The study examines energy security in the Central Asia region, with an emphasis on the natural gas sector. The research presented in the book attempts to answer the question of whether the various state actors in Central Asia are more inclined towards a strategic or market-oriented approach to energy policy formulation. Answering this research question aimed at better understanding the approach of individual state actors towards large infrastructure projects such as the construction of the Central Asia-China Gas Pipeline. Based on the theoretical literature, a model was constructed to assess the natural gas sector in terms of energy policy formulation by individual state actors. This model was then applied to three case studies of key state actors within the Central Asian regional energy security complex. These are the case studies of Russia, China and Turkmenistan.
The Natural Gas Conundrum

Václav Lídl

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This publication was published with the support of the Ministry of Education, Youth and Sports and the Czech Recovery Plan within the project Transformation for Universities at CU (reg. No. NPO_UK_MSMT-16602/2022).

Published by Charles University, Karolinum Press
Prague 2022
Edited by Kristýna Kocourková
Layout by Jan Šerých
Typeset by DTP Karolinum Press
First edition

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ISBN 978-80-246-5265-8
ISBN 978-80-246-5285-6 (pdf)

https://doi.org/10.14712/9788024652856
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I would like to express my utmost gratitude to all those who assisted me with my work on this monograph. Primarily, I would like to thank my former supervisor, PhDr. Jan Šír, Ph.D., and my family. Moreover, I would like to extend an acknowledgment to my colleagues from the Faculty of Social Sciences of the Charles University, the Central Asia-Caucasus Institute in Washington, D.C., Johns Hopkins University, Masaryk University, George Washington University, Moscow State University, University College London, Shanghai Academy of Social Sciences, and many others. A special acknowledgment belongs to the Grant Agency of the Charles University, which helped me significantly in financing my work on this study.
Note on Transliteration

The transfer of terms and names between different cultures is not only a linguistics issue. Knowledge of the extra-linguistic context is usually necessary. The transliteration of names in this book was very challenging, especially because of the multidisciplinary nature of the text and its wide territorial span. I worked chiefly with primary and secondary sources available in English and Russian, but I also tried to gather all possible datasets originating from different ideological and political directions. Therefore, this monograph works not only with English and Russian terms and concepts, but quite often uses terms from local Turkic and Iranian languages as well as the Chinese language. Standard ISO transliterations were used in all cases.
1. Introduction

Research Topic

The Central Asian region experienced an increasing engagement of many external state actors after the fall of the Soviet Empire, and even earlier, between 1989 and 1991. The main stimulus for this increased engagement was the unique opportunity for world powers to gain access to the region’s vast mineral wealth. The United States and Russia confirmed their roles as the two most important external actors in Central Asia following the events of September 11, 2001. Nevertheless, the United States lost a great deal of interest in the region after Barack Obama became president in 2009, and this process culminated in the termination of the mandate of the International Security Assistance Force (ISAF) in Afghanistan and the drawdown of troops at the end of 2014. After that, Russia and China became the principal great powers asserting their interests in Central Asia.

The energy and economic interests of Russia and China in Central Asia significantly overlap. Russia’s political elite still perceives the region as the “South” of the former Russian Empire, or as Russia’s “Near Abroad.” For its part, China has begun to refer to Central Asia as the “Chinese Far West.” Russia has been attempting to bring the region back into its sphere of influence by means of “integration initiatives” such as the Eurasian Economic Union and the Collective Security Treaty Organization (CSTO). China, by contrast, favors an “open door policy” toward Central Asia. Its emphasis is on various transportation infrastructure projects known as the Belt and Road Initiative.

The main topic of this monograph is energy security in Central Asia after 1991. It pays attention to the energy interdependence of the Central
Asian countries, Russia, and China, and the major changes that have taken place in the system over time. It focuses especially on interdependencies in the field of natural gas because this commodity has significant geopolitical implications which arise from the technical complexity of transporting it. Natural gas represents the best litmus test for assessing the degree of energy interdependence of states, especially in certain cases. The most important player in Central Asian energy, given its huge reserves of natural gas and its existing ability to export, is Turkmenistan, followed by Uzbekistan and Kazakhstan.

Russia remained Turkmenistan’s main energy partner throughout the 1990s. However, Moscow began to lose this position between 2000 and 2005, and especially after Turkmenistan’s President Gurbanguly Berdimuhamedow took office in 2006. The commissioning of the first branch of the Turkmenistan–China Gas Pipeline in December 2009 was a tipping point in the balance of the relationships between Ashgabat, Moscow, and Beijing. China became the principal importer of energy from Turkmenistan and has established itself as the major economic power in Central Asia.

Since around 2005, China’s energy-related projects in the region began to change the energy interdependencies of Central Asia. Although China’s rising influence in Central Asia’s energy sector is an attractive topic, it has not yet been studied systematically. This is especially true of the Turkmenistan–China Gas Pipeline. As of yet, there exists only a handful of academic works dealing with Turkmenistan and its energy sector. This book is a contribution to the study of energy interdependencies in Central Asia, a subject that has yet to be examined in greater detail.

State of the Research

The principal topic of this book is the system of energy security in the Central Asian region. Based on rigorous research using primary and secondary data, I identified four major subjects under this rubric. The first of these is energy security, which represents a relatively new and promising field of study. Energy security is crucial not only from an academic perspective but also for foreign policy goals and national security of state actors. The second topic is how energy policy is formulated by various state actors. It builds upon the topic of energy security, applying theory to real-world cases. The third topic centers on regional energy security complexes and looks at energy security and energy policy formulation
in the context of territorial systems. Energy security is best analyzed in the context of regional systems of positive and negative energy interdependencies. The aim of this book is to advance our knowledge of energy security, energy policy formulation, and the regional energy security complex in Central Asia.

**Energy security**

The issue of energy security lies at the heart of current research. Its study is a multidisciplinary field drawing on knowledge from the fields of engineering, energy systems analysis, earth sciences, economics, technology studies, political science, international relations, and security studies. In the literature on energy security, there are several ongoing debates. The first one concerns the question of whether energy security is only a national-level issue or if it is also relevant on the global, regional, and local levels. The second topic of discussion is whether energy security is a socially constructed concept or if it is inherent to most energy systems. There is also a debate about whether energy security relates only to a state’s national security or to human security as well. This book will contribute to the first-mentioned debate as it attempts to connect energy security in Central Asia with the regional security complex, a concept initially developed by the Copenhagen School of security studies.

The study of energy security as an academic discipline is quite a recent development. Thus, there is only a limited number of energy security studies in the literature that provide a comprehensive overview of the subject. The co-authored works of Aleh Cherp and John Jewel represent some of the most comprehensive approaches to energy security. Cherp and Jewel analyze energy security and energy policy in their historical and scientific contexts.1 The study of energy security has been further advanced by Benjamin Sovacool, who focuses on the classification of countries and regions from the point of view of energy security.2

The issue of energy security in the post-Soviet space, especially as it relates to the security of supply of energy commodities, has been

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researched by Martha Brill Olcott. She defines security of energy supply, in its broadest sense, as an adequate supply of energy resources for an adequate price. Sanam Haghighi is another important scholar who focuses on energy security, especially in the context of external relations of the European Union. According to her, it is imperative to take into account the differences of the types of energy resources because energy security is heavily dependent on their particular qualities. The difference between the global nature of the oil market and the regionalism of the natural gas market is one example of this. The difference stems from the different technical conditions needed for the transportation of oil and those for natural gas. Moreover, natural gas can be substituted in some industrial sectors by either oil or coal; however, that is not possible the other way around. Haghighi defines security of the supply of natural gas as a guarantee that the amount of natural gas demanded by the customer will be available at an acceptable price.

Barry Buzan has demonstrated that energy security policy can take different forms. For instance, it can be a reaction to a real threat, a strategy for avoiding a threat, or a rationale for specific political goals. Buzan claims that security policy is not a direct consequence of a threat but rather a political articulation of the threat. The way in which the threat is perceived is thus as important to the formulation of policy as the real nature of the threat. In that sense, security policy is a non-linear reaction to a threat. Buzan calls the process of perceiving a threat “securitization.”

There is a general agreement among researchers that there are essentially three kinds of states that are involved in energy security. These are producer states, consumer states, and transit states. Consumers of energy resources and transit states seek sufficient supplies for affordable prices. Producers of energy resources, for their part, endeavor to ensure the demand for their products; in other words, they want to ensure that customers will purchase their products for adequate prices in the long

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term. This assurance allows producer states to formulate their state budgets accordingly.8

Energy security studies include a significant discussion on the politicization and weaponization of energy resources.9 States that use their energy production as a tool of foreign policy have, according to Bertil Nygren and Karen Stegen, two kinds of energy weapons – the “tap” and “transit” weapons. A state uses the tap weapon when it coerces a consumer state to behave in a certain way by threatening to shut off its energy supplies.10 The transit weapon is a transit state’s ability to obtain favorable transit fees and behavior from a producer state which otherwise would not be able to export its commodities at all.11 Dmitry Trenin has provided evidence that Russia and Turkmenistan have frequently utilized the tap weapon in their relations with their trading partners.12

Looking at the issue from the above-described perspective, this book endeavors to step into the ongoing discussion of the regionalization of energy security. It elaborates upon the concept of the regional security complex created by the Copenhagen School and combines it with a practical study of energy security – all based on the example of Central Asia. It also broadens the academic debate about the ways in which energy resources, especially natural gas, can be and are being politicized and weaponized.

**Behavioral patterns of state actors in the formulation of energy policy**

The most significant issue in energy security that this book raises is the approach of state actors to energy policy. The literature contains two specific models of states’ energy policy behavior – strategic-oriented energy policy and market-oriented energy policy. Between 2000 and

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2005 a discussion of the two models was sparked by researchers such as Michael Klare,\textsuperscript{13} Gal Luft and Anne Korin,\textsuperscript{14} and Daniel Moran and James Russell.\textsuperscript{15} The research in this book confirms the relevance of this discussion and its conclusions to modern state policy making.

The discussion of strategic-oriented energy policy is heavily based on the assumptions of the realist paradigm of political science. The founding father of the modern realist paradigm Hans J. Morgenthau claimed that the real or threatened use of military power “represents the most permanent material factor influencing the political power of a nation.”\textsuperscript{16} Morgenthau’s realism thus assumes that there are other material factors besides military power that affect a nation’s political power. He also discusses the other factors, such as geography, natural resources, industry, military preparedness, population, national character, morale, and the quality of diplomatic service and governmental institutions.\textsuperscript{17} Control and exploitation of natural resources are crucial for the maintenance of a state’s industry and, as a consequence, for the strength of its military power.

It can be argued that the Central Asian states have remarkably increased their potential state power because of the energy resources located within their territories. An earlier example of this are the states of the Persian Gulf. OPEC’s sharp decrease of its crude oil production in 1973 significantly strengthened its members’ relative positions in the international system. Russia behaved similarly in its relations \textit{vis-à-vis} Ukraine and Belarus during the first decade of the twenty-first century. Still, classical realism is ill-suited for explaining why some other states, such as Canada and Norway, rarely use their energy resources as a tool of their foreign policy.

In contrast to classical realism, neoclassical realism includes and addresses different intra-state elements such as the state’s institutions and ideologies, and the perception of threat shared by the state’s elites. Hence, it tries to combine the assumptions of realism with elements of

\textsuperscript{13} Michael Klare,\textit{The Race for What’s Left} (London: Picador, 2014).
\textsuperscript{17} Ibid.
constructivism and thereby eliminate the shortcomings inherent in both approaches, as explained by Gideon Rose.¹⁸

Neoclassical realism assumes that energy resources play a significant role in the external policies of states and that they are unquestionably a source of political power. The more energy resources a state possesses, the stronger it becomes. According to Anne Korin, there are some commodities, especially energy resources, minerals, water, and foodstuffs that have a strategic value that significantly exceeds their market value. They can be utilized by producer states as foreign policy tools and can even become a trigger for military conflict.¹⁹ Phillipe Billon suggests that compared to other sources of energy, natural gas holds a prominent position as a potential tool because it is technically challenging to transport it from place to place. The conflict potential of this commodity is exacerbated by the problem of logistics.²⁰

The strategic-oriented model of energy policy is deeply rooted in the realist paradigm. It draws upon a form of neorealism that is based on the assumptions of Kenneth Waltz.²¹ It also works with concepts used in the classical study of geopolitics and tries to connect geographical determinants with the situation of the energy industry on the ground. The strategic-oriented model assumes that natural gas is the energy resource that is influenced by geographical reality the most.

Michael Klare was one of the first researchers who claimed that states deal with their natural resources in a strategic way. Strategic-oriented behavior is an activity that does not lead to maximization of profit in the short or medium term. It does, however, seek to achieve that goal in the long term.²² Above all, strategic-oriented behavior downplays economic logic in the process of determining energy policy. According to the strategic-oriented model of energy policy, states perceive their energy sectors as being too critical and too sensitive to be left solely to the whims of market forces.²³

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²³ For more on the strategic-oriented approach to energy resources see: Klare, *The Race for What’s Left.*
The realist paradigm perceives energy policy as existing in a highly anarchical system of international relations that is primarily based on the distribution of power. Power is in this sense based on material factors and especially on the nature of the energy resources. Among others, Martin Jirušek, Tomáš Vlček and Filip Černoch rigorously deconstruct the states’ formulation of energy policy. Jirušek designed the models of the strategic-oriented and market-oriented energy policy that are applied and developed in this book.24

Market-oriented energy policy exists in opposition to the previously defined strategic orientation. The market-oriented model is based on the assumptions of neoclassical and neo-institutional economics and the liberal paradigm. According to Morris Adelman, this model assumes that market forces are the only thing capable of allocating energy resources effectively. It sees energy resources as no different than any other goods on the market. This approach is primarily founded on the concept of the “rational actor.” Geographical or geopolitical determinants are considered almost irrelevant.25 Lynne Chester even goes so far as to say that even to merely discuss energy security prevents the market from working properly.26 She understands energy security in the context of a negative self-fulfilling narrative. Erin Carter and Pietro Nivola explicitly argue that using energy resources as a tool of foreign policy is ineffective and hardly ever happens.27 In sum, the strategic-oriented and the market-oriented models of energy policy rely on opposing ideal theoretical paradigms. The reality on the ground is usually more complex and subtle, as is shown in this book.

The energy security complex

Barry Buzan, Ole Waever and Jaap de Wilde were the first to elaborate on the concept of the regional security complex in 2004 in their book

Regions and Powers: The Structure of International Security.\textsuperscript{28} They describe the regional security complex of the post-Soviet space, with the Russian Federation at its center. Back then, they claimed that Central Asia is either a sub-complex in the framework of a broad post-Soviet regional complex, or a nascent regional security complex of its own. Buzan et al. especially highlight the presence of other great powers in the region, primarily the United States and China.\textsuperscript{29} In my work, I consider Central Asia a fully-fledged regional security complex, especially when it comes to energy.

Other authors have continued to develop the concept of the regional security complex and applied it to Central Asia. One of them is Ekaterina Klimenko, who regards Central Asia as a fully developed regional security complex of its own and not just a sub-complex of the post-Soviet space.\textsuperscript{30} Evgeny F. Troitskiy analyzed how the presence of Russia and the United States in Central Asia influenced the formation and establishment of the Central Asian regional security complex from 1990 to 2010. He claims that it was the Central Asian states’ interaction with these two great powers that resulted in the formation of this complex.\textsuperscript{31} Marek Musiol analyzed five securitized issues that are linked within its internal structure. These are: water and economic issues; issues of extremism, corruption, and degradation of state institutions; the “new great game” as it relates to geopolitics, oil, gas, and the transit of resources; drug trafficking; and finally, environmental and natural challenges. The geopolitics of oil and gas is the essence of the third issue, the “new great game,” and is of the utmost importance for this book.\textsuperscript{32}

The concept of the regional energy security complex is less developed and less frequently applied than the concept of the regional security complex. In fact, it has only been studied in very few instances. Mikhail Zelensky studied the regional energy security complex of the Baltic Sea Region with a special focus on the impact of the Nord Stream Pipeline 1 on its security architecture. Zelensky’s study is quite similar to this one in that it examines the impact of a pipeline construction on the situation in

\begin{footnotes}
\textsuperscript{29} Ibid: 397–436.
\end{footnotes}
a regional energy security complex. For his part, Jack Sharples applied the concept of the regional energy security complex in his study of the bilateral energy trade relationship of Russia and Poland. As transit states of the complex, he added Belarus, Germany, and Ukraine.

As can be seen from this review of the literature, the concept of the regional energy security complex is quite new and underused in academia in spite of its promising nature, which makes identification of additional closed systems suitable for research. Moreover, the concept appears never to have been consistently applied to the Central Asian region. Therefore, its application to Central Asia is a new step increasing knowledge of both regional energy security complexes in general and of the Central Asian region in particular. This book applies the aforementioned theoretical models to the real situation in Central Asia.

**Energy security in Central Asia**

Although my research into the Central Asian energy security complex is entirely original, several authors have previously covered energy security in Central Asia from other perspectives. Theoretical concepts of energy security, however, do not seem to play a central part in their studies. They use energy security, if at all, to explain and support various arguments about international economic or political relations between the individual states in the region.

Marléne Laruelle and Sebastien Peyrouse focused their research on the rising economic and political influence of China and its impact on the energy security of particular states in Central Asia and the region in general. They claim that China’s attention, as directed to Central Asia since the beginning of the twenty-first century, will have significant impact on regional economic and political dynamics. Alexandros

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Petersen and James Coomarasamy identify China as the main rival of the United States and Russia in Eurasia, with Beijing gradually becoming the most active player in Central Eurasia. Petersen claims that China’s increasing involvement in Central Asia is a bid for dominance in all of Eurasia. All the authors mentioned believe that the impetus of China’s involvement in Central Asia can be traced back to the issue of energy security of China itself.

This book intends to push the debate on the rising economic presence of China in Central Asia forward, and to broaden it to include the energy security of the most important energy player in Central Asia – Turkmenistan. The energy complex of Turkmenistan has been thoroughly analyzed by Anette Bohr. She focuses her attention on the connection between Turkmenistan’s gas sector and its internal politics. According to her, the gas sector is the backbone of Berdimuhamedow’s regime and the prime driver of Turkmenistan’s foreign policy. Luca Anceschi, among others, studied the formulation of foreign and energy policies of Central Asian states and how they overlap. He argues that when speaking of Turkmenistan, foreign, domestic, and energy policies are almost inseparable, and that energy security influences all of them more than anything else. Shamil Yenikeyeff and Marta Brill Olcott have also significantly contributed to the debate on the energy security of Turkmenistan and other Central Asian states. They regard the pursuit of the security of energy supplies and security of energy exports as the crucial factors determining the behavior of the Central Asian states, as well as of China and Russia.

The academic discussion of the rising economic presence of China in Central Asia and the energy security of Turkmenistan is directly linked to a third issue, the geopolitics of transportation in Central Eurasia. This

43 Olcott, Turkmenistan: Real Energy Giant, 62–72.
debate is especially influenced by the works of Frederick S. Starr\textsuperscript{44} and Alexandros Petersen.\textsuperscript{45} Their work is very strongly centered on the issue of energy security, and it incorporates various political and geographical factors. Both Starr and Petersen have always been attracted by the heartland-pivot theory of Halford John Mackinder\textsuperscript{46} and they understand the significance of energy infrastructure in Central Asia accordingly. Stephen Blank\textsuperscript{47} and Richard Pomfret\textsuperscript{48} similarly emphasize the importance of the opening of new energy corridors in Central Eurasia. They consider the renewed interest in Central Asian energy resources since the Soviet collapse as a game-changer in relation to the energy security of all Central Asian states as well as the adjacent great powers – China, Russia, India, Iran, and Turkey.

As stated above, the three most important topics in the ongoing academic discussion of energy security in Central Asia are the rising economic presence of China in the region, the energy security of individual states in the region, and the geopolitics of transportation in Central Asia. This book aims to follow up on all three of these topics. The energy security of particular states of the region is the essence of this book, along with the rising influence of China in the Central Asian economies. The Chinese influence is strongly felt in the new energy infrastructure projects in the region. Moreover, as was mentioned at the beginning of this subchapter, the concept of energy security has so far only played a collateral or explanatory role in the literature. It almost never plays the central role. This book’s contribution lies in putting energy security into the central position as it relates to Central Asia.

**Research Design**

This book examines energy security in the context of the Central Asian regional energy security complex, or ESC, and in the context of the


construction of the Turkmenistan–China Gas Pipeline (TCGP). It seeks to answer one overarching research question that deals with the environment and the actors of the Central Asian ESC: what is the predominant approach to energy policy among the states that make up the regional energy security complex of Central Asia?

States can display two major behavioral patterns within an ESC from the point of view of energy policy: market-oriented behavior, focused on maximization of profit, or strategic-oriented behavior, focused on maximization of the energy security of the state and other foreign policy and security goals.

If the majority of the states in the Central Asian ESC display market-oriented behavior, that means that the construction of new infrastructure such as the TCGP is dictated by market competition and has limited political implications. If strategic-oriented behavior predominates, the construction of new infrastructure projects is dictated by the need to maximize energy security and hence has clear political implications. This book endeavors to interpret energy-related disputes between Russia and Turkmenistan, and China’s rising presence in Central Asia, in terms of those states’ approaches to their energy policies. Although at first glance it could seem that it is only logical that authoritarian regimes are naturally prone to favoring strategic-oriented control and management of their respective energy sectors, the academic literature and business practice show that that is actually not the case. This is especially true for China, which displays the strongest pro-market orientation. However, the energy policies of Russia, Turkmenistan, and China have not yet been rigorously studied, which is the reason this book focuses on the region they inhabit and their shared energy security complex.

Theoretical Framework

The previous chapters present the topic of this book’s research, its relevance to the most important academic debates about energy security in Central Asia, and the main question to be answered by the research. The following chapter presents the theoretical framework that underlies the research. It creates a theoretical model for analyzing the behavioral patterns of individual states with respect to their energy security. To begin, it describes the Central Asian regional energy security complex in terms of the postulates of the Copenhagen School of security studies and its followers.
In order to answer the research question about the orientation of the Central Asian ESC states’ energy policies, this book creates its own models for the study of the natural gas sector. One theoretical model exemplifies the strategic-oriented approach to energy policy, and is based on the assumptions and conclusions of the realist school of international relations. To begin, I present the principal features of the realist paradigm, then the strategic-oriented approach to the study of energy policy, and finally, a model for assessing the natural gas sector that I apply in my research. It must be acknowledged that this model expands upon the model used in research undertaken by Martin Jirušek in 2015.49

The realist school of international relations, which is the foundation of the strategic-oriented approach to the study of energy policy, is based on three core assumptions. First, anarchy is unequivocally the predominant condition of humanity. Order, justice, and morality are not the rule but rather the exception. Political power is the one decisive factor in every interaction within a system. Second, the most basic element in society is a group. Groups come into conflict with each other by virtue of their individual natures. Groups do not necessarily have to be the nation states that are predominant at present. In the past, for instance, the predominant groups were tribes and empires. Third, what predominantly motivates human beings are considerations of power and security.50

The realist paradigm further assumes that energy resources play an indispensable role in the formulation of the external policies of states and are unquestionably a source of international power. The more energy resources a state possesses, the stronger it is. Of course, a state must be capable of extracting and transporting those resources and there must exist a sufficient demand for them.51 The competition between states in this area reflects human nature, which is aggressive and selfish.52 Producer and transit states will try to harness their energy resources and infrastructure and gain more power, while consumers will seek to gain

control over the sources of energy. States and state actors perceive inter-
state relations as a zero-sum game.\(^{53}\)

There are two factors that influence international politics in the
framework of neoclassical realism the most. These are the actual power
of the state relative to other states, and the perception of the state’s
relative power by its ruling elite. Leaders of states, and not states \textit{per se},
are the principal actors in international relations. Therefore, a system is
created by the leaders of individual states.\(^{54}\) According to Robert Gilpin,
neoclassical realism distinguishes two basic types of international power:
national power and state power. National power is often described as
the military power of a state, but it is actually an aggregation of various
material factors such as gross domestic product, the state’s share of world
trade, and its number of inhabitants. State power is the ability of the
state’s institutions to utilize national power to achieve its goals. In other
words, a state with less national power may be able to project more state
power by improving the functioning of its internal structure and organi-
zation. On the other hand, a state with substantial national power may
project less state power to support its foreign policy aims if it has a less
efficient internal structure.\(^{55}\)

Understanding the difference between national and state power is of
utmost importance. Harnessing the national power of energy resources
in order to increase state power is far easier in those states, where state in-
stitutions directly control vital enterprises and firmly regulate the energy
market. In fact, non-democratic states such as Russia and China effect-
vatively utilize their energy resources in their foreign policies, projecting
their state power far beyond their national borders, according to Michael
Wesley.\(^{56}\) To evaluate energy sources solely through the lens of market
mechanisms is possible only once they lose their strategic importance.
The basic assumptions of the realist paradigm are shown in Table 1.

The realist paradigm and its implications undergird the strategic-orien-
ted model of energy policy. Any application of this model to real-world
phenomena assumes that the energy sector is a strategically sensitive
area. States perceive international engagement in this area as crucial for

\(^{54}\) Ibid, 144–177.
Table 1: Basic assumptions of the realist paradigm

<table>
<thead>
<tr>
<th>Assumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power is the one decisive factor in every interaction within an anarchical</td>
</tr>
<tr>
<td>international system.</td>
</tr>
<tr>
<td>States are the principal units of social reality. Individual states are</td>
</tr>
<tr>
<td>inevitably in conflict with one another because of their nature.</td>
</tr>
<tr>
<td>Power and security are the predominant human motivations.</td>
</tr>
<tr>
<td>Interstate relations are a zero-sum game.</td>
</tr>
<tr>
<td>Military power is the most prominent material factor influencing the</td>
</tr>
<tr>
<td>political power of a nation. Control and exploitation of natural resources</td>
</tr>
<tr>
<td>are crucial to maintain a nation’s industry, and consequently, the strength</td>
</tr>
<tr>
<td>of its military power.</td>
</tr>
<tr>
<td>The realist paradigm is rooted in the logic of classical geopolitics.</td>
</tr>
<tr>
<td>State involvement in the energy sector is crucial. Market forces are not</td>
</tr>
<tr>
<td>seen as reliable in supporting the state’s power; thus, it is the state</td>
</tr>
<tr>
<td>actors who aim to control resources and supply routes.</td>
</tr>
<tr>
<td>Energy resources are both reasons for potential conflict and tools for</td>
</tr>
<tr>
<td>resolving conflicts.</td>
</tr>
<tr>
<td>The inner processes of states are important, especially the perceptions</td>
</tr>
<tr>
<td>of the state’s representatives.</td>
</tr>
<tr>
<td>There is an important difference between national and state power.</td>
</tr>
</tbody>
</table>

Source: Scheme created for the purposes of this research

their survival. It therefore follows that such a sensitive area cannot be left solely to the influence of market forces. As a result, state actors seek to dominate energy resources (directly or indirectly) through a form of “resource nationalism.” The strategic-oriented model of energy policy assumes that both producers and consumers desire to gain control over the sources of energy, which creates a significant potential for conflict.

Some states, such as Russia, Iran, and Venezuela, sell their energy resources to preferred customers for significantly lower than market prices. In doing so, their goal is to strengthen their influence in target countries or to strengthen their own security, among other things. According to Carol Saivetz, the setting of the price of natural gas shipped from Russia to some post-Soviet countries in the first decade of the twenty-first century was a blatant example of this behavior. That is not to say

58 Klare, The Race for What’s Left, 50–68.
that all exporters of energy resources prefer gaining geopolitical power over maximization of profit. However, Martin C. Spechler convincingly shows that the power of an individual state cannot be exclusively based on its economic power but must also rely on other geographical, political, and cultural factors.60

If we consider the energy sector in isolation, the last decades have shown that the majority of states exercise control of their national companies that are active in this strategic sector of the economy. Based on the evidence adduced by Anders Aslund in the case of China, Russia, and Turkmenistan, as well as other states of the Central Asian ESC, the state directly or indirectly controls all key energy enterprises.61 As of 2010, state-owned energy enterprises were estimated to own approximately 70 to 80 percent of the world’s natural gas reserves and to control 85 percent of the world’s petroleum reserves.62

Market-oriented energy policy is perceived in this book as a complete opposite of strategic-oriented policy. The reality is definitely more nuanced, but to create a workable and effective research framework, I had to make this generalization. In contrast to the strategic-oriented approach to the subject matter, Morris Adelman presumes that it is only the market forces who are able to allocate energy resources effectively; hence, it is quite ineffective to use them as tools of foreign policy.63 Of course, it must be emphasized that both the market-oriented approach and the strategic-oriented approach used in the study of energy policy are merely ideal models for the purposes of academic analysis. In a real-world situation, the two foundations for policymaking are usually mixed in various proportions. In essence, the two models represent the dichotomy between a state-guided and a market-guided energy policy.64 This dichotomy is summarized below in Table 2.

| Table 2: Assumptions of the strategic-oriented and market-oriented approaches for the study of policy making |
|-------------------------------------------------|-------------------------------------------------|
| **Theoretical basis.** | The strategic-oriented approach | The market-oriented approach |
| | Realist paradigm and classical geopolitics. | Liberal paradigm, neoclassical and neo-institutional economics. |
| **General approach to energy in international relations.** | The need for independence from external supplies of energy. | Energy independence is impossible; attempts to achieve it disrupt interstate relations. |
| **Management of energy resources.** | Scarcity, which leads to resource nationalism and state interference. | The market ensures efficient and appropriate allocation. |
| **Role of energy policy in international relations.** | Used to influence international relations, instrument of international relations. | Politicization of energy affairs leads to poor allocation and less effective allocation. |
| **Limits of energy policy.** | Emphasis on securing adequate and secure supply. | Complex view, looking at all resources, and looking at the functioning of markets, infrastructure, and influence. |
| **Nature of the game and distribution of resources.** | Zero-sum game, attempts at relative victory. | Non-zero-sum game, attempts at absolute victory. |
| **Style of international relations.** | International relations founded on bilateral relations. | Cooperation within international organizations, multilateral relations. |
| **Positioning of actors in the international system.** | States are the only relevant actors. | Multiple influential actors including businesses, international organizations, interest groups. |
| **Role of the market.** | High risk of market failure. | Supplies allocated effectively without state interference. |
| **Positioning of energy resources.** | A strategic interest of the state. | An ordinary market commodity. |
| **Future development.** | Conflict over energy resources and transit infrastructure. | Scarcity of resources is best solved by cooperation among participating actors in the system. |

Theoretical model for assessment of the natural gas sector in Central Asia

The model for assessment of the natural gas sector used in this book is based on the assumptions of the realist paradigm, the concept of strategic-oriented versus market-oriented energy policy, and on previous works published by Martin Jirušek and his colleagues. I applied the indicators that define a strategic-oriented energy policy to three case studies of

Table 3: Indicators of a strategic-oriented energy policy

<table>
<thead>
<tr>
<th>Subtopic</th>
<th>Feature</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy resources</td>
<td>Energy resources perceived as strategically important.</td>
<td>Efforts to take control of energy resources, transit routes, and distribution networks.</td>
</tr>
<tr>
<td></td>
<td>Energy sector crucial for the state’s economy.</td>
<td>State’s efforts to control the energy sector due to its strategic importance for the state’s economy.</td>
</tr>
<tr>
<td>Energy actors</td>
<td>State-owned energy actors perceived as an extension of the state’s apparatus.</td>
<td>Efforts to convert as much national power as possible into state power. State-owned energy actors are principal defenders of the internal political status quo.</td>
</tr>
<tr>
<td></td>
<td>Reliance on bilateral relations.</td>
<td>Preference for long-term bilateral agreements. Diminished importance and influence of multilateral regimes.</td>
</tr>
<tr>
<td>Energy policy</td>
<td>Zero-sum approach.</td>
<td>Efforts to gain a dominant market position. Efforts to eliminate competitors.</td>
</tr>
<tr>
<td></td>
<td>Energy as a tool of state policy.</td>
<td>Active support of state-owned energy enterprises and their activities in foreign countries. The foreign supplier rewards certain behavior. Abuse of infrastructure to exert pressure on other states and state actors.</td>
</tr>
<tr>
<td>Energy policy in Central Asia</td>
<td>Dependence on foreign sources seen as undesirable.</td>
<td>Attempts to control the entire supply chain regardless of commercial rationale for it.</td>
</tr>
<tr>
<td></td>
<td>Emphasis on strategic goals over economic logic.</td>
<td>Takes economically irrational steps in order to maintain a certain position in a foreign state actor’s market.</td>
</tr>
</tbody>
</table>

the most prominent state actors in the Central Asian ESC involved in the construction of the Turkmenistan–China Gas Pipeline: the People’s Republic of China, Russia, and Turkmenistan. I divided each case study into four subchapters: 1) the energy resources and energy infrastructure of the particular state; 2) the internal energy policy of the state and state actors such as energy enterprises and state institutions; 3) the energy policy course announced by each state actor; and 4) the real energy policy course followed by each state actor with regard to Central Asia. The features of a strategic-oriented energy policy are summarized in Table 3.

For each of the three states I examined, I searched primary and secondary sources for indicators that would show either a strategic-oriented policy or a market-oriented policy. My models were created with the Central Asian natural gas sector particularly in mind. Therefore, applying them to other ESCs has to be preceded by an analysis of the energy interdependencies of the particular ESC. The principal purpose of applying the models to the states and state actors of the Central Asian ESC is to determine the dominant kind of energy policy in the ESC as a whole. The analysis will also indicate the kind of approach taken by the states and state actors involved in the construction of the Turkmenistan–China Gas Pipeline and increase knowledge of its influence on the transformation of the Central Asian ESC.

Construction of the Central Asian energy security complex

Regarding the states and state actors in the energy sector, a regional energy security complex reflects the web of energy dependencies that exist on the ground in reality. I applied this tool in order to answer the research question about the nature of the Central Asian ESC states’ approaches to their energy security. It is very difficult to analyze the behavior of the actors inside an ESC without constructing a model of it in the first place. A further reason for the construction of the ESC model is that it allows the application of other theoretical concepts. These concepts are included in the model of the Central Asian natural gas sector that I have created for this study.

One of the core concepts of the Copenhagen School of security studies is the identification of four levels of international politics. These levels are: the international system, regional subsystems, national units, and sub-national units. According to the Copenhagen School, the most
important level in international relations is the regional subsystem, like the Middle East, Europe, or South Asia. They are important because the majority of threats to national, regional, and international security arise in regional subsystems. The level of security depends on the conditions in the regional subsystems known as regional security complexes.\(^{65}\)

According to Buzan, regional security complexes (RSC) are defined as distinct and stable patterns of security interaction between actors. They are distinguished from one another by degrees of interaction. The level of interaction between members of the same RSC is high, while between members of different RSCs it is comparatively low.\(^{66}\) However, regional energy security complexes specifically are much more convenient groupings for the purposes of this study. They are very similar to the more general type, but their primary interactions are based on energy production and energy dependence. State elites usually perceive the latter as undesirable and as a potential threat to their national security. Regional energy security complexes thus represent a geographical area where energy interdependencies are concentrated.\(^{67}\) Like Buzan, this book considers regional energy complexes to be mini systems to which we can apply international relations theories, concepts, and models.\(^{68}\)

Buzan himself identified a regional security complex in the post-Soviet space, which is centered around the Russia Federation. He thought of Central Asia as a sub-complex in the framework of the broader post-Soviet regional complex, and as a nascent regional security complex of its own.\(^{69}\) The Central Asian regional security complex fulfills all four criteria set by the Copenhagen School to make it a full-fledged complex. These criteria are: a clear boundary, an anarchic structure, a polarity of powers, and the social construction of amity and enmity patterns.

The regional security complex of post-Soviet Central Asia consists of five states – Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. The boundaries of this complex are clear-cut and functional. The criterion of an anarchic structure means that the regional security complex must have more than two autonomous units. The Central Asian

\(^{65}\) Buzan and Waever, Regions and Powers, 57–70.
\(^{66}\) Ibid.
\(^{68}\) Buzan, Waever, and de Wilde, Security: A New Framework, 57–70.
\(^{69}\) Buzan and Weaver, Regions and Powers, 57–70.
The regional security complex has five. The criterion of a polarity of powers means that there is no one clear hegemonic power in the complex and Central Asia fulfills this criterion. The final criterion is that among the states of the complex, there exist socially constructed amity and enmity patterns. This is also true of the Central Asian region, as will be shown in this book. Therefore, one can justifiably speak of a regional security complex of Central Asia. However, my research dealt primarily with the issue of energy security and therefore I work with the concept of the regional energy security complex (ESC) of Central Asia.

