Prospects for energy cooperation in the Caspian Sea

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Abstract

Since the collapse of the Soviet Union in late 1991, the Caspian Sea region has been seen as a potential major oil and natural gas reservoir. For more than a decade, the five nations that share the Caspian—Azerbaijan, Iran, Kazakhstan, Russia, and Turkmenistan—have sought to develop the basin’s hydrocarbon resources. This paper provides an assessment of these resources and examines two major hurdles: lack of consensus on the legal status of the Caspian and disagreement of the most cost effective pipeline routes. It argues that oil and natural gas from the Caspian is certain to contribute to global energy security. However, the Caspian Sea should not be seen as a replacement to the Persian Gulf.

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The intense fluctuation of oil and natural gas prices reflects imbalance between global supply and demand. It also raises concern over energy security. For the last several years energy security has been a major priority for the United States and the European Union. Energy security has also been a major concern to Asian large economies, particularly China, India, Japan, and South Korea. Diversification of both the energy mix and the energy sources is at the heart of the energy strategy.

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for all these consuming regions. This study focuses on examining consuming countries’ efforts to reduce their dependence on a single or a few producing countries. Specifically, the attention is focused on the Caspian Sea basin’s oil and gas potential to fill this need for diversification.

The 700-mile-long Caspian Sea is located in northwest Asia. Five countries—Azerbaijan, Iran, Kazakhstan, Russia, and Turkmenistan—share the Caspian basin. Their policies on the exploration and development of the region’s hydrocarbon resources since the collapse of the former Soviet Union in late 1991 are the focus of this paper. The region is not new to the petroleum and natural gas industry. It is worth remembering that commercial energy output began in the Caspian basin in the mid-19th century, making it one of the world’s first energy sources. By 1900 the Baku region produced about half the world’s total crude oil. This impressive level of production was, to a large extent, the result of combined efforts and investment by the Noble brothers, the Rothschilds and the leaders of Royal Dutch Shell, who helped Russia develop Caspian oil resources (Forsythe, 1996). This oil carried considerable strategic weight in both world wars. In the two conflicts the German army, short of fuel, sought unsuccessfully to capture the Baku region. Germany’s failure to secure access to the Caspian’s oil resources was a major reason for its defeat in 1918 and 1945. Indeed, some of the most brutal battles during the Second World War were fought north of Azerbaijan.

Since the early 1950s, however, several developments contributed to a substantial reduction of Caspian oil production. Concern over Baku’s vulnerability to attack during the Second World War, along with the discovery of oil in the Volga-Urals region of Russia and later in western Siberia, led to a switch in the former Soviet Union’s investment priorities. This new policy resulted in decreased exploration and production in the Caspian for most of the second half of the 20th century. Since the late 1980s, however, Azerbaijan, Kazakhstan, and Turkmenistan have gradually occupied center stage in the global energy markets. The three countries (particularly the first two) have succeeded in attracting massive foreign investment to their oil and gas sectors.

The flow of massive foreign investment suggests that the geological potential of the Caspian region as a major source of oil and gas is not in doubt. In mid-2005 it is estimated that proven oil reserves in Azerbaijan, Kazakhstan, and Turkmenistan are 7.0, 39.6, and 0.5 million barrels respectively. Put differently, their share of the world’s proven oil reserves are 0.6%, 3.3% and 0.1%. The figures for proven natural gas reserves are: Azerbaijan holds 1.37 trillion cubic meters (tcm), 0.8% of the world’s share, Kazakhstan holds 3.0 tcm, 1.7%, and Turkmenistan holds 2.9 tcm, 1.6% (British Petroleum, 2006). The rate of investment, however, is (and will continue to be) determined by the perceived risk in the region, or what industry experts call “above-the-ground risk.” In other words, the risk is not in finding the oil and gas, but in juggling the multitude of risks associated with operating in very difficult host country environments. These challenges include:

- Assessment of the Caspian Sea’s hydrocarbon potential
- Disagreements over the legal status of the Caspian Sea
- Rivalry over the most cost effective pipeline routes.
In the following sections a detailed discussion of each of the three challenges is provided. The main argument is that the Caspian Sea, along with other producing regions such as Russia and West Africa, will contribute to balancing global supply and demand and enhance energy security. The Caspian Sea basin, however, does not have adequate resources to significantly alter oil and natural gas prices. Furthermore, the region should not be seen as a potential replacement or competitor to the Persian Gulf.

