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Transformations of the Central Asian Regional Energy Security Complex after 1991: The Case of the Turkmenistan-China Gas Pipeline

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Annotation

The presented doctoral thesis analyses energy security in the Central Asia region, with an emphasis on the natural gas sector. The research sought to answer the question of whether individual state actors in Central Asia are more inclined towards a strategic-oriented or market-oriented approach to energy policy in the formulation of their respective energy policy. Answering this research question aimed at better understanding the approach of individual state actors to large infrastructure projects, such as the construction of the Central Asia-China Gas Pipeline.

A regional energy security complex of Central Asia was constructed for work purposes. In addition to the five Central Asian states, it also includes Russia and China as two major natural gas importers from the region. Based on theoretical literature, a model for assessing the natural gas sector in terms of the formulation of energy policy by individual state actors was developed. This model was subsequently applied to three case studies of key state actors within the Central Asian regional energy security complex. These are case studies on Turkmenistan, Russia and China.

Applying the model's criteria to individual cases, the research concluded that for all three players in the Central Asian regional energy security complex, a strategic-oriented approach to energy policy formulation prevailed in the studied period after the fall of the Soviet Union. The same was shown in the formulation of each actor's energy policy on the construction of the Central Asia-China gas pipeline. It should be noted, however, that elements of a market-oriented approach to energy policy formulation also manifested themselves, but remained a minority.

Abstract

Předkládaná doktorská práce se zabývá energetickou bezpečností v regionu Střední Asie s důrazem na sektor zemního plynu. Výzkum se snažil zodpovědět otázku, zdali jsou jednotliví státní aktéři ve Střední Asii ve formulaci své energetické politiky více nakloněni strategickému nebo tržnímu přístupu k formulaci energetické politiky. Zodpovězení této výzkumné otázky cílilo na lepší pochopení přístupu jednotlivých státních aktérů k velkým infrastrukturním projektům, jako je stavba plynovodu Střední Asie – Čína.

Pro potřeby práce byl zkonstruován regionální komplex energetické bezpečnosti Střední Asie, do kterého bylo kromě pětice středoasijských států zahrnuto také Rusko a Čína jako dva majoritní importéři zemního plynu z regionu. Na základě teoretické literatury byl poté sestaven model pro posuzování sektoru zemního plynu z hlediska formulace energetické politiky jednotlivých státních aktérů. Tento model byl následně aplikován na tři případové studie klíčových státních aktérů v rámci regionálního komplexu energetické bezpečnosti Střední Asie. Jedná se o případové studie na Rusko, Čínu a Turkmenistán.

Na základě aplikování kritérií modelu na jednotlivé případy výzkum došel k závěru, že v případě všech tří aktérů regionálního komplexu energetické bezpečnosti Střední Asie převažoval ve zkoumaném období po rozpadu Sovětského svazu strategický přístup k formulaci energetické politiky. Totéž se projevilo i při formulaci energetické politiky jednotlivých aktérů v případě výstavby plynovodu Střední Asie – Čína. Je však nutné poznamenat, že se projevovaly i prvky tržního přístupu k formulaci energetické politiky, nicméně zůstaly v minoritě.

Keywords

Turkmenistan, Russia, China, Turkmenistan-China Gas Pipeline, Central Asia-China Gas Pipeline, energy security, regional energy security complex, Central Asia, Belt and Road Initiative

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Declaration

1. I hereby declare that I have written the submitted doctoral thesis individually and used solely the specified academic sources.

2. I also agree that this submitted doctoral thesis shall be available to the public for the purposes of research and study.

In Prague, PhDr. Václav Lídl

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Note on transliteration

The transfer of terms and concepts between different cultures is not only an issue of linguistics but also the knowledge of extra-lingual context is usually necessary. The transliteration of names in the presented study was very challenging especially because of the multidisciplinary nature of the text and its wide territorial overlap. I have been working chiefly with primary and secondary sources available in English and Russian. Considering this, I tried to gather all possible datasets from different ideological and political directions. However, the presented study works not only with English and Russian terms and concepts but it also quite often uses terms in local Turkic and Iranian languages as well as Chinese language. The standard ISO transliterations were used in all the aforementioned cases.

1 Introduction

Research topic

Central Asian region witnessed rising engagement of many external state actors after the fall of the Soviet Empire between 1989 and 1991. Main stimulus for this development was the unique opportunity to gain access to region's mineral wealth. The United States and Russia affirmed themselves as two most important external actors in Central Asia following the events of 11 September 2001. This notwithstanding, the US was continually losing interest in the region after Barack Obama became president in 2009 what culminated in the termination of the mandate of the International Security Assistance Force in Afghanistan and the US drawdown at the end of 2014. Russia and China became principal great powers with interests in Central Asia approximately from that period.

Energy and economic interests of Russia and China significantly overlap in Central Asia. Russia's political elite perceives this region still as the "South" of former Russian Empire or Russian "Near Abroad". For its part, China began to call Central Asia "Chinese Far West". Russia seemingly attempts to bring this region back into its sphere of influence through "integration initiatives" such as the Eurasian Economic Union or the Collective Security Treaty Organization. China, on the contrary, seems to favor concerning Central Asia an "open door policy" and an emphasis on various connectivity projects belonging under the narrative of the Belt and Road Initiative.

The topic of this research is the energy security in the region of Central Asia after 1991. The thesis will thus aim its attention at the system of energy interdependence encompassing Central Asia and major shifts that occurred in this system. The presented study focuses especially on the energy interdependencies in the field of natural gas because dealing with this commodity has significant geopolitical implications due to the technical complexities of its transportation. Natural gas thus represents the best litmus test for probing particular energy interdependencies. From this point of view, Turkmenistan is the most important Central Asian player given its supplies of natural gas and its ability to export followed by Uzbekistan and Kazakhstan.

Russia remained Turkmenistan's main energy partner in the course of 1990s. Moscow, however, was losing this position since the first half of the 2000s and especially since the succession of Turkmenistan's President Gurbanguly Berdimuhamedow in 2006. The commissioning of the first branch of the Turkmenistan-China Gas Pipeline in December 2009 was a tipping point in the relation of Ashgabat to Beijing. China became the principal energy importer from Turkmenistan and consequently established itself as the major economic power in Central Asia.

The presented thesis assumes that China's energy related projects in the region starting in the mid-2000s marked the most significant shift in the energy interdependencies in Central Asia. While the topic of China's rising influence in Central Asia's energy sector is attractive and actual, it is important to say that it has not been studied systematically yet, regardless of its relevance. This is true especially for the Turkmenistan-China Gas Pipeline. As yet, there exist only a handful of academic works dealing with Turkmenistan and its energy sector. My thesis is contribution to the study of the system of energy interdependencies in Central Asia that has yet to be studied in such complexity.

State of research

Principal topic of my research is the system of energy security in the region of Central Asia. Based on rigorous research in primary and secondary data, I have identified that this topic relates to four major scientific debates. At first, there is the debate on energy security, which represents relatively new and promising field of study. The debate on energy security becomes crucial not only from academic perspective but also for formulation of foreign and security strategies by state actors. At second, the debate on formulation of energy policy of various state actors further develops and broadens the first debate on energy security. This discussion represents most significant example of the study of energy security on real-world cases. At third, the debate on regional energy security complexes puts the study of energy security and energy policy formulation in the context of regional systems. Energy security is best traced and analyzed in regional systems of positive and negative energy interdependence. Finally, there is a debate on energy security, energy policy formulation and regional energy security complexes in Central Asia.

Energy security

The issue of energy security is at the heart of the presented research. It is a multidisciplinary field covering as far as engineering, energy systems analysis, earth sciences, economics, technology studies, political science, international relations and security studies. Accordingly, there are several ongoing debates in the discipline of energy security. First, there is the question whether the energy security is only national-level issue or if it is also relevant at other scales such as global, regional, local. Second, it is also discussed whether energy security represents socially constructed concept or an inherent quality of energy systems. Third, there is also the debate whether energy security relates to conventional or also to human security. The presented study will build especially on the first mentioned debate as it aims to further connect the energy security with regional security complexes, a concept initially developed by the Copenhagen school of security studies.

Study of energy security as scientific field is quite recent and thus there is a limited number of energy security literature providing comprehensive overview of this discipline. One of the most complete approaches to energy security represent works of Aleh Cherp and John Jewel. They analyze energy security and energy policy in the historical and scientific context.[1] The debate on the character of energy security was also developed further 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, when it comes to security of supply of energy commodities, was researched by Martha Brill Olcott.[3] She defines the security of energy supply, in its broadest term, as an adequate supply of energy resources for an adequate price. Sanam Haghighi is another important scholar with the focus on energy security, especially in the context of the external relations of the EU. According to her, it is imperative to distinguish between different types of energy resources because the character of energy security is heavily dependent on their qualities. Very splendid is the difference between the global oil market and

[1] Alah Cherp and John Jewel, "The three perspectives on energy security: intellectual history, disciplinary roots and the potential for integration," *Current Opinion in Environmental Stability,* Vol. 3, No. 4 (2011): 202–212.
[2] Benjamin Sovacool ed., *The Routledge handbook of energy security* (Oxford: Routledge, 2011).
[3] Martha Brill Olcott, *Turkmenistan: Real Energy Giant or Eternal Potential?* (Cambridge: Harvard Kennedy School, 2013).

the regionalism of the natural gas market. This distinction stems from more comfortable technical conditions for the transportation of oil than of natural gas.[4] On the other hand, natural gas could be substituted in some industrial sectors by either oil or coal; however, this is not possible vice versa. Therefore, Sanam Haghighi defines security of supply of natural gas as a guarantee that amount of natural gas demanded by the customer would be at disposal for an adequate price.[5]

Barry Buzan demonstrates that energy security can take different forms. It can be for instance a reaction to a real threat, a strategy aimed at avoiding a threat, or a motivation legitimizing specific political goals. Buzan claims that security does not represent a direct consequence of a threat but rather a political articulation of this threat. The way in which the threat is being perceived is thus as crucial for the formulation of foreign policy as the real state of this threat. In this sense, security represents a non-linear reaction to a threat. Buzan called the process of threat perception securitization.[6]

There is general agreement among researchers that there are essentially three kinds of state actors from the viewpoint of energy security. These are producer states, consumer states and transit states. Consumers of energy resources and transit states are seeking to gain availability of sufficient supplies for affordable prices.[7] However, producers of energy resources endeavor to gain secure demand; in other words, they want to secure that customers will purchase their products for adequate prices in the long-term period. This allows producers to formulate their state budget accordingly.[8]

Energy security study also includes significant debate on possible politicization and weaponization of energy resources.[9] States that are using their energy potential as a tool

[4] Tom McDremott and Adam Stulberg. "Global Emergence of Natural Gas, a Complex Systems Analysis." *Procedia Computer Science* Vol. 44 (2015): 66–75.
[5] For more on energy security see: Sanam Haghighi, *Energy Security: The External Legal Relations of the European Union with Major Oil- and Gas- Supplying Countries* (London: Hart Publishing, 2007).
[6] Barry Buzan, Ole Waever and Jaap de Wilde, *Security: A New Framework for Analysis* (Copenhagen: Lynne Rienner, 1998): 95–119.
[7] For more on political implications of energy security see: Daniel Yergin, *The Quest: Energy, Security, and the Remaking of the Modern World* (London: Penguin Press, 2011).
[8] Svante Cornell and Niklass Nilsson eds., *Europe´s Energy Security: Gazprom´s Dominance and Caspian Supply Alternatives* (Singapore: Central Asia – Caucasus Institute and Silk Road Studies Program, 2008): 57–85.
[9] Bertil Nygren, "Using the neoclassical realism paradigm to predict Russian foreign policy behavior as

of foreign policy have, according to Bertil Nygren and Karen Stegen, two kinds of energy weapons – tap and transit weapons. The tap weapon means that an exporting state coerces its customer to behave in a certain way on the basis that if the latter would misbehave, the exporting state would simply shut off its energy supplies.[10] For its part, the transit weapon designates that the transit state would get from the exporter favorable transit fee and responding behavior, otherwise the exporter would not be able to export its commodity at all.[11] Dmitry Trenin has provided evidence that Russia and Turkmenistan were frequently utilizing the tap weapon in their past relations with trading partners.[12]

Based on the previous paragraphs, the presented study will endeavor to step in the ongoing scientific debate on the regionalism of energy security. It will attempt to further work with the concept of regional security complex created by the Copenhagen School as will be shown below and combine it with study of energy security on the case of Central Asia. It will also broaden the scientific debate on the possible politicization and weaponization of energy resources, especially that of natural gas.

Behavioral patterns of state actors in the formulation of energy policy

The debate on the approach of state actors to energy policy represents the most significant energy security discussion in relation to my research. This debate brings forth two specific models of energy policy behavior. These are strategic-oriented approach to energy policy and market-oriented approach to energy policy. The debate has been sparked in early 2000s by researchers such as Michael Klare[13], Gal Luft and Anne Korin[14], or Daniel Moran and James Russel.[15] The presented research confirms the enduring relevance of this debate and its tentative conclusions.

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complement to using resources." *International Politics* Vol. 49 (2012).

[10] Karen S. Stegen, "Deconstructing the energy weapon: Russia's threat to Europe as case study," *Energy Policy,* No. 39 (2011): 6505–6513.

[11] Bertil Nygren, "Putin's Use of Natural Gas to Reintegrate the CIS Region," *Problems of Post-Communism*, Vol. 55, No. 4 (2008): 3–15.

[12] Dmitri Trenin, "Drivers of Russia's foreign policy," In: Kaadri Liik, *Russia's Pivot to Eurasia* (London: European Council on Foreign Relations, 2014): 34–40.

[13] Michael Klare, *The Race for What´s Left* (London: Picador, 2014).

[14] Gal Luft and Anne Korin, "Realism and Idealism in the Energy Security Debate," In: Gal Luft and Anne Korin, eds., *Energy Security Challenges in the 21st Century: A Reference Handbook* (New York: ABC-CLIO, 2009): 335–341.

[15] Daniel Moran and James Russel. *Energy Security and global politics: the militarization of resource management.* (New York: Routledge, 2009).

The strategic-oriented approach to energy policy is heavily based on the assumptions of realist paradigm in political science. The founding father of modern realist paradigm Hans J. Morgenthau claimed that military power as a real or potential threat "represents most permanent material factor influencing political power of nation."[16] In other words, he assumed that there are also material factors in realism other than military power. Morgenthau discussed other factors that influence political might of a nation. It is geography, natural resources, industry, military preparedness, inhabitation, national character, morale, and quality of diplomatic service and governmental institutions.[17] The control and exploitation of natural resources is crucial for the maintenance of industry and as consequence for the strength of military power.

It can be argued that for instance Central Asian states have remarkably increased their power potential because of energy resources located on their territories. States of the Persian Gulf are yet another example of this. The sharp slump of crude oil production in 1973 significantly strengthened their position in the international system. Similarly behaved also Russia in its relations *vis-à-vis* Ukraine and Belarus during the 2000s. This notwithstanding, classical realism is ill-suited for explaining why some states such as Canada or Norway do not use their energy resources as tools of foreign policy or, if they do, they do so very mildly.