In order to complete the ESC model of Central Asia, it is necessary to expand the regional energy security complex by adding two neighboring great powers: the Russian Federation and the People’s Republic of China (PRC). China and Russia are added to the energy security complex because they are the two principal importers of energy resources of the region. China and Russia are also the most important trade partners overall for all Central Asian states, as illustrated in Tables 4 through 10. In all cases, trade in energy resources makes up a significant portion of bilateral trade. For instance, Kazakhstan’s two most important trade partners in 2017 were Russia (18.1% of its total trade) and China (18.4%). Uzbekistan’s two most important trade partners based on total trade in 2017 were also Russia (20.6%) and China (13.5%). As for Turkmenistan, its main export partner in 2017 was China, which accounted for 71% of its exports.70

The Central Asian states are either primary exporters of energy resources – Turkmenistan, Kazakhstan, and Uzbekistan – or transit states – Kyrgyzstan and Tajikistan. Hence, all the states in the regional energy security complex perceive their dependence on one predominant producer or consumer state as a potential threat to their national security.71 It is precisely the perception of energy dependence as a potential threat that binds the complex together and allows us to examine it as a unit.

### Table 4: Proven natural gas reserves, in trillions of cubic meters (2007–2019)

<table>
<thead>
<tr>
<th>Year</th>
<th>Russia</th>
<th>Turkmenistan</th>
<th>China</th>
<th>Kazakhstan</th>
<th>Uzbekistan</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>31.1</td>
<td>2.3</td>
<td>2.3</td>
<td>2.0</td>
<td>1.2</td>
</tr>
<tr>
<td>2008</td>
<td>31.4</td>
<td>7.3</td>
<td>2.8</td>
<td>2.0</td>
<td>1.2</td>
</tr>
<tr>
<td>2009</td>
<td>31.4</td>
<td>7.3</td>
<td>2.9</td>
<td>2.0</td>
<td>1.1</td>
</tr>
<tr>
<td>2010</td>
<td>31.5</td>
<td>10.2</td>
<td>2.8</td>
<td>2.0</td>
<td>1.1</td>
</tr>
<tr>
<td>2011</td>
<td>31.8</td>
<td>17.5</td>
<td>3.0</td>
<td>2.0</td>
<td>1.1</td>
</tr>
<tr>
<td>2012</td>
<td>32.0</td>
<td>17.5</td>
<td>3.2</td>
<td>2.0</td>
<td>1.1</td>
</tr>
<tr>
<td>2013</td>
<td>32.3</td>
<td>17.5</td>
<td>3.5</td>
<td>2.0</td>
<td>1.1</td>
</tr>
<tr>
<td>2014</td>
<td>32.4</td>
<td>17.5</td>
<td>3.7</td>
<td>2.0</td>
<td>1.1</td>
</tr>
<tr>
<td>2015</td>
<td>32.3</td>
<td>17.5</td>
<td>4.8</td>
<td>2.0</td>
<td>1.1</td>
</tr>
<tr>
<td>2016</td>
<td>32.3</td>
<td>17.5</td>
<td>5.4</td>
<td>2.0</td>
<td>1.1</td>
</tr>
<tr>
<td>2017</td>
<td>38.9</td>
<td>19.5</td>
<td>6.1</td>
<td>2.0</td>
<td>1.2</td>
</tr>
<tr>
<td>2018</td>
<td>38.9</td>
<td>19.5</td>
<td>6.1</td>
<td>2.0</td>
<td>1.2</td>
</tr>
<tr>
<td>2019</td>
<td>38.0</td>
<td>19.5</td>
<td>6.4</td>
<td>2.7</td>
<td>1.2</td>
</tr>
</tbody>
</table>

Source: Statistical Report of World Energy

### Table 5: Production of natural gas, in billion cubic meters per year (2007–2019)

<table>
<thead>
<tr>
<th>Year</th>
<th>Russia</th>
<th>Turkmenistan</th>
<th>China</th>
<th>Kazakhstan</th>
<th>Uzbekistan</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>592.0</td>
<td>65.4</td>
<td>71.6</td>
<td>13.8</td>
<td>58.2</td>
</tr>
<tr>
<td>2008</td>
<td>601.7</td>
<td>66.1</td>
<td>83.1</td>
<td>16.1</td>
<td>57.8</td>
</tr>
<tr>
<td>2009</td>
<td>527.7</td>
<td>36.4</td>
<td>88.2</td>
<td>16.5</td>
<td>55.6</td>
</tr>
<tr>
<td>2010</td>
<td>588.9</td>
<td>42.4</td>
<td>99.1</td>
<td>17.6</td>
<td>54.4</td>
</tr>
<tr>
<td>2011</td>
<td>607.0</td>
<td>59.5</td>
<td>109.0</td>
<td>17.3</td>
<td>57.0</td>
</tr>
<tr>
<td>2012</td>
<td>592.3</td>
<td>62.3</td>
<td>111.8</td>
<td>17.2</td>
<td>56.9</td>
</tr>
<tr>
<td>2013</td>
<td>604.7</td>
<td>62.3</td>
<td>122.2</td>
<td>18.4</td>
<td>56.9</td>
</tr>
<tr>
<td>2014</td>
<td>581.7</td>
<td>67.1</td>
<td>131.6</td>
<td>18.7</td>
<td>57.3</td>
</tr>
<tr>
<td>2015</td>
<td>575.1</td>
<td>69.6</td>
<td>136.1</td>
<td>19.0</td>
<td>57.7</td>
</tr>
<tr>
<td>2016</td>
<td>579.4</td>
<td>66.8</td>
<td>138.4</td>
<td>19.9</td>
<td>62.8</td>
</tr>
<tr>
<td>2017</td>
<td>635.6</td>
<td>58.7</td>
<td>149.2</td>
<td>23.4</td>
<td>53.4</td>
</tr>
<tr>
<td>2018</td>
<td>669.5</td>
<td>61.5</td>
<td>161.5</td>
<td>24.4</td>
<td>56.6</td>
</tr>
<tr>
<td>2019</td>
<td>679.0</td>
<td>63.2</td>
<td>177.6</td>
<td>23.4</td>
<td>56.3</td>
</tr>
</tbody>
</table>

Source: Statistical Report of World Energy
**Table 6:** Trade volumes between Kazakhstan, Russia, and China, 2012–2020 (mil. USD)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RF import</strong></td>
<td>6,747.2</td>
<td>5,875.3</td>
<td>6,388.5</td>
<td>4,547.5</td>
<td>3,509.2</td>
<td>4,515.0</td>
<td>5,162</td>
<td>5,602</td>
<td>4,899</td>
</tr>
<tr>
<td><strong>RF export</strong></td>
<td>17,110.5</td>
<td>17,971.8</td>
<td>13,807.7</td>
<td>10,529.3</td>
<td>9,129.8</td>
<td>11,473.0</td>
<td>12,392</td>
<td>14,065</td>
<td>13,300</td>
</tr>
<tr>
<td><strong>CN import</strong></td>
<td>16,484.4</td>
<td>14,373.7</td>
<td>9,799.4</td>
<td>5,480.1</td>
<td>4,214.9</td>
<td>5,777.9</td>
<td>6,272</td>
<td>7,823</td>
<td>9,004</td>
</tr>
<tr>
<td><strong>CN export</strong></td>
<td>7,497.7</td>
<td>8,364.5</td>
<td>7,357.2</td>
<td>5,087.8</td>
<td>3,665.7</td>
<td>4,692.2</td>
<td>5,384</td>
<td>6,537</td>
<td>6,346</td>
</tr>
</tbody>
</table>

**Source:** The International Trade Centre

**Table 7:** Trade volumes between Turkmenistan, Russia, and China, 2008–2020 (mil. USD)

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RF</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>import</td>
<td>100.1</td>
<td>45.0</td>
<td>148.0</td>
<td>142.6</td>
<td>183.8</td>
<td>139.4</td>
<td>90.9</td>
<td>71.3</td>
<td>331.2</td>
<td>83</td>
<td>155.0</td>
<td>151.4</td>
<td>320.3</td>
</tr>
<tr>
<td>export</td>
<td>809.0</td>
<td>999.0</td>
<td>717.5</td>
<td>1,116.0</td>
<td>1,211.0</td>
<td>1,430.0</td>
<td>843.9</td>
<td>570.6</td>
<td>343</td>
<td>288.8</td>
<td>543.0</td>
<td>650.0</td>
<td></td>
</tr>
<tr>
<td><strong>CN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>import</td>
<td>28.4</td>
<td>38.5</td>
<td>1,045.0</td>
<td>4,693.0</td>
<td>8,673.0</td>
<td>8,893.0</td>
<td>9,516.0</td>
<td>7,828.0</td>
<td>5,563.0</td>
<td>5,933</td>
<td>8,119.0</td>
<td>8,686.0</td>
<td>6,071.0</td>
</tr>
<tr>
<td>export</td>
<td>801.9</td>
<td>915.7</td>
<td>525.1</td>
<td>784.1</td>
<td>1,699.0</td>
<td>1,138.0</td>
<td>954.3</td>
<td>815.5</td>
<td>338.5</td>
<td>361</td>
<td>316.7</td>
<td>431.0</td>
<td>444.7</td>
</tr>
</tbody>
</table>

**Source:** The International Trade Centre
Table 8: Trade volumes between Uzbekistan, Russia, and China, 2012–2019 (mil. USD)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>RF import</td>
<td>1,390.8</td>
<td>1,256.9</td>
<td>869.8</td>
<td>575.8</td>
<td>761.0</td>
<td>1,010</td>
<td>1,636.6</td>
<td>2,067.2</td>
</tr>
<tr>
<td>RF export</td>
<td>2,324.7</td>
<td>2,803.9</td>
<td>3,113.6</td>
<td>2,221.9</td>
<td>1,965.0</td>
<td>2,620</td>
<td>3,382.7</td>
<td>3,974.2</td>
</tr>
<tr>
<td>CN import</td>
<td>1,091.8</td>
<td>1,938.0</td>
<td>1,597.9</td>
<td>1,267.1</td>
<td>1,607.0</td>
<td>1,400</td>
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<td>1,767.4</td>
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<td>CN export</td>
<td>1,783.3</td>
<td>2,613.4</td>
<td>2,678.2</td>
<td>2,228.8</td>
<td>2,007.5</td>
<td>2,721</td>
<td>3,539.4</td>
<td>5,052.0</td>
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Source: The International Trade Centre

Table 9: Trade volumes between Tajikistan, Russia, and China, 2012–2020 (mil. USD)

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<tbody>
<tr>
<td>RF import</td>
<td>68.3</td>
<td>37.9</td>
<td>37.3</td>
<td>52.2</td>
<td>26.4</td>
<td>24.6</td>
<td>55.2</td>
<td>44.3</td>
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<td>679.0</td>
<td>724.0</td>
<td>891.0</td>
<td>763.0</td>
<td>662.0</td>
<td>687.0</td>
<td>967.9</td>
<td>1,009.2</td>
<td>932.6</td>
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<td>88.8</td>
<td>47.7</td>
<td>52.0</td>
<td>31.3</td>
<td>45.8</td>
<td>57.0</td>
<td>55.4</td>
<td>34.4</td>
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<td>1,869.4</td>
<td>2,468.3</td>
<td>1,795.4</td>
<td>1,725.0</td>
<td>1,301.0</td>
<td>594.1</td>
<td>605.5</td>
<td>438.4</td>
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</table>

Source: The International Trade Centre

Table 10: Trade volumes between Kyrgyzstan, Russia, and China, 2012–2020 (mil. USD)

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<td>157.3</td>
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<td>1,989.2</td>
<td>1,779.8</td>
<td>1,271.6</td>
<td>799.8</td>
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<tr>
<td>CN import</td>
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<td>39.0</td>
<td>32.8</td>
<td>35.9</td>
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<td>61.2</td>
<td>81.5</td>
<td>43.2</td>
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<td>1,098.5</td>
<td>1,029.0</td>
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<td>4,460.0</td>
<td>1,942.2</td>
<td>1,733.9</td>
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Source: The International Trade Centre
Methodology and Data

This subchapter explains the methodological framework of this book step-by-step. First, I define my subject matter as the changing energy security of Central Asia after the dissolution of the Soviet Union in 1991. The choice of this broad topic was based on my previous academic work and areas of interest. The topic relates to the subject matter of the four most important academic debates about Central Asia: energy security in general, the formulation of energy policy, regional energy security complexes, and energy security in Central Asia. My analysis draws on the most relevant secondary academic literature in which all four of these debates were conducted.

This monograph aspires to contribute to all four of the aforementioned debates. As for energy security, I examine regionalism in energy security as well as the politicization and weaponization of energy resources. The behavioral patterns of states and state actors in the formulation of energy policy are at the core of the research in this book. I have created models of strategic-oriented and market-oriented energy policy and applied them to the datasets I gathered. The concept of regional energy security complexes is quite new and is still rather underdeveloped in the literature. It seems never to have been applied to the Central Asian region before. Therefore, this book is a step forward that demonstrates both the possibilities and the limits of this type of research and analysis.

Finally, the academic debate on energy security in Central Asia splits into three important subgroups. These are: China’s rising economic influence in the region, the energy security of particular Central Asian states, and the geopolitical significance of energy transport in Central Eurasia. This book follows up on all three of these issues. Its argument is novel in that it clearly focuses on the issue of energy security. As it contributes to all of the aforementioned academic debates about energy security in Central Asia, my research should be of interest to both academics and politicians.

This book focuses on the interdependencies in Central Asia in the field of natural gas. This is because natural gas has significant geopolitical implications due to the technical complexity of transporting it. The availability of natural gas is a litmus test for a state’s energy independence and an indicator of complex interdependencies between states. From this point of view, Turkmenistan is the most important Central Asian player in natural gas, as measured by its abundant supplies of natural gas and its ability to export it to markets abroad.
Since 1991, the energy security of Turkmenistan has been significantly influenced by the construction of the Turkmenistan–China Gas Pipeline. An analysis of the impact of the pipeline on the energy security of particular states requires a regional approach. The energy security of an energy producer and exporter such as Turkmenistan critically depends on its customers and importers in the region. Therefore, this research works with the concept of the Central Asian regional energy security complex. It includes all five Central Asia states – Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan – in the complex, as well as the two most important great powers and energy importers in the neighbourhood – China and Russia. The regional energy security complex is best analyzed with regard to the interdependencies of these countries in the gas sector. This focus helps to facilitate and narrow down the scope of the research here presented.

I have chosen to answer one overarching research question: “What is the predominant approach to energy policy among the states and state actors of the regional energy security complex of Central Asia?” Answering that question requires an examination of the basic behavioral patterns of the states that make up the Central Asian ESC. My research then builds upon the behavioral patterns and analyzes how they influence relations among the states of the ESC.

The process of answering the research question first requires defining and constructing a model of the Central Asian energy security complex, as described in the section on the theoretical framework in Chapter One. The definition of the Central Asian ESC is based on concepts used in security studies. It is then necessary to determine the actual behavioral patterns of the states of the Central Asian ESC, which could be either market-oriented and focused on maximizing profits, or strategic-oriented and focused on maximizing the energy security of particular states of the ESC.

I created a model of strategic-oriented behavior that I subsequently applied to the states and state actors involved in the Central Asian ESC. The creation of this model drew on the concepts used in security studies and the realist school of international relations. I applied it to three of the most important actors in the Central Asian ESC as regards trade in natural gas – Russia, China, and Turkmenistan. The Turkmenistan–China Gas Pipeline construction had the greatest impact on these three states as well. Hence, the core of this book consists of three case studies of energy security and energy policy formulation – of Turkmenistan, Russia, and China. My model assumes that market-oriented energy policy is the exact
opposite of strategic-oriented policy and assesses the natural gas sectors of the three states in that light. Therefore, if a state does not behave in conformity with a strategic-oriented policy, I assume it is behaving in conformity with a market-oriented policy.

I attempt to answer the research question by applying the criteria of the model to assess the Central Asian ESC natural gas sector. The criteria are the following: the state perceives its energy resources to be strategically important; it perceives its energy sector as crucial to its economy; it perceives its state-owned energy actors as extensions of its state apparatus; it prefers to rely on bilateral relations rather than multilateral relationships; it perceives the energy sector as a tool for achieving the ends of the state; it perceives achieving energy security as a zero-sum game; it perceives energy dependence as undesirable; and it emphasizes strategic goals over economic logic.

I looked for evidence of each of these criteria as I prepared the three case studies on Russia, China, and Turkmenistan and have summarized my approach in Table 11. It must be stressed that the data could lead to a conclusion that the actors of the ESC were predominantly behaving according to a strategic-oriented energy policy, but at the same time behave according to a market-oriented policy with regard to the construction of the TCGP. Moreover, some actors could be behaving in accordance with strategic-oriented policy and others in accordance with market-oriented policy.

The fact that this book analyzes relatively understudied phenomena meant that it required heavy reliance on primary sources. I gathered most of my primary data during my field trips to Central Asia, Russia, and the United States between 2014 and 2020, as well as from various online databases.

Among the primary data sources belong energy statistics and articles published by relevant international organizations, governmental organizations, and energy-related enterprises. Apart from enterprises directly involved in the energy sector, I worked with primary data produced by the governments and relevant ministries of certain states of the Central Asian ESC. These were the Russian Federation, the People’s Republic of China, Turkmenistan, Kazakhstan, and Uzbekistan.72

Additional primary data concerning the global and Central Asian energy sectors can be found in the publications of specialized international organizations and agencies, including the International Energy Agency,

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72 A list of the most important primary sources I used can be found in the bibliography.
the World Energy Council, the United States Energy Security Council, and the US Energy Information Administration. Other key sources of primary data include various media outlets, both international and local. However, the data from those outlets must be analyzed critically and with utmost caution given the high degree of governmental control over the media in the states of the Central Asian ESC. The sources I used included newspaper articles, commentaries, and analyses published in the region’s leading media outlets.\(^{73}\)

In addition, this monograph draws on a multitude of secondary academic sources, both for the construction of the methodological and theoretical framework of the research and for factual information. The main secondary sources are presented in the State of the Research section of Chapter One. I divided the secondary sources of data into four subgroups according to the issues to which they relate: energy security,

\(^{73}\) My most important media sources were: Neitralniy Turkmenistan, Turkmenistan.ru, Fergana.ru, Reuters, BBC, China Daily, People’s Daily, Xinhua News Agency, Lenta.ru, Vedomosti, RBC and TASS.
behavioral patterns of states and state actors in the formulation of energy policy, the energy security complex, and energy security in Central Asia. I worked chiefly with primary and secondary resources in the English or Russian languages because of their ready availability and my familiarity with those languages. Nevertheless, I gathered data without regard to the ideological or political orientation of the sources.\textsuperscript{74}

\textsuperscript{74} A list of the most important authors of the secondary literature and their works is presented in the first chapter of this book in the subchapter on the State of Research.
The first of my three case studies focuses on Russia’s energy policy and its formulation with regard to the Central Asian ESC. This chapter is divided into four main parts: energy resources, energy actors, energy policy in general, and energy policy as regards the Central Asian ESC. The content of these subchapters is based on my evaluation of primary sources and secondary academic sources. The goal of this particular case study is to search for the features identified by the model as it relates to the natural gas sector, i.e. the perception that energy resources are strategically important; the perception that the energy sector is crucial for the state’s economy; the perception that state-owned energy actors are extensions of the state apparatus; reliance on bilateral relations rather than multilateral arrangements; the perception that the energy sector is a tool for achieving the state’s goals; zero-sum approach to energy policy; the perception that dependence on other states is undesirable; and an emphasis on strategic goals over economic logic. This research is a major stepping-stone in the process of answering the research question about the predominant type of energy policy among the states of the Central Asian ESC. The next step in this chapter is an assessment of the particular indicators gathered in the research.

**Energy Resources**

Russia’s oil and gas industries are among the oldest in the world. The first oil wells on Russian territory were drilled in the 1840s near Baku, now in Azerbaijan. In the second half of the nineteenth century, new oil fields were discovered, especially in the North Caucasus and Central Asia. By
1900, the Russian Empire was producing 40 percent of the world’s oil output.\textsuperscript{75} After the Second World War, hydrocarbon extraction extended into the Ural-Volga region. In 1985, Russia’s exports of crude oil provided 39 percent of all the hard currency income of the Soviet Union. In 1988, Soviet oil production reached its peak with 12.5 million barrels per day.\textsuperscript{76} However, after the breakup of the Soviet Union, oil production dropped by 50 percent from 1990 to 1995.\textsuperscript{77}

At present, Russia’s overall petroleum resources are estimated at 80 billion barrels. This represents approximately five percent of the estimated global reserves.\textsuperscript{78} However, Russia’s production as a percentage of world output is much higher. As of now, it is approximately 10.9 million barrels per day, representing more than 13 percent of the world’s production.\textsuperscript{79} The estimated amount of natural gas reserves in Russia is 32.3 trillions of cubic meters (tcm), which represents 23.7 percent of global reserves. This makes Russia the world’s largest natural gas exporter and the second largest natural gas producer after the United States. The overall production in 2016 reached almost 579.4 billion cubic meters ( bcm).\textsuperscript{80}

The key extraction areas at present are the Volga region and the Timan-Pechora region in northern Russia. The most important natural gas fields in the Timan-Pechora region are Urengoy, Medvezhye, and Yamburg. Other promising extraction sites with mid-term prospects are at Zapolyarnoye, Yamal, and Sakhalin Island in the Russian Far East.\textsuperscript{81} The most important gas export pipelines are the Yamal–Europe Gas Pipeline, the Russia–Finland Gas Pipeline, the Soyuz Gas Pipeline, the Bratstvo Gas Pipeline, Blue Stream, and Nord Stream I. There are also new pipeline projects in various stages of implementation.\textsuperscript{82} It is expected that the production of hydrocarbons in Russia will gradually move eastwards and

\textsuperscript{77} “Crude Oil Production of the Russian Federation,” OECD Data, data.oecd.org/energy/crude-oil-production.htm.
\textsuperscript{78} “Worldwide Look at Reserves and Production,” \textit{Oil and gas Journal}, December 1, 2014.
\textsuperscript{80} Ibid.
further north into the Arctic regions. Whether that would mean a shift of Russia’s export markets from Europe to Asia is still unclear.\textsuperscript{83}

Russia’s economy and especially its hydrocarbon complex were heavily damaged by the breakup of the Soviet Union. Russia’s energy consumption fell by 14 percent in the first half of the 1990s and only began to rise again from 2000 to 2010. In 2016, natural gas constituted 52 percent of Russia’s energy consumption, petroleum constituted 23 percent, coal 10 percent, and renewables 15 percent.\textsuperscript{84} Hence, there was a significant amount of oil and gas available for export. Hydrocarbon revenues provided 50 percent of Russia’s federal government revenues and constituted 68 percent of the country’s total exports in 2013.\textsuperscript{85}

The position of natural gas in the mix of the domestic energy consumption in Russia is being solidified by governmental subsidies. For instance, in 2016 the end-user cost of natural gas on Russia’s internal market was USD 112 per thousand cubic meters but on the European market it was approximately USD 550.\textsuperscript{86} Thus, it could be argued that the Russian government is buying the support of its citizens by subsidizing the price of natural gas. The result is that the ruling regime is even more dependent on its energy sector and on natural gas in particular for its energy security.\textsuperscript{87}

This subchapter on the energy resources of the Russian Federation shows that its energy sector has been considered one of the key sectors of its economy ever since the late nineteenth century. The Soviet, and now the Russian state perceives the energy sector as one of the central elements supporting its power. The same goes for the Putin regime, which subsidizes energy in order to ensure political support. The Russian state is therefore vitally interested in controlling its energy sector. It considers energy a strategic asset that maintains popular support of the ruling regime.\textsuperscript{88}

\textsuperscript{83} For more on the role of energy resources in state policies see: Philip Andrews-Speed, \textit{International Competition for Resources: The role of law, the state and markets} (Dundee: Dundee University Press, 2008).
\textsuperscript{88} For more on energy security of Russia and Asian countries see: Hedvika Kodousková, Petra Kuchyňková and Anna Leschenko, \textit{Energetická bezpečnost azijských zemí a Ruské federace} (Brno: Masarykova Univerzita, 2012).
State Actors in the Energy Sector

The current political system in Russia can be described as “neo-tsarism” because in Russia power is personalized, as it is in a monarchy. Vladimir Putin and his entourage direct both the internal and external policies of their country in a Hobbesian use of the power they wield. They perceive international politics as nothing short of an unending struggle for power, money, and influence, and to them, Russia’s internal politics is no less of a struggle to stay in power – at any cost. To fail in this struggle would cost those in power a lot more than just property. This attitude was apparent during the early years of the twenty-first century, when Putin and his inner circle subdued and destroyed the oligarchs who had controlled Russia’s energy sector in the previous decade. It became even more obvious during the 2010s as Russia began to act upon its neo-imperial ambitions.

The inception of Putin’s rise to power lay in a program of massive re-nationalization of the energy sector that took place after 2000. Putin installed persons from his inner circle to the top managerial positions in the state-controlled energy enterprises. Over the course of his first presidential term, the country’s oil enterprises were partly nationalized and reorganized. Their number diminished from thirteen to eight. During his second presidential term, the state’s share of ownership of the oil industry rose from 13 percent in 2004 to 40 percent in 2007.

Putin’s administration made it harder for foreign investors to be active in Russia. At present, a special government commission examines and approves every purchase of a controlling interest by a foreign investor in companies operating in strategic sectors of the economy. Also, the government has to approve purchases of more than a ten percent share of large oil and gas fields by law. This requirement was enshrined in the so-called strategic law of 2008. All of these factors suggest that the

89 For a thorough account of the transformation of Russia’s economy see: Aslund, How Capitalism Was Built.
90 Ibid: 40–42.
energy sector is the most valuable asset of Putin’s regime and a potential tool of foreign policy.

Russia’s oil sector was largely privatized after 1991, while the gas sector remained in the state’s hands. There were concerns that the Soviet-era management would stay in power at Russia’s state-owned oil companies and create a new ruling class. Privatization of the oil sector was supposed to avert that. Still, transportation of oil products remained in the hands of the state in the form of two monopolies, Transneft and Transnefteprodukt. Transneft focused on the transport of crude oil while Transnefteprodukt transported oil products.

The situation in the gas sector was quite different. The Ministry for Gas Industry was turned into the giant Gazprom after the fall of the Soviet Union. Gazprom controlled the state’s natural gas resources and infrastructure. The first real competition in the sector only began to appear between 2000 and 2010. Gazprom’s shares were freely tradable during the entire period of the 1990s and the Russian state controlled only 40 percent of them. This policy changed with the accession of Vladimir Putin to the presidency. He insisted that the state must control the majority of the shares in Gazprom because of its strategic value. As a result, the Kremlin gained control of the majority of Gazprom’s shares in 2005.

If the energy sector of Russia is a weapon of its foreign policy, Gazprom should be seen as its spearhead. It was the most profitable company in the world in the year 2012. That year, its profits peaked at USD 44.5 billion. As of 2010, it controlled 66 percent of all the natural gas-related activities in Russia. Moreover, as of 2017 it had approximately 462,000 employees and was one of the most important employers in the country.

Gazprom was created from the Soviet-era Ministry for Gas Industry in the first half of the 1990s. Its first Chairman was Viktor Chernomyrdin,

94 “Istoria,” Transneft, transneft.ru/about/story and “Ob organizacii,” Transnefteprodukt, transnefteprodukt.transneft.ru/about.
who served as Russia’s prime minister between 1992 and 1998. The privatization of Gazprom began in 1992. Between 1993 and 2004 the Russian state controlled 40 percent of its shares, private Russian entities another 40 percent, and foreign investors 20 percent. However, this situation changed with the rise of Vladimir Putin, who increased the state’s ownership to 51 percent soon after his appointment to presidential office. By the end of the 2010s, Gazprom controlled 70 percent of Russia’s natural gas resources and 85 percent of its natural gas production. Today it controls and maintains Russia’s vast network of 172,000 kilometers of gas pipelines. Gazprom is one of the critical pillars of Putin’s power both in Russia and abroad.

In a sense, the situation in the natural gas sector is less liberalized than in the petroleum sector, where Transneft controls Russia’s transportation infrastructure. The most important natural gas fields controlled by Gazprom are Yamburg, Medvezhye, and Urengoy. Besides its activities in the natural gas sector, Gazprom owns Gazprom Media, Gazprom Bank, the pension fund NPF Gazfond, 26 cultural centers, sports complexes, and hospitals. In addition, it is the most significant owner of agricultural land in Russia. It is the owner of SIBUR, the largest refinery company in Russia. Finally, and importantly, it extracts petroleum through its subsidiary Gazpromneft, which, under the name of Sibneft, was formerly owned by Roman Abramovich.

Russia’s political elites hail the transformation of Gazprom under Putin as one of his most significant feats. According to Alexander Prokhanov, head of the pro-Putin Izborskiy Club and one of the Putin regime’s most prominent propagandists:

The development of Gazprom, turning it into a state-forming, empire-forming structure, is a big achievement of Putin’s. With its help, he has scattered pipelines across Eurasia, connecting them with Europe, Belarus, Ukraine, and the Central Asian republics. Moreover, this strapping of space with steel pipes is

100 OAO Gazprom, “Istoria.”
101 Goldman, Petrostate, 93–136.
103 For more on Gazprom see: Kevin Rosner, Gazprom and the Russian State (London: GMB Publishing Ltd., 2006).
the prototype of the future great state. Gazprom is the civilizational achievement of Putin's Russia... Gazprom saved the country and laid the foundation for future statehood. Gazprom is a steel bud, from which the flower of the fifth Russian empire will eventually bloom.  

It is quite ironic that it has been rather China and its national petroleum corporation who has been “scattering pipelines across Eurasia” since 2010.

Another Russian oil and gas giant is Rosneft, which was created from the Soviet-era Ministry of the Oil Industry in 1991. Rosneft was not particularly successful in the 1990s. Its rise to prominence started only at the end of that decade, and its growth is firmly connected with its former president, Sergei Bogdanchikov. Under Bogdanchikov’s direction, Rosneft gained control of the Yukosneftegaz company, also known as Yukos, in 2004. This acquisition accelerated the company’s growth. Five years later, Yukos’ share in the extraction activities of Rosneft was 61 percent for oil and 21 percent for gas.

Since 2008, Rosneft has been the largest producer of petroleum in the Russian Federation. Most of its oil resources are located in Western Siberia. The Russian state controls approximately 70 percent of its shares. Rosneft is almost as important to Putin’s regime as Gazprom. However, it took much more effort and scheming to make it the oil behemoth it currently is.

The next big oil and gas enterprise, Lukoil, is relatively independent of the Russian government compared to Rosneft. Lukoil was founded at the beginning of the 1990s by Vagit Alekperov, who to this day is still its president and biggest shareholder. Lukoil was created out of three Western Siberian companies – Langepasneftegaz, Urayneftegaz, and Kogalymneftegaz. These early companies are still commemorated in the first three letters of the name Lukoil. Lukoil is unusual in the Russian context because it is dominated by its minority shareholders. However, this does not mean that Lukoil is immune to political pressure. Its founder Alekperov, for instance, served as deputy minister for oil production

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in the 1990s. Above all, five of the eleven members of the company’s executive board are former politicians, including Igor Ivanov, who was Russia’s Minister of Foreign Affairs from 1998 to 2004.112

Lukoil controls 1 percent of all world petroleum reserves and 2.2 percent of the world’s petroleum production. That translates into 17.8 percent of Russia’s petroleum production. Its activities are concentrated in Western Siberia, the Ural-Volga region, the Timan-Pechora region, and the Caspian Sea region. It also owns a network of petroleum stations in 26 countries, including some in Europe.113 Lukoil is handy to the overall interests of Russia’s energy sector as it can participate in projects and initiatives abroad that would not be accessible to fully state-controlled enterprises such as Gazprom and Rosneft. Its existence is beneficial to Putin’s regime, but it does not jeopardize the position of either Rosneft or Gazprom.

Another formerly valuable player, TNK-BP, was created in 1995 by a governmental decision as TNK (Tyumenskaya neftyanaya kompania) as a merger of two companies, Nizhnevartovskneftegaz and Tyumenneftegaz. After a brief period of acrimonious competition, TNK and BP joined their activities in Russia in 2003 and founded TNK-BP. Since that time, conflicts between Russia’s government and TNK-BP arose, but in 2013 TNK-BP was acquired by Rosneft, which consequently became world’s largest oil producer.114 With this step, Russia’s government squeezed the last significant foreign player out of its energy sector. Moreover, the acquisition of TNK-BP helped Rosneft to strengthen its position in Eastern Siberia and the Far East.

As of 2019, Novatek was the second largest producer of natural gas in Russia after Gazprom. At the beginning of the 1990s, it focused only on the construction of pipeline infrastructure, but it later broadened the portfolio of its activities. At present, it chiefly pursues liquified natural gas (LNG) initiatives across Russia.115 Novatek is not free of the Kremlin’s influence – Gazprom owns almost 10 percent of its shares and Putin’s close friend and billionaire Gennady Timchenko owns another 23 percent. There are even hints that Timchenko owes his position in Novatek to Putin’s influence. Two of the important oil and gas enterprises

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in Russia – Lukoil and Novatek – are nominally independent, but they are subject to governmental restrictions and limitations.

This subchapter on the energy players in Russia explains how it happened that Putin’s regime directly or indirectly controls almost all of the country’s energy sector. Both Gazprom and Rosneft are key pillars of the current political regime in Russia. However, even formally independent energy players such as Lukoil and Novatek have strong connections to the ruling power vertical. Those facts lead to the conclusion that the Russian state wants to transform as much of the national power generated by its energy sector into state power as possible. It considers state-owned or state-dependent energy actors to be an extension of the state apparatus. This subchapter describes Russia’s efforts to take control of crucial energy actors as it did in the case of TNK-BP. This concerted effort indicates that Russia sees energy resources as strategically important commodities.

**Energy Policy**

Russia’s energy policy cannot be understood without paying attention to its geopolitical position. Putin’s regime is tightly focused on maintaining stability and order at home, and it is strictly on guard against external interference. These priorities are summed up in the concept of “sovereign democracy” coined by Putin regime’s ideologue, Vladislav Surkov. Putin’s narrative emphasizes the unstable and corrupt era of the 1990s that accompanied the rise of the so-called oligarchs.

One of the most prominent of those oligarchs, Mikhail Khodorkovsky, was sentenced to imprisonment in 2005. His chief sins were the following: he attempted to move the headquarters of the oil and gas producer Yuganskneftegaz from Russia to the United States, to sell shares of Yukos (a merger of Yuganskneftegaz and other oil-related companies) to the US company Exxon, and to build a privately-owned pipeline to China. In the same year, Gazprom gained control over the company Sibneft, which belonged to other prominent oligarchs, Roman Abramovich and

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Boris Berezovsky.\textsuperscript{118} Russia regained its majority share in Gazprom and nationalized approximately half of the oil sector between 2003 and 2007. This move cemented Putin’s regime and assured it a financial base.

The change in Russia’s attitude towards its energy policy after the accession of Vladimir Putin was evident already in the concepts of its foreign policy\textsuperscript{119} and national security policy\textsuperscript{120} published in the year 2000. Both of these documents stressed the pivotal importance of energy in Russia’s foreign policy and national security. The Russian energy strategy published in 2003 emphasized its importance even more.\textsuperscript{121} The 2003 energy strategy document starts out with a clear statement: “Russia possesses huge deposits of energy resources and a powerful fuel energy complex, which is the basis for the development of its economy and an instrument of foreign and domestic policy.”\textsuperscript{122}

The strategy document outlined both western and eastern directions for Russia’s energy policy. However, it was clear that Europe would remain Russia’s primary energy customer for at least the next twenty years. The blueprint of Russia’s foreign policy\textsuperscript{123} was updated in 2008 and its energy strategy in 2009.\textsuperscript{124} The 2009 energy strategy outlined Russia’s plans for its energy policy up to 2030. It had to deal with a changed situation compared to 2003 because of the global financial crisis at that time. Another game changer were the disputes over supplies of natural gas between Russia and various countries from 2003 to 2009. The newly stated objective was to diversify the export markets for Russia’s energy resources and to maintain stable market conditions. In other words, to guarantee demand and reasonable prices – that is, energy security.\textsuperscript{125} Table 12 illustrates the development of Russia’s macroeconomic situation since the economic crisis of 2009.

\textsuperscript{122} Ibid.
\textsuperscript{123} Ibid.
The energy strategy was once again amended in 2014, with a prolonged timeframe up to 2035. That update even more openly emphasized the importance of energy policy as a tool for promoting Russia’s foreign policy interests: “As a responsible state, Russia considers its external energy policy not from the narrow point of view of an exporter, intent upon maximizing short-term revenues, but as a tool to solve both national and global problems.”


