

Economic and Energy Security: Connecting Europe and the Black Sea-Caspian Region

Mamuka Tsereteli

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Preface

Mamuka Tsereteli's Silk Road Paper on the real and potential economic interaction between Europe and the Black Sea-Caspian region is a highly topical issue. At a time when European concerns about energy security and dependence on Russia are at their height, many European observers and policy-makers are taking a fresh look at the southeastern corner of Europe, the Black Sea region, and its extension across the Caucasus to the Caspian. However, much of the discussion on this region focuses solely on energy. While energy is undeniably of great economic and political significance, Tsereteli takes the argument one step further, by broadening the debate to other sectors of the economy. Indeed, he makes the case that the match between the European interests and those of the countries of the Black Sea-Caspian region goes far beyond energy, and encompasses a much broader range of economic issues that have the potential to contribute to the economic security of Europe and the European Neighborhood.

This paper was conceived within the framework of a two-month research visit by Mr. Tsereteli to the Swedish premises of the Joint Center, financed through a generous grant by the Swedish Foundation for the Internationalization of Higher Education. Following that, the paper was completed within the framework of a subsequent research project on European energy security funded by the Swedish Ministry for Foreign Affairs. Without the support of these institutions, which is gratefully acknowledged, this research would not have been possible. The opinions expressed in this paper are nevertheless those of the author only.

Svante E. Cornell
Research Director

Summary and Recommendations

The main argument of this paper is that Europe needs to seriously reconsider its Eastern strategies in order to diversify its sources of energy, make its economy more competitive, and engage with a cheap and well-educated labor force from Eastern Europe—including the Caucasus. Europe will also need to start securing markets in these countries that exhibit substantial growth potential.

Europe has reached a critical crossroads in politico-economic terms, and it now has to decide which direction to take. One potential direction is to move forward with internal economic reforms and deregulation, supported by the geographical expansion toward Eastern Europe and the Eastern Mediterranean, which could open new opportunities in terms of markets and resources, including human capital and labor force. The second option is to keep the existing business environment and regulations unchanged, both limiting access for itself, and others.

All the issues discussed above make a pro-active Eastern policy an important strategic priority for Europe. Europe needs a deep level of integration with the Black Sea-Caspian region to meet its own needs of long-term political and economic security. However, European decision-makers lack adequate strategies and fall behind other international and transnational forces, which establish and promote their interests in the region.

It would be natural for the EU to lead the process of developing the Caspian-European Natural Gas Bridge. This is a unique chance to show leadership and prove that the EU is capable of securing alternative energy supplies for European consumers by working with producer, transit, and consumer countries. This will solidify relations between the Black Sea-Caspian region and the EU, while at the same time assisting these countries with Euro-Atlantic integration. In case the EU is passive and fails to organize itself to support a Caspian-Black-Sea-Europe energy bridge, the U.S. may need to

step up its efforts and help organize activities that will ensure that at the very least Eastern European states diversify their energy sources and develop transit infrastructure.

There are several factors that directly and indirectly affect European decision-making in Eastern strategies:

- *New European divisions.* As mentioned above, a new dividing line has emerged between a Franco-German alliance, sometimes called the “old Europe,” and the British, Polish, and Baltic alliance, also known as “new Europe.” The emerging new alliance is clearly perceived as a threat to Russian domination, in the region. Leading European powers have expressed little enthusiasm about this new partnership. It remains to be seen how long the Franco-German alliance will last, and whether this new Eastern European alliance can really become a strong political player in Europe; but one thing is clear: the current European divide does not serve the long-term political and economic interest of the EU, and prevents proactive policies in a whole range of problems.
- *Emerging European nationalism and isolationism.* The common perception of Europe as a fully integrated supranational body of nations is being seriously questioned. Most European nation-states experience a substantial growth of nationalism. The mistrust of huge, slow, and ineffective EU bureaucracy is a major contributing factor. Another factor is a large and un-integrated immigration. Most of the developed countries have growing societal problems, including crime and tense inter-ethnic relations, which are related to the isolation of their immigrant populations. Unfortunately, in many countries a public discussion on these issues is a taboo. As a result, these societal problems evolve into cultural problems, affecting the mindset of both the local and the immigrant population, with long-term consequences for both.
- *The Russian factor.* European, and in particular German, dependence on Russian energy stimulates passive policies vis-à-vis other states that used to be part of the former Soviet Union. The vertically integrated European energy companies, closely affiliated with their national governments, have special relationships with Russian state-controlled monopoly Gazprom. Russia still considers Ukraine, Georgia, Azerbaijan, Moldova, and others as its own exclusive domain (or backyard), and large European powers

such as Germany, France, and Italy seem to be comfortable with this attitude. On the other hand, Russia has no feasible future strategy. It has a desire to balance the United States in the region. Russia also mistrusts Europe, so strategic cooperation with Europe remains unlikely. Lost in its own perceived threats and prejudices, Russia tries to engage in a tactical alliance with China, probably the major strategic threat to Russia alongside Muslim fundamentalism in most of the southern territories of the Russian Federation. Therefore, as a result, instead of looking to Europe and the transatlantic community as the natural allies in dealing with the existing and emerging threats, Russia looks to the East for a security alliance. But Europe shows no coherent policy vis-à-vis Russia either. Europe must ask a fundamental question: how interested is Russia in European economic and energy security? What can and will Russia do to prevent Caspian gas and perhaps Persian Gulf gas too, from entering the European market? Only after asking these, and other strategic questions, can Europe build an adequate strategy and relationships.

- *The Turkish factor.* Europe is lost and undecided with regard to Turkey. On the one hand, it realizes a need to have Turkey engaged in mainstream European development. This is required for both the military-political and economic security interests of Europe. On the other hand, Turkey in the European Union will become a powerful force of European politics, diminishing French and German influence on EU decision-making. It will also bring additional cheap labor to the European market, which is perceived as a serious threat by the economic policy-makers. On the backdrop of this European uncertainty, Turkey gets closer to Russia, with serious long-term political consequences for European-Central Eurasian integration. At a meeting with President Vladimir Putin of Russia in July 2005, Turkish Prime Minister Recep Tayyip Erdogan told the world that "our views totally coincide with regard to the situation in the region as well as to the issues concerning the preservation of stability in the world." At the same time, the historic divide and the competition for influence, mainly in the South Caucasus and Central Asia, will prevent integration of the interests of Russia and Turkey for a long time. The only scenario of a longer-term close alliance would be if Turkey and Russia both become completely isolated from Europe, but this is an unlikely development for the foreseeable future.

The lack of an effective Eastern strategy may introduce different types of economic/energy and societal and political threats to Europe. These may include, but are not limited to: disruptions in energy and other supplies; disruptions in access to the markets for European goods; terrorism; and transnational crime. At the same time, an improved understanding of the economic security of the region will help resolve some existing conflicts, and prevent many future ones. Europe needs to employ generally pro-active policies toward the Black Sea/Caspian region, which should include:

- Acceleration of the process of full NATO membership for Ukraine and Georgia;
- A special trade regime with Ukraine, Moldova, Georgia, and other countries of the South Caucasus that will remove some barriers and allow their exports to enter the EU market. Easy entry to the EU for the products from these countries will boost trade, prevent large-scale migration to Europe from those countries, and create economic opportunities and interdependences between the regions. The European Neighborhood Policy has elements of pro-active policy, but more will be required to accelerate economic integration of the region.
- Promotion and political and financial support for Trans-Caspian and Trans-Black Sea energy infrastructure to ensure alternative energy supplies to Europe from the Caspian region, via two major routes: a) Eastern Caspian-Azerbaijan-Georgia-Turkey, to Europe, for natural gas and oil, and b) Eastern Caspian-Azerbaijan-Georgia-Ukraine/Romania, to Europe, for mostly oil, but for natural gas as well. The EU needs to sponsor the comparative analysis of the different options for natural gas supply, including commercial dimensions and impact on prices for consumers. The new Nord Stream pipeline in the Baltic Sea, if constructed, will substantially increase the retail price of Russian natural gas, due to a need to recover the planned \$18 billion investments. The suggested analysis will show how much European customers have to pay for the gas delivered from different sources, and will help decision-makers to identify the appropriate strategy. An active European strategy of support to diversified supply and transit will make Europe more energy-secure. It will also help to transform Russia into a cooperative player.

- Active European trade and investment policies in Ukraine and the Caucasus, utilizing European export-support agencies and funding institutions, to boost sales of European products and services in the region, and to increase engagement of the regional cheap labor force. The focus placed predominantly on outsourcing some of the industrial and other non-competitive European jobs, vs. importing the labor to the EU countries (which may, nevertheless, be inevitable to some extent) may cause much greater positive political and societal consequences for both Europe and the countries of Central Eurasia.
- Active support for the cultural integration of the Central Eurasian region into Europe. Whether Europe wants it or not, the large number of people from Ukraine and other countries of the region will be moving to Europe, and they need to be integrated in the mainstream societal life of European countries. Shared values and active educational efforts should support this process.

The region also needs to follow aggressive pro-Western policies in order to make Europe interested in the region. One way for Black Sea-Caspian Region countries to ensure European commitment to the region is to engage in and consolidate a steady process of building democracies with transparent political systems and vibrant free market economies based on the freedom of opportunity for individuals and businesses. Along with its strategic location and energy resources, the region needs to make intellectual contributions to the world. Smaller countries, like smaller companies, have the potential for a more rapid transformation. Indeed, their political, economic, and security interests dictate that they move faster. In order to identify what contribution any country can make to the world, one needs look to a number of variables important for the future—including a distinctive geographical advantage, a grass-roots economic development of export industries, advanced technologies, and potential for entrepreneurship. Other factors may include dual-use investments like utility corridors that pay for themselves economically, while at the same time providing channels (and incentives) for military security. In traditional terminology, the combination of geography, people, and technology should determine the future of small countries in the region.

The countries of the Black Sea-Caspian region have great untapped potential for becoming a business-friendly economic enclave that will attract the best people through the growth of innovative businesses. There must be a development-generating synergy that harnesses the strategic advantage of location, vast oil and gas reserves, unique cultural traditions of winemaking and agriculture in general, and the tourism potential. The combination of these factors will make the region interesting for Europe and the entire world, and will facilitate a greater engagement in different areas of the political, economic, and societal life. These variables will provide no guarantees for European commitment in the Black Sea region, but they will definitely help to attract positive attention.

In addition, countries of the region will need to work closely with the United States and Europe, as well as with Russia in a direct way to convince the latter that the stability and prosperity of Ukraine, the South Caucasus and the Caspian region do not pose a threat. Indeed, the very opposite is true: stability in the South Caucasus would help Russia stabilize the North Caucasus and focus on longer-term security threats for Russia, such as a weakened strategic position in the Far East, de-population, HIV/AIDS, and transnational crime.

Introduction

The objective of this paper is to emphasize the importance of broader issues of economic security for Europe and demonstrate the potential for cooperation between Europe and the Black Sea-Caspian Region in the areas affecting economic and energy security. This region fits the new strategic view of European development, providing alternative energy and other natural resources, as well as other factors of economic security: including human capital and new market opportunities. Ukraine, Moldova, Georgia, Azerbaijan, and others are in need of access to European markets not only to export or transit hydrocarbons, but also to promote additional economic opportunities with other resources and agribusiness products. In addition, they seek active security cooperation from Euro-Atlantic structures. Europe needs the natural resources of Central Eurasia, new markets for its goods, and a relatively cheap labor force in order to maintain its competitiveness in the world economy. At least two key factors have great importance for Europe: the first is that Ukraine, the South Caucasus, and the Central Asian States together have a joint population of nearly 130 million people, thus offering substantial market for European products and services, as well as potential labor force in light of the aging population in Europe. The second is that Caspian energy resources have the potential to substantially diversify Europe's energy supplies away from a current over-dependence on Russia. If supported by the appropriate policies, Europe has the potential in several years to emerge as better-situated and stronger vis-à-vis Russian energy dominance as well as other economic security challenges.

To achieve this goal Europe will need to do the following: elaborate and implement the common energy strategy, where the need of individual states will be harmonized with common European needs; develop an infrastructure that would support the common strategy by providing additional access options to resources in Central Eurasia; move forward toward the integration of the Black Sea-Caspian Region into the European economic space, and for

those who express will and show the readiness, to move forward toward a new European political space.

Recent developments in Europe and Central Eurasia, as well as growing tensions between the EU and Russia over energy issues, have brought new opportunities for alternative suppliers of energy and transit corridors. The energy disputes of early January 2006, when the disruption in Russian gas supplies to European countries, including Germany and Italy, reaffirmed Europe's vulnerability in its dependence on imported Russian gas. Russia's political decision to cut off gas supplies to Ukraine, which is the main transit country for Russian gas headed to Europe, amid a price dispute, awakened the EU. The Russian government seemingly replicated this incident, when in early 2007 a price and transit fee dispute with Belarus caused another crisis. These incidents have shown the weakness of Europe and the diminishing power of the consumer amid high energy and resource prices in the world.

At the same time, these cases demonstrated both Russia's power as a main supplier, and its decreased dependence on European energy buyers than before. Because of very high oil prices, Russia is now in a stronger position to dictate many conditions on its European consumers, not only in terms of pricing issues for natural gas, but also its interest in acquiring distribution networks and downstream assets in Western Europe. Russia's position relative to Europe on this issue is likely to remain very strong through the next decade before alternative supplies are developed and the energy balance is transformed. Unfortunately for many years European politicians and bureaucrats did not fully acknowledge the danger of a growing dependency on Russian natural gas and oil. Politicians and experts attempting to bring attention to this growing dependency were continually disregarded, and now this issue of Europe's handling of its energy security may very well become a case study of analysis for European policy makers. Europe's current "reactive" policies suffer from locally based politics and are limited to emergency-type scenarios. What is needed is a new, proactive strategy. As previously mentioned, this can only happen if there is a unified, strategic policy toward the alternative options of economic and energy security, based on a comprehensive understanding of the historical, cultural, and economic context of the surrounding countries, particularly for the ones who aspire to be integrated into the European space.

The Concept of Economic Security: Driving Ideas

“The search for economic security is a natural part of the quest for liberty”

- Friedrich Von Hayek, *Road to Serfdom*

During the last two decades, the world has undergone dramatic changes. The results of those changes require both flexible and forward looking strategies from actors in the international arena, particularly from nation-states, who will continue to play a dominant role in international politics for at least the foreseeable future. The objectives of states are still the same: to protect themselves and to guarantee their welfare and national security. Increasingly, economic welfare is becoming a critical factor of national security; therefore we see less military strife and more economic competition in the process of achieving those objectives. Several major features describe the strategic picture of the world today:

- In a globalizing and interconnected world there are no distant or isolated threats, and geographical proximity to problematic areas only increases the level of these threats.
- Though the United States is the lone superpower, influence in the system of international relations is subject to numerous players. Even a superpower like the U.S. is not capable of world domination.
- Resources and markets are generally located far away from each other. The high mobility of goods, people, capital, and information creates a different type of economic environment, where access to those factors of production is more important than political control over territory. Hence global economic competition for access to resources continues to be the major driving force for international politics.
- Technology is a critical element of competitiveness, and education is the key to technological advancement and to the quality of human

capital therefore both technology and education are becoming key factors of the international economic system, affecting security.

- The world's security environment is increasingly influenced by newly emerging non-state actors such as terrorist or transnational criminal groups. Both adversely affect the cost of business, economic development, and international trade.
- Nationalism and traditionalism are on the rise, providing both positive and negative consequences.
- The world is observing a major transfer of wealth from Europe and United States to resource-rich countries. Relatively new global economic players, including sovereign wealth funds from Arab states, Russia and China, are obtaining greater access to Western financial markets. It is not clear at this stage if these trends will result in substantial security implications for the West.

All of these features of the modern world have a profound influence on the welfare and economic security¹ of nations. An interest in economic security has forever been a driving force for the political and societal development of states, and more than ever, guarantee of access to resources and markets stands to determine the geopolitics of the twenty-first century. Historical experience proves that relatively easy access to resources, open trade, and the readiness to accept new ideas helped spark European development in the sixteenth century ahead of the Islamic world and China, eventually becoming the world leader by the end of the eighteenth century. As Paul Kennedy puts it, "there was a *dynamic* involved, driven chiefly by economic and technological advances, although always interacting with other variables such as social structure, geography, and the occasional accident; that to understand the course of world politics, it is necessary to focus attention upon the

¹ The concept of economic security refers to the long-term security of access to economic opportunities, to markets, and to resources such as people (human capital), capital, energy, water, technology, and education. This concept is critical for individuals and nations. Only free people can build free societies and states, and freedom is based on the economic security of individuals. The long-term internal stability of every state is the key factor for national security. There is no stability without economic growth and opportunities for individuals to be free in their choice of economic activities.

material and long-term elements rather than the vagaries of personality or the week-by-week shifts of diplomacy and politics.”²

On the level of nation states, there are traditional natural barriers to economic security, such as geography, distance, large landmasses, oceans, and narrow straits. States with better access to resources always had advantages over states whose access was limited. There are also traditional political barriers such as regulations, state borders, and sanctions. But in recent years, the world is increasingly dealing with new emerging threats such as terrorism and transnational crime.

At least in the modern world, economic welfare and prosperity are the most important building blocks of national security. By the end of the twentieth century, nations—more than ever—realized that instead of expanding their frontiers by force, they could peacefully, without the use of military force, improve their access to factors of production and markets located within other states. This of course does not eliminate power as a factor of international relationships. Obviously, large and powerful states are able to pursue more assertive policies, while smaller ones achieve their objectives through shared access. Most of the imperial powers, including Russia, with its internal struggle to conceptualize this new reality, came to the understanding that economic presence is now more important than its military alternative.

