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Caspian energy phase II: Beyond 2005

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ABSTRACT

This article examines the major factors that will shape the second phase of Caspian oil and natural gas export. The article compares the prospects of the post-2005 period with the Caspian energy developments in the first decade and a half after independence. This article claims: One, political considerations will continue to play an important role in the decisions on export routes for and participants in Caspian energy production and export projects. However, those political considerations will produce different policies in phase two of Caspian energy production than they did in the first phase. Second, the relative influence and interest in the Caspian region of various global and regional powers have changed significantly from Caspian energy phase one to phase two. Third, the producers in the region are not as anxious for foreign investment as they were earlier. The major resources that will be developed in Caspian phase two are: new production of Azerbaijan's natural gas, extension to new markets and expansion of capacity of existing gas export routes; new production projects for Turkmenistan's natural gas and new pipelines; and additional Kazakhstani oil production and natural gas increased production and initiation of export.

1. Introduction

During the past decade, a number of Caspian oil and natural gas production and export projects became operational. In recent years, the governments of the Caspian states and investing companies have begun to deliberate and promote venues and routes for the second phase of Caspian oil and natural gas production and export projects. This article examines the major factors that will shape the second phase (post-2005) of Caspian oil and natural gas export. In doing so, the article will compare the new period with the first phase of post-Soviet Caspian energy developments. In this article, the first phase of Caspian energy development is defined as the first decade and a half after the new Caspian states won independence (1991–2005).

This article draws a number of conclusions. One, political considerations will continue to play an important role in the decisions on export routes for and participants in Caspian energy production and export projects. However, those political considerations will produce different policies in phase two of Caspian energy production than they did in the first phase. Second, the relative influence and interest in the Caspian region of various global and regional powers have changed significantly from Caspian energy phase one to phase two, and these power shifts will affect the outcomes of the next phase of Caspian energy development. Third, the producers in the region are not as anxious for foreign investment as they were earlier. Thus, it will not be as easy to conclude contracts for projects in the second phase as it was in the first phase. Fourth, the major resources that will be developed in Caspian phase two are: new production of Azerbaijan's natural gas, extension to new markets and expansion of capacity of existing export routes for Azerbaijani gas; new production projects for Turkmenistan's natural gas and new pipelines; and additional Kazakhstani oil production and increased production and initiation of export of Kazakhstan's natural gas.

2. Background: Caspian geography and energy resources

The Caspian Sea is bordered by five states: Azerbaijan, Kazakhstan, Turkmenistan, Iran and Russia. The energy resources in the Caspian Sea are distributed unevenly: most of the proven energy reserves are concentrated in the eastern side of the sea, with the major portion belonging to Kazakhstan. Azerbaijan possesses both oil and natural gas reserves. Turkmenistan's proven energy riches are mostly natural gas. Russia and Iran hold insignificant proven reserves in their respective Caspian sectors (Table 1).

Estimated reserves and possible reserves are much higher than the Caspian energy proved reserves. In addition, there is significant variance among sources on the data, especially on the question of Turkmenistan's natural gas reserves. Despite its modest volumes, Caspian energy has attracted extensive global

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Table 1
Caspian oil and natural gas reserves.
Source: Energy Information Agency, Department of Energy, U.S. Government (2009) and BP Statistical Review of World Energy (June 2010).

Oil reserves of the main producers in the Caspian Sea	**Proved billion barrels**
Kazakhstan	30
Azerbaijan	7
Turkmenistan	0.7
Natural gas reserves of the main producers in the Caspian Sea	
	Proved trillion cubic meters
Kazakhstan	2.40
Azerbaijan	2.0
Turkmenistan	7.94

policy interest during the past two decades. The intense international focus on the Caspian region emanates from its geopolitical significance and unique landlocked location. The Caspian Sea region is positioned adjacent to Russia and China and located on a major junction between Europe and Asia; the airspace above the region also serves as a major air highway for both military and commercial traffic between these continents. In addition, due to its landlocked nature, the Caspian exporters are dependent on moving their energy products through other states for export. Control of the export routes of energy export projects provides significant influence over the security and political outcomes and policies of the Caspian states, and thus geostrategic power (Shaffer, 2005). Thus, the intense interest in the Caspian region throughout the 1990s and the battle that took place over the routes about export routes was more about determining the geostrategic orientation of the region than control of the Caspian states' modest volumes of oil and gas. The Caspian region's landlocked geography and strategic location will continue to affect the outcomes in Caspian energy export phase two but the relative power and interest of key players have changed.

