline and forced producers to push back the production horizons. These issues are still not resolved and may delay both Azeri and Turkmen gas even further into the future.

It is interesting to examine Azeri gas exports to Russia from both sides of the coin. Azerbaijan, with this small volume of exports,

⁹² "Central Asian Gas Supplies to Europe depend on Trans-Caspian Project", *Trend News Agency*, 19 January 2011, <<http://en.trend.az/capital/energy/1814401.html>> last accessed 1 September 2011.

⁹³ R.M. Cutler, "Azerbaijan wants Nabucco's cards on the table", *Asia Times*, 18 November 2010, <http://www.atimes.com/atimes/Central_Asia/LK18Ag01.html>, last accessed 1 September 2011.

⁹⁴ It is important to note that the agreement with Russia came at a time when Azerbaijan was having a gas price dispute with its main export partner, Turkey.

⁹⁵ BP, 2011.

does not intend to expose its gas sector to a single aggressive Russian buyer – Gazprom. The gesture to Russia has more to do with the Nagorno-Karabakh conflict, in which Russia stands on the side of Armenia. Thus, Azerbaijan seeks to put pressure on Russia by providing access to its gas resources. In short, “if Moscow wants Azerbaijan to block the Trans-Caspian and Nabucco pipelines, it has to respond positively to Baku’s efforts for a resolution of the Karabakh conflict with Armenia”.⁹⁶ This appears to put Moscow in a position to compromise the European competitor project to its South Stream plan in Azerbaijan – but it is not a strong card. Russia does not hide its intentions: it has proposed several times buying all the gas coming from Shah Deniz Phase-2. However, Azerbaijan does not wish to imperil its energy security by selling the whole capacity to one buyer, especially if it is Russia.

Ultimately, all this also lessens Russia’s ability to “torpedo” the European projects that Azerbaijan President Ilham Aliyev and European Commission President Jose Manuel Barroso signed in a Joint Declaration on the Southern Energy Corridor in January 2011. EU Commissioner for Energy Günther Oettinger and Minister of Industry and Energy Natig Aliyev also signed a protocol of intention, which includes the establishment of a joint working group to accelerate the development of Southern Corridor projects.⁹⁷

South Stream

South Stream is Gazprom’s proposal for Caspian gas aimed at preventing any EU-backed gas pipeline propositions. However, this project was not the first to seek to preclude European objectives. Before South Stream, Russia planned to expand the Blue Stream Pipeline towards Eastern Europe. Blue Stream is a direct export route between Russia and Turkey, which entered into operation in 2003.⁹⁸ Unsurprisingly, the idea of a Blue Stream-2 came at the same time as the European Nabucco project appeared on the ground. Obviously, Blue Stream-2 was targeted at almost the same region as Nabucco end users. Finally, the gas dispute between Russia and Ukraine, in 2006, poured cold water on European “enthusiasm” to increase Russian energy dependence.

Moscow did not wait long to announce yet another project intended to counter Nabucco’s progress.⁹⁹ In 2007, Gazprom and Eni signed the memorandum of understanding for the execution of the

⁹⁶ S. Abbasov, 28 July 2009, *op. cit.*

⁹⁷ Trend News Agency, 26 April 2011, *op.cit.*

⁹⁸ However, the pipeline was inaugurated only in 2005, owing to price disputes between Turkey and Russia.

⁹⁹ There is a current project also called Blue-Stream 2, but this one intends to export Russian gas to Israel, Syria, Cyprus and Lebanon.

South Stream project. During the last four years, Gazprom has signed a number of bilateral agreements with partner countries. The proposed South Stream project follows a similar route to Nabucco's. Gazprom plans to build a seabed pipeline across the Black Sea from Russia to Bulgaria, and then via the southern and western Balkans to Italy, potentially with another line crossing the Adriatic to southern Italy and another spur targeting northern Italy through Croatia and Slovenia.¹⁰⁰ It is important to note that the South Stream project cuts both Belarus and Ukraine out of the European energy map. With both Nord and South Stream in place, Moscow could play out its strategy with its "near abroad" without disrupting European gas supplies.

The 900 km South Stream design capacity is 63 bcm/y and it is scheduled to supply gas from 2015.¹⁰¹ The initial starting date was earlier, but due to Gazprom's financial setback during the last two years the company postponed construction by two years.

From the beginning Gazprom has based its strategy on developing strong ties with European companies, to increase its leverage. Consequently, the participation in the South Stream of companies such as the Italian ENI, the French EDF and German Wintershall (a unit of BASF)¹⁰² bolsters Moscow's bargaining in Brussels, by challenging whether all of Europe is truly behind the Southern Gas Corridor. Also, Gazprom seeks to improve its prospects by proposing that Romano Prodi be chairman of South Stream. The former prime minister of Italy declined the offer, unlike Gerhard Schröder, the former German chancellor, who undertook the same position at Nord Stream project.¹⁰³ Arguably, his stewardship has contributed to its implementation. Although Romano Prodi did not accept the proposition, Italy became the main supporter of South Stream, and Russia's Prime Minister Vladimir Putin called his Italian counterpart, Silvio Berlusconi, the driving force behind the project.¹⁰⁴

¹⁰⁰ J. Roberts, *op. cit.*, p. 180.