<table>
<thead>
<tr>
<th>Year</th>
<th>GDP (trillion USD)</th>
<th>GDP per capita (current USD)</th>
<th>Inhabitants (thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>1.300</td>
<td>9,101</td>
<td>142,805</td>
</tr>
<tr>
<td>2008</td>
<td>1.661</td>
<td>11,635</td>
<td>142,742</td>
</tr>
<tr>
<td>2009</td>
<td>1.223</td>
<td>8,563</td>
<td>142,785</td>
</tr>
<tr>
<td>2010</td>
<td>1.525</td>
<td>10,675</td>
<td>142,849</td>
</tr>
<tr>
<td>2011</td>
<td>2.032</td>
<td>14,212</td>
<td>142,961</td>
</tr>
<tr>
<td>2012</td>
<td>2.170</td>
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</tr>
<tr>
<td>2013</td>
<td>2.231</td>
<td>15,544</td>
<td>143,507</td>
</tr>
<tr>
<td>2014</td>
<td>2.064</td>
<td>14,126</td>
<td>143,820</td>
</tr>
<tr>
<td>2015</td>
<td>1.366</td>
<td>9,329</td>
<td>144,097</td>
</tr>
<tr>
<td>2016</td>
<td>1.283</td>
<td>8,748</td>
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</tr>
<tr>
<td>2017</td>
<td>1.579</td>
<td>10,751</td>
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</tr>
<tr>
<td>2018</td>
<td>1.658</td>
<td>11,289</td>
<td>144,478</td>
</tr>
<tr>
<td>2019</td>
<td>1.700</td>
<td>11,584</td>
<td>144,406</td>
</tr>
<tr>
<td>2020</td>
<td>1.487</td>
<td>10,690</td>
<td>144,100</td>
</tr>
</tbody>
</table>

Source: The World Bank

The instances when Russia has utilized its energy resources as an “energy weapon” show that its announced strategy is not a mere rhetoric but also actual political practice. There are several examples of such behavior: the halting of oil transit through Latvia in 2003; the reduction of natural gas supplies to Belarus during the winters of 2004 and 2006; Transneft’s blockade of transit of Kazakhstan’s oil to Lithuania via Russia in 2006; the cutoff of oil supplies to the whole Lithuania by Transneft

127 Ibid.
in 2006; the cutoff of gas supplies to Georgia in 2006; “gas wars” with Ukraine in 2006 and 2009; and the reduction of oil exports to the Czech Republic in 2008.128

The national security strategy of Russia published in 2009 identified the competition for energy resources as one of the principal causes of contemporary international conflicts.129 Russia’s energy resources are perceived by the country’s government as a tool for strengthening its international stature, but also as a possible source of conflict. Russia considers its energy sector to be a platform for strengthening its great-power status in the Arctic and in Central Asia. It is striving to lessen its dependence on the European Union as a customer and is making plans to divert one third of its energy exports to China.130

Russia adopted yet another new blueprint of its foreign policy in February 2013.131 According to this document, energy policy should aim at preserving Russia’s status as a crucial player in the trade and economic relations between Europe and the Asia-Pacific region. It noted that natural gas consumption between 2003 and 2013 remained the same in Europe, while it doubled in the Asia-Pacific region.132 The foreign policy concept stressed the shift of global power to the East. Moreover, it admits a need for integration of Russia and its Eastern Siberian regions into the Far East, and of Russia into the greater Asia-Pacific region.

The Russian political elites perceive state-controlled energy enterprises such as Gazprom, Rosneft, and the independent successors to the former electrical utility, Unified Energy Systems (RAO UES), as tools of Russia’s foreign policy. In 2008, the twenty-five most senior government officials were also board members of leading energy companies.133 Vladimir Putin identified state control over Russia’s energy resources as the key to national power in what is alleged to be his Ph.D-level dissertation.134 Although it is doubtful that he is the real author of this text,

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128 For more on weaponization of energy by Russia see: Mykhailo Gonchar, Energy Component in New Generation Warfare: Case of Russia’s Hybrid Aggression against Ukraine (Kyiv: Centre for Global Studies Strategy XXI, 2015).
130 For more on Russia’s energy policy see: Orban, Power, Energy.
132 Ibid.
134 Vladimir Putin, “Strategicheskoje planirovanie vosproizvodstva mineralno-syrevoi bazy regio- na v usloviiakh formirovaniya rynochnykh otnoshenii” (PhD. Diss., Sankt Peterburg, 1997),
his choice of topic and how it is addressed is nonetheless important. His dissertation confirms that his worldview springs from the realist paradigm. He prioritizes national security and power over international cooperation and the building of international institutions.

There is ample evidence that Putin’s regime has utilized differential energy pricing to obtain influence or legitimacy on many occasions, without regard to market logic or profitability. Domestic energy prices are much lower than world prices because the political elites need to appease the Russian population. The Kremlin has frequently utilized discount prices for energy resources as a “carrot” in Russia’s relations with its post-Soviet neighbors.135 It possesses two kinds of the so-called energy weapons: the tap weapon and the transit weapon. Using the tap weapon, Russia coerces its targeted customer to behave in a certain way by threatening that if it resists, Russia will cut off energy supplies. The transit weapon means that Russia will buy natural gas (for example) from its supplier only for the price Russia chooses to pay and then ship it onward; otherwise the supplier must pay a transit fee, again set by Russia. Russia deliberately avoids taking on obligations like renouncing price discrimination or allowing third-party access, which are considered basic fair-trade practices in the West.136

**Russia’s western energy markets**

Another of Russia’s principal aims regarding its energy policy is to prevent the construction of a western-sponsored energy transit corridor to its south. As of now, it is mostly worried about the Southern Gas Corridor proposed by the European Union. This gas pipeline project was originally intended to have three elements: the Turkey–Greece–Italy Interconnector with a capacity of 10 bcm per annum, the Trans-Adriatic Gas Pipeline with a capacity of 10 bcm, and the Nabucco Gas Pipeline with a capacity of 31 bcm per annum. In 2012, however, the planned backbone of the project, the Nabucco Gas Pipeline, had to be scrapped due to a lack of guaranteed gas supplies from non-Russian sources and the growing financial costs.137 Moreover, at this time Russia began to

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136 Ibid.
build the South Stream Gas Pipeline (later also discontinued), which was perceived as a rival project.\textsuperscript{138} 

The Shah Deniz Consortium, which exploits the central deposits in Azerbaijan, renewed the hopes for a Southern Gas Corridor in 2013.\textsuperscript{139} It proposed three new elements for the project, consisting of an expansion of the existing South Caucasus Gas Pipeline, and the completion of a Trans-Anatolian Gas Pipeline and the Trans-Adriatic Gas Pipeline. If completed, the Southern Gas Corridor will be 3,500 km long and cost USD 45 billion.\textsuperscript{140} The primary source for this pipeline system would be the gas from the Shah Deniz field. The proposed gas volumes to be transported were planned to be 16 bcm in 2019 and 31 bcm per year in 2026. The project would cover approximately 20 percent of Europe’s annual demand for natural gas.\textsuperscript{141} The principal driving force behind the renewed Southern Corridor project is Azerbaijan’s national energy concern, SOCAR, together with its Turkish counterpart Botas. Together, they control critical stakes in both pipeline projects, along with BP, which is the lead operator of the Shah Deniz gas field.\textsuperscript{142}

Azerbaijan’s and Turkey’s officials believe they can secure additional supplies for the Southern Corridor from Iraq, Iran, and Turkmenistan. In 2014, SOCAR announced that it would be willing to assist Turkmenistan with the development of its gas and oil infrastructure.\textsuperscript{143} Moreover, in the same year Turkey and Turkmenistan signed a framework supply agreement focused on the delivery of Turkmenistan’s natural gas to Europe through Turkish territory.\textsuperscript{144} Two possible routes are being discussed. The parties could use the proposed Trans-Caspian Gas Pipeline, or they could ship Turkmen natural gas to Turkey through Iran. Russia’s plans for the South Stream Gas Pipeline across the Black Sea to Bulgaria and then north into Central Europe (thereby bypassing Ukraine) faced numerous obstacles due to its annexation of Crimea. South Stream was

\begin{itemize}
\item \textsuperscript{138} “Gazoprovod Yuzhnyi potok budet vveden v stroi v dekabre 2015-go goda,” ITAR-TASS, April 24, 2010, echo.msk.ru/news/674485-echo.html.
\item \textsuperscript{139} “Azerbaijani President Approves the Agreement on TANAP Gas Pipeline,” Trend News Agency, January 18, 2013, en.trend.az/business/energy/2109759.html.
\item \textsuperscript{140} Ibid.
\item \textsuperscript{141} Julia Kusznir, “The Southern Gas Corridor: Initiated by the EU, Completed by Others? TANAP, TAP and the Redirection of the South Stream Pipeline,” Caucasus Analytical Digest, no. 69 (2015): 6–11.
\item \textsuperscript{142} “Trans-Anatolian Gas Pipeline Project,” TANAP, www.tanap.com/tanap-project/why-tanap.
\item \textsuperscript{144} “Turkmen Gas for Europe,” Nebit-Gaz, July 29, 2016.
\end{itemize}
canceled in December 2014, and later proposals to revive it would redi-
rect it from Bulgarian territory through Turkey.\(^{145}\) This change of stance
means that some of Russia’s natural gas is now being delivered to the
EU via the Turkstream, Trans-Anatolian and Trans-Adriatic natural gas
pipelines.

**Russia’s eastern energy markets**

Russia is at present mostly focused on diversifying its energy exports to
the Far East, having lost its monopsony over supplies from the Central
Asian regional energy security complex. Its cooler relations with Europe-
an customers due to the Ukraine crisis also contributed to this process.
On the one hand, the EU’s ban on supplying oil and gas equipment to
Russian entities and bank lending with a maturity exceeding 90 days
strongly affected Russia’s energy industry. As a result, Western invest-
ment has drained away since mid-2014. On the other hand, China’s oil
company, Sinopec, bought a 10 percent stake in the Russian SIBUR
petrochemicals enterprise in December 2015. China’s Silk Road Fund
acquired a 9.9 percent stake in the Yamal LNG project from Novatek in
late 2015.\(^ {146}\)

The Chinese Bank for Development provided loans of USD 10 bil-
lion to Transneft and USD 15 billion to Rosneft in 2009.\(^ {147}\) In order to
reach Asian customers, Moscow has prioritized large-scale international
projects aimed at the development of its East Siberian and Far Eastern
oil and gas deposits. The Eastern Siberia–Pacific Ocean Oil Pipeline and
the Russo-Chinese portion of the oil pipeline (from the Skovorodino re-
finery to China’s Heilongjiang province) are among such projects aimed
at getting Siberian oil to Far Eastern markets.\(^ {148}\) The situation regarding
natural gas exports to the Far East is more complicated.

Russia started planning exports of natural gas to China in the ear-
y 1990s. These plans were stalled because of the struggles between
TNK-BP and Gazprom over the control of the East Siberian gas deposits,

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especially the Kovykta gas field in the Irkutsk region. This dispute was resolved only in 2011. Russian regulators accused TNK-BP’s project in the Kovykta field of harming the environment. The accusations forced the company to bring Gazprom into the project in 2006. Five years later, TNK-BP decided to sell its stake in the field to Gazprom. In 2008 Gazprom acquired the Chayanda gas field in an auction conducted without competition after that field was added to Russia’s list of national strategic assets in 2007. As a result, Gazprom now controls most of Russia’s important natural gas assets in Eastern Siberia and the Far East: the Kovykta and Chayanda gas fields, the fields in Krasnoyarsk Krai and on the western coast of Kamchatka, and the Sakhalin II and Sakhalin III projects.

Meanwhile, when the eastern route was stalemated, there appeared plans for the construction of a western route to China. The western route would include the Altai Gas Pipeline, which would stretch from the eastern Siberian gas deposits at Urengoy and Nadym to the western Chinese province of Xinjiang. Gazprom had long opposed the eastern alternative for gas exports to China until it acquired vital deposits in the eastern parts of Siberia. Therefore, it preferred the Altai pipeline, which would tap supplies from the deposits it controlled in western Siberia. Had the pipeline been built, it would probably have lessened the attractiveness of building the Turkmenistan–China Gas Pipeline. Fortunately, for Turkmenistan, the plans for the construction of the Altai pipeline have been shelved.

Before the commissioning of the first line of the Turkmenistan–China Gas Pipeline in 2009, negotiations over pricing between Russia and China failed. At that time, China’s negotiators insisted on using European

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gas prices as the starting point of discussions. Gazprom was focused on receiving the same margin of profit as it did on its gas sales to Europe. However, Shanghai is more than 3,000 kilometers further from the extraction point in West Siberia than the European Union border. Hence, if Gazprom had its way, it would have meant a difference of approximately USD 50 per million cubic meters (mcm) compared to the price of gas in Europe due to transportation costs. The situation started to change around 2012 when Gazprom acquired new natural gas deposits and the shale gas revolution in the United States loomed as a threat. In September 2013, the negotiations between Gazprom and the China National Petroleum Corporation (CNPC) were still not concluded, because of concerns regarding the price of gas.

However, things changed after Russia’s annexation of Crimea and the imposition of western economic sanctions. In May 2014, Russia and China agreed upon a pricing deal for supplying 38 bcm a year for 30 years. Also in May 2014, Xi Jinping and Putin signed a purchase and sale contract for gas supply via the eastern route – now known as the Power of Siberia Gas Pipeline. When complete, this pipeline will be 4,000 kilometers long and will stretch from Yakutia’s Chaganda gas field to Khabarovsk and the LNG terminal in Vladivostok. Its capacity of 61 bcm per year will be divided into three parts – 38 bcm for China’s consumption, 9 bcm for Russia’s domestic consumption, and 14 bcm for export as LNG to Japan and other Asian states. The construction of the Turkmenistan–China Gas Pipeline and Russia’s invasion of Crimea obviously significantly weakened Russia’s negotiating position vis-à-vis China in the case of the Power of Siberia pipeline. Those events narrowed Russia’s maneuvering room and ultimately compelled it to accept the deal with China.

161 Ibid.
This subchapter focuses on Russia’s energy policy. Based on Russian strategy documents and actual practice, it demonstrates that Putin’s regime conceives of Russia’s oil and gas reserves as a tool of both internal and external policy. The importance of energy in Russia’s foreign policy is only increasing as a means of rewarding or punishing the behavior of other states. The Russian government shows a clear preference for bilateral relationships in the energy sector because it finds them easier to dominate than multilateral arrangements. It has also made clear attempts to control entire supply chains and markets regardless of commercial logic in its relations with European markets in the west and Asia-Pacific markets in the east.

**Energy Policy in the Central Asian Energy Security Complex**

Vladimir Putin returned to the presidency of Russia in 2012, less than a year before his Chinese counterpart Xi Jinping took office as China’s President in 2013. The two leaders’ foreign policies and energy strategies, and even their concepts of the Eurasian balance of power collide in the Energy Security Complex (ESC) of Central Asia. Putin introduced the idea of the Eurasian Economic Union soon after his election, which in his words can take the place of the Shanghai Cooperation Organization (SCO) in the Central Asian region.\(^{164}\) He also stressed Russia’s support for multipolarity in global affairs, not a bipolarity that would probably favor China and the United States. Xi Jinping replied to these challenges by proposing the Belt and Road Initiative in September 2013.\(^{165}\)

At the time Russia annexed Crimea and the West imposed sanctions, China’s economy and political power were gaining momentum and Russia began to lose influence in Central Asia to China. Since that time, it seems that Russia has been more willing to respect China’s priorities and interests in Central Asia. This change of attitude may be only a

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165 “One Belt, One Road,” Caixin Online, October 12, 2014, english.caixin.com/2014-12-10/100761304.html.
temporary development if the Eurasian Economic Union becomes more successful.  

Russia's policy towards Central Asia was splintered among several initiatives after 1991. The most important of them were the Commonwealth of Independent States, the Collective Security Treaty Organization, and the Shanghai Cooperation Organization. This changed in October 2011 when Vladimir Putin announced his vision of building the Eurasian Economic Union in the Russian newspaper Izvestiya. In the Izvestiya article, Putin emphasized the importance of Central Asia to Russia and its shared identity with the region, connected neither with the West nor with the East.

Ukraine was the key to the creation and feasibility of the Eurasian Economic Union. Without Ukraine, it is quite likely that the organization's fulcrum would lie more to the East than was planned in the beginning. According to Putin, the Eurasian Economic Union would be a bridge between two major zones of the world. In his conception, for the first time in three hundred years, the West would cease to be the only pole of attraction or source of values for Russia. In fact, Europe has become just one among several poles of Russia's foreign policy. To Putin, the challenges posed by China and the Asia-Pacific region do not mean that Russia has to integrate itself more deeply with its neighbors, but that it has to integrate its regions more thoroughly with itself, especially those beyond the Urals. Otherwise, tension and even separatism could arise.

The relationship between Central Asia and Russia is profoundly influenced by Easternizers, Eurasianists, and neo-Eurasianists, who perceive Central Asia and Russia as parts of a single politico-cultural unit – Eurasia. Eurasianism as a political ideology was created in the 1920s in Central and Western Europe by prominent Russian émigrés such as...

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169 Ibid.
172 Ibid.
173 “Easternizers” were predecessors to the followers of Eurasianism. They focused more on China and India than Central Asia. Their main protagonist was Konstantin Leontiev.
as Peter Savitsky, Nikolai Trubetzkoy, and Dmitry Svyatopolk-Mirsky. It was a third-way movement, which claimed Eurasia to be a distinct continent with its own culture, space, and destiny. Eurasianists defined this continent not by shared history like Western Europe, but rather by geography. The backbone of Eurasia was defined by the steppe, surrounded as it is by belts of tundra, taiga, and desert. The Eurasianists considered all of Central Asia to be a natural part of Eurasia. They believed that Eurasia was further defined by the dualities of Slav and Turanian, and Orthodox Christian and Muslim.174

Lev Gumilev, Alexander Panarin, and Alexander Dugin revived the Eurasian idea in Russia after the fall of the Soviet Union. Even though the neo-Eurasianist movement is quite heterogeneous, it has had a significant impact on the formulation of Russia’s foreign policy towards Central Asia and on the Kremlin’s perception of the region. In the 1990s, Alexander Panarin tried to renew the ideal of a multi-ethnic empire and Eurasian or Russian messianism that was largely forgotten during the Soviet era.175 Later, after 2000, Aleksander Dugin directly connected the restoration of Russia’s great power status with regaining its control over Central Asia. He considered Tajikistan and Uzbekistan to be the linchpins of power in Central Asia.176 Still, Eurasianism remained a fringe idea until Vladimir Putin began to incorporate elements of it into his foreign policy after he regained the presidency in 2012.

Russia’s energy policy in Central Asia was also dominated by repeated proposals to create an international natural gas cartel that would be the “OPEC of gas,” with Russia as its leader. Success of such endeavor would justify claims by members of the political elite in Russia that their country is an “energy superpower.” Russia deliberately avoided signing the European Energy Charter Treaty. The Energy Charter Treaty was signed in 1994 and came into force in 1998. It was signed by fifty-one EU, Asian, and other European countries. Russia strongly opposes any initiatives that would bolster the rights of participants and investors in the natural gas industry. If Russia were to sign the Charter, it would have to allow third parties access to its pipelines and make it possible for other Central

175 Ibid, 70–107.
Asian and private Russian producers to utilize Gazprom’s network for their own purposes.\textsuperscript{177}

Russia’s approach to its natural resources follows the realist paradigm, which considers control of natural resources as the key to a state’s power.\textsuperscript{178} On the one hand, the creation of an “OPEC of gas” would strengthen Russia’s control over the energy resources of other state actors that became members. It would enable it to use its energy weapon on a much larger scale. On the other hand, if Russia acceded to the European Energy Charter, it would significantly reduce its control over its own energy resources and as a consequence diminish the state power wielded by Putin’s regime.

**The Central Asia–Center Gas Pipeline System**

Russia has long utilized the “transit weapon” in the Central Asian regional energy security complex.\textsuperscript{179} This was possible mainly because producers had to rely on the old Soviet-era gas pipeline system. In practice, Gazprom purchased natural gas in Central Asia for a low price and resold it for a higher price in Europe or used it on its own market while selling its own natural gas for the higher European price. The ability to supply cheap natural gas from Turkmenistan enabled Russia to exert significant leverage over Ukraine. The gas was sold to Ukraine through shady intermediaries and resulted in a massive accumulation of Ukrainian debt to Russia.\textsuperscript{180}

The Central Asia–Center Gas Pipeline System consists of five separate pipelines that have been mainly used to transport natural gas from the gas fields of south-eastern Turkmenistan. The first pipeline of the system was commissioned in 1966 and the fifth and last pipeline was finished in 1987. Most of it has outlived its projected useful lifetime of 33 years. The system has two corridors. The first consists of four pipelines, CAC-1, CAC-2, CAC-4, and CAC-5, which run from Turkmenistan through Uzbekistan and Kazakhstan into Russia. The second corridor consists only

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\textsuperscript{178} For more on Russia’s energy security see: Jirušek et al., *Energy Security in Central and Eastern Europe.*

\textsuperscript{179} Nygren, “Putin’s Use of Natural Gas,” 3–15.

\textsuperscript{180} Michael Fredholm, “Natural Gas Trade between Russia, Turkmenistan and Ukraine,” *Asian Cultures and Modernity,* Stockholm University, no. 15 (2008): 6–33.
of one gas pipeline, CAC-3, which runs only through Kazakhstan. The projected output of the entire system was originally 90 bcm per year; however, by 2003 the actual output had decreased to 50 bcm.\footnote{Alexander’s Gas and Oil Connections, No. 9, Vol. 4, February 25, 2004.}

There have been many attempts by the West to circumvent Russia’s “transit weapon”, e.g., the Baku–Tbilisi–Ceyhan Oil pipeline, the Baku–Tbilisi–Erzurum Gas Pipeline, and the South Caucasus Gas Pipeline. However, the most important component of this alternative architecture, the Trans-Caspian Gas Pipeline, has yet to materialize. This is due to a prolonged struggle over the status of the Caspian Sea in international law that was only resolved by the Convention on the Legal Status of the Caspian Sea signed by the five littoral states around the Sea in August 2018.

In the early 1990s, Russia proposed the creation of a regional organization responsible for coordinating the extraction of Caspian energy resources. Russia also supported the prolongation of two Soviet-Persian treaties concerning free navigation and fishing in the Caspian Sea signed in 1921 and 1940. Of course, at the time the treaties were signed there were only two littoral states on the Caspian. That changed in 1991 when three newly independent states began sharing the borders of the Caspian Sea along with Iran and Russia. Russia was strongly against application of the United Nations Convention on Law of the Sea to the Caspian, and it insisted that the Caspian Sea was a “unique water reservoir” in terms of international law.\footnote{Joshua Kucera, “Is the Caspian Sea Dispute Finally About to be Resolved?” July 20, 2016, www.eurasianet.org/node/79761.} Application of the convention would pave the way for division of the Caspian Sea into specific economic zones controlled by the five littoral states. In Russia’s view, if the Sea was a “unique water reservoir,” no significant infrastructure project could be agreed upon except by a consensus of all the littoral states. Through this “condominium” approach, Russia sought to prevent the construction of the much-feared southern bypass through the Trans-Caspian Gas Pipeline.

**Russia’s dependence on Central Asian energy**

Russia has utilized its “tap weapon” in its relations with Belarus, Ukraine, and Moldova with varying success.\footnote{Nygren, “Putin’s Use of Natural Gas,” 3-15.} However, in the relationship between Russia and Turkmenistan, it was Ashgabat that used the “tap weapon” against Russia. Turkmenistan suspended its gas supplies to
Russia in 2000 because of lack of progress in price negotiations. As a result, Russia was unable to deliver the amount of natural gas it had promised to Europe and to domestic consumers. Fortunately for Russia, Ashgabat was to some extent constrained by a lack of diversified export infrastructure. The two countries signed a long-term umbrella agreement in 2003 that regulated Turkmenistan’s energy exports to Russia for the next 25 years.

Nevertheless, Turkmenistan stopped its supply again in 2005 because another round of price negotiations failed. Ashgabat had to accept the same price from Russia as earlier agreed because it still lacked other export opportunities. This changed somewhat in 2006, when gas prices started to rise. Then the entire situation changed significantly in 2009, when there was an explosion on the fourth pipeline of the Central Asia–Center system. Up to then, Gazprom was importing 70 percent of Turkmenistan’s natural gas production. Afterward, its imports dropped to 45 percent of Turkmen output. In 2016 it ceased to buy any gas at all from Turkmenistan.

Russia has had to adjust its energy policy to different conditions in each state of the Central Asian regional energy security complex. Kazakhstan is more open to foreign partners than others in the complex. International energy companies such as Chevron, ExxonMobil, and ConocoPhillips helped Kazakhstan to break Russia’s monopsony over its exports in the 1990s. They secured their stakes in Kazakhstan’s upstream production and invested in increasing its oil production, which has now reached 1.7 million barrels per day. As partners in the Caspian Pipeline Consortium, they also helped Kazakhstan access the European market by building a privately owned pipeline from the Tengiz oil field in Kazakhstan to Novorossiysk and by supplying Kazakh oil via tanker ships across the Caspian to the Baku–Tbilisi–Ceyhan Oil Pipeline. The entry of Western companies into the market in the early 1990s enabled Kazakhstan to conduct a more independent, multi-vector foreign policy. However, Kazakhstan’s natural gas sector is almost entirely controlled by the state.

Kazakhstan’s export saw even more opportunities open up after the Atyrau–Alashankou Oil Pipeline to China was commissioned in 2003. Moreover, Kazakhstan joined in the construction of the Turkmenistan–China Gas Pipeline in 2009.¹⁹⁰ At present, Chevron, ExxonMobil, Eni, Shell, Total, Mittal Energy, Sinopec, and the China National Petroleum Corporation (CNPC) are operating in Kazakhstan. Moreover, there are joint ventures with Lukoil and Rosneft. Gazprom controls 50 percent of the shares of KazRosGaz, which has a near-monopoly on the export of Kazakhstan’s natural gas production. Kazakhstan’s relative openness to foreign participation in its oil industry has enabled it to resist Russia’s policies in Central Asia to some extent.

Even though Kazakhstan is perceived as the leading proponent of Eurasian integration – this is even mentioned in its constitution – it has reservations about some Russian goals for the region. Kazakhstan’s former president Nursultan Nazarbayev continuously stressed that the Eurasian Economic Union is solely about economic, and not political, unity.¹⁹¹ According to him, there will be no supranational institutions or joint citizenship. Economic, not geopolitical interests are the main driving force behind the project, according to Nazarbayev.¹⁹²

Another critical energy player in the former Soviet Union, Azerbaijan, is even less dependent on Russia than Kazakhstan in energy matters. It significantly lessened its dependence on Moscow by commissioning the Baku–Tbilisi–Ceyhan Oil Pipeline in 2006 and the Baku–Tbilisi–Erzurum Gas Pipeline a year later. It also enthusiastically supports the EU’s desire for a southern gas corridor. The only leverage that Russia has in its relation to Azerbaijan, which is not insignificant, is its ability to interfere – for better or worse – in the unsolved Nagorno-Karabakh conflict between Armenia and Azerbaijan.

The US military presence in Central Asia since 2001 has spurred on cooperation between Russia and China, mainly in the framework of the Shanghai Cooperation Organization.¹⁹³ However, the withdrawal of NATO’s International Security Assistance Force from Afghanistan in 2014 has inevitably led to increased competition between these two

powers, who each have their own interests to protect in the Central Asian region.\textsuperscript{194}

Russia’s annexation of Crimea and the ostracizing of Russia from the international community that followed has strengthened China’s position vis-à-vis Russia in Central Asia. China’s support for Russia has been cautious but significant. In return, China has obtained Russia’s endorsement for its Belt and Road Initiative, advantageous terms on its natural gas purchases, and Russia’s consent for strengthening the SCO.\textsuperscript{195} Russia is growing more dependent on China’s backing and is distancing itself from Europe.\textsuperscript{196} The rise of Eurasianism is strengthening the belief that Russia does not belong to Europe but is a distinct civilization between Europe and Asia. Moreover, it is interesting to observe how the Russian media and its political class exaggerate the potential threats to Russia’s interests in Europe, while downplaying the threats to Russia’s interests in Asia.\textsuperscript{197}

This subchapter concludes that Russia’s energy policy towards the Central Asian ESC has four primary aims. First, Russia wants to preserve as much as possible of the monopsony position with respect to Central Asia’s suppliers that it inherited from the Soviet Union by contractually locking in supplies and taking ownership shares in Central Asian producers and processors. It has tried to create a system of dependence with the aim of controlling the entire Central Asian energy market. Second, Russia wants to block all supply routes from Central Asia to Europe and China that skirt Russian-controlled territory. It has done so either directly by raising environmental concerns, or indirectly by proposing its own favored pipelines. Russia’s energy policy in the Central Asian ESC reflects a zero-sum approach to international relationships and a desire to eliminate competition in what it views as “its own” markets. Third, Russia wants to construct new pipeline infrastructure to bypass transit states – especially Ukraine – and to deepen Europe’s dependence on it for energy supplies.\textsuperscript{198} Fourth, Russia wants to preserve Gazprom’s monopoly over Russian and Central Asian gas exports by blocking foreign

\textsuperscript{195} Sergej Luzyanin, \textit{Rossiya i Kitai: Noviy kontekst otnosheniy} (Moscow: MGIMO, 2015).
\textsuperscript{196} Blank, “Same Bed,” 112–127.
ownership of its gas reserves, production facilities, and transportation infrastructure within Russia. All of this indicates greater concern for strategic issues than for economic logic. It confirms that Russia’s energy policy in the Central Asian ESC is strategic-oriented.

**Analysis of Indicators**

This chapter is a case study of Russia’s energy policy with regard to the Central Asian ESC. The goal of this particular case study is to search for indicators of a strategic-oriented energy policy – for elements of the model of this kind of policy. A strategic-oriented energy policy has eight elements: the perception that energy resources are strategically important; the perception that the state’s energy sector is crucial to its economy; the perception that state-owned energy actors are extensions of the state apparatus; a reliance on bilateral relations with other countries; the perception that the energy sector is a tool for achieving the aims of state policy; a zero-sum approach to international relations; the perception that dependence on foreign entities is undesirable; and an emphasis on strategic goals over economic logic. The conclusion of this case study is that Russia’s energy policy in the ESC of Central Asia is predominantly strategic-oriented, based on the presence of the indicators as listed below.

**Perception that energy resources are strategically important**

Based on the data I gathered, Russia’s current political regime perceives energy resources as strategically important. There were many occasions under Putin when the desire to take control of energy resources or their distribution networks manifested itself. This has been evident in Russia since the Yukos affair in 2003, when Mikhail Khodorkovsky tried to sell parts of Yukos to US investors Chevron and ExxonMobil. Khodorkovsky failed and was arrested. His company was taken over by state-owned Gazprom. In the mind of the Russian leadership, Yukos had to remain under the control of the Russian state because of its strategic importance.
Perception that the energy sector is crucial to the state’s economy

Today, Russia considers its energy sector to be the strategically important core of its economy and trade capacities. The analysis above shows that Russia has increasingly tried to gain and maintain control over its energy sector, especially since Vladimir Putin rose to power. Of course, the energy sector has been a crucial part of Russia’s economy since the end of the nineteenth century. Its internal importance lies not only in its support of the country’s economic growth but also in the ability of the Putin regime to win popular support by using subsidies to keep energy prices low.

Perception that state-owned energy companies are extensions of the state apparatus

It was shown that Putin’s regime both directly and indirectly dominates the entire energy sector of the Russian Federation. The regime has been able to increase its power by translating the national power of the energy sector into state power. It is clear that Russia perceives itself as an energy superpower. Based on the findings of the case study, it is also clear that Russia’s political elite consider the country’s state-owned energy companies to be tools of internal and external policy used by the state. The role of the energy sector as a tool of Russian foreign policy is cited in Putin’s foreign and security strategies.

Reliance on bilateral relations

Russia’s reliance on bilateral relations in energy policy is especially visible in its strictly negative reactions to any multilateral initiatives such as the European Energy Charter. Based on the accumulated data, Russia has a preference in its energy policy for long-term bilateral deals with foreign countries. This is because in bilateral relations, it is much easier for Russia to play the role of an energy superpower. The case study demonstrated this with several examples of cases where Russia utilized either the tap or the transit energy weapon in its relations with other states.
Zero-sum approach to policy

The case study shows that Russia has repeatedly attempted to preserve its role as the dominant exporter of energy to European markets as well as its role as the dominant importer of energy from Central Asia. Russia has been relatively successful in the European market, but in Central Asia it is gradually being pushed out by China’s assertion of its energy interests. Because of its zero-sum approach to policy making, Russia’s political elite has been willing to let China encroach on Central Asia in order to preserve Russia’s position in the Western energy market.

Perception that the energy sector is a tool for achieving the state’s goals

Based on strategic and commercial practice, the case study demonstrates that Putin’s regime considers Russia’s energy sector to be a tool of its internal and external policy, in that Russia uses its energy supplies and infrastructure as a means of rewarding or punishing the behavior of other states. There is also clear evidence that Russia tries to control entire supply chains and markets regardless of commercial logic, as it has done with both its European markets in the West and its Asia-Pacific markets in the East.

Perception that dependence on other countries is undesirable

Russia has attempted to exploit the monopsony position it inherited from the Soviet Union with its Central Asian suppliers, contractually locking in supplies and taking ownership shares in producers and processing facilities. Thus, it has tried to create a system of dependence for the Central Asian states, with the aim of controlling the entire Central Asian energy market. It has attempted to block any alternative export routes out of Central Asia to preserve its position as a transit state. Russia’s energy policy in the Central Asian ESC displays a zero-sum approach to policy and attempts to eliminate competition from other suppliers and transit states. Furthermore, Russia has constructed new pipeline infrastructure to bypass other transit states like Ukraine in order to deepen Europe’s dependence on Russia for energy supplies. Finally, Russia has attempted to preserve Gazprom’s monopoly over Russian and Central
Asian gas exports by blocking foreign ownership of gas reserves, gas production facilities, and transport infrastructure in Russia. Here again, Russia emphasizes strategic goals over economic logic, which confirms that Russia’s energy policy in Central Asian ESC is strategic-oriented.

**Emphasis on strategic goals over economic logic**

Russia’s former economic and political clout in the Central Asian ESC has considerably diminished over the course of the past 25 years. At the beginning of the 1990s, Russia controlled the region’s entire transit infrastructure, and so it had enormous leverage over its newly independent neighbors. In that respect, it was crucial for Gazprom to gain control over the Central Asia–Center Gas Pipeline System. However, Russia was simply unable to blackmail all of its partners in Central Asia. The Central Asian regimes no longer consider cooperation with Russia to be the best policy option because of Russia’s poor economic performance and its increasingly authoritarian and imperialistic policies.

In general, the aim of Russia’s energy policy in the Central Asian ESC has been to ensure its energy security by dominating the energy sector of Central Asia. Steps taken by Russia’s government show that its energy policy is not market-oriented and focused on the maximization of profit but instead it is strategic-oriented and focused on its national goals. It has used its energy potential as a tool of its foreign policy, as has been openly stated many times in Russia’s strategic foreign and national security policy documents. In the end, it must be stressed that the Kremlin’s principal goal is of a purely political nature – the preservation of Putin’s regime and its predominant position in Russia’s internal and external affairs.
The second of my three case studies is devoted to China’s energy policy in the context of the Central Asian ESC. This chapter is divided into four parts: energy resources, energy actors, energy policy in general, and energy policy in the ESC of Central Asia. The conclusions of the sub-chapters are based on an evaluation of primary and secondary sources. The goal of this particular case study is to search for the elements of a strategic-oriented energy policy established in the model for the assessment of energy policy pertaining to the natural gas sector. These are: the perception that energy resources are strategically important; the perception that the energy sector is crucial for the state’s economy; the perception that state-owned energy actors are extensions of the state apparatus; reliance on bilateral relations; the perception that the energy sector is a tool for achieving the goals of the state; a zero-sum approach to policy making; the perception that dependence on other countries is undesirable; and an emphasis on strategic goals over economic logic. This case study is another stepping-stone in the process of answering the research question about the predominant approach to energy policy among the actors of the Central Asian ESC. The chapter concludes with a recap of the particular indicators for which evidence was found in the course of my research.

**Energy Resources**

China started its oil and gas industry almost from scratch not long after the Second World War. However, the country’s overall economic development and especially the advancement of its energy industry was
hampered by a United States embargo that lasted over the course of the 1950s, 1960s, and 1970s. Moreover, the Soviet support of the industry, which was very important in the 1950s, waned over the next decade because of the Sino-Soviet split and the resulting tensions.

The situation began to improve somewhat in the 1970s. China was able to utilize the oil crises of 1973 and 1979 to boost its oil exports. Also, the change in the leadership of the Chinese Communist Party (CPC) represented by Deng Xiaoping’s assumption of power in 1978 led to the opening of China’s economy and partial economic liberalization. Since 1949, it has been an enormous problem for China to achieve energy self-sufficiency. After Deng Xiaoping’s liberalization of the economy, the goal of self-sufficiency in energy was slowly replaced by the goals of ensuring China’s energy security and diversifying its sources of energy supplies.199

Deng Xiaoping’s new economic policy was followed by rapid industrialization and a sharp rise in energy consumption. China was self-sufficient in energy until the late 1970s. Its first imports of hydrocarbons began in 1983 from Oman, and the domestic demand for oil had completely outpaced domestic production by 1996. This development was mainly due to a steep rise in the number of passenger cars on the roads in China.200 In 2013, China consumed 10.5 million barrels of oil per day, which made it the second biggest consumer of oil in the world after the United States. In the same year, the production of China’s oil industry covered only half of that demand.201 The remarkable economic growth that spurred the increased consumption of energy is shown in the Table 13.