The Caspian Sea hydrocarbon potential

Estimates of the Caspian Sea region’s proven oil reserves vary widely by source. The United States Department of Energy estimates that the region holds between 17 and 44 billion barrels (Energy Information Administration, 2005a). The British Petroleum’s estimates are 47.1 billion barrels (British Petroleum, 2006). These figures indicate that the Caspian’s oil resources are much less than those of the Middle East. Stated differently, the Caspian Sea will not replace the Middle East as the main reservoir of world oil. Still, production from the Caspian will add more oil to international markets and contribute to global energy security.

Kazakhstan has the Caspian Sea region’s largest recoverable crude oil reserves and its production accounts for approximately two-thirds of the region’s overall output. It is important to point out that Kazakhstan claims the largest share of the Caspian Sea, which includes most of the Basin’s biggest known oil fields: Tengiz, Karachaganak, Kurmangazy, and Kashagan. These fields have been developed by international oil companies. Since independence in 1992, Kazakhstan has aggressively pursued foreign investment. For the last several years, the national oil company Kazmunaigaz (formerly Kazakhoil) has signed several schemes with foreign investors to develop the country’s oil and gas deposits.

The Tengiz field was originally discovered in 1974 and two decades later, Chevron signed a joint venture with the government of Kazakhstan to develop it. Karachaganak is being developed by a consortium led by Britain’s British Gas and Italy’s ENI and is considered one of the world’s largest gas-condensate fields. Kashagan is the largest oil field outside the Middle East and the fifth largest in the world (Energy Information Administration, 2005b). It was first identified by the Soviets in the early 1970s, but was not developed due to the complex geologic formations and environmental sensitivity. In recent years, the field has been developed by an international consortium that includes Royal/Dutch Shell, ENI, ExxonMobil, and ConocoPhilips (Kaiser and Pulsipher, 2006). Finally, Kurmangazy is located on the maritime border between Russia and Kazakhstan. In July 2005 the two sides signed a production-sharing agreement to develop the field, which is likely to take several years.

Most of the Azeri energy deposits are developed by the State Oil Company of the Azerbaijan Republic (SOCAR). The company was established in September 1992 with the merger of Azerbaijan’s two state oil companies: Azerineft and Azneftkimiya. Almost half of SOCAR’s oil production comes from the offshore field shallow-water Gunashli (Energy Information Administration, 2005c). The field first came online in 1981, but technological constraints slowed down the full utilization of
the reservoir’s resources. The influx of foreign investment since independence has revitalized the country’s energy sector through the development of large-scale new projects and the refurbishment of existing ones. Azerbaijan International Operating Company (AIOC) is the leading international consortium in charge of expanding the country’s oil production and export. (BP, Unocal, SOCAR, Inpex, Statoil, ExxonMobil, TPAO, Devon Energy, Itochu, and Delta/Hess are the other main partners.)

Most of the future oil production is projected to come from the three-phase development of the offshore Azeri, Chirag, and deep water Gunashli (ACG) mega-structure. However, the country’s future oil prosperity is highly uncertain. Several foreign investment projects have been unsuccessful due to disappointing drilling results. For example, in the mid-2000s ExxonMobil and Lukoil failed to discover commercially viable hydrocarbon reserves at the Zafar-Mashal and Yalama blocks.

The other three littoral states—Iran, Russia, and Turkmenistan—have not made substantial progress in exploring and developing oil deposits in their shares of the Caspian Sea. With only a small amount proven to be recoverable, Iran’s oil deposits in the region are largely unexplored and underdeveloped. In early 2004, Iran’s Oil Survey Company conducted a 3-D seismic survey of the southern Caspian (Energy Information Administration, 2006a). This has been followed by prolonged negotiations between the National Iranian Oil Company (NIOC) and Brazilian company Petrobras to finalize production sharing agreement.

In 1995, the Russian oil company LUKoil began exploration of the Russian section of the Basin. Five large oil and condensate fields have been found including Khvalinskoye, Yuri Gagarin, Rakushechnoye, and Sarmatskoye. Some of these fields are located on the borders between Russia and Kazakhstan and are being developed jointly by companies from the two nations.