In contrast to classical realism, the neoclassical realism includes and addresses different intra-state motives such as state's institutions, ideologies and shared perception of threats by state's elites. Hence, it tries to combine assumptions of realism with elements of constructivism and in this process to eliminate inherent shortcomings of 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 have unquestionably a power character. The more energy resources a state actor possesses, the stronger it becomes. According to Anne Korin, there were some commodities, especially energy resources, minerals,

[16] Hans J. Morgenthau, *Politics among Nations: The Struggle for Power and Peace.* (New York: Alfred A. Knopf, 1948): 51–80.
[17] Ibidem: 51–80.
[18] Gideon Rose, "Neoclassical Realism and Theories of Foreign Policy," *World Politics,* Vol. 5 No. 1 (1998): 144–177.

water, and foodstuffs, which had a strategic value that significantly exceeded their market value and thus were utilized by exporters as foreign policy tools and became a source of military conflicts.[19] Natural gas, according to Phillipe Billon, in this case has a prominent position as it is technically challenging to transport from place to place. The problem of logistics even exacerbates the conflict potential of this commodity.[20]

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

Michael Klare was one of the first researchers who claimed that state actors are approaching natural resources in a strategic way. Strategic-oriented behavior is such activity that does not lead to maximization of profit in the short- or medium-term but seeks to achieve that goal in the long-term period.[22] Above all, this activity downplays, in general, the economic logic of behavior as the primary determining factor of energy policy. According to strategic-oriented approach, actors perceive the energy sector as being too critical and too sensitive area to be managed solely by market forces.[23]

The strategic approach to energy policy as well as the realist paradigm perceives energy policy existing in highly anarchical system of international relations that are primarily determined by allocation of power. Power is in this sense based on material factors and especially energy resources. Among others, Martin Jirušek, Tomáš Vlček and Filip Černoch rigorously unfold the discussion on state actors energy policy formulation. Martin Jirušek also designed models of both strategic approach and market-oriented

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[19] Gal Luft and Anne Korin, "Realism and Idealism in the Energy Security Debate," In: Gal Luft and Anne Korin, eds., *Energy Security Challenges in the 21st Century: A Reference Handbook* (New York: ABC-CLIO, 2009): 335–341.
[20] Phillipe Billon, *The Geopolitics of Resource Wars: Resource Dependence, Governance and Violence.* (London: Frank Cass, 2005): 1–28.
[21] Kenneth N. Waltz, *Theory of International Politics* (New York: McGraw-Hill Higher Education, 1979): 38–60.
[22] Michael Klare, *Rising Powers, Shrinking Planet: The New Geopolitics of Energy*, (New York: Henry Holt and Company, 2008): 25–67.
[23] For more on the strategic approach to the energy resources see: Michael Klare, *The Race for What´s Left* (London: Picador, 2014).

approach to energy policy that are further developed and applied by my thesis.[24]

On the other hand, market-oriented approach to energy policy is in opposition to the previously defined strategic approach. It is based on assumptions of neoclassical and neo-institutional economics and liberal paradigm. According to Morris Adelman, it claims that only market forces are able to effectively allocate energy resources. Energy resources are perceived as any other goods on the market. This approach is primarily founded on the concept of rational actor. Geographical or geopolitical determinants are considered as almost irrelevant.[25] Lynne Chester goes even as far as saying that mere debate about energy security prevents the market from working properly.[26] She thus understands energy security in terms of negative self-fulfilling narrative. Above all, Erin Carter and Pietro Nivola explicitly allege that the use of energy resources as tools of foreign policy is ineffective and scarcely applied.[27] Hence, these two approaches to energy policy represent opposite ideal theoretical models. The reality on the ground is usually more complex and subtle as will be shown in this work.

Energy security complex

Barry Buzan, Ole Waever and Jaap de Wilde firstly elaborated the concept of regional security complex in their book *Regions and Powers: The Structure of International Security*.[28] In this book, they presented the regional security complex of the Post-Soviet Space, which is centered on the Russia. Back then they claim that Central Asia is either a sub-complex in the framework of broader post-Soviet regional complex, or a nascent regional security complex of its own. Buzan *et al.* especially highlighted presence of other powers in this region. These are primarily the US and China.[29] I work further with this concept as it holds Central Asia as full-fledged regional security complex.

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[24] Martin Jirušek, Tomáš Vlček, Filip Černoch et al*, Energy Security in Central and Eastern Europe and the Operations of Russian State-Owned Enterprises* (Brno: Masaryk University Press, 2015).
[25] Morris Adelman, *The World Petroleum Market* (Baltimore: The Johns Hopkins University Press, 1973).
[26] Lynne Chester, „Conceptualizing energy security and making explicit its polysemic nature“, *Energy Policy,* Vol. 38 (2012): 887–895.
[27] Erin Carter and Pietro Nivola, "Making Sense of Energy Independence", In: *Energy Security: Economic, Politics, Strategies and Implication* (Washington D.C., Brookings Institution Press: 2009): 105–116.
[28] Barry Buzan and Ole Weaver, *Regions and Powers: The Structure of International Security* (Cambridge: Cambridge University Press: 2004): 50–70.
[29] Ibidem: 397–436.

Other authors continued to develop the concept of regional security complex and applied it on Central Asia. Ekaterina Klimenko for her part regarded Central Asia as a fully developed regional security complex and not only sub-complex of the Post-Soviet Space.[30] Next, Evgeny F. Troitskiy in his work analyzed how the presence of Russia and the US in the 1990s and 2000s influenced the formation and establishment of the Central Asian regional security complex. He claimed that it was the interaction with these two great powers, which concluded the formation of this complex.[31] Marek Musiol analyzed five securitized topics that link the internal structure of this security complex. These are, namely, water and economic issues; extremism, corruption and degradation of state institutions; the "new great game", geopolitics, oil, gas and transit of resources; drug trafficking; and, finally, environmental and natural challenges. Especially the third topic focusing on the geopolitics of oil and gas is of the utmost importance for my thesis.[32]

The concept of regional energy security complex is even less developed and less frequently applied than the concept of regional security complex. It has been only applied in very few cases. Mikhail Zelensky studied the regional energy security complex of the Baltic Sea Region with special focus on the impact of the Nord Stream Pipeline on the security architecture of this complex. It is in this sense quite similar to the presented study, which again seeks to examine the impact of a pipeline construction on the situation in a regional energy security complex.[33] Jack Sharples for his part applied the concept of regional energy security concept on the case of bilateral energy trade relationship of Russia and Poland. He also added to this complex Belarus, Germany, and Ukraine as transit states.[34]

As visible from the overview of aforementioned authors, the tool of regional energy security complex is quite new and underused in spite of its promising nature, including

[30] Ekaterina Klimenko, "Central Asia as a Regional Security Complex," *Central Asia and the Caucasus,* Vol. 12, No. 4 (2011): 7–20.
[31] Evgeny F. Troitskiy, "Central Asian Regional Security Complex: The Impact of Russian and US Policies," *Global Society,* Vol. 29, No. 1 (2014): 2–22.
[32] Marek Musiol, "Post-Soviet Central Asia as Unique Regional Security Complex," *The Polish Quarterly of International Affairs,* No. 24, Vol. 4 (2015): 59–68.
[33] Mikhail Zelensky, *Changing the Energy Security Balance in the Baltic Sea Region: Building Regional Energy Security Complex and Community. Nord Stream Gas Pipeline Case Study* (Tampere: University of Tampere, 2009).
[34] Jack Sharples, "Russo-Polish energy security relations: a case of threatening dependency, supply guarantee, or regional energy security dynamics?" *Political Perspectives,* Vol. 6, No. 1 (2012): 27–50.

creation of closed systems suitable for further research. Moreover, this concept appears to have never been consistently applied on the Central Asian region. Hence, my application represents an attempt at a new step in the building of academic knowledge on both the regional energy security complexes and the Central Asian region. In this manner, my research further connects the aforementioned theoretical instruments with applied knowledge on Central Asia.

Energy security in Central Asia

Although the presented research is utterly novel in bringing Central Asia into the debate on energy security complexes, the general debate on energy security in Central Asia was covered by several authors and from different perspectives already in the past. The issue of energy security as a theoretical concept, however, appears to have never played central part of research. Energy security was, if at all, used rather for explanatory and argumentative purposes in order to focus on international economic or political relations among individual states in the region.

Marléne Laruelle[35] as well as Sebastien Peyrouse[36] focused their research on the impacts of rising economic and political influence of China in Central Asia on the energy security of particular states and this region in general. They claim that China's turn to Central Asia since the early 2000s will have significant impact on the regional economic and political dynamics. Alexandros Petersen[37] and James Coomarasamy[38] for their part perceived the People's Republic of China as the main US and Russian rival in Eurasia, with Beijing gradually becoming the most active player in Central Eurasia. Petersen claimed that the reason behind this rising involvment be China's bid for domination in Eurasia.[39] This notwithstanding, all mentioned authors believe that in the beginning of China's rapprochement with Central Asia stood the issue of energy security of China itself.

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[35] Marléne Laruelle and Sebastiene Peyrouse, *China as a Neighbor: Central Asian Perspectives and Strategies* (Washington D.C.: Central Asia-Caucasus Institute and Silk Road Studies Program, 2009).
[36] Sebastiene Peyrouse, *Economic Aspects of the Chinese-Central Asia Rapprochement* (Washington: Central Asia-Caucasus Institute and Silk Road Studies Program, 2007): 46–69.
[37] Alexandros Petersen, *The World Island: Eurasian Geopolitics and the Fate of the West* (New York: Praeger, 2011): 10–36.
[38] Jamie Coomarasamy, "China's Westward Pivot: What It Means for Central Asia and Russia," *Mediterranean Quarterly,* Vol.20, No.9 (2014): 48–59.
[39] Alexandros Petersen, "Narodnaya respublika prevrashaetsya v imperiyu." *Pro et Contra* Vol. 1–2, No. 58 (2013): 10-36.

My thesis does not want to only push further the debate on the rising economic presence of China in Central Asia but it also aims to broaden the debate on energy security of the most important energy player in Central Asia – Turkmenistan. Anette Bohr[40] thoroughly analyzed the energy complex of Turkmenistan. She focused her attention on the interconnections between Turkmenistan's gas sector and internal politics of this state. The gas sector, according to her, represents the backbone of Berdimuhamedow's regime. It is the prime source of Turkmenistan's foreign policy. Luca Anceschi[41] among others studied the formulation of foreign and energy policies of Central Asian states and their overlaps. He argues that when speaking of Turkmenistan, the foreign, internal and energy policies are almost inseparable. In addition, the issue of energy security primarily influences all of them. Shamil Yenikeyeff[42] and Marta Brill Olcott[43] have also significantly contributed to the debate on the energy security of Turkmenistan and other Central Asian states. They regarded the striving for security of energy supplies and security of energy exports as crucial factor determining the behavior of Central Asian states as well as China and Russia.

The two aforementioned scientific debates on rising economic presence of China in Central Asia and energy security of Turkmenistan are directly linked to the third one, on the geopolitics of transportation in Central Eurasia. This debate is especially influenced by the works of Frederick S. Starr[44] and Alexandros Petersen[45]. This debate is in general again very strongly centered on the issue of energy security but it more significantly incorporates political and geographic factors. Both Starr and Petersen have always had in mind the heartland–pivot theory and thus they understand the significance of energy infrastructure in Central Asia accordingly. Similarly, the importance of new energy corridors in Central Eurasia was emphasized by Stephen Blank[46] and Richard

[40] Annette Bohr, *Turkmenistan: Power, Politics and Petro-Authoritarianism* (London: Chatham House – Russia and Eurasia Programme, 2016): 20–35.
[41] Luca Anceschi, "Analyzing Turkmen Foreign Policy in the Berdymuhammedov Era," *China and Eurasia Forum Quarterly,* Vol. 6, No. 4 (2008): 35–48.
[42] Shamil Yenikeyeff, "Energy Interests of the 'Great Powers' in Central Asia: Cooperation or Conflict?" *The International Spectator,* Vol. 46, No. 3 (2010): 61–78.
[43] Martha Brill Olcott, *Turkmenistan: Real Energy Giant or Eternal Potential?* (Cambridge: Harvard Kennedy School, 2013): 62–72.
[44] Frederick S. Starr, "Looking West: China and Central Asia," *US-China Economic and Security Review Commission,* 18 March 2015.
[45] Alexandros Petersen, *Russia, China and the Geopolitics of Energy in Central Asia* (London: Centre for European Reform, 2011): 89–108.
[46] Stephen Blank, "Chinese energy policy in Central and South Asia," *The Korean Journal of Defense Analysis,* Vol. 21, No. 4 (2009): 435–453.

Pomfret[47], who consider the renewed interest in Central Asian energy since the Soviet collapse as a game changer in relation to energy security of all the regional states as well as adjacent great powers – China, Russia, India, Iran or Turkey.

As was showcased in the previous paragraphs, the three most important ongoing scientific debates on energy security in Central Asia include the debate on rising economic presence of China in the region, the debate on energy security of individual state actors in the region, and the debate on the geopolitics of transportation in Central Asia. The presented thesis aims to follow in steps all these three debates. The energy security of particular states of the region represents the gist of this research. The same is true also for the issue of the rising influence of China in Central Asian economies, which is strongly connected to new energy infrastructure projects in this region. Moreover, it was mentioned in the beginning of this subchapter that the issue of energy security plays only a collateral or explanatory role in all the three aforementioned debates and that it almost never plays central role. My thesis contribution lies in putting the energy security issue into central position of my research on Central Asia.

Research design

My research 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). Henceforth, it works with one overarching research question that deals with the environment and actors inside the ESC. The research question is as follows: What is the predominant approach to energy policy among the actors of the regional energy security complex of Central Asia?

The research question asks about the predominant approach to energy security of the actors of this respective ESC. There could be two major behavioral patterns of actors in the ESC from the point of view of energy policy. It could be either market-oriented behavior focused on maximization of profit, or strategic-oriented behavior focused on maximization of energy security of particular actors inside the ESC. On the one hand, if the market-oriented behavior is in majority in the ESC of Central Asia, it means that the construction of new infrastructure such as the TCGP can be

[47] Richard Pomfret, *The Central Asian Economies since Independence* (Princeton: Princeton University Press, 2014).

interpreted in terms of market competition and so it has virtually no political implications. On the other hand, if the strategic-oriented approach is prevailing in the ESC of Central Asia, the construction of new infrastructure projects can be interpreted in terms of the maximization of energy security and hence it has clear political overlaps. In this way, my research endeavors to interpret energy-related disputes between Russia and Turkmenistan or China's rising presence in Central Asia in terms of their approach to energy policy.

I address the research question through combination of security studies and realist paradigm. Based on this combination, I will create a model of strategic-oriented behavior and consequently apply it on the case studies of the three key actors involved in the ESC of Central Asia.

Theoretical framework

The previous subchapters presented the topic of research, its relevance vis-à-vis the most important academic debates on energy security in Central Asia, and the research question. Based on these assumptions, the following subchapter will present the theoretical framework of the presented research. This subchapter will create a theoretical model for analyzing the behavioral patterns of the individual state actors from the point of view of the study of energy security. At second, the thesis defines the regional energy security complex of Central Asia based on the findings of the Copenhagen school of security studies and its followers.