China possesses 5.4 tcm of domestic natural gas reserves that are accessible with contemporary technology and 4 tcm more in unconventional resources.202 China’s annual domestic production of natural gas was 138.4 bcm in 2016 and its consumption was a far greater 210.3 bcm.203 There has been a significant increase in the use of natural gas in China in heavy industry and in the production of electricity. Another reason for

200 Ibid.
Table 13: Basic socio-economic indicators – People’s Republic of China (2007–2020)

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP (trillion USD)</th>
<th>GDP per capita (current USD)</th>
<th>Inhabitants (billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>3.552</td>
<td>2,695</td>
<td>1.318</td>
</tr>
<tr>
<td>2008</td>
<td>4.598</td>
<td>3,471</td>
<td>1.325</td>
</tr>
<tr>
<td>2009</td>
<td>5.110</td>
<td>3,838</td>
<td>1.331</td>
</tr>
<tr>
<td>2010</td>
<td>6.101</td>
<td>4,561</td>
<td>1.338</td>
</tr>
<tr>
<td>2011</td>
<td>7.573</td>
<td>5,634</td>
<td>1.344</td>
</tr>
<tr>
<td>2012</td>
<td>8.561</td>
<td>6,338</td>
<td>1.351</td>
</tr>
<tr>
<td>2013</td>
<td>9.607</td>
<td>7,078</td>
<td>1.357</td>
</tr>
<tr>
<td>2014</td>
<td>10.482</td>
<td>7,684</td>
<td>1.364</td>
</tr>
<tr>
<td>2015</td>
<td>11.065</td>
<td>8,069</td>
<td>1.371</td>
</tr>
<tr>
<td>2016</td>
<td>11.199</td>
<td>8,123</td>
<td>1.379</td>
</tr>
<tr>
<td>2017</td>
<td>12.143</td>
<td>8,759</td>
<td>1.386</td>
</tr>
<tr>
<td>2018</td>
<td>13.608</td>
<td>9,771</td>
<td>1.393</td>
</tr>
<tr>
<td>2019</td>
<td>14.280</td>
<td>10,216</td>
<td>1.398</td>
</tr>
<tr>
<td>2020</td>
<td>14.720</td>
<td>10,500</td>
<td>1.402</td>
</tr>
</tbody>
</table>

Source: The World Bank

the increased consumption of natural gas is the government’s desire to alleviate air pollution. Still, as of today, natural gas consumption makes up only around 8 percent of all the primary sources of energy consumed in China. China’s essential energy source is still coal, which made up 66 percent of the country’s energy consumption in 2014. The second most important source of energy was oil, which accounted for 19 percent of the overall energy consumption. Hydroelectric energy contributed 6 percent, natural gas 3 percent, and nuclear energy along with renewables 1 percent each.\textsuperscript{204} Nonetheless, the most important trend is the gradual increase of the share of natural gas in the Chinese energy mix, which has significant geoeconomic and geopolitical implications. The trends in the consumption of natural gas in five of the states that comprise the Central Asian ESC are compared in Table 14.

China’s official five-year plans illustrate its government’s changing energy policy.\textsuperscript{205} The subchapter on energy in the sixth five-year plan, from 1980 to 1985, emphasized the necessity of energy conservation. It also stressed the need for the available resources to keep pace with consumption.\textsuperscript{206} The next five-year plan from 1985 to 1990, China’s seventh, focused on rewarding enterprises that were able to conserve energy. The seventh plan’s priorities were the construction and improvement of the infrastructure of the energy industry.\textsuperscript{207} The eighth five-year plan, from 1990 to 1995, continued to focus on saving energy. Policies aiming at reducing the level of energy consumption were directly connected to policies aiming at controlling population growth.\textsuperscript{208}

The ninth five-year plan, from 1995 to 2000, began to redesign China’s energy mix. It called for an increase in the use of natural gas and

the renewables and a decrease in coal consumption. This intention was impacted by the Asian economic crisis of 1997, which led to China becoming a net importer of oil. Moreover, the ninth plan introduced the “Go West” policy, which was focused on the development of the western regions of China and on improving its relations with the neighboring states to its west. The five-year plan assumed there would be large volumes of gas transiting China from west to east and supplies of electricity going from China in the opposite direction. The tenth five-year plan was published in 2000. It stressed even more the importance of protecting the environment and ascribed a greater role to renewables and natural gas. The eleventh five-year plan, 2005–2010, stressed continued liberalization of both trade and energy markets. The twelfth five-year plan covered the period between 2010 and 2015. It focused on the development of China’s western regions. Moreover, it emphasized the importance of renewable sources of energy and of enlarging their share in the national energy mix. The thirteenth five-year plan period continued to stress environmental protection and focused on the western parts of the country. Environmental protection and energy security are the two most important tasks to more than just China’s energy policy. They also constitute critical overall priorities of China’s government.

This subchapter on the energy resources of China shows that the country has significant domestic energy resources but is an energy importer because of the strength of its economy. The domestic energy sector, however, plays a crucial role because its contribution is fundamental to the national economy. China regards its energy output as a main instrument of maintaining the legitimacy of the CPC. The Chinese state is therefore interested in controlling its energy sector and considers it a strategic asset for maintaining popular support of the ruling regime.

China’s attempt to enlarge the share of natural gas consumed in its energy mix should not be seen only from the narrow point of view of environmental protection but also as the perceived key to the regime’s military and economic power.217

**State Actors in the Energy Sector**

The People’s Republic of China was created in 1949, and to this day it is ruled by the Communist Party of China (CPC). The supreme party organ is the National Congress of the CPC, which has been convened every five years since 1960. Between the sessions of the National Congress, the highest authorities in China are the Politburo, the Politburo’s Standing Committee, and the Central Military Commission.218 The authority of the state is officially vested in the National People’s Congress. It plays the role of a parliament and has the right to elect the president, premier and other officials. The president and vice-president wield the executive power in the state. The president appoints the members of the State Council of China, which is China’s central government.219

China’s current political system is plagued by turf wars attributable to a lack of a formal separation of powers in the structure of the government. This political reality has significant impact on the formulation of the country’s energy policy towards the neighboring states and regions. The political top brass does not usually decide upon day-to-day matters. It focuses only on strategy and in general waits to take action on initiatives originating at lower levels of government. If there is no clear consensus on a course of action below, the political elite are prone to postpone making a move, rather than to adopt an unpopular measure. This hesitancy makes the government’s decision-making process very slow.

In the energy sector, it is the State Council, the Politburo’s Standing Committee, and the leadership of the People’s Liberation Army who make most of the decisions.220 State-controlled energy enterprises have

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217 For more on China’s perception of Central Asia see: Marlène Laruelle and Sebastiene Peyrouse, *China as a Neighbor: Central Asian Perspectives and Strategies* (Washington: Central Asia-Caucasus Institute and Silk Road Studies Program, 2009).


substantial influence, which will be addressed in subsequent paragraphs. The energy sector was not well-regulated after 1949. As in other sectors, competences and powers were splintered, although the ultimate authority was vested in the Communist Party of China. However, this changed after severe power outages occurred in the summers of 2003 and 2004.\footnote{"China Strives to Ease Power Shortage in 2004," \textit{China Daily}, December 29, 2003, www.chinadaily.com.cn/en/doc/2003-12/29/content_294277.htm.} Most of China’s energy resources are located in sparsely inhabited areas of the northern and western parts of the country, while most of the population lives in the coastal areas of south-eastern China. The distance between them puts enormous pressure on the electricity distribution grid.

The National Energy Office was created in 2003 to address the shortcomings of China’s electricity system. This government body was tasked with the preparation of the state’s energy policy. It was subordinated to the National Development and Reform Commission (NDRC). This latter commission is the successor body to the former State Planning Commission and is the most important institution involved in the planning of the economic development of the PRC.\footnote{"Main Functions of the NDRC," \textit{National Development and Reform Commission of the People’s Republic of China}, en.ndrc.gov.cn/mfndrc.} The National Energy Office was later restructured and renamed as the National Energy Administration. The competencies of the agency were widened, but it is still subordinate to the NDRC.

The National Energy Leading Group was created to coordinate energy policy in 2005.\footnote{"Energy Leading Group Setup," \textit{China Daily}, June 4, 2005, www.chinadaily.com.cn/english/doc/2005-06/04/content_448562.htm.} This kind of body is quite common in China. It stands above the individual ministries and aims at building consensus among the members of the State Council, stakeholders in the economy, and the armed services. Even though the formal structure governing the energy sector of China seems to be very complicated, the most important thing to remember is the overall dominance of the CPC. The Party necessarily has to react to different impulses and initiatives, but its constant priority with regard to energy is maintaining the legitimacy of its rule through sustainable economic growth and energy security.

China’s oil and gas enterprises are increasingly involved in the country’s energy policy making. The three most important state-owned enterprises are the China National Petroleum Company (CNPC), the Sinopec Group, and the China National Offshore Oil Corporation (CNOOC). The government’s Ministry of the Petroleum Industry was
reorganized into the CNPC in 1988. The CNPC was primarily tasked with managing upstream oil and gas activities on China’s mainland and was controlled directly by the State Council.\textsuperscript{224} The CNOOC was established in 1982. Like the CNPC, it was also directly controlled by the government and tasked with upstream oil and gas activities in coastal areas.\textsuperscript{225} Sinopec was created in 1983, mainly to focus on downstream activities.\textsuperscript{226} Both the CNPC and Sinopec were equivalent to government ministries; CNOOC was considered to be a bit lower in the bureaucracy.

All three enterprises were reorganized once more in 1998 because of the adverse effects of low world oil prices and the Asian financial crisis. The CNPC and Sinopec started to undertake more than just upstream activities (i.e. exploration, drilling, and extraction) and then moved into downstream activities (refining, distribution, and marketing) as well. The CNPC was meant to be more active in the northern and western regions of China whereas Sinopec operated in the south and east. The three enterprises were created as joint-stock companies and offered their shares on international exchanges.\textsuperscript{227} However, the Chinese state still possesses a controlling stake in all three of them. Since the end of the 1990s, the government has focused more on the formulation of energy policy than on direct control of the companies’ operations. Also, any significant investments in the energy groups must still be approved by the NDRC, and in some cases directly by the State Council.\textsuperscript{228} Hence, the level of state control of these enterprises is similar to that of Gazprom and Rosneft in Russia.

Since 2010, the CNPC has been the biggest importer and producer of natural gas in China. It imported 76.7 percent of China’s total gas imports in that year.\textsuperscript{229} Its domestic rivals, Sinopec and CNOOC, contributed 13.5 percent and 9.8 percent of imports respectively in 2010.\textsuperscript{230} The CNPC has become more active in the Central Asian ESC and in Russia since 2000. It signed a series of agreements with Sakhalin Energy, Lukoil, and Rosneft on oil trade, petroleum exploration, development activities, and oilfield service and engineering that ran from 2003 to 2006.

\textsuperscript{228} Ibid.
\textsuperscript{229} CNPC, “CNPC at a Glance.”
\textsuperscript{230} “China’s Natural Gas Consumption,” Interfax, April 15, 2011.
Moreover, the CNPC and Rosneft created a joint venture, Vostok Energy Ltd., in 2006, which subsequently won an auction for licenses to explore oil and gas deposits in two eastern Siberian fields. The CNPC holds a 49 percent stake in this joint venture. In this way, China is participating in the acquisition and development of eastern Siberian and Far Eastern hydrocarbon deposits by Russia’s state-owned enterprises.

The CNPC also concluded a framework agreement with Gazprom to import natural gas to China and an agreement with Rosneft to supply crude oil to China over the Russia–China Crude Oil Pipeline in 2010. The CNPC and Rosneft established a joint venture to develop oil and gas fields in the Far East in 2013. The CNPC also joined in on Novatek’s Yamal LNG project, taking a 20 percent stake. Most importantly, the CNPC signed an agreement with Novatek in 2014 to purchase 3 million tons of LNG from the Yamal field over 20 years. All these transactions demonstrate an intention on China’s part to assert control over Russia’s energy resources in eastern Siberia and the Far East. China’s effort accelerated after it commissioned vital oil and gas pipelines between China and Central Asia and after it got control of significant deposits in that region. It seems that China’s achievements in Central Asia have given it a better negotiating position vis-à-vis Russia than before.

Beijing is also actively securing supplies of energy from Russia. The CNPC and Transneft signed an agreement in 2008 for the construction and operation of the Russia–China Crude Oil Pipeline. This pipeline starts at the Skovorodino off-take station in eastern Siberia and continues to the Daqing terminal station in China. This pipeline is a thousand kilometers long, but only 63 kilometers of it are on Russia’s territory. Its capacity is 15 million tons a year. The construction started in May 2009 and it was completed in September 2010. According to a 2013 agreement, Rosneft was to deliver 30 million tons of oil annually by 2018 with a contract term of 25 years.

In September 2013, the CNPC and Gazprom signed a framework agreement on gas supplies through a newly built pipeline from Russia to China – the Power of Siberia Gas Pipeline. The construction of the pipeline began in 2014. Its total length when completed will be 2,680 kilometers. It will enter China at Heihe in Heilongjiang Province. This pipeline was expected to be commissioned in 2019 and the length of the supply contract is 30 years. By the sixth year of the contract, it will be delivering 38 bcm per year.²³¹ It is remarkable that the pipeline projects in

Central Asia were commissioned much earlier than those in Russia. The Kazakhstan–China Oil Pipeline was commissioned in 2009, while the Skovorodino–China Crude Oil Pipeline was commissioned one year later. The Turkmenistan–China Gas Pipeline was fully commissioned in 2014, while the Power of Siberia Gas Pipeline was commissioned only in 2019.

This subchapter on the energy players in China shows that the CPC dominates the entire energy sector of the country. Both the CNPC and CNOOC represent key pillars of the current political regime in China. The corporations influence the formulation of China’s energy policy through their political influence, their financial weight, and their expertise and human resources. The hydrocarbon enterprises derive their political influence from their status as state institutions. Their leaderships are typically well-connected with the government and the CPC on a personal level. But they generate profits and thus are financially independent of the government. The joint-stock companies Petro China, Sinopec Corporation, and CNOOC Ltd., which were all created in 2005, generate approximately 22 percent of all contributions by state-owned enterprises to the state budget.232 The government supports them in their activities in exchange for their contributions to the national interests outlined in China’s official energy strategy. These facts indicate that the CPC wants to transform as much of China’s energy sector’s national power into state power as possible. As a practical matter, the Chinese government considers its state-owned and state-dependent energy actors to be extensions of the state’s apparatus.

**Energy Policy**

The core of China’s energy policy is not all that different from that of its Russian counterpart. This is because the system in both countries is authoritarian and its legitimacy relies on guarantees of economic performance and internal stability.233 The economic development in both countries is closely linked with the issue of energy security.234 The biggest

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difference is the fact that China is predominantly a consumer country, whereas Russia is a major energy exporter. Explicit, comprehensive energy strategies are more often produced by exporter states that are directly dependent on their exports than by consumer states. Consumer states usually start to formulate an energy strategy only in times of crisis, which is what happened in China after the electrical blackouts in 2003 and 2004.235

China’s government and the CPC define China’s national interests as preserving and modernizing the CPC, strengthening social and political stability, developing the economy, maintaining the integrity and unity of China as a nation, and strengthening China’s influence in its surrounding region. The key to all of those strategic goals is having access to diversified energy resources.236 Therefore, energy security is playing more and more of a role in China’s strategy documents. China lacks any significant historical experience with a disruption of its energy imports. Nevertheless, it considers the threat of such a disruption to be very serious. A disruption of imports could lead to an economic slowdown and weaken the CPC’s legitimacy. The Chinese People’s Liberation Army perceives the United States to be one of its most critical security threats. The threat from the US is especially real in light of the de facto alliance between the US and the Republic of China (Taiwan). If the PLA were one day to invade Taiwan, there is a high probability of a US-led maritime blockade.237 Hence, China’s energy policy aims to decrease its dependence on imports by ocean-going tankers and increasingly focuses on overland alternatives.

Based on existing bilateral agreements, Russia will supply China with 40 bcm per year through the Power of Siberia Gas Pipeline and with LNG exports.238 There is also a functioning gas pipeline from Myanmar, the Myanmar–China Gas Pipeline, which supplies China with natural gas from the Bay of Bengal as a strategic backup supply. China’s national oil companies own 51 percent of the shares of the Myanmar pipeline.

LNG imports are rising quickly. They started in 2006 and reached 20 bcm per year by 2012. The leading suppliers are Australia, Indonesia, and Malaysia. Moreover, China is reputed to own the world’s largest reserves of non-conventional gas and methane. On the one hand, the development of those non-conventional deposits could offset China’s growing import needs. On the other hand, the environmental protection policies that have been an integral part of China’s five-year plans since the early 1990s may inhibit the development of such sources on a massive scale. Therefore, there will always be pressure to expand foreign sources of energy, especially given the internal political situation and the desire of the ruling regime to hold on to its power, as is the case in Russia.

China’s effort to invest abroad, in part to diversify its energy imports, is often referred to as its “go-out strategy” or “oil diplomacy.” China’s political elite utilize their energy sector as an instrument of foreign policy for gaining direct control of energy resources abroad and thus securing a diversified, long-term supply of energy resources for China. This assertion can be proven by a few historical examples. China’s CNOOC attempted to purchase the US oil company Unocal in 2005. Its bid of USD 18.5 billion was USD 1 billion higher than the second bidder, ChevronTexaco. The US government stopped this deal based on strategic considerations. CNOOC then attempted to buy the Canadian oil firm Nexen in September 2012. The shareholders even approved the deal, which was worth USD 15.1 billion. Like the United States, the Canadian government prevented the transaction because of Nexen’s strategic value to Canada. These two bids to acquire foreign energy companies did not make any sense from a profit- or market-oriented point of view. However, they were fully justified in China’s eyes from its own strategic-oriented point of view.

Russia is also wary of China’s desire to purchase its strategic energy sector assets. While it was in operation, Yukosneftegaz was the only

241 For more on China’s energy geopolitics see: Thrassy Marketos, China’s Energy Geopolitics: The Shanghai Cooperation Organization and Central Asia (New York: Routledge, 2009).
244 For more on the global struggle for energy resources see: Klare, Rising Powers, Shrinking Planet, 120–142.
major oil company in Russia that favored cooperation with China’s oil and gas enterprises. Russia’s parliament prevented another transaction, the sale of Slavneft to China, in 2002. However, while Western and Russian governments are protecting their companies from China’s takeover bids, the situation is completely reversed in Central Asia. The modus operandi of China’s strategy is to tie itself to its partner and client states through a dense network of pipelines and other infrastructure, and the Central Asian governments are not trying to prevent it from doing so. China’s energy security strategy and the Belt and Road Initiative are associated with the terms “go-west strategy” and “string of pearls strategy.” The former term mainly refers to China’s increasingly assertive role in the Central Asian ESC. Moreover, the go-west strategy aims to increase the level of economic development in Xinjiang and Tibet and hence bring stability to these regions.

This subchapter focuses on China’s energy policy. Based on strategic documents and commercial practice, the CPC considers China’s energy sector to be a tool of its internal and external policy. Furthermore, the energy sector’s role in external policy is growing as China pursues foreign investment through the “go-out strategy,” “oil diplomacy,” and the “string of pearls.” All of these strategies can be contextualized in the broader framework of China’s Belt and Road Initiative announced by President Xi Jinping in 2013. At the heart of that initiative is a desire to control the material resources that are the basis of China’s military and economic power. China rewards or punishes certain behavior of other states. In addition, there is a clear preference for bilateral relations in the energy sector because like Russia, China finds it easier to dominate bilateral relationships. Furthermore, there are clear examples of attempts to control entire supply chains and markets without regard for commercial logic, as was the case with takeover attempts targeting the

249 The “string of pearls” strategy focuses on strengthening China’s position in maritime trade and especially on securing its oil and LNG imports.
250 Caixin Online, “One Belt, One Road.”
251 Collins et al., China’s Energy Strategy, 81–114.
US company Unocal, the Canadian company Nexen, and the Russian company Slavneft.252

Energy Policy in the Central Asian Energy Security Complex

Many authors, such as Alexander Cooley,253 Andrey Kazantsev,254 and Julia Kuszniir255 have warned that Central Asia faces a new round in the “great game” for control of its natural resources. However, most of them perceived the West and Russia as the main contenders.256 They conspicuously ignored China, which is now only a step away from taking the region into its zone of influence.257 Besides its own energy security and economic cooperation with other states, China focuses its attention on stabilizing its borders, ensuring its national security, and securing a leadership role in the region for itself.258

China’s energy policy in the Central Asian energy security complex is mainly focused on three regional hydrocarbon exporters: Turkmenistan, Kazakhstan, and Uzbekistan.259 Those countries’ combined natural gas reserves are estimated at 27.8 tcm, which is 13.3 percent of the world total.260 Central Asia’s leaders need China’s investment to satisfy the growing demand of their developing economies. At the time of the
financial crisis of 2008, China concluded two loans-for-energy contracts with Turkmenistan amounting to USD 8 billion. These loans enabled Turkmenistan to free itself from having to borrow from private lenders and international financial institutions.261

In comparison to Western creditors, China did not demand any social or political preconditions for cooperation with its Central Asian partners.262 It later concluded similar deals with Kazakhstan in return for energy resources worth USD 13 billion. China’s increasing importance in the region can best be illustrated by the rise in mutual trade. In 2000, China’s overall trade with Central Asia was estimated at USD 1 billion. However, in 2010 this figure reached USD 30 billion. It was USD 52 billion in 2013.263 By the end of the 2010s, China had taken advantage of the global financial crisis and surpassed Russia as the region’s leading trading partner.

**China’s activities in Kazakhstan**

In Kazakhstan, China first focused on gaining a position in upstream activities and then moved into downstream activities. The CNPC now operates five oil field development projects in Kazakhstan: CNPC AktobeMunaiGas, North Buzachi, PetroKazakhstan, and the KAM and ADM projects. In the area of transport, China holds interests in the Kazakhstan–China Crude Oil Pipeline, the Northwest Crude Oil Pipeline, and the second phase of the Kazakhstan–China Gas Pipeline. In 1997, the CNPC acquired a 60.3 percent stake in AktobeMunaiGas and obtained a production license for the Zhanzhol, Kenkijak Oversalt, and Kenkijak Subsalt fields.264 It now owns an 85.42 percent share in AktobeMunaiGas.265 AktobeMunaiGas is the fourth largest oil enterprise in Kazakhstan.266 In 2005, the CNPC also acquired PetroKazakhstan, which then owned rights for exploitation of 16 oil fields and operated

264 Ibid.
266 Ibid.
Kazakhstan's largest refinery in Shymkent. PetroKazakhstan is an integrated international energy company with upstream and downstream operations in both oil and gas. The company's upstream assets are located in the South Turgai Basin and its downstream assets include the Shymkent refinery. Very conveniently for the CNPC, all the Kazakh oil fields mentioned lie along the route of its oil pipeline through Kazakhstan. The CNPC and Lukoil jointly operate the North Buzachi oil field, located in far western Kazakhstan. Each has a 50 percent stake in the project. The KAM Project mainly consists of the Konys and Bektas oil fields in the South Turgai Basin.

In 1993, there were early plans for an oil pipeline from Kazakhstan to Xinjiang in China. China and Kazakhstan signed a memorandum of understanding on the construction of that pipeline in 1997. However, the initial plan was canceled because of the 1998 Asian financial crisis. The project returned to life in 2003 as a consequence of several setbacks of China’s energy diversification strategy. First, the US-led war in Iraq meant a loss of significant Chinese investments in that country. Second, internal developments in Russia connected with the Yukos affair spelled the end of the prospects of a Sino-Russian oil pipeline. Third, China was unsuccessful in its bid to buy a share of the vast Kashagan oil field in western Kazakhstan. Fourth, China experienced unprecedented electricity blackouts in the summer of 2003.

The Kazakhstan–China Oil Pipeline was built in three stages. The pipeline from Aktobe region to Atyrau on the Caspian Sea was finished in 2003. Its flow was first directed to the west and then reversed into China after the completion of the entire pipeline. Next, in 2006 the pipeline from Atasu to Alashankou in China was commissioned. Finally, the first two sections of a third pipeline from Atasu to Aktobe region were commissioned in late 2009. At the same time, China built several other west-to-east pipelines. The first one was constructed in 2004 to supply gas and it connects the Tarim Basin in Xinjiang with Shanghai. It has a capacity of 17 bcm per year and transports mainly domestic Chinese resources. A second oil pipeline was commissioned in 2011. It connects

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to the Kazakhstan–China Oil Pipeline in the border city of Horgos. At present, there are three pipelines that export Kazakhstan’s oil to foreign customers. The first one is the old Soviet-built Atyrau–Samara Oil Pipeline leading to Samara in Russia. The second one is the Caspian Pipeline Consortium which since 2001 runs from Kazakhstan along the northern shores of the Caspian Sea to the Russian Black Sea Port of Novorossiysk. It is the only privately owned oil pipeline going through Russia’s territory. The third one, the Kazakhstan–China Oil Pipeline, has been in operation since 2006.

**China’s activities in Turkmenistan**

China first signaled its interest in the construction of a gas pipeline from Turkmenistan to Xinjiang in 1992. However, cooperation was stalled during the 1990s for three main reasons. Turkmenistan’s President Saparmurat Niyazov was not keen on cooperation with China in the 1990s. Although he later changed his mind, at that time he preferred dealing with Russia or constructing alternative routes to Iran, India, and Azerbaijan. Also, Russia still had considerable influence in all of Central Asia. In any event, the CNPC was at that time mainly focused on oil and not natural gas.

This all changed in 2006 after Niyazov’s death and the ascension of Gurbanguly Berdimuhamedow to the presidency of Turkmenistan. The new power broker in Ashgabat was much more open towards China, which resulted in agreements for the construction of a gas pipeline from Turkmenistan to China and other agreements on leasing and production of gas in the Bagtyyarlyk fields on the right bank of the Amu Darya river. Turkmenistan agreed to supply 30 to 40 bcm per year to China in a deal lasting for 30 years. Many experts considered the Turkmeni-

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stan–China Gas Pipeline to be nothing more than a “paper project” until 2008.\(^{275}\) However, the first segment of that pipeline was finished as early as December 2009. It was soon followed by the construction of two other pipeline segments. China simultaneously constructed two west-east gas pipelines on its own territory to transport gas further east.\(^{276}\) Hence, it is now possible to transport natural gas from Turkmenistan all the way to the Pacific coast of China.

China also focused on gaining direct or indirect control of hydrocarbon deposits in Turkmenistan. The CNPC and Turkmengaz signed a technical agreement to extend their cooperation in gas exploration in the Bagtýyarlýk production sharing agreement (PSA) area in 2007.\(^{277}\) Three years later, Turkmenistan announced that a consortium consisting of the CNPC, LG International, Hyundai Engineering, Gulf Oil and Gas FZE, and Petrofac International had won a tender with a USD 10 billion bid to develop the South Yolotan natural gas field. As part of that deal, the CNPC signed a USD 3 billion contract in which it has the right to produce ten bcm per year and keep three bcm per year to fill its gas pipeline to China.\(^{278}\)

Moreover, China’s Development Bank provided Turkmenistan with a USD 3 billion loan to develop the South Yolotan gas field and in 2013 lent another USD 4 billion for the completion of the first stage of that project. That same year, China signed an agreement to finance the second phase of the Galkynysh project for USD 4 billion.\(^{279}\) In all of China’s dealings with Turkmenistan, the exploration rights to the Galkynysh deposit were the most valuable prize. Of course, in its dealings with Turkmenistan, China does not focus only on natural gas but also on oil. For instance, the CNPC has operated the Gumdag oil field in western Turkmenistan since 2002.\(^{280}\)

China’s activities in Uzbekistan, Tajikistan, and Kyrgyzstan

China’s profile in Uzbekistan has stayed lower than in Kazakhstan and Turkmenistan (see Table 8). It focuses only on strategic infrastructure and the development of a few key hydrocarbon deposits. The CNPC signed an oil and gas exploration agreement with Uzbekneftegaz in June 2006 and created the Aral Sea project consortium in August 2006, which includes the CNPC, Uzbekneftegaz, Lukoil, Petronas, and South Korea’s KNOC.281 The consortium has signed a PSA with Uzbekistan. The CNPC also provides geophysical prospecting, well drilling, and logging services in Uzbekistan. Moreover, it is a significant petroleum equipment supplier for Uzbekistan.282

In June 2006, Uzbekneftegaz signed a five-year agreement with the China National Oil and Gas Exploration and Development Corporation for exploration work worth USD 208 million in five blocks in the Ustyurt, Bukhara-Khiva, and Fergana regions. Moreover, the CNPC announced that it would begin developing gas condensate fields in the Karakul block, located in the Bukhara-Khiva region of Uzbekistan, in May 2011.283 China also finances some critical investment projects in Uzbekistan through the Chinese Export-Import Bank. In exchange, it has obtained easy access to exports of Uzbekistan’s natural gas to China since 2012.284

In the area of energy, China also maintains relations with Kyrgyzstan and Tajikistan. However, those relationships do not have the intensity nor the importance of its relations with Kazakhstan, Turkmenistan, and Uzbekistan.285 That might change if Line D of the Turkmenistan–China Gas Pipeline is completed because it traverses the territory of those two states. China has invested in Kyrgyzstan’s and Tajikistan’s hydroelectric sectors, but it is also active in their other sectors such as industry and agriculture.286 China has also expanded the development assistance it provides to the two countries through the Chinese Export-Import Bank. The Export-Import Bank is aid-dependent Tajikistan’s most extensive

282 Ibid.
283 “China’s CNPC to Develop Gas Condensate Fields in Uzbekistan,” Times of Central Asia, May 12, 2011.
284 Luzyanin, “Rossiya i Kitay.”
creditor, holding 41.3 percent of Tajikistan’s external debt in 2014.287 Because of its loans, China enjoys enormous influence on the internal politics of the two states. Their debts constitute a card that can be played in case they attempt to hinder the construction of Line D.

The Belt and Road Initiative

Almost all of China’s activities in Central Asia can now be subsumed under the banner of the Belt and Road Initiative (BRI).288 This project has two dimensions. The first one is the Maritime Silk Road, which is an attempt to increase China’s control over sea-based transport. The second one is an economic and security program, the New Silk Road project, which is intended to connect China over land with Central Asia and beyond.289 If necessary, it can substitute the existing sea-lanes in the event of a naval blockade against China.290

The Belt and Road Initiative mainly combines and relabels activities that were already being pursued by China after the fall of the Soviet Union. Moreover, it elevates transport initiatives to the level of geopolitical strategy.291 To implement the BRI project, China has created the Silk Road Fund with USD 40 billion in capital292 and the Asian Infrastructure Investment Bank with USD 100 billion.293 These two institutions were launched in June 2015. Their total resources are approximately equal to those of the Japan-backed Asian Development Bank, and they are only slightly less than the resources commanded by the US-backed World Bank. However, they are still two and a half times less than the resources controlled by the International Monetary Fund.294

294 For more on China’s New Silk Road projects see: Brugier, Camille, China’s Way: The New Silk Road (Brussels: European Institute on Security Studies, 2014).
China’s goal in this effort is the “de-dollarization” of international trade. To that end, it seeks to conclude agreements with its partners and conduct trade preferentially in yuan. For instance, Gazprom converted its export of oil to China entirely into yuan in June 2015. Russia is sympathetic to China’s attempts to decrease the role of the US dollar in international trade. However, the two great powers’ visions of the future world order clash. China favors a new bipolarity in international relations with two superpowers – the PRC and the United States – while Russia favors multipolarity and a return to a global balance among several great powers.

The greatest prize of the Belt and Road Initiative is the facilitation of China’s trade with the European Union, which amounts to a billion euros a day. If China’s goods are transported to Europe via the maritime route, it takes 20 to 40 days. Transport via the inland New Silk Road can take only 11 days. However, the project represents a real test for China’s doctrine of the Five Principles of Peaceful Coexistence, which has significant support among the ruling circles in Beijing. These five principles are: mutual respect for territorial integrity and sovereignty, non-aggression, non-interference in internal affairs, equality and mutual benefit, and peaceful co-existence.

China has traditionally focused on economic cooperation with Central Asia and let Russia manage the region’s security. This division of labor could soon change, however, as China becomes more willing to participate in military operations beyond its borders, for example in Africa. In fact, Russia’s military cooperation structure, the Collective Security Treaty Organization, proved utterly ineffective in the case of the 2010 crisis in Kyrgyzstan. Moreover, Russia has proved itself to be unable to control the geopolitics of the region because it could not block

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295 Jack Farchy, “Gazprom Neft Sells Oil to China in Renminbi Rather than Dollars,” Financial Times, June 1, 2015, www.ft.com/content/8e88d464-0870-11e5-85de-00144feabdc0.
296 For more on China’s activities in Central and Easter Europe see: Rudolf Fürst and Filip Tesař eds., China’s Comeback in Former Eastern Europe: No Longer Comrades, Not Yet Strategic Partners (Prague: Institute of International Relations, 2013).
297 Alessandro Arduino, China’s One Belt, One Road: Has the European Union Missed the Train? (Singapore: Nanyang Technological University, 2016), 1–20.
298 Ibid.
301 Lin, The New Silk Road, 13–19.
the deployment of US troops in the region after September 2001. In the course of the 2000s, China understood that Russia does not have the ability to stabilize Central Asia by itself, nor to prevent its penetration by other great powers. Therefore, it has come up with its own bid for regional hegemony in the form of the Belt and Road Initiative.

It seems that the BRI project will play a critical role in Sino-Russian relations and will gradually overshadow the Shanghai Cooperation Organization, which has been the central platform for collaboration up to the present. The SCO member states approved its program of multilateral economic cooperation in 2003. The program assumed that by 2010, barriers to trade and investment would be significantly lower and that by 2020 goods, capital, and services would enjoy free movement between its members.

But all of that has remained on paper only. The SCO has instead focused on security cooperation between its members and on preventing the spread of US influence in Central Asia. Even the proposed SCO development bank did not materialize. Any hopes for deeper economic integration amongst its members were dispersed at the Ufa summit in 2015 when it was agreed that India and Pakistan would join the organization. This enlargement of the organization will make any deeper economic integration impossible. It shows that Russia was only buying time and was not really prepared for economic integration in the framework of the SCO out of fear that China’s economy would overshadow its own.

China began to support the idea of a land bridge to Europe that would bypass Russia soon after 1991. It paid the Asian Development Bank to lead the project despite Russia’s vociferous opposition. Coincidentally, the European Union announced a similar project, the Transport Corridor Europe–Caucasus–Asia (TRACECA) at that time. China perceived the

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US-led invasion of Iraq in 2003 as a threat to its energy security. Since then, China has emphasized the importance of its energy security and the development of new import routes.

China’s motivation for developing the BRI is threefold. First, Xinjiang has replaced Taiwan as the regime’s principal strategic challenge. China feels threatened by the calls for decentralization and self-government for the local Turkic and Muslim populations in the province.\(^{308}\) By closer cooperation with the Central Asian states, China diminishes the possibility that they will support the separatist movement in Xinjiang.\(^{309}\) China also assumes that an overall improvement of the economic situation there decreases the likelihood of a revolt.

Russia has used Xinjiang to gain leverage against China many times in the past. The most recent example of Russia’s attempts to undermine China’s control of the region took place in the 1960s, when the two states actually went to war against each other. The Soviet Union at that time increased the militarization of its border with China and began to issue Soviet passports to Turkic residents of Xinjiang.\(^{310}\) China changed its regional policy from one of “stability above all else” to a strategy of assisting regional economic development in 2010. In 2015, 78 percent of Xinjiang’s exports went to Central Asia.\(^{311}\) Xinjiang ranked twentieth out of China’s 29 provinces in terms of its wealth in 2015, according to China’s Statistical Office.\(^{312}\) Uighur separatism is still a severe challenge to the Beijing government. The threat was made tangible with a terrorist attack on Xinjiang’s Kunming train station in March 2013, which left 29 dead and 130 wounded.\(^{313}\)

China’s second motive for the BRI is to develop a direct trade route to the West. Transcontinental transport goes hand in hand with significant investment in the service infrastructure of freight forwarders, logistics firms, insurers, hotels, supply bases, storage facilities, fuel suppliers, and others. This development represents both opportunities and a possible


\(^{310}\) Starr, “Looking West.”


threat to the Central Asian states. The opportunity to develop their economies with this enormous impulse for investment is accompanied by the threat to their independence if most of the enterprises created are owned by China.  

Thirdly, China has a strategic interest in developing a route to the West that is free of Russia’s influence and can substitute for maritime transport in case of a naval blockade. As of now, China seems like a better partner to the Central Asian states in terms of economic collaboration than either Russia or the West. Cooperation with the West, especially in energy, requires agreements amongst numerous partners, international oil and gas enterprises, transit countries, and destination countries. On the other hand, cooperation with China mostly necessitates bilateral agreements with its government.