As Richard Rosecrance notes, “security can be attained if military expansion is no longer necessary to achieve economic goals. Military operations usually involve invading another’s territory. Such actions were consistent with economic goals as long as land was the preeminent factor of production, as it was from the sixteenth to nineteenth centuries. Since then, however, other factors of production – capital, labor, and information technology – have come to equal or surpass land in importance. Land is a fixed factor of production; capital, labor and information are mobile factors. They can leave the national economy and move to other countries. Conquest, therefore, might not succeed in capturing and then utilizing these factors of production to increase national power, as they can not be kept in.”³ It is no longer an

² Paul Kennedy, *The Rise and Fall of Great Powers: Economic Change and Military Power from 1500 to 2000* (London: Unwin Hyman, 1988), pp. 16-17.

³ *ibid*, p. 212.

effective policy to bear the political and strategic costs of having to rule over others directly, when the possibility exists to exploit resources through trade and capital movements.⁴

Geography and the need for physical access though still remains a critical factor in world politics. Hurricane Katrina provides proof of the importance of chokepoints in the world transportation system. The Gulf of Mexico and lower part of Mississippi River was long considered one of the most sensitive climatic areas in the world, and due to the high concentration of energy assets, very vulnerable to a multitude of threats. Substantial amounts of import and export cargos, vital for the U.S. economy, are moving through the Mississippi river. Hurricane Katrina interrupted the transportation of goods, and damaged power lines and other essential elements of infrastructure, causing serious disruption in the supply of energy resources, refined products and other commodities. There are several other existing and potential chokepoints in the world that require constant attention and management. Several of them directly affect European energy and economic security and will be later discussed in this paper.

The world is facing serious economic security challenges, predominantly determined by the growing population and growing need of resources in developing countries. The world's population will reach 8 billion by 2030, up one-and-half billion from the current 6.5 billion, and 95 percent of that growth will be in developing countries. If this population growth is supported by growing economic potential and standard of living, more and more resources, and in particular energy resources, will be required. The International Energy Agency predicts a 50% increase in energy demand by 2030, even if efficiency is increased. About 70 percent of the increase is going to be in developing countries, and those countries are relying primarily on fossil fuels, because of the very significant cost advantage. Just those general numbers indicate the inevitability of increased pressure on the European economy. In addition to

⁴ However, there may be some specific exceptions from this general trend. Temporary scarcity or the perception of scarcity of physical resources, such as oil, food, or water could determine military actions of nation-states. But the effectiveness of such actions in long run is questionable.

the need for energy, there will be other driving factors for the economic security of Europe in the years to come:

- The growing population in the developing world is coupled with a growing demand for food, water, and other resources.
- An aging population in Western countries, particularly in Europe, along with a diminishing work force and a changing demographic composition will affect market structures as well the structure of required jobs and services;
- An ability to allocate resources to technological development, and the level of advancement in technology;
- HIV/AIDS and other diseases that will significantly affect the demographics of many countries and regions of the world, including Russia and Eastern Europe, China, and Africa;
- A growing demand for energy by the U.S., China, and India and a growing dependence on imported energy resources in those countries, along with increasing competition for energy sources among leading powers;
- A geographic concentration of world energy resources far removed from major consumer markets, and the natural and political barriers that will prevent easy access to these resources.

These driving forces will determine the strategy for each region and nation-state, small or large, as it seeks to secure access to resources. All these factors are greatly affecting Europe and will have long-term security implications for the entire Transatlantic and Eurasian space. In terms of economic security, it is necessary to distinguish between factors of economic security which provide individuals with free and competitive access to economic opportunities, and factors of economic security of states, such as access to resources and markets. The most important factors of individual economic security are private property rights, independent judiciary, low barriers of entry for start-up business, a low tax burden, the effective use of taxpayers' money for infrastructure development, access to technology, and education.

Just to demonstrate the connection between the economic and business environment and long-term security, it is appropriate to look at the

connections between the business environment and demographics. As a result of the existing government-controlled economic model, with limited working hours, extremely generous benefits to the unemployed, limited competition, and difficult rules for hiring and firing, Europe is losing both its own talented individuals and also many potential investments. This worsens its demographic problems, and Europe's objective to become the most competitive and dynamic knowledge-driven economy by 2010 seems set to become just an unfulfilled dream. By protecting some jobs through government policies and subsidies, most of the EU countries are losing more attractive jobs and business, sinking into greater unemployment, all requiring more benefits spending. The concept of 'brain drain' is a growing reality in Europe, as its talented individuals increasingly prefer to relocate to a more business-friendly environment in North America. This deepens Europe's demographic problems, and its share of the world's population has shrunk dramatically in the last 30 years, from about 15 percent of the earth's inhabitants to now around 6 percent. Europe already has the oldest population on earth, and as this continues, it will further see a dramatic reduction in the natural size of its work force population—unless imported from other countries.⁵ In order to move somewhat closer to the objectives stated in the Lisbon Agenda,⁶ Europe needs to open opportunities for its own citizens and for others as well. It is interesting to mention the fact that Central and Eastern Europe led the durable economic growth in Europe in the last decade, and provided much needed economic boost to entire continent. But, at the same time, adverse demographic developments, under-utilization of human capital and under-investment in education and skill development stimulated a brain drain and threatened stability in those countries, which could spread to

⁵ Lynn A. Caroly, Konstantijn (Stan) Panis, *The 21st Century at Work: Forces Shaping the Future Work Force and Workplace In United States*, Rand Corporation. <http://www.rand.org/publications/MG/MG164/>

⁶ In March of 2000, twenty-five leaders of the European Union's members met with the aim of bringing a new impetus to economic reforms. Known as the 'Lisbon Agenda', these reforms aimed transforming the Union into the most vibrant and competitive based knowledge economy by 2010. At the height of the so called 'dot-com' boom in the U.S., Europe's leaders were confident that they could replicate a similar success.

the broader continent⁷. This parallel is important for the process of future engagement of Europe with the Black Sea-Caspian Sea region. These countries will add substantial power to an already significant 493 million consumer market, but they also experience some of the common European demographic and societal problems – providing one more additional argument for a common European economic security strategy.

The important factors of national economic security are access to markets for key products, and also access to a large spectrum of resources that includes human capital, money, water, food products, energy, and other mineral resources. It is important to emphasize the critical significance of both physical security, and also the economic and commercial viability of access routes.

The factors of individual and national economic security are obviously interconnected and interrelated, but for the purpose of this research, focus will lie mainly on factors of economic security at the national level, and on the issue of access to markets and resources in the Black Sea-Caspian region for Europe.

⁷ Peer Ederer, Philipp Schuler, Stephan Willms, *The European Human Capital Index: The Challenge of Central and Eastern Europe*, Lisbon Council Brief, 2007

Basics of Economic Security for Europe: Access Factors

Europe is facing developing challenges from the East. Russian energy pressure on its neighbors, and indirectly, on Europe, as well as the strong desire of regional countries to integrate with Europe and NATO present new challenges and open new opportunities for European policy-makers. But in order to address the challenges and exploit the opportunities, more European engagement and proactive policies are required. Europe is one of the major trade destinations in the world. Millions of tons of cargo and containers, as well as tens of millions of passengers, cross in and out of Europe's borders every year. A variety of different products and commodities are vital for the functioning of the European economy, but it is energy resources, notably oil and gas, that are of critical importance for the region. Europe is a net importer of energy, and according to a European Commission report, two-thirds of the EU's total energy requirements will be imported by 2020, with natural gas imports estimated to rise to 75% of gas imports. Currently, a majority of the Union's sources of oil imports are drawn from Russia, the Middle East, Africa, and Norway.⁸ Potential new players to join this list are the Caspian states, which have the potential to help Europe diversify away from its growing dependence on Russian oil and gas.

There are two major factors of economic security which have the potential to affect Europe's access to resources. The first factor is the geographic/physical factor. The second one is political. Both are very important, and in many senses interrelated. Linked to the two is energy, and for this reason, it is the key commodity to focus on. Energy access projects face difficulties as concentrations of oil reserves are often in geographically remote areas, far from major markets. Also related to this are various natural and political barriers, and together, all three make coherent access strategies an absolute

⁸ Energy Information Administration, Official Energy Statistics of the U.S. Government. Country Analysis Briefs: European Union. <http://www.eia.doe.gov/emeu/cabs/euro.html>

necessity. The fact that there is a growing demand for energy resources in the world further adds strain to the issue of resource access.

The major energy markets include the U.S., Europe, China, Japan, India, and competing against these, Europe faces a competition for resources from consumers that are larger and increasingly ambitious. Like in Europe, the United States' internal production share in the consumption of oil is declining rapidly, which means that U.S. dependence on imported oil will rise and, according to different estimates, may reach 68%, with an increased share of imports coming from the Gulf States. As the United States begins to take pro-active steps to diversify its energy supplies, Central Eurasian resources have begun to attract increased attention.

In Asia, the demand for energy is growing rapidly as well. China, an ever-growing energy consumer, is rapidly increasing its volumes of imported oil. By 2020 it will consume 10 percent of oil produced in the world (an increase from the current level of 6 percent), while possessing only 3 percent of the world's oil reserves. The rest of Asia, including India, is also expected to consume substantially more oil (18 percent of the world demand while holding only 1 percent of the world's oil reserves). Both India and China are looking in multiple directions to satisfy their future energy demand, including the Caspian and Central Asia, the Persian Gulf, the Russian Far East, and Southeast Asia. ⁹

Unlike the United States, China, or Japan, Europe's geography endows it with a geographic proximity to major sources of energy. Europe currently has three major sources of energy: the Northern Sea region and the potential Norwegian arctic sector from the North, Russia from the East, and the Middle East and North Africa from the South. In addition to this, a potential supplier has emerged from the South-East: the Caspian region.

The Caspian Sea and Central Asian resources have a substantial role to play in the future oil supplies of the world. It is estimated that the Caspian will provide at least 10 percent of the expected increased production capacity in

⁹ The aggressive policy of Chinese and other Asian state-owned companies in different parts of the world demonstrate how much attention other players are paying to secure energy supplies.

the next decade. Based on the assumption that current oil prices will remain stable, the oil production from the Caspian may reach 5 million bpd by 2020.

It must be noted that a critical issue for *European economic and energy security* is the fact that many of the major trade and supply routes destined for Europe currently pass through narrow straits, canals, and busy pipeline systems. Frequently, these routes traverse politically unstable areas, rife with a variety of security threats. Of particular importance, of course, are the energy supply routes and relating transportation issues.

For the most part, oil transportation is undertaken by large tankers that navigate international waterways, generally following a fixed set of maritime routes. En route to their various market destinations, these tankers pass several geographic "chokepoints," or narrow channels. Maritime traffic coming into Europe passes through several such chokepoints. Among the busiest and dangerous of these is the Turkish Straits/Bosporus passage which links the Black Sea (and oil coming from the Caspian Sea region) to the Mediterranean Sea. Other important maritime chokepoints for Europe include the Bab el-Mandab passage that links the Arabian and Red Seas, the Suez Canal, and the Sumed Pipeline which connects the Red and Mediterranean Seas. These chokepoints are critically important to world oil trade because so much oil passes through them. All are narrow and could theoretically be blocked—at least temporarily. These chokepoints are also susceptible to all sorts of terrorist or pirate attacks (like in the Strait of Malacca, which connects the Indian Ocean with major markets in Pacific, with 9 million barrels of oil passing through it daily) and shipping accidents in their narrow channels.¹⁰ In this regard, *multiple supply routes and related diversification of sources is of critical importance.*

Another way of moving oil around is transportation through pipelines. Most often used for transcontinental oil movements, pipelines are critical for landlocked areas, such as the Caspian, or inland Africa. They also complement maritime transportation by providing bypasses or shortcuts. But, as it was said, they are the primary option for transcontinental transportation because pipelines are cheaper than railroad, barge, or road alternatives.

¹⁰ Energy Information Administration, Official Energy Statistics of US Government: Chokepoints. <http://www.eia.doe.gov/emeu/cabs/choke.html>.

Pipelines constitute a safe mode of transportation if operating within a nation's border, or between neighbors such as the United States and Canada, Norway, and the EU, or between allied countries such as Azerbaijan, Georgia, and Turkey. On the other hand, pipelines may carry vulnerabilities if crossing politically unstable areas, such as FARC controlled areas of Colombia. Political factors often play significant roles even in relatively stable areas, such as Russia. The political turmoil and price war with Ukraine was an issue of concern for European energy security, as a significant share of Europe's oil and natural gas supplies from Russia arrive via Ukraine.

Previous to the recent crisis over Russian gas, Europe was generally a passive observer of the developments in the Central Eurasian region. The Baku-Tbilisi-Ceyhan pipeline (BTC) which connects Azerbaijan's offshore oil fields to the Turkish Mediterranean port of Jeyhun via Georgia was developed only through strong U.S. support and the commitment of the regional states. With the BTC pipeline now in operation, and the development of Caspian natural gas pipeline shipments through Turkey a reality, Europe is acquiring additional supply routes, without major political efforts on its own part. In addition to existing supply routes, Europe now has a Caspian-Caucasus-Turkey-Mediterranean oil pipeline, which can ship light Caspian crude oil directly to the Mediterranean, and then to the refineries in Southern Europe, avoiding the previously mentioned chokepoints. The BTC pipeline stands as an example of how strategic planning, coupled with well-designed policies, and effective implementation can help commercially viable projects materialize.

In terms of access to natural gas, Europe's major suppliers include Norway, Russia, Algeria, West Africa (LNG), and the Middle East (LNG). Europe's natural gas demand is projected to increase substantially in the future and exceed 700 billion cubic meters (bcm). Even according to conservative scenarios, the demand for importing natural gas to the EU will reach 400 bcm per annum by 2030.¹¹ Russia will try to fill this gap with its own gas, as well as with gas from Turkmenistan, Uzbekistan, and potentially from

¹¹ Fatih Birol, *Outlook for European Demand, Supply and Investment to 2030* International Energy Agency Presentation. <http://www.iea.org/dbtw-wpd/textbase/work/2004/investment/outlook%20for%20European%20gas%20demand.pdf>

Kazakhstan, if those countries do not have alternative delivery options by that time. The Brotherhood pipeline, connecting Russia, Ukraine, and Slovakia can transport up to 100 bcm to Western Europe and accounts for almost 25% of gas supply for the region. In 2002, Gazprom together with Ruhrgas and Gaz de France, acquired a minority stake (49%) and the management control of SPP, a Slovak gas monopoly, which operates Slovakia's portion of the Brotherhood pipeline. The other line bringing gas from Russia to Europe is the trans-Balkan line, running from Russia to Bulgaria and has an annual capacity of 18-20 bcm. In Bulgaria, the Southern branch supplies Greece, and the Eastern branch, Turkey. The Trans-Balkan covers the vast majority of South East Europe's gas imports¹².

Among the top policy priorities for the EU, energy development aims for "avoidance of strategic dependence." Despite this professed aim, Europe has a strategic dependence on Russia's Gazprom that has constantly preempted its potential competitors in European markets by outpacing the EU's development toward a supply-diversification strategy. Aside from dealing with the EU as a whole, Gazprom has pursued more bilateral channels by engaging various vertically integrated European energy companies into the development of several new infrastructure projects that will result in an increase of export volumes for Russia and higher prices for European consumers. This will inevitably strengthen Gazprom's already dominant position in the European natural gas market.

On a parallel track, Gazprom is further entrenching its hold on Europe's natural resources market by acquiring internal transportation and distribution networks of the older EU countries (like Germany, France, Italy), according to the expansion pattern seen in the new EU countries. Gazprom has a very clear strategy: to obtain strong dominance over natural gas supply and distribution networks in Europe. By obtaining control over the transit infrastructure in transit countries, Russia limits access to markets for other potential suppliers. By obtaining businesses in the distribution sector, Gazprom limits the ability of importing countries to conclude long-term gas

¹² Only Turkey and Greece have LNG import terminals; Turkey is also connected by a pipeline from Iran, and now again with Russia through Blue-Stream pipeline under the Black Sea.

purchase agreements with other producers. Frequently European companies have special insider roles in these arrangements.

European dependence on Gazprom varies from 22 percent of consumption in France, 44 percent in Germany, 60 in Turkey, 65 in Austria, 79 in the Czech Republic, 97 in Bulgaria, and 100 percent in Slovakia, to name a few. These are prominent examples of “strategic dependence.” At the same time, Gazprom does not have money to invest in exploration, and its future suggests a heavy dependence on gas from Turkmenistan and other Central Asian countries. In the region, Gazprom has aggressively sought to channel all gas through its transit systems. Not only is it after Turkmenistan’s gas, but it has also pursued opportunities in Uzbekistan, Kazakhstan, and Azerbaijan. By becoming the sole transit system for Central Asian gas, Gazprom hopes to increase its share in the European gas market, which may represent a challenge to Europe. All these developments, and potentially the construction of a new pipeline on the Baltic Sea bed en route to Germany, undercuts the EU's goals of supply diversification and ensures an almost monopolistic position of Gazprom on European markets. This will enable the Russian energy giant to set price levels, control distribution, and even consumption levels. As seen many times, Russia may use its natural gas supply role as a political tool. Recent history proves that leaders in the Kremlin used this against Lithuania in 1990, against all the Baltic States in 1992 (when they demanded withdrawal of Russian troops from their territories), against Ukraine in 1993-94, against Georgia in 2001, against Belarus in February 2004, and again in 2006 against Ukraine.