Strategic-oriented approach vs. Market-oriented approach

The presented thesis attempts to create its own model for the study of natural gas sector in order to answer the research question on the character of relations among the actors of the ESC of Central Asia. This theoretical model relies on the *strategic approach* to energy policy, which is based on the assumptions and conclusions of the realist paradigm. Hence, there will be firstly presented the principal features of realist paradigm, then the strategic-oriented approach to energy policy, and finally, the model of assessment of natural gas sector that is to be applied in the further course of the presented research. It has to be also emphasized that this presented model follows

up on the model used in the research undertaken by Martin Jirušek in 2015.[48]

Realism, which represents a foundation of strategic approach to energy policy, is based on three core assumptions. Firstly, anarchy is unequivocally predominant. Order, justice and morality are not a rule but rather an exception. Political power is the single one decisive factor in every interaction within the system. Secondly, the basis for social reality is a group. Individual groups are in conflict by virtue of their very nature. It does not have to be necessarily national states, which are predominant at present. In the past, the predominant groups were for instance tribes or empires. Thirdly, considerations of power and security are predominant in human motivation.[49]

Furthermore, realist paradigm assumes that energy resources play an indispensable role in the external policies of states and have unquestionable power character. The more energy resources a state actor possesses, the stronger it becomes. It is necessary to add of course that this conclusion comes hand in hand with the assumption that the state actor is capable of extraction and transportation of these resources and that there will exist a demand.[50] The competition between states is based on the human nature that is aggressive and selfish.[51] Exporters and transit states are trying to harness energy resources and gain more power while importers are seeking to gain control over the energy resources. Interstate relations are thus perceived as a zero-sum game.[52]

In the framework of neoclassical realism, two factors influence international politics the most. These are relative power of state and perception of this relative power by its ruling elite. Leaders of states, and not states *per se*, are the principal actors in international relations. Hence, this system is being created by leaders of individual states.[53] The neoclassical realism distinguishes, according to Robert Gilpin, two basic types of power – national power and state power. National power is often described as

[48] Martin Jirušek, Tomáš Vlček, Filip Černoch et al, *Energy Security in Central and Eastern Europe and the Operations of Russian State-Owned Enterprises* (Brno: Masaryk University Press, 2015).
[49] Robert G. Gilpin, *The Richness of the Tradition of Political Realism,* In: Keohane Robert O. Neorealism and its Critics (New York: Columbia University Press, 1986): 287–304.
[50] Jeffrey W. Legro and Andrew Moravcsik, „Is Anybody Still Realist?“ *International Security,* Vol. 24, No. 2 (1999): 5–55.
[51] John Agnew, *Geopolitics: Re-visioning World Politics,* (London: Routledge, 2003): 69–75.
[52] Kenneth N. Waltz, *Theory of International Politics* (New York: McGraw-Hill Higher Education, 1979):38–60.
[53] Ibidem: 144–177.

the military power of the individual state, but it is somewhat an aggregation of various material factors such as GDP, share in the world trade, and number of inhabitants. State power represents the capability of state institutions to utilize national power to its ends. In other words, a state with smaller national power could be capable of harnessing more massive state power due to its better functioning internal structure and organization. On the contrary, a state with more substantial national power could harness smaller state power for its foreign policy due to its less efficient internal structure.[54]

In this regard, the difference between national and state power is of utmost importance. Hence, it is far easier to transfer energy resources from the level of national power to the level of state power in those states where state institutions directly control vital enterprises and firmly regulate the energy market. In fact, especially non-democratic states such as Russia or China effectively utilize energy resources in their foreign policies with the aim to project their power far behind their national territory, as argued Michael Wesley.[55] Only under the condition that energy resources lose their strategic importance is it possible to perceive them solely through the lens of market mechanisms. Basic assumption of realist paradigm are exemplified in Table 1.[56]

[54] Robert Gilpin, *War and Change in World Politics* (London: Cambridge University Press, 1983): 1–23.
[55] Michael Wesley, *Restless Continent: Welth, Rivarly and Asia´s New Geopolitics* (Sydney: Black Inc., 2015): 210–232.
[56] Table 1.

Table 1: Basic assumptions of realist paradigm

Power is the single one decisive factor in every interaction in the anarchical international system.
States represent the principal units of social reality. Individual states are in conflict because of their nature.
Issues of power and security are predominant in human motivation.
Interstate relations are perceived as a zero-sum game.
Military power represents most permanent material factor influencing political power of nation. The control and exploitation of natural resources is crucial for the maintenance of industry and as consequence for the strength of military power.
It is uprooted in the logic of classical geopolitics. State involvement in the energy sector is crucial. Market forces are not seen as reliable, state actors aim at maintaining control over resources and supply routes.
Energy resources seen as tools and reasons for potential conflict.
Importance of inner process within states, especially the self-perception of state representatives.
Stresses the difference between national and state power.
Power is the single one decisive factor in every interaction in the anarchical international system.

My scheme created for the purposes of this research.

The realist paradigm and its findings translate into the study of energy security in the form of the strategic-oriented approach to energy policy. Application of this model on studied phenomena works with assumption that energy sector is strategically sensitive area. States perceive engagement as crucial for national survival. Hand in hand with this consideration goes a notion that such a sensitive area cannot be let managed only by market forces. This consideration leads to efforts of state actors to directly or indirectly dominate these strategic areas e.g. resource nationalism.[57] The strategic approach to energy policy assumes that both exporters and importers aim to gain control over energy deposits. This entails a significant conflict potential.[58]

[57] Martin Jirušek, Tomáš Vlček, Filip Černoch et al, *Energy Security in Central and Eastern Europe and the Operations of Russian State-Owned Enterprises* (Brno: Masaryk University Press, 2015).
[58] Michael Klare, *The Race for What's Left* (London: Picador, 2014): 50–68.

Some states such as Russia, Iran or Venezuela sell their energy resources to select customers for significantly lower prices than the market price. Hence, their goal is for instance to strengthen their influence in target countries or to strengthen their own security. A blatant example of this sort of approach was, according to Carol Saivetz, the formulation of prices for natural gas between Russia and some post-Soviet countries in the 2000s.[59] This is not to say that all exporters of energy resources prefer geopolitical gains to the maximization of profit. However, it is necessary to stress that the power of the individual state is not based exclusively on its economic power but also on other geographical, political or cultural factors. Martin C. Spechler convincingly showed this link.[60]

If we consider energy sector in isolation, the last decades have shown that the majority of states keep control of their national companies in this strategic sector of the economy. In the case of examined states – China, Russia and Turkmenistan as well as other states of the ESC of Central Asia – individual states control directly or indirectly almost all key energy enterprises, based on evidence from Anders Aslund.[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 controlled 85 percent of the world's petroleum reserves.[62]

The *market-oriented approach* to energy policy represents complete opposite to strategic-oriented approach. Morris Adelman presumes that only market forces are able to effectively allocate energy resources and thus using them as tools of foreign policy is quite ineffective.[63] Having this in mind, it has to be emphasized that both the market-oriented approach and the strategic-oriented approach to energy policy represent only an ideal model for the purpose of academic analysis. In a real world situation, it is usually mixed in various proportion. In general, the two presented models represent

[59] Carol R. Saivetz, "The ties that bind? Russia's evolving relations with its neighbors," *Communist and Post-Communist Studies*, Vol. 45, No. 3–4 (2012): 401–412.
[60] Martin C. Spechler, "Why Does China Have No Business in Central Asia?" *China and Eurasia Forum Quarterly*, Vol. 7, No. 2 (2009): 569–584.
[61] Anders Aslund, *How Capitalism Was Built: The Transformation of Central and Eastern Europe, Russia, and Central Asia* (New York: Cambridge University Press, 2007): 182–206.
[62] Antonio Marquina, "Antonio Marquina on the Deceit of Globalization, Energy Security and Challenges to European Foreign Policy," January 13, 2009, www.theory-talks.org/search/label/Energy20Security.
[63] Morris Adelman, *The World Petroleum Market* (Baltimore: The Johns Hopkins University Press): 1973.

the dichotomy between state-guided and market-guided approach to energy policy.[64] This dichotomy is exemplified in Table 2.[65]

Table 2: Strategic-oriented approach and Market-oriented approach

	Strategic-Oriented Approach	**Market-Oriented Approach**
Theoretical basis.	Realist paradigm and classical geopolitics.	Liberal paradigm, neoclassical and neo-institutional economic.
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 inter-state relations.
Management of energy resources.	Scarcity, which leads to resource nationalism and state interference.	Market ensures efficient and relevant 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 for absolute victory.
Style of international relations.	International relations founded on bilateral relations.	Cooperation with international organizations, multilateral relations.
Positioning of actors in the international system.	States as the only relevant actors.	Multiple influential actors including firms, international organizations, interest groups.
Role of the market.	High risk of market failure.	Supplies allocated effectively without state interference.
Positioning of energy resources.	Subject to strategic interests of the state.	Common market commodity.
Future development.	Possible conflict over energy resources and transit infrastructure.	Scarcity of resources is best solved by cooperation among participating actors in the system.

My scheme based on: Martin Jirušek, Tomáš Vlček, Filip Černoch et al, Energy Security in Central and Eastern Europe and the Operations of Russian State-Owned Enterprises (Brno: Masaryk University Press, 2015).

[64] Martin Jirušek, Tomáš Vlček, Filip Černoch et al, *Energy Security in Central and Eastern Europe and the Operations of Russian State-Owned Enterprises* (Brno: Masaryk University Press, 2015).
[65] Table 2.

Theoretical model for assessment of natural gas sector

The presented model for assessment of natural gas sector is based on the assumptions of realist paradigm, the concepts of strategic and market-oriented approaches to energy policy as well as on the previous works published by Martin Jirušek and his colleagues. I applied the indicators defining the strategic approach to energy policy on three case studies of the most prominent state actors in the ESC of Central Asia from the point of view of construction of the Turkmenistan-China Gas Pipeline – People's Republic of China, Russia and Turkmenistan. The case studies were divided into four subchapters defined in line with the various indicators of the strategic-oriented approach. These are energy resources and energy infrastructure of particular state actors; internal energy policy of actors such as energy enterprises or state institutions; energy policy course defined by each state actor; and energy policy course followed by each state actor concretely vis-a-vis the region of Central Asia. My approach is exemplified in Table 3.[66]

The indicators of strategic-oriented approach were searched for in primary and secondary sources. It should be stressed that this model is especially formed with having in mind the situation in the natural gas sector. Hence, its use in other ESCs has to be preceded by an analysis of the energy interdependencies in the particular ESC. The principal purpose of the application of this theoretical model on the state actors constituting the ESC of Central Asia is to find out the actors' prevailing approach to energy policy in this ESC. Consequently, this model will also show what was prevailing approach of the involved actors regarding the construction of the Turkmenistan-China Gas Pipeline and its influence on the transformations of the ESC of Central Asia.

[66] Table 3.

Table 3: Energy policy defined by Strategic-oriented approach

Subtopic	**Feature**	**Indicator**
Energy resources	Energy resources perceived as strategically important.	Efforts to take control of energy resources, transit routes and distribution networks.
	Energy sector crucial for state's economy.	State's efforts in controlling the energy sector as it is considered strategically important for economy.
Energy actors	State-owned energy actors perceived as extension of state's apparatus.	Efforts to transfer as much as possible of national power into state power. State-owned energy actors playing role of principal footholds of internal political status quo.
	Reliance on bilateral relations.	Preference for long-term bilateral agreements and diminishing the importance and influence of multilateral regimes.
Energy policy	Zero-sum approach.	Efforts to gain a dominant market position. Efforts to eliminate competitors.
	Energy as a state's tool.	Active support of state-owned energy enterprises and their activities in a respective country. The foreign supplier rewarding certain behavior. Abusing infrastructure to exert pressure on other state actors.
Energy policy in CA	Undesirable dependence.	Attempts to control the entire supply chain regardless of commercial rationale.
	Emphasis on strategic issues over economic logic.	Taking economically irrational steps in order to maintain certain position on other state actor's market.

My scheme based on: Martin Jirušek, Tomáš Vlček, Filip Černoch et al, Energy Security in Central and Eastern Europe and the Operations of Russian State-Owned Enterprises (Brno: Masaryk University Press, 2015).

Construction of the energy security complex of Central Asia

The regional energy security complex of Central Asia (ESC) has to be constructed in order to answer the research question. It is not possible to analyze behavior of the actors inside the ESC without constructing it in the first place. Moreover, the construction of the ESC allows to apply other theoretical instruments and models such as the model for the assessment of the natural gas sector that I have created for this study.

One of the core concepts of the Copenhagen school of security studies is the definition of four levels of international politics. These levels are the international system, the regional subsystem, the national unit and the sub-national unit. According to the Copenhagen school, the most important level for the examination of international relations is the regional subsystem – this can be for instance the Middle East, Europe, or South Asia. This is because the majority of threats occur in regional subsystems. Hence, security dependence usually concentrates into local units called regional security complexes.[67]

Regional security complexes can be perceived as groups or clusters of security dilemmas concentrated onto a geographically delineated territory.[68] However, the regional energy security complexes are much more convenient for the presented study. They are very similar to the previous type, but their primary binders are relations based on energy and economic dependence, which state elites perceive as a potential threat. Regional energy security complex thus represents a geographical area where harmful energy dependencies are concentrated.[69] In line with Buzan, my work assumes that these complexes can be perceived as mini-systems where other international relations theories, concepts and models can be applied.[70]

Already Buzan defined the regional security complex of the Post-Soviet Space, which is centered on the Russia Federation. He conceives Central Asia as a sub-complex in this framework of broader post-Soviet regional complex or as a nascent regional security complex of its own.[71] This regional security complex fulfills all the four criteria set by the Copenhagen school for being considered full-fledged complex of its own. These criteria are clear boundary, anarchic structure, polarity of power, and social construction of amity and enmity patterns.

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[67] Barry Buzan and Ole Weaver, Regions and Powers: The Structure of International Security (Cambridge: Cambridge University Press: 2004): 57–70.
[68] Ibidem: 57–70.
[69] David Lake and Patrick M. Morgan, *Regional Orders: Security in the New World* (University Park: Pennsylvania State University Press, 1997): 20–68.
[70] Barry Buzan, Ole Waever and Jaap de Wilde, *Security: A New Framework for Analysis* (Copenhagen: Lynne Rienner, 1998): 57–70.
[71] Barry Buzan and Ole Weaver, *Regions and Powers: The Structure of International Security* (Cambridge: Cambridge University Press: 2004): 57–70.

Post-Soviet Central Asia consists of five state actors – Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. Hence, the boundaries of this regional security complex are clear and functional. The criterion of anarchic structure means that the regional security complex must have more than two autonomous units. In the case of regional security complex of Central Asia there are five autonomous units in it. The criteria of the polarity of power means that there is no clear hegemonic power in the complex, which is also correct for Central Asia. Finally, there is the criterion that amity and enmity patterns exist among the state actors creating the complex. These patterns are socially constructed. This is also correct about the region of Central Asia as will be shown in this study. Hence, it is justifiable to construct a regional security complex of Central Asia. However, the presented research deals primarily with the issue of energy security and therefore it attempts to work with the concept of the regional energy security complex (ESC).

In order to construct the ESC of Central Asia it is necessary to replenish the regional security complex of Central Asia with the addition of two neighboring great powers – Russian Federation and the People's Republic of China. China and Russia are subsumed into this energy security complex as two principal importers of energy resources from the region. China and Russia are also the most important trade partners of all Central Asian states as illustrated by Tables 4–10. In all these cases, trade with energy resources represents significant portion of their mutual trade. For instance, Kazakhstan's two most important trade partners as for trade turnover in 2017 were Russia (18.1 %) and China (18.4 %). Uzbekistan's two most important trade partners as for trade turnover in 2017 were also Russia (20.6 %) and China (13.5 %). As for Turkmenistan, its main export partner in 2017 was China with 71 % of export.[72]

[72] The International Trade Centre, www.intracen.org.