This subchapter concludes that China’s energy policy towards the Central Asian ESC is focused on three primary goals. First, China has successfully broken Russia’s monopsony position with regard to its Central Asian suppliers. The two most important examples of this are the construction of the Central Asia–China Oil Pipeline and the Turkmenistan–China Gas Pipeline. China sought to replace Russia and control the entire Central Asian market, turning the Central Asian energy producers’ “undesirable dependence” on a single foreign market to itself. Second, China has become the region’s principal trade partner. This was facilitated by projects associated with the Belt and Road Initiative. Third, China is trying to translate its economic position in the Central Asian ESC into political and security gains. The most important effort at present is to stabilize China’s potentially separatist regions in the western part of the country. All of this has been done with an emphasis on strategic issues over economic logic, which confirms that China’s energy policy in the Central Asian ESC is mostly strategic-oriented.

**Analysis of Indicators**

This chapter analyzes China’s energy policy in the ESC of Central Asia. The goal of this particular case study is to search for indicators established by the strategic-oriented model for the assessment of energy policy. Consequently, it attempts to determine whether China’s energy policy

policy in the Central Asian ESC is strategic-oriented or market-oriented. There are eight elements of a strategic-oriented policy: the perception that energy resources are strategically important; the perception that the state’s energy sector is crucial to its economy; the perception that state-owned energy actors are extensions of the state apparatus; the reliance on bilateral relations rather than multilateral arrangements; the perception that the energy sector is a tool for achieving the goals of the state; a zero-sum approach to policy; the perception that dependence on other states is undesirable; and an emphasis on achieving strategic goals instead of on employing economic logic. The conclusion based on this case study is that China’s energy policy in the ESC of Central Asia is predominantly strategic-oriented, as shown by the indicators listed below.

**Perception that energy resources are strategically important**

Based on the accumulated data, China’s current political regime perceives energy resources to be strategically important for its existence. The CPC regards the security of energy supplies, as well as the diversification of energy sources, as crucial tasks if it wants to maintain its legitimacy as the governing power. The CPC's perceived need to control energy resources and their distribution networks has manifested itself on many occasions, for example, in its dealings with Unocal, Nexen, and Slavneft.

**Perception that the energy sector is crucial to the state’s economy**

At present, China considers its energy sector to be the strategically important core of its economy and trading power. The case study shows that China has tried to control its energy sector and sources of energy in China and other countries, especially in Central Asia, Southeast Asia, and Russia. China’s energy sector and its control of energy resources is significant not only because the sector supports China’s economic growth but also because it provides the CPC with the ability to win popular legitimacy.
Perception that state-owned energy actors are extensions of the state apparatus

It was further shown that the CPC either directly or indirectly dominates the entire energy sector of China. As a result, China has been able to transfer a significant portion of its national power into state power. Both the CNPC and CNOOC are pillars of the current political regime in China and directly or indirectly influence the formulation of China’s energy policy. Based on the case study, it is clear that China’s political elite consider their country’s state-owned energy actors to be tools for implementing both internal and external policies of the state. Based on an examination of China’s five-year-plans and other policy blueprints, the role of the energy sector in foreign policy is increasing.

Reliance on bilateral relations

China’s reliance on bilateral relations with its foreign partners in the energy sector is most visible in its relations with particular Central Asia states and with Russia. Based on the data, China has a preference for long-term bilateral deals. This has been demonstrated by China’s penetration of Central Asia since 2000.

Zero-sum approach

The case study shows that China’s political elite take a zero-sum approach to its energy relationships. China interprets any success of its potential competitors as a loss for China. At the heart of China’s energy policy lies a desire to control the material resources that are the basis of its military and economic power. There are many examples of China trying to gain a dominant position on the Central Asian countries’ markets and of its efforts to eliminate competitors.

Perception that the energy sector is a tool of state policy

According to the strategic documents and commercial practice examined in the case study, the CPC’s regime in China considers its energy sector to be a tool for achieving the goals of its internal and external policy.
Based on the same evidence, China is rewarding or punishing states for certain behavior. There are clear examples of attempts to control entire supply chains and markets regardless of commercial logic, as is the case of the “Go West” program and the “Western Development Strategy.” The former strategy is focused on stabilizing Central Asia through economic cooperation with China. The Chinese government also wants to stabilize China’s western provinces of Xinjiang and Tibet through economic development, after they were neglected during the era of Deng Xiaoping’s reformist zeal in the 1980s. Moreover, the threat of Uighur separatism is of very great concern to Beijing. Both strategies mentioned above are being subsumed into the newer Belt and Road Initiative.

The perceptions that dependence on other countries is desirable

China has succeeded in economically penetrating the ESC of Central Asia and partially displacing Russia from the region. It has tried to create a system of undesirable dependence (undesirable from the point of view of Russia and, perhaps, the Central Asian countries and the rest of the world) and aims to control the entire Central Asian energy market. The Central Asian states have been more than willing to cooperate with China, whom they do not perceive as a former colonial power but as a trading partner. China has been able to offer attractive and sophisticated cooperation packages to each state of the region, bundled with promises of investment that are generous in comparison to those of the Western states. China’s approach has been made possible because its political elite control much of its energy sector, in contrast to the Western states. Nonetheless, China’s lavish promises can be illusory, as Indonesia’s government learned in 2015. China actually invested only 7 percent of the planned USD 24.27 billion promised to Indonesia between 2005 and 2014.\(^{316}\) It is very telling that the only goal the construction of the Turkmenistan–China Gas Pipeline did not fulfill was creating a profit. It is quite clear that the natural gas transported by that pipeline is more expensive than the domestically produced gas in China. Moreover, the volumes of gas imported via the pipeline could have been easily and

more profitably substituted with China’s coal. Hence, the construction of the pipeline was primarily a strategic-oriented project.

**Emphasis on strategic goals over economic logic**

China’s strategic-oriented policy with regard to energy resources became evident in 2005. The CNOOC tried to purchase the US company Unocal, bidding 18.5 billion USD for it. Unocal’s US rival, Chevron, offered USD 16.4 billion, which most observers considered to be closer to the real value of the company. China’s higher bid was perceived as a strategic gambit. However, the United States government opposed the purchase because of possible implications for its national security. In the end, Unocal merged with Chevron. Despite failing to take over Unocal, since that year China has bought up many other crucial enterprises in the energy sector.\(^{317}\) The construction of the Turkmenistan–China Gas Pipeline, which started in 2007, must also be perceived as a strategic undertaking by China because its three completed lines fulfill several of China’s strategic goals. It gives China more energy security and thus helps to legitimize its undemocratic regime.

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4. Turkmenistan’s Energy Policy in Central Asia

The third of the three case studies is devoted to Turkmenistan’s energy policy and its formulation in the context of the Central Asian ESC. Like the others, this chapter is divided into four parts: energy resources, energy actors, energy policy in general, and energy policy in the ESC of Central Asia. The content of the subchapters is based on an evaluation of primary and secondary sources of data. The goal of this particular case study is to search for elements of the strategic-oriented energy policy in the country’s natural gas policy. These elements are: the perception that energy resources are strategically important; the perception that the energy sector is crucial to the state’s economy; the perception that state-owned energy actors are extensions of the state apparatus; a reliance on bilateral relations rather than multilateral arrangements; the perception that the energy sector is a tool for achieving the state’s policy goals; a zero-sum approach to policy making; the perception that dependence on other countries for energy is undesirable; and an emphasis on strategic goals over economic logic. This analysis is a stepping stone in the process of answering the research question: what is the predominant orientation of energy policy among the states of the ESC of Central Asia. The chapter concludes with an analysis of the indicators found in the data.

Energy Resources

Turkmenistan’s predominant exports are natural gas, petroleum, and cotton. Together they make up more than half of the country’s GDP. Turkmenistan is the fourth largest producer of natural gas in the world

318 World Trade Organisation, Turkmenistan.
after Iran, Russia, and Qatar. Turkmenistan’s current proven reserves are 17.5 tcm, which is 9.4 percent of the world’s total reserves.\(^{319}\) It should be stressed that Turkmenistan’s proven natural gas reserves have significantly grown during the past two decades in comparison to other post-Soviet states. Ashgabat’s natural gas deposits were estimated at 2.3 tcm in 2002, but by the end of the decade they increased to 17.5 tcm. In the course of the same period, Russia’s proven natural gas reserves only rose from 29.8 tcm to 32.9 tcm.\(^{320}\) In 2012, Kazakhstan’s proven natural gas reserves were 1.3 tcm and Uzbekistan’s were 1.1 tcm.\(^{321}\) This unparalleled increase in the proven reserves of natural gas in Turkmenistan significantly strengthened the country’s economic and geopolitical standing and turned it into the second biggest energy exporter in the regional energy security complex of Central Asia after Russia.\(^{322}\) The development of the energy sector also manifested itself in the size of Turkmenistan’s economy as shown in Table 15.

**Table 15: Basic socio-economic indicators – Turkmenistan (2007–2018)**

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP (billions USD)</th>
<th>GDP per capita (current USD)</th>
<th>Inhabitants (thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>12.664</td>
<td>2,600</td>
<td>4,870</td>
</tr>
<tr>
<td>2008</td>
<td>19.272</td>
<td>3,904</td>
<td>4,935</td>
</tr>
<tr>
<td>2009</td>
<td>20.214</td>
<td>4,036</td>
<td>5,007</td>
</tr>
<tr>
<td>2010</td>
<td>22.583</td>
<td>4,439</td>
<td>5,087</td>
</tr>
<tr>
<td>2011</td>
<td>29.233</td>
<td>5,650</td>
<td>5,174</td>
</tr>
<tr>
<td>2012</td>
<td>35.164</td>
<td>6,675</td>
<td>5,267</td>
</tr>
<tr>
<td>2013</td>
<td>39.198</td>
<td>7,304</td>
<td>5,366</td>
</tr>
<tr>
<td>2014</td>
<td>43.524</td>
<td>7,962</td>
<td>5,466</td>
</tr>
<tr>
<td>2015</td>
<td>35.800</td>
<td>6,433</td>
<td>5,389</td>
</tr>
<tr>
<td>2016</td>
<td>36.180</td>
<td>6,389</td>
<td>5,662</td>
</tr>
<tr>
<td>2017</td>
<td>37.926</td>
<td>6,587</td>
<td>5,758</td>
</tr>
<tr>
<td>2018</td>
<td>40.761</td>
<td>6,967</td>
<td>5,851</td>
</tr>
</tbody>
</table>

*Source: The World Bank*


\(^{321}\) Ibid.

Turkmenistan’s largest proven reserves are located in the Galkynysh gas field, probably the second largest gas field in the world after the South Pars field in the Persian Gulf, which is shared by Iran and Qatar. The Galkynysh field includes other fields that were formerly regarded as separate from it. These are the Yolotan, Minara, Osman, and Yashlar fields. Other essential gas deposits in Turkmenistan are the Döwletabat-Donmez field, Korpedzhe field, Malay field, Samandepe field, and Shatlyk field. The production in the Döwletabat-Donmez field began in 1982. It is located on the border with Iran near the town of Seraghs. This is where pipelines I, II, and IV of the Central Asia–Center Gas Pipeline System originate. Its reserves are estimated at 1.6 tcm. The Korpedzhe gas deposit is located in southwestern Turkmenistan. It is the starting point of the Korpedzhe–Kurdkuy Gas Pipeline commissioned in 1997, which serves northern Iran. Its reserves were initially estimated to be 141.9 bcm. The Malay deposit is located on the left bank of the Amu Darya river. In 2009 it was connected to the Turkmenistan–China Gas Pipeline via a separate branch called the Malay–Bagtyyarlyk Line. The Samandepe deposit was discovered in 1964 with reserves that were initially estimated at 102 bcm. An on-site processing plant was built there in 2009. The Shatlyk deposit is located in the Amu Darya river basin. The field initiated production in 1973 when it was connected to the Central Asia–Center Gas Pipeline System. At present, it is also connected to the East–West Interconnector Gas Pipeline. There are many other important natural gas deposits in Turkmenistan, but they are all dwarfed by the Galkynysh gas field, which is Turkmenistan’s most important economic and geopolitical asset.

Turkmenistan is one of the gas-producing countries that can export a substantial portion of their production because of relatively low domestic demand. However, domestic demand is rapidly increasing, from 4 bcm in 1992 to 29.5 bcm in 2016, in part because the government supplies the population of Turkmenistan with gas free of charge under specific quotas. This still leaves more than half of the country’s production

available for export. In contrast, neighboring Uzbekistan consumes almost all of its production domestically. Turkmenistan's state budget is highly dependent on the export of natural gas, cotton, and petrochemicals. Taxes represent only approximately one quarter of its government revenues. Turkmenistan's ability to export natural gas is illustrated in Table 16.

**Table 16:** Turkmenistan’s exports of natural gas, 2008–2019 (bcm)

<table>
<thead>
<tr>
<th>Year</th>
<th>Russia</th>
<th>China</th>
<th>Iran</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>39.10</td>
<td>0.00</td>
<td>6.50</td>
</tr>
<tr>
<td>2009</td>
<td>10.70</td>
<td>0.00</td>
<td>6.50</td>
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<tr>
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<td>2013</td>
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<td>2014</td>
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<tr>
<td>2019</td>
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<td>31.60</td>
<td>0.00</td>
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</table>

Source: Statistical Review of World Energy

Turkmenistan’s gas production reached its Soviet-era maximum in 1989 with 81.4 bcm. Production quickly decreased during the 1990s because of the breakup of the Soviet Union, falling to 13.1 bcm in 1998. This trend somewhat improved after 2000 as production reached 66.1 bcm in 2008. However, production fell once again due to a crisis in the country’s relations with Russia, falling to 36.4 bcm. The situation soon improved thanks to the commissioning of the Turkmenistan–China Gas Pipeline. In 2015, Turkmenistan’s total production reached 69.6 bcm (see Table 4). Moreso than Russia, China stands out as the most promising market for Turkmenistan’s natural gas because it consumes imported gas directly rather than re-exporting it and because its consumption will


very likely grow in the short- to mid-term due to Chinese government policies that prioritize environmental protection.

This subchapter on the energy resources of Turkmenistan shows that the energy sector is the backbone of the state’s economy. Turkmenistan became one of the most important energy exporters globally in the 2010s because of newly found natural gas deposits. Turkmenistan’s political elite understand how important the country’s energy sector is. Berdimuhamedow’s regime subsidizes domestic energy supplies because the political elite are interested in controlling the energy sector and consider it a strategic asset for maintaining popular support for the ruling regime.

**State Actors in the Energy Sector**

The key document that establishes the institutional framework for the development of Turkmenistan’s energy sector is the Law on Hydrocarbon Resources that was passed in August 2008.\(^{329}\) It primarily focuses on the powers and responsibilities of the State Agency for Management and Use of Hydrocarbon Resources, controlled by the President of Turkmenistan himself. The Agency is the principal institution for the management of Turkmenistan’s oil and gas resources. It has the power to issue licenses for exploration and development of deposits, oil and gas production and transportation, and to conclude agreements on production sharing. It has the last say in setting tariffs for transport through the country’s gas pipelines. It concludes agreements with foreign investors and sets rules for their operations in the country.\(^ {330}\)

The Agency was officially mentioned for the first time on March 12, 2007, when the legislation establishing it was published. It effectively replaced the Competent Body for the Use of Hydrocarbon Resources, also controlled by the President of Turkmenistan, which was disbanded before the Agency was created.\(^ {331}\) The Agency derives revenue from royalties, bonuses, and income from PSAs and other contracts. It transfers 20 percent of its income to the state budget. The rest remains in the budget of the Agency for its operation. The government fully controls the Agency, and only the president, who appoints its director, can overrule


its decisions.\textsuperscript{332} As of 2017, the Agency was led by President Berdimuhamedow’s son-in-law, Döwlet Atabayew.\textsuperscript{333} These arrangements mean that Berdimuhamedow directly and personally controls Turkmenistan’s entire hydrocarbon sector and its enormous wealth. Berdimuhamedow thus holds the essential role in setting the energy policy and strategy for Turkmenistan.

The Law on Hydrocarbon Resources defines the conditions for resolution of a dispute between the Agency and the holder of a license or contract. It provides that disputes should be settled through negotiation if possible, with the involvement of independent international experts as necessary. Only if negotiations fail may the parties avail themselves of dispute settlement procedures agreed upon in their contract. Finally, if a dispute cannot be settled within three months, it can be taken to an international arbitration body.\textsuperscript{334} This last option was incorporated into the law because many foreign enterprises such as the Argentinian company Bridas had had a terrible experience with their investments in Turkmenistan. These bad experiences significantly damaged Turkmenistan’s business reputation abroad and have since deterred foreign investment so much that its energy sector still suffers. Moreover, it enabled China to gain influence and resources in exchange for investments that can be perceived as disadvantageous to Turkmenistan because of the lack of competition from other significant foreign investors.

There are also other state actors who influence the energy sector in Turkmenistan. Turkmenistan’s Ministry of Finance has competency in the area of tariffs. Turkmentransgas and Turkmengaz also must agree upon gas transportation tariffs. Moreover, tariffs have to be approved by the Agency. The Ministry of Finance established a stabilization fund in 2008 that has primary responsibility for balancing shortfalls in state revenues and planning long-term investment strategy.\textsuperscript{335} Turkmenistan’s Ministry of the Oil and Gas Industry and Mineral Resources sets Turkmenistan’s policy in the area of mineral resources and performs analysis and planning. It is also in charge of the state-owned enterprises in the hydrocarbon sector.\textsuperscript{336}

\textsuperscript{332} Kate Watters, “The Private Pocket of the President (Berdymukhamedov): Oil, Gas and the Law,” \textit{Crude Accountability}, October 2011.
\textsuperscript{334} Ibid.
\textsuperscript{335} “Ministerstvo finansov Turkmenistana,” fineconomic.gov.tm.
\textsuperscript{336} “Ministerstvo nefti i gaza Turkmenistana,” www.oilgas.gov.tm.
The state-owned company Turkmengaz is the most significant enterprise in the country. Its activities center on extraction, production, and export of natural gas. It manages extraction in more than 30 large-scale deposits such as Döwletabat, Shatlyk, Malay, Kerpichli, Gazlydepe, Bagadzha, Garabil, Gurrukbil, and the most massive deposit, Galkynysh.\textsuperscript{337} Turkmennefte is also state-owned and focuses on the exploration and development of oil and gas fields in Turkmenistan.\textsuperscript{338} Its most important oil fields are Goturdepe, Nebitdag, South Gamyshlydzha, Korpedzhe, Akpatlavuk, Keymir, Eastern Keymir, and Eastern Chelek-en.\textsuperscript{339} Turkmengeologiya is tasked with identifying, exploring, and prospecting new energy deposits.\textsuperscript{340} Turkmenneftegazstroii deals with the development of oil and gas fields, construction of oil and gas pipelines, and renovation of refining facilities. It took part in the renovation and modernization of refineries in Seydi and Turkmenbashi.\textsuperscript{341} The structure of Turkmenistan’s hydrocarbon industry complex as of 2017 very much resembled those of other energy exporting post-Soviet republics.\textsuperscript{342}

The Law on Foreign Investments of 2008 authorized production sharing agreements between foreign investors and their counterparts in Turkmenistan. It also allowed for the establishment of enterprises wholly owned by foreign investors, branches of foreign legal entities, and for purchase of existing enterprises by foreign investors.\textsuperscript{343} However, the investment environment in Turkmenistan is plagued by corruption and barriers to foreign investors.\textsuperscript{344} Transparency International ranked Turkmenistan 154th out of 168 countries ranked in its Corruption Perception Index in 2015.\textsuperscript{345} In its 2016 Economic Freedom Index, the Heritage

\begin{itemize}
\item \textsuperscript{337} “Gosudarstvennyi kontsern Turkmengaz,” www.oilgas.gov.tm/m/page/page/25.
\item \textsuperscript{338} “Turkmenistan narashchivaet eksportnyi potencial uglevodorodnykh resursov,” Turkmenistan .ru, February 8, 2015.
\item \textsuperscript{339} “Gosudarstvennyi kontsern Turkmenneft,” www.oilgas.gov.tm/m/page/page/26.
\item \textsuperscript{340} “Gosudarstvennaya korporatsiya Turkmengeologiya,” www.oilgas.gov.tm/m/page/page/27.
\item \textsuperscript{341} “Gosudarstvennyi kontsern Turkmenneftegazstroii,” www.oilgas.gov.tm/m/page/page/28.
\item \textsuperscript{345} “Corruption Perception Index,” Transparency International, www.transparency.org/country/#TKM.
\end{itemize}
Foundation ranked Turkmenistan near the bottom, number 174 of the 178 countries it ranked.346

The Turkmenistan government used different tools to discriminate against “disfavored enterprises” in the past, such as repeated tax audits, refusals to extend licenses, non-payment of debts, and forced renegotiations of contracts. There are several cases of friction between the government and the Italian company Eni, the Dutch company Larmag, and the Argentinian company Bridas.347 The majority of the hydrocarbon industry is controlled by the state. In 2009, as much as 59 percent of Turkmenistan’s oil and 94 percent of its gas was produced by state-owned entities.348 This shows how important the hydrocarbon sector, especially its gas segment, is for Berdimuhamedow’s regime in Turkmenistan. Moreover, it shows that the creation of profit does not necessarily have priority over the strategic goals of the regime. In other words, Berdimuhamedow considers the natural gas resources of Turkmenistan as too strategic an asset to leave their direction solely to market forces.349

In the oil sector, Turkmenistan has concluded four offshore PSAs with external partners and three onshore PSAs that were active as of 2016. The offshore PSAs are with the Russian company Itera, the Cypriot company Buried Hill, Malaysia’s Petronas Carigali, and Dragon Oil, which is wholly owned by Emirates National Oil Company.350 The CNPC, the Italian company ENI and the Austrian company Mitro International are partners in the three onshore PSAs. Compared to the CNPC, ENI and Mitro operate on proportionally smaller fields in western Turkmenistan. ENI is active at the Nebit Dag field351 and Mitro International at the Hazar field.352

In the production of natural gas, Turkmenistan’s leadership prefers to conclude service contracts with Asian or Arab operators. In the first

347 Watters, “The Private Pocket of the President.”
349 For more on political developments in Berdimuhamedow’s Turkmenistan see: Slavomír Horák and Jan Šír, Dismantling Totalitarianism? Turkmenistan under Berdimuhamedow (Washington: Central Asia-Caucasus Institute and Silk Road Studies Program, 2009).
phase of the development of Galkynysh, Turkmengaz signed contracts with Gulf Oil and Gas FZE and Petrofac International LLC, both from the United Arab Emirates, with the CNPC subsidiary Chuanqing Drilling Engineering Company, and with a consortium of LG International Corporation and Hyundai Engineering from South Korea. All these contracts were signed in 2009 and amounted to USD 10 billion. The contracts signaled that at that time, Turkmenistan was willing to entrust the oil and gas field development to less experienced enterprises rather than to allow Western or Russian involvement in its most important natural gas projects.

This subchapter on the energy actors in Turkmenistan explains that Berdimuhamedow’s regime directly or indirectly controls almost the entirety of the country’s energy sector. The State Agency for the Management and Use of Hydrocarbon Resources under the President of Turkmenistan along with the Turkmengaz company are Berdimuhamedow’s key vehicles for controlling Turkmenistan’s energy sector. The state’s grip on the energy sector is strengthened by restrictions on foreign investments and the deliberate diversification of the foreign partners that are allowed into the energy sector. There were several cases of Turkmenistan’s authorities blocking Western companies’ activities, among the affected were the Italian company Eni, the Dutch company Larmag, and the Argentinian company Bridas. These findings confirm that Turkmenistan’s regime wants to transform as much of its national power into state power as possible, especially in the energy sector. The regime considers state-owned or state-dependent energy actors as practical extensions of the state apparatus.

**Energy Policy**

Saparmurat Niyazov’s death on December 21, 2006 was a crucial milestone in the political and economic development of the independent Turkmenistan. He had led the country since 1985, when he became the first secretary of the Communist Party of what was then the Turkmen Soviet Socialist Republic. The transition of power after Niyazov’s
death was exceptionally quick and above all went very smoothly. The State Security Council, an extraconstitutional body dominated by representatives of the country’s power structures, appointed the Deputy Chairman of the government and the Minister of Health, Gurbanguly Berdimuhamedow, as Turkmenistan’s president.\textsuperscript{356} To the existing power brokers, a smooth transition seemed like the only way to secure their positions and maintain internal and external stability.

Berdimuhamedow started to build up his power base immediately after his appointment.\textsuperscript{357} He got rid of the people that had elevated him to the post of president, especially the Head of the State Security Council, Akmurat Rejepow. Rejepow’s elimination was likely linked to the construction of the gas pipeline to China. In that regard, there are two plausible theories. The first theory speculates that Rejepow was the principal advocate for the Turkmenistan–China Gas Pipeline. Berdimuhamedow had to eliminate him to control the crucial bilateral relationship with China directly himself. The second theory is that the timing of Rejepow’s removal from power and imprisonment indicates that Berdimuhamedow must have promised Vladimir Putin that Turkmenistan would participate in the now mothballed Caspian Coastal Gas Pipeline project. He had to eliminate Rejepow to pursue this goal. It is challenging to verify or disprove these two claims. Nonetheless, their existence supports the idea that Berdimuhamedow’s rise to power was directly connected with rivalry and competition for control of Turkmenistan’s energy policy amongst the country’s ruling elite. In retrospect, it seems that Berdimuhamedow favored closer cooperation with China from the beginning. His rise to power probably played a decisive role in making the Turkmenistan–China Gas Pipeline a reality.\textsuperscript{358}

The transfer of power from Niyazov to Berdimuhamedow was both legally and symbolically confirmed by the adoption of a new constitution in 2008. This document made Turkmenistan’s institutional structure more like that of the neighboring states while confirming the supremacy of the president’s power vertical.\textsuperscript{359} Berdimuhamedow proclaimed the “Era of New Renaissance” to succeed Niyazov’s socio-economic program, the “Golden Age of the Turkmen,” which Niyazov had presented in 2000.\textsuperscript{360} This “new era” was characterized by large-scale construction projects

\textsuperscript{357} “Berdimuhamedow, Gurbanguly,” Lenta.ru, September 18, 2016.
\textsuperscript{358} Based on semi-structured interviews with stakeholders.
\textsuperscript{359} “Konstitutsiya Turkmenistana,” September 26, 2008.
\textsuperscript{360} “Epokha novogo vozrozhdeniya v ramkah zolotogo veka,” Turkmenistan.ru, August 8, 2008.
such as the seaside resort of Awaza and the slow deconstruction of Niyazov’s ideological legacy, especially by de-emphasizing Niyazov’s formerly omnipresent “holy book,” Ruhnama.361

The overweening role of the executive and the ill-defined separation of powers among the executive, legislative, and judiciary power is what characterizes the formal political system of Turkmenistan. The new constitution significantly broadened the powers of the State Security Council, the body that orchestrated Berdimuhamedow’s succession to the presidency, at the expense of the parliament.362 The constitution also did away with the former legislative body known as the People’s Council in an attempt to give more power and credibility to the three traditional branches of government.363

The transition from Niyazov to Gurbanguly Berdimuhamedow showed that the political system of Turkmenistan had become somewhat stable. Nowadays it is clear that Berdimuhamedow, along with Turkmenistan’s state apparatus, directly controls the country’s most important asset and source of internal and external policy – the energy sector.364 Berdimuhamedow’s regime makes every effort to transform the majority of national power into state power and thus increase Turkmenistan’s stature in the ESC of Central Asia. In other words, the regime is able to muster almost the entire state apparatus as well as energy sector in the pursuit of its ends – consolidating and preserving its power and ensuring the prosperity of the ruling elite.

In order to fully understand the energy policy of the country, it is necessary to analyze the clans of Turkmenistan. These informal structures are in fact the real backers of the current regime and the principal motivators of its behavior in the energy sector.365 While Niyazov placed himself above the traditional tribal structures that bind Turkmenistan’s society, they are the source of Berdimuhamedow’s power and an everyday reality in Turkmen life. Turkmenistan’s tribes are informal actors that are based on extensive networks of real and perceived kinship.

There are three factors that explain the importance of tribes in Turkmenistan’s internal politics. Tribal structures persist in Turkmenistan

because the state was formed only recently. The development of the Turkmens’ identity as a nation-state was delayed by the annexation of the entire area by the Russian Empire and later the Soviet Union. The clans survived because of shortages of goods and the non-existent or deformed market economy of the Soviet period. These social structures are so stable that they still play a very significant role in everyday life. A person’s affiliation with a particular tribe is of the utmost importance to his or her social life and career opportunities.

Territory plays an essential role in tribal identity and in inter-tribal relations. The most important tribe is the president’s, the Ahal Tekke. This is the same tribe to which Niyazov belonged. However, the difference with Berdymuhamedow is that Niyazov was an orphan and his wife Muza had Russian-Jewish parents. Thus, he could afford not to entangle himself in tribal politics. Berdymuhamedow on the other hand was very active in promoting people from his native region of Gökdepe and from his own family. Berdymuhamedow’s son Serdar and his grandson often appear in the public media. His son-in-law, Döwlet Atabaew, is the most powerful figure in Turkmenistan’s hydrocarbon industry. He has been the head of the State Agency for the Management and Use of Hydrocarbon Resources since 2008. There is little difference between Turkmenistan and other Central Asian states when it comes to the fact that place of origin and family ties are critical factors in the network of power.

The Ahal Tekke tribe was the first and most thoroughly Russified clan in Turkmenistan. It constituted the core of Russia’s control of the Trans-Caspian region. Other Turkmen tribes stayed under the rule of either the Khiva Khanate or the Bukhara Emirate for a more extended period of time. Ahal Tekke belongs to a larger tribal group, the Tekke, together with the Mary Tekke tribe located in the Mary region. Members of the Mary Tekke control some critical posts in the country. However, their position is not comparable in influence to that of the members of the Ahal Tekke. Another important tribe is the Yomut from Turkmenistan’s western region, Balkan, which traditionally controlled the country’s hydrocarbon industry. The balance of power changed in 2009 when the state-owned oil company Turkmenneft moved its headquarters

369 Kunysz, “From Sultanism to Neopatrimonialism,” 1–16.
from Balkanabat to Ashgabat.\textsuperscript{370} The move signaled a general weakening of the Yomut clan in favor of the Ahal Tekke.\textsuperscript{371}

Niyazov did not seem to favor any particular tribe; Berdimuhamedow clearly supports his own tribe, Ahal Tekke. Hence, he has focused on making it secure control of the hydrocarbon industry, the most critical industry in Turkmenistan. Another important tribe are the Saryks, who live in the southeast of the country, near the border with Afghanistan. Another, the Chowdur, live in the area of the Khorezm Oasis. Finally, another important tribe, the Ersari, live in southern Turkmenistan and northern Afghanistan.\textsuperscript{372}

 Turkmenistan’s political elite under Berdimuhamedow understand the need for diversification of the country’s exports to promote stability and sustainable growth. According to Ashgabat, the ideal situation would be to send an approximately 40 percent share of exports to China, 20 percent to Iran, 20 percent through the future Trans-Caspian Gas Pipeline, and 20 percent via the Turkmenistan–Afghanistan–Pakistan–India (TAPI) Gas Pipeline (under construction).\textsuperscript{373} The country can afford such an ambitious diversification of its exports because of its newly explored deposits. Turkmenistan’s government plans to produce 250 bcm per year by 2030.\textsuperscript{374} This expected production would make Turkmenistan one of the most important energy producers in the world.

**Northern route**

For a long time, the northern connection to Russia via the Central Asia–Center Gas Pipeline System was the only feasible route for Turkmenistan’s gas exports out of the country. Therefore, Russia enjoyed a critical leverage over Niyazov’s regime, which severely limited its geopolitical maneuvering room. In December 1991, Moscow and Ashgabat agreed


\textsuperscript{371} On Turkmenistan’s clan structure see: Collins, *Clan Politics*.


\textsuperscript{373} “The Southern Corridor of the New Silk Road,” CACI FORUM, round table discussion with Turkmenistan’s Ambassador to the US Meret B. Orazov, September 18, 2013.

\textsuperscript{374} “Kak zhivet strana pri prezidente Berdymukhamedove?” *Neitralnyi Turkmenistan*, November 14, 2010.
that Turkmenistan could export a limited amount of natural gas to Europe at world prices in exchange for convertible currency.\textsuperscript{375}

Exports of Turkmenistan’s gas to Russia ceased almost entirely in 2000,\textsuperscript{376} even though the two countries’ mutual interdependence was very strong at that point. In April 2003, the two parties concluded a new 25-year agreement on cooperation in the gas industry.\textsuperscript{377} The terms of the agreement were influenced by Niyazov’s desire to gain Russia’s support after his position was weakened by an alleged assassination attempt one year earlier. This shows how the foreign and even the domestic policy of Turkmenistan was and still is intertwined with energy policy.

Niyazov was discontented with the low price that Turkmenistan was obtaining for its natural gas exports to Russia, although it rose from USD 60 per thousand cubic meters to USD 130 in the first half of 2008 and to USD 150 in the second half of that year.\textsuperscript{378} The price Russia charged abroad was very different. The Ukrainian intermediary RosUkrEnergo was buying gas from Russia in 2006 for 230 USD and selling it on to European markets for USD 250. Russia wanted to deter Turkmenistan from finding new export possibilities for its natural gas, and thus it was willing to increase the price it paid to Turkmenistan to USD 350 in 2008.\textsuperscript{379}

The sudden price increase represented a critical step for the future of Turkmenistan’s gas exports northwards. Rising demand in Europe influenced Russia’s ability to offer a higher price. However, the advent of the global financial crisis and the consequent slump in European demand was a bitter pill for Turkmenistan to swallow. The crisis was followed by an explosion on the Central Asia–Center Gas Pipeline in April 2009 that significantly limited Turkmenistan’s exports to Russia. Turkmenistan blamed the explosion on Russia and without notice started decreasing how much gas it took off the pipeline, which put stress on the system. Russia just blamed the poor technical state of the pipeline.\textsuperscript{380}

The explosion occurred close to the border between Turkmenistan and Uzbekistan. Following it, Russia demanded that Ashgabat either

\textsuperscript{376} Ibid.
\textsuperscript{379} Aminjonov, \textit{Central Asia’s Natural Gas}, 1–14.
\textsuperscript{380} Aleksey Tikhoretskiy, “Zapakh gaza,” Turkmenistan.ru, April 17, 2009.
decrease its shipments by 80 percent or reduce the price of its gas by 40 percent. In any event, exports to Russia remained at a low level. Turkmenistan did not import almost any gas to Russia at all until 2010. In this case, Russia managed to decrease the volume of gas it received and the price as well. Although this was a logical reaction to the changing market conditions, Moscow’s behavior threatened the energy security of Turkmenistan. By suddenly decreasing the volume and price of its gas imports, Russia became an unpredictable partner for Ashgabat. The Turkmens understood that a continued exclusive cooperation with Moscow was not going to produce sustainable energy security. This event did not directly cause Turkmenistan’s rapprochement with China, which was already in the making. However, it did reinforce it significantly.

Back in 2007, Russia wanted to strengthen its grip on Central Asia’s hydrocarbons and to counter China’s plans for the region, especially the future Turkmenistan–China Gas Pipeline project. Therefore, Moscow came up with the idea of the Caspian Coastal Gas Pipeline. That pipeline would have been in effect the CAC-3 Gas Pipeline, and a part of the Central Asia–Center system. Vladimir Putin undertook a three-day state visit to Turkmenistan in May 2007. During this visit, Putin, Berdimuhamedow, and the Kazakh President Nursultan Nazarbayev held a summit in Turkmenistan’s Caspian Sea port of Turkmenbashi to discuss natural gas transportation. The presidents declared their intention to build the Caspian Coastal Gas Pipeline. Later on, the three presidents joined with Uzbekistan and declared their intention to upgrade the Central Asia–Center Gas Pipeline System as well.

If fulfilled, both agreements would have significantly improved Russia’s position in the Central Asian ESC. The intentions did not immediately materialize into binding documents. In July 2007 US envoys arrived in Turkmenistan to promote the idea of the Trans-Caspian Gas Pipeline and in August China began the construction of the Turkmenistan–China Gas Pipeline. Nonetheless, an agreement to build the Caspian Coastal Gas Pipeline was signed in Moscow on December 20,
2007 without much fanfare.\textsuperscript{387} It bound Russia, Kazakhstan, and Turkmenistan to build a pipeline with a capacity of 20 bcm per year. The construction should have started by the end of 2008, but it was postponed several times.\textsuperscript{388} There were doubts about Turkmenistan’s ability to fill the pipeline from its western regions. The project was entirely halted in 2010 due to significantly decreased European demand.\textsuperscript{389} The slump in European demand caused Turkmenistan to focus more intently on collaboration with China. Its leaders hoped that China’s planned economy would not be so influenced by the economic cycle.