The Caspian Sea is a unique body of water. It is the world's largest inland sea and possesses extensive oil and natural gas resources. Legal regimes in place for management of other inland seas and large lakes relate primarily to issues that are connected to the surface of the body of water, such as fishing and pollution. Consequently, neither the law of the sea nor of lakes accurately applies to the Caspian (Dunlap, 2004). Delimitation of the sea borders has been a contested issue in the last two decades among the Caspian states. However, legal disputes did not serve as an obstacle to production and export.

3. Caspian energy phase I

The Soviet breakup and subsequent establishment of new states created opportunity and sparked international commercial and political interest in developing the oil and natural gas riches of the former Soviet Union. The Caspian energy holders—Kazakhstan, Azerbaijan and Turkmenistan—became the foci of this attention. In the Soviet period, the oil resources in the region were relatively underdeveloped, with Moscow focusing its investments in projects in Russia itself. In the sphere of natural gas, the Soviet Union focused development in the greater Caspian region in the resources of Turkmenistan and Uzbekistan.

Caspian energy phase one was distinguished by a number of developments: the producers' establishment of multiple export projects in order to lessen their transit vulnerability as landlocked states; the building of export projects to markets outside of Russia; the enunciation of explicit political goals by the exporters in choosing their export routes and participating companies; and the agreement of the main transit states to allow oil and natural gas to transit their states for a fee, versus importing the energy resources and controlling the sales to consumers.

The first phase of Caspian energy development and export produced several large-scale production projects and export pipelines: In Kazakhstan, five major oil production projects became operational and two international oil export pipelines were established, as well as additional routes for export of oil by barge and rail. In Azerbaijan, the Azeri Chirag Guneshli offshore multi-field oil and natural gas production project and the Shah-Deniz natural gas production project became operational. In addition, major international oil and natural gas export pipelines were established. Turkmenistan, in contrast, launched no major new production projects and received little foreign direct investment (FDI) in phase one of Caspian export. Ashkhabad's only new export infrastructure was a natural gas pipeline to Iran, which was inaugurated in 1997 (Fig. 1).

In phase one, foreign investors put funds primarily into Azerbaijan and Kazakhstan. In this phase, most of this direct investment came from U.S. and European oil companies. Chinese, Russian and other non-Western oil companies were the clear minority of the investors and project operators. The Caspian producers were especially attractive to investors since they offered an opportunity for production sharing agreements (PSA), and thus full legal partnership in the produced oil and natural gas

A number of factors played a significant role in shaping the first phase of Caspian energy developments:

1. The landlocked geography of the Caspian exporters.
2. The United States was very active in the Caspian region and highly committed to fostering the independence and security of the new post-Soviet states. Washington viewed the creation of new energy export projects as the means to establish the new states' independent security orientation and links with the United States and Europe.
3. Russia was relatively weak in the first decade after the Soviet breakup and possessed relatively modest means at that time to thwart the establishment of the new projects.
4. The new states were in dire need of FDI in order to govern and provide minimal public services, and thus were eager to provide attractive terms to investors.

The landlocked geography of the new Caspian energy producers had a significant impact on the production and export trends in Caspian energy phase one. Landlocked oil producers tend to have quite different patterns of production and export than those that border the sea, in areas such as export routes, price and international involvement. Today, oil is primarily transported to world markets by sea tankers. Oil trade by sea is a predominately commercial transaction, with little room for politics to impact the flow of supply. However, oil supplied by pipeline operates quite differently. The permanent nature of the infrastructure between suppliers and consumers makes such shipments far more vulnerable to disruption and to political manipulation along the supply line. This is similar to the risks faced by the natural gas trade. In contrast to states that border the sea, landlocked oil exporters establish pipelines to export their oil and subsequently are dependent on transit states for the export of what is generally their most important export item. Thus, energy export projects involving landlocked exports are significantly more affected by political factors than their seaborne counterparts such as relations with neighboring states and regional states' strategic orientations.

In addition, landlocked states find it much more difficult to attract investments for their energy projects. The fact that any export will have to be transited through other states introduces