Table 4: Proven natural gas reserves, in tcm (2007–2018)

Year	Russia	Turkmenistan	China	Kazakhstan	Uzbekistan
2007	31.1	2.3	2.3	1.3	1.2
2008	31.4	7.3	2.8	1.3	1.2
2009	31.4	7.3	2.9	1.3	1.1
2010	31.5	10.2	2.8	1.3	1.1
2011	31.8	17.5	3	1.2	1.1
2012	32	17.5	3.2	0.8	1.1
2013	32.3	17.5	3.5	0.9	1.1
2014	32.4	17.5	3.7	0.9	1.1
2015	32.3	17.5	4.8	1	1.1
2016	32.3	17.5	5.4	1	1.1
2017	38.9	19.5	6.1	1	1.2
2018	38.9	19.5	6.1	1	1.2

Source: BP

Table 5: Production of natural gas, in bcm (2007–2018)

Year	Russia	Turkmenistan	China	Kazakhstan	Uzbekistan
2007	592	65.4	71.6	13.8	58.2
2008	601.7	66.1	83.1	16.1	57.8
2009	527.7	36.4	88.2	16.5	55.6
2010	588.9	42.4	99.1	17.6	54.4
2011	607	59.5	109	17.3	57
2012	592.3	62.3	111.8	17.2	56.9
2013	604.7	62.3	122.2	18.4	56.9
2014	581.7	67.1	131.6	18.7	57.3
2015	575.1	69.6	136.1	19	57.7
2016	579.4	66.8	138.4	19.9	62.8
2017	635.6	58.7	149.2	23.4	53.4
2018	669.5	61.5	161.5	24.4	56.6

Source: BP

The local state actors are either primary exporters of energy resources – Turkmenistan, Kazakhstan, Uzbekistan, or transit states – Kyrgyzstan, Tajikistan. Hence, all states belonging to this regional energy security complex perceive their dependence

on predominant exporter or importer as a potential threat.[73] Precisely the perception of energy dependence as a potential threat binds this complex together and allows for its examination.

Table 6: Trade volumes between Kazakhstan, Russia and China (2012–2017)

Kazakhstan (mil USD)	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
RF import	6 747.2	5 875.3	6 388.5	4 547.5	3 509.2	4 515
RF export	17 110.5	17 971.8	13 807.7	10 529.3	9 129.8	11 473
CN import	16 484.4	14 373.7	9 799.4	5 480.1	4 214.9	5 777.9
CN export	7 497.7	8 364.5	7 357.2	5 087.8	3 665.7	4 692.2

Source: The International Trade Centre

Table 7: Trade volumes between Turkmenistan, Russia and China (2008–2017)

Turkmenistan (mil USD)	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
RF import	100.1	45	148	142.6	183.8	139.4	90.9	71.3	331.2	83
RF export	809	999	717.5	1 116	1 211	1 430	1 138	843.9	570.6	343
CN import	28.4	38.5	1 045	4 693	8 673	8 893	9 516	7 828	5 563	5 933
CN export	801.9	915.7	525.1	784.1	1 699	1 138	954.3	815.5	338.5	361

Source: The International Trade Centre

Table 8: Trade volumes between Uzbekistan, Russia and China (2012–2017)

Uzbekistan (mil USD)	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
RF import	1 390.8	1 256.9	869.8	575.8	761	1 010
RF export	2 324.7	2 803.9	3 113.6	2 221.9	1 965	2 620
CN import	1 091.8	1 938	1 597.9	1 267.1	1 607	1 400
CN export	1 783.3	2 613.4	2 678.2	2 228.8	2 007.5	2 721

Source: The International Trade Centre

[73] Anita Orban, *Power, Energy and the New Russian Imperialism* (Santa Barbara: Praeger Security International, 2008: 33–166.

Table 9: Trade volumes between Tajikistan, Russia and China (2012–2017)

Tajikistan (mil USD)	2012	2013	2014	2015	2016	2017
RF import	68.3	37.9	37.3	52.2	26.4	24.6
RF export	679	724	891	763	662	687
CN import	108.8	88.8	47.7	52	31.3	45.8
CN export	1 747.9	1 869.4	2 468.3	1 795.4	1 725	1 301

Source: The International Trade Centre

Table 10: Trade volumes between Kyrgyzstan, Russia and China (2012–2017)

Kyrgyzstan (mil USD)	2012	2013	2014	2015	2016	2017
RF import	219.1	152.7	122.3	157.3	145.2	269
RF export	1 784.6	1 989.2	1 779.8	1 271.6	799.8	1 360
CN import	61.4	39	32.8	35.9	79.7	82.9
CN export	1 210.3	1 432	1 098.5	1 029	1 464.9	4 460

Source: The International Trade Centre

Methodology

The following subchapter endeavors to step-by-step explain the methodological framework of my thesis. At first, I defined the subject matter as the changing energy security in Central Asia after the dissolution of the Soviet Union in 1991. The choice of this broader topic emanates from my previous academic works and areas of interest. The relevance of this topic was consequently verified through an inquiry of the four most important academic debates connected to it. This analysis dealt especially with the most relevant secondary academic literature to all four debates. These debates are the debate on energy security, the debate on formulation of energy policy, the debate on regional energy security complexes and the debate on energy security in Central Asia.

My thesis aspires to contribute to all four aforementioned debates. As for the debate on energy security, the presented research steps especially in the debates on regionalism of energy security as well as in the debate on possible politicization and weaponization of energy resources. The debate on behavioral patterns of state actors in formulation of energy policy is at core of my research. I will have created the models of strategic-oriented and market-oriented approach to energy policy and apply them on gathered datasets. Furthermore, the debate on regional energy security complexes is quite new

and still underdeveloped in the available scholarship. The concept of the ESC appears to have never been applied on the Central Asian region before. Hence, this application represents a step in the further building of academic knowledge as I show both possibilities and limits that this approach offers.

Finally, the scientific debate on energy security in Central Asia splits into three most important subgroups. These are the debate on China's rising economic influence in the region, the debate on energy security of particular Central Asian states, and the debate on geopolitical significance of energy transportation in Central Eurasia. My work follows up all three debates and moreover it is novel in that it clearly emphasizes the energy security issue. The fact that this research encompasses all the aforementioned scientific debates on energy security in Central Asia further highlights its academic and also political relevance.

The presented study will focus especially on the energy interdependencies in the field of natural gas. This is because dealing with natural gas has significant geopolitical implications due to the technical complexity of its transportation. Natural gas is the litmus test for probing particular energy interdependencies. From this point of view, Turkmenistan is the most important Central Asian player in natural gas measured by its supplies of natural gas and its ability to export.

The energy security of Turkmenistan was influenced the most by the construction of the Turkmenistan-China Gas Pipeline in the period from 1991. The issue of this pipeline construction connects the presented research to the academic debates on the energy security in Central Asia explained in previous paragraphs. Moreover, the analysis of impact of a pipeline implementation on energy security of particular state actor conditions more regional approach. Energy security of energy exporter such as Turkmenistan critically depends on its importers. Hence, this is the reason why the presented research heavily works with the concept of the regional energy security complex of Central Asia. It includes into this complex all the five Central Asia states – Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan – as well as two most important neighboring great powers and energy importers – China and Russia. It has to be also stressed that this regional energy security complex is mostly analyzed through the interdependencies in the gas sector because of the topicality of the presented

thesis and also because of the necessity to narrow the researched phenomenon.

Based on the aforementioned scientific debates and the discussion on the topic of research, one general overarching research question was presented. The research question is, "What is the predominant approach to energy policy among the actors of the regional energy security complex of Central Asia?" The answering of the research question will allow us to understand basic behavioral patterns of the individual actors of the Central Asian ESC. Consequently, the research builds on the behavioral patterns and analyzes how these patterns influence the relations among individual actors of the ESC.

The answering of the research question firstly conditions construction and definition of the energy security complex of Central Asia that is defined in Chapter 1, part on theoretical framework of research. The definition of this ESC is based on the concepts of security studies. Then, in order to answer the research question on the predominant approach to energy policy among the actors of the ESC of Central Asia, it is necessary to determine behavioral patterns of the actors of the ESC of Central Asia. There are two most prominent behavioral patterns of state actors from the point of view of energy security. It could be either market-oriented behavior focused on maximization of profit, or strategic-oriented behavior focused on maximization of energy security of particular actors inside the ESC.

Based on this combination, I created a model of strategic-oriented behavior that was consequently applied on the case studies of actors involved in the ESC of Central Asia. This model was created on the basis of security studies and realist school of international relations. Aforementioned model was applied on three case studies of three most important actors of the ESC of Central Asia from the point of view of natural gas – Russia, China and Turkmenistan. Moreover, these three states are also the most confronted with the aftermath of the Turkmenistan-China Gas Pipeline construction. Hence the method of this research is a multicase study consisting of three case studies of energy security and energy policy formulation of Turkmenistan, Russia and China. The market-oriented approach to energy policy is defined as an opposite ideal model to the strategic-oriented approach against which the natural gas sectors of the chosen three state actors are assessed. Hence, if the actors are not behaving

according to the strategic-oriented approach, they are assumed to behave according to the market-oriented approach.

The research question will be answered based on the criteria set by the model on the assessment of the natural gas sector i.e. perception of energy resources as strategically important; perception of energy sector as crucial for state's economy; perception of state-owned energy actors as extension of state apparatus; reliance on bilateral relations; perception of energy sector as state's tool; zero-sum approach; undesirable dependence; emphasis on strategic issues over economic logic.

These criteria will be searched for in the three already mentioned case studies on Russia, China and Turkmenistan as visible in Table 11.[74] On the other hand, it has to be stressed that the research could could have arrived to a conclusion that the actors of the ESC were predominantly behaving according to the strategic approach to energy policy but in the case of the construction of the TCGP they behaved according to market-oriented approach. Moreover, it can be also concluded that some actors behaved according to strategic approach and some behaved according to market-oriented approach.

[74] Table 11.

Table 11: Operationalization of the theoretical model for assessment of the natural gas sector

Criterion		
Energy resources perceived as strategically important.	✓	×
Energy sector crucial for state's economy.	✓	×
State-owned energy actors perceived as extension of state's apparatus.	✓	×
Reliance on bilateral relations.	✓	×
Zero-sum approach.	✓	×
Energy as a state's tool.	✓	×
Undesirable dependence.	✓	×
Emphasis on strategic issues over economic logic.	✓	×
Behavior model	**Strategic-oriented approach**	**Market-oriented approach**

My scheme created for the purposes of this research.

Data

The fact that my thesis analyzes relatively understudied phenomenon predetermines the heavy reliance of the text on primary sources. The primary data were gathered mostly in the course of my field trips to Central Asia, Russia and United States between 2014 and 2018 as well as through various online databases.

Among the primary resources belong energy statistics and articles published by respective international organizations, governmental organizations and energy enterprises. Apart from directly participating enterprises, the study also worked with primary data from governments and relevant ministries of the states belonging to the CA ESC. These were Russian Federation, People's Republic of China, Turkmenistan, Kazakhstan and Uzbekistan.[75] Furthermore, the data set is complemented by multitude of informal consultations with academicians, experts, entrepreneurs or

[75] List of the most important primary sources in Bibliography.

members of state administration in Russia, China, Central Asia, Europe and the United States. These semi-structured interviews are not cited throughout the text because of anonymity but they served for construction of the arguments in the planning phase of my research.[76]

Additional primary data concerning global and Central Asian energy sector are to be found in publications of specialized international organizations or agencies. These include International Energy Agency, World Energy Council, United States Energy Security Council, or Energy Information Administration. Other key source of primary data represent various media outlets both international and local although they have to be analyzed critically and with foremost caution. The used sources included newspaper articles, commentaries and analyses published in the region's national media frontrunners.[77]

In addition, the presented thesis draws on works with a multitude of secondary academic sources both for the construction of methodological and theoretical framework of research and also for concrete contextual information. The most substantive secondary sources are presented in Chapter 1, part State of research. The secondary data are divided into four subgroups according to the academic debate to which they contribute i.e. Energy security; Behavioral patterns of state actors in energy policy formulation; Energy security complex; Energy security in Central Asia. I have been working chiefly with primary and secondary resources in English or Russian languages due to their accessibility. Considering this, I gathered datasets regardless possible different ideological and political directions.[78]

Structure of research

In terms of organization, the thesis has following structure:

1. Introduction
2. Russia’s energy policy in Central Asia
3. China’s energy policy in Central Asia

[76] List of informal interviews in Annex.
[77] The most important media sources: Neitralniy Turkmenistan, Turkmenistan.ru, Fergana.ru, Reuters, BBC, China Daily, People’s Daily, Xinhua News Agency, Lenta, Vedomosti, RBC and TASS.
[78] List of the most important secondary literature authors and their works is presented in the first chapter, subchapter State of Research.

4. Turkmenistan's energy policy in Central Asia
5. Conclusion

Chapter 1 serves as an introduction into presented research. It presents the topic of research the energy security in the Central Asia region. Then it attempts to put this topic into the context of the state of research. Next, this chapter defines concrete research goals and research question. Furthermore, it builds theoretical and methodological framework of the presented research project. In particular, it attempts to define the model for assessment of the behavior of the state actors in the natural gas sector and construct the regional energy security complex of Central Asia. This is followed by data review and outline of research's structure.

Chapters 2, 3 and 4 represent case studies devoted to the main actors of the regional energy security complex of Central Asia – Russia, Turkmenistan and China. Their purpose is first and foremost to apply the behavioral model created in Chapter 1 in order to analyze behavior of these actors in the energy security complex. This is why the internal structure of these three case studies is identical. Another similarly important factor is that the subdivision of these Chapters 2 to 4 corresponds with the indicators present in the abovementioned behavioral model. Hence, the structure in all three cases starts from energy sector, then it deals with actors in this sector and finally, it focuses on energy policy. Finally, Chapter 5 concludes the entire research project and attempts to answer research question that was presented in Chapter 1.

2 Russia's energy policy in Central Asia

The first of the three case studies is devoted to Russia's energy policy and its formulation in the context of the ESC of Central Asia. This chapter is divided into four main parts i.e. energy resources, energy actors, energy policy and energy policy in the ESC of Central Asia. The content of these subchapters is based on evaluation of primary and secondary academic sources. The goal of this particular case study is to search for features set out by the model on the assessment of the natural gas sector i.e. perception of energy resources as strategically important; perception of energy sector as crucial for state's economy; perception of state-owned energy actors as extension of state apparatus; reliance on bilateral relations; perception of energy sector as state's tool; zero-sum approach; undesirable dependence; emphasis on strategic issues over economic logic. This task represents a stepping-stone in the process of answering the research question on the predominant approach to energy policy among the actors of the ESC of Central Asia. Therefore, the chapter is concluded by part on assessment of particular indicators.