At approximately the same time in 2010, Turkmenistan also canceled a tender for the construction of the East–West Interconnector and claimed that it would instead build it using its own resources.\textsuperscript{390} It had initially been agreed that Gazprom would be the principal contractor on this strategic project.\textsuperscript{391} This cancelation was another significant loss for Russia's influence in Turkmenistan, which started gradually drifting towards China. The East–West Interconnector was finally commissioned in 2015. It allows Turkmenistan to transport its natural gas where it is needed the most. 773 km long, it runs from the Belek Compressor Station near Turkmenistan’s Caspian coast to the Niyazovsk Compressor Station in the east, on the border with Kazakhstan. It has a capacity of 30 bcm.\textsuperscript{392} The East–West Interconnector has proven itself to be critically important for Turkmenistan’s ability to maneuver geopolitically and for its regional stature. It allows natural gas to transit smoothly across the country to serve Turkmenistan’s domestic economy. Most important of all, once the Trans-Caspian Gas Pipeline is built it will allow either exports to the East from offshore deposits in the Caspian Sea or the transport of natural gas from Galkynysh to the West.

In conclusion, at the beginning of the 1990s Russia had the enormous advantage of controlling the only hydrocarbon export transportation infrastructure in the ESC of Central Asia. However, it gradually lost its monopoly on transport because of its fixation on preserving the European market for itself. Cooperation with Turkmenistan before 2009 enabled

\textsuperscript{390} “Turkmeniya nachala stroit gazoprovod k Kasiyiyu,” \textit{Turkmenistan.ru}, June 1, 2010.
Russia to postpone implementation of high-cost projects in Siberia and the Arctic and to supply Turkmen gas to the European market instead. Moreover, it enabled Russia to strengthen its influence in other post-Soviet countries, most importantly in Ukraine.\footnote{Fredholm, “Natural Gas Trade.”}

Nevertheless, Russia did not have any alternative plans when the global economic crisis unfolded in 2009. Overpricing was an irritant in Russia’s relationship with Turkmenistan and other natural gas importers. However, Russia’s position really started to unravel when China announced its project for the Turkmenistan–China Gas Pipeline. Russia tried to respond with proposals for a Caspian Coastal Gas Pipeline and a reconstruction of the Central Asia–Center Gas Pipeline System, but it was already too late. Moreover, Gazprom lost the tender to build the strategic East–West Interconnector in 2010.

The deterioration of Russia’s bilateral relationship with Turkmenistan will have future consequences. Russia lost its control of cheap Turkmen gas, which it had continued to use for its domestic needs while sending its own gas onward to the European market.\footnote{Aleksei Topalov, “Turkmenskii gaz oboidet Rossiyu,” Gazeta.ru, December 24, 2015.} This development will require Russia to develop its eastern Siberian and Arctic deposits, which will be more technologically and financially demanding. Moreover, China not only squeezed Russia out of Turkmenistan but also gained critical leverage in any price negotiations with Russia itself. An example of this is the difficult negotiation process over the construction of the Power of Siberia Gas Pipeline. Finally, Russia’s loss of its pre-eminent position in Turkmenistan has geopolitical implications. Ashgabat officially proclaims its intention to diversify its ties with China, Iran, India, Pakistan, and the states along the Southern Energy Corridor. However, Turkmenistan’s officials almost never mention upgrading their relationship with Russia.

**Eastern route**

China plays the leading role in the eastern route out of Turkmenistan. It first proposed this option for Turkmenistan’s gas exports in the early 1990s. Niyazov approved the eastern route for Turkmenistan’s natural gas during his last visit to China in the spring of 2006. He and China’s then-leader, Hu Jintao, agreed that China would purchase Turkmenistan’s gas and construct the Turkmenistan–China Gas Pipeline, with a
commissioning planned for the end of 2009. Turkmenistan committed to supplying China with 30 bcm per year for 30 years. However, this agreement should not be perceived as something set in stone. Ashgabat had a similar agreement with Russia, but when cooperation with Moscow began to crumble, the agreement was largely forgotten. The same could happen to the agreement with China if bilateral cooperation with Beijing loses its charm for the power brokers in Ashgabat. The 2006 agreement counted on supplying China with 13 bcm per year from the fields on the right bank of the Amu Darya river under a PSA with the CNPC. Turkmenistan could have obtained 17 bcm annually from other deposits on the left bank of the Amu Darya river.

Niyazov’s foreign policy reflected his unwillingness to allow foreign countries to conclude onshore contracts in Turkmenistan. The only exception to the rule was a production sharing agreement on the Bagtyyarlyk gas deposit with the CNPC which constituted the price for concluding the agreement with China regarding the construction of the Turkmenistan–China Gas Pipeline. The CNPC was the first company ever given the possibility of developing onshore deposits in Turkmenistan. This offer demonstrates to the CNPC just how important the Turkmen leadership considers an enhanced cooperation with China to be. If the country’s relationship with Russia continued to deteriorate and there was no option to ship natural gas to China, it would threaten the stability of the regime in Ashgabat.

One of Berdimuhamedow’s first foreign visits was to Beijing in July 2007. He assured the Chinese side of his support for the 2006 agreement with Niyazov. Moreover, he announced the discovery of new gas deposits on the right bank of the Amu Darya. These newly found deposits increased the geopolitical weight of Turkmenistan and made it the country with the fourth-largest natural gas reserves in the world. Subsequent to Berdimuhamedow’s visit, the two countries agreed on increased technological and economic cooperation. China also offered Turkmenistan an interest-free loan for the purchase of Chinese-made drilling rigs used for the development of upstream activities in the gas fields.

The CNPC organized a ceremony celebrating the start of the construction of the Turkmenistan–China Gas Pipeline in the village of Bagtyyarlyk in Turkmenistan’s eastern Lepab region on August 29, 2007. The pipeline was commissioned in December 2009 and is 1,833 kilometers long. It starts at the Bagtyyarlyk field and runs for 188 kilometers to the border with Uzbekistan. It then traverses 530 kilometers of Uzbekistan and enters Kazakhstan near the town of Shymkent. It runs for another 1,115 kilometers on Kazakh territory until it reaches China’s border at Horgos. The natural gas then continues on to China’s megalopolises in the east. Line B of the pipeline was commissioned one year after Line A, in 2010. Line A and Line B have a combined capacity of 30 bcm per year. It was thus inevitable that another pipeline would have to be built in order to fulfill Turkmenistan’s agreement to ship 40 bcm annually to China.

The cooperation between Turkmenistan and China was developing rapidly and well. Both sides agreed to a new framework agreement in 2012. The year 2020 was the endpoint of China’s then-current five-year plan and there was a great pressure to fulfill that target by then. A road map for further development of the Bagtyyarlyk and Galkynysh fields and to add a Line C to the Turkmenistan–China Gas Pipeline with a capacity of 25 bcm was agreed upon in 2013.

Line C runs parallel to the two previous lines and was commissioned in June 2014. The parties agreed to construct Line D with another 25 bcm of capacity in September 2013. However, its path will be much different than that of the three previous lines. When completed, it will start at the Bagtyyarlyk field and then run 205 kilometers through Uzbekistan. Subsequently, it will traverse 415 kilometers of Tajikistan and 225 kilometers of Kyrgyzstan before reaching Kashgar on China’s border. The construction of some segments of Line D began in 2014, and it was still under construction as of late 2021.

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406 “Chinese Natural Gas Deals in Central Asia Foreshadow Expanded Pipeline Project,” RWR
The construction of the first three lines of the Turkmenistan–China Gas Pipeline had a significant impact on the geoeconomic and geopolitical status quo in Central Asia. Russia was Turkmenistan’s primary trade partner before the crisis in their relations in 2009. China has taken over Russia’s position since then. In fact, China is becoming much more dominant as a trade partner with Turkmenistan than Russia ever was. Turkmenistan supplied Russia with 39.1 bcm in 2008 and sent Iran an additional 6.5 bcm. Exports to Iran have remained much the same up to the present. However, Russia obtained only 10.7 bcm from Turkmenistan in 2009. Turkmenistan’s supplies to China surpassed those to Russia in 2011, when it sent 14.25 bcm to China and only 10.14 bcm to Russia. In 2014, China obtained 25.9 bcm from Turkmenistan, while Russia only received 10 bcm. With the opening of Line C in 2015, China obtained 27.75 bcm and Russia 2.81 bcm. Turkmenistan stopped all gas exports to Russia in 2016. The result was that China entirely supplanted Russia as Turkmenistan’s dominant economic partner in less than eight years’ time.

Nowadays, China does not limit its investments in Turkmenistan to the hydrocarbon sector. It has recently invested in transport and chemicals, telecommunications, construction, and light industry. This investment goes hand in hand with China’s Belt and Road Initiative, which focuses on connectivity and infrastructure development in the Central Asian region and beyond.407 It is also linked to the older “Go West” strategy that was aimed at the economic development of China’s western regions and adjacent Central Asian territories.

China’s actions in the Central Asian ESC should be viewed as part of a broader strategic initiative that is not aimed only at generating profits. The price of natural gas imported from Central Asia is higher than of the gas extracted domestically in China, to say nothing about China’s reserves of coal.408 China has three chief strategic priorities in the Central Asian region. It wants to stabilize its western regions, including Tibet and Xinjiang, as well as the adjacent Central Asian states and keep them stable. The Line D project of the Turkmenistan–China Gas Pipeline should be seen primarily in this light. Next, China’s opening up to Central Asia is a means of economic diversification and it creates

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a bridgehead for links to the resources of the Middle East and the markets in Europe. Part of China’s elite believe that having more pipelines is the only thing that can provide China with greater energy security. 409 This belief is justified when one considers the possibility that maritime routes might temporarily be cut off. Finally, China has gained significant leverage in its relationship with Russia by penetrating Central Asia. This leverage has already become visible during the negotiations over the construction of the Power of Siberia Gas Pipeline.

**Southern route**

Turkmenistan plays a leading role in the southern route at present. It is attempting to strengthen its geostrategic position through even more energy export diversification. Turkmenistan has understood the importance of Pakistan’s and India’s energy markets for its future hydrocarbon exports since the early 1990s. That is how the idea of the Turkmenistan–Afghanistan–Pakistan Gas Pipeline was conceived. This project is proceeding in tune with the interests of the United States in the region and was supported early on by the New Silk Road Act passed by the US Congress in 1999. 410

The then-Secretary of State Hillary Clinton proposed a New Silk Road Initiative in 2011. This initiative’s goal was to connect Central Asia more closely with the Indian subcontinent through Afghanistan. 411 The goal was to increase the prosperity of both regions and to decrease the influence of Russia and Iran in the Central Asian ESC. 412 However, the US approach focused too much on stabilizing Afghanistan and lacked more precise and solicitous consideration of the Central Asian partners, whose benefit was considered more as a means to an end than an independent goal of the US regional policy.

A pipeline to the Indian subcontinent has been in the making since the early 1990s. Niyazov concluded a memorandum of understanding for the construction of a gas pipeline to Pakistan with its Prime Minister,

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Benazir Bhutto, in March 1995. The international consortium for the Turkmenistan–Afghanistan–Pakistan Gas Pipeline was created in 1997 with the US company Unocal at its head. The project was seriously delayed by the unstable situation in Afghanistan, the US embargo against the Taliban, and the events that followed the terrorist attacks in the United States on September 11, 2001.413

The pipeline project was resuscitated at a trilateral summit in Islamabad in 2002 as the TAP (Turkmenistan–Afghanistan–Pakistan) Gas Pipeline.414 India began to show interest in the project in 2005, and since then it has been referred to as the TAPI Gas Pipeline.415 In 2006, the Asian Development Bank initially estimated the cost of the TAPI project at USD 2.6 billion.416 However, it boosted its estimate to USD 7.6 billion in 2015. As of 2006, the price was estimated at USD 10 billion because of various delays.417 The projected capacity of the pipeline is 33 bcm per year. It should start at the Galkynysh field in southeast Turkmenistan and continue through Afghanistan along the road from Herat to Kandahar. Subsequently, it would continue through Baluchistan and Punjab in Pakistan before reaching the border with India at Fazilka.418 However, it remains to be seen how will this dynamic be influenced by Taliban’s seizure of power in Afghanistan in late 2021.

The agreement regarding the construction of the TAPI pipeline was signed by the four participating countries in 2010 at the active urging of Turkmenistan. Its duration was set at 30 years.419 Moreover, Turkmenistan signed agreements with the two main potential purchasers, the Gas Authority of India, Ltd. (GAIL) and the State Gas Systems of Pakistan, in 2012.420 Those agreements contained a clause stating that if Pakistan

blocks gas supplies to India, Turkmenistan is obliged to do the same to Pakistan.\textsuperscript{421} In this way, the negotiators attempted to prevent the Indo-Pakistani conflict in Kashmir from interfering with the implementation of the pipeline project. Turkmenistan signed another agreement with the Afghan Gas Corporation in 2013.\textsuperscript{422}

One year later, the participating countries agreed to create a consortium that would build and operate the pipeline. Turkmengaz was endorsed as the leader of the consortium, known as the TAPI Pipeline Co. Ltd., in August 2015. Turkmengaz, Afghan Gas Corporation, Pakistan’s Inter State Gas Systems, Ltd., and India’s GAIL took equal shares in the consortium.\textsuperscript{423} In October 2015, the consortium’s steering committee adopted a shareholders’ agreement setting forth the rights and obligations of the parties involved. Turkmengaz promised to contribute 85 percent of the pipeline’s costs. The rest of the costs were to be divided among the other three members.\textsuperscript{424} Turkmengaz’s promise to cover 85 percent of the pipeline’s costs directly contradicted Turkmenistan’s policy of selling gas at the state border, which had been in place since Niyazov’s time. Its willingness to take so much of the costs on itself shows how vital diversification of energy export markets is for the ruling regime in Ashgabat. Without TAPI, Turkmenistan’s dependence on China as its main export market will grow unchecked.

Even though the TAPI Gas Pipeline is still a pipe dream for the most part, it is progressing in its own way. The parties have shown a great deal of negotiating skill, especially Turkmenistan, which was able to gain the position of the project’s leader. There are three positive implications for the parties. First, with this project Turkmenistan can reduce its growing dependence on China’s demand. At present, the relationship is still advantageous for both parties, but that can soon change. There is a possibility that China will either decrease its demand due to an economic downturn or try to use the Turkmenistan–China Gas Pipeline as leverage against Ashgabat. Second, all of the partner countries will gain benefits from the project despite its high costs. This is especially true for Pakistan and India with their increasing energy demand. Finally, the TAPI will create much-desired political ties between Central and South Asia.

\textsuperscript{421} Ibid.
\textsuperscript{422} “V Ashkhabade sostoyalos zasedanie turkmeno-pakistanskoi mezhprravitelstvennoi komissii,” Turkmenistan.ru, April 21, 2012.
\textsuperscript{424} Ibid.
The question of Turkmenistan’s connection with the outside world through Iran is still open. In August 1994, Niyazov met with Iran’s President Akbar Hashemi Rafsanjani. They concluded an agreement for a gas pipeline from Turkmenistan to Iran that was meant to be built within seven years. However, both Russia and the United States opposed the deal at the time. Russia was against any possible diversification of Turkmenistan’s exports. The United States much preferred the Trans-Caspian Gas Pipeline. There were also significant personal conflicts between Niyazov and the Azeri President Heydar Aliyev. Nevertheless, in 1997 the Korpeje–Kordkuy Gas Pipeline to Iran was commissioned. That pipeline however did not represent a decisive step in diversifying Turkmenistan’s exports because of its low capacity and solely regional importance.

Nonetheless, since that year Iran has become Turkmenistan’s second most important hydrocarbon export partner after Russia. Iran was Turkmenistan’s only alternative to the Russian-controlled northern route until 2009. The Korpeje–Kordkuy gas pipeline runs 200 kilometers from the Korpeje field to the Iranian town of Kordkuy. In 2010, the two countries opened a second gas pipeline, the Dowletabat–Sangbast Gas Pipeline, connecting the Dowletabat gas field in southern Turkmenistan with Sarakhs in Iran. The capacity of each is 12 bcm yearly. Even though the combined capacity of those two pipelines is 24 bcm per year, it usually goes partially unused. Iran imports only about 10 bcm a year from Turkmenistan.

Iran has been Turkmenistan’s second largest gas export market since 2011 when it surpassed Russia. The two gas pipelines from Turkmenistan are important to Iran from a domestic point of view because they help supply some remote areas of the country that are closer to Turkmenistan’s gas deposits than to those of Iran. They also show the ambitions of Iran’s regional designs and policies and their limits. At present, there is little or no hope that Turkmenistan will be able to transport its natural

gas further west by utilizing Iran’s natural gas grid, because Iran, which produces a considerable amount of gas itself, focuses in the first place on the export of its own resources. As yet, there are no signs that Iran would be willing to allow Turkmenistan to re-export Iranian gas through its territory to Europe. On the other hand, Iran has plans to supply India with its domestically produced gas. For that reason, it has been trying to slow down the TAPI Gas Pipeline project.

**Western route**

Finally, there is the critical issue of Turkmenistan’s connection to the west. During the Niyazov era, the relations between Azerbaijan and Turkmenistan were complex. Nevertheless, the Caspian Sea should not be perceived as a barrier but rather as a somewhat functional connection between Central Asia and the Caucasus. The problems with Azerbaijan were primarily caused by disputes over four significant oil and gas deposits in the Caspian claimed by both Turkmenistan and Azerbaijan. These disputes impeded both states from the development of their resources in the Caspian. The United States has vigorously promoted the project of the Trans-Caspian Gas Pipeline since the early 1990s. Washington hoped that it would bring more prosperity to the Caspian region, increase the diversity of sources of energy for Europe, and reduce the influence of Russia and Iran in the region.

In 1998, the US and Turkish governments even proposed that they would partly finance and guarantee the construction. However, any prospects of a quick construction of the Trans-Caspian Pipeline were soon torpedoed by Azerbaijan, which found a sizeable offshore field in its own part of the Caspian in the year 2000. Azerbaijan demanded half of the capacity of the proposed pipeline and put Turkmenistan’s potential

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430 “Prezident Turkmenistana posetit s vizitom Iran i primet uchastie v sammit glav gosudarstv – eksporterov gaza,” Turkmenistan.ru, November 22, 2015.
433 Horák and Šír, Dismantling Totalitarianism, 44–68.
profits from the operation in doubt. The Azeris’ demand forced Turkmenistan to negotiate a new gas deal with Russia in 2003. It motivated Turkmenistan to look for alternative export markets that would have a secure, adequate demand. Turkmenistan found such a reliable partner in China in 2006.

However, the ice around the negotiations for a Trans-Caspian Gas Pipeline began to melt after Berdimuhamedow became president. He met with his Azeri counterpart Ilham Aliyev for the first time in the course of the CIS summit in Saint Petersburg in June 2007. They agreed to reopen Turkmenistan’s embassy in Baku, which had been closed since 2001 when the talks on the Trans-Caspian Gas Pipeline failed due to the personal antipathies between Ilham Aliyev’s father Heydar and Nyazov. At the same time, Berdimuhamedow restarted discussions about the Trans-Caspian Gas Pipeline and suggested connecting it with the planned East–West Interconnector in 2010.

In 2011, the European Commission was tasked with leading the negotiations for a deal between Azerbaijan and Turkmenistan that would allow building the Trans-Caspian pipeline as part of the EU’s Southern Gas Corridor. That made it clear that the project has strategic value for the European Union, which is why it supported the project. In the same year, Azerbaijan substituted support for the Trans-Anatolian Natural Gas Pipeline (TANAP) for the ill-fated project of the Nabucco Gas Pipeline. TANAP will start at Azerbaijan’s Shah Deniz II field and pass through Turkey to Europe. Its proposed capacity is 16 bcm per year, and it was commissioned in 2018. In 2013, it was agreed that the Trans-Adriatic Pipeline would transport gas from TANAP further into Western Europe. There is an open-door policy for an additional link from Turkmenistan.

436 Ibid.
438 Ibid.
In the future, Turkmenistan can play an essential role in diversifying Turkey’s energy sources to deal with its high levels of energy consumption. In 2014, Turkmengaz agreed with Turkey on a memorandum of understanding to supply TANAP with gas.445 This document would not exist if both parties did not believe in the feasibility of the Trans-Caspian pipeline. Moreover, Azerbaijan, Turkey, and Turkmenistan established a trilateral mechanism for energy cooperation in 2015 to prepare themselves for the potential construction of the Trans-Caspian Gas Pipeline.446

If the Trans-Caspian Pipeline is constructed, it would be a tremendous success for European energy security. It would complement the Southern Gas Corridor and extend it into Central Asia.447 The Ashgabat Declaration of 2015 on cooperation in the energy sphere between the EU and Turkmenistan, Azerbaijan, and Turkey can be considered as an essential step in that direction.448 The East–West Interconnector in Turkmenistan, commissioned in 2015, is also important in this regard. Combined with the Trans-Caspian pipeline, it would enable natural gas to be sent from the fields of eastern Turkmenistan all the way to Western Europe.

This project would completely bypass Russia and enable Europe to lessen its dependence on Russia for its energy needs. It would also give the Central Asian states maneuvering room vis-à-vis China, whose presence in the region is rapidly increasing. It is clear however that big western oil and gas companies are not going to invest in the Trans-Caspian pipeline unless they obtain big onshore PSAs in both oil and gas. Turkmenistan will be tempted to refocus on the Trans-Caspian project now that the Trans-Adriatic/Trans-Anatolian pipeline has begun delivering gas from Azerbaijan to Italy since December 2020.449

This subchapter focuses on Turkmenistan’s energy policy. It shows that Turkmenistan is becoming a more assertive player in the areas of energy and foreign policy. This shift began with the succession of President Gurbanguly Berdimuhamedow in late 2006. The subchapter also explains how Ashgabat’s energy sector is strongly influenced by the inner

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446 Ibid.
makeup of Berdimuhamedow’s regime and its clan power brokers. The country’s energy potential influences the regime’s internal and external policies and thus, they are almost inseparable. Berdimuhamedow’s regime considers energy to be a crucial tool for pursuing the country’s goals, both internally and externally. It can be also concluded that Turkmenistan both rewards and punishes the behavior of other states as needed. Turkmenistan’s energy policy toward Russia and China is an example of this. The regime also shows a clear preference for bilateral relationships in the energy sector because it finds it easier to dominate them than multilateral arrangements. This was apparent from all five of the above subchapters, which were devoted to the northern, eastern, southern, Iranian, and western routes for Turkmenistan’s hydrocarbon exports. There are also clear examples of attempts by the regime to control entire markets regardless of commercial logic. Nonetheless, Turkmenistan’s ability to do so is limited by its real capabilities. Both the existing and proposed gas pipelines are listed in Table 17.

Table 17: Turkmenistan’s gas export infrastructure

<table>
<thead>
<tr>
<th>Commissioning</th>
<th>Name</th>
<th>Capacity (bcm/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960s</td>
<td>Central Asia–Center Gas Pipeline System</td>
<td>45</td>
</tr>
<tr>
<td>2009–2014</td>
<td>Turkmenistan–China Gas Pipeline – Lines A, B, and C</td>
<td>55</td>
</tr>
<tr>
<td>2009</td>
<td>of which: Line A</td>
<td>15</td>
</tr>
<tr>
<td>2010</td>
<td>Line B</td>
<td>15</td>
</tr>
<tr>
<td>2014</td>
<td>Line C</td>
<td>25</td>
</tr>
<tr>
<td>postponed</td>
<td>Line D</td>
<td>25</td>
</tr>
<tr>
<td>1997</td>
<td>Korpeje–Kordkuy Gas Pipeline</td>
<td>12</td>
</tr>
<tr>
<td>2010</td>
<td>Dowletabat–Sangbast Gas Pipeline</td>
<td>12</td>
</tr>
<tr>
<td>2015</td>
<td>East–West Interconnector</td>
<td>30</td>
</tr>
<tr>
<td>planned</td>
<td>Trans-Caspian Gas Pipeline</td>
<td>30</td>
</tr>
<tr>
<td>cancelled</td>
<td>Caspian Coastal Gas Pipeline</td>
<td>30</td>
</tr>
<tr>
<td>planned</td>
<td>Turkmenistan–Afghanistan–Pakistan–India (TAPI)</td>
<td>33</td>
</tr>
</tbody>
</table>

Source: Schema created for the purposes of this book
Turkmenistan’s Energy Policy in the Central Asian Energy Security Complex

The classic categories of external, internal, and energy policy just do not work in the case of Turkmenistan. These three aspects of government policy only serve the preservation and prosperity of the ruling regime. To a large degree, energy policy shapes the priorities of Turkmenistan’s foreign and external policy, and to some extent its domestic policy, and vice versa.\textsuperscript{450} The fact that both the foreign policy and energy policy of Turkmenistan are aimed primarily at preserving the ruling regime supports the argument that its policies with regard to its energy resources are strategic-oriented.\textsuperscript{451} Controlling the country’s energy resources was and is the key to both Niyazov’s and Berdimuhamedow’s regimes’ control of the country. This was especially true of the regimes’ support for building the Turkmenistan–China Gas Pipeline.\textsuperscript{452}

Turkmenistan’s relationship with Gazprom

Turkmenistan’s relationship with Gazprom was significantly different during the presidencies of Boris Yeltsin and Vladimir Putin. Under Yeltsin, Gazprom was a golden goose that created much-needed revenue and the Russian elite perceived Turkmenistan as a business rival of the giant Russian gas company. Putin turned Gazprom into a foreign policy tool of his regime, and Turkmenistan became a desired zone of Russian influence that needed to be defended. Still, neither Yeltsin’s nor Putin’s policy led to sustainable amicable relations between the two countries.

Natural gas has been the key to the evolving relationship between Turkmenistan and Russia ever since 1991. Before that, the only feasible route for transport of this commodity out of Turkmenistan was the old Soviet-era Central Asia–Center Gas Pipeline System. Gazprom has controlled that route since 1989. Viktor Chernomyrdin, when he was the Minister of the Gas Industry of the Soviet Union, and his Deputy


\textsuperscript{452} For more on the geopolitical situation in Central Asia after 2000 see: Eugene Rumer, Dmitrij Trenin and Huasheng Zhao, \textit{Central Asia: Views from Washington, Moscow and Beijing} (New York: M. E. Sharp, 2007).
Minister Rem Vyakhirev created Gazprom in August of that year. They both actively opposed the liberalization and privatization of Russia’s gas sector, which limited Turkmenistan’s maneuvering space within the Soviet Union. Moreover, their ability to maintain government control of the gas sector was strengthened in 1992 when Chernomyrdin became the prime minister and Vyakhirev became the head of Gazprom.453

When the Soviet Union was dissolved, Turkmenistan was producing approximately one-third of the USSR’s natural gas output. Niyazov felt entitled to 30 percent of Gazprom’s profits. However, Vyakhirev falsely claimed that Turkmenistan’s natural gas did not go to Europe but only to Ukraine and Georgia, and therefore Niyazov would have to reach an agreement with those former republics of the USSR. Niyazov went to Kyiv and concluded a barter trade agreement with Ukraine’s President Kravchuk in 1992. Gazprom did not oppose this deal because it had the effect of curbing Turkmenistan’s access to western markets.

In 1994, a Turkmen businessman with Russian ethnicity, Igor Makarov, created the company Itera, which with Vyakhirev’s consent sold Turkmenistan’s natural gas to Ukraine.454 Makarov’s company Omranya had been supplying Turkmenistan with sugar since the early 1990s. However, when Turkmenistan ran out of money, its government offered to pay Makarov for sugar in natural gas. This barter agreement would not have been possible without the consent of Gazprom. At the same time, Turkmenistan and Ukraine had already started to barter foodstuffs for natural gas. Vyakhirev agreed that Makarov could sell gas to Ukraine and that collecting debts from Kyiv would be solely Makarov’s responsibility.455

This barter system was not entirely new in the trade relationship between Ukraine and Turkmenistan. It was first proposed and managed by a Ukrainian tycoon, Ihor Bakay, and his company Respublika. Respublika’s transactions were possible because of an agreement between Ukraine’s President Leonid Kravchuk and Niyazov. Ukraine’s second President, Viktor Kuchma, who won election in 1994, was strongly pro-Russian and befriended both Vyakhirev and Chernomyrdin. They agreed that Makarov would take over Bakay’s business with his US-registered company Itera. Itera soon managed to gain control of the majority of Ukraine’s gas market with the help of Gazprom and Ukraine’s Deputy

Prime Minister for Energy, Yulia Tymoshenko. Itera became the second largest gas company in Russia after Gazprom by the end of the 1990s. Its strategy of selling Central Asia’s natural gas to Ukraine and other post-Soviet countries paid off.456

Chernomyrdin was forced to resign as prime minister because of the emerging economic crisis in 1998.457 Without his support, Makarov’s ally in Gazprom, Vyakhirev, left his post in 2001. As a result, the company’s business with Turkmenistan was taken over by the newly created Eural TransGas in 2002 and later by RosUkrEnergo in 2004.458 Eural TransGas was notorious for its opaqueness. Three unemployed persons and one Israeli lawyer registered the company, whose registered headquarters was in a village in Hungary. Kuchma eventually decided to replace Eural TransGas with RosUkrEnergo because of public pressure in Ukraine. The new company is registered in Switzerland and 50 percent of it are owned by Gazprom and 50 percent by Austria’s Raiffeisen Investment. At first, RosUkrEnergo controlled only the gas trade between Turkmenistan and Ukraine. However, since 2006, it has handled Ukraine’s imports of gas from all of Central Asia as an intermediary.

It soon became clear that RosUkrEnergo is very similar to its predecessor Eural TransGas in its structure and personnel. Ukraine was rocked by a series of scandals connected with the RosUkrEnergo after the Orange Revolution. An infamous Ukrainian oligarch, Dmytro Firtash, was revealed to own 50 percent of the company through Raiffeisen Investment and to have controlled both Eural TransGas and Respublika before that. There were even suspicions that Firtash was only a figurehead for either Kuchma or Yanukovych. When she was prime minister, Julia Tymoshenko, who was familiar with Itera from her time as deputy minister for energy, tried to get rid of RosUkrEnergo and reinstall Itera as the middleman for Ukraine’s gas purchases. However, President Viktor Yushchenko dismissed her from office in September 2005 before she could finish that task.

Yushchenko then announced that it was time for Ukraine to stop using barter and pay market prices for gas. Putin reacted by increasing the price charged to Ukraine almost to the same level as that of Germany. He even halted Russia’s exports to Ukraine altogether at the beginning

456 Ibid.
of 2006. Russia was willing to agree to a discounted price only if Ros-
UkrEnergo could retain its status as intermediary. This demand implies
that RosUkrEnergo, and Eural TransGas before it, were connected in
some way to the government circles in Putin’s Russia.

As already stated, Turkmenistan’s number one problem during the
1990s was its dependence on Russia’s monopsony purchases of its gas
exports and its dictated pricing policy. Niyazov and Vyakhirev agreed to
deal with Itera in July 1996. However, Niyazov was soon discontent with
the state of affairs. He vociferously complained that he was getting six
times less for Turkmenistan’s gas than what was the price for which it was
being sold on the market in Europe. He blamed Itera in particular for
that. Gazprom replied to Niyazov’s complaints by claiming that its usual
pipelines were full and thus it would have to send Turkmenistan’s gas to
Ukraine via a route that was twice as long as usual. Ukraine, however,
was not prepared to pay double the price for transit. Niyazov reacted by
curbing Turkmenistan’s exports. He went to Moscow himself in August
1997 to solve the crisis. However, both Vyakhirev and Chernomyrdin
told him bluntly that Russia did not need Turkmenistan’s gas. He got
no support from Boris Yeltsin either.

Therefore, Niyazov had to back down and continue the disadvanta-
geous collaboration with Itera. To decrease their dependence on Russia,
the Central Asian presidents met on January 6, 1998 and expressed a
desire to build new gas and oil pipelines. They were especially inter-
ested in a proposed oil pipeline from Kazakhstan via the Caspian Sea,
Azerbaijan and Georgia to Turkey and on to Europe; a gas pipeline from
Turkmenistan via Iran and Turkey to Europe; and a gas pipeline from
Turkmenistan to Afghanistan and Pakistan. Russia’s Prime Minister
Viktor Chernomyrdin reacted harshly to this meeting, insisting that oil
and gas export pipelines from Central Asia would be more cost-effective
if routed via Russia.

Russia’s grip on Turkmenistan’s economy was most evident later that
year when Chernomyrdin decided to cut off natural gas imports from
Turkmenistan, nearly collapsing its economy. Subsequently, he proposed
very protectionist measures in the wake of Russia’s financial crisis and
even tried to convince Turkmenistan’s leaders that “Europe does not

459 Ibid.
460 “Chernomyrdin Reacts Angrily to the Central Asian Summit,” Jamestown Foundation, Jan-
461 Ibid.
462 Ibid.
want your gas." However, Turkmenistan began to look vigorously for new export routes. Niyazov got his revenge in December 1999 after Gazprom’s production had started to decrease in the second half of the 1990s. It was then more than clear that Russia could not satisfy European demand without cooperation with Turkmenistan. Vyakhirev was afraid of the planned construction of the Trans-Caspian Gas Pipeline, so he came personally to Ashgabat, where he publicly apologized to Niyazov and Turkmenistan for his previous statements and behavior in a live broadcast. This episode did not help to improve the relationship between Turkmenistan and Russia. On the contrary, it made it almost unrepairable.

The gas issue was so critical for Russia that Putin’s first foreign visit as president of Russia was to Turkmenistan and Uzbekistan in 2000. The issue was soon enmeshed in the internal politics of both countries. Niyazov harbored a growing fear for his life and the stability of his regime. He withdrew Turkmenistan from the visa-free regime with the other CIS states in 1999. However, the issue of Turkmens’ dual citizenship with Russia remained to be resolved. This issue was important primarily because many of the people accused of Niyazov’s attempted assassination in 2002 had dual Turkmenistan and Russian citizenships. Niyazov consented to the new gas deal with Russia in April 2003 in exchange for Russia’s effective abolition of dual citizenship.

Relations between Russia and Turkmenistan significantly deteriorated under Putin. Vyakhirev and Chernomyrdin viewed Gazprom as their business and Turkmenistan as a competitor. However, Putin perceived and still perceives Gazprom as a tool of foreign policy and Central Asia as a region that should be under Russia’s firm control. Putin’s goal was to take all of Turkmenistan’s gas exports and prevent it from gaining direct access to European markets. Nevertheless, Russia continued to abuse its advantage over Turkmenistan. Turkmenistan tried its best to escape Russia’s stranglehold on its hydrocarbon resources, but after the frustration with the West and failed deals with Iran, it chose to embrace cooperation with China.

465 Zygar and Panyushkin, Gazprom, 121–148.
No matter what Russia did after Chernomyrdin’s fateful, antagonistic decision to cut off imports from Turkmenistan in 1998, Niyazov needed a robust alternative to the natural gas export route to and through Russia. In just one decade, natural gas began to flow from Turkmenistan into China via the Turkmenistan–China Gas Pipeline. Turkmenistan’s exports to Russia had been gradually decreasing before that and in early 2016 ceased altogether. In the end, Russia’s high-handed approach to its post-Soviet neighbor did not pay off.

The loss of Turkmenistan’s resources will have substantial consequences for Russia’s economy. Russia’s weak and corrupt handling of Turkmenistan’s natural gas exports to Ukraine contributed to antagonizing the Turkmen during the so-called “gas wars” between Russia and Ukraine from 2005 to 2010. Russia tried to use the natural resources of its neighbors in the post-Soviet space in a “divide and conquer” strategy. However, its pawns were no longer willing to play the game.

The crisis of 1998 was very similar to the crisis of 2008. In both cases, Russia was reeling from an economic crisis and therefore unilaterally diminished its gas imports from Turkmenistan. The first crisis led Turkmenistan’s ruling elite to the conclusion that they needed to find an alternative to their irresponsible Russian intermediary. The second crisis convinced Turkmenistan’s elite that Russia was a terminally sick business partner and cemented in place the decision to switch their attention to China.

**Turkmenistan’s relationship with the China National Petroleum Corporation**

The planning of the construction of the first two lines of the Turkmenistan–China Gas Pipeline began in 1998. However, the plans were not translated into reality until eight years later, during Niyazov’s third state visit to China on April 3, 2006. Niyazov then signed an agreement with his Chinese counterpart, Hu Jintao, for China to purchase 30 billion cubic meters of natural gas per year for a period of 30 years. To all intents and purposes, Russia’s economic stranglehold on Central Asia was broken that day, at least on paper. It took three more years before the

first branch of the Turkmenistan–China Gas Pipeline was commissioned and the Niyazov–Hu agreement was fulfilled.469

The most important parts of the agreement were articles 2, 4, and 11. Article 2 stated that China would purchase 30 bcm of Turkmenistan’s natural gas annually at the border with Turkmenistan for over 30 years. It was to start from the date the pipeline was commissioned, which occurred in 2009. At the time, Turkmenistan was still very intent on preserving its traditional policy of selling its natural gas at its borders.