As mentioned above, only after the Russian-Ukrainian crisis of early 2006 did European policy makers actively acknowledge the need for a new energy strategy, wherein the concept of diversification of the supply routes and sources will have to be given real substance. In addition to the diversification of supply sources and transit routes, Europe has recently become active in its demands for Russian transit routes to open up more to Central Asian producers. Should this happen, European consumers will have the opportunity to purchase gas directly from those producers and through Russia, which is currently serving as an intermediary. Russia fiercely resists this new initiative and officials, including President Putin, have publicly stated that there will be no concessions on Russia’s side, unless Europe grants

Russia an opportunity to buy downstream energy assets in Europe. The head of Gazprom, Mr. Miller, also warned 25 EU ambassadors in Moscow that unless Europe opens its assets for Gazprom, Russia will start redirecting its energy resources toward Asian markets. This meeting was followed by media reports that the UK government had considered changing merger rules to block a potential takeover of Centrica, Britain's biggest gas supplier, by Gazprom. This case shows the level of tension between European countries and Russia, particularly after Russian statements that indicated that Gazprom will not open its pipeline network to other suppliers.

The final stimulus energizing European energy policy was the new dispute between Russia and its usually obedient neighbor Belarus in early 2007. Subsequent cuts in supplies to European consumers convinced numerous European policy-makers that a proactive diversification policy was the only effective response to Russia's actions. On January 11, 2007 the European Commission published a document entitled 'An Energy Policy for Europe.' Included in it are calls that a common energy policy becomes a central element in the EU's external relations. It also recognizes energy security as a key factor of the EU's geopolitical security. This is a first important step toward the consolidation of Europe's energy policy, but much remains to be done and substantial resistance is expected from some European energy companies who hold monopolies in their markets because of close associations with Gazprom.

In addition to energy-related infrastructure, several other projects with implications for Europe's access abilities are currently under consideration. One is a network of highways connecting Baku to Black Sea ports in Georgia and then to the Turkish highway system. This network can potentially link Istanbul to the west, and the Mediterranean ports of Mersin and Ceyhan to the south. This would further serve to increase trade in the region and substantially shorten the time for shipping containers and other cargos destined for the Mediterranean and Southeastern Europe.

Moreover, a railway connection between Azerbaijan, Georgia, and Turkey would further boost the transit potential of the region. This would involve new projects that would connect the railway system of Kazakhstan to China, thereby creating the opportunity to ship via rail cars from Europe all the way to China via the Caucasus and a Caspian Sea ferry connection.

These infrastructure projects would give the producers of Caspian energy and other outputs increased confidence in the availability of market access and would thus help to boost production in the region. It is clear that different shipment options will be considered and used to deliver cargo to the western shores of the Black Sea, and potentially to the Mediterranean. A greater Black Sea-Caspian Sea transit system is one obvious option to consider. Some of Europe's most pressing challenges and requirements—anti-terrorism efforts, energy supply, labor supply, institutional consolidation and enlargement, available markets of substantial size—are to be met in this region.

The economic and trade potential of the Caucasus and Central Asia is largely untapped by Europe. Total exports and imports from the Caucasus and Central Asia amounted to 323 million tons in 2005, with only 66 million tons constituting exports and imports to and from Europe. The European share of exports was 22%, or 56.1 million tons, out of a total of 255 million tons, and 15% of imports, or only 10 million tons, out of a total of 68 million tons. Despite the fact that trade has almost tripled since 2000, the ratio of European trade to the region when compared with the rest of the world is still minor. Oil and oil products dominate exports, constituting about 70% of total exports from the region. The rest is comprised of metals, ores, grain, and the like.¹³

¹³Invest in Georgia,
http://www.investingeorgia.info/projects/Port_Poti_presentation.pdf

Cooperation between Europe and the Black Sea-Caspian Region: The Strategic Context

The strategic context for the European continent is being shaped by several major developments. In the political arena, referendums in European countries three years ago were a testament that sovereignty and nationalism are still powerful factors in the hearts and minds of many Europeans. As a consequence, we see greater efforts and increased focus by individual EU members on the national level, and a substantial switch to bilateral international relationships, reaching beyond the common framework of the EU.

Secondly, NATO re-emerged as the only viable European institution with an important role to play. It is now clear that the EU cannot produce any sizable military force which could substitute NATO. Both existing and emerging threats, including terrorism and transnational organized crime, emphasize the need for sufficient and strategic responses. The transatlantic character of NATO makes this organization the only viable and forceful institution that retains an importance and is able to meet the long-term strategic challenges that Europe will face.

The third element of the new strategic landscape is the new role of Eastern Europe and the need to re-think Europe's Eastern strategy. The historical dividing lines between the British and the French, the German and the French, or the British and the German have evolved into a new type of geo-strategic divide between the British and some Eastern European States on one hand, and France and Germany on the other. Several recent developments contributed to this new divide: 1) British opposition to French and German domination of Europe, 2) French and German opposition to U.S. superpower status, reflected in the opposition to the war in Iraq, 3) British and Eastern European support of the war in Iraq, and more proactive Eastern policies, 4)

French and German flirting with Russia and its role in the former Soviet-bloc countries, 5) Strong feelings against Russian domination in most of the Eastern European states, including countries of the Baltic and the Black Sea areas. Indeed, the twelve new EU members face very different types of challenges than the fifteen previous members, but may be better positioned to lead Europe's Eastern expansion, and 6) An increasing role of Russian energy supplies to Europe. Developments in 2006 and, notably, the recent Russian-Belarusian crisis proved that the issue of energy is consolidating its position as Europe's long-term security challenge. That said, different countries are facing yet different types of challenges. With diversified supplies of natural gas and access to alternative energy resources, leading European states feel less vulnerable to potential Russian pressure. Unlike France, Germany, or Italy, East European states have no alternative to Russian gas, and Gazprom's constant problems with transit countries and producers in Central Asia have given rise to an increased feeling of vulnerability. Eastern Europe hence needs alternative supplies of natural gas. This demand could support long-term purchase contracts with Caspian suppliers via the Black Sea, making the development of new transportation infrastructures possible.

The fourth element of the new strategic context is the unclear status regarding the future role of Turkey in Europe. On the one hand, Turkey is the key strategic country for U.S. and EU interests in the Middle East and Central Asia. In addition to its NATO role, Turkey is the key transit country for Caspian energy resources. On the other hand, Turkey is facing fierce European resistance to its membership of the EU. Responding to what it reads as an increasingly cold shoulder from Europe, Turkey began to enhance its relations with Russia. Recently, there are many signs of increased ties between the historic rivals. These include the first visit to Ankara by a Russian head of state (in December 2004), followed by many other meetings between the two leaders in the last few years, as well as a huge increase in trade (reaching \$15 billion annually), a hefty increase in the flow of gas through a pipeline from Russia to Turkey through the Black Sea, talks of additional pipeline connections, as well as an increase in electricity supplies from Russia. Both countries share sentiments of discontent with Europeans because of the perceived unfair treatment. And both countries share a

negative sentiment about the deployment of the NATO naval forces in the Black Sea. Russia and Turkey are not simply improving their relations; they seem to have found a new and surprising congruence of interests. It is possible, however, that this reached a peak in 2007 as Turkey was displeased with Moscow's decision to back the Burgas-Alexandropoulis pipeline option to bypass the Bosphorus, instead of Turkey's alternative project, the Samsun-Ceyhan line.

In the context of Europe's strategic shifts, the Black Sea-Caspian Region is emerging as an area of strategic importance for the long-term security and stability of Europe. The key factor for long-term security and stability is energy. Though Russia will continue to play the dominant role of the supplier of energy for Europe, the Caspian region has the potential to mitigate some of the emerging challenges, and the Caucasus, the Black Sea area, and Turkey are key transit areas.

Conservative estimates indicate that the oil and gas potential of the Caspian region is sizable. Proven oil and natural gas reserves are estimated to amount to 3% and 4% of the world total, respectively. Optimistic scenarios envisage the Caspian as becoming the third largest producing region of oil in the world by 2015 after Saudi Arabia and Russia. The main problem of the Caspian is that it is landlocked and has no easy access to markets. Because of this, several countries occupy pivotal roles for the transportation of Caspian resources. Ukraine is one important link, primarily serving as a bridge between Russian energy resources and Europe. Ukraine has thus far had a very limited role in connecting countries of Central Asia and the South Caucasus to Europe, though its potential is great and remains to be developed. The second important link is the South Caucasus, which connects the resource-rich Central Asian region to European and Mediterranean markets. Its strategic location is the South Caucasus' most critical asset. The region provides access to the vast energy resources of the Caspian, which are strategically very important for the landlocked Central Eurasian region. The words of a recent report illustrate the region's importance:

“The South Caucasus forms the hub of an evolving geostrategic and geo-economic system that stretches from NATO Europe to Central Asia and Afghanistan. It provides unique transit corridors for Caspian energy supplies

and Central Asian commodities to the Euro-Atlantic community, as well as direct access for allied forces to bases and operational theaters in the Greater Middle East and Central Asia. Thus the Black Sea and Caspian basins, with the South Caucasus uniting them, comprise a functional aggregate, now linked directly to the enlarged Euro-Atlantic alliance. Although located on the Euro-Atlantic world's outer edge, this region has already begun functioning as a rear area or staging ground in terms of projecting Western power and values along with security into Central Asia and the Greater Middle East. This function is likely to increase in significance as part of U.S. and NATO strategic initiatives. For all of the above reasons, security threats to South Caucasus countries and the undermining of their sovereignty run counter to major Euro-Atlantic interests."¹⁴

A transportation system in the South Caucasus is already operating, shipping oil and oil products, as well as other mineral resources from the region to European markets, and is also delivering equipment and other goods from Europe and other areas of the world to countries of the Caspian and the South Caucasus. On June 2, 2006 the first oil tanker filled with Azeri oil from the newly constructed Baku-Tbilisi-Ceyhan pipeline, departed the Turkish port of Ceyhan for a refinery in Italy. This pipeline system connects the Caspian Sea oil fields with Ceyhan, a deep-sea port on Turkey's Mediterranean coast. This unique project will allow the shipment of one million barrels per day of Azerbaijani light crude to mostly European refineries.

The strategic significance of the BTC pipeline makes it easy to understand Russia's opposition to the project from the very outset. BTC is the logical end in the process of the shifting the East-West energy infrastructure to Southern parallel lines. In the past several years, dramatic developments have taken place, directly affecting Russia's long-term interests. The entire infrastructure development in Russia has moved from Russia's Central regions to the South, thus contributing to the negative economic and demographic trends in the traditional Russian heartland. The first large project which moved south was the Caspian Pipeline Consortium (CPC) pipeline. Although CPC is predominantly on Russian territory, it is still much farther south than any other larger communication system in Russia. Unlike CPC, the BTC is not

¹⁴ Building Security in the South Caucasus, <http://www.silkroadstudies.org/nato.pdf>, p.21

on Russian territory. Beginning in Azerbaijan, the pipeline crosses Georgia and ends at the Turkish Mediterranean coast port of Ceyhan. The BTC still affects Russia since it will potentially cut into energy markets, which could otherwise go through Russian territory. That will affect transit revenues, but the strategic consequences are more important as it stands as proof that oil from Central Asia, and potentially from Russia itself, can be transited through alternative routes. It is important to recall that Russia itself contributed to this shift through its politically-based decision to keep Transneft and Gazprom (the major pipeline and gas producing companies) as state monopolies, and to limit competitive access for different producers to its system.

Another pipeline project that became operational in 2007 is the so called South Caucasus Gas Pipeline (SCGP), which connects Caspian gas fields to the Turkish natural gas distribution network. Potentially, natural gas from the Caspian will reach European markets in the not too distant future.

In addition, there are ambitious plans to link the Georgian railway system to the Turkish city of Kars through the Kars-Akhalkalaki railroad project. If implemented, this will help to efficiently shorten the railway links between China and Europe. This project, when completed, will substantially increase the transit potential of the region and reduce shipment time, which has huge importance not only for Central Asia, but for Europe and the Middle East as well.

Eventually, the goal for the South Caucasus is to create a fully integrated transport network that will include upgraded highways, pipelines, railroads, ports, ferries, and fiber-optic and electricity transmission lines. This will make it easier for the Central Asian and South Caucasus countries to trade with one another, with Europe, and the rest of the world. By providing access to important markets and vast resources, this system has the potential to become a very important element in the international economic security network.

Thus, stability in Ukraine, Azerbaijan, and Georgia is vital in securing these strategic resource access corridors, and also, the markets of Central Eurasia. The region's strategic location creates an arena for competing interests which dramatically influences the security environment in general, particularly economic security. This competition gives rise to security challenges in the

region, which—in addition to the danger of ethno-political conflicts and terrorism—include poverty, depopulation, and crime. In order to serve as reliable partners for Europe and the rest of the world, the states of the Black Sea-Caspian Sea area need to be both politically independent, economically viable, and closely integrated into the European/Euro-Atlantic economic and security structures.

Instability in Europe's immediate neighborhood poses a security threat, and could limit its strategic access, contribute to the spread of illegal activities as well as transnational crime or potential terrorist activities within Europe's vicinity. Despite an early interest following the collapse of the Soviet Union, the EU and Europe's major powers have given priority to engaging the major strategic and economic opportunities in Central Eurasia. By the end of the mid-1990s, Europe's initially enthusiastic support toward the new states of the Caucasus and Central Asia had receded into a more passive approach. The TRACECA (Transport Corridor Europe-Caucasus-Asia) and INOGATE (International Oil and Gas Transport to Europe) programs, launched in the mid-1990s, focused primarily on smaller scale projects and failed to achieve their goals of diversifying supply routes to Europe. Concerns over Russian discontent seem to have been the primary reason why the continental European states kept their distance, choosing not to actively involve themselves in the developments in Central Asia and the Caucasus.

The enlargement of both NATO and the EU has nevertheless positioned Europe strategically to benefit from deeper relations with the countries of the Black and Caspian Sea basins. In addition to greater physical proximity and a developing transportation infrastructure, there is now greater political will in the countries of the region to develop closer links with Europe. Relationships with NATO and the enlarged EU are becoming the top foreign policy priorities for most of the states in this region. Presently lacking is a greater political will on Europe's part, based on a better understanding of the long-term political and economic security objectives by major European governments. The recent EU decision to include the South Caucasus in the European Neighborhood Policy is a small step in the right direction, but what the countries of the region need is a long-term strategy of the integration of the region into European structures.

One potential positive development may be to create a new regime of relationships with the EU for those non-member countries with European aspirations that have the potential to contribute to the growth and development of Europe's economies. Turkey's increased status, and the elimination—or at least reduction—of barriers for countries like Ukraine, Moldova, Georgia, Azerbaijan, could boost trade and economic ties, and also bring new opportunities to the European economies. Europe needs access to resources, markets, and most importantly—people. The countries of the Central Eurasia region can provide these important elements to the European economy. In order to be positive examples for transformation in the region, the Western-friendly countries in the region need support and help. They represent today one of the major areas of opportunity, with a unique potential of human resources, transit lines, energy resources, and communications between Europe, Central Asia, and the Far East.

Trans-Caspian and Black Sea Energy Infrastructure

Opportunities for Greater European Energy Security

Of all players involved, Europe will gain the most from the building of an energy bridge over the Caspian Sea; to such an extent that this may be termed crucial for Europe's long-term energy and broader economic security. European involvement is therefore required to assure the realization of this ambitious vision of an energy corridor that extends from Europe across the Caucasus and onward to Central Asia. This energy bridge will give Europe an open door to the markets in the region, while at the same time bringing much needed advanced technology and, more broadly, help the region catch up with other Eastern European countries

Recent and ongoing confrontation with Russia has opened a new round of the Great Caspian game: this time with a more consciously attentive Europe. While the U.S. tries to encourage Kazakhstan and other producers to diversify their oil and gas export options through alternative corridors, Russia has actively pushed these countries to keep the transportation of their hydrocarbons in the more traditional, Russian system. The previous round was won by the United States and its allies only thanks to a strong dedication to the Multiple Pipeline Strategy—the policy initiative which made alternative export routes for Caspian oil possible. The BTC pipeline would never have happened without the U.S.'s strong political support. It is now time for Europe to elaborate a clear vision and engage in new efforts. Trans-Caspian Energy Infrastructure in general and the Trans-Caspian natural gas pipeline in particular is of key importance to Europe. For Europe, as proved by the BTC case, the Caspian may provide a much needed source of additional energy reserves, as well as a further impetus for Western involvement in the energy and security sectors of the wider Caspian basin. This development should and will affect Russian energy policy and may well

contribute to the de-monopolization of the Russian pipeline networks. There are signs that development of the Trans-Caspian Energy Infrastructure (TCEI), complemented by Black Sea Energy Infrastructure (BSEI), may soon be elevated to a high level policy initiative for Europe and the U.S. In addition to some high level statements from both U.S. government and EU officials, various EU policy documents on energy say that Caspian oil and gas will be important for the EU's security of energy supply "by increasing the geographical diversification of the EU's external energy supplies."¹⁵

Caspian proven reserves of oil are in the range of 50 billion barrels. Possible reserves are estimated at 167-182 billion barrels. In 2010, analysts expect the countries of the Caspian Sea Region to produce 2.5 million barrels per day. In terms of natural gas, Turkmenistan holds the most significant natural gas deposits, and countries like Kazakhstan, Azerbaijan, and Uzbekistan have significant reserves as well. So, the importance of this region for an energy thirsty world and Europe in particular, is hard to overestimate. This all makes access to the region even more important.