Energy resources

Russia's oil and gas industries are among the oldest in the world. First oil drilling on Russia's territory started in the 1840s near Baku. Russian Empire produced already 40 percent of world's oil by 1900.[79] In the second half of the 19th century, new extracting regions were discovered, especially in North Caucasus and Central Asia. After the Second World War, the hydrocarbon extraction also spread into the Ural-Volga region. Export of crude oil in 1985 amounted to 39 percent of all Soviet hard currency incomes. In 1988, Soviet oil production reached its peak with 12.5 million barrels per day.[80] However, after the fall of the Soviet Union between 1991 and 1995, the oil production slipped by 50 percent.[81]

At present, Russia's overall petroleum resources are at 80 billion barrels. This represents approximately five percent of estimated global reserves.[82] However, Russia's

[79] Vagit Alekperov, *Oil of Russia: Past, Present and Future* (Minneapolis: East View Press, 2011): 1–159.
[80] Hedvika Koďousková, Petra Kuchyňková and Anna Leshchenko, *Energetická bezpečnost asijských zemí – Energy Security of Asian Countries* (Brno: Masaryk University, 2012): 141–148.
[81] "Crude Oil Production of the Russian Federation," *OECD Data,* data.oecd.org/energy/crude-oil-production.htm.
[82] "Worldwide Look at Reserves and Production," *Oil and gas Journal,* December 1, 2014.

relative production is much higher. As of now, it represents more than 13 percent of the world production with approximately 10.9 million barrels per day.[83] The estimated amount of natural gas reserves in Russia is 32.3 tcm that represents 23.7 percent of global reserves. This makes Russia the largest world natural gas exporter and second largest natural gas producer after the United States. Overall production reached almost 579.4 bcm in 2016.[84]

The key extraction areas as of present are the Volga region and the Timan-Pechora region. Most important extraction sites of natural gas are Urengoy, Medvezhye and Yamburg. Very promising extraction sites in the mid-term prospect are Zapolyarnoye, Yamal, and Sakhalin.[85] Most important gas export pipelines are Yamal-Europe Gas Pipeline, Russia-Finland Gas Pipeline, Soyuz Gas Pipeline, Bratstvo Gas Pipeline, Blue Stream, Southern Corridor and Nord Stream I.[86] Furthermore, other pipeline projects are in various stages of implementation.[87] It is estimated that the production of hydrocarbons in Russia would gradually move eastwards and further north into the Arctic regions. If it would be accompanied by a change of export markets from Europe to Asia is still unclear.[88]

[83] "Country Report on Russia," *Energy Information Agency,* www.eia.gov/beta/international/analysis.cfmiso=RUS.
[84] Ibidem.
[85] "Mestorzhdenia," Gazprom, www.gazprom.ru/about/production/projects/deposits.
[86] Map 1.
[87] *Russia 2014,* (Washington: Energy Information Agency, 2014).
[88] For more on the role energy resources in state policies see: Andrews-Speed, Philip. *International Competition for Resources: The role of law, the state and markets.* (Dundee: Dundee University Press, 2008).

Map 1: Main natural gas pipelines infrastructure of Russia.

Source: Wikimedia.

Russia's economy and especially its hydrocarbon complex were heavily damaged by the fall of the Soviet Union. For instance, Russia's energy consumption fell by 14 percent in the first half of the 1990s. Nonetheless, it started to rise again in the 2000s. In 2016, natural gas covered 52 percent of Russia's energy consumption, petroleum 23 percent, coal 10 percent and renewables 15 percent.[89] Hence, there was still a significant amount of oil and gas available for export. Hydrocarbon revenues

[89] "BP Energy Outlook – Russia," *BP,* www.bp.com/content/dam/bp/pdf/energy-economics.

represented 50 percent of Russia's federal budget revenues and 68 percent of its total exports in 2013.[90]

Moreover, the position of natural gas in the domestic production of Russia is being solidified by governmental subventions. For instance, in 2016 the end-user natural gas cost on Russia's internal market 112 USD per thousand cubic meters but on the European market it was approximately 550 USD.[91] Thus, it could be argued that government is buying support of its citizens through the lower price of gas. This results in even higher dependency of the ruling regime on energy security and on energy sector in general.[92]

This subchapter on energy resources of the Russian Federation shows that energy sector is to be considered one of the key segments of state's economy since the late nineteenth century. Soviet and later Russian state perceives the energy sector as one of the central elements of its power. The same goes also for the current Putin's regime, which utilizes energy subventions for ensuring political support. Russian state is interested in controlling the energy sector. It considers it as strategic asset for maintaining support of the ruling regime.[93]

Energy actors

The political system in Russia as of now could be described as neo-tsarism because the power is personalized as in a monarchy.[94] Vladimir Putin and his entourage are directing both internal and external policies of their country by the Hobbesian concept of power. They perceive international politics as nothing short of an indefinite struggle for power, money, and influence. Internal politics became a struggle to stay in power at any cost. Otherwise, those in power at present could lose in the future their property

[90] "Country Report on Russia," *Energy Information Agency,* www.eia.gov/beta/international/analysis.cfm?iso=RUS.
[91] *Russia 2014,* (Washington: Energy Information Agency, 2014).
[92] For more on foreign policy of Russia see: Dmitri Trenin, "Drivers of Russia's foreign policy," In: Kaadri Liik, *Russia's Pivot to Eurasia* (London: European Council on Foreign Relations, 2014): 34–40.
[93] For more on energy security of Russia and Asian countries see: Hedvika Koďousková, Petra Kuchyňková and Anna Leschenko. *Energetická bezpečnost asijských zemí a Ruské federace,* (Brno: Masarykova Univerzita, 2012).
[94] For a thorough account of the transformation of Russia's economy see: Anders Aslund, *How Capitalism Was Built: The Transformation of Central and Eastern Europe, Russia, and Central Asia* (New York: Cambridge University Press, 2007).

and even more than that.[95] This attitude was apparently visible during the early 2000s when Putin and his inner circle destroyed and subdued the class of oligarchs that had been in control of Russia's energy sector in the previous decade. Also, it is even more apparent during the 2010s with Russia's rising neo-imperial ambitions.

The core and inception of Putin's power lie in the program of massive re-nationalization of the energy sector that took place during the 2000s. Afterward, he installed to top managerial positions in the state-controlled energy enterprises persons from his inner circle. In the course of Putin's first presidential term, the oil enterprises were partly nationalized and reorganized. Their number diminished from thirteen to eight. In the course of his second presidential term, state's shares in oil industry rose from 13 percent in 2004 to 40 percent in 2007.[96]

Putin's administration also made it harder for foreign investors to be active in Russia. At present, special governmental commission examines and approves every purchase of control package of shares in strategic sectors of the economy by a foreign investor.[97] The government also has to per law approve purchases of more than ten percent shares in larger deposit sites. This condition was enshrined in the so-called strategic law from 2008.[98] All these factors suggest that energy sector has been turned into regime's most important asset and foreign policy tool.

The oil sector of Russia was in comparison to the gas sector fully liberalized after 1991. There were concerns that the Soviet-era management could stay in power and create a new ruling class. Hence, liberalization of the oil sector was supposed to avert this possible development. This approach notwithstanding, transportation of oil products remained in the power of the state through two monopolies, Transneft and Transnefteprodukt.[99] The former focused on the transport of crude oil while the latter on the transport of oil products.

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[95] Ibidem: 40–42.
[96] Daniel Treisman, *Putin's Silovarchs* (Los Angeles: Orbis, 2007): 141–153.
[97] David Wood, "Russia Seeks Global Influence by Exploiting Energy Geopolitics." *Oil & Gas Journal.* Vol. 105, No. 6 (2007): 20–24.
[98] "Federalnyi zakon ot 29 aprelya 2008 goda N 57-FZ g. Moskva O poryadke osushchestvleniya inostrannykh investitsii v khozyaistvennye obshchestva, imeyushchie strategicheskoe znachenie dlya obespecheniya oborony strany i bezopasnosti gosudarstva," Law adopted by the State Duma on 2 April 2008.
[99] "Istoria," *Transneft,* transneft.ru/about/story. and "Ob organizacii," *Transnefteprodukt,*

The situation was quite contrary in the gas sector. The Ministry for Gas Industry was turned into Gazprom after the fall of the Soviet Union, which controlled state's natural gas resources and infrastructure. First real competition appeared only in the 2000s. However, Gazprom's shares were freely tradable during the entire 1990s and Russian state controlled only 40 percent of them.[100] This policy changed with the accession of Vladimir Putin in 2000 who carried through that the state must hold the control package of shares in Gazprom because of its strategic value. As a result, Kremlin got control shares in Gazprom already in 2005.[101]

If the energy sector of Russia should be considered as a foreign policy tool, Gazprom should be seen as its spearhead.[102] It became the most profitable company in the world for the year 2012. In this year, its net profit peaked at 44.5 billion USD.[103] It covered 66 percent of all natural gas-related activities in Russia as of 2010. Moreover, as of 2017 it had approximately 462 thousand staff, and thus it represented one of the most prominent employers in the country.[104]

Gazprom was created from the Soviet-era Ministry for Gas Industry in the first half of the 1990s. The most crucial proponent and first Chairman of Gazprom was Viktor Chernomyrdin who served as Russia's prime minister between 1992 and 1998. The privatization of Gazprom began in 1992 and between 1993 to 2004 Russian state controlled 40 percent of this company, Russia's enterprises 40 percent and foreign investors 20 percent.[105] However, this situation changed with the rise of Vladimir Putin, who increased control of the state in this enterprise to 51 percent soon after his appointment to the presidential office. By the end of 2010s, Gazprom controls 70 percent of Russia's natural gas resources and 85 percent of its natural gas production.[106] It also controls and maintains Russia's vast network of 172 thousand

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transnefteproduct.transneft.ru/about.

[100] For more on Putin's policies in energy sector see: Marshall Goldman, *Petrostate: Putin, Power and the New Russia* (Oxford: Oxford University Press, 2008): 33–55.

[101] "Istoria," *OAO Gazprom,* www.gazprom.ru/about/history/chronicle/2005.

[102] For more on Gazprom's place in Putins' regime see: Niklas Norling, *Gazprom's Monopoly and Nabucco's Potentials: Strategic Decisions for Europe* (Washington: Central Asia – Caucasus Institute and Silk Road Studies Program, 2007).

[103] "Gazprom - eto mylnyi puzyr, kotoryi doit gosudarstvennyi byudzhet," *Kommersant,* 30 July 2012, www.kommersant.ru/doc/1991666.

[104] "O Gazprome," *OAO Gazprom,* www.gazprom.ru/about.

[105] "Istoria," *OAO Gazprom,* www.gazprom.ru/about/history/chronicle/2005.

[106] Marshall Goldman, *Petrostate: Putin, Power and the New Russia* (Oxford: Oxford University Press,

kilometers of gas pipelines.[107] Gazprom represents for Putin one of the critical pillars of his power both in Russia and abroad.[108]

In a sense, the situation in the natural gas sector is less liberalized than in the petroleum sector where Transneft controls the transportation infrastructure. Most important natural gas fields under the control of Gazprom are Yamburg, Medvezhye and Urengoy. Gazprom manages not only activities in the natural gas sector, but it also owns Gazprom Media, Gazprom Bank, pension fund NPF Gazfond, 26 cultural centers, sports complexes and hospitals. In addition, it is the most significant owner of agricultural soil in Russia. Moreover, Gazprom is the owner of the largest refinery company SIBUR.[109] Finally, yet importantly, it also extracts petroleum through its subsidiary Gazpromneft that used to belong to Roman Abramovich under the name Sibneft.[110]

Russia's political elite is hailing the transformation of Gazprom under Putin as one of his most significant feats. This is, for instance, the perception of Gazprom in pro-Putin Izborskiy klub: "Development of Gazprom, turning it into a state-forming, empire-forming structure, is a big achievement of Putin. With its help, he had scattered the pipes across Eurasia, connecting them with Europe, Belarus, Ukraine and the Central Asian republics. Moreover, this space-strapped with steel pipes was the first prototype of the future great state. Gazprom is the civilizational achievement of Putin's Russia… Gazprom saved the country, laid the foundations for future statehood. Gazprom is as steel bud, from which eventually a flower of fifth Russian empire bloomed," says Prokhanov, one of the regime's prominent propagandists.[111] It is quite ironical that it is rather China and the CNPC that "scattered the pipes across Eurasia" in the 2010s.

2008): 93–136.

[107] "Yedinaya sistema gazosnabzheniya Rossii," *OAO Gazprom,* www.gazprom.ru/about/production/transportation.

[108] For more on Gazprom see: Kevin Rosner, *Gazprom and the Russian State,* (London: GMB Publishing Ltd., 2006).

[109] Mikhail Zygar and Valery Panyushkin, *Gazprom: novoye russkoye oruzhye* (Zakharov: Moscow, 2008): 156-189.

[110] "Sibneft menyaet nazvanie i yuridicheskiy adres," *OAO Gazprom,* www.gazprom-neft.ru/press-center/news/1882.

[111] Aleksandr Prokhanov, "Znakomiy kamen rossiyskoi gosudarstvenosti," *Politics.ru,* 22 December 2013.

Another Russia's oil and gas giant Rosneft was created from the Soviet-era Ministry of Oil Industry in 1991. It was not particularly successful in the course of 1990s. The rise of this enterprise started only at the end of the 1990s, and it is firmly connected with its former President Sergei Bogdanchikov. Rosneft gained control of the Yukosneftegaz also known as Yukos in 2004.[112] This change of control gave an impetus to the growth of the company. Five years later, the share of Yukos in extraction activities of Rosneft was 61 percent for oil and 21 percent for gas.[113]

Rosneft is the most significant producer of petroleum in the Russian Federation since 2008. Most of its resources are located in Western Siberia. Approximately 70 percent of its shares are controlled by Russian state.[114] Rosneft is to Putin's regime almost as crucial as Gazprom. However, it took much more effort and scheming to make it the oil behemoth it is at present.[115]

The next big oil and gas enterprise Lukoil is in comparison to Rosneft relatively independent. It was founded at the beginning of the 1990s by Vagit Alekperov who is to these days its president and biggest shareholder. Lukoil was created out of three Western Siberian companies – Langepasneftegaz, Urayneftegaz and Kogalymneftegaz. These companies are still commemorated in the first three letters of the name Lukoil.[116] This enterprise is specific in Russia's context by the dominance of minority shareholders. However, this does not mean that Lukoil is immune from political influence. Its founder Alekperov, for instance, served as deputy minister of oil production in the 1990s. Above all, five out of eleven members of the executive board are former politicians such as Igor Ivanov.[117]

Lukoil controls 1 percent of all world petroleum reserves and 2.2 percent of petroleum production. It translates into 17.8 percent of Russia's petroleum production. Its activities are concentrated in Western Siberia, Ural-Volga region, Timan-Pechora region and

[112] "Vokrug YuKOSa," *Khodorkovsky.ru,* khodorkovsky.ru/yukos/2015.
[113] Hedvika Koďousková, Petra Kuchyňková and Anna Leshchenko, *Energetická bezpečnost asijských zemí – Energy security of Asian countries* (Brno: Masaryk University, 2012): 165–170.
[114] "Rosneft segodnya," *Rosneft,* www.rosneft.ru/about/Glance.
[115] Giacomo Luciani, "Is Russia a Threat to Energy Supplies?" Oxford Energy Forum. No. 66 (2006): 4-10.
[116] "Istoriya Kompanii," *Lukoil,* www.lukoil.ru/new/history/2015.
[117] "Sostav Soveta direktorov Kompanii, izbrannyi na godovom obshchem sobranii aktsionerov 23 iyunya 2016 goda," *Lukoil,* www.lukoil.ru/back/staff_head.asp?dep=0.

the Caspian Sea region. It also owns a network of petroleum stations in 26 countries including Europe.[118] 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 entirely state-owned enterprises such as Gazprom and Rosneft. In this sense, its existence is beneficial to Putin's regime, but it does not jeopardize the position of either Rosneft or Gazprom.

Another formerly valuable player – the TNK-BP was created in 1995 by a governmental decision as TNK (Tyumenskaya neftyanaya kompania) from two companies – Nizhnevartovskneftegaz and Tyumenneftegaz. In 2003 TNK and BP joined their activities in Russia and thus founded the TNK-BP. Since that time conflicts between Russia's government and the TNK-BP appeared. In 2013 TNK-BP was acquired by Rosneft, which consequently became world's most extensive listed oil producer.[119] By this step, Russia's government squeezed out of its energy sector all significant foreign players. Moreover, the acquisition of the TNK-BP helped Rosneft to strengthen its position in the Eastern Siberia and the Far East.