¹⁰¹ Two years earlier than the inauguration of Nabucco.

¹⁰² In the South Stream project Gazprom has a 50% stake, while Eni's share has been reduced by the inclusion of Wintershall (15%). EDF is expected to join the group at the end of 2011, with a 10% stake, which will also reduce Eni's share. Gazprom, Srbijagas Strike Action Plan on South Stream in Serbia, *Sofia News Agency*, 27 May 2011, <http://www.novinite.com/view_news.php?id=128660>, last accessed 1 September 2011.

¹⁰³ Nord Stream is a German-Russian gas pipeline project. The first line of the two will start working in 2011. The project was accepted by Gerhard Schröder's government, who shortly afterwards lost the elections, and decided to continue its career at Nord Stream. His role in the project's implementation is considered significant. However, his participation was criticized several times because Nord Stream will increase European energy dependence on Russia.

¹⁰⁴ A. Medetsky, "South Stream Pipeline May Open Before Nord Stream", *The St. Petersburg Times*, 27 October 2009, <http://www.sptimes.ru/index.php?story_id=30142&action_id=2>, last accessed 1 September 2011.

South Stream vs. South Gas Corridor (Nabucco)

The long-playing chess game between Nabucco and South Stream started in 2007. After the first Ukraine-Russia gas dispute (2006) that also hit other countries, Europe sought options to tighten its energy security, specifically its vulnerability to Russia. Therefore, in 2006 Nabucco was at the center of attention in Europe. Shortly afterwards, in 2007, Gazprom signed an agreement with Italian Eni about the establishment of the South Stream. What is more, in the same year Russia agreed to build a pipeline (Caspian Coastal Pipeline) based on mostly Turkmen resources, which was Nabucco's declared source option. In 2009, after the Turkish transit agreement with Nabucco's participant countries, Russian Prime Minister Vladimir Putin travelled immediately to Ankara "to secure an agreement allowing Gazprom to carry out environmental and seismic tests necessary for building South Stream".¹⁰⁵

It soon became obvious that Nabucco's main weak point resides in the resource side. Consequently, Gazprom strives to undercut European interests by exercising its leverage in the Caspian region. In 2009, Gazprom signed important agreements with both Azerbaijan and Turkmenistan (see chapter II.4: Azerbaijan, the main brick in Southern Gas Corridor). Even though the current volumes of Caspian exports to Russia are not significant, they are enough for Moscow to manifest its interest in the region. What is more, Russia pledged European prices for gas deliveries, which decreases the attraction of Western options for Caspian countries. Additionally, Gazprom proposed several times to buy all gas coming from Shah Deniz Phase-2, which is by the way the basic resource of the Nabucco project. If Russia blocks Azeri gas supplies to Europe by purchasing all potential output, that will eliminate the Nabucco and other Southern Gas Corridor projects. Accordingly, Energy Commissioner Günther Oettinger asked Moscow not to put pressure on Caspian countries against supporting the Nabucco proposal.¹⁰⁶

But observers should not underestimate the Caspian countries' skepticism about Russian motives. They are under no illusion that Russia wants to control the flow of Caspian gas to Europe and that, once it can do so, will squeeze the producers. Russia's obvious hand in the Turkmen pipeline explosion in April 2009 and its

¹⁰⁵ J. Kanter, "European Natural Gas Pipelines Plagued by Uncertainties", *The New York Times*, 13 June 2011, <<http://www.nytimes.com/2011/06/14/business/energy-environment/14pipeline.html?pagewanted=all>>, last accessed 1 September 2011.

¹⁰⁶ R.M. Cutler, "EU practices acrobatics with Caspian gas flip-flop", *Asia Times*, 1 April 2011, <http://www.atimes.com/atimes/Central_Asia/MD01Ag01.html>, last accessed 1 September 2011.

continuing refusal to take contracted volumes of Turkmen gas in 2011 leave little doubt that gas exporters will do what they can to deny Russia a dominant position in their export routes.

Another interesting argument in this chess game is whether Nabucco can exist in parallel to the South Stream – or does one exclude the other? Are they rivals for the same gas or it is about simply two different ways for Europe to diversify its gas imports? Although few believe there is enough gas for both, the players on both sides have sought to avoid admitting rivalry between them. Commissioner Oettinger was the first European figure to recognize that the EU-backed Nabucco and the South Stream were competitors.¹⁰⁷ The Russian side, too, has shown a more assertive attitude: for instance, when Russian Deputy Prime Minister Igor Sechin, during a visit to Turkmenistan, stated that Nabucco had no future.¹⁰⁸ Meanwhile, in 2010, Eni, Gazprom's important partner in the South Stream, proposed to merge the two rival projects in order to foster efficiency and reduce investment costs.¹⁰⁹ Obviously, Russia declined the suggestion.