Azerbaijan

Figures on Azerbaijan's proven crude oil reserves range between 7 and 13 billion barrels according to industry journals and government sources. According to some industry estimates, Azerbaijan could be exporting 1 million b/d by 2010 (roughly equivalent to 2002 exports from Algeria). Azerbaijan's increase in oil production since 1997 has mainly come from the international consortium known as the Azerbaijan International Operating Company (AIOC). AIOC (partners: BP, Unocal, SOCAR, Inpex, Statoil, ExxonMobil, TPAO, Devon Energy, Itochu, Delta/Hess) operates the offshore Azeri Chirag and deep water Gunashli (ACG) mega-structure, which is estimated to contain proven crude oil reserves of 5.4 billion barrels, according to the field's operator and largest stakeholder, BP. The needs of ACG were the most important argument for the construction of the BTC pipeline. The BTC (BP-30 percent, SOCAR – 25 percent, Unocal/Chevron – 8.9 percent, Statoil – 8.7 percent, TRAO – 6.5 percent, Eni – 5 percent, Total –

¹⁵ A Green Paper, An European Strategy for Sustainable, Competitive and Secure Energy (Brussels, European Union, 8.3.2006, Com (206) 105 Final)
http://ec.europa.eu/energy/green-paper-energy/doc/2006_03_08_gp_document_en.pdf

5 percent, Itochu – 3.4 percent, Inpex – 2.5 percent, Hess – 2.4 percent), or as it was previously called the "Main Export Pipeline," would export Azeri (and possibly Kazakh) oil along a 1,760 km route from Baku via Georgia to the Turkish Mediterranean port of Ceyhan, allowing oil to bypass the increasingly crowded Bosphorus Straits. Construction of the 1-million-bbl/d pipeline (cost almost \$4 billion) began pumping oil on May 25, 2005.

Kazakhstan

Kazakhstan is gradually entering the club of largest energy producing countries of the world. According to a BP statistical review, Kazakhstan produced one million and forty six thousand barrels (1.46 million barrels) of oil per day in 2006, which is equivalent to 66.1 million tons of oil per year, and consumed just 221,000 b/d, or about 10.6 million tons of oil, resulting in net exports of over 1.2 million b/d.¹⁶ The realistic plans are to increase production levels to almost 3.3 million bbl/d by 2020. This would include more than 1 million b/d from Kashagan, 700,000 b/d from Tengiz, 600,000 b/d from Kurmangazy, and 500,000 b/d from Karachaganak. Other smaller fields would account for the balance. The great majority of this increment will come from Kazakhstan's two most significant ventures, at the Tengiz and Kashagan fields, if they achieve their production targets and proceed according to schedule.

According to Wood Mackenzie's estimates, Kazakhstan will easily achieve its 2010 target, 1.66 million b/d, if the development of Tengiz proceeds according to plan. Tengiz currently produces 20 percent of Kazakh oil and will account for the great majority of incremental growth by 2010.¹⁷ Many other fields will contribute to production growth, and the objective could be comfortably exceeded if all proceed as expected.

Because of the contractual disputes, as well as other technical reasons, meeting the 2015 target of 2.7 million b/d is a major challenge for Kazakh producers. Meeting this target would require substantial upstream investments in Kashagan and development of the export infrastructure for all three major fields in Tengiz, Karachaganak, and Kashagan.

¹⁶Statistical Review of the World Energy, BP, 2007
<http://www.bp.com/productlanding.do?categoryId=6848&contentId=7033471>

¹⁷ Upstream Insight, Wood Mackenzie publication, November 2007

The recent purchase of a refinery in Romania advances Kazakhstan's interests in the European Union and represents a serious commitment to European markets. Kazakhstan's desire to move away from the role of crude oil exporter to that of a refiner and direct supplier of products to European markets is strategically and economically justified. This concludes several attempts of KazMunayGaz in recent years to acquire refineries in EU member countries for processing Kazakh oil there and distributing the products within the EU market. However, Kazakhstan's attempts to acquire refineries in Lithuania and the Czech Republic failed. This was partly because of Russia's opposition, and partly because of Lithuanian, Czech, and Polish concerns that Kazakhstan might later re-sell or swap those assets, whether willingly or reluctantly, to Russia. Kazakhstan needs to make sure that it is perceived as an independent and strong player in energy markets. For that, it needs to make sure that refineries in Romania, now under KazMunayGaz ownership, will have uninterrupted and secure supplies of crude from Caspian oil fields.

On the natural gas side, Kazakhstan has about 3 trillion cubic meters of natural gas reserves and last year's production reached 24 billion cubic meters, thus making Kazakhstan a net exporter of natural gas. Although natural gas production increased by around 15 percent in 2005 compared to 2004, gas production during 2006 has remained largely constant year-over-year. Kazakhstan is an important transit country for natural gas from Uzbekistan, and in particular Turkmenistan, directed to Russia.¹⁸

Natural Gas

In terms of natural gas reserves, which are also very critical for European markets, Turkmenistan is the leader in the Caspian region with one of the world's largest natural gas reserves. About 70% of the country's territory has the potential to produce gas and this increases to 85% if including its offshore deposits in the Caspian Sea. Proven recoverable gas reserves total about 3 trillion cubic meters, although it is difficult to give an accurate estimate of the country's gas reserves. Russian specialists estimate Turkmenistan's gas

¹⁸Energy Information Administration, Official Energy Statistics of US Government. Country Analysis Briefs: Kazakhstan
<http://www.eia.doe.gov/emeu/cabs/Kazakhstan/NaturalGas.html>

potential at 4 trillion - 15.5 trillion cubic meters. While Turkmenistan claims it has at least 23 trillion cubic meters of gas, and maybe up to 44 trillion cubic meters, Western experts estimate the numbers to be of a much lower range. The natural gas reserves in Uzbekistan exceed 1 trillion cubic meters, and in Kazakhstan estimates are of around 2 trillion cubic meters.¹⁹ These deposits have the potential to play a very significant role in energy supplies to Europe. Geographically, these deposits are much closer to European markets than many deposits Russia intends to use for future supply to European markets.

The Caspian Race

The first race for Caspian energy resources started in the mid-1990s, when it became clear that the Caspian had sizable resources. But at the time, the region did not have the necessary transportation systems to serve the growing needs of the producer countries and companies. The issue of potential transportation options came to be a central variable in the growing competition to access the Caspian's resources. Three major options were considered for moving Caspian oil to world markets in the early and mid 1990s: the Russian system to the north, which would run through an existing network of pipelines and railroad; the Iranian option to the south, which would largely rely on swapping Caspian oil for Iranian oil, and perhaps on newly built pipelines; and lastly, the U.S.-supported multiple pipeline strategy. This last option involves the Caspian Pipeline Consortium (CPC, connecting the Tengiz field in Kazakhstan to the Russian Black Sea port Novorossiysk),²⁰ along with the Baku-Supsa and Baku-Novorossiysk early oil, and the Baku-Tbilisi-Ceyhan main export pipelines. It was clear from the outset that no single country or system could handle the volume of Caspian Sea energy reserves that had at that point been proven. There was no technical, economic, security, or political justification for relying solely on a Russian system, an Iranian system, or the Caucasian energy corridor system

¹⁹ CIA World Fact Book, <http://www.cia.gov/cia/publications/factbook/geos/uz.html>, International Energy Agency, <http://www.iea.org/> US Energy Information Administration, <http://www.eia.doe.gov/emeu/cabs/caspian.html>

²⁰ CPC was commissioned in 2001 with the initial throughput capacity of 560,000 barrels a day, or 28 million tons per annum, eventually to be increased to 1,340,000 barrels a day, or 67 million tons per annum. Actual shipments reached 400,000 barrels in 2003. Source: <http://www.eia.doe.gov/emeu/cabs/kazak.html>

to deliver Caspian hydrocarbons to the market in a safe, timely, and economically sound manner. At some point, various combinations of these options should be operational if the region is to meet the full-scale production plans and delivery requirements of the Caspian producers.

But unlike Iranian and Russian options with mostly existing infrastructure, the U.S.-backed multiple pipeline strategy required huge investments to build an entirely new infrastructure. At the same time, no government, including the U.S., was able to invest billions of dollars in these commercial projects. Only commercial viability of the projects could justify their implementation. But the issue of economic security and reliable access was obviously part of financial and political risk assessment processes. The existing network in Russia was risky for two reasons: first, the state monopoly pipeline system run by Transneft, had total control of the pipeline and could not provide producers in Russia with a transparent quota system for access to these pipelines. Second, the physical limitations of existing Russian pipelines and port outlets, led to substantial delays and inefficiencies. In the case of Iran, in addition to the political risks involved, existing U.S. sanctions against business ventures in Iran presented major obstacles. With all these factors in mind, the multiple pipeline option looked much more attractive for countries of the region and also for companies seeking to develop these resources.

The first large-scale transportation infrastructure project to free-up Caspian oil resources was the Caspian Pipeline Consortium pipeline, led by Chevron. The governments of Russia, Kazakhstan, and Oman developed the CPC project in conjunction with a consortium of international oil companies. It is necessary to note that this project was actually an extension of existing oil transit infrastructure surrounding the Caspian Sea. Newly constructed components of the line run from the Russian town of Komsomolskaya westward to Novorossiysk. The pipeline is supplied with Kazakh oil through the Soviet-era links surrounding the Caspian, which the consortium members have refurbished. The first crude oil was loaded onto a tanker in Novorossiysk on October 15, 2001, and the pipeline officially opened on November 27, 2001. The initial capacity of the CPC pipeline is 560,000 bbl/d, and the consortium has plans to increase the pipeline's capacity to 1.34 million bbl/d by 2008. With the completion of the two pipeline spurs from Kenkiyak and Karachaganak to the CPC at Atyrau, CPC transport levels increased

from around 310,000 bbl/d in 2003 to 450,000 bbl/d in 2004 (an increase of 45%).²¹ The importance of this pipeline is also connected to the fact that this is the first transportation system in Russia outside the state-controlled Transneft monopoly. That is probably why the construction took longer than expected, and its operations continuously face problems. Negotiations between the Caspian Pipeline Consortium (CPC) and the Russian government over increasing the link's capacity have yet to reach a conclusion. Moscow's demand to increase the control through a larger number of directors is a primary reason for the failures to reach an agreement and not move forward with the expansion plans. Once again, the impulse for control trumps an opportunity to benefit from a major economic prospect.

Kazakhstan's other major oil export pipeline, extending from Atyrau to Samara, is a northbound link to the Russian distribution system. Before the completion of the CPC pipeline at the end of 2001, Kazakhstan exported almost all of its oil through this system. But since Kazakhstan desired more independence from the Russian transit systems, it favored the development of transport alternatives. Still, in June 2002, Kazakhstan and Russia signed a 15-year oil transit agreement, under which Kazakhstan will export 340,000 bbl/d of oil annually via the Russian pipeline system. Moscow has also pledged to increase the capacity of the line to around 500,000 bbl/day. As the CPC project grows with Kazakh production, absolute volumes through Atyrau-Samara are expected to grow, but because of other, larger pipeline developments, this pipeline will become relatively less significant.

Diversification of Kazakhstan's oil export routes became reality in 2006, when the Baku-Tbilisi-Ceyhan (BTC) and Kazakhstan-China pipelines came on stream. These two pipelines could potentially transport around 1.4 million b/d of Kazakh crude to European and Chinese markets. If extended to its maximum capacity of 1.7 million b/d, the BTC pipeline could transport over 1 million b/d of Kazakh crude, whilst the Kazakhstan-China pipeline is expected to carry 400,000 b/d from 2011.

The key major existing oil pipelines already include two pipelines through Russia: Atyrau-Samara and CPC. The other options for the shipment of

²¹ Energy Information Administration, Official Energy Statistics of US Government. Country Analysis Briefs: Kazakhstan <http://www.eia.doe.gov/emeu/cabs/kazak.html>

Kazakh oil to markets are across the Caspian Sea to Baku and farther to the Georgian Black Sea port of Batumi; and finally, through the oil swap operations with Iran.

At present, oil exports from Kazakhstan total about 1.2 billion barrels a day. Of these, about 160,000 bbl/d are shipped from the Aktau terminal by small-capacity tankers to Russia, Iran, and Azerbaijan en route to Georgia's Black Sea ports. The BTC is obviously also interested in attracting volumes of this oil from Kazakhstan. Access to the BTC pipeline would provide Kazakhstan with a much-needed additional export route for its booming oil exports. Kazakh oil exports are expected to grow from the current one million barrels a day to three million barrels of oil a day by 2015.

There will be serious competition between different transit options for the extra Kazakh volumes, and both the Russian government and Russian companies may severely limit the oil volumes available for the planned trans-Caspian route to Baku. This situation underscores the need for political coordination among the upstream and transit countries, together with the U.S. government and the EU, to maximize the share of Kazakhstan's oil exports through the TCEI - Trans-Caspian Energy Infrastructure, and via Azerbaijan and Georgia.

The TCEI envisions combining a tanker line (presumably with large-capacity tankers to be procured or built on-site) and a seabed pipeline. There will be a need to ship 20 million tons annually after 2010, and up to 30 million tons annually after 2015 once the giant Kashagan field is fully operational. As with the BTC, the eventual transportation option of Kashagan oil will be decided by a mixture of economic and political factors. Kazakhstani and Azerbaijani officials have confirmed discussions on a plan that would entail large volumes of Kazakh oil, primarily from Kashagan, flowing to western markets via the BTC through a 700-km pipeline laid across the Caspian. Additionally, these plans include an overall expansion of the BTC's capabilities so that it can handle up to 1.7 million b/d. Moreover, portions of these oil shipments from Kazakhstan could also be routed through Supsa, and then onward to Ukraine or Romania, and finally to the various EU countries. This is possible by extending Ukraine's portion of the Odessa-Brody pipeline. In this context, the option of expanding the capacity of the Baku-Supsa

pipeline to carry major volumes of Kazakh oil should also be taken into consideration.

The export options for Azerbaijan are also very important from a European perspective. The Baku-Novorossiysk and Baku-Supsa pipelines were the first to be commissioned in the late nineties to ship oil from Baku, Azerbaijan to Black Sea ports in Russia and Georgia. Currently, the Baku-Novorossiysk pipeline sends Azeri (and exclusively SOCAR) oil to the Russian Black Sea port Novorossiysk. While idle for several years because of disputes over commercial terms, customs duties, and the situation in Chechnya, this pipeline has resumed its functions.²² The Baku-Supsa oil pipeline ships 115,000 barrels of oil daily (about 6 million tons annually) from Azerbaijan to the Black Sea port Supsa and is currently operated by the BP-led Azerbaijani International Oil Consortium. Another important link for Azeri oil and oil products is the oil terminal in Batumi, Georgia. Oil products such as lubricants are exported by rail in tank wagons to Georgia's Black Sea ports. After the building of the Baku-Supsa early oil pipeline in the late 1990s, and also the completion of Chevron-Texaco led CPC pipeline, the volume of Caspian oil being shipped to the port in Batumi seemed to be declining. However, starting in 2002, Batumi re-emerged as a major port for the export of Caspian oil and oil products. In 2003, the Batumi Oil Terminal transshipped nearly 9 million tons of oil and oil products delivered by the Georgian and Azerbaijani railway systems. The recent reduction of tariffs on the Georgian Railway system coupled with the harmonization of the operations with Azerbaijan's rail system allowed this system to attract more oil and oil products. Currently Batumi continues to transship between 9 and 10 million tons annually.

All of the previously mentioned transportation routes: CPC, Baku-Novorossiysk, Baku-Supsa pipelines, and the Baku-Batumi rail-link, ship oil to Black Sea ports, and are for the most part, destined for South European ports. This invariably forces them to converge and cross the Bosphorus. The newly constructed Baku-Tbilisi-Ceyhan (BTC) oil pipeline with a projected

²² It has stopped shipping oil again this year, after Russia announced increase of natural gas price for Azerbaijan in retaliation on Azerbaijan's refusal to comply to Russian demand to stop selling natural gas to Georgia.

capacity of 1 million barrels a day, ships oil from Baku to the Mediterranean port of Ceyhan, thus avoiding the congestion in the Bosphorus and providing greater and easier access to world energy markets, most notably Europe. It is the first land transportation system dedicated to delivering Caspian hydrocarbons directly to the Turkish deepwater port of Ceyhan.

Several other oil export infrastructure projects designed to transport Caspian oil to European markets are currently under consideration. These are designed to ship Caspian crude oil and other oil products from Black Sea ports to Europe and the Mediterranean, bypassing the Bosphorus Strait. They are significant for the South Caucasus because they open new opportunities for delivering energy resources from the Caspian to European markets. The volume of crude oil and oil products passing through the Bosphorus has doubled since 1999, reaching 3 million barrels a day. This has created one of the most dangerous and congested transportation bottlenecks in the world and threatens the interests of all Caspian producers.

One option for reducing this threat is the Odessa-Brody pipeline, which will have the potential to be connected to the Polish port of Gdansk. This pipeline, which can carry up to 45 million tons per annum, is already constructed and the Ukrainian government is currently looking for ways to utilize its capacity. Despite this potential, political uncertainties in Ukraine and ongoing internal struggles have limited political and commercial interest from major European countries and prevented operations on the pipeline for many months. At present, the pipeline is operating in reverse mode, with oil flowing from Brody to Odessa. Ukraine agreed to switch the flow direction in 2004 under a long-term agreement with TNK-BP. Under the 2004 agreement, the Russian-British company pledged to pump 9 million tons of crude per year (180,000 barrels per day) through the pipeline for shipment to southern Europe over the course of three years.

Other bypass options focus on shipping Russian and Caspian oil from the western shores of the Black Sea to the Mediterranean and Adriatic Seas. On March 15, 2007 development and energy ministers from Russia, Greece, and Bulgaria signed an agreement authorizing the construction of a 175-mile (280-kilometer) Russian oil pipeline from Bulgaria's Black Sea port of Burgas onwards to Alexandroupolis, in northern Greece. This project is to be completed in 2011 and it will increase Europe's dependence on Russian oil,

which currently constitutes 30% of European consumption. Three state-owned Russian firms, including Transneft, control 51 percent of the venture, while Greece and Bulgaria are left with 24.5 percent of the projects' ventures. This will be first Russian controlled pipeline on EU territory.