Novatek is as of 2019 the second largest producer of natural gas in Russia after Gazprom. It focused only on the construction of pipeline infrastructure in the beginning of the 1990s, but it eventually broadened the portfolio of its activities. It is at present chiefly active in LNG initiatives across Russia.[120] Novatek is not free of Kremlin's influence – Gazprom owns almost 10 percent of its shares and Putin's close friend and billionaire Gennady Timchenko another 23 percent. There are even inklings that Timchenko owes Putin his position in Novatek. Nominally, the second most important oil and gas enterprises in Russia – Lukoil and Novatek – were granted partial independence but there are restrictions and limits to this.

This subchapter on energy players in Russia explained how it happened that Putin's regime directly or indirectly controls almost the entire energy sector. Both Gazprom and Rosneft represent key pillars of current political regime in Russia. However, even formally independent energy players such as Lukoil and Novatek have strong

[118] "Obshchaya informatsiya o Kompanii," *Lukoil,* www.lukoil.ru/static_6_5id_29_.html.
[119] Rupert Neate, "Rosneft takes over TNK-BP in $55bn deal," *The Guardian,* 21 March 2012, www.theguardian.com/business/2013/mar/21/rosneft-takes-over-tnk-bp.
[120] "O kompanii," *Novatek,* www.novatek.ru/ru/about/company.

connections to the ruling power vertical. These findings allow us to conclude that the Russian state wants to transfer as much as possible national power into state power, especially in energy sector. It considers state-owned or state-dependent energy actors to be an extension of state's apparatus. The subchapter also uncovers Russia's efforts to take control of crucial energy actors as shown in the case of TNK-BP. This finding further suggests that Russia sees energy resources as strategically important commodities.

Energy policy

Russia's energy policy cannot be understood without the context of its broader political environment. Putin's regime is sharply focused on the values of stability and order at home, and it is strictly against external interferences. These features were summed up for instance in the concept of "sovereign democracy" coined by Putin regime's ideologue Vladislav Surkov.[121] Putin's narrative emphasized the unstable and corrupt era of the 1990s that was accompanied by the rise of so-called oligarchs.

One of the most prominent oligarchs Mikhail Khodorkovsky was sentenced to imprisonment in 2005. His chief sins were that he attempted to move the seat of the Yukosneftegaz from Russia to the US, endeavor to sell shares of Yukos to Exxon and build a private-owned pipeline to China.[122] In the same year, Gazprom also gained control over Sibneft that belonged to other prominent oligarchs – Roman Abramovich and Boris Berezovsky.[123] Russia renewed its majority shares in Gazprom and nationalized approximately half of the oil sector between 2003 and 2007. This move cemented Putin's regime and its financial base.

Russia's changed attitude towards energy policy after the accession of Vladimir Putin was evident already in the concept of foreign policy[124] and the concept of national

[121] Vladislav Surkov, "Suverenitet – eto politicheskii sinonim konkurentosposobnosti," 22 February 2006, *United Russia,* web.archive.org/web/20060418035317/http://www.edinros.ru/news.html?id=111148.
[122] Jennifer Rankin, "Russia ordered to pay $50bn in damages to Yukos shareholders," *The Guardian,* 28 July 2014, www.theguardian.com/business/2014/jul/28/russia-order-pay-50bn-yukos-shareholders-khodorkovsky-court.
[123] Nick Paton Walsh, "Abramovich sells his last big stake in Russia to Kremlin," *The Guardian,* 29 September 2005, www.theguardian.com/business/2005/sep/29/oilandpetrol.russia.
[124] "Kontseptsiya vneshnei politiki Rossiiskoi Federatsii," 11 July 2000, www.ng.ru/world/2000-07-11/1_concept.html.

security of the Russian Federation from 2000.[125] Both those documents stressed the role of energy and its pivotal importance for Russia's foreign policy and security. This role was emphasized even more in the energy strategy of Russia published in 2003.[126] This doctrinal document starts with the clear statement: "Russia possesses huge energy resources deposits and powerful fuel energy complex, which is the base for the development of its economy and an instrument of foreign and domestic policy implementation."[127]

In this document, both western and eastern dimensions of Russia's energy policy were emphasized. However, it was made clear that Europe would remain Russia's key customer for at least next twenty years. The foreign policy blueprint[128] was updated in 2008 and the energy strategy in 2009.[129] The latter outlined Russia's energy policy up to 2030. Moreover, it had to deal with the changed situation in comparison to 2003 because of the global financial crisis. Besides, gas disputes between Russia and various countries between 2003 and 2009 represented also significant game changer. The newly stated objectives were to diversify export markets of Russia's energy resources and to maintain stable market conditions, in other words, guaranteed demand and reasonable pricing – energy security.[130] Table 12 exemplifies the macroeconomic situation of Russia since the economic crisis of 2009.[131]

The strategic blueprint was once again amended in 2014 with prolonged timeframe up to 2035.[132] This new amendment even more openly emphasizes the importance of energy policy as a tool for promoting foreign policy interests: "Russia as a responsible state considers external energy policy not from the exporter's narrow point

[125] "Kontseptsiya natsionalnoi bezopasnosti Rossiiskoi Federatsii," 14 January 2000, nvo.ng.ru/concepts/2000-01-14/6_concept.html.
[126] "Energeticheskaya strategiya Rossii na period do 2020 goda," 1 May 2003, www.energystrategy.ru/projects/es-2020.htm.
[127] Ibidem.
[128] Ibidem.
[129] "Kontseptsiya vneshnei politiki Rossiiskoi Federatsii," 15 July 2008, kremlin.ru/acts/news/785.
[130] "Energeticheskaya strategiya Rossii na period do 2030 goda," 13 November 2009, minenergo.gov.ru/node/1026.
[131] Table 12.
[132] "Energeticheskaya strategiya Rossii na period do 2035 goda," 4 October 2015, minenergo.gov.ru/node/1913.

of view, intended to maximize short-term revenues, but as a tool to solve both national and global problems."[133]

Table 12: Basic socio-economic indicators – Russian Federation (2007–2018)

Year	GDP (trillion USD)	GDP per capita (current USD)	Inhabitants (thousands)
2007	1.3	9 101	142 805
2008	1.661	11 635	142 742
2009	1.223	8 563	142 785
2010	1.525	10 675	142 849
2011	2.032	14 212	142 961
2012	2.17	15 154	143 202
2013	2.231	15 544	143 507
2014	2.064	14 126	143 820
2015	1.366	9 329	144 097
2016	1.283	8 748	144 342
2017	1.579	10 751	144 497
2018	1.658	11 289	144 478

Source: The World Bank

Different cases when Russia utilized its energy potential as an "energy weapon" show that this is not only rhetoric but also actual political practice. There are several cases of such behavior – unilateral disruption of oil transit through Latvia in 2003, reduction of natural gas supplies to Belarus during winters 2004 and 2006, blockade of Kazakhstan's oil transit to Lithuania via Russia by Transneft in 2006, oil supply cut off to Lithuania by Transneft in 2006, "gas wars" with Ukraine in 2006 and 2009, or reduction of oil supply to the Czech Republic in 2008.[134]

In the national security strategy of Russia until 2020 published in 2009, the competition for energy resources is marked as one of the principal causes of contemporary conflicts.[135] Russia's energy potential is being perceived by country's government as a tool for possible strengthening of international stature but also as a possible source

[133] Ibidem.
[134] 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).
[135] "Strategiya nacionalnoy bezopasnosti Rossiiskoi Federatsii," 31 December 2015, archive.mid.ru//bdomp/ns-osndoc.nsf.

of the threat. Russia considers its energy sector as both potential area of conflict and platform for strengthening its great-power status in the Arctic region and Central Asian region. It also strives to lessen its dependence on the European Union and therefore it plans to divert one-third of its energy exports to China.[136]

Russia adopted a new blueprint of foreign policy in February 2013.[137] According to this document, energy policy should enable Russia to preserve the status of crucial player for trade and economic relations between Europe and the Asia-Pacific region. It singled out, for instance, the fact that the natural gas consumption between 2003 and 2013 remained in Europe the same while in the Asia-Pacific region it doubled.[138] Hence, this concept stresses the shift of global power to the East. Moreover, it admits the need of dual integration between Russia and its regions of Eastern Siberia and the Far East as well as integration between Russia and the Asia-Pacific region.

State-controlled energy enterprises such as Gazprom, Rosneft or the Unified Energy Systems are being perceived by Russia's political elite as tools of foreign policy. The highest twenty-five government officials were also board members of leading energy companies as of 2008.[139] Furthermore, Vladimir Putin considered state's control over energy resources as a key to national power in his alleged dissertation thesis.[140] Although it is doubtful that he is the real author of this text, the choice of topic and how it is addressed is nonetheless important. His dissertation confirms that his worldview operates regarding realist paradigm and regarding prevalence of security and power issues over international cooperation and building of international institutions.

Contrary to market or profit-led logic, there is ample evidence that Putin's regime utilized different price level to obtain influence or legitimacy on many occasions. The domestic energy prices are much lower than world prices because the political elite

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[136] For more on energy policy of Russia see: Anita Orban, *Power, Energy and the New Russian Imperialism* (Santa Barbara: Praeger Security International, 2008.
[137] "Kontseptsiya vneshnei politiki Rossiiskoi Federatsii," 12 February 2013, archive.mid.ru//bdomp/ns-osndoc.nsf.
[138] Ibidem.
[139] For more on Putin's energy weapons see: Bertil Nygren, "Putin's Use of Natural Gas to Reintegrate the CIS Region," *Problems of Post-Communism,* Vol. 55, No. 4 (2008): 3–15.
[140] Vladimir Putin, "Strategicheskoe planirovanie vosproizvodstva mineralno-syrevoi bazy regiona v usloviyakh formirovaniya rynochnykh otnoshenii," Sankt Peterburg, 1997, www.dissercat.com/content/strategicheskoe-planirovanie-vosproizvodstva-mineralno-syrevoi-bazy-regiona-v-usloviyakh-for.

needs to appease the population. Discount prices of energy resources were also utilized as "carrot" in Russia's relations with its post-Soviet neighbors.[141] Kremlin is possessing two kinds of "energy weapons" – tap and transit weapons. Firstly, the "tap weapon" means that Russia coerces its customer to behave in a certain way on the basis that if it would rebel, Russia closes its imports. Secondly, the "transit weapons" designates that Russia would purchase natural gas from its supplier only for its price in order to supply third countries; otherwise the supplier would have to pay the transit price set again by Russia. This is possible because Russia is deliberately avoiding obligations like indiscrimination or third party access, which are considered as fair trade practice in the West.[142]

Western energy markets

Russia's another principal aim in regards to its energy policy was to hinder any Western-sponsored bypass from the south. It is as of now mostly focused on and worried by the Southern Gas Corridor of the European Union. This project should have originally consisted of three elements – the Interconnector Turkey-Greece-Italy with a capacity of 10 bcm, the Trans-Adriatic Gas Pipeline with a capacity of 10 bcm and the Nabucco Gas Pipeline with a capacity of 31 bcm per year. In 2012, however, the backbone of this project – the Nabucco Gas Pipeline – had to be downscaled into the Nabucco West project due to lack of necessary gas supplies guarantees and growing financial costs.[143] Moreover, at this time Russia began to build its South Stream Gas Pipeline that was perceived as a rival project.[144]

This attempt notwithstanding, the Shah Deniz Consortium that operates the central deposits in Azerbaijan renewed hopes in the Southern Gas Corridor in 2013.[145] It proposed three new elements of this project. It consists of the expansion of the existing South Caucasus Gas Pipeline, construction of the Trans-Anatolian Gas Pipeline and the construction of the Trans-Adriatic Gas Pipeline. The Souther Gas

[141] Nygren, "Putin's Use of Natural Gas," 3–15.
[142] Ibidem.
[143] Ian Taylor, "Europe's plan for alternative pipeline faces big problems," 7 January 2009, *The Guardian,* www.theguardian.com/world/2009/jan/07/nabucco-pipeline-problems.
[144] "Gazoprovod Yuzhnyi potok budet vveden v stroi v dekabre 2015-go goda," *ITAR-TASS,* 24 April 2010, echo.msk.ru/news/674485-echo.html.
[145] "Azerbaijani president approves the agreement on TANAP gas pipeline," Trend News Agency, 18 January 2013, en.trend.az/business/energy/2109759.html.

Corridor will be 3500 km long and cost 45 billion USD.[146] The gas from the Shah Deniz field would represent for the time being the primary source for this pipeline system. The proposed gas volumes are 16 bcm in 2019 and 31 bcm per year in 2026. The project would cover approximately 20 percent of the European gas demand.[147] The principal driving force of the renewed project of the SGC is Azerbaijan's national energy concern SOCAR together with its Turkish counterpart Botas. They both control critical stakes in both pipeline projects together with the BP that is the leading operator of the Shah Deniz field.[148]

Azerbaijan's and Turkey's representatives believe that they could secure additional supplies for the SGC from Iraq, Iran, and Turkmenistan. In 2014, SOCAR announced that it would be ready to assist Turkmenistan with the development of its gas and oil infrastructure.[149] Moreover, Turkey and Turkmenistan signed a framework supply agreement focused on delivery of Turkmenistan's natural gas towards Europe through Turkish territory in the same year.[150] Two options are being discussed. The parties could use either the proposed Trans-Caspian Gas Pipeline or to ship Turkmenistan's natural gas to Turkey through Iran. Russia's project of the South Stream Gas Pipeline was also facing numerous obstacles due to the annexation of Crimea. It was canceled in December 2014, and it was consequently redirected from Bulgaria to Turkey.[151] This change of stance means that even Russia's natural gas will be delivered to the EU via the TANAP-TAP pipeline's system.

Eastern energy markets

Russia is at present mostly focused on the diversification of its energy exports to the East after it lost its monopsony in Central Asian regional energy security complex and its relations with European customers cooled down due to the Ukraine crisis. On the one hand, EU's ban on supplying oil and gas equipment and on lending with

[146] "Azerbaijani president approves agreement on TANAP gas pipeline," *Trend News Agency,* 18 January 2013, en.trend.az/business/energy/2109759.html.
[147] Julia Kusznir, "The Southern Gas Corridor: Initiated by the EU, Completed by Others? TANAP, TAP and the Redirection of the South Stream Pipeline," *The Caucasus Analytical Digest,* No. 69 (2015): 6–11.
[148] "Trans-Anatolian Gas Pipeline Project," www.tanap.com/tanap-project/why-tanap.
[149] "Ashgabat Declaration," *European Commission,* 1 May 2015, ec.europa.eu/commission/2014-2019/sefcovic/announcements/ashgabat-declaration_en.
[150] "Turkmen gas for Europe," *Nebit-Gaz,* July 29, 2016.
[151] "Moskva i Ankara zaklyuchili soglashenie po Turetskomu potoku," *Lenta,* 10 October 2016, lenta.ru/news/2016/10/10/potok.

maturities exceeding 90 days strongly hit Russia's energy industry. As a result, much of Western investment drained since mid-2014. On the other hand, China's Sinopec bought a 10 percent stake in the petrochemicals enterprise SIBUR in December 2015. Also, China's Silk Road Fund acquired 9.9 percent stake in the Yamal LNG project from Novatek in late 2015.[152]

Moreover, Chinese Bank for Development provided a loan of 10 billion USD to Transneft and 15 billion USD to Rosneft already in 2009.[153] In order to reach Asian customers, Moscow's priority became 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 refinery to China's Heilongjiang province belong among such projects.[154] The situation regarding the natural gas export infrastructure to the east was, however, more complicated.