During the past few years Moscow has focused more and more on convincing Europe that South Stream is the only viable option to boost European gas imports. As Gazprom chief Alexei Miller put it: "It is more than a concept and more even than a project, it is an incipient construction."¹¹⁰ However, Europe or at least the European Commission still remains reluctant to give South Stream a chance. In Brussels, Gazprom officials asked many times that South Stream (and Nord Stream) be put on the TEN-E list, among other European-backed projects. It is important for Russia, since the EU is considering exempting the Nabucco project from "unbundling". From Moscow's standpoint it is vital to avoid the application of the new European market legislation on pipelines coming from Russia. Therefore, Gazprom seeks to gain equal rights for its European projects, the Nord Stream and South Stream.¹¹¹

Despite years of promotion, the exact costs and route of South Stream are still cloudy. So the obvious question arises: Is the Russian

¹⁰⁷ Ibid.

¹⁰⁸ Wang Guanqun, "Senior Russian sees no future for Nabucco pipeline", 22 October 2011, <http://news.xinhuanet.com/english2010/world/2010-10/22/c_13571127.htm>, last accessed 1 September 2011.

¹⁰⁹ A. Shiryaevskaya, "Russia Rejects Eni Call to Merge Europe Gas Pipelines (Update 1)", *Bloomberg*, 15 March 2010, <<http://www.bloomberg.com/apps/news?pid=newsarchive&sid=ae4.eb4IPqjk>>, last accessed 1 September 2011.

¹¹⁰ V. Socor, "South Stream canapés", *Asia Times*, 8 June 2011, <http://www.atimes.com/atimes/Central_Asia/MF08Ag01.html>, last accessed 1 September 2011.

¹¹¹ V. Socor, "Russia muscles EU resolve", *Asia Times*, 3 March 2011, <http://www.atimes.com/atimes/Central_Asia/MC03Ag01.html>, last accessed 1 September 2011.

project merely Moscow's strategy to discourage any alternative Europe-sponsored pipeline project? The more South Stream seems real, the more Russia could make Europe think that alternative export routes are needless.¹¹²

Finally, it is still unclear why Europe would want another Russian pipeline that is based on existing rather than new gas sources? The European Nabucco project intends to import supplementary outputs from a region that has no direct access to the European market.¹¹³

¹¹² J. Kanter, 13 June 2011, *op. cit.* (Christian Egenhofer thoughts, Center for European Policy Studies)

¹¹³ J. Roberts, *op. cit.*, p.180.

Turkmenistan–China

China's natural gas imports will increase

Secure access to energy resources is a vital and strategic question for China. The country's rapid development is based on rapidly growing energy use and, since the mid-1990s, China has come to realize that it must rely on international markets for growing quantities of oil, gas and now coal. Indeed, China's share of global energy consumption grew by 11.2% last year compared with 2009. It thus overtook the US as the global leader in energy consumption.¹¹⁴ Although China's natural endowment in coal resources allowed the country to pay little attention to energy security until the mid-90s, this trend started to change when the People's Republic of China became a net oil importer in 1993. China's energy supplies from international markets are not at risk for now, but as the country's insatiable energy appetite grows, energy resources other than coal become increasingly significant. Understandably, in China's energy mix, natural-gas consumption has been dwarfed by oil and especially coal. This change occurred in recent years as China's natural-gas consumption increased by 21.8% from 2009 to 2010, though it still represents a share of only around 4% of its total energy consumption.¹¹⁵ As a part of Chinese energy policy, we can see a conscious effort to find new ways to enhance gas use – especially as gas prices have softened in recent years. The International Energy Agency's (IEA) last World Energy Outlook special report on Global Gas markets points out the increased role that gas will play in the future, which holds true for China as well.¹¹⁶ Thus, the country's 12th Five-Year Plan put a strong emphasis on the growth of gas consumption. In fast-developing economies, such as India and China, gas use can satisfy energy demand in the expanding power sector more easily and flexibly than large blocs of coal or nuclear. Last year the Chinese natural-gas consumption of 109 bcm was almost totally covered by domestic production (96.8 bcm).¹¹⁷ But, beginning this

¹¹⁴ BP, 2011.

¹¹⁵ Counted by the author with BP stat 2011 data.

¹¹⁶ International Energy Agency (IEA), World Energy Outlook 2011, Special report: "Are we entering a golden age of gas?", IEA, 2011.

¹¹⁷ BP, 2011.

year, Chinese pipeline route ambitions are becoming bricks in a new energy edifice that will encourage the country to move from immense coal use to greater penetration of gas and diversity of suppliers. But, as China begins exploring imports from various potential suppliers, it is not hard to see as much foreign policy as energy policy content in its negotiations. One author says that Chinese energy negotiations are “a kind of diplomacy that might not enhance China’s energy security but does raise China’s global political and economic status ... energy security is a means, not an end”.¹¹⁸ While the supply-demand gap is not too significant at the moment as regards natural gas, another factor is potentially at play that could have consequences for foreign gas suppliers: China’s shale-gas potential.¹¹⁹ It is too early to estimate the availability of shale gas in China, but it is clear that China would much rather exploit domestic gas than risk seeing its sense of national security deteriorate as a consequence of growing gas import dependence. These are important issues for both Turkmenistan and Russia to bear in mind as they bargain with China over gas prices, and potential gas exports.