Article 4 stated that Turkmenistan’s price of natural gas for China would be set at reasonable, fair levels, based on comparable international market prices. Moreover, the payment was to be made in US dollars. Finally, Article 11 specified that the responsibility for implementing the agreement would lie with the Ministry of the Oil and Gas Industry and Mineral Resources of Turkmenistan and the State Development and Reform Commission of the PRC. Any future negotiations would be handled by the Ministry of the Oil and Gas Industry and Mineral Resources for Turkmenistan and the CNPC for China.470

It could reasonably have been predicted that this agreement with China would have no more than the same precarious value as the 2003 agreement with Russia. However, in this case the key was that Moscow’s and Gazprom’s reputation with the Turkmenistan elite was as bad as possible, while China and the CNPC seemed more reliable to them. In other words, the key was not in the agreements, which were just an overall framework, but in the securitization of Turkmenistan’s energy supplies. At that time, Ashgabat’s elite considered Russia to be an unreliable and perhaps even dangerous trade partner, while China’s image was that of a reliable and trustworthy partner willing to pay a fair price and not interfere in Turkmenistan’s internal affairs.

Since the beginning of the closer cooperation between China and Turkmenistan, it was clear that Beijing was not looking solely for profit but also for the stabilization of the Central Asian ESC, China’s western provinces, and China’s energy security as well. China’s policy experts assumed that importing energy resources from Central Asia would lessen China’s “Malacca dilemma” – its vulnerability to a naval blockade. The Malacca dilemma is a term coined by the then-President Hu Jintao to describe China’s dependence on the Malacca Straits between Singapore

and Indonesia, where some 80% of China’s energy imports passed en route from the Middle East, Angola, and elsewhere. The Malacca dilemma could be solved by the “Go West” strategy of importing gas from Central Asia, which is the most accessible land area open to the spread of Beijing’s influence beyond its borders.471

China’s strategy was evident in its interactions with Turkmenistan from 2006 onward. Shortly after signing the 2006 agreement with China, Niyazov ordered his Deputy Minister for Oil and Gas Industry, Isanguly Nuryýew, to start preparatory work on the pipeline project.472 Zhang Ji-anhua, a high-ranking representative of the CNPC, arrived in Ashgabat at the head of a Chinese delegation in June 2006 to further discuss the recently signed agreements and prepare for the implementation of the pipeline project.473 At the beginning of 2008, Turkmenistan officially announced that it had earmarked 1300 bcm of natural gas for its new pipeline to China.474 Moreover, Nurýyew led a Turkmen delegation to China to discuss the exploration and development of gas deposits in eastern Turkmenistan in the May of 2008.475 The busy diplomatic traffic between China and Turkmenistan signaled that both parties were genuinely interested in making the project a reality. The only significant delay was caused by force majeure: the death of the pipeline’s most vocal proponent, Saparmurat Niyazov.

After Niyazov’s death, Gurbanguly Berdimuhamedow ascended to the presidency as his successor. As part of his presidential election program in January 2007, he pledged to continue the export diversification policies of the late president: “The Great Leader Niyazov set goals connected with new Turkmen gas exports and ways into the world markets. To achieve those aims, the work on developing and broadening the frameworks of mutually beneficial cooperation with foreign partners in the oil and gas sector will continue.”476 He stated at the time that

472 “Turkmen President Warns Top Officials Over Poor Management,” Turkmen TV First Channel, April 14, 2006.
476 “Fresh Start: Turkmenistan to Boost Energy Ties with Foreign Partners,” NEFTE Compass, January 10, 2007.
the most promising projects were the TCGP and the TAPI Gas Pipeline.

On the other hand, as the election was being held in February 2007, Berdimuhamedow also attempted to assure Russia that Turkmenistan would continue to fulfill its oil and gas obligations. However, Russia launched a campaign to discredit the TCGP. Turkmenistan was then exporting 42 bcm per year to Russia via the Central Asia–Center Gas Pipeline System. It also had a gas contract with Iran. However, only half of the 12 bcm annual capacity of the pipeline to Iran was being used because of the two parties’ failure to agree on a price higher than USD 42 per thousand cubic meters. The price for gas exported to Russia at that time was USD 100 per thousand cubic meters. It did not remain so for long because of the looming global financial crisis.

At this point, a critically important fact must be emphasized: Turkmenistan and China do not share a common border. This necessitated cooperation with other Central Asian states willing to participate in the TCGP project. China was able to bring both Uzbekistan and Kazakhstan to the negotiating table quickly because of an irresistible offer of investments, transit fees, and the opportunity to export their own natural gas to China. Russia was not able to respond to this package deal because of its unfortunate economic situation at that time. As for the West, it was unable to offer such a package of broad-based cooperation because of the Western countries’ different property and market structures. Central Asians just needed money to keep their energy industries running, and at the time China was the only state that was willing to provide such an array of financing and trade.

China’s generous loan offers were part of its global “loans-for-oil” strategy. Its two state-run banks, the China Development Bank and the China Export-Import Bank, issue specially tailored loans to developing countries in need of cash. In return, China obtains long-term promises to supply oil and gas at stable prices. China had earlier provided similar loans not only to Central Asian states but also to Venezuela, Angola, and Russia. In Turkmenistan, the China Development Bank provided Turkmengaz with loans in 2010 amounting to USD 8.1 billion for the development of the South Yolotan gas field. Turkmengaz is repaying

these loans with supplies of natural gas to China. Ashgabat sought a loan almost immediately after the explosion on the Central Asia–Center Gas Pipeline System in late 2009.\textsuperscript{480} In the same manner, the Chinese Export-Import Bank provided a USD 5 billion loan to Kazakhstan’s government and the CNPC lent another USD 5 billion to Kazakhstan’s oil and gas producer KazMunayGaz.\textsuperscript{481} In this way, China is gaining control over the energy resources in Central Asia, and along with that, the security of its energy supplies. This is especially important because of the steeply rising consumption and imports of natural gas in China, as illustrated in Table 18.

\textbf{Table 18:} China’s natural gas consumption, production, and import, 2007–2018 (bcm)

<table>
<thead>
<tr>
<th>Year</th>
<th>Consumption</th>
<th>Production</th>
<th>Import</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>70</td>
<td>69</td>
<td>3.9</td>
</tr>
<tr>
<td>2008</td>
<td>81</td>
<td>80</td>
<td>4.5</td>
</tr>
<tr>
<td>2009</td>
<td>89</td>
<td>85</td>
<td>7.5</td>
</tr>
<tr>
<td>2010</td>
<td>107</td>
<td>95</td>
<td>17.0</td>
</tr>
<tr>
<td>2011</td>
<td>131</td>
<td>101</td>
<td>31.4</td>
</tr>
<tr>
<td>2012</td>
<td>147</td>
<td>108</td>
<td>42.4</td>
</tr>
<tr>
<td>2013</td>
<td>168</td>
<td>118</td>
<td>53.0</td>
</tr>
<tr>
<td>2014</td>
<td>184</td>
<td>127</td>
<td>59.5</td>
</tr>
<tr>
<td>2015</td>
<td>192</td>
<td>132</td>
<td>61.6</td>
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<td>209</td>
<td>118</td>
<td>72.8</td>
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<td>2017</td>
<td>240</td>
<td>128</td>
<td>92.0</td>
</tr>
<tr>
<td>2018</td>
<td>283</td>
<td>138</td>
<td>123.4</td>
</tr>
</tbody>
</table>

\textit{Source:} The China National Petroleum Corporation

Cooperation with Uzbekistan and Kazakhstan proved to be smooth and fast. Kazakhstan’s Prime Minister Karim Masimov organized a working visit to Turkmenistan in May 2007, where he discussed the pipeline’s


\textsuperscript{481} Dennis Shea, “\textit{The Development of Energy Resources in Central Asia},” Testimony before the House Foreign Affairs Subcommittee on Europe, Eurasia and Emerging Threats, 113th Congress 160, May 21, 2014.
specific route on Kazakhstan’s territory. Uzbekistan’s Foreign Minister Vladimir Norov visited Ashgabat on July 26, 2007. Norov announced Uzbekistan’s full support for the TCGP project and the part of it running through Uzbekistan’s territory.

Berdimuhamedow met with both of his Central Asian partners in the TCGP in Ashgabat in 2007 – in May with Nursultan Nazarbayev and in October with Islam Karimov. The stars could not have lined up any better for China’s pipeline proposal. Uzbekistan’s Karimov was attempting to distance his country from Russia’s influence after he had been forced into closer cooperation with it by his bloody repression of a revolt in the city of Andijan in May 2005. Kazakhstan’s Nazarbayev was very content with cooperation with China after the commissioning of the Kazakhstan–China Oil Pipeline and welcomed another opportunity to strengthen his bilateral relationship with Kazakhstan’s eastern neighbor.

Turkmenistan, however, became the most active and devoted proponent of the gas pipeline project as soon as it had assessed that further cooperation prospects with Russia were futile. Berdimuhamedow undertook a state visit to China on July 17–18, 2007. He subsequently called the Turkmenistan–China Gas Pipeline “the utmost priority” in the bilateral relationship. Later on, in August, he signed a decree endorsing the appointment of the members of the board responsible for implementing the bilateral agreement for the construction of the gas pipeline. The board was tasked with drafting an action plan by September 1, 2007, that would ensure that gas exports to China would start in 2009 as agreed in 2006.

Berdimuhamedow also had to prepare his domestic audience for the switch in trading partners. He undertook a working visit to the Lebap region in eastern Turkmenistan on August 29, 2007. That was where he announced a comprehensive development program for the right side of the Amu Darya River. Above all, he took part in a ceremony launching the construction of the Turkmenistan–China Gas Pipeline.

484 “Turkmen Leader Meets Uzbek Minister to Discuss Cooperation,” Turkmen TV Altyn Asyr, December 11, 2007.
486 “Berdimuhamedow Endorses Board To Handle Turkmenistan-China Gas Pipeline Construction Project,” Interfax, August 4, 2007.
in Bagtyyarlyk. On that occasion Berdymuhamedow solemnly provided the President of the CNPC, Jiang Jiemin, with the operating license to explore and extract natural gas in the area and with other documents needed to implement the project. The Turkmen leader stressed that it was the first time that his country had ever provided such a license to a foreign company.487

The Bagtyyarlyk area, which includes the Samandepe field of sulfur dioxide gas, became a contracted area for development under a production sharing agreement. This PSA violated the Niyazov-era policy of resource nationalism that allowed signing of major PSAs only for technologically challenging offshore projects.488 However, the Bagtyyarlyk PSA was the price that Turkmenistan had to pay for China’s involvement in the gas pipeline project. Berdymuhamedow did not forget to stress during the launch ceremony that the seven-thousand-kilometer-long pipeline would not only benefit China and Turkmenistan but also Uzbekistan and Kazakhstan.489 This was very important because those two states would not be able to implement a joint project of this scale without China’s impetus.

For its part, Russia was not willing to let Central Asia go without a struggle. It tried to counter both China’s and the West’s initiatives in the Central Asian region. Russia wanted to import as much natural gas as possible from Central Asia and in that way to drain any future supply for diversification of the export routes out of the region. This was behind the May 2007 agreement to construct the Caspian Coastal Gas Pipeline between Russia, Turkmenistan, and Kazakhstan.490 However, after the inauguration of the TCGP in Turkmenistan, Russia’s media openly speculated that the Caspian Coastal Gas Pipeline project was doomed to fail. The presidents of Russia, Turkmenistan, and Kazakhstan set September 1, 2007, as the deadline for the signature of the necessary documents and the conclusion of the trilateral agreement for the construction of the pipeline. As it turned out, the documents were not ready in time, and the pipeline was actually never built.

487 Ibid.
Russia’s policy in Central Asia also called for the creation of an “OPEC of gas” with Iran. Russia was interested in a grand bargain that would direct Iran’s exports to the East and leave Russia in control of the European markets. It even considered allowing Iran to use the Turkmenistan–China Gas Pipeline to export Iran’s gas to China. Steven Martin, who was appointed by the US State Department to the newly established position of coordinator of the United States’ Eurasian energy diplomacy at the beginning of 2008, welcomed both the Kazakhstan–China Oil Pipeline and the Turkmenistan–China Gas Pipeline projects because they would loosen Russia’s grip on the economies of the Central Asian countries. On the other hand, he kept stressing that the priority of the United States was the Trans-Caspian Gas Pipeline. The result was that Russia was unable to prevent China’s “march to the west,” and the United States considered this development to be a lesser evil than Russia’s hegemony over the region. These attitudes paved the way for China’s economic expansion into the Central Asian ESC.

Lines A and B of the Turkmenistan–China Gas Pipeline

The implementation phase of the TCGP project followed without problems after the political and technical consultations held on February 22, 2008. President Berdimuhamedow authorized Turkmengaz to conclude a contract with the Russian joint-stock company Stroytransgaz for a turnkey construction of Turkmenistan’s portion of the first two lines of the gas pipeline – the Malay–Bagtyyarlyk Gas Pipeline with a length of 188 kilometers. Stroytransgaz was contracted to construct the pipeline’s gas treatment and dehydrating facilities and the gas metering units. Total construction costs were projected to be EUR 395 million. Turkmenistan’s portion of the pipeline commences in the area of the Malay gas field and continues to a gas metering unit in the area of the Bagtyyarlyk settlement on the border with Uzbekistan. The swift construction of
the pipeline on Turkmenistan’s territory showed that it was the party that was the most eager to complete the pipeline project.

As stated earlier, the support and consent of the transit states, Uzbekistan and Kazakhstan, was critical for the success of the TCGP. Building the TCGP was a more significant challenge for China than the Kazakhstan–China Oil Pipeline, which did not have to cross a third country. Uzbekistan and China signed an intergovernmental agreement for the construction of Uzbekistan's portion of the pipeline in April 2007. On July 1, 2008, the construction began near the village of Sayet in the Dzhonodzhor district of Uzbekistan’s Bukhara region. Asia Trans Gas, a joint venture of Uzbekneftegaz and the CNPC, has operated the project for Uzbekistan since that time.

In Uzbekistan, the project involved the construction of two branches of the main pipeline and cost USD 2 billion. The pipeline passes through three of Uzbekistan’s provinces: Bukhara, Navoi, and Kashkadarya. The China Petroleum Pipeline Bureau, China Petroleum Engineering Construction Corporation, and the Swiss company Zeromax GmbH built Uzbekistan’s portion of it. China’s enterprises built the section from Gazli to Kazakhstan and Zeromax built the section from the Turkmenistan border to Gazli.497 There were no plans to export Uzbekistan’s gas through the pipeline in 2008.498 However, in May 2009, the Deputy Head of Uzbekneftegaz, Shavkat Mazhitov, announced that contrary to previous intentions, 10 bcm of Uzbek gas per year would also be shipped through the TCGP to China.499 The decision to include Uzbekistan as a supplier has had paramount importance for China’s energy security because China reduced its dependence on Turkmenistan’s imports through the pipeline.

Kazakhstan’s Mazhilis (its lower house of parliament) approved a law ratifying the construction and operation of the TCGP on November 25, 2009. However, many legislators voiced concerns about China gaining further influence over the country’s hydrocarbon sector. At that time, China controlled approximately 30 percent of Kazakhstan’s oil industry.500 The legislators’ concerns were also linked to the fact that the CNPC had acquired 50 percent of the Kazakh oil company Mangistau-MunaiGas in April 2009 and the China Investment Corporation had

acquired 11 percent of KazMunayGaz Exploration and Production in September 2009.\footnote{501}{"China Secures Gas Supply from Turkmenistan: Who Is True Winner?" Phil’s Stock World, December 22, 2009.}

Notwithstanding these concerns, the project had the unwavering support of President Nazarbayev, who wanted to gain some room for maneuvering vis-à-vis Russia. Kazakhstan’s segment of the TCGP, also known as the Kazakhstan–China Gas Pipeline, was built by the Asian Gas Pipeline Company, which was founded by Trans-Asia Gas Pipeline Company Ltd., a company affiliated with the CNPC and Kazakhstan’s state-controlled gas transportation company KazTransGaz.\footnote{502}{"Russian Plant to Supply Pipes for Central Asia-China Gas Pipeline,” Interfax, October 24, 2008.} The principal contractors for Kazakhstan’s portion of the gas pipeline were China Petroleum Pipeline Engineering and KazStroyService. The startup of the TCGP in Kazakhstan meant that Kazakhstan would not be able to participate in either the Caspian Coastal Gas Pipeline nor the Nabucco Gas Pipeline project. Kazakhstan’s Deputy Minister for Energy and Mineral Resources, Aset Magaudov, explained in June 2009 that his country could only participate in one major project at a time – the Turkmenistan–China Gas Pipeline – and did not have sufficient natural gas for other projects.\footnote{503}{“Kazakhstan Has No Free Gas Reserves to Join Nabucco Project," ITAR-TASS, June 26, 2009.}

The construction of the first two lines of the TCGP, A and B, was incredibly smooth and rapid when compared to similar gargantuan infrastructure projects in the world. Turkmenistan’s and Uzbekistan’s gas transportation infrastructure that is part of the Turkmenistan–China Gas Pipeline was connected at their shared border in August 2009.\footnote{504}{“Soedineny turkmenskii i uzbekskii uchastki gazoprovoda v KNR,” Turkmenistan.ru, August 14, 2009.} Moreover, a “dress rehearsal” for the launch of the first branch of the TCGP took place on December 16, 2008.\footnote{505}{“First Spur Of Turkmenistan-China Gas Pipeline to Be Test Launched December 15,” Interfax, December 3, 2009.}

On December 14, 2009, China’s President Hu Jintao, Kazakhstan’s President Nursultan Nazarbayev, Turkmenistan’s President Gurbanguly Berdimuhamedow, and Uzbekistan’s President Islam Karimov gathered in the Turkmenistan city of Turkmenabat to celebrate the commissioning of Line A of the TCGP.

In China, the TCGP was connected to the newly built second East-West Gas Pipeline, which provides natural gas to Chinese consumers in
14 provinces and autonomous regions all across the country. Hu Jintao stressed that the newly commissioned pipeline would bring benefits to all participating states, not only because of the sales of natural gas, but also because of transit fees that will represent significant revenue for the parties. Like Hu, Berdimuhamedow praised the economic benefits the pipeline would bring, but added that it would increase stability and security for the region.

Berdimuhamedow announced that a joint commission of Turkmen and Chinese specialists had calculated that the reserves on the right bank of the Amu Darya river amounted to 1.3 trillion cubic meters. He called the TCGP the “construction project of the century.” The cost of the entire pipeline was estimated at USD 8 billion, which was mostly covered by the China Development Bank. This shows that from the beginning China was not focused only on making profits but also on stability, promotion and direct control of natural resources in the Central Asian ESC. The commissioning of the pipeline was so important to Turkmenistan’s elites that Berdimuhamedow proposed to make December 14 an annual holiday for employees of the oil and gas industry.

The occasion was soured, however, by the ongoing dispute between Turkmenistan and Russia. Turkmenistan’s gas supplies to Russia were stopped in April 2009 by an explosion on the fourth line of the Central Asia–Center Gas Pipeline System, CAC 4. Turkmenistan and Gazprom each blamed each other for the explosion. Even though the pipeline was quickly repaired, Turkmenistan supplied much less gas than before. It was estimated that Turkmenistan was losing USD 1 billion in gas revenues every month. The most logical explanation for Europe’s lack of demand for Russia’s and Turkmenistan’s gas was the global financial crisis.

Gazprom was trying to secure the European markets for itself but in the process antagonized Turkmenistan. Russia’s officials soon grasped the danger that the newly commissioned Line A of the Turkmenistan–China Gas Pipeline posed to their supplies, but they tried to pretend that everything was going according to plan. Putin claimed in December 2009

that the construction of the Turkmenistan–China Gas Pipeline did not
pose any threat to Russia’s energy cooperation with China. Moreover,
representatives of Russia’s hydrocarbon sector, such as Yury Shafrannik,
the head of Russia’s Oil and Gas Industry Union, claimed that the com-
missioning of the first line of the Turkmenistan–China Gas Pipeline was
a positive thing for Russia but a bad one for Europe. He said the new
pipeline would be the swan song for the Nabucco Gas Pipeline project.
In the end, Europe would be more dependent on Russia’s supplies than
ever, he warned.

China was quickly cementing its position in Central Asia. The sec-
ond, parallel branch of the TCGP was commissioned on December 25,
2011. The first two lines of the pipeline stretched seven thousand kilo-
meters – 188 kilometers in Turkmenistan, 530 kilometers in Uzbekistan,
1,300 kilometers in Kazakhstan and over 4,500 kilometers in China. The
pipeline already transported 10 bcm of natural gas between December
2009 and May 2010.

Kazakhstan’s KazMunayGaz commissioned two compressor sta-
tions, No. 4 and No. 8, on Lines A and B of the TCGP in 2015. This
improvement would make it possible to increase the capacity of the
two lines to 20 bcm per year. KazMunayGaz contracted gas turbines
and compressor equipment from leading Western manufacturers Rolls-
Royce and General Electric. The vice-president of KazMunayGaz, Kayrat
Sharipbayev, stated that the compressor stations were designed with the
possibility of a fourth line in Kazakhstan in mind. If built, it would
become Line E of the Turkmenistan–China Gas Pipeline.

The presidents of Turkmenistan and China met again on August 28,
2008, when Hu Jintao visited Turkmenistan. They agreed to increase
Turkmenistan’s exports to 40 bcm annually and established a Turkmen-
istan–China bilateral government commission. Their agreement also included a commitment by China to lend Turkmengaz USD 4 billion at zero interest. This loan was earmarked for the development of the vast South Yolotan gas field, which was needed to ensure Turkmenistan’s ability to deliver supplies to China. Moreover, Turkmengaz and the CNPC signed a framework agreement expanding the companies’ cooperation in the gas sector. An agreement between Turkmenistan and China for a technical and economic partnership was signed as well.\

The large loans were crucial for Turkmenistan’s energy sector, which did not have sufficient financial sources of its own for such large-scale projects. However, it also meant that by providing the loans, China gained control over critical natural resources in Turkmenistan. This was so important for China that the CNPC obtained sizeable financial support in the form of a USD 2.5 billion loan from the China Development Bank for the construction of the TCGP.

Berdymuhamedow soon started to support China on the political level. He gave Hu Jintao Turkmenistan’s highest award, the Order of Saparmurat Turkmenbashi the Great. Moreover, he confirmed Turkmenistan’s support for the One China policy with regard to Taiwan’s status. On the other hand, in March 2008, Berdimuhamedow and Baymuhammet Myradow, the CEO of Turkmenistan’s State Agency for the Management of the Hydrocarbon Resources, emphasized that Turkmenistan would pursue a pragmatic energy policy aimed at a diversity of export possibilities. They both considered the construction of the TCGP as only the first step in this strategy. However, although the gas export route to China became a reality, all other alternative routes are still in the category of pipe dreams.

**Lines C and D of the Turkmenistan–China Gas Pipeline**

Plans to build a third line of the gas pipeline to China already appeared in 2011. It was estimated at the time that this Line C could be commis-

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522 “Uzbekistan, China Ink Agreement on Third Line of Turkmenistan-China Gas Pipeline,” Interfax, April 21, 2011.
sioned by 2013. Its construction was aimed at boosting the capacity of the Turkmenistan–China Gas Pipeline to 55 bcm per year by 2016. Line C alone was expected to deliver 25 bcm per year. The first two lines were a significant breakthrough in freeing up the Russia-dominated natural gas markets of Central Asia. However, the construction of Line C signaled a tipping point where China became the most important economic player in the Central Asian ESC and its principal energy importer. Had the line not been built, there would have been a balance among the region’s leading energy import partners. However, its construction set the stage for China to create a new monopsony over Turkmenistan’s and Uzbekistan’s natural gas exports.

The agreement between Turkmenistan and China to build Line C was reached in the beginning of 2011. Berdimuhamedow went on a state visit to China on November 22–25, 2010 to discuss the project. In a joint statement with Hu Jintao, the two presidents expressed “willingness to take effective measures to ensure the security of significant oil and gas projects of the two countries, such as the Turkmenistan–China Gas Pipeline.” This statement reconfirmed the determination of both parties to create a long-term, stable strategic partnership in energy. They agreed to increase the volume of Turkmenistan’s supplies from 40 bcm annually to 65 bcm. This increase would not be possible without adding a third or even a fourth line to the newly built TCGP system. Moreover, they affirmed that both parties were interested in further cooperation in trade, investment, transport, communications, chemicals, textiles, agriculture, medicine, and high technology. This indicates that China regarded natural gas as only the spearhead of a general economic expansion into Turkmenistan.

China and Uzbekistan signed an agreement for the construction of the third branch of the gas pipeline during President Karimov’s state visit to China on April 19–20, 2011. The cost of this branch amounted to USD 2.2 billion, to be financed with loans from the China Development Bank and direct investment from the CNPC. The contractors were the China Petroleum Pipeline Bureau, China Petroleum Engineering and Construction Corporation, and Uzbekneftegaz. In June 2011, the CNPC

523 “China to Get More Central Asian Gas,” Voice Of The Islamic Republic Of Iran, March 10, 2011.
and Uzbekneftegaz signed a framework agreement to supply 10 bcm a year to China through the Turkmenistan–China Gas Pipeline.\textsuperscript{526}

The operator of a portion of Line C on Uzbekistan’s territory is Asia Trans Gas, as is the case with the two previous lines.\textsuperscript{527} KazMunayGaz and the CNPC signed an agreement for the design, financing, and construction of the third line on October 4, 2011. Uzbekneftegaz and the CNPC had signed a similar deal earlier, on September 21, 2011.\textsuperscript{528} The operator of the line on Kazakhstan’s territory is the Asia Gas Pipeline Limited Liability Partnership. That company was created on February 15, 2008 based on an agreement between Kazakhstan and China for the construction and operation of the Kazakhstan–China Gas Pipeline. The Asia Gas Pipeline LLP is a joint venture on an equal share basis between KazTransGaz JSC and the Trans-Asia Gas Pipeline Company Limited.\textsuperscript{529} A committee was also established in connection with the construction of Line C of the TCGP to coordinate the “Turkmenistan–Uzbekistan–Kazakhstan–China Gas Pipeline.” This body was intended to coordinate and prioritize the activities of the actors involved.\textsuperscript{530}

Turkmenistan also began to be more active in another one of China’s multilateral instruments in Central Asia: the Shanghai Cooperation Organization. Berdimuhamedow attended the SCO Summit in Beijing on June 7, 2012. There he met the head of the CNPC, Jian Jiemin. They primarily discussed the progress of the construction of Line C.\textsuperscript{531} As Line C was being built, the output of the Turkmenistan–China Gas Pipeline was also expanded by two projects that started operations in 2012 and 2013. The first of these was the Hanan branch of the TCGP in Kazakhstan, which runs 1,164 kilometers from Aktyubinsk to Chimkent where it joins the main pipeline. This Aktzubinsk–Chimkent Line has a capacity of 6 bcm per year. The Asia Gas Pipeline LLP oversaw the project. The Hanan branch’s primary purpose is to supply gas to Kazakhstan’s domestic consumers in the west of the country. However, it can also be reversed

\textsuperscript{526} “Uzbekistan, China Ink Agreement on Third Line of Turkmenistan-China Gas Pipeline,” Interfax, April 21, 2011.
\textsuperscript{527} “Turkmenistan-China Gas Pipeline to Reach Throughput Capacity of 55 BCM by 2016,” Interfax, December 16, 2011.
\textsuperscript{528} “CNPC, Kazmunaigaz to Build Line C of Kazakhstan-China Gas Pipeline,” Times of Central Asia, October 4, 2011.
\textsuperscript{530} “Ashgabat Hosts Joint Meeting on Turkmenistan-China Gas Pipeline,” Tribune Business News, September 7, 2011.
\textsuperscript{531} “Turkmen President, Head of Chinese Gas Giant Discuss Energy Cooperation,” Turkmen TV Altyn Asyr, June 7, 2012.
to supply China. The second project was the Uzbekistan–China Gas Pipeline, which runs from gas fields in Uzbekistan to the main TCGP. It has a capacity of 25 bcm yearly. The CNPC constructed this pipeline in collaboration with Uzbekneftegaz. The Uzbekneftegaz branch is more focused on exporting energy to China than the Hanan branch.

Line C, the third branch of the TCGP, was finally commissioned on May 31, 2014. Its total length is 1,830 kilometers and its capacity is 25 bcm per year. The CNPC claimed that China would receive 10 bcm of natural gas from Turkmenistan, 10 bcm from Uzbekistan and 5 bcm from Kazakhstan through the new pipeline. Uzbekistan gradually increased its supplies to China from 6 bcm in 2013 to 10 bcm in 2015. The newly built pipeline starts in Gedaim on the border between Turkmenistan and Uzbekistan and enters China at Horgos. From there, it continues on as the third West–East Gas Pipeline.

The construction of Line C decisively turned the energy initiatives in the ESC of Central Asia to China’s advantage. It shows that China can successfully negotiate complex energy deals with its Central Asian partners and that it can turn them into reality in a short period of time. This ability is something Russia has always been unable and unwilling to do. China also skillfully used the economic crisis of 2009, which hit Russia’s economy hard and more importantly, depressed European demand for hydrocarbon imports from the east.

China created a system of dependence that makes the Central Asian hydrocarbon exporters tied to China’s market, and thereby strengthened its own energy security. The fact that this process was accompanied by a generous “loans for oil” policy on China’s side had two consequences. First, the hydrocarbon infrastructure was mainly constructed with China’s financial resources and thus confirmed Beijing’s indirect control of the region’s energy resources. Control of material resources is the essence of the realist paradigm, and of China’s energy strategy as well. Second, by providing the loans, China strengthened the dependence of Central Asian ESC on its largesse. The Central Asian state actors are now dependent on China not only as a monopsonist consumer of their hydrocarbon

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532 “Central Asia-China Gas Pipeline Capacity 55 BCM Per Year by 2015,” Interfax, August 31, 2011.
exports, but also as a critical financial lender. The situation may soon turn into political dependence as well.

The route proposed for Line D of the Turkmenistan–China Gas Pipeline, from Turkmenistan through Tajikistan and Kyrgyzstan to China, validates the idea that the TCGP has significant geostrategic importance for China. If Line D is commissioned, all the Central Asian states’ economic interests will be tied up with those of China. Beijing would further cement its rising power over the ESC of Central Asia. The commissioning of Line D would represent the point where China would push Russia out of the region and assume total hegemony, which would be of an economic character at first but would soon move into the political sphere as well.

China’s National Development and Reform Commission approved a pre-feasibility study for the fourth branch in June 2013. It planned to complete the construction of Lines A, B, C and D by the end of the Five-Year Plan period of 2016–2020, but that was not the case with Line D. The US-supported Central Asia-South Asia (CASA)-1000 project for transmission of electrical power can be considered a predecessor to the construction of Line D. The idea for this project emerged in 2005. The principal goal was to supply Kyrgyzstan’s and Tajikistan’s hydroelectric power to Afghanistan and Pakistan. The US wanted to stabilize the region by supporting a mutually beneficial economic project that would create positive regional partnerships.

Plans for Line D had already appeared before Line A was commissioned in 2009. Kyrgyzstan’s President Kurmanbek Bakiyev attempted to include his country in the TCGP project during a meeting with Hu Jintao on August 15, 2007. He proposed that part of the pipeline should traverse Kyrgyzstan’s territory. Kyrgyzstan’s officials started to promote the possibility of building one of the branches of the TCGP through their territory in 2009. According to the Kyrgyz, building another branch of the pipeline from Turkmenistan through Uzbekistan and Kyrgyzstan to China would facilitate and improve bilateral relations between

Kyrgyzstan and Uzbekistan, which were not ideal because of border tensions and occasional ethnic clashes.\textsuperscript{540}

China’s next president, Xi Jinping, undertook a state visit to Kyrgyzstan on September 11, 2013. On that occasion, Kyrgyzstan’s Minister of the Energy Industry, Osmonbek Artykbaev, and the Chairman of China’s State Committee for Development and Reforms, Xiu Shaoshi, signed a loan agreement to fund cooperation in the construction and operation of the Kyrgyzstan–China Gas Pipeline.\textsuperscript{541} The portion of Line D of the Turkmenistan–China Gas Pipeline on the territory of Kyrgyzstan would run 220 kilometers through the regions of Chon Alay and Alay and then continue on to Kashgar in China.

Kyrgyzstan announced that China’s investment in building the pipeline would be very beneficial to Kyrgyzstan. However, no offtake of gas is being planned for Kyrgyzstan.\textsuperscript{542} On December 16, 2015, Kyrgyzstan and China signed an agreement for the construction of Kyrgyzstan’s section of the Turkmenistan–China Gas Pipeline Line D. China’s Prime Minister Li Keqiang and his Kyrgyz counterpart Temir Sariyev were both present. Kyrgyzstan’s section will be 215 kilometers long with an annual capacity of 30 bcm.\textsuperscript{543}

The construction of Line D of the TCGP was not only supported by Kyrgyzstan but also by the other transit country, Tajikistan. The CNPC’s subsidiary Trans-Asia Gas Pipeline Company signed an agreement with Tajiktransgas\textsuperscript{544} for the creation of a joint venture that would manage construction and maintenance of Line D.\textsuperscript{545} Tajikistan would only be a transit state in this project and would be prohibited from importing Turkmenistan’s natural gas for its own use.\textsuperscript{546} China’s government signed intergovernmental agreements for this construction with its counterparts

\textsuperscript{543} “The Kyrgyz Government and CNPC Subsidiary Sign Agreement to Build the Kyrgyzstan Section of Line D of the Central Asia-China Gas Pipeline,” Albawaba, December 19, 2015.
\textsuperscript{544} The Government of Tajikistan created the Tajiktransgas joint-stock company in 2009. It is primarily responsible for the gas supply in Tajikistan. The government controls one hundred percent of its shares.
\textsuperscript{545} “China And Tajikistan Plan Construction.”

The ceremony marking the start of the construction of Line D in Tajikistan took place in the Rudaki district near Dushanbe on September 15, 2014. At the event, the President of Tajikistan, Emomali Rakhmon, said: “We are witnessing an event of enormous political, economic, historical importance – the ceremony of the start of the construction of the Tajik section of the Central Asia–China Trans-Asia Gas Pipeline.”\footnote{548 “Presidents of China, Tajikistan Inaugurate Start of Construction of Tajik Section of Central Asia-China Gas Pipeline,” AKI Press News Agency, September 15, 2014.} Line D will be the shortest of the four lines of the pipeline system from Central Asia to China. It is approximately 1,000 kilometers shorter than its predecessors. The construction in Tajikistan was planned to continue for three years. The pipeline will travel under water in 24 places, and 76 tunnels will have to be carved out during its construction. The cost of Tajikistan’s portion of the project will be USD 3.2 billion according to 2014 estimates.\footnote{549 Ibid.} Moreover, Tajikistan’s gas reserves may soon be the ultimate prize. There are some estimates that it possesses 1.14 tcm of natural gas reserves which would give Tajikistan the second-largest reserves of natural gas in Central Asia. The CNPC started to explore Tajikistan’s oil and gas deposits in 2013.

The CNPC and Uzbekneftegaz agreed to give priority to the construction of Line D in 2014 along with the construction of a natural gas-consuming chemical plant. The CNPC stated that when fully functioning, the four lines of the TCGP together would transport 85 bcm of natural gas per year to China.\footnote{550 “Tashkent-Beijing Alliance Will Strengthen,” Oxford Research Daily Brief Service, September 24, 2014.} Uzbekistan’s portion of Line D would be approximately 200 kilometers long and would connect existing pipeline infrastructure in Uzbekistan with Tajikistan. Its cost was estimated at USD 800 million.\footnote{551 Demir Azizov, “Date of Construction of Uzbek Section of Gas Pipeline to China Announced,” Trend.az, February 12, 2015.} Its construction would be the second most expensive oil and gas project in Uzbekistan after Lukoil’s USD 2.6 billion natural gas processing plant at the Kadym gas field near Bukhara.\footnote{552 “Uzbekistan Economy: State Energy Companies Plan Infrastructure,” EIU Viewswire, April 10, 2015.}
also an option to carry Line D through Afghanistan, but it has not materialized yet.553

In 2015, Uzbekistan postponed the construction of Line D on its territory to 2019. The reason for the postponement was of a technical nature, according to Uzbekistan’s officials.554 Moreover, Kyrgyzstan also suspended the construction of Line D on its territory in May 2016,555 but it says that as soon as China clarifies the costs of the project, work can continue.556 The construction of some segments of Line D started in 2014. Other parts of it were still under construction as of 2022.

Under the agreement between the CNPC and Turkmengaz, Turkmenistan is obliged to send 65 bcm annually to China by late 2021.557 However, this obligation may be affected by a decrease in China’s demand for natural gas due to an economic slowdown and other factors. The increase in China’s demand averaged 16 percent between 2010 and 2013. However, it declined to 6 percent in 2014. This development was caused by high city-gate prices charged to the gas distributors in China and by environmental policies focused on cutting emissions from coal-fired power stations rather than promoting a switch to natural gas as an alternative fuel.