The development of the Burgas-Alexandroupolis pipeline will likely kill all other potential bypass projects from the Black Sea. Among those included is the so-called Albania-Macedonia-Bulgaria Oil pipeline (AMBO), which would run for 900 kilometers and cost \$1.2 billion at a capacity of 25 million tons per year. It would connect the Bulgarian port of Bourgas with the Albanian deepwater port of Vlore.

Another proposed venture would run from the Romanian port of Constanta to Trieste on the Adriatic Sea. This has a projected cost of \$900 million and a capacity of 50 million tons per year. Romania, with its own oil reserves and highly developed network of oil transport and distribution, could serve as another transportation hub for oil and oil products from the Caspian. In the end, a lack of support and leadership from European countries ensured that the development of these bypass solutions were more favorable to Russia.

Export Options for Caspian Gas

Caspian resources and TCEI are even more important for alternative natural gas supplies for Europe. As mentioned earlier, Europe's natural gas demand is projected to increase substantially in the future. Even according to conservative scenarios, the demand for importing natural gas to the EU will double from 200 bcm per annum in 2002, to 400 bcm per annum by 2030.²³ Russia will try to fill this gap with its own gas, as well as with gas from Turkmenistan, Uzbekistan, and Kazakhstan, if those countries do not have alternative delivery options by that time. One alternative may be a natural gas pipeline through the Caspian Sea to Azerbaijan, Georgia, and Turkey and then on to Europe. Another alternative may be a pipeline to Iran and then to Turkey and Europe, but this route will be longer and more costly, even if

²³ [http://www.iea.org/dbtw-
wpd/textbase/work/2004/investment/outlook%20for%20European%20gas%20demand.
pdf](http://www.iea.org/dbtw-
wpd/textbase/work/2004/investment/outlook%20for%20European%20gas%20demand.
pdf)

political considerations are ameliorated and U.S. sanctions against Iran are lifted.²⁴

*The Natural Gas Pipeline System in the Black Sea/ Caspian Region*²⁵



So far, Russia has been the frontrunner in the competition. Under long term agreements that it has with Turkmenistan, Ashgabat is committed to sending 60-70 bcm in 2007, with deliveries rising further to 70-80 bcm per year in 2009 and thereafter. But the price Russia pays for Turkmen gas is less than half of what Russia gets for the same gas once it resells it to other countries in Europe. For this reason, Turkmenistan cut its supplies to Russia for almost two years beginning in 1997, and again in early 2005. Currently, this price dispute has been bridged with tenuous agreement, but it is unclear how long this will last, since Russia up to recently paid only \$100 per thousand cubic meters (an increase from the \$44 Russia was paying for several years, but scheduled to increase again starting from 2008 to \$150), and sells on this gas for more than \$280 per thousand cubic meters. With pricing once more a matter of contention, the issue of independent access to Gazprom's network

²⁴ Iran-Libya Sanctions Act, 1996 <http://thomas.loc.gov/cgi-bin/query/z?c104:H.R.3107.ENR>:

²⁵ Source: Energy Information Agency

will be in question for a long time. These current arrangements raise many questions of stability and reliability. With Gazprom retaining a near monopoly over the access, volumes, and prices, it is clear that Turkmenistan will try to search for better deals and new options.

Russia currently needs Turkmen and Kazakh gas more than ever. While Gazprom's European exports rose to 160 bcm in 2005, a majority of this increase was supplied by Kazakhstan, Turkmenistan, and Uzbekistan. With gas extraction in Russia largely stagnant, investment capital in short supply for additional field development, it will be increasingly difficult for Gazprom to meet its current and future commitments to Europe's needs unless it gets additional supplies. Thus, the gas that Turkmenistan delivers to Russia has become significant to Russia's balance of gas consumption and export. It is expected though, that prices for Turkmen gas will be renegotiated in 2007. However, with limited alternative options in place, it will be extremely hard for Turkmenistan to get the deal it desires. Control over the only export outlet from Turkmenistan gives Russia an excellent negotiation position. In order to achieve full control over Central Asian gas exports, Russia is now seeking to acquire more control over Kazakhstani gas and the entire Central Asian natural gas pipeline network. Kazakhstan together with Gazprom currently plans to invest \$2 billion into expanding natural gas pipelines that ship gas across Kazakhstan from both Turkmenistan and Uzbekistan onwards to Russia over the next 9 years. This capacity will be raised to as much as 100 billion cubic meters of gas per year, from a current level of 55 billion cubic meters per year. Gazprom is also supervising a plan which aims to boost gas exports from Turkmenistan, Uzbekistan, and Kazakhstan.²⁶ In 2006, Kazakhstan reported an output of 24 billion cubic meters of natural gas, up by almost 50% from 2003. In the absence of an export strategy for Kazakhstan's gas, Russia has preemptively secured the right of transit for future outputs from the Imashev gas field, which is located in Kazakhstan's Atyrau region on the border with Russia's Astrakhan oblast.

Uzbekistan produced 55 billion cubic meters of natural gas extracted in 2006. Socor states that: "Uzbekistan is also not known to have developed a well-considered export strategy for its gas to a seemingly uninterested European

²⁶ Bloomberg News, 17 June 2005

Union. For its part, Russia proposes to include Uzbekistan's gas in the overall pool of a Russian-led, price-setting cartel of "Eurasian" gas exporters. An agreement signed by Presidents Vladimir Putin and Islam Karimov in June 2004 awards exploration and development rights for a 35-year period to Russia's Gazprom company."²⁷

As mentioned above, the alternative to Russia's control may be the full scale development of the South Caucasus pipeline and construction of the Trans-Caspian link, which could connect Turkmen, Uzbek, and Kazakh gas to the Turkish system, with the potential arising for shipment to European markets.

Here, an ideal scenario would be to use the South Caucasus Pipeline as a first stage for the Trans-Caspian gas shipments and, as a second stage, to build the dedicated pipeline from the Eastern shores of the Caspian all the way to Eastern Europe via the Caucasus, and Turkey.

Disagreements between Turkmenistan and Azerbaijan significantly set back the Trans-Caspian gas pipeline project in the late 1990s. In the longer term, the revival of the Trans-Caspian option is clearly a possibility, and political developments in Turkmenistan are favorable to the process, as well as the fact that Kazakhstan is increasingly becoming a large producer and potential exporter. There are some indications that the Turkmen leadership is becoming increasingly frustrated with its existing dependence on Russia, and as a result, Ashgabat has begun to explore other options.

Turkmenistan is increasing its shipments of natural gas to 13 bcm per year to Iran via the Korpedzhe-Kurt Kui (KKK) pipeline, which was commissioned in 1997 and upgraded in 2005. Potentially, Turkmenistan could export natural gas to Turkey via Iran. But in the long run, Iran, as the world's second largest natural gas deposit holder is—like Russia—expected to continue its exploitive role by dictating prices and controlling the volumes.

Turkmenistan is also looking at the possibility of resurrecting the Trans-Afghan Pipeline (TAP), which would bring Turkmen gas to Pakistan and India via Afghanistan. Yet TAP suffers from many problems, most important among those being commercial considerations and available markets. The Indian market is a commercial key to this project, but India is

²⁷ Vladimir Socor, Central Asia Gas Update, Jamestown Daily Monitor, January 29, 2005

reluctant to rely on Pakistan for its energy security, thus making the prospects of building the TAP unclear at best. The Trans-Caspian Pipeline, in this light, seems the much easier option given the existence of the South Caucasus Pipeline and its impending connection to European gas markets. In the longer run this could be the only reliable export option for Turkmenistan, and at the same time be an answer to Europe's current over-dependence on Russian gas.

Some elements of the alternative infrastructure to deliver Caspian gas to Europe are already developing. The natural gas connection between Turkey and Greece was already commissioned in November 2007, with initial deliveries at 0.75 bcm gradually increasing up to 3 bcm per year. This connection provided the first opportunity for shipping Caspian natural gas directly to the EU, thus providing the growing market with an alternative gas supply.

There are several projects under consideration to ship Caspian gas from Turkey to other European countries. One option is a Turkey-Greece-Italy pipeline with the capacity of 10-12 bcm per annum, with the potential to be later upgraded to 22 bcm. The second pipeline under consideration is the Turkey-Baumgarten (Austria) system. Five gas companies in Central and South East Europe (Turkey's Botas, Bulgaria's Bulgargaz, Romania's Trabsgaz, Hungary's MOL, and Austria's OMV) have agreed to study a possible route from western Turkey to Baumgarten in Austria. At the end of 2002 they signed an agreement of cooperation to transport natural gas via Turkey and the Balkans to Central and Western Europe. In early 2004, the five companies formed a joint company, Nabucco Company Pipeline Study GmbH, to examine possible routes. On June 28, 2005, the founding companies agreed to change the name of the collective entity that will construct the gas transit facility from Nabucco Company Pipeline Study GmbH to Nabucco Gas Pipeline International Ltd. Each of the companies owns 20% of the company's capital. The company takes responsibility for the project's overall finances. It will also co-ordinate the next project phases and will operate transit utilities. The five gas companies would each be required to finance the necessary infrastructure sections within their respective countries. National companies are expected to operate gas pipelines on their own countries' territories. The project has been included in the EU's "Ten"

program. The pipeline will be 3300 km long and have a transit capacity of 25.5 billion to 31 billion cubic meters per year. The total costs have been initially calculated at 4.5-5 billion Euros. The construction of the Nabucco pipeline network is expected to begin in 2009, and begin shipping natural gas by 2011. The plan is to deliver about 20 bcm to the gas hub of Baumgarten at the Slovak-Austrian border, where it will then connect to the Central and Western European transit system. The 10 bcm capacity will diversify the supplies of the participating transit countries which currently depend exclusively on Russian imports. Nonetheless, it is clear that the capacity of Nabucco will come nowhere close to rivaling the trunk lines entering Europe via Ukraine, and for this reason, additional lines will be required to fully connect Caspian gas resources with Europe. One option under consideration is the Trans Black Sea natural gas pipeline from Georgia to Ukraine and Romania, which would be connected to the Ukrainian and Romanian distribution and transit systems.

As mentioned above, countries of the South Caucasus and Central Asia have an important role to play in the energy security of Europe. In fact, the integrated approach to energy security of the Caspian, Caucasus, and Europe, and particularly Eastern Europe, will be the key to future stability and security of the entire Central Eurasian region. The Caspian and South Caucasus provide strategic access to resources and markets and thus are of critical importance to Europe. At the same time, however, the strategic location of the region creates an arena for competing interests that dramatically influence the security environment in general and economic security in particular. The critical issue here is to maintain political stability and also achieve economic progress in the countries of the region. Countries of the South Caucasus and Central Asia need to define a strategy for their own economic security and at the same time accommodate the strategies of others interested in accessing their resources. Viewed in this regard, Europe's interests in economic and energy security complement the interests of the South Caucasus and Central Asia countries, and if fully realized, will provide significant opportunities for the entire region.

European Energy Security: the Role of Ukraine

Ukraine has a special role and is of strategic importance for the economic and energy security of Europe. It provides a very important land access to the East, and serves as a primary energy corridor connecting Russian oil and gas with Europe. With its independent policies, it also serves as both an important geopolitical force and balance to Russia's influence in the region. The political and economic stability of Ukraine holds an important role for larger European stability, as well as for the security of the region in general. There are several internal factors affecting Ukraine's international standing. The major economic security concerns of Ukraine for the long-term are a high degree of dependence on energy resources from Russia, de-population trends, a weak institutional base, and risky business climate. The level of restructuring and investment in sectors that are crucial for growth, including infrastructure and utilities, also remains low. Although Ukraine is now benefiting from a more reform-minded leadership compared to that of the past decade, many of the reforms required will need many years to produce significant results. Ukraine's policy formulation and implementation yet stands as a key hurdle for its current governing bodies.

Despite these problems, Ukraine's potential for future growth is ensured by several factors: 1) a sizable and well-qualified work force of 21 million people, perfectly suited both for services, as well as industrial growth; 2) its transit location between energy-rich Russia and the Caspian region on one side, and consumer markets in Europe on the other; 3) a large domestic market; and 4) a central location that is surrounded by markets in Russia, the Caucasus, Central Asia, and also the EU's new member states. The challenges to development and growth will come from political instability and unpredictability, government privatization and re-privatization plans, the status of the world economy and, in particular, world energy prices. Also to be accounted for are Ukraine's long term demographic trends, which will certainly have an influence on its economic growth and development.

Ukraine also faces similar internal economic security problems like the countries of the South Caucasus. In both cases, the cost of doing business legally is much higher than the cost of operating beyond existing laws. Because of this, Ukraine's illegal sector is thriving and presents a challenge to further development. Starting businesses requires more time, money, and procedures than what is required in many other Eastern European states: Ukraine suffers considerably from weak institutions, underdeveloped property rights, corruption, and excessive regulation and taxation²⁸. Ukraine has a chance to improve the conditions for start-ups and small business entities by simplifying rules, lowering entry barriers for new small businesses, lowering the number of procedures, reducing the time for registering property, and introducing a tax system that is simplified so that the average individual or enterprise is able to freely operate in the legal framework.²⁹

Ukraine's population is expected to decline at a steady rate over the long term with the population in 2030 forecast to be around 10% below current levels. The working-age population has already fallen steadily since independence in absolute terms, and the rate of decrease is expected to accelerate over the medium and long terms, unless serious investments are made in education, training, healthcare, and general and social infrastructure.

Conversely, the number of people above working age is expected to rise continually. By 2030, the size of this group will have risen by 1.5m to account for 22 percent of the population—up from 16 percent at present. Those of working age will fall by over 5m to account for 65 percent of the total, or down from 69 percent at present. These trends will reflect low birth rates, continued labor emigration, and improved life expectancy (rising from 67 to 74 years).

The main way to improve demographic trends and curb emigration would be to provide a better business and investment climate, which could in turn boost job creation and improve living standards. This will also have positive

²⁸ Michael Porter, Xavier Sala-i-Martin, Klaus Schwab, *World Competitiveness Report 2007-2008*, World Economic Forum, Geneva Switzerland, 2007, p. 344

²⁹ *Doing Business 2007*, A Publication of World Bank and International Finance Corporation

<http://www.doingbusiness.org/ExploreEconomies/Default.aspx?economyid=194>

effects on Ukraine's life expectancy rates. Thus, if implemented properly, the economic liberalization and the quality of the business environment could bring the possibility of offsetting some of the effects of the currently unfavorable demographic trends.

EU membership remains a distant prospect, though the application process in itself will bring a significant reduction in the barriers that the EU currently maintains on a majority of Ukraine's most important exports. A free-trade agreement with the EU will also encourage greater inflows of EU investment, particularly given Ukraine's advantages in terms of wage costs as compared to the new EU members on its borders. If reformed and integrated in the European economy, Ukraine may play an important role in the economic security of Europe, providing a substantial market for European goods, and contributing to the competitiveness of European products through a potential for outsourcing lower wage industrial jobs for major European companies.

Energy is the key strategic factor that ultimately raises the importance of Ukraine for Europe. The Ukrainian-Russian crisis over natural gas prices sent shockwaves among Europe's capitals, which highlighted the importance of Ukraine. Ukraine plays an extremely important role in the energy security of Europe, already transiting substantial amounts of Russian oil and gas. The potential is now even greater, since Ukraine's geographic location makes it an ideal corridor for the export of Central Eurasian oil and gas to European markets. Ukraine is a very important market access point for Russia. Ukrainian oil pipelines transport an average of about 1.1 million b/d, most of which is exported to the surrounding countries. The majority of oil transited via Ukraine is Russian and it is sent through the Druzhba pipeline with a capacity of 1.2-million-b/d. The southern fork of the pipeline runs through Ukraine. Moreover, the Prydniprovski Main Pipeline operates nine interconnected pipelines throughout Ukraine with a total length of 1,500 miles and a capacity of 2.1 million b/d. Prydniprovski transports crude to refineries in southern Ukraine, as well as a substantial amount of Russian crude through Odessa onwards to the Black Sea. Odessa loads approximately 192,000 b/d of crude oil for export and it is an important oil hub for Russian

and Kazakh exports.³⁰ Russia tries to reduce its dependence on Ukraine's transitory role and in 2001 it completed the construction of a 160-mile pipeline bypassing Ukrainian territory. The Sukhodolnaya-Rodionavskaya line directly links two other pipelines and potentially decreases oil flows through Ukraine by 500,000 b/d.

Ukraine is even more important as a natural gas transit country connecting Russia, the world's largest natural gas producer, with growing European markets. In 2006, roughly 30% of OECD Europe's natural gas imports and 80% of Russia's natural gas exports passed through Ukraine. In addition, Ukraine is becoming both a transit and importing country for natural gas from Turkmenistan and Kazakhstan, although Russia currently tries to reduce Ukraine's role in these transits. At present, Gazprom relies on Ukraine to transport the lion's share of Russian gas exports to Europe. In 2005, Gazprom delivered 160 billion cubic meters of gas to European non-CIS countries. Of that volume, about 130 billion cubic meters per year passed through Ukraine. The expected commission of the Yamal-Europe pipeline and the planned North European pipeline will reduce Russia's reliance on Ukraine, thus concurrently reducing Ukraine's potential counter-leverage as the key transit country for Russian gas.

Ukraine's aging natural gas infrastructure is also of growing importance and concern both to European consumers and producers like Russia. Some of the pipelines in the Ukrainian network (as well as in the Russian network) have been in use for 20-30 years, and repairs are rarely carried out due to a lack of available funds. In addition to this, full capacity utilization is also an ongoing problem.