The international community sometimes accuses China of “stealing” energy resources from the competitive market.¹²⁰ There is surely global anxiety about a strengthening China. But, in fact, China’s search for energy around the world is no different from any other country’s efforts to secure its energy needs. China does have a momentary advantage in Turkmenistan, as it was a perfect choice for Turkmen President Berdymukhamedov to show the Russians that Turkmenistan had an alternative to the Russian market. China benefits from the opportunity created by the dispute over the legal status of the Caspian Sea. This provides a barrier to the likely construction of a trans-Caspian pipeline that could transport Central Asian gas to Europe. Thus, China has invested where European companies could not. Yet even if the dispute were not an issue, the high level of corruption, human rights abuses, and the authoritarian nature of the Turkmen leadership are other factors that would make it difficult for Europeans to do business with the Caspian country. This is less of an issue for China.

¹¹⁸ G.C.K. Leung, *China’s energy security: Perception and reality*, Hong Kong Energy Studies Centre, 2010.

¹¹⁹ This year the Chinese government launched a tender for shale gas, but the tender is closed to foreign bids. Without the experience needed, China has not sought until now to discover its non-conventional gas endowment, albeit Chinese companies have already worked on international overseas projects. L. Hook, “China in quest for shale gas reserves”, *The Financial Times*, 30 June 2011, <<http://www.financialexpress.com/news/China-in-quest-for-shale-gas-reserves/810613/>>, last accessed 1 September 2011.

¹²⁰ G.C.K. Leung, *op. cit.*

Central Asia–China gas pipeline

China's presence in the region is quite recent: at first, in the mid-90s, Chinese investments were focused on Kazakhstan, and then they started spreading to other energy-rich countries. China started to deepen its economic interest in Turkmenistan after the death of Turkmenbashi in 2006, when a General Agreement on Gas Cooperation between China and Turkmenistan was signed. In the following year, the post-Niyazov era proved favorable for China to advance its plans with the post-Soviet country. An unprecedented gas deal was agreed that established the position of the China National Petroleum Company (CNPC) in the development of reserves in eastern Turkmenistan. But, most importantly, it paved the way for the Central Asia-China pipeline. This contract allows for a 30 bcm/y Turkmen gas export to China, split as follows: Turkmenistan is to provide 17 bcm, while the Chinese national company is to extract the remaining 13 bcm from the untapped Bagtyyarlyk¹²¹ gas-field.¹²²

The construction of the gas export route that the Turkmen president hailed as the “pipeline of the century” was finished in 2009 – sooner than forecast.¹²³ In parallel, the Caspian country suffered from a dramatic gas export restriction after the April 2009 explosion in the Central Asia-Center-4 pipeline conveying gas from Turkmenistan to Russia. This was followed by a nine-month dispute over gas prices between Ashgabat and Moscow, with no gas flow between the two countries.¹²⁴ Ashgabat succeeded in breaking the Russian stranglehold with its first alternative export route through Uzbekistan, Kazakhstan and on to Xingjian Province. This was a historical momentum for gas trade in Central Asia, being the first high-volume gas pipeline bypassing Russia. The inauguration of the new Chinese pipeline arrived none too soon, to “save” Turkmenistan's energy-based economy.

It is important to note that, at the same time as it was expanding eastwards, Turkmenistan was negotiating with Europe on the construction of a pipeline delivering Turkmen gas reserves to the Nabucco pipeline. Thus, as Sohbət Karbuz of the Observatoire Méditerranéen de l'Energie (OME) in Paris put it, “instead of talking

¹²¹ According to Chinese experts, 1.6 trillion cubic meters of gas could be developed from this gas-field. R.M. Cutler, “Turkmenistan-China Gas Pipeline Becomes a Reality”, *Central Asia-Caucasus Institute*, 2 March 2010, <<http://www.cacianalyst.org/?q=node/5260>>, last accessed 1 September 2011.

¹²² M. Crandall, “The role of Central Asian gas”, in A. Dellecker, T. Gomart (eds.), *Russian Energy Security and Foreign Policy*, Routledge, 2011, p. 80.

¹²³ Construction was rapidly completed since the pipeline was added to a longer but, in terms of volume, more modest project, the former Kazakhstan-China gas pipeline, which was to export 10 bcm/year of Kazakh gas to the China. R.M. Cutler, 2 March 2010, *op. cit.*

¹²⁴ Turkmen gas production was dropped from 66.1 bcm in 2008 to 36.4 bcm in 2009 due to the lack of Russian exports. BP, 2011.

the talk, China was walking the walk”¹²⁵ when it launched the construction of the Central Asian gas pipeline. Karbuz is referring to the fact that Europe has spent years talking about its much-advertised but unimplemented gas import plans while the Chinese built and put theirs in operation in a few short years.