Another critical factor is price competition with LNG sold to China on spot and long-term contracts. The price of Central Asian gas is indexed to oil and includes high fixed transportation tariffs to and across China.558 This notwithstanding, it still seems at present that the construction of the TCGP is of strategic importance for China and it is not being constructed solely for its ability to create profits. If China’s demand for natural gas falters, it would significantly alter China’s policy towards Turkmenistan and especially its position on the construction of Line D.

The plans for the Turkmenistan–China Gas Pipeline and its implementation have been decisive in shaping Turkmenistan’s natural gas infrastructure since 2006. The head of Turkmengaz, Ashirguli Begliyev, stated at the annual Oil and Gas of Turkmenistan Conference in 2015

that Turkmenistan would be able to produce 230 bcm per year by 2030 and export 180 bcm. He announced that work on the second and third stage of the Galkynysh gas field was underway and when finished, it would produce 93 bcm annually. According to Begliyev, Turkmengaz is developing more than 30 other gas fields throughout the country. Turkmenistan’s production of natural gas reached 66.8 bcm in 2016, of which 40.9 bcm was exported.

Moreover, Begliyev is not only planning the export of natural gas but also a construction of several gas-consuming chemical plants with a total value of USD 30 billion. These projects include the production of synthetic liquid fuels, glycols, polymers, methanol, caustic soda, sodium sulfate, ammonium sulfate, iodine, urea-formaldehyde, and melamine-formaldehyde resins.559 Above all else, Ashgabat continuously emphasizes its intention to diversify its energy exports, as its officials did at the Oil and Gas of Turkmenistan Conference that took place in 2013 in Dubai.560

To have more room for maneuvering, Turkmenistan started the construction of the East–West Interconnector on May 31, 2010. The pipeline was commissioned on December 29, 2015 and runs from the Mary province in the east of Turkmenistan to the Balkan province in the west.561 The pipeline’s length is 773 kilometers and its capacity is 30 bcm per year. The construction costs were USD 2.5 billion.562 The primary purpose of the pipeline is strategic, to broaden Turkmenistan’s choice of gas customers. It can be used to support the country’s exports to China from its offshore deposits in the Caspian Sea or to divert gas from its eastern onshore deposits to the West.

The CNPC has been active in Turkmenistan since 2002.563 Based on preliminary agreements between China and Turkmenistan, the natural gas for the TCGP was to be supplied from the Samandepe and Altyn Asyr gas deposits as well as from newly developed gas fields.564 The two deposits mentioned above are part of the PSA for the development of

the Bagtyyarlyk-Amu Darya Natural Gas Project. This project consists of two blocks, A and B, and is the CNPC’s largest gas cooperation project outside of China. The first phase of the project covers an area of 983 square kilometers. The integrated project includes exploration of new blocks, prospecting and exploration of new fields, rejuvenation and adjustment of mature fields, and construction of a processing plant and its supporting facilities.

The CNPC Amu Darya River Company is the exploration and production operator and the processing contractor in the Bagtyyarlyk PSA contract area. It constructed Gas Processing Plants No. 1 and No. 2 in Block A and Block B respectively. The Gas Processing Plant No. 1 became operational on December 14, 2009 and started to supply natural gas to China. The CNPC Amu Darya began the construction of the Gas Processing Plant No. 2 on the right bank of the Amu Darya river in December 2011. It was commissioned on May 7, 2014. The ceremony was attended by President Berdimuhamedow and representatives of the CNPC, the contractor in the Bagtyyarlyk area. The two plants have a combined capacity for an output of 15 bcm per year. These successful projects boosted Turkmenistan’s export capabilities and confirmed China’s dominant position in the country’s upstream oil and gas industry.

Turkmenistan and China hoped to increase gas exports even further by developing the sizeable Galkynysh gas field. In September 2013, they celebrated the commissioning of the first phase of that field in the presence of both of their presidents. The production capacity of this complex is 30 bcm annually. The CNPC launched the second phase of development in the Galkynysh gas field at the beginning of 2013. At present, the Galkynysh gas field and the nearby Yashlar gas field, are

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estimated to hold 26.2 tcm of natural gas. The second phase of the project is expected to be completed in 2021. Its processing capacity will be around 30 bcm yearly.\textsuperscript{572}

Both the first and second phases of the Galkynysh development are being paid for by loans from the China State Bank.\textsuperscript{573} In that way, China is seeking to gain at least indirect control over this critical gas deposit. Turkmengaz signed service contracts for the first phase of the development in the Galkynysh gas field worth a total of USD 9.7 billion in December 2009. The contractors are Gulf Oil and Gas FZE, Petrofac International LLC, the NPC Chuanging Drilling Engineering Company, and a consortium of LG International and Hyundai Engineering.\textsuperscript{574} Petrofac provided engineering, procurement, construction, and commissioning services for the gas processing plant and associated infrastructure at the Galkynysh gas field between 2010 and 2013. Its principal partner in that USD 3.4 billion project was Turkmengaz. Galkynysh was Petrofac’s largest project up to that date.\textsuperscript{575} Turkmengaz likely chose to employ less experienced operators from the Persian Gulf because it did not wish to give Western or Russian operators access to this strategic asset.\textsuperscript{576}

It should be noted that neither China nor Turkmenistan was able to provide all the necessary equipment for the construction of the TCGP and other gas infrastructure. The metallic components were usually imported from the former Soviet Union. Between 2008 and 2009, the Russian United Metallurgical Company delivered 260,000 metric tons of pipes with a diameter of 1,067 mm for Line A and Line B. It was also tasked with furnishing supplies for Line C. It delivered 125,000 tons of 1,218 mm pipe.\textsuperscript{577} An additional 200,000 tons of 1,218 mm pipe for the Line C were supplied by the Chelyabinsk Tube Rolling Plant in 2013.\textsuperscript{578} Ukraine’s Sumy Frunze NPO has been providing processing heaters,

\begin{footnotesize}
\begin{itemize}
\item[572] Maslenikov, “Diverzifikatsiya gazovogo eksporta Turkmenistana.”
\item[577] “OMK to Supply Large-Diameter Pipe for Central Asia-China Gas Pipeline,” Interfax, January 30, 2013.
\end{itemize}
\end{footnotesize}
flare installations, air coolers, and other equipment for the Bagtyyarlyk gas and oil complex in Turkmenistan since 2013. Its principal partner in Turkmenistan is the Petro Gas LLP Corporation from the United Kingdom.579

The high technology for the pipeline was supplied mostly by Western enterprises. Rolls-Royce provided the gas turbine-driven pipeline compressors on all three lines of the TCGP.580 The Czech Republic’s Rimera Group supplied equipment for the construction of compressor stations on the first two lines of the pipeline. It signed a contract with the China Petroleum Engineering and Construction Corporation, a subsidiary of the CNPC.581 Honeywell supplied its Experion Process Knowledge System and Safety Manager technology to all three lines of the TCGP.582 The involvement of these Western companies shows that neither China nor Turkmenistan is in a position to implement such massive infrastructure projects without at least some technical cooperation with the West.

This subchapter concludes that Turkmenistan’s energy policy in the Central Asian ESC is in no small degree linked to its other external and internal policies.583 That means that the boundaries between internal, external, and energy policies are blurry and difficult to distinguish.584 However, the raison d’être of Turkmenistan’s external policy is obvious, and the regime’s behavior is quite predictable when viewed from the realist point of view. The goal is the preservation of the regime, consolidation of its power, and the prosperity of its membership, as is the case in most if not all authoritarian regimes.

The construction of the three lines of the Turkmenistan–China Gas Pipeline heralded tremendous success for Turkmenistan’s energy policy. The preliminary agreement was concluded with China in 2006, and in

580 “Rolls-Royce to Supply Compressor Units for Central Asia-China Gas Pipeline,” Interfax, September 11, 2011.
only six years natural gas from Turkmenistan was flowing into Hong Kong. More than 140 bcm of natural gas in total were transported to China via Lines A, B, and C between late 2009 and March 2016. China is now Turkmenistan’s largest trading partner. It seems that the Beijing-Ashgabat axis is gradually developing from energy-based cooperation into a political partnership. Turkmenbogaz estimates that the share of natural gas in China’s energy mix will rise from 4 percent in 2015 to 11 percent by 2040. That should make Turkmenistan extremely important to China’s economy and its energy industry. Turkmenbogaz also estimates that rising gas demand in India and other states will significantly improve Turkmenistan’s standing in the world. On the other hand, in one decade Russia lost a beneficial energy partner that had been connected to and dependent on its energy infrastructure since the 1950s. The massive increase in Turkmenistan’s exports of natural gas is shown in Table 19. The slump in exports caused by the switch from Russia to China as key export partner in 2009–10 is clearly visible in Table 19.

Russia tried to come up with a counteroffer to China’s in the form of the Caspian Coastal Gas Pipeline. However, that project failed for three principal reasons. First, Turkmenistan is still very sensitive about Russia’s neo-imperial ambitions because of its experience with the Soviet Union. Ashgabat was wary of Russia using its gas to play geostrategic games at the same time when representatives of Gazprom and the government in Moscow mocked their Central Asian suppliers. Second, Russia was not a reliable energy partner for Turkmenistan because of repeated clashes over pricing of energy exports. This problem was compounded by the global financial crisis when European demand significantly decreased. Third, Russia was simply unable to compete with China’s economic and financial might when Beijing decided to “march westward.” These issues explain Turkmenistan’s emphasis on strategic security over economic logic and confirm that its energy policy in the Central Asian ESC is mainly strategic-oriented. Turkmenistan’s strategic approach to its energy policy was exemplified by its enthusiastic embrace of the Turkmenistan–China Gas Pipeline.

This chapter is a case study of Turkmenistan’s energy policy in the ESC of Central Asia. Its goal is to search for indicators of the elements of a strategic-oriented energy policy, as set by a theoretical model, with regard to the natural gas sector. Consequently, it attempts to find out whether Turkmenistan’s energy policy in Central Asian ESC was strategic-oriented or market-oriented. According to the model, there are eight elements of a strategic-oriented energy policy: the perception that energy resources are strategically important; the perception that the energy sector is crucial to the state’s economy; the perception that state-owned energy actors are

Table 19: Export of Turkmenistan’s natural gas (1998–2017)

<table>
<thead>
<tr>
<th>Year</th>
<th>Export Value (bil. USD)</th>
<th>Percent of Total Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>0.000</td>
<td>0</td>
</tr>
<tr>
<td>1999</td>
<td>0.424</td>
<td>47</td>
</tr>
<tr>
<td>2000</td>
<td>0.869</td>
<td>64</td>
</tr>
<tr>
<td>2001</td>
<td>1.590</td>
<td>80</td>
</tr>
<tr>
<td>2002</td>
<td>1.770</td>
<td>79</td>
</tr>
<tr>
<td>2003</td>
<td>1.810</td>
<td>77</td>
</tr>
<tr>
<td>2004</td>
<td>2.330</td>
<td>73</td>
</tr>
<tr>
<td>2005</td>
<td>3.120</td>
<td>72</td>
</tr>
<tr>
<td>2006</td>
<td>3.570</td>
<td>73</td>
</tr>
<tr>
<td>2007</td>
<td>4.240</td>
<td>74</td>
</tr>
<tr>
<td>2008</td>
<td>5.520</td>
<td>67</td>
</tr>
<tr>
<td>2009</td>
<td>0.768</td>
<td>39</td>
</tr>
<tr>
<td>2010</td>
<td>0.898</td>
<td>40</td>
</tr>
<tr>
<td>2011</td>
<td>4.770</td>
<td>72</td>
</tr>
<tr>
<td>2012</td>
<td>7.630</td>
<td>81</td>
</tr>
<tr>
<td>2013</td>
<td>8.070</td>
<td>78</td>
</tr>
<tr>
<td>2014</td>
<td>8.600</td>
<td>81</td>
</tr>
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<td>7.170</td>
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</tr>
<tr>
<td>2016</td>
<td>5.260</td>
<td>74</td>
</tr>
<tr>
<td>2017</td>
<td>5.920</td>
<td>83</td>
</tr>
</tbody>
</table>

Source: UNCTAD – United Nations Conference on Trade and Development
extensions of the state apparatus; a reliance on bilateral relations rather than multilateral relations; the perception that the energy sector is a tool for achieving the goals of the state; a zero-sum approach to international relations; the perception that dependence on other states is undesirable; and an emphasis on achieving strategic goals over economic logic. Based on the indicators listed above, the conclusion of this case study is that Turkmenistan’s energy policy in the ESC of Central Asia is predominantly strategic-oriented. It must be stressed that Berdimuhmedow’s regime is very closed and thus all of Turkmenistan’s internal processes are rather untransparent. Almost all details regarding Turkmenistan’s agreements in the energy sector are classified. Nonetheless, based on available data, it is possible to arrive at the conclusion that Turkmenistan’s energy policy in the Central Asian ESC is strategic-oriented.

Perception that energy resources are strategically important

Based on the accumulated data, Berdimuhamedow’s regime perceives Turkmenistan’s energy resources and especially its natural gas reserves to be strategically important. There were many occasions under Berdimuhamedow’s rule when his regime’s desire to take or maintain control of energy resources and their distribution networks manifested itself. There were several cases of friction between the Ashgabat government and the Italian company Eni, the Dutch company Larmag, and the Argentinian company Bridas. Furthermore, the desire for control is especially visible in the governmental policy that limits the number of onshore PSAs and the regime’s overall lack of trust in Western energy operators.

Perception that the energy sector is crucial to the state’s economy

Turkmenistan considers its energy sector to be the strategically important backbone of its economy and Berdimuhamedow’s regime. The case study shows that Turkmenistan has tightly controlled the energy sector since the fall of the Soviet Union. The energy sector’s internal significance lies not only in its support for economic growth in Turkmenistan, but also in its ability to win popular support for Berdimuhamedow’s regime by supplying cheap energy to the country’s inhabitants.
Perception that state-owned energy actors are extensions of the state apparatus

It was shown that at present Berdimuhmedow’s regime either directly or indirectly dominates the entire energy sector of Turkmenistan. That means that Berdimuhamedow’s regime has been able to increase its power by transforming a significant portion of the country’s national power into state power. The state’s grip on the energy sector is strengthened by restrictions on foreign investment and a deliberate diversification of the foreign partners that are allowed into the energy sector. Turkmenistan perceives itself as one of the most important energy players in Eurasia. Based on the findings of the case study, it is clear that Turkmenistan’s political elite consider the State Agency for the Management and Use of Hydrocarbon Resources under the President of Turkmenistan, and the state-owned company Turkmengaz as tools for achieving the internal and external goals of the state.

Reliance on bilateral relations

Turkmenistan’s reliance on bilateral relations in its energy policy is most visible in its dealings with actual or potential energy partners. Its relationships with both Russia and China are predominantly bilateral. The same is true of its relations with would-be energy importers such as India, Pakistan, and Azerbaijan. The evidence suggests that Turkmenistan gives preference to long-term bilateral deals with energy partners, but is also willing to cut off those relationships if that is more to its benefit. The case study illustrates this kind of behavior with several cases in which Turkmenistan utilized its “tap” energy weapon in its relations with Russia.

Zero-sum approach

The case study shows that Berdimuhamedow’s regime has repeatedly attempted to maintain and even enhance Turkmenistan’s international standing. Because of its zero-sum approach to policy making, Turkmenistan’s political elite were willing to make a U-turn in their policy on China because they perceived Russia to be an irresponsible partner. Before 2008, Russia was reluctant to increase the price it paid Turkmenistan for its gas and exercised a monopsony over its gas production. The tipping
point at which Ashgabat shifted its allegiance to China was the decline in Europe’s demand for its products after the outbreak of the global financial crisis and lower demand from Russia in particular.

The process of constructing a gas pipeline to China started earlier than the 1998 financial crisis, but perhaps if Russia had behaved differently, it could have maintained a stronger trade position with Turkmenistan than it did. In the short- and mid-term periods, China now seems like a more responsible and reliable partner. This is because Turkmenistan now has a higher level of interdependence with China than it does with Russia. Beijing pays a fair price according to Ashgabat, and it plans not only to maintain its demand but also significantly increase it in the decades to come. Notwithstanding this, Turkmenistan’s ruling elite seem to understand that China may one day become as problematic a partner as Russia. China could also meddle in the internal politics of Turkmenistan and thus endanger Berdimuhamedow’s regime and its clan-based backers. Hence, the only way for Turkmenistan to genuinely sustain its energy security is to broaden its room for maneuvering by diversifying its export routes. Therefore, the country wants to move forward with the Trans-Caspian Gas Pipeline project and the TAPI Gas Pipeline to India and Pakistan.

**Perception that the energy sector is a tool for achieving the state’s goals**

Based on both strategic documents and commercial practice, this case study shows that Berdimuhamedow’s regime considers the energy sector of Turkmenistan to be a tool of internal and external policy. The political elite perceive energy policy to be a tool for achieving its three overarching goals: self-preservation, power consolidation, and the prosperity of the members of Berdimuhamedow’s regime. Moreover, energy policy and the energy sector are even more crucial to attaining these goals than Turkmenistan’s foreign policy in general because Turkmenistan does not possess any other significant assets. Its energy potential alone makes it one of the key state actors in the ESC of Central Asia. Robert Gilpin has concluded that the control of natural resources is the core of the realist paradigm. That means that a country’s military, economic, and political power is dependent on its control of energy resources. If it lacks energy resources, its power is weak, if it has any at all. Hence, energy policy is the main component of Turkmenistan’s internal and external policies.
The ruling elite of Turkmenistan are well aware of the importance of energy resources, and thus they prioritize energy policy above external policy. Based on this, it can also be concluded that Turkmenistan rewards or punishes certain behaviors of other states. There are also clear examples of attempts to develop energy projects regardless of commercial logic.

**Perception that dependence on other countries is undesirable**

China teamed up with Russia after 9/11 in an attempt to squeeze the United States out of the Central Asian regional energy security complex. However, when the US left the region after the termination of the mission of the International Security Assistance Force in Afghanistan in 2014, China was unwilling to allow Russia to return and restore its sphere of influence. Russia had already proved unable to maintain its zone of privilege in Central Asia. Turkmenistan joined in and accelerated this development, which meant the gradual weakening of Russia’s influence in the ESC of Central Asia and the rise of China’s. Beijing’s approach, however, goes beyond controlling natural gas supplies. It started by penetrating Central Asia with large infrastructure projects that involve almost every regional actor, then began to gain control over vital natural resources in the region, and finally started to invest in industries and infrastructure other than energy.

The only way for Turkmenistan out of greater dependence on China is to pursue alternative export routes for its natural gas – above all the TAPI Gas Pipeline and the Trans-Caspian Gas Pipeline. However, it would be almost impossible to build those pipelines without the support of Western corporate interests and their investment. We have defined energy security as an adequate supply of energy resources for an adequate price. The only way for Turkmenistan to strengthen its energy security and obtain an adequate price for its energy exports is to diversify its energy exports as much as possible. This approach would enable it to have a better negotiating position vis-á-vis all of its trading partners and thus more room for maneuvering in pricing negotiations. Moreover, it would enable Turkmenistan to adjust the amounts and destinations of its gas exports not only according to demand in particular markets abroad, but also according to political developments. In this sense, a more independent energy policy also means a more independent foreign policy.
Emphasis on strategic goals over economic logic

Turkmenistan’s overarching goals are the preservation of the Berdimuhamedow regime, consolidation of its power, and the prosperity of its membership. Of these, the preservation of the ruling regime definitely has priority. The principal tool and source of the power behind Turkmenistan’s internal and external policy is its energy sector, especially the hydrocarbon sector. Turkmenistan abruptly switched from cooperating with Russia to cooperating with China – contrary to economic logic but consonant with the regime’s interest in self-preservation. Regardless of economic considerations, Turkmenistan is seeking new routes to diversify its energy exports. However, Turkmenistan’s political elite understand that its new and growing dependence on China can one day threaten the goal of preservation of Berdimuhamedow’s regime as much or more than its former dependence on Russia.
5. Conclusion

Findings of the Research

This book examines the energy security in the Central Asian regional energy security complex (ESC) in the context of the construction of the Turkmenistan–China Gas Pipeline (TCGP). It seeks to answer one overarching research question, which deals with the environment and actors inside the Central Asian ESC. That question is: “What is the predominant approach to energy policy among the states of the regional energy security complex of Central Asia?” I address this research question from the perspective of security studies and the realist paradigm. Based on this approach, I created a model of a strategic-oriented energy policy and applied it to case studies of three key states that are involved in the Central Asian ESC: Russia, China, and Turkmenistan. The construction of this model was the main predicate for classifying the individual states’ policies. The model represents a system of certain elements that identify a particular kind of policy.

The research question seeks to identify the predominant approach to energy policy among the states of the ESC of Central Asia. There are two major behavioral patterns that states of the ESC might display in terms of their energy policy. These are either market-oriented behavior focused on maximization of profit or strategic-oriented behavior focused on maximization of the energy security of particular states inside the ESC. A strategic-oriented energy policy is defined by the following indicators: the perception that energy resources are strategically important; the perception that the energy sector is crucial to the state’s economy; the perception that state-owned energy actors are extensions of the state apparatus; a reliance on bilateral relations in lieu of multilateral arrange-
ments; the perception that the energy sector is a tool for achieving the
goals of the state; a zero-sum approach to policy making; the perception
that dependence on other countries is undesirable; and an emphasis on
strategic goals over economic logic.

Perception that energy resources are strategically important

Based on a thorough analysis of the accumulated data, the studies
conclude that Putin’s regime, the regime of the Communist Party of
China, and Berdimuhamedow’s regime all perceive energy resources as
strategically important. On many occasions, they manifested an inten-
tion to take control of energy resources and their distribution networks.
That was true of the Yukos and Sibneft affairs in the case of Russia; the
Unocal, Nexen, and Slavneft affairs in the case of China; and the Larmag
and Bridas affairs in the case of Turkmenistan. Russia is predominantly
interested in the security of its energy supplies and the diversification of
its energy exports. China is vitally interested in both objectives. Turk-
menistan is predominantly interested in diversifying its energy exports.

The perception held by the majority of the states in the ESC of Cen-
tral Asia that energy resources are strategically important definitely lays
the groundwork for international tensions, and even armed conflict. This
is best illustrated on the case of the Turkmenistan–China Gas Pipeline.
All three actors approached the construction of that pipeline from a stra-
tegic orientation. Therefore, I conclude that this element of my model
of a strategic-oriented policy is completely met in all three cases, Russia,
China, and Turkmenistan.

Perception that the energy sector is crucial
to the state’s economy

The strategic importance of energy translates into a perception in all
three countries that the energy sector is crucial to the state’s economy.
The study shows that all three countries try to control their respective en-
ergy sectors either directly or indirectly because they perceive them to be
the backbone of their economies. The internal significance of controlling
the energy sector lies not only in its support for economic growth but also
in allowing the three highly autocratic regimes to win popular support
by subsidizing energy prices and offering supply quotas.
Therefore, I conclude that the energy policies of Russia, Turkmenistan, and China in the ESC of Central Asia have profound impact on the internal politics of those states. The success or failure of their energy policies in the ESC of Central Asia strengthens or endangers the internal political status quo in each country. This element, that the energy sector is perceived as crucial to the state’s economy, is completely met in the cases of Russia and Turkmenistan. It is also extremely important for China, but its economy is much more complex than those of Russia and Turkmenistan. Therefore, I consider this element of my model to be only partly met in the case of China.

Perception that state-owned energy actors are extensions of the state apparatus

Putin’s regime, the CPC regime, and Berdimuhamedow’s regime dominate the energy sectors of their countries, as the evidence adduced in this book shows. The principal vehicles for their dominance are Gazprom and Rosneft in Russia, the CNPC and CNOOC in China, and the State Agency for the Management and Use of Hydrocarbon Resources and Turkmengaz in Turkmenistan. All three political regimes have been able to increase their power by transforming a significant portion of the national power represented by their countries’ energy sectors into state power.

The perception that state-owned energy actors are extensions of the state apparatus means that they are governed not by market-oriented policies but strictly by strategic-oriented policies. That is why the political elites of Russia, China, and Turkmenistan consider their country’s state-owned energy actors to be tools for executing both the internal and external policies of the state. This element of my model is completely met in all three cases.

Reliance on bilateral relations rather than multilateral arrangements

The case studies show that in all three cases Russia, China, and Turkmenistan rely on bilateral relations in their energy policy. This was illustrated by their use of the “tap” and “transit” weapons against their energy and trade partners. The preference for bilateral deals is most evident in the
case of Russia because of its strong opposition to any multilateral cooperation format in the sphere of energy. The same is true of Turkmenistan, which has the fewest options because of its geographical location, geopolitical position, and self-imposed isolation.

As for China, its entire push into the ESC of Central Asia since 2000 has been based strictly on bilateral dealings. However, its bilateral dealings can be seen in the broader framework of its regional initiatives such as One Belt One Road and more specifically the Turkmenistan–China Gas Pipeline and the Kazakhstan–China Oil Pipeline. Therefore, I conclude that this element of my model is fully met in the cases of Russia and Turkmenistan, but only partly met in the case of China.

**Zero-sum approach**

The study shows that Russia’s, China’s and Turkmenistan’s political elites behave according to a zero-sum approach to policy making because they interpret any success of their potential competitors as a loss of their own. At the heart of the energy policies of the three states lies control of the material resources that are the basis of their military and economic power. Because they perceive energy policy as a zero-sum game, Russia’s political elite were willing to let China enter the Central Asian ESC as a means of preserving Russia’s position as Western Europe’s predominant energy supplier. China’s thrust westward into Central Asia has also been motivated by a zero-sum understanding of energy policy. It fears that if it does not fill the void left by the fall of the Soviet Union, other states will. Based on its zero-sum approach, Turkmenistan’s political elite have been willing to make a U-turn towards China in its foreign energy relationships because they perceived Russia as an untrustworthy partner. Therefore, this element of my model is completely met in all three cases.

The construction of the TCGP is the best example of the zero-sum approach to energy policy by all of the states involved, as was shown in all three case studies. The construction of the TCGP strengthened China’s position vis-à-vis Turkmenistan and Russia. Turkmenistan strengthened its position vis-à-vis Russia, but its position vis-à-vis China weakened because it is now deeply dependent on China’s imports of its natural gas. The construction of the TCGP represented the most unfavorable outcome for Russia because its position weakened with regard to both China and Turkmenistan.
Perception that the energy sector is a tool for achieving the aims of the state

Based on an analysis of strategy documents and commercial practice, the political elites of Russia, China, and Turkmenistan use their energy sectors as a tool of their internal and external policy. They effectively reward or punish certain behavior of other states in the energy sector with the aim of controlling foreign resources or markets. Keeping in mind the conclusion of this book that the strategic-oriented approach prevails in the ESC of Central Asia, it can be argued that Russia, China, and Turkmenistan utilize their energy sector not only to attain their economic goals but also their political aims.

There are also clear examples of attempts to control entire supply chains and markets regardless of commercial logic. This was true of Russia’s attempts to monopolize European markets in the West and Asia-Pacific markets in the East. It was also true of China with regard to the Central Asian and Russian markets. As for Turkmenistan, its attempt to diversify its energy export routes has a similar goal. However, in Turkmenistan it is clearly not the same attempt to control an entire supply chain or a foreign market regardless of commercial logic, as is the case in China and Russia. Therefore, this element of my model is fully met with respect to China and Russia and only partly met with respect to Turkmenistan.

Perception that dependence on other countries is undesirable

The research further proves that there is a network of dependence in the sphere of energy among the states of the ESC of Central Asia. In their pursuit of dominance of the ESC of Central Asia, Russia, China, and Turkmenistan make it clear that they all believe that total dependence on other states for supplies and markets is generally undesirable. Russia attempted to exploit its inherited monopsony position with Central Asia’s natural gas suppliers, contractually locking in supplies and taking ownership shares in upstream and processing. Thus, it tried to create a system of dependence with the aim of controlling the entire Central Asia market. Arguably, while this situation was advantageous from Russia’s point of view, it was undesirable from the point of view of the Central Asian countries. Russia’s policy emphasized its strategic goals over economic logic, which confirms that Russia’s energy policy in the Central Asian ESC is strategic-oriented.
Nevertheless, China has succeeded in penetrating the ESC of Central Asia economically and partially displacing Russia from the region. It tried to create a system of dependence with the aim of controlling the entire Central Asian market which again, from the point of view of the Central Asian states, is undesirable. China was able to offer sophisticated cooperation packages to each regional state, bundled with generous promises of investment that Russia and the Western states could not match. Turkmenistan accepted gladly and accelerated China’s entry into the ESC, which effectively weakened Russia’s position in the ESC of Central Asia. The only way out of Turkmenistan’s increasing, undesirable dependence on China is for it to pursue alternative export routes – most of all the TAPI Gas Pipeline and the Trans-Caspian Gas Pipeline. A more independent energy policy would allow Turkmenistan to practice a more independent foreign policy. Based on the foregoing analysis, I conclude that Russia, China, and Turkmenistan fully meet this element of my model of strategic-oriented behavior.

**Emphasis on strategic goals over economic logic**

The strategic approach to energy policy predominates in the three members of the Central Asian ESC compared to the market-oriented approach. The traditional aim of Russia’s energy policy in the Central Asian ESC was to ensure its energy security by dominating the energy sector of Central Asia. It attempted to use its own energy potential as one of its crucial foreign policy tools, as has been stated many times in its foreign policy and national security blueprints. It must be stressed that Moscow’s principal goal has a genuinely political nature – the preservation of Putin’s regime and its position in Russia’s internal and external affairs.

The construction of the TCGP, which started in 2007, must also be perceived as a strategic undertaking by China. The construction of the first three lines has certainly fulfilled several of China’s strategic goals. It gives China more energy security and thus legitimizes its political regime.

Finally, Turkmenistan’s overarching goals are preserving and consolidating the power of the Berdimuhamedow regime and ensuring the prosperity of the members of its ruling elite. The main priority, however, is the preservation of the regime in power. The principal tool and driver of Turkmenistan’s internal and external policy is the energy sector, and especially the hydrocarbon sector. Turkmenistan abruptly switched its
cooperation from Russia to China. This was contrary to economic logic but was completely in line with the interest of the current regime in its self-preservation. Contrary to economic logic, Turkmenistan is seeking new routes to diversify its energy exports. Thus, all three states show an overwhelming preference for strategic goals over economic logic in their relations with the ESC of Central Asia. The results of my application of the model of strategic-oriented policy behaviors, as applied to the ESC of Central Asia, are summarized in Table 20.

Table 20: Model for assessment of the natural gas sector in the ESC of Central Asia

<table>
<thead>
<tr>
<th>Feature</th>
<th>Russia</th>
<th>China</th>
<th>Turkmenistan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy resources perceived as strategically</td>
<td>completely met</td>
<td>completely met</td>
<td>completely met</td>
</tr>
<tr>
<td>important.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy sector crucial to state’s economy.</td>
<td>completely met</td>
<td>mostly met</td>
<td>completely met</td>
</tr>
<tr>
<td>State-owned energy actors perceived as extension</td>
<td>completely met</td>
<td>completely met</td>
<td>completely met</td>
</tr>
<tr>
<td>of state’s apparatus.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reliance on bilateral relations.</td>
<td>completely met</td>
<td>mostly met</td>
<td>completely met</td>
</tr>
<tr>
<td>Zero-sum approach.</td>
<td>completely met</td>
<td>completely met</td>
<td>completely met</td>
</tr>
<tr>
<td>Energy as a state’s tool.</td>
<td>completely met</td>
<td>completely met</td>
<td>mostly met</td>
</tr>
<tr>
<td>Undesirable dependence.</td>
<td>completely met</td>
<td>completely met</td>
<td>completely met</td>
</tr>
<tr>
<td>Emphasis on strategic issues over economic logic.</td>
<td>completely met</td>
<td>completely met</td>
<td>completely met</td>
</tr>
<tr>
<td>Strategic-oriented behavior.</td>
<td>predominant</td>
<td>predominant</td>
<td>predominant</td>
</tr>
</tbody>
</table>

Source: Scheme created for purposes of this book

I conclude that the strategic-oriented approach to energy policy predominates in all three countries: Russia, China, and Turkmenistan. This means that the majority of the states of the Central Asian ESC display a strategic-oriented approach to their energy policies. Therefore, the construction of new infrastructure projects can be understood as a means of maximizing energy security, which is a matter of clear political importance. Energy-related disputes between Russia and Turkmenistan, and China’s rising presence in Central Asia, can be explained by their
preference for strategic-oriented rather than market-oriented energy policies.

The research has shown that the trio of states has predominantly behaved in accord with the strategic-oriented approach to energy policy in connection with the construction of the TCGP. The near-total absence of a market-oriented approach to energy policy in the Central Asian ESC may seem peculiar at first glance. However, that is mostly due to the specifics of the Central Asian ESC and the states that constitute it. They are highly autocratic political regimes that exercise robust control of their respective energy sectors and have adopted a zero-sum worldview. If a similar research project were to focus on another region, for example the European Union, it is quite possible that the predominant approach to energy policy would be very different.

**Discussion**

This book puts forward a theoretical model for analyzing and classifying energy policies of various state actors. In part, it adapted models created by other theoreticians of international relations. This theoretical model was applied to energy policies of the countries of the ESC of Central Asia and their transformation since the fall of the Soviet Union until 2020. My application of the model confirms its viability and its analytical benefits for the classification of the strategic-oriented and market-oriented approaches to energy policy, especially in a closed system like an energy security complex. This is the theoretical contribution of this book.

That said, the use of this model is limited by the fact that it deals with only two ideal types of energy policy: strategic-oriented and market-oriented. Moreover, this book mostly focuses on the hydrocarbon sector of the ESC of Central Asia. The dichotomous approach is mostly possible in countries with hypertrophic hydrocarbon sectors like Russia and Turkmenistan. In countries with more complex energy sectors, a more nuanced approach would be necessary.

There is space for improvement of this model that will permit its wider application. An improved model would also take into account other types of energy besides hydrocarbons, which would really help to test the model’s broader applicability. Other researchers should feel free to apply it to other ESCs. I think it would be beneficial to apply the model to ESCs where the majority of states appear to prefer a market-oriented approach to energy policy.
Both the theoretical model for classification of energy policy that I present and the case studies in this book are framed by another crucial theoretical concept – the regional energy security complex. The novelty of this approach lies not only in the adaptation of the concept of the regional security complex to energy, but also in what is likely its first application to the energy sector of the Central Asian region. The regional security complex concept has been applied to the Central Asian reality in the past, but not the more nuanced and precise concept of the regional energy security complex (ESC). As my work shows, the application of the concept of the ESC is more than suitable for this particular region, which is interlinked by a complex web of energy dependencies.

All in all, my application of the model indicates the viability and usefulness of the ESC concept for use in analyzing the Central Asian reality. The ESC is an isolated system in which other theoretical instruments can be employed as well. This is both its principal benefit and a limitation of the ESC concept. The chief purpose of the construction of a model of an ESC is creating a closed system where researchers can apply other theoretical instruments. A regional ESC is defined by an intense network of positive and negative energy dependencies. However, the interactions inside the system and the energy dependencies of its members can be analyzed by additional theoretical tools. In my case, that meant that the construction of a model of the ESC of Central Asia is only a precursor to further research on the classification of the energy policies of the states of the Central Asian ESC.

The ESC is a flexible framework. As such, it allows for application to other regions and various types of energy resources. This monograph shows that it is best applied to analysis of the regional impact of large-scale energy projects that significantly transform the network of energy dependence of a group of states and state actors. The most logical choice of targets are regional groupings based on export and import of natural gas, because of the geographical and political difficulties of transporting it. Nevertheless, a network of energy dependencies can also be found in connection with other types of energy, such as petroleum and nuclear energy.

The two aforementioned theoretical tools, the ESC and the model of a strategic-oriented energy policy, allowed me to deliver an analysis of the changes in energy security in Central Asia and beyond. The results of my analysis will be of value to anyone who is dealing with Central Asia, Russia, or China, and to those dealing with energy security issues on an academic or state administration level. My findings are just a stepping
stone in the direction of a better understanding of the complex situation of Central Asian energy and the formulation of energy security policies in the region. Other researchers who follow in my footsteps can prove the viability of this particular branch of research.

My experience suggests that the principal theoretical contribution of this book lies in the creation of a robust model for classifying the energy policies of various state actors. I have shown the benefits and profitability of my model by successfully applying it to the newly defined regional energy security complex of Central Asia.

The contribution of this book, then, is in its practical significance for various political stakeholders and decision-makers. This book has shown that Russia, China, and Turkmenistan are pursuing strategic-oriented energy policies and a strategic-oriented approach to energy resources in general. This has implications for all their international counterparts who must deal with the instrumentalization or weaponization of their energy resources. My findings can be the foundation for the formulation of state-level policies and strategies for dealing with energy security, and with Central Asia, Russia, and China.
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