Since independence in 1992, Turkmenistan has experienced a significant oil production growth. This growth, however, has been restrained by two hurdles. The first is a lack of foreign investment due to slow-paced economic and political reforms. Accordingly, several international oil companies that initially started working on developing the country’s oil sector have withdrawn their investments. Second, many of the prime oil deposits are located in disputed areas of the Caspian Sea. For example, for a long time a dispute between Turkmenistan and Azerbaijan over the offshore Serdar oil and gas field, called Kyapaz by Azerbaijan, prevented the development of the field (Energy Information Administration, 2000). In the mid-2000s, Malaysia’s Petronas began offshore oil production in the Turkmen sector of the Caspian Sea.

The Caspian Sea region’s natural gas deposits are as equally important as its oil reserves. The region holds 7.27 tcm, about 4.1% of the world’s total (British Petroleum, 2006). Despite these massive proven reserves, international companies and governments have focused more on oil, partially due to the greater capital expenditures necessary to start up natural gas production.

Azerbaijan’s natural gas outlook has drastically changed in the mid-2000s. Since independence in 1992, Baku has been a net importer of natural gas. Most of the country’s gas production comes from Bakhar and Bakhar-2 gas fields. In 1996
a production-sharing agreement to develop Shah Deniz was signed. The field is one of the largest in the world and is being developed by an international consortium comprising BP, Statoil, SOCAR, LukAgip, NICO, TotalFinaElf, and TPAO.

Almost all Kazakhstan’s natural gas is associated gas (associated gas is found and produced with oil). Like Azerbaijan, Kazakhstan was a net importer of gas for many years following independence in 1992. This situation has changed since 2005, when the country became a net natural gas exporter. This development reflects the government’s efforts to utilize its gas resources. The future of the country’s natural gas potential is promising.

Turkmenistan’s natural gas production has been subject to intense fluctuations since independence in 1992. The country counts on its large natural gas reserves and potential exports to be the focal point of its economic prosperity. Turkmenistan contains several of the world’s largest gas fields such as Dauletabad and Shatlyk. These fields have been producing for more than three decades, and therefore, exhibit signs of natural depletion. Moreover, due to the unpredictability of the country’s political leadership, international companies have been reluctant to invest in Turkmenistan. Furthermore, a large Turkmen natural gas production and export would compete with Russia’s. Accordingly, after difficult and extended negotiations (and few confrontations) Ashgabat agreed to sell almost all its gas exports to Russia.

In July 2003, the Russian oil and gas companies LUKoil and Gazprom established a joint venture with Kazakhstan’s state oil company Kazmunaigaz to develop a hydrocarbon structure called Tsentralnaya. A similar scheme, Kurmangazy, is being developed since 2003.

The legal status of the Caspian Sea

In the nineteenth century, ships of the Russian and Persian empires sailed the Caspian Sea unchallenged, but their captains were interested primarily in establishing trade routes and exploiting the sea as a source of food—not for the wealth of minerals beneath it. In the twentieth century, the two sides negotiated and signed several agreements to govern their relationship with respect to the Caspian, most notably the Friendship Treaty of 1921 and the Treaty of Commerce and Navigation of 1940. Moscow and Tehran agreed that the Caspian was only open to their own vessels and was closed to the rest of the world. They also reserved a 12-mile zone along their respective coasts for exclusive fishing rights. However, no attempt was made to delimit any official sea boundary between them and the treaties said nothing about the development of mineral deposits under the seabed. Thus, many analysts and policymakers have questioned the applicability of these two documents to the new, post-Soviet situation in the Caspian. Indeed, Russia, Iran, and the three former Soviet Republics have intensely disagreed on how to define the Caspian as a body of water.

A fundamental question in this debate on the legal status of the Caspian is whether it is a “sea” or a “lake”. According to the United Nations Convention on
the Law of the Sea, nations bordering a sea may claim 12 miles from shore as their territorial waters and beyond that a 200-mile exclusive economic zone (EEZ). If the Law of the Sea convention were applied to the Caspian, full maritime boundaries of the five littoral states bordering it would be established based upon an equidistant division of the sea and underwater resources into national sectors. If the Law were not applied, in other words if the basin is considered a lake, the Caspian and its resources would be developed jointly—a division referred to as the condominium approach. After more than a decade since the breakup of the Soviet Union, the five littoral states have not agreed on whether to characterize the Caspian as a sea or a lake. The main point of contention centers around the uneven distribution of potential oil and natural gas riches in the basin.