Russia started planning to export natural gas to China in the early 1990s. Any developments were, however, frozen due to the struggle between the TNK-BP and Gazprom over East Siberian gas deposits, especially the Kovykta Gas Field in Irkutsk region.[155] This struggle was solved only in 2011. TNK-BP was accused of harming the environment by its project on the Kovykta gas field and forced to bring Gazprom into this project in 2006. Five years later, it decided to sell Gazprom the rest of its shares.[156] Moreover, Chayanda Gas Field was added to the list of national strategic assets in 2007 and sold to Gazprom in an auction without competition.[157] Above all, Gazprom now controls most essential natural gas assets in Eastern Siberia and the Far

[152] "Moscow's need for China will not be reciprocal," *Oxford Analytical Daily Brief Service,* 24 June 2016.
[153] Jean-Marie Holtzinger, "The Russo-Chinese strategic partnership: oil and gas dimensions," *Connections,* No. 9, Vol. 4 (2010): 69–82.
[154] Sergei Luyzanin, *Rossiya i Kitai: novyi kontekst otnosheniz* (Moscow: MGIMO, 2015): 16–45.
[155]Artyom Lukin, "Russia's Eastward Drive: Pivoting to Asia or to China?" Russian analytical digest No. 169 (2015): 2–5.
[156] Richard Fletcher, "Gazprom's Kovykta gas field victory is a lesson for BP shareholders," *The Telegraph,* 2 March 2011, www.telegraph.co.uk/finance/comment/richardfletcher/8355832/Gazproms-Kovykta-gas-field-victory-is-a-lesson-for-BP-shareholders.html.
[157] "Russia Gazprom secures Chayanda gas field," *Reuters,* 14 April 2010, www.reuters.com/article/gazprom-chayanda-idUSL1434364120080414.

East – Kovykta Gas Field, Chayanda Gas Field, fields in Krasnoyarsk Krai, fields on the western coast of Kamchatka and Sakhalin II and Sakhalin III projects.[158]

Meanwhile, new plans appeared for construction of the western route when the eastern route has been in a stalemate. This western route would utilize so-called Altai Gas Pipeline that would stretch from eastern Siberian gas deposits Urengoy and Nadym to Xinjiang.[159] This plan appeared because Gazprom long opposed the eastern alternative of gas export to China until it acquired vital deposits in eastern parts of Siberia. That is also the reason why it preferred the Altai Gas Pipeline that would run from its deposits in Western Siberia. If this gas pipeline was built, it would likely harm the feasibility of the Turkmenistan-China Gas Pipeline. Fortunately, for Turkmenistan, it was not the case.[160]

The negotiations over pricing between Russia and China failed before the commissioning of the first line of the Turkmenistan-China Gas Pipeline in 2009.[161] At the time, China's negotiators used the European gas prices as a starting point of discussions while Gazprom was focused on receiving same margin profit as on its sales to Europe.[162] However, Shanghai is more than 3 thousand kilometers further from the extraction fields in West Siberia than the European border. Hence, if Gazprom would achieve its target, it would mean price difference of approximately 50 USD per mcm at the time due to transportation costs.[163] The situation started to change with the acquiring of new natural gas deposits by Gazprom around 2012 and looming threat of the US shale gas revolution.[164] In September 2013, the negotiations between Gazprom and CNPC were successfully finalized except the pricing deal.

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[158] "Mestorozhdenia," *Gazprom,* www.gazprom.ru/about/production/projects/deposits.
[159] "Proekt Sila Sibiri mogut otlozhit v polzu gazoprovoda Altai," *RIA,* 18 March 2015, ria.ru/economy/20150318/1053274431.html.
[160] For more on Russo-Chinese relations in Central Asian energy see: Thomas Eder, *China-Russia Relations in Central Asia: Energy Policy, Beijing's New Assertiveness and 21st Century Geopolitics,* (Vienna: Springer VS, 2014).
[161] Niklas Swanstroem, "Sino-Russian Relations at the Start of the New Millenium in Central Asia and Beyond." *Journal of Contemporary China*. Vol. 23, No. 87 (2014): 1–12.
[162] Linda Jakobson, Paul Holtom, Dean Knox and Jingchao Peng. "China's Energy and Security Relations with Russia." SIPRI Policy Paper No. 29 (2011): 1-56.
[163] James Henderson, *The Pricing Debate over Russian Gas Exports to China* (Oxford: Oxford Institute for Energy Studies, 2011): 37–45.
[164] Edward L. Morse, "Welcome to the Revolution: Why Shale is the Next Shale," *Foreign Affairs,* May 2014, www.foreignaffairs.com/articles/2014-04-17/welcome-revolution.

However, this changed with Russia's annexation of Crimea and western sanctions. In May 2014, Russia concluded with China even the pricing deal for 38 bcm for 30 years.[165] In May 2014, Xi Jinping and Putin signed the purchase and sale contract on gas supply via the eastern route – the Power of Siberia Gas Pipeline.[166] This line should be 4000 km long and stretch from Yakutia's Chaganda Gas Field to Khabarovsk and LNG terminal in Vladivostok.[167] Its capacity of 61 bcm per year should be divided into three parts – 38 bcm for China's consumption, 9 bcm for Russia's domestic consumption and 14 bcm for LNG export to Japan and other Asian states.[168] It is precisely visible that the construction of the Turkmenistan-China Gas Pipeline and Russia's invasion of Crimea significantly hampered its negotiating position vis-à-vis China regarding the Power of Siberia Gas Pipeline.[169] In other words, it narrowed Russia's maneuvering opportunities and compelled it to accept the deal with China.[170]

Map 2: Planned and existing gas pipeline in the Russian Far East.

Source: OSW

[165] "Sila Sibiri," *Gazprom,* www.gazprom.ru/about/production/projects/pipelines/built/ykv.
[166] For more on natural gas geopolitics see: Amy Jaffe and David Victor, *Natural Gas and Geopolitics: from 1970 to 2040* (New York: Cambridge University Press, 2006): 211–241.
[167] Map 2.
[168] Amy Jaffe and David Victor, *Natural Gas and Geopolitics: from 1970 to 2040* (New York: Cambridge University Press, 2006): 211–241.
[169] Stephen Blank, "Does Russo-Chinese Partnership Threaten America's Interests in Asia?" Foreign Policy Research Institute (2015): 112–127.
[170] Felix K. Chang, "Friends in Need: Geopolitics of China-Russia Energy Relations," *Foreign Policy Research Institute* (2014): 70–84.

The subchapter focused on Russia's energy policy. It was meant to demonstrate that according to both strategic documents and commercial practice the energy sector of Russia is conceived by Putin's regime as a tool of internal and external policy. Furthermore, its role in external policy is on growing trajectory. It can be also concluded that Russia is rewarding or punishing certain behavior of other states. There is also clear preference for bilateral relation in energy sector as it is easier to dominate the bilateral relationships. There are also clear examples of attempts to control entire supply chains and markets regardless of commercial logic, as it was the case with both the European markets in the west and Asia-Pacific markets in the east.

Energy policy in the ESC of Central Asia

Vladimir Putin and his Chinese counterpart Xi Jinping assumed their offices similarly in 2012. As it became clear already before, their foreign and energy strategies and even concepts of Eurasian state of affairs collide the most in the ESC of Central Asia. Vladimir Putin propelled the agenda of the Eurasian Economic Union soon after his election, which according to his words can even displace the Shanghai Cooperation Organization in the Central Asian region.[171] He was also stressing Russia's support for global multipolarity, not bipolarity that would be more in favor of China. Xi Jinping replied to this challenge by proposing the Belt and Road Initiative in September 2013.[172]

Consequently, China was gaining momentum after Russia's annexation of Crimea, subsequent anti-Russian sanctions from the West and Russia's loss of Central Asia's energy markets to China. Since that time, it seemed that Russia was more willing to respect China's priorities and interests in Central Asia. This change of attitude can be, nonetheless, just a temporary development because Putin connected his legacy directly with the success of the Eurasian Economic Union.[173]

Russia's policy towards Central Asia was splintered among several initiatives since 1991. Most important of them were the Commonwealth of Independent States, the Collective Security Treaty Organization and the Shanghai Cooperation

[171] Gilbert Rozman, "The Intersection of Russia's Turn to the East and China's March to the West," *Russian Analytical Digest,* No. 169 (2015): 6–8.
[172] "One Belt, One Road," *Caixin Online,* 12 October 2014, english.caixin.com/2014-12-10/100761304.html.
[173] "Turkmeniya schitaet Rossiyu partnerom, no v ees vstupat ne budet," RIA Novosti, 14 July 2014.

Organization.[174] This division, however, changed in October 2011 when Vladimir Putin announced in the Russian newspaper Izvestiya his vision to build the Eurasian Economic Union. In this programmatic article, Putin emphasized the importance of Central Asia to Russia and their presumably shared identity connected neither with the West nor with the East.[175]

This notwithstanding, Ukraine represented a key to the creation and feasibility of the Eurasian Union.[176] Without Ukraine, it is quite likely that its focus would lie more in the East than it was planned in the beginning.[177] The Eurasian Union should according to Putin constitute a bridge between two major integration zones in the world. Above all, for the first time in past three hundred years, the West ceased to be the only pole of attraction or source of values for Russia. Europe has become just one pole for Russia's foreign policy.[178] The challenge of China and the Asia-Pacific region, however, does not mean only that Russia has to integrate more deeply with its neighbors, but that it also has to integrate its regions, especially those behind the Urals more thoroughly. Otherwise, tensions and even separatism could prevail.[179]

It is also necessary to mention that the relationship between Central Asia and Russia was profoundly altered by the perception of the Easternizers,[180] Eurasianists, and neo-Eurasianists who perceive Central Asia and Russia as parts of a single politico-cultural unit of Eurasia. Eurasianism, as a political ideology, was created in the 1920s in Central and Western Europe by prominent Russian émigrés such as Peter Savitsky, Nikolai Trubetzkoy or Dmitry Svyatopolk-Mirsky. It was a third-way movement, which claimed Eurasia to be a distinct continent with its own culture, space, and destiny. In contrast to the West, Eurasianists defined this new continent not by shared history but rather by geography. The vital axis of Eurasia was defined by the steppe corridor surrounded by

[174] Z. A. Dadabayeva, *Protsessy regionalizatsii v Tsentral'noi Azii: problemy i protivorechiya* (Moscow: Institut ekonomiki RAN, 2014): 51–64.
[175] Vladimir Putin, "Novyi integrnatsionnyi proekt dlya Evrazii – budushchee, kotoroe rozhdaetsya sevodnyia," *Izvestiia*, 3 October 2011.
[176] Vladimir Putin, "Novyi internatsionnyi proekt dlya Evrazii – budushchee, kotoroe rozhdaetsya sevodnyia," Izvestia, 3 October 2011.
[177] Fyodor Lukyanov, "Building Eurasia and defining Russia," In: Kaadri Liik, *Russia's Pivot to Eurasia* (London: ECFR, 2014): 18–24.
[178] Timofei Bordachev, "Eurasian Russia in the twenty-first century," In: Kaadri Liik, *Russia's Pivot to Eurasia* (London: ECFR, 2014): 25–31.
[179] Ibidem: 25–31.
[180] Predecessor of Eurasianism focused more on China and India than Central Asia, main protagonist Konstantin Leontiev.

belts of tundra, taiga, and deserts. The entire area of Central Asia was considered to be a natural part of Eurasia. This was emphasized by the belief that Eurasia was defined by the duality of Slavs and Turanians, and Orthodox Christianity and Islam.[181]

Lev Gumilev, Alexander Panarin, and Alexander Dugin resurrected the Eurasian idea in Russia after the fall of the Soviet Union. Even though the Eurasianist movement is quite heterogeneous, it had an impact on the formulation of Russia's foreign policy towards Central Asia and on the perception of this region. Alexander Panarin, in the 1990s, endeavored to renew the idea of multi-ethnic empire and Eurasian messianism that was partly forgotten during the Soviet era.[182] Later in the 2000s, Aleksander Dugin directly connected the restoration of Russia's great power status with regaining control over Central Asia. He considered Tajikistan and Uzbekistan as determinant actors in Central Asia.[183] This notwithstanding, Eurasianism remained fringe idea until Vladimir Putin seemingly tried to incorporate its elements into his foreign policy after reaffirmation in 2012.

Russia's energy policy in Central Asia was also dominated by the repeated proposal to create an international natural gas cartel that would work as "gas OPEC", with Russia as its principal leader. This status would justify claims by part of the political elite in Russia that their country is an "energy superpower." On the other hand, Russia deliberately avoided the European Energy Charter Treaty and Transit Protocol. These documents were signed in 1994 and came into force in 1998. 51 EU, Asian and other European countries already signed them. Russia is, however, strongly opposes any initiatives that aim at greater certainty to participants and investors in gas commerce. If Russia were a signatory, it would have to allow third parties access to the pipelines that would make it possible for other Central Asian and Russian producers to utilize Gazprom's network for their purposes.[184]

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[181] Marléne Laruelle, *Russian Eurasianism: An Ideology of Empire* (Washington: Woodrow Wilson Centre Press, 2008): 1–39.
[182] Ibidem: 70–107.
[183] Aleksandr Dugin, *Osnovy Geopolitiki: Geopoliticheskoe budushchee Rossii* (Moscow: ARTOGEYA-tsentr, 2000): 202–205.
[184] "The Energy Charter Treaty," December 2014, www.energycharter.org/process/energy-charter-treaty-1994/energy-charter-treaty.

However, Russia's approach to natural resources simply follows the realist paradigm, which considers the control of natural resources as a key foundation of state's power.[185] On the one hand, the creation of the "gas OPEC" would strengthen Russia's control over energy resources of other state actors. It would enable it to use its energy weapons on the much larger scale. On the other hand, if Russia would accede to the European Energy Charter, it would significantly lower its control over its energy resources and as a consequence diminish the state power of Putin's regime.

Central Asia-Centre Gas Pipeline System

Russia utilized in the regional energy security complex of Central Asia especially its "transit weapon".[186] This approach was possible mainly because of the old Soviet-era gas pipeline system. In practice, Gazprom purchased natural gas in Central Asia for a lower price and sold it for a higher price in Europe, or it purchased natural gas in Central Asia for a lower price, used it for domestic purposes and at the same time kept selling its own natural gas for a higher price in Europe. Cheap natural gas from Turkmenistan enabled Russia to exert significant leverage over Ukraine. This gas was sold to Ukraine through shady intermediaries and contributed to Ukraine's massive debt accumulation towards Russia.[187]

The Central Asia-Centre Gas Pipeline System consists of five separate pipelines that have been mainly used for transportation of natural gas from the south-eastern gas fields of Turkmenistan. The first pipeline of this system was commissioned in 1966 and construction of fifth line was finished in 1987. It is mostly behind its projected exploitation limit of 33 years. There are two corridors in this system. The first corridor includes four pipelines – CAC-1, CAC-2, CAC-4 and CAC-5 that go from Turkmenistan to Uzbekistan and Kazakhstan into Russia. The second corridor consists only of one gas pipeline, CAC-3, which goes solely through Kazakhstan. The projected output of this system was 90 bcm per year, however, by 2003 it decreased to 50 bcm.[188]

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[185] For more on Russia's energy security see: Martin Jirušek, Tomáš Vlček, Filip Černoch et al, *Energy Security in Central and Eastern Europe and the Operations of Russian State-Owned Enterprises* (Brno: Masaryk University Press, 2015).
[186] Nygren, "Putin's Use of Natural Gas," 3–15.
[187] Mikhael Fredholm, "Natural Gas Trade between Russia, Turkmenistan and Ukraine," *Asian Cultures and Modernity,* Stockholm University, No. 15 (2008): 6–33.
[188] *Alexander's Gas and Oil Connections,* No. 9, Vol. 4, 25 February 2004.