In terms of domestic consumption, Ukraine is heavily dependent on Russia for its oil and gas supplies. Of the consumed oil and gas, 80 percent comes from Russia. In addition to the actual volumes it receives from Russia, Ukraine also receives a limited amount of gas from Turkmenistan, but via Russian transit, which further solidifies Ukraine's dependence on Russian infrastructures. Following the Ukraine's recent political changes, the new pro-Western Yuchenko government has actively sought opportunities to

³⁰Energy Information Administration, Official Energy Statistics of U.S. Government. Country Analysis Briefs: Ukraine Country Brief, <http://www.eia.doe.gov/emeu/cabs/ukraine.html>.

reduce a current overdependence on Russian supplies. Political leaders, as well as top executives of the state energy sector, repeatedly underscore the need to extricate Ukraine from its dependence on Russia, but all commercial aspects in connection with such projects are not yet clear. At the same time, the Russian decision to increase the sale price for its gas to Ukraine made Kiev's search for alternative options all the more vital.

Paralleling this process, Russia has several times attempted to acquire control over Ukraine's gas pipelines. There were attempts to create a joint venture with a dominant Russian ownership and management, but Ukrainian political resistance prevented this development. As the events of early 2006 demonstrated: *natural gas imports are the most sensitive and vulnerable area of Ukraine's energy and economic security*. As was noted above, Ukraine is heavily dependent on natural gas imports, which seriously affects the economic situation of the country. Ukraine's ability to pay for natural gas is already under pressure on both the Russian and the Turkmen fronts. Ukraine's own growing budget deficit further contributes to this stress.

In terms of oil, Ukraine is currently examining plans to extend its \$500 million pipeline, which runs from the Black Sea port of Odessa to the Ukrainian town of Brody, further north towards the Baltic Sea. The Odessa-Brody link was built by Ukraine in 2001 to compete for the transporting of Caspian oil. The Ukrainian government had planned to ship crude through the pipeline to Brody, where it joins the Druzhba pipeline from Russia to Germany. The pipeline had been idle until BP Plc's Russian venture, when TNK-BP started using it last year to transport Russian oil in the opposite direction, to the Black Sea. Chevron, the second-largest US oil company, may use the Odessa-Brody pipeline to Europe to bypass the Turkish straits, where tanker traffic is sometimes delayed due to storms and accidents. In early August 2005, the EU, after a long delay, finally took a pro-active step and announced its decision to support the Ukrainian government's intention to use the Odessa-Brody oil pipeline in a northward direction, and supported an extension to Plock, Poland. A consortium of Swedish/Finnish, German, and Greek consulting companies won the tender and signed a contract for an EU-funded, \$2 million feasibility study on the project. They are mandated to work out the legal, technical, financial, and ecological conditions for profitable use of the Odessa-Brody pipeline and its 500-kilometer extension to

the Plock oil-refining center. The project is included in the EU's INOGATE (International Oil and Gas Transport to Europe) program as part of the Black Sea-Ukraine-EU energy corridor, which is also supported by the Ukrainian government's Eurasian Oil Transport Corridor (EOTC) initiative. The Ukrainian and Polish state companies, UkrTransNafta and PERN, established the Sarmatia joint venture in 2004 to make the Odessa-Brody pipeline northward bound and extend it to Plock. Sarmatia envisaged a four-year construction effort at the cost of around \$500 million, but it was unable to raise these funds due to an absence of guaranteed oil supplies. Meanwhile, Russian oil companies were "reverse-using" the pipeline in a southerly direction, for Russian oil to reach non-European markets, frustrating Ukraine's and the EU's original intentions to bring Caspian oil northward to the EU markets.

In addition, Ukraine considers building Ukrainian-controlled, modern refining capacities for the Caspian (non-Russian) oil. The government is planning a tender for construction of the refineries. The investors would be expected: to guarantee the supply of crude oil, to ensure "supply diversification" -- i.e., non-Russian oil, to observe the EU quality standards for refined products, to ensure a processing depth of at least 90%, and to build a network of filling stations which would be supplied from this refinery. This initiative has raised questions since Ukraine's existing refineries are underutilized. But the government argues that most of those capacities are controlled by Russian companies and that they operate under Soviet, not EU standards. Six refineries with combined capacity of 51 million tons processed 21 million tons of oil in 2004, out of 24 million tons of oil delivered to them that year. Eighty-seven percent of those deliveries came from Russia, 9.6% from Ukrainian domestic extraction, and 3.3% from Kazakhstan -- a clear picture of dependence on Russia. Moreover, Russian companies control at least two-thirds of the existing processing capacities. But even in this situation some experts recommend a more economical approach: the modernization of the Ukrainian-controlled Kremenchug refinery at an estimated cost of \$200 million, and using it at full capacity covering a 30% share of Ukraine's market instead of spending an estimated \$1 billion on the building of a new refinery.

In the short run, Ukraine will generally face serious economic security threats caused by the slow pace of the structural reforms and high energy prices. Liberalization of the prices and deregulation of several key sectors, including utilities, will be crucial for mid- and long-term stability of the economic system. The rapid transformation of the business environment and investment climate will be absolutely necessary to boost new business development and job creation, which can then positively affect demographic trends. The search for alternative energy supplies will be a key to energy security. The role of Europe will be crucial in this process. By providing physical access and commercial guarantees (like purchase agreements) to new supply sources in Europe via Ukraine, Europe may contribute to both Ukraine's and its own energy security.

European Emergency Security: The South Caucasus Option

As it has been shown, the South Caucasus is the key strategic link to accessing resources from Central Asia and the Caspian region. As the sole transit corridor between Russia to the north and Iran to the south, the Caucasus is critically important for the economic security of both Central Eurasia and the West. For both the military-strategic and economic security interests of the Trans-Atlantic community, the South Caucasus holds a value which cannot be substituted. Already important, the role of the region will undoubtedly increase, thus making stability in the region a factor of greater interest for the entire world. The South Caucasus needs to be politically independent, economically prosperous, and will be best served by strong security guarantees from the major powers of the world.

The construction of the BTC pipeline solidified the region's dramatic break from the shadows of an overbearing Russia, and it came into the visor of the rest of the world. The BTC pipeline is a major step in anchoring Georgia and Azerbaijan in Europe. Despite serious ethno-political conflicts, structural and institutional weakness, the countries of this region made it possible to deliver a world-class infrastructure project through a cooperative effort which will change the fate of the region for many years to come. Now in operation, the BTC changes the entire political and economic security landscape of the region, providing different dynamics, consequences and implications that we may not yet fully recognize. "Because of its role as a centerpiece of the evolving east-west transportation and communications artery through the South Caucasus, the BTC indeed functions as an umbilical cord connecting the region to Europe."³¹

³¹S. Frederick Starr, Svante Cornell, Eds, *The Baku-Tbilisi-Ceyhan Pipeline: Oil Window to the West*, Central Asia-Caucasus Institute & Silk Road Studies Program, 2005 <http://www.silkroadstudies.org/BTC.htm>, p. 25.

Another major implication of the BTC pipeline is that it has become a catalyst for positive cooperation by the young states in the region. On the first level and in practical terms, this cooperation included Georgia and Azerbaijan, as well as Turkey. Kazakhstan is becoming increasingly involved in the wider debates on whether to become part of this strategic infrastructure development. Though not engaged to its full potential, Turkmenistan could benefit tremendously by more fully engaging the growing cooperative efforts.

The BTC proves that politically motivated projects can become commercially viable. Advancements in technology and engineering may prove commercially viable with the increasing traffic between Central Asia and Europe via the South Caucasus and Black Sea. It is in the interest of Georgia and Azerbaijan, as well as the U.S. and Europe, to promote the development of the Black Sea region's infrastructure, which would connect the Central Asian and south Caucasian transportation system directly to Western shores of the Black Sea via Georgian ports using ferry connections, or by potential pipelines through Ukraine.

Whether accepted into the EU or not, Turkey will try to develop its own Eurasian center of gravity, with the BTC being its key strategic element in the development of an east-west axis. Turkey is already becoming a natural gas transit hub, and with the BTC and the SCP likely to compliment it through the Baku-Tbilisi-Akhalkalaki-Turkey highway, and also the Tbilisi-Akhalkalaki-Kars railroad, its importance is likely to grow. These developments will naturally increase Turkey's economic influence not only in the South Caucasus, but also in the entire Caucasus region and Central Asia.

The BTC also proves that other regional infrastructure projects may succeed if organized properly. In addition to the above-mentioned highway and railroad projects, electricity transmission lines could connect Azerbaijan, Georgia, Turkey, the Arab states to the south, and also Russia. Another prospective project is the natural water pipeline that could possibly link western Georgia's abundant water supplies with the greater Middle East.

While the potential for cooperative development in the South Caucasus and its surrounding regions is abundant, political stability in the Caucasus is yet fragile, and the region is vulnerable to both internal and external political and security threats. The conflict over Nagorno-Karabakh between Azerbaijan

and Armenia remains unresolved, leaving Armenia outside of the region's major developments. The construction of the BTC highlights the fact that the Nagorno-Karabakh dispute remains the most daunting impediment to the peaceful development of the South Caucasus. For Armenia, the resolution of the conflict is a necessary condition for its full-scale integration in the potentials of regional cooperation. Energy transportation, as it is seen, is in the interest of all parties.

The Nagorno-Karabakh conflict creates a major dividing line in the region. Armenia has close military ties and security policy guarantees with Russia, it remains tied to Moscow while both Azerbaijan and Georgia consistently seek to distance themselves from their larger northern neighbor. Naturally, both Azerbaijan and Georgia have assumed pro-Western stances, actively seeking close relations with the U.S. and the EU. Armenia, in order to maintain its decade-old military gains, is becoming increasingly tied to Russia, thus jeopardizing its own long-term political and economic security, since conflicts in the region are keeping Armenia cut off from major transportation routes. With all the internal sensitivities of the issue, by focusing on the territorial claim against Azerbaijan as a top priority, Armenia denies itself access to major infrastructure projects developing in the region. This, alongside with other conflicts in the region, creates a major problem for the economic and transit potential of the region to be fully realized.

There are two sets of issues that have critical importance for the regional development and long-term stability of the Caucasus and which affect European interests in the region. One set of factors includes dividing factors, or factors of instability. The second set of factors includes uniting factors, or factors of stability.

Dividing Lines

The South Caucasus region exhibits substantial potential for conflicts and instability. Within the South Caucasus, there are three unrecognized territorial entities: Nagorno-Karabakh, Abkhazia, and South Ossetia, each being attached to a frozen ethno-political conflict. The region also neighbors the ever-volatile Chechnya and the North Caucasus whose instability has the potential to exert a profound influence on developments in the south.

The three major ethnic groups populating the South Caucasus are Armenians, Azeris, and Georgians. Each has entirely different anthropological and linguistic backgrounds: Armenian belongs to the Indo-European family of languages, Azeri to the Turkic family of languages, and Georgian to the Caucasian family of languages. Each uses different alphabets and practices a different religion, the Georgians being Orthodox Christians, the Armenians Gregorian Monophysite Christians, and the Azeris Shiite Muslims. While Armenians have Russian bases on their territory, legally deployed under bilateral security agreements, Georgia and Azerbaijan have adopted clearly pro-Western orientations. Azerbaijan has no Russian troops on its territory, and the remaining bases in Georgia are currently under withdrawal. Among all three South Caucasus states only Georgia openly announced its plans to join NATO, and has begun intensified dialogue with NATO, expecting Membership Action Plan in the near future. Lately, Azerbaijan has begun to show an increasing interest in cooperation with the alliance.

In terms of foreign policy priorities, all three countries aspire to move closer to Europe. For Azerbaijan and Georgia, Turkey is an important link in this connection. Turkey is also an important trade partner for both countries, and although Armenia has some trade with Turkey, it is still far from its full potential. At the same time, Turkey is perceived as a political threat within Armenia. Russia represents the most important market for all three Caucasian states, but Georgia has a very strained relationship with Russia, with all trade and communication blocked by Russia since 2006. Armenia's and Azerbaijan's relationships with Russia are not uncomplicated. The U.S., like Europe, is a desirable partner for all countries due to political, economic, and business interests.

The ethno-political conflicts of the South Caucasus are between the Armenians and Azeris in Nagorno-Karabakh, Georgians and Abkhazians in the Georgian province of Abkhazia, and between Ossetians and Georgians in the Tskhinvali region of Georgia. All three have become major obstacles for the internal regional development of the entire region. Some major regional powers, in particular the Russian Federation, stimulated the eruption of these conflicts by supporting separatist forces in the newly independent states of the South Caucasus. The unrealistic nationalistic ambitions of minority groups were exploited by Russia to weaken both moves for independence and

the pro-Western orientations of these new states. Ultimately, this policy backfired on Russia, and it faces strong separatist and independent seeking movements in Chechnya and other parts of the North Caucasus.

During and after the conflict over Nagorno-Karabakh, close to 1 million people were forced to leave their homes in Armenia, or Azerbaijani territories occupied by Armenia, becoming refugees in Azerbaijan. In addition, there were thousands of Armenians who were forced to leave Azerbaijan and move mainly to Armenia. Currently, about 200,000 Georgian refugees from Abkhazia live in various other parts of Georgia.

The nationalism of small nations, combined with Russian support and the weaknesses of the newly independent states led to the deterioration in relations between ethnic majorities and minorities. In many ways this damaged the potential for regional cooperation and prevented these nations from moving forward toward effective nation-building like the successes seen in the three Baltic States. As a result, the region is now divided by conflicts, and several major transportation links are rendered idle or have deteriorated. Azerbaijan does not allow any cargo bound for Armenia to pass through its territory, thus keeping Armenia blocked from land and rail access to Russia. The conflict in Abkhazia caused damage and the shutdown of the railroad connecting Georgia to Russia, and again, Armenia is denied rail access to Russia. The railroad between Turkey and Armenia is also closed due to Turkey's support of Azerbaijan, and also because of unresolved historic problems between Turkey and Armenia. The only two access options for general commodities, containers, or raw materials that Armenia has are through Iran, or through Georgian ports. Armenia also receives natural gas from Russia via Georgia.

Uniting Lines

Notwithstanding the above, there are many uniting lines in the Caucasus, which could potentially bring the countries of the South Caucasus together. The uniting lines include common historic threats and a common history of fighting them. The peoples of the South Caucasus had long periods of history when they were part of the same coalitions, frequently the same state, or united and fighting the same enemy. The major driving force uniting the countries' interests for the future is the necessity to act as an economic entity

vis-à-vis the rest of the world, and also a very real need for economic cooperation. History shows that the modern wave of cooperation started at the end of the 19th century with the development of the Baku oil fields, and with the need to export it via railroad, and later via pipeline crossing the entire South Caucasus to the port of Batumi in the Black Sea.

One important issue which may drive the countries of the South Caucasus closer to one another is the need to achieve broader access to trade routes, and the considerable incentive to cooperate on the issue of energy security.

Currently, several major transportation infrastructure connections are not operational. These include railway connections between Turkey and Armenia, between Armenia and Azerbaijan, and between Georgia and Russia through Abkhazia. The prospects for the opening of Azeri-Armenian and Turkish-Armenian lines are very remote and it is Armenia that suffers the most from this development. Moreover, because of the existing situation, the Turkish line cannot be connected to other lines in the Caucasus. Turkey, Georgia and Azerbaijan, and the Central Asian states thus lose an opportunity for improving trade with each other as well, as does the rest of the world. This is the main argument for the need to construct the Tbilisi-Kars Railway.

The Georgian-Russian railway connection is very important for Georgia and Armenia. The prospects of reopening the Georgian-Abkhaz railway line are not very promising, bearing in mind the current status of Russian-Georgian relations. To balance Armenian interests after the opening of the BTC, Georgia may be more willing to cooperate on the opening of the Armenia-Georgia (through Abkhazia)-Russia railroad, but both Armenia and Russia need to reflect Georgia's need to send refugees from Abkhazia back to their homes and guarantee their security. This project will also require substantial investments in renovation of the infrastructure. Experts estimate that the full restoration of the Abkhaz railway section will cost at least \$100 million.

External Actors Affecting the Economic Security of the South Caucasus

Various external actors have different interests and levels of engagement in the political and economic development of the South Caucasus and its strategic transportation networks. Of all these actors, the United States and Russia have shown the most interest and have actively fought for influence and control of the region. For the U.S., the region has a strategic importance in terms of the access to Central Eurasia and the greater Middle East. For Russia, the region is a former backyard where it still maintains a substantial political, economic, and cultural presence. The EU, Turkey, Iran, India, Japan, and China are also working toward establishing their presence, but only Turkey has managed to play a significant role, largely because of its political orientation (as a strong ally of the U.S.) and its geographic proximity.

The Role of the EU

The EU and Europeans in general were relatively passive actors in the South Caucasus. The EU expressed a greater degree of interest in the early 1990s with the launch of the TRACECA and INOGATE projects but, in the late 1990s, European interests gradually diminished and gave way to the current U.S. and Russian rivalry for influence. European interests have grown following political changes in Ukraine and Georgia, and particularly after the Russian-Ukrainian energy crisis. The new members of the EU are leading this effort, amid greater dependence on Russian energy resources and a better understanding of the threats coming from Russian attempts at dominating the region. Due to proximity and an already developed infrastructure, Europe will be the primary beneficiary of the further development of Caspian energy resources and delivery infrastructure.

The interest of the EU and the individual states towards Eastern strategies is exacerbated by the existing and potential threats for Europe. An aggressive

micro-nationalism on the local level, manipulated by outside forces, could destabilize the Black Sea Region – Ukraine, Moldova, the South Caucasus and even conceivably parts of Turkey – into many different competing factions. Europe is also becoming increasingly concerned over the growing potential of organized crime and trafficking through the entire Black Sea region. European political elites' neglect of the region could therefore prove costly to the West. If the U.S. and the EU do not substantially assist the South Caucasus states in dealing with frozen conflicts and in achieving substantial progress in social and economic development, the West could pay a higher price for the emerging threats of refugee inflow, transnational crime, illicit trafficking of drugs, weapons and humans, and perhaps even terrorism. Instability in the Black Sea Region and the Caucasus will inevitably be linked with the Northern Caucasus and may destabilize Russia as well.