**Russian policy in the Caspian basin**

The Russian position has varied over time. Initially, Moscow argued that the Law of the Sea did not apply to the Caspian because it was an enclosed body of water, and that regional treaties signed in 1921 and 1940 between Iran and the former Soviet Union remain valid. However, the signing of several agreements between the other three littoral states and international oil companies to explore and develop hydrocarbon resources beneath the Caspian’s waters prompted Russia to change its position. Thus, in 1996 Moscow proposed that within a 45-mile coastal zone each country could exercise exclusive and sovereign rights over the seabed mineral resources. The central part was to remain common property, with its hydrocarbon resources developed by a joint stock company of the five states.

Given the rejection of the Russian proposal by Azerbaijan, Kazakhstan, and Turkmenistan, Moscow’s stand on the legal status of the Caspian Sea took another turn. Since the late 1990s, the Russian leaders have advocated the principle of dividing the seabed and its resources between neighboring states. The method of division would be the median line approach. According to this theory, the Caspian should be divided based on the median line, which runs across the seabed at the same distance from both opposite shores. In line with this approach, Russia and Kazakhstan signed an agreement in 1998 dividing the northern Caspian seabed alone along a modified median line between the two countries, while surface waters and issues such as shipping, fishing, and environment remained under joint ownership. In case the demarcation line goes across promising hydrocarbon structures and deposits, Moscow and Astana are assured exclusive rights to the joint development of any new oil or gas fields. The two sides further consolidated their cooperation in May 2002, when President Putin and President Nazarbaev signed a protocol dividing three gas fields—Kurmangazy, Tsentralnoye, and Kvalynskoye—on an equal basis. In 2003 LUKoil, one of Russia’s biggest oil producing companies, and Gazprom, the nation’s natural gas monopoly, declared their plan to start drilling at the Tsentralnoye oil field as early as 2007. The two companies set up a venture, Tsentrkaspneftegaz, which will explore the field with Kazakhstan’s Kazmunaigaz (*Moscow Times*, 2003). In January 2001, Russia signed an agreement with Azerbaijan similar to the 1998 agreement with Kazakhstan.
Following the ratification of these bilateral treaties between Russia, Kazakhstan, and Azerbaijan, the three countries declared that the Northern Caspian was open for business and investment as they reached a consensus on the legal status of the basin. Iran and Turkmenistan, however, declared that the agreements between the other three littoral states lack validity and that the Caspian Sea needs a five-nation agreement. Despite substantial arms sales and close cooperation in nuclear technology between Tehran and Moscow, the two sides have continued to adopt conflicting approaches to the legal status of the basin. Indeed, in recent years the Caspian has been the main issue bedeviling Russian–Iranian relations.

**Iranian policy in the Caspian Sea**

Unlike Russia, Iran has been more consistent in rejecting any bilateral agreement to divide the Caspian. Tehran’s preference is for all five littoral states to adopt a collective approach in developing the mineral resources beneath the Caspian. Indeed, for the last several years, Iran has increasingly become the lone voice in the debate over the legal status of the basin. The reason is simple; Iranian shores on the Caspian seem to hold less oil and natural gas reserves than the other four littoral states. Taking this into consideration, several characteristics of Iran’s Caspian policy are noteworthy.

First, since the breakup of the Soviet Union, Iran has maintained that the 1921 and 1940 treaties should be considered valid and should govern the Caspian until the five littoral states reach a new agreement. Iran has rejected all unilateral and bilateral agreements on the utilization of the sea’s hydrocarbon wealth, declaring them invalid. In other words, Iran favors a “condominium approach,” which envisions joint management of the Caspian’s resources. Second, for the last few years, Iran has indicated a willingness to divide the Caspian into national sectors, but only provided there is equal division of the sea, giving each country 20% of the sea floor and surface. Put differently, the Iranian position is to “divide all equally or divide nothing.”