The 1,833 km pipeline starts from Gedaim in Turkmenistan and crosses Uzbekistan and Kazakhstan before reaching the Chinese border in the energy-rich Xinjiang region, where it meets the second Chinese West-East pipeline. The new export route is composed of two parallel lines (A and B). The first was inaugurated on 14 December 2009, in the presence of the heads of government of the four countries involved in the project. Line B began operating in September 2010, at the same time as a new compressor that increased its capacity to 9 bcm annually.¹²⁶ By the end of 2011, the initial annual capacity of 30 bcm will be achieved by the nine new compressors, and it could potentially rise to 40 bcm/y.¹²⁷ During its first year in operation, the Central Asia-China pipeline transported 3.55 bcm natural gas to China, mostly from the Bagtyyarlyk field, where PetroChina has a production-sharing contract with Turkmengaz.^{128 129} Turkmenistan aims to supply 17 bcm¹³⁰ natural gas this year through the pipeline, which seems to be fully operational; in the first five months of 2011 exports already reached to 5.7 bcm.¹³¹ Even as the pipeline had barely begun operating, negotiations were already taking place about raising capacity. In March, Turkmen and Chinese leaders agreed on expanding the export volume to 60 bcm/y. They did not indicate a precise date, since the 40 bcm target has already been postponed to 2015.¹³² Presumably, the capacity of the pipeline will grow more quickly than the volume of natural gas transported. Hence, some problems, linked to the availability of resources, risk slowing the advancement of the

¹²⁵ S. Karbuz, “The key determinant of future energy transit routes to Europe from Caspian region”, Chatham House conference on the Politics of Central Asia and Caspian Energy, London, 24 February 2010, in: I. Arinc, S. Elik, “Turkmenistan and Azerbaijan in European Gas Supply Security”, *Insight Turkey*, vol.12., n°3, 2010, p. 169-190.

¹²⁶ “China’s Pipeline Gas Imports: Current Situation and Outlook to 2025”, *PetroMin Pipeliner*, January-March 2011.

¹²⁷ Ibid.

¹²⁸ BP, 2011.

¹²⁹ PetroMin Pipeliner, op. cit.

¹³⁰ D. Soloyov, “Turkmen gas field to be world’s second-largest”, *Reuters*, 25 May 2011, <<http://uk.reuters.com/article/2011/05/25/gas-turkmenistan-idUKLDE74O23A20110525>>, last accessed 1 September 2011.

¹³¹ J. Bai, T. Miles, K. Wills(ed.), “CNPC says imported 5.7 bcm Turkmenistan gas in Jan-May period”, *Reuters*, 13 June 2011, <<http://uk.reuters.com/article/2011/06/13/china-gas-turkmenistan-idUKL3E7HD01V20110613>>, last accessed 1 September 2011.

¹³² “Difficulties Remain for Turkmen-China Energy Deal”, *Eurasianet*, 9 March 2011, <<http://www.eurasianet.org/node/63037>>, last accessed 1 September 2011.

project. On the one hand, the Bagtyyarlyk field will be able to produce more gas only after 2012, when PetroChina opens the second gas-processing plant, which can boost output to 30 bcm/y.¹³³ On the other hand, more capacity is awaited from the untapped South Yolotan “super giant” gas-field, although its development is progressing slowly because of investment and financing problems. To address this, China has recently lent Turkmenistan \$4 billion to accelerate progress.

Besides the Turkmen exports, China is counting on extra natural-gas transportation via the Central Asia-China pipeline from Uzbekistan, and especially from Kazakhstan where Chinese companies are already involved in upstream activities. The second spur of the export route is under construction, from Beyneu to the east of the country – Shymkent – where it joins the main stream of the Chinese pipeline. The state-owned KazMunayGas company planned to complete the export route’s construction by 2015, with an initial annual capacity of 10 bcm, and a potential expansion to 15 bcm/y.¹³⁴ From a Kazakh point of view, the significance of this new option is more than mere exports. The country suffers from a lack of infrastructure to pump its domestic natural gas to all corners of its territory, so it needed to import gas from neighboring Uzbekistan. The pipeline goes through Bozoy, near the Aral Sea, which is a strategic point, as gas production from this area (Uzbekistan) can connect to the line.¹³⁵ In addition, in June 2011 the Kazakh oil and gas ministry revealed the project of a third leg that will run along the existing export corridor, adding more Turkmen and maybe Uzbek gas to total production.¹³⁶ It is anticipated to be completed by 2013, as the president of the KazMunayGas announced.¹³⁷

China’s West-East gas pipeline

The Central Asia-China pipeline could not have been built without its Chinese continuation inside China. The second West-East natural-gas pipeline was completed in June 2011, and, after some security checks, went online on 30 June. The world’s longest gas pipeline, at

¹³³ PetroMin Pipeliner, *op. cit.*

¹³⁴ “KazTransGas, Trans-Asia Gas Pipeline for JV for Beyneu-Bozoi-Shymkent pipeline”, *Interfax*, 20 December 2010, <<http://www.interfax.com/newsinf.asp?pg=5&id=210469>> last accessed 1 September 2011.