Therefore, passive and uncertain strategies affecting Ukraine, Turkey, Georgia, and other countries of Eastern Europe and the Black Sea region could gradually hinder Europe's strategic access to this region and to its human and natural resources. Most ominously, Europe could be denied access to substantial energy resources and regional markets. U.S. Interests in the Caucasus and the Multiple Pipeline Strategy

The U.S. is the largest energy consumer in the world, and from the perspective of its energy security, it has a natural tendency to seek diversified and easily accessible energy resources. At the same time, growing energy demand in China will create a competition for oil,³² and the Caspian is considered an important additional supplier.

A competition for Caspian oil already exists. An oil pipeline between Kazakhstan and China already delivers Caspian oil directly to the Chinese market. Also, Russia and Iran are trying to use their infrastructure to gain access to these Caspian resources as well. In addition to collecting tariffs for transit, these countries seek to achieve greater leverage over world energy supplies. Given all this, the U.S. interest in diversified oil sources and means of delivery is obvious.

³² Chinese energy consumption increased by 14% in 2003, according to BP's Statistical Review of the World Energy
<http://www.bp.com/subsection.do?categoryId=95&contentId=2006480>.

The U.S. presence has been a very strong and positive factor throughout the entire Caspian development process since the beginning of the 1990s. From the outset, the U.S. government closely cooperated with each regional government, at the same time promoting a multiple pipeline strategy as the only economically and politically viable export solution for Caspian hydrocarbons. On several occasions U.S. officials have outlined this strategy, which serves broad U.S. policy objectives.

These policy objectives are first: to assure the sovereignty of the countries in the Caspian region; second, to support economic cooperation among themselves and with Turkey; third, to promote diversified and reliable energy resources; and fourth, to support U.S. investments overseas.

The multiple pipeline strategy generated two early oil pipeline solutions: the northern route from Baku to Novorossiysk, completed in 1997, and the western route, from Baku to Supsa, the newly constructed Georgian port in the Black Sea, completed in 1999. The U.S. played a very active role in the decision of the Azerbaijani International Oil Consortium (AIOC) and the Azerbaijani government to build the western route to Supsa. For most of the time, the northern route did not operate at full capacity because of the conflict in Chechnya, as well as the disagreements between Azerbaijan and Russia on customs and other commercial considerations.

In fact, since the end of 1999, the Baku-Supsa pipeline has been the only stable transportation option for AIOC oil. In this case, the so-called “political decision” has turned out to be of great economic advantage for AIOC member companies. But in relative terms, the project was of limited scale and had little impact. It is the CPC and BTC pipelines, as well as the Trans-Caspian gas pipeline, connecting Turkmenistan to Azerbaijan, and then Azerbaijan to Turkey via Georgia, that form the central, driving elements of this multiple pipeline strategy. The CPC is the first and only pipeline in Russia that, despite some obstacles, is currently operating outside the state monopoly control of the pipeline company Transneft. Along with founding government members (Russia, with 24 percent of the shares; Kazakhstan, with 19 percent; and the Sultanate of Oman, with 7percent), this consortium includes private members, led by the Chevron Caspian Pipeline Consortium Company (15 percent). The Russian government will still be the largest beneficiary of the project. Over its 35-year lifetime, tax revenues and profits

alone will amount to about \$23.3 billion for Russia, but only about \$8.2 billion for Kazakhstan.

The only project where the U.S. has been unsuccessful so far is the Trans-Caspian pipeline, led by PSG International, a Bechtel-GE Capital joint venture in the late 1990s. The project fell apart after Turkmenistan's late President Turkmenbashi decided to retain control of it. Turkmenistan is the regional leader in terms of natural gas reserves, but due to political reasons and the government's slow decision-making, the country has attracted less foreign investments than others, despite the fact that its potential in Turkish, and possibly European, markets is enormous. It is also important to note there is a tough competition between Russia and Iran over transportation options for Turkmenistan's natural gas. The recent change of power in Turkmenistan has generated a new hope that the Trans-Caspian pipeline project could be revitalized.

In general, the economic security interests of the region, including energy security, coincide with U.S. energy and broader security interests, and this makes the U.S. a strong ally for most of the countries in Central Asia and the South Caucasus.

Russian Interests

Russia is a very important player in the economic security of the Caucasus. It is the largest market for agricultural products, wine and brandy produced in the region, and it is potentially the largest tourist market. In addition to fresh agricultural products from the region, most Russians still recognize and like the brand names of mineral water, wine, and other beverages, as well as tourist destinations in Georgia, Armenia, and Azerbaijan. Russia is also an important supplier of energy and other raw materials for various industries in the region.

At the same time, geopolitical developments in the region have made Russia cautious— and even suspicious. The pro-Western orientation of several regional countries and aggressive enlargement policies of NATO and the EU have made Russia conscious of its own inability to be attractive to its “new” neighbors. The recently published book *The Project of Europe without Russia* claims that "On Russia's borders there emerges a super-state – the only political entity in the modern world that is so elusive about the question of

where its final frontier will run." This is why some Russian experts welcomed recent European problems related to the European Constitution as a proof of the inability of Europe to absorb new members. Russia still blames Europeans for being excluded from the political process of building a United Europe, while Russia itself through its policies rejected being part of that process. The same can be said about Russia's cooperation with NATO. But instead of looking into the real causes of the pro-Western feelings in Ukraine, Georgia, Azerbaijan, or Moldova and perhaps adjusting its policy accordingly, Russia tries to impose old-fashioned control mechanisms through the manipulation of separatist movements and territorial issues. Russia no longer hides its irritation over the NATO aspirations of Ukraine and Georgia, and the Russian foreign minister publicly called it "a colossal geopolitical shift," and added that Russia is considering all the possible consequences of such a step in terms of Russia's national interests in the field of security, as well as Russia's economic interests and the interests of mutual relations with these countries.

Russia's policy toward the Caucasus has been shaped by Georgia's and Azerbaijan's pro-Western orientation and their growing potential in transporting Caspian oil and gas beyond Russian control. This provides for alternative energy supplies to Central and East European markets, currently dominated by Russia, and this, of course, is not in Russia's current interest. Russia has sought to combine the Caspian energy resources with its own into a single pool for export under its physical and commercial control.

An important element of Russian interests in the region is the fact that Russia is the largest natural gas, and second largest oil producer in the world. Russia currently produces 9.5 million barrels per day (b/d) of crude oil, and it has a set target to produce up to 14 million b/d by 2010. This is an important factor when it comes to meeting Putin's promise to double Russian GDP by 2010. Projected levels of oil production will require at least 3 million b/d of additional new crude oil export pipelines capacity and substantial investments in exploration and production, as well as in transportation infrastructure. Traders sell as much as they can, but there is currently limited export capacity.³³ But the major issue will be under-investment in exploration

³³ APS Review Oil Market Trends; 6/7/2004.

and development. Current tax regimes and the treatment of oil companies by the state does not stimulate investments and that may impact not only the export potential, but also the domestic energy situation in Russia.

Despite the lack of transit and port outlet capacity, as well as the serious bottleneck effect at the Bosphorus Straits, Russia still tries its best to maintain its dominance in the race for delivery options of Caspian oil and gas. It already exerts an overwhelming control over the oil and natural gas supply to most Eastern and Central European countries. Through the direct purchase, as well as the energy debt/equity swaps, the large refinery facilities in Bulgaria, Slovakia, Romania, and other countries are moving under the control of Russian companies, affiliated with the Russian government. The nearly complete control of the current flow of oil from Kazakhstan (even if some oil comes via the CPC) makes Russia an even more powerful player in the world's energy market.

In natural gas, Russia definitely leads deliveries to Turkish and European markets, and this is a historical fact. But having alternative sources of supply is in everybody's interest and the Turks, along with the Europeans, are looking at different options. Gazprom will continue shipping substantial volumes to Europe, but Caspian, and perhaps also Persian Gulf, supplies have the ability to substitute declining North Sea deliveries to Europe and will also cover any additional needs Europeans and Turks may have.

It is worth noting that the increased role of the South Caucasus Energy Corridor has been motivated by the inflexibility of Russian state pipeline monopolies of Gazprom and Transneft. By dominating access to the markets and by creating barriers to access for others, they have forced the producers to look for alternative means of reaching the market. The result has been the development of alternative routes, which in turn makes Russia nervous and suspicious. At the same time, the CPC case shows that Russia can receive huge financial benefits by opening its pipeline network to competition and by de-monopolizing the oil and natural gas transportation system.

In general, Russia's diminishing political and military power has shaped its policy options toward the South Caucasus. As a major tool, Russia still uses conflicts in the region to leverage its presence and maintain political influence. The conflict over Nagorno-Karabakh between Azerbaijan and Armenia gives Russia great leverage over Armenia and, to a certain degree,

over Azerbaijan. The Russian role is even greater in the conflicts of South Ossetia and Abkhazia, where Russians are directly involved in the conflict, at the same time being peacekeepers and mediators. All these conflicts have been used to put political pressure on the states of the South Caucasus. Because they are afflicted by these conflicts, Georgia, Armenia, and Azerbaijan have been subject to Russian manipulation of the situation.

In addition to these conflicts, Russia uses its leverage over the energy security of Georgia and Armenia, and to a lesser degree, Azerbaijan. It is the sole provider of natural gas for Georgia and Armenia. The Russian company UES controls the major generating facilities in Armenia, as well as a gas-fired generator and the largest electricity distribution market in Tbilisi. By controlling its major gas consumers, Russia will try to prevent other natural gas producers in the Caspian region from entering the Georgian and Armenian markets. Whenever possible, Russia will also try to use the energy dependence of these countries for political purposes, as was the case several times in 2000 and 2001, when it tried to pressure Georgia into allowing Russian troops into the country to deal with Chechen militants.

Natural gas markets are a very sensitive issue for Russia. Armenia and Georgia are important, but Turkish and European are markets are even more so. One can expect Russia to try to maintain its dominance in the Turkish and East European gas markets and supply routes, but that may require new strategies from Russia. Traditional strategies of control may no longer work, and Russia may soon need to liberalize its energy markets.

But so far, there have been few signs that Russia is willing to alter its course. Quite the contrary: Russia tries to enforce its energy and security strategy in close cooperation with China. Anti-Western sentiments are leading Russia in the wrong direction. Instead of balancing growing Chinese economic and political-military power, Russia plays another game: that of balancing the West with China. Gathering for the first time in the summer of 2005, Shanghai Cooperation Organization (SCO) members met in Kazakhstan's capital, Astana. Dominated by Russia (at least on the surface), the summit meeting adopted policies filled with anti-Western rhetoric. The SCO states (China, Russia, Kazakhstan, Kyrgyzstan, Uzbekistan, and Tajikistan) not only suggested that the U.S.-led coalition forces in Afghanistan should announce a timetable for their withdrawal, but they also issued a declaration

demanding, besides others, limits to outside interference in a country's internal affairs.

Turkey

Turkey has significant political and economic interests in the South Caucasus. It is an important actor in the new security architecture of the region and provides important military assistance to Georgia and Azerbaijan in terms of equipment and training. Turkey played a very significant role in assuring the economic survival of these newly created states after the collapse of the Soviet Union. Being a vital market itself, Turkey also provided important access to other markets for regional goods and resources, and turned into the largest trading partner for the Caspian and South Caucasus states.

Being one of the largest and fastest growing energy markets in the region, Turkey is very keen on securing its access to Caspian energy resources. At the same time, Turkey's location gives it a major role as an energy hub for the Caspian, as well as the Persian Gulf energy resources, since it provides access to European markets. It is highly likely that Turkey will play a more active role in the economic security of the South Caucasus. However, the conflict between Azerbaijan and Armenia over Nagorno-Karabakh, and Turkey's unequivocal and staunch support toward Azerbaijan hinders full-scale utilization of this potential.

The high degree of uncertainty, and even hostility, in some quarters of the EU in regard to Turkey's EU membership, despite the ongoing membership negotiations, is pushing Turkey away from Europe. Recent polls indicate that fewer and fewer Turkish citizens regard EU membership favorably and view increasing European demands on Turkey as unfair. Moreover, many in Turkey see the EU as an exclusive Christian club that does not want to accept Muslim Turkey as a co-equal. After receiving a cold shoulder from the EU, Turkey has begun to focus more on its regional role in Central Asia and the Middle East. The South Caucasus will undoubtedly gain greater prominence in Ankara's future strategic calculations.

As Turkey seeks a more active and prominent role in the Caspian region, its relationship with Russia will also evolve into closer cooperation. The trade between the two countries reached an unprecedented USD 20 billion mark in

2006, and it is expected to double over the next several years.³⁴ Closer ties with Russia affects Turkey's international position and may have some negative consequences for the South Caucasus states. Turkey's economic future is increasingly becoming dependent on economic relations with Russia, which may have major political consequences for both the Black Sea region, and Europe in general.

Iran

Iran is yet another important regional player having direct economic and security interests in the Caspian region. As one of the biggest producers of oil and gas in the world, Iran is competing with Russian and South Caucasus energy transportation systems, and seeks to strengthen its position as a transit destination for Caspian oil and gas. However, strong political opposition in the U.S. to Iran's involvement in the development of Caspian energy resources has been impeding large-scale infrastructure projects involving Iran. Washington's hostile position has pushed Iran closer to Russia, but limited financial and political resources available to Russia have not allowed the development of an alternative North-South transportation system. Moreover, it is doubtful that an alternative option for transporting Caspian energy serves Russia's national interests.

While Iran is largely isolated from the Caspian energy development and transportation deals, small-scale oil swap operations have been in place for several years, whereby Iran receives oil, mainly from Kazakhstan and Turkmenistan, in its northern refineries, and in exchange, exports a commensurate amount of oil from the Persian Gulf. Recently, Iran has put much effort into developing the northern port of Neka, which is used for the trans-shipment of Caspian oil and oil products. A newly built pipeline connects Neka with a refinery near Tehran and has a capacity to carry up to 25 million tons of oil per annum from Russia and Kazakhstan, while Iran would ship the same amount out of its Persian Gulf terminals. The natural gas pipeline connecting Turkmenistan to Iran is also of great importance for Iran, since it may eventually be transferring large volumes of gas to be shipped to Turkey.

³⁴ S. Enders Wimbush, "Waiting for the EU, Turkey Draws Closer to Russia", *Wall Street Journal*, Jan. 28, 2005

Iran's policy toward Azerbaijan is based on the assumption that a strong independent Azerbaijan would pose a security threat to Iran. Iran has a large Azeri population in regions bordering Azerbaijan, which arouse its suspicions and fears toward Azerbaijan. Iran's obstructionist policy toward the Caspian Sea has also contributed to its support for Armenia in its conflict with Azerbaijan over Nagorno-Karabakh.

In the long-term, given domestic political changes favorable to the normalization of relations with the West, Iran may become more attractive as a partner for the U.S., and this would undoubtedly increase competition among various transportation routes for Caspian energy. Even if this comes to pass, however, the South Caucasus corridor will retain several of its major advantages, including its proximity to markets in the Mediterranean and Europe.

Internal Factors Affecting the Economic Security of the South Caucasus

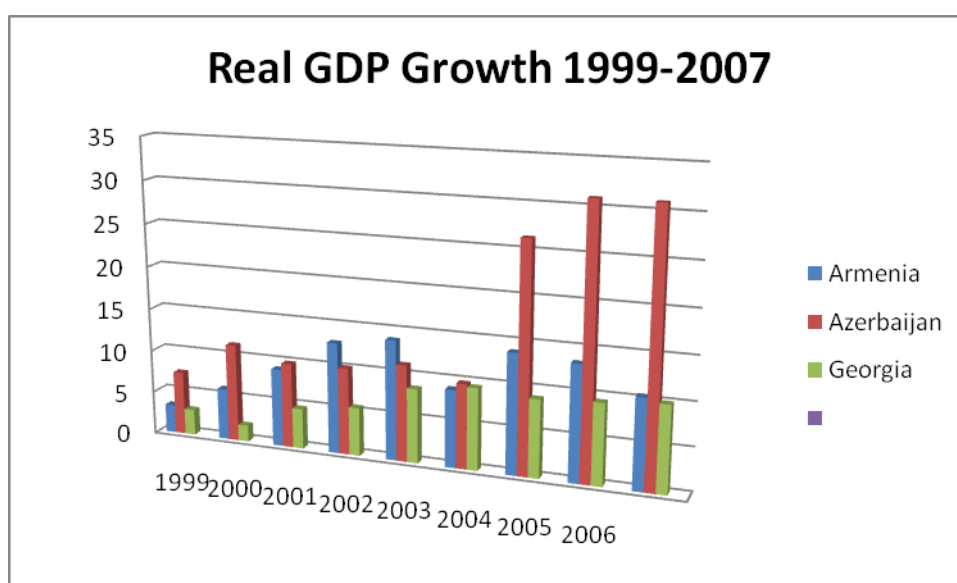
Given its strategic location, the South Caucasus is a historical battleground for regional and global powers vying for influence in the region. Georgia and Armenia are major recipients of foreign aid, and due to Azerbaijan's oil and gas reserves, it is one of the largest recipients of foreign direct investment. These states are also part of the transit corridor utilized by international crime groups for illicit drugs, small arms and human trafficking. But the transit is not the only potential for economic development in the region.