Third, given Russia’s military superiority and Iran’s strong security concerns in the Persian Gulf, Tehran has neither the will nor the means to engage in an arms race in the Caspian Sea. Accordingly, Iranian officials have called for the demilitarization of the Caspian. Since the early 2000s the littoral states have improved their military capabilities in the basin. In 2002 Russia held unprecedented naval exercises and Turkmenistan procured 20 patrol boats from Ukraine. Meanwhile, in the aftermath of the September 11 terrorist attacks both Azerbaijan and Kazakhstan have received US military aid and equipment as part of antiterrorism efforts as well as to fight drug trafficking and smuggling of weapons across the region. In August 2003 US naval officers participated in joint exercises with Azerbaijan’s navy to improve security for oil installations. Despite these developments, it is important to emphasize that the asymmetrical distribution of military power between the five coastal states means that Russia would be the main beneficiary of any arms race in the region.

Fourth, despite Tehran’s insistence on the so-called “condominium approach” and its strong opposition to unilateral and bilateral initiatives to divide the Caspian,
Iranian oil companies have participated in developing mineral resources in the Azeri sector of the sea, and the Iranian government has signed agreements with international oil companies to explore for oil and natural gas in its sector of the Caspian. In June 2003 Tehran announced that it will begin developing its Caspian oilfields within the next two years, scrapping a policy of non-development that had been in place. The Iranians argue that the new policy was necessary to reduce the chances of Iran losing potential investors and customers.

These characteristics of the Iranian position regarding the legal status of the Caspian Sea reflect the current economic and political realities in Tehran. In the last two decades, the Iranian population has almost doubled while economic conditions have substantially deteriorated. A full utilization of the country’s hydrocarbon resources (including those underneath the Caspian Sea) would immensely help economic development and reduce domestic political pressure. Thus, in addition to its inland oil and gas fields and its offshore fields in the Persian Gulf, Tehran would like to expand, explore, and develop mineral resources in the Caspian Sea. The problem, however, is that Iran does not have either the military power or the political means to impose its will on the other coastal states.

**The post-Soviet Caspian republics’ policies on the legal status of the basin**

Since the breakup of the Soviet Union in December 1991, the evolving positions of Azerbaijan, Kazakhstan, and Turkmenistan regarding the legal status of the Caspian have been driven by three interrelated developments. First, the coastal areas of each of the three countries are believed to hold more oil and gas reserves than those of Russia and Iran. Second, developing available hydrocarbon resources is considered crucial to the economic survival of these newly independent states, which have very few other economic assets. Third, the substantial international investments in the energy sectors of these three countries (particularly in Kazakhstan and Azerbaijan) have incited them to be more assertive in their demands to divide the Caspian Sea into national sectors. Taking these developments into consideration, one can understand their respective stances on the question of dividing the sea.

From the very beginning, Baku’s views on the legal status of the Caspian have been firmer and more consistent than those of the other four littoral states. Azerbaijan has called for the Law of the Sea to be applied, and has advocated the establishment of maritime boundaries into national sectors based along median lines. It believes that these boundaries should follow the ones established and recognized under the Soviet Union to delineate the republics’ sectors for oil exploration and developments. Kazakhstan’s position on the legal status of the Caspian is very similar to that of Azerbaijan. In 1997, the two countries agreed to adhere to the borders of the sectors along the median line. Later, Astana signed a similar communiqué with Ashgabat. The next year, in 1998, Kazakhstan signed a bilateral agreement with Russia dividing the northern Caspian seabed along median lines between them. In November 2001 a similar agreement was signed with Azerbaijan. Finally, Turkmenistan’s position has also evolved over time. Initially, it supported the 1996 Russian proposal to divide the Caspian into 45-mile coastal zones, while keeping the central part as common...
property. In 1998, Ashgabat and Baku agreed to divide the sea between them along a median line, but disagreements over where to draw that line have persisted.

To sum up, the five littoral states have yet to agree on the legal status of the Caspian Sea. Despite this lack of consensus, a de-facto regime is emerging. Several international oil and gas companies have decided not to wait for an agreement and started developing the Caspian offshore fields. These ambitious and very expensive deals between international companies and littoral governments, however, face another serious obstacle—the lack of adequate pipeline systems to ship the region’s oil and gas to global markets.

**Pipeline diplomacy**

The three newly independent states—Azerbaijan, Kazakhstan, and Turkmenistan—are landlocked meaning that they do not have direct access to shipping lines on the high seas. For their oil and natural gas supplies to reach the targeted markets, they have to go through the territory of at least one transit country. Since the collapse of the Soviet Union in 1991, several pipeline schemes have been negotiated and some have been implemented.