¹³⁵ PetroMin Pipeliner, *op. cit.*

¹³⁶ Construction of a third leg of the Turkmenistan-China gas pipeline is to be completed by 2013.

¹³⁷ Construction of third line of Turkmenistan-China gas pipeline to be finished by 2013, *Interfax*, 16 June 2011, <<http://www.interfax.co.uk/central-asia-general-news-bulletins-in-english/construction-of-third-line-of-turkmenistan-china-gas-pipeline-to-be-finished-by-2013-2/>>, last accessed 1 September 2011.

8,704 km, will transport 30 bcm/y to 15 Chinese regions for 30 years.¹³⁸ This is the first gas pipeline in China that brings natural gas from abroad. In 2012, when construction will be completed, the transport capacity will provide gas to about 400 million people from Xinjiang's Horgos to Shanghai in the East, and to the south towards Guangzhou and Hong Kong.¹³⁹ Turkmen gas will reach Hong Kong next year once the 29.3 km underwater gas pipeline has been built.¹⁴⁰

Gas prices

In recent years, China has invested strongly in the expansion of its gas import infrastructure to accommodate gas from other countries such as Myanmar and Australia. Turkmenistan fills a substantial gap in China's future gas consumption. However, it is by no means certain that, after a fruitful beginning, the two countries' economic relations will remain problem-free. While China's aim is to boost Turkmen imports via the new pipeline, the Caspian republic is looking for higher, European-level prices in return. In 2010, when Turkmen gas started to flow towards China, Ashgabat was not in a good bargaining position, as its main export partner, Russia, had stopped buying gas. Over the last months, Turkmenistan's position in the negotiations has improved gradually, thanks to the partial recovery of Russian exports and negotiations on other export routes such as the TAPI project. Understandably, in this new era, Turkmenistan is eager to renegotiate the prices, as it did in March 2011 on the occasion of the negotiation of a new agreement to enlarge gas supply. China is willing to pay \$100–\$150/tcm, which is far below the European price (\$250–\$400/tcm) that Turkmenistan seeks to achieve.¹⁴¹

Putting this gas price dispute on a regional scale, we can see that Turkmen gas prices also have a strong impact on other countries' bargaining position. Uzbekistan and Kazakhstan, although they export less of their own natural gas to China, are in the same situation as Turkmenistan. Accordingly, a potential price agreement on the Turkmen side with a lower price could make it impossible for other Central Asian countries to strike a fair deal with China.

¹³⁸ Trunk line of the Second West-East Gas Pipeline starts operation, *CNPC*, 1 July 2011, <http://www.cnpc.com.cn/en/press/newsreleases/2011/Trunk_Line_of_the_Second_West%EF%BC%8DEast_Gas_Pipeline_starts_operation.htm>, last accessed 1 September 2011.

¹³⁹ *Ibid.*

¹⁴⁰ Turkmenistan's Natural Gas to Reach Hong Kong in 2012, *The Times of Central Asia*, 27 May 2011.

¹⁴¹ "Difficulties Remain for a Turkmen-China Energy Deal", *op. cit.*

However, owing to their position as transit countries, they could prevent low prices by blocking the flow of Turkmen exports.¹⁴²

Similarly, a possible Turkmen gas agreement could undermine Russia's purpose to finally put an end to the long-lasting negotiations with China on gas export prices, and to make Asian gas exports as profitable as the European ones. The potential Russia-China gas export route depends on Moscow's willingness to abandon its high-level expectations.¹⁴³ China has time to wait, it seems, since in the short term its gas consumption is already allowed for, with existing LNG agreements, pipeline contracts, and domestic production.

Chinese loan for Turkmenistan

Beijing has cemented its position in Central Asia with the construction of its first pipeline abroad. As for Turkmenistan, a loan of about \$4.1 billion was signed in April, which guarantees gas supply for China for 10 years. This is not the first time that Chinese state-owned companies have provided a considerable loan for some benefit to the Caspian country. In 2009, Turkmenistan was granted about \$10 billion from a group of companies – Petrofac, Gulf Oil and Gas (UAE), the South Korean LG and Hyundai, and the Chinese CNPC – for developing the South Yolotan field. But the lack of financial assistance has slowed work on this promising gas-field. Consequently, if Beijing's long-term target is to improve its economic presence in the country, it is in its interest to facilitate the development of the gas-field through financial investment. Finally, the fact that for now China is the only foreign country that has gained concessions for onshore fields in Turkmenistan makes it clear that Ashgabat is determined to expand eastwards.

¹⁴² Ibid.

¹⁴³ Russia would like to get at least \$300, while China is willing to pay no more than \$235, which is a little bit less than the European price formula. O. Astakhova, K. Golubkova, M. Akin, J. Bachman (ed.), "China firm on Russia gas price, Hu heads to Gazprom", *Reuters*, 15 June 2011, <<http://www.reuters.com/article/2011/06/15/russia-china-gas-idUSLDE75E24N20110615>>, last accessed 1 September 2011.