Since time immemorial, Armenia, Azerbaijan, and Georgia have had productive agricultural sectors. Agriculture has supported a majority of the population, provided a basis for export, and guaranteed food security in the region. The local climate is ideal for the production of various commercially viable crops, i.e. cash crops. These include grapes, hazelnuts, tea, citruses, tobacco, corn, wheat, pomegranate and various other fruits and vegetables. The states of the South Caucasus import a substantial amount of grain, primarily wheat, but local substitutes, such as corn, are also available in case of a disruption of supplies due to political or economic reasons. Hence this does not represent a major threat to economic security. However, uneven water distribution may in the medium-term be a source of insecurity.

Abundant water resources and irrigation systems support agriculture in the region. However, water can potentially become a threat to economic security on a regional level. Renewable water resources are abundant in Georgia, amounting to almost 12,000 cubic meters per capita, compared with 1,009 in Azerbaijan and 2,395 in Armenia. But these water resources are unevenly distributed within counties and among the three states. "Although none of these countries is 'water-stressed' overall, they all face regional imbalances. Armenia, for example, faces water scarcity in the densely populated Hrazdan basin in the center of the country as well as in its southern and northwestern regions. A similar situation characterizes Georgia, where the eastern part of

the country with 60 percent of the industrial facilities, 85 percent of the irrigated land, and 62 percent of the population has only 22 percent of the available water resources.”³⁵ But unlike Central Asia or the Middle East, water is not a major security issue in the South Caucasus. With proper management the region should be able to maintain an appropriate water balance in the future. The resources of the region determine the directions and pace of economic development in all three countries.

Real GDP Growth in the South Caucasus



As shown in Figure 1, Armenia, Azerbaijan and Georgia have all demonstrated strong economic growth over the past several years. Azerbaijan received an additional boost after increased oil production started in 2005, reflecting increased oil revenues into the Azerbaijani economy. This development will have a profound impact on economic, as well as political, security in the region in the years to come. In addition to energy and pipeline construction, the economic growth in the region can be attributed to construction, telecommunications, transportation, the financial sector, and food processing.

³⁵ Water Resources in Europe and Central Asia, Volume I, IBRD/the World Bank, 2003.

Basic laws necessary for operating businesses are in place in the three countries, including laws protecting foreign investments, the private ownership of land and other private property, and so forth. The regulatory environment is improving, and the financial infrastructure, including a stock exchange, is developing. However, many systemic problems, often inherited from the dysfunctional Soviet regime, remain to this day. These include: the absence of a clear long-term economic policy, a large and influential government bureaucracy, and limited access to opportunities for citizens. These, and other vestiges of the Soviet system, contribute to poor living standards and high levels of corruption. Taken together, they have become major internal security threats by virtue of forcing people to leave their countries in search of better opportunities abroad.

Negative effects of demographic decline on social, political, and economic development of these countries are all too obvious. According to census figures, the population of Georgia declined from 5.4 million to 4.5 million (19 percent) from 1989 to 2001. Experts estimate that the population decline in Armenia was in the same range, from 3.8 million in 1995 to about 3 million by 2002 (21 percent). Among these three countries, only Azerbaijan has experienced a population growth in last several years, but the overall rate of growth declined there as well. This negative demographic trend is of particular concern, since it reflects the emigration of mostly young, talented people who have the most to contribute in the way of positive change and modernization of their societies.

The outward migration has one positive aspect. It provides these countries with limited economic opportunities, in particular Armenia and Georgia, with sizable remittances, which supports balance of payments of these two import-oriented countries. According to data released by the National Bank of Georgia, which is based on information from 19 commercial banks, the amount of money transfers from foreign countries is rapidly increasing. Analysts think that this growth is the result of an increased trust in the banking system, although they still believe that a significant part of the money is coming to Georgia through unofficial channels. According to the National Bank of Georgia, in 2005, money transferred from abroad through the banking system totaled USD 400 million. During the months of January-April, 2006 the total amount of money transferred totaled USD 138.2 million.

However, official statistics do not give a full account of foreign currency that is transferred to Georgia. According to several expert studies and evaluations, the total amount of money transferred into Georgia is more than USD 1 billion per year. According to different evaluations, about one million Georgians have emigrated to foreign countries and the majority of them are economic migrants. The majority of these people have migrated to Russia and to a somewhat lesser extent to other European countries and the U.S.. Accordingly, the greatest part of the money transferred to Georgia comes from these three destinations.

Despite the migration, the South Caucasus region still possesses substantial human capital resources. The high rate of literacy and education is one of the positive legacies of the Soviet era. Highly skilled labor is still available in several sectors of the economy, including the oil and gas industry, electronic engineering, and construction. But this picture is changing. Due to the lack of funds and an absence of broader strategy, there is no coherent system of education in the region today, and potentially, this could produce a larger gap in technological and economic development for generations to come.

One other area of major problems the region faces is reforming the pension and health care systems. A lack of general economic vision and policy exacerbates this problem. It is not clear which model of economic policy these countries follow: a European model with major government involvement in social policy, but based on heavy taxation, which slows economic growth and development, or an American or Chilean model, with a more private-sector-oriented pension system with fewer guarantees by the state. International financial institutions and various donors are also uncertain about the direction of the policies, adding to the confusion. The existing system stimulates people to emigrate, to live and work in an environment where their lives and health will be better protected, and this again contributes to the deteriorating demographic picture and poses an additional threat to stability.

In general, foreign economic assistance programs, including the support from international financial institutions over the years, did not produce desirable results since most of those programs have not focused on the major needs of the targeted countries; namely, the development of a competitive and innovative private sector with an internal capacity for growth.

In the last seven years, the countries of the South Caucasus have been borrowing mostly from international financial institutions. Foreign debt stands at 20 percent of GDP in Azerbaijan, 39 percent in Armenia, and 30 percent in Georgia. Both Georgia and Armenia have made substantial progress in this regard in recent years and the foreign debts no longer represent a major economic security threat. In the case of Georgia, part of the Georgian foreign debt, \$168 million, is owed to Russia and, every time there is a need to restructure this debt, Russia demands something in return. In the future, Russia may again push for debt-for-asset swap as it did in Armenia and many Eastern European countries. In Armenia, Russia gained control over the largest Hrazdan thermal station and several other military-industrial enterprises in exchange for \$100 million that Armenia owed to Russia for gas supplies. Russia then transferred the ownership of these assets to Russian state enterprises.

In addition to the foreign debt, Georgia and Armenia have received substantial foreign aid from the donor community, and Azerbaijan has received substantial foreign direct investments. Still, a majority of the population in all three countries lives below the poverty level. The need for foreign investments is as strong as ever, particularly those that are oriented toward the development of the private sector capacity in order to generate jobs and incomes for a majority of the population.

Despite some progress, the business environment in the South Caucasus is not an easy one to operate in, especially for foreign businesses. The cost of doing business legally is higher than the cost of working outside the legal framework, which drives businesses into the informal sector. Underdeveloped private property laws, corruption, and excessive regulation and taxation force businesses out of the legal system and create a major threat to economic and political stability by preventing people from engaging in productive work and in building their own economic security.

The obvious point is that the rule of law, private property rights, and an independent and effective judiciary for enforcing laws and rights are critical elements of economic freedom for individuals and corporations. It is also obvious that there are no simple solutions to make institutions like the judiciary work properly. But the experience of various countries suggests that there is a common starting point—namely, simpler rules, lower entry barriers

for incipient small businesses, and simpler tax codes that will help individuals and enterprises to pay and for institutions to administer. A paper by Aslund and Johnson indicates that a substantial part of the world's economic production is very small-scale: one or two people operating 'under the radar' as individuals rather than as an organized business for fear of being 'detected.' A major problem for economic growth is to persuade these people to invest, employ others, and, preferably, pay taxes. It is primarily the risk of expropriation by government and powerful individuals that constrains entrepreneurial investment and causes business people to keep operating on a very small scale (and completely unofficially) in many countries. The expropriation risk depends on excessive taxation, over-regulation, and weakness of private property rights. In some countries, moreover, national and local bureaucrats intentionally devise complicated and convoluted tax and regulation systems in order to ensure that almost no one can fully comply with existing rules, thereby rendering entrepreneurs vulnerable to extortion and expropriation.³⁶

Georgia initiated a significant simplification of its regulations and tax system in 2005-2006. Those reforms propelled the country to an 18th place in the World Bank's Doing Business Ranking. It would be very useful if others could follow suit and if all three countries would harmonize rules for operating businesses. However, a simplification of these regulations on paper is not sufficient to make the investment climate more attractive and turn the South Caucasus into an important destination for foreign direct investments. In addition to cutting red tape and reducing taxes, the governments in these countries need to support independent arbitration, enforcement of contract terms, reduction in the level of corruption, as well as affect other changes in the business rules to attract much needed foreign capital.

The South Caucasus is in need of a substantial inflow of FDI outside of the energy sector, which can also bring with it management best practices and modern technology, as well as change the culture of doing business. The presence of U.S. and Western businesses and corporate interests in Armenia,

³⁶ Anders Aslund and Simon Johnson, *Small Enterprises and Economic Policy*, Carnegie Paper No. 43, April 2004.
<http://www.carnegieendowment.org/publications/index.cfm?fa=view&id=1497&prog=zru>.

Azerbaijan, and Georgia could also boost political support and long-term commitment to the region. The energy sector and related transportation infrastructure attracts most of the attention, but much can be done in other sectors including telecommunications, the financial sector, the wine industry, food processing, tourism, and construction.

The current business and investment climate is reflected in the volume of FDI in the countries of the South Caucasus. Azerbaijan leads the region in FDI, thanks to its vast oil and gas reserves and developing energy infrastructure. But negligible FDI in the non-energy sector of the region creates a distorting imbalance. The key issue in terms of economic security is also the origin and quality of the investments. The investments originating from Western countries are bringing a high degree of management culture, up-to-date technology, increased transparency, improved quality of jobs and, in many ways, they are accompanied by a process of training and education of the local employees. In stark contrast, investments from Russia and former Soviet states are associated with a lesser degree of technological and management advancement, and a high degree of corruption. The Georgian government has employed a strategy of rapid privatization in recent years, and state assets are sold to those bidders who pay more cash. This approach doesn't take into consideration qualitative issues, related to investments, including management culture, quality of jobs, as well as the origin of funds. The latter may play a very significant role in terms of the economic security of the state, since funds can be associated with foreign governments with political interests in Georgia, or criminal groups, attempting to establish a base for their operations.

Large financial groups that enjoy strong political support from home governments, find it easier to operate in the tough business climate prevalent in the region, while it is harder for start-ups to emerge and for small enterprises to survive. But even large multinational corporations complain about excessive and unpredictable government regulations, a trend present not only in the Caucasus but also in the rest of world. A 2004 survey of the executives of the world's largest corporations by A.T. Kearney indicates that 72 percent named government regulation as a top risk factor in making new

investment abroad, while only 21 percent of corporate executives saw terrorism as a primary risk factor.³⁷

Government regulations and the business environment are particularly important for smaller businesses. It is worth noting that the small start-up companies create the majority of new jobs in the U.S. In general, small enterprises play a critical role in the proper functioning of an economy. They are not hampered by many layers of bureaucracy, and they are frequent innovators, both in management and technology. They also create a free and competitive environment. In the developed economies of the Organization for Economic Cooperation and Development (OECD), about 60 percent of the gross domestic product (GDP) is generated by small enterprises, that is, enterprises with a maximum of 50 employees (OECD 2002). The same is true for some post-communist countries (Czech Republic, Hungary, Latvia, Lithuania, and Poland), while it is not the case in most of the former Soviet states where the average number stands at 20 percent of GDP.

The main source of resistance to the promotion of small enterprise is monopoly rents that benefit existing large, formerly state-owned enterprises and government officials. These come at the expense of economic freedom and the security of the majority of the population, and they become major obstacles to development in general. The promotion of free competition and unfettered access to opportunities, resources, and markets will create jobs and help the vast majority of the population engage in productive private business initiatives. Freedom of access to opportunities would be a major means for controlling corruption. If the government is left with fewer resources to distribute and fewer economic regulations to impose on business, it will have less incentive and opportunity for corruption.

Energy security in the South Caucasus is critical for both political and economic considerations. Armenia, Azerbaijan, and Georgia inherited dysfunctional and dilapidated infrastructure from the Soviet era. Since gaining independence, these counties lacked resources to invest in the maintenance and upgrading of existing infrastructure, which posed a serious problem to the economic development of the states of the South Caucasus. Systemic problems of non-payment of energy debt created additional

³⁷ Learning to Live with Uncertainty, *The Economist*, January 24-30, 2004.

problems. The lack of regional cooperation among the countries added to the energy vulnerability of the region.

The South Caucasus used to be part of the Soviet power grid, but the region has the capability to function independently as an interconnected system. Currently, while Georgia buys some electricity from Armenia and Azerbaijan, there is no coordination or cooperation between Armenia and Azerbaijan for obvious political reasons, which has a negative impact on all three countries. The reintegration of the electricity networks in the South Caucasus, and possibly with the Turkish network, would create favorable conditions for investing in upgrades and rehabilitation, and would substantially strengthen the regional energy security.

Armenia and Georgia are net importers of oil and natural gas. At this stage, Azerbaijan is turning from the position of net importer of natural gas to the position of exporter, a process that was accelerated by the dramatic increase in price of Russian natural gas by Gazprom. Azerbaijan possesses one of the world's largest natural gas field discoveries in the last 20 years in Shah Deniz, which is currently under the final stages of development and already supplies natural gas to Georgia. Georgia is a net importer of electricity as well.

Natural gas represents a large portion of the total energy consumption in both Armenia and Georgia, accounting for 50% and 24% respectively. Neither country produces significant quantities of natural gas, which makes them heavily dependent on imports to keep their economies running. In the summer of 2003, Gazprom signed agreements with both Armenia and Georgia, which designated Gazprom as the dominant natural gas supplier in the future. Armenia signed a 5-year agreement on June 17, 2003, and Georgia signed a 25-year agreement on July 21, 2003.³⁸ The latter agreement had serious political repercussions for the previous Georgian leadership since it generated a strong negative reaction internationally, particularly in the U.S. The development of the Shah-Deniz field and the South Caucasus Pipeline gives the region a chance to diversify its natural gas supplies. Georgia already has an agreement with the Shah-Deniz Consortium to purchase 800 million cubic

³⁸ Energy Information Administration, Official Energy Statistics of US Government. Country Analysis Briefs: Caucasus Region
<http://www.eia.doe.gov/emeu/cabs/caucasus.html>.

meters of natural gas a year. Georgia also buys additional gas from Azerbaijan's state oil company, SOCAR.

On March 19, 2007 Armenia commissioned a new pipeline bringing natural gas from Iran. This event has some geo-strategic significance. It indicates a possibility for Iranian gas to be shipped to Russia for later export to Europe (assuming that Georgia agrees to transit Iranian gas). It also diversifies Armenia's energy supplies from a single Russian supply line, although Russia has indirect control over the Armenian portion of the Iran-Armenia pipeline through Gazprom's Armenian subsidiary ArmRosGas. In 2006 Gazprom took this preemptive step and pressured the Armenian government into transferring the ownership to a joint venture.

The Russian electricity monopoly Unified Energy Systems (UES) is also a strong player in the South Caucasus, and it closely coordinates its efforts with Gazprom to keep other parties out of the market and to control the potential transit of electricity to Turkey. UES has been gradually increasing its presence in the Caucasus. In addition to controlling the Metsamor nuclear power plant³⁹ and the Hrazdan thermal power plant in Armenia, UES currently controls about 25 percent of electricity generation and 35 percent of the electricity market in Georgia. It also owns 50 percent of the company "Sakrusenergo," which is the owner of all the major power transmission lines in Georgia, including the east-west backbone transmission line.

Despite the lack of fossil fuels, Armenia and Georgia have significant domestic resources for generating electricity. In Armenia, non-thermal domestic electricity generation accounted for roughly 60 percent of the total in 2001 (30 percent from nuclear and 30 percent from hydroelectric sources). In Georgia, hydroelectric power accounted for 80 percent of electricity generation. But electricity supply within the states, especially in rural areas of Georgia, has been problematic. Poor infrastructure and losses of transmission in all three South Caucasus countries, as well as poor collection rates, cause disruptions in the supplies of electricity resulting in serious problems for the economy and population. Georgia has strongly committed itself to self-sufficiency in electricity supply through hydro resources and is taking

³⁹ Reopened in 1995 after being shut down for seven years for safety concerns, it currently plays an important role in electricity supplies to Armenia and also supplies electricity (around 100 MGW) to Georgia during the winter season.

substantial steps in that direction: many power stations are already privatized and are producing the electricity. In addition, some new constructions are planned. Georgia attracted substantial investments in its hydro sector, which has enormous potential for the region.

In terms of energy security and its impact on regional stability, Georgia has always been considered the weakest link. It had a weaker physical infrastructure and greater dependence on the imported electricity-supplied by one major transmission line from Russia, subject to frequent damages from natural disasters and sabotage. Corruption also had a huge impact on the development of the energy sector in Georgia. Starting from 2005, the Georgian government announced plans to build a new 300 MGW power generation facility, based on Azeri gas and aimed at reducing the dependence on imported electricity. The power plant is already in operation and provides much needed stability to the system.

In general, regional energy security suffers greatly for two major reasons: 1) the conflict between Azerbaijan and Armenia and conflicts in the region in general. The potential for regional cooperation, particularly in the power sector, is great, and some elements of that cooperation are in place, but so far it has not been fully utilized; and 2) mismanagement and regulations. Licensing, tariffs, other regulations, and the general governance of the system all contribute to the lack of a functioning power system in the region.

The future energy security of the region will be closely dependent on the cooperation of all three countries with Turkey, which would go beyond the pipeline projects. This approach should be based on three elements: a creditworthy Turkish electricity market, increased gas-based generation capacities in Azerbaijan, and more hydro generation facilities in Georgia. Russia and Armenia could possibly become part of this system as well.