A number of characteristic of this “pipeline diplomacy” can be identified. First, given the historical context and the fact that for several decades these littoral states were part of the Soviet Union, on the eve of independence all pipelines from the Caspian Sea were connected to the Russian system. Following independence, Russia has continued to dominate the export routes from the region. Building a pipeline system is an expensive venture and requires strong financial and political commitments. Furthermore, despite some occasional disagreements and some differences, Moscow still enjoys special cultural, economic, and political ties with these former Soviet republics.

Second, this lack of adequate outlets to the region’s hydrocarbon resources has substantially slowed down the full utilization of these deposits and added more complications to the region’s energy outlook. Energy projects in the Middle East, West Africa, and Russia do not have to deal with such a hurdle. Third, a consensus is emerging that eventually multiple pipeline routes will be built. The Russian system is no longer adequate to handle the growing oil and natural gas production from the region. Furthermore, these littoral states seek to achieve economic and political independence from Moscow. Thus, diversification of pipeline routes has become a fundamental means to reduce Russian influence and ensure their independence.

Fourth, the decisions to construct a pipeline system are not based only on the financial merit of the project or a cost effective analysis. Geo-political interests play a significant role in choosing these routes. A main drive in building some of these pipelines has been to weaken the Russian influence and deprive Iran of any political or financial benefits. Obviously, Iran represents a viable option to export the Caspian oil and gas, particularly to Asian markets. However, the strained relations between Washington and Tehran have substantially reduced the Iranian option’s attractiveness.
Taking these characteristics into consideration, several pipelines routes have been constructed and/or negotiated. These pipelines aim to ship the Caspian Sea’s oil and natural gas to all directions—west to the Black and Mediterranean Seas, east to China, north to Russia, and south through Iran and potentially Afghanistan.

The Baku—Tbilisi—Ceyhan (BTC) pipeline is probably the most controversial and most publicized scheme. This 1040-mile (1800-km) pipeline was built by an international consortium led by BP. The construction was completed in May 2005. The pipeline aims to reduce Caspian producers’ dependence on Russian routes and to diversify Europe’s supplies away from the Middle East. Little wonder, in the inauguration ceremony President Bush sent a letter describing the completion of the project as a “monumental achievement that opens a new era in the Caspian Basin’s development” (Sultanova, 2005). President Ilham Aliyev of Azerbaijan acknowledged Washington’s crucial role, “The realization of this project would not have been possible without constant political support from the United States” (Yevgrašina, 2005). The BTC gained an important momentum in June 2006 when President Nursultan Nazarbayev of Kazakhstan agreed to export part of his country’s oil via the BTC. Kazakh oil will be shipped by tanker from the northern Caspian port of Aktau to Baku. The agreement envisions the eventual construction of sub-sea pipelines between Kazakhstan and Azerbaijan.

A parallel natural gas pipeline known as the South Caucasus Pipeline (SCP) is being built by an international consortium comprising Britain’s BP, Norway’s Staatoil, Azerbaijan’s Socar, Russian—Italian venture LukAgip, Iran’s NICO, France’s Total, and Turkey’s TPAO). The line ships natural gas from Shah Deniz field in Azerbaijan to the Turkish port Erzurum on the Mediterranean through Tbilisi. Although most of the gas will be exported to Turkey, some of it will be sent to Europe via a transit pipeline through Greece.

The Caspian Pipeline Consortium (CPC) is another important scheme, shipping Kazakh oil to the Russian port Novorossiysk on the Black Sea. The governments of Russia, Kazakhstan, and Oman developed the CPC in conjunction with a consortium of international oil companies. The pipeline was officially opened in November 2001 and has since transported roughly one-third of Kazakhstan’s exports.