Iran–Turkmenistan

The impact of Western sanctions on Iran

Iran's energy sector is deeply affected by the US and European sanctions. These make it particularly difficult to predict what Iran would do in the absence of sanctions – and, unfortunately, it does not appear that they will be lifted any time soon. Even though the country has the second-largest gas reserves in the world, it relies on gas imports to meet its domestic needs. Iran suffers from lack of investment in the energy sector on every level. Apart from the mismanaged and underexploited gas-fields, the country has serious problems with its pipeline infrastructure, particularly in the north. Thus, Turkmen gas has a growing role to play in meeting the country's energy needs. Although Turkmen exports to Iran were never more than 6–7 bcm/y, the potential of additional supplies is clear, since the Central Asian country constructed the second gas transit route to Iran and because Russia continues to block Turkmen exports to European markets.

First Turkmen-Iranian gas export route (Korpeje-Kordkuy pipeline)

The idea of Turkmen-Iranian gas cooperation first emerged in 1994.¹⁴⁴ According to the initial plans, this pipeline was an integral part of a larger proposal to convey natural gas from Turkmenistan via Iran to Turkey, with a prospect of reaching European markets.¹⁴⁵ The designed capacity of this export route was up to 28 bcm/y, which is not far below Nabucco's targeted volume. The pipeline in Turkey can handle these volumes.

¹⁴⁴ "Iranian media reports on new gas pipeline", *BBC*, 29 December 1997, <<http://news.bbc.co.uk/2/hi/world/monitoring/43226.stm>>, last accessed 1 September 2011.

¹⁴⁵ M.B. Olcott, *International gas trade in Central Asia: Turkmenistan, Iran, Russia and Afghanistan*, James A. Baker III Institute for Public Policy Energy Forum, 2004, p. 18.

The 200 km pipeline was inaugurated in 1997 with an initial capacity of 4 bcm/y, which was expected to double by 2006.¹⁴⁶ The export route runs from Korpeje field in western Turkmenistan to Kordkuy in the north of Iran. Despite the low capacity of the pipeline, it has historical significance, since this was the first export route coming from a Caspian, post-Soviet country to circumvent the Russian network. At the same time, the deal was important from Iran's viewpoint as well, since not many countries were knocking on the door of Teheran to set up energy relations. In fact, the deal caused Turkey considerable stress in relation to the US, where Congress had just enacted the Iran Libya Sanctions Act, which was designed to punish countries for doing just what Turkey had done. It took some months before a political solution was found.

Turkmen-Iranian cooperation on gas suffered a setback in 2007, when Ashgabat abruptly cut off the gas to Iran in the middle of a particularly cold winter, because of a gas price dispute. This came at the same time that Turkmenistan was negotiating successfully with Russia about higher prices. Teheran was paying \$75 per thousand cubic meters (tcm), while the Central Asian country wanted almost double that. Ultimately, Iran agreed to purchase Turkmen gas at twice the original price, and supply was restored. Iran's Vice Oil Minister Ali Kordan gave an unusually logical explanation for the Iranian agreement to higher prices: "If Turkmenistan wants a logical increase in the price of gas, it is okay with [Iran] because this country is selling its gas to Russia with a new price."¹⁴⁷

Second Iran-Turkmenistan pipeline (Dauletabad-Sarakhs-Khangiran)

The new pipeline was inaugurated in January 2010. It transports natural gas from the Dovletabat field to northern Iran. This gas-field is also the source of Turkmenistan's exports to Russia. The initial capacity of this line is 6 bcm/y, which will be doubled, and, along with the Korpeje-Kordkuy pipeline, the maximum Turkmen gas export to Iran could reach 20 bcm/y. The last section of the pipeline was put in service in November 2010.

The new export route arrived at a good moment to reinvigorate the energy-revenue-based Turkmen economy as Russia had halted Turkmenistan's gas exports in April 2009. Although Moscow continued to purchase Turkmen gas, it was only about a

¹⁴⁶ BBC, 1997, *op. cit.*

¹⁴⁷ "Turkmenistan: Iran Admits Defeat in Gas Pricing Dispute", *Eurasianet*, 21 April 2008, <<http://www.eurasianet.org/departments/insight/articles/eav042208.shtml>>, last accessed 1 September 2011.

quarter of the previous export volume (see chapter I: Turkmenistan–Russia). Therefore, the new Iranian-Turkmen pipeline was apparently a win-win situation for each side, and perhaps also for Moscow. From Moscow's perspective, the more Caspian gas that goes toward Asia, the less remains for Europe. Furthermore, knowing the limited market for exports to Iran, Russia is comfortable about the bulk of Central Asian volumes not being able to find a way out through Iran. From a Turkmen point of view, the Iranian pipeline fosters its export route diversification, and increases its bargaining power. Finally, Iran gets the gas it needs for its northern region, which has long suffered from a serious lack of natural gas. Additionally, Teheran can show to the world that it is a valuable trading partner of a Central Asian country at a time when its reputation is at a low ebb.¹⁴⁸

Iran as a potential Nabucco source?

Turkey is one of the few countries willing to maintain energy relations with Iran. Almost a third of Turkish gas imports comes from Iran.¹⁴⁹ The Tabriz-Ankara pipeline has been working since 2001. Since the Nabucco pipeline project appeared in 2002, there has been talk about Iran as a potential source. However, Iran's participation in European projects was never seriously considered, because of EU and American sanctions on energy-related investment. Iran can not export gas without huge foreign investment. In a world without sanctions would it make sense for Iran to entrust its gas exports to a pipeline across multiple countries? Would Iran not find merit in Qatar's ability to direct the marginal LNG tanker east or west, depending on the market – and invulnerable to any particular country being angry at Iran?

Although Iran can not compete with European-backed projects in its current economic and political situation, Teheran can be an impediment, notably in the Caspian Sea, where its opposition casts a shadow on the Trans-Caspian Gas Pipeline construction.

¹⁴⁸ B. Pannier, "Turkmen Gas Exports To Iran A Boon For Both Countries", *Radio Free Europe Radio Liberty*, 3 September 2011, <http://www.rferl.org/content/Turkmen_Gas_Exports_To_Iran_A_Boon_For_Both_Countries/1921933.html>, last accessed 1 September 2011.

¹⁴⁹ In 2010 Turkey has imported 28.76 bcm natural gas (7.77 bcm from Iran, 16.64 bcm from Russia and 4.35 bcm from Azerbaijan). BP, 2011

Conclusion

After the dissolution of the Soviet Union, Turkmenistan had to rely on Russian pipeline infrastructure. Without its own export routes, the country was forced to face the vagaries of Russian policymakers. The post-Soviet republic emerged from its deep dependence on Russia only in the last few years.

Iran was the first country to import Turkmen gas (in 1998). Even though Iranian exports are not high in volume, they have important strategic aspects. From Teheran's point of view, it shows its capability to pursue credible, reliable relations with other countries despite European and American sanctions on energy-related investments. Furthermore, Turkmen gas fosters the gas supply in the country's northern region, where the underdeveloped domestic infrastructure does not allow pumping of natural gas. Regarding Turkmenistan, Iran is one of its diversification possibilities, which contributes to Ashgabat's greater independence.

Chinese exports could be the most significant alternative for Turkmen gas exports in the future. Without Chinese investment the Central Asian country could not have stepped on the path to a more independent gas policy. The China-Turkmenistan relationship is a win-win, as Turkmenistan gets financial support and the option to diversify its export routes, while Beijing profits from the Caspian country's disadvantageous geographical position, and gains solid and long-term gas resources without using risky routes. However, in the future the nature of this energy relationship can change. It depends on Europe's willingness to make a definitive decision on Turkmen gas imports. If Europe pushes the Trans-Caspian Gas Pipeline project, that will not only undermine Russia's position, but later Ashgabat would demand higher prices for its Chinese exports. Still, it is doubtful that China will ever pay European prices for its gas imports, as Beijing can choose between many resource options, not to mention its potential shale-gas capacity.

Russia has used its position in the energy sector to serve its foreign-policy objectives. In parallel to Turkmenistan's struggle to diversify its export routes, Russia intervened when it saw its status in peril on the European energy market: for instance, in 1998, when the Trans-Caspian Gas Pipeline first emerged, or in 2008, when Europe decided to enhance alternative export routes, as part of the Southern Gas Corridor. Russia's strategy is always the same: buying the most volume possible from the potential resource countries (Azerbaijan and Turkmenistan), and producing alternative scenarios for European

pipeline projects (South Stream, Nord Stream). Furthermore, Gazprom seeks to gather big, influential European companies on its side in order to put pressure on the European Union (Eni, EDF, BASF and even the Nabucco supporter RWE). But Europe does not need a new pipeline coming from Russia, while European proposals would widen the resource spectrum of energy security.

Finally, Europe would not need alternatives routes if Russia became a reliable partner. If Russia starts playing the energy game according to the rules of a competitive market, Europe will not be obliged any more to build costly pipelines to feed its growing gas thirst.

Ultimately, factors that will/would change the shape of energy relations in the region are:

- BP's decision about the export route of Shah Deniz Phase-2 (expected in 2011). Only one European project will survive the selection.
- Presidential elections in Turkmenistan in 2012. Berdymukhamedov will probably keep, and reinforce, his position at the top of the Turkmen bureaucracy – which will be no more attractive for foreign investors than the current situation.
- A decision about the legal status of the Caspian Sea. The assent of Iran and Moscow is doubtful in the short term.
- Russia's attempt to buy more Caspian Gas. Presumably, the post-Soviet countries will be reluctant to return to dependence on Russia, so every possible alternative would be considered.
- European intentions to increase energy efficiency and the use of renewable energy resources and LNG imports and finally to develop unconventional gas resources will all enhance European energy security, and reduce European dependence on Russian gas exports.
- Western sanctions on Iran's energy sector. Although it is not foreseeable in the near future, a sanction-free Iran would undercut Russia's favorable position on the European gas market.

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