For the last several years, Chinese oil consumption has skyrocketed. Domestic oil production failed to keep pace with the rising demand and in 1993 Beijing has become a net oil importer. In order to diversify their oil supplies and reduce their vulnerability to interruptions, Chinese officials have sought to import oil from many sources. Sharing long borders with China and holding massive hydrocarbon resources, Kazakhstan is seen as an attractive source that is likely to contribute to Beijing’s energy security. Meanwhile, Astana is interested in diversifying the destinations of its oil exports and reduce its dependence on Russia. Given these mutual interests, the two nations (China and Kazakhstan) have sought to increase oil supplies from the latter to the former. Most of these supplies are being shipped via a three-stage pipeline. The first stage was built in 2003 and the second stage was completed in December 2005. When all three stages are constructed, the pipeline will span nearly 1930 miles from Atasu in northwestern Kazakhstan to Alashankou in China’s northwestern Xinjiang region.
One of the major oil export pipelines runs from Atyrau in Kazakhstan north to link with Russian distribution system. Before the completion of the CPC, Kazakhstan exported almost all of its oil through this system. Since the early 2000s the Atyrau—Samara system lost some of its significance due to the completion of the CPC. Still, in June 2002, Kazakhstan and Russia signed a 15-year oil transit agreement under which Astana will continue exporting part of its oil via the Atyrau—Samara pipeline.

Another northern route runs from Baku to the Russian port on the Black Sea Novorossiysk. The pipeline was constructed shortly after independence in the early 1990s. Since 2005 when the BTC became operational, an increasing proportion of Azeri oil has been diverted from the Baku—Novorossiysk pipeline to the BTC. Some Azeri officials have hinted that SOCAR might completely stop using the Novorossiysk route. They claim that they are losing millions of dollars due to mixing their high quality crude with Russia’s Urals. The solution, they argue, is to stop exporting via the Russian port.

Finally, routes south (through Iran) and southwest (through Afghanistan) have been considered. A Trans-Afghan natural gas pipeline (known also as the Turkmenistan—Afghanistan—Pakistan pipeline) has been under consideration since the early 1990s. The project is supposed to carry natural gas from Turkmenistan to Pakistan and possibly India via Afghanistan. However, political instability in Kabul has hindered any progress.

US economic sanctions on Iran (in place since 1979) have blocked the construction of any pipelines from the Caspian Sea. In response, Tehran has pursued the so-called oil “swaps”. According to these arrangements, Caspian oil is delivered to population centers in northern Iran and in return an equivalent amount of Iranian oil is exported through Persian Gulf terminals. Accordingly, for the last several years, oil shipments from Kazakhstan and Turkmenistan have been sent to the Iranian port Neka, from where it is sent to refineries in Arak, Tabriz, and Tehran. Since the early 2000s, Iran has sought to expand the capacity of Neka and the refineries.

In addition to oil swaps, in December 1997 a pipeline linking the Korppezhe gas field in western Turkmenistan to the town of Kurt-Kui in northern Iran was opened. This pipeline was the first in Central Asia to bypass Russia.

Concluding remarks: the Caspian—an assessment

In 1994, Azerbaijan signed a $7 billion contract with a Western consortium to develop some of its vast Caspian oil reserves. Dubbed the “deal of the century” this much-publicized contract marked the beginning of what was then expected to become a new “Great Game” pitting US, Russian, European, and many more national interests against one another. Attracted by the prospects of huge returns on investments, major international oil companies from all around the world started injecting hundreds millions of dollars into the area, mainly in Kazakhstan and Azerbaijan. The high expectations, however, were proven unrealistic. The Caspian Sea’s hydrocarbon deposits are significant but are not a match for those of the Middle East. Within this context, three conclusions need to be highlighted.
First, in addition to lack of consensus on how to divide the Caspian Sea and on the construction of pipelines, the region faces many other serious challenges including domestic corruption and ethnic divisions. These hurdles have negatively affected the investment climate and the development of energy resources. Second, the Caspian Sea should be seen as a supplement not a replacement to the Persian Gulf. By the year 2025 oil production from the Caspian Sea is projected to reach 6.0 million barrel per day (b/d), while production from the Persian Gulf will reach 45.2 million (b/d) (Energy Information Administration, 2006b). Third, Caspian Sea states are bound to see continued western strategic engagement in their region. This engagement is driven by interest in the region’s hydrocarbon resources. The skyrocketing oil and gas prices since the early 2000s suggest that additional hydrocarbon resources are needed and will contribute to overall global energy security.

Energy security is best enhanced by encouraging the development of a diversity of supply resources. The development of the Caspian oil and gas fields will contribute to western and global energy security.

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