There were many attempts to break Russia's "transit weapon" from the West, e.g., the Baku-Tbilisi-Ceyhan Oil Pipeline, Baku-Tbilisi-Erzurum Gas Pipeline, or the South Caucasus Gas Pipeline. However, the most important component of this architecture – the Trans-Caspian Gas Pipeline – has yet to materialize due to prolonged struggle over the legal status of the Caspian Sea that was only solved by the Convention on the Legal Status of the Caspian Sea signed by five littoral states in August 2018.

Russia in early 1990s proposed to create a regional organization responsible for coordination of joint extractions of Caspian resources. Moreover, it supported the continuity of two Soviet-Persian treaties concerning free navigation and fishing from 1921 and 1940. Nonetheless, at the time of the signing of these two treaties, there were only two littoral states. This state changed in 1991 when five independent states shared the border with the Caspian Sea. Russia was strongly against appliance of the United Nations Convention on Law of the Sea, and it emphasized that the Caspian Sea was from the point of view of the international law a "unique water reservoir".[189] The application of the convention would pave the way for the division of the specific economic zones amongst the littoral states. If the Caspian Sea remained a "unique water reservoir," any significant infrastructure projects would in Moscow's understanding have to be agreed upon only by consensus of all littoral states. In this "condominium" approach, Russia sought to hinder the much-feared southern bypass through the Trans-Caspian Gas Pipeline.

Russia's relative dependence on Central Asian energy

Russia utilized with different success its "tap weapons" in relations to Belarus, Ukraine, and Moldova.[190] However, in the case of its relationship with Turkmenistan, it was Ashgabat that used "tap weapons" against Russia. Turkmenistan suspended its gas supplies to Russia in 2000 because of unsuccessful pricing negotiations. Russia was at the time not able to deliver promised amounts of natural gas both to Europe and to domestic consumption without Turkmenistan's synergy. On the other hand, Ashgabat was constrained to some extent by the lack of diversified export infrastructure.[191] Both

[189] Joshua Kucera, "Is the Caspian Sea Dispute Finally About to be Resolved?", 20 July 2016, www.eurasianet.org/node/79761.
[190] Nygren, "Putin's Use of Natural Gas," 3–15.
[191] "Natural Gas Information – 2015 edition," *International Energy Agency,* www.iea.org, 2015.

parties signed a long-term umbrella agreement in 2003. It provided for Turkmenistan's energy imports to Russia for next 25 years.[192]

This notwithstanding, Turkmenistan stopped its supply again in 2005 because of another round of unsuccessful pricing negotiations. Still, Ashgabat had to stick firstly with the same level of prices as it lacked other export opportunities.[193] This necessity changed somewhat in 2006 when the prices started to rise. The entire situation altered significantly in 2009 when there occurred an explosion on the fourth line of the Central Asia-Centre Gas Pipeline System. Gazprom imported to this moment 70 percent of Turkmenistan's natural gas production. Afterward, the import dropped to 45 percent. And in 2016 it ultimately ceased whatsoever.[194]

Russia has to adjust its energy policy to different state of affairs in each of the state actors in the regional energy security complex of Central Asia. Kazakhstan is more open to foreign partners. International energy companies such as Chevron, ExxonMobil, and ConocoPhillips helped Kazakhstan in the 1990s to effectively break Russia's monopoly on its exports. They secured stakes in Kazakhstan's upstream and invested in an increase of the local oil production, which is now at 1.7 million barrels per day.[195] They have also helped Kazakhstan to access European market through the privately owned Caspian Pipeline Consortium that runs to Novorossiysk and by supplying oil to the Baku-Tbilisi-Ceyhan Oil Pipeline.[196] On the one hand, this entry of western companies in the early 1990s enabled Kazakhstan more independent and multi-vector foreign policy. On the other hand, Kazakhstan's natural gas sector remains almost entirely controlled by the state.

Kazakhstan's export opportunities further widened after the Atyrau-Alashankou Oil Pipeline to China was commissioned in 2003. Moreover, Kazakhstan joined in the Turkmenistan-China Gas Pipeline in 2009.[197] At present, Chevron, ExxonMobil,

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[192] "Turkmeno-rossiiskii proryv," *Turkmenistan.ru,* 10 April 2003.
[193] Leszek Buszynski, "Russia's New Role in Central Asia." Asian Survey Vol. 45, No. 4 (2005): 546–565.
[194] "Gazprom prekratil pokupku gaza iz Turkmenii," *Vesti.ru*, 4 January 2016.
[195] "US increases Kazakhstan's oil production forecast," *Kazinform International New Agency,* 14 July 2016.
[196] "About," *Caspian Pipeline Consortium,* www.cpc.ru/en/about/Pages/default.aspx.
[197] "Flow of Natural Gas from Central Asia," *CNPC,*

Eni, Shell, Total, Mittal Energy, Sinopec, and CNPC are operating in Kazakhstan. Moreover, there are present joint ventures of Lukoil and Rosneft. Gazprom controls 50 percent of shares in KazRosGaz, which almost possesses a monopoly on the export of Kazakhstan's natural gas production. This overall openness enables Kazakhstan to be more resistant to Russia's policies in Central Asia.

Even though Kazakhstan is being perceived as the leading proponent of the Eurasian integration what is even mentioned in its Constitution, it has its reservations concerning some Russian goals. Former Kazakhstan's President Nursultan Nazarbayev stressed continuously that the Eurasian Union is a solely economic project and not a political one.[198] According to him, there will be no supranational institutions or joint citizenship. Economic, not geopolitical interests are the main driving force behind this project according to Kazakhstan's president.[199]

Another critical energy player in the region – Azerbaijan – is even less dependent on Russia than Kazakhstan concerning energy. It significantly lessened its dependence on Moscow by commissioning the Baku-Tbilisi-Ceyhan Oil Pipeline in 2006 and the Baku-Tbilisi-Erzurum Gas Pipeline one year later. It also enthusiastically proposes the idea of the EU Southern Gas Corridor. The only, but still very relevant leverage that Russia has in its relation to this country is the unsolved Nagorno Karabakh conflict between Armenia and Azerbaijan.

China and Russia were made to cooperate by the US military presence in Central Asia since 2001. They were mainly active in the framework of the Shanghai Cooperation Organization.[200] However, the withdrawal of the International Assistance Security Force from Afghanistan in 2014 led inevitably to competition between these two remaining powers with interests in the Central Asian region.[201]

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www.cnpc.com.cn/en/FlowofnaturalgasfromCentralAsia/FlowofnaturalgasfromCentralAsia2.shtml.

[198] Christopher Hartwell, "A Eurasian (or a Soviet) Union? Consequences of further economic integration in the CIS." Business Horizons No. 56 (2013): 131–147.

[199] "Eurasian Economic Union bears no resemblance to the USSR: President Nazarbayev," *Tengri News,* 22 December 2014.

[200] "Dukh Shankhaya vzyvaet k Turkmenistanu," Turkmenistan.ru, 16 August 2007.

[201] Stephen Blank and Younkyoo Kim, "Same Bed, Different Dreams: China's Peaceful Rise and Sino-Russian Rivalry in Central Asia," *Journal of Contemporary China,* Vol. 22, No. 83 (2013): 773–790.

Russia's annexation of Crimea and consequent ostracizing of Russia from the international community strengthened China's position vis-à-vis Russia and Central Asia. China's support towards Russia was careful but sufficient. China obtained in exchange Russia's endorsement for the Belt and Road Initiative, advantageous deal on natural gas purchases and Russia's consent with the strengthening of the SCO.[202] This development leads to Russia's growing dependence on China's backing and its distancing from Europe.[203] It is also not coincidentally connected with the rise of Eurasianism that claims that Russia does not belong to Europe but is distinct civilization between Europe and Asia. Moreover, it is interesting to observe how the potential threats to Russia's interests in Europe are exaggerated by Russian media and political class whereas threats to Russia's interests in Asia use to be deliberately underrated.[204]

This subchapter concludes that Russia's energy policy towards Central Asian ESC focused on four primary aims. Firstly, Russia attempted to exploit its inherited monopsony position with Central Asia's suppliers, contractually locking in supplies and taking ownership shares in producers and processing. Thus it tried to create a system of undesirable dependence with the aim of controlling entire Central Asian energy market. Secondly, Russia tried to block any alternative supply routes from Central Asia. This strategy was done either directly citing environmental concerns or indirectly by proposing alternative pipelines. Russia's energy policy in the ESC of Central Asia was led by zero-sum approach and attempt to eliminate competition. Thirdly, Russia constructed new pipeline infrastructure to bypass transit states and as a consequence to deepen Europe's dependence on itself.[205] Fourthly, Russia attempted to preserve Gazprom's monopoly over Russian and Central Asian gas exports through blocking of foreign ownership of gas reserves, gas production and transportations in Russia. All this reflects the emphasis on strategic issues over economic logic, which confirms that Russia's energy policy in Central Asian ESC is executed according to the strategic approach to energy policy.

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[202] Sergej Luzyanin, "Rossiya i Kitai: Noviy kontekst otnosheniy," 12 January 2015, MGIMO.
[203] Stephen Blank, "Same Bed, Different Dreams: China's 'peaceful rise' and Sino–Russian rivalry in Central Asia." Journal of Contemporary China Vol. 22, No. 83 (2013): 112–127.
[204] "Vozmozhnost voennych stolknoveni Rossii s NATO i Kitaem," Levada Center, 21 November 2015, www.levada.ru/2015/11/21/vozmozhnost-voennyh-stolknovenij-rossii-s-nato-i-kitaem-vospriyatie-stran-es.
[205] Richard E. Ericson, "Eurasian Natural Gas Pipelines: The Political Economy of Network Interdependence," *Eurasian Geography and Economics,* Vol. 50, No. 1 (2009): 28–57.

Reflection on indicators

The presented chapter represented a case study on Russia's energy policy in the ESC of Central Asia. The goal of this particular case study was to search for indicators set by the model on the assessment of the natural gas sector. Consequently, it attempted to find out whether Russia's energy policy in Central Asian ESC followed rather either strategic-oriented or market-oriented approach. There are eight such features i.e. perception of energy resources as strategically important; perception of energy sector as crucial for state's economy; perception of state-owned energy actors as extension of state apparatus; reliance on bilateral relations; perception of energy sector as state's tool; zero-sum approach; undesirable dependence; emphasis on strategic issues over economic logic. The conclusion of this case study is that Russia's energy policy in the ESC of Central Asia was predominantly led by the strategic-approach to energy policy based on the indicators listed below.

Perception of energy resources as strategically important

Based on the accumulated data, Russia's current political regime perceives energy resources as strategically important. There were many occasions under Putin when its tendencies to take control of energy resources or their distribution networks manifested themselves. These tendencies are evident in Russia since the Yukos affair in 2003 when Mikhail Khodorkovsky tried to sell parts of Yukos to the US enterprises Chevron or ExxonMobil. Instead of selling Yukos to US investors, Khodorkovsky was arrested and his company taken over by the state-owned Gazprom. Yukos had to remain in the control of the Russian state because of its strategic importance.

Perception of energy sector as crucial for state's economy

Present Russia considers its energy sector as strategically important core of its economy and trade abilities. The above analysis shows that Russia tried to control the energy sector with increased vehemence especially since the rise of Putin to power. Nonetheless, energy sector remained crucial part of Russia's economy since the end of 19th century. Its internal significance does not lie only in support of economic growth but also in ability to win Putin's regime popular affirmation though energy prices subventions.

Perception of state-owned energy actors as extension of state apparatus

It was shown that Putin's regime is at present either directly or indirectly dominating the entire energy sector of the Russian Federation. This means that Putin's regime was able to increase its power capabilities as it transferred significant portion of national power into state power. Hence, Russia perceives itself as an energy superpower. Based on the case study's findings, it is clear that Russia's political elite considers country's state-owned energy actors as tool for both internal and external policies of the state. The role of energy sector in foreign policy is increasing based on the foreign and security blueprints of Russia under Putin.

Reliance on bilateral relations

Russia's reliance on bilateral relations in energy is foremost visible on its strictly negative approach to any multilateral initiative such as the European Energy Charter. Based on the accumulated data, Russia is giving preference for long-term bilateral deals. This is because Russia can play the role of energy superpower more strongly in bilateral conditions. The case study has exemplified it on several cases when Russia utilized either tap or transit energy weapons in relations to other state actors.

Zero-sum approach

The case study shows that Russia repeatedly attempted to preserve its dominant exporter role on European markets as well as its dominant importer role in Central Asia. Russia was more successful in the case of European markets but in Central Asia, it is gradually pushed away by China's energy interests. Russia's political elite was due to its zero-sum approach willing to let China in Central Asia in order to preserve its position in the west.

Perception of energy sector as state's tool

The case study has found that according to both strategic documents and commercial practice the energy sector of Russia is considered by Putin's regime as a tool of internal and external policy. It can be also concluded that Russia is rewarding or punishing certain behavior of other states. There are also clear evidence of attempts to control entire supply chains and markets regardless of commercial logic, as it was the case with both the European markets in the west and Asia-Pacific markets in the east.

Undesirable dependence

Russia attempted to exploit its inherited monopsony position with Central Asia's suppliers, contractually locking in supplies and taking ownership shares in producers and processing. Thus it tried to create system of undesirable dependence with the aim of controlling entire Central Asia energy market. It also attempted to block any alternative supply routes from Central Asia. Russia's energy policy in the ESC of Central Asia was led by zero-sum approach and attempt to eliminate competition. Furthermore, Russia constructed new pipeline infrastructure to bypass transit states and as a consequence to deepen Europe's dependence on itself. Finally, Russia attempted to preserve Gazprom's monopoly over Russian and Central Asian gas exports through blocking of foreign ownership of gas reserves, gas production and transportations in Russia. All this with the emphasis on strategic issues over economic logic, which confirms that Russia's energy policy in Central Asian ESC is executed according to the strategic approach to energy policy.

Emphasis on strategic issues over economic logic

Russia significantly diminished its former economic and political clout in the ESC of Central Asia in the course of past 25 years. Russia controlled the region's entire transit infrastructure at the beginning of the 1990s, and so it had enormous leverage over its newly independent neighbors. In this respect, it was crucial to control the Central Asia-Centre Gas Pipeline System through Gazprom. However, Russia was just not able to blackmail all potential partners for the Central Asian states. Moreover, the cooperation with Russia was considered by Central Asian regimes as not the best option due to its adverse economic performance and growing authoritarian and imperial policies.

In general, the aim of Russia's energy policy in the Central Asian ESC was to ensure its energy security through dominance in energy sector of Central Asia. Steps taken by Russia's government show that it was not following the market approach focused on maximization of profit but instead on strategic approach to energy resources. It attempted to use its energy potential as one of its crucial foreign policy tools as it is stated many times in Russia's strategic documents on foreign or security policy. Nonetheless, it has to be stressed that the principal goal is of genuinely political nature – the preservation of Putin's regime and its position in internal and external affairs.

3 China's Energy Policy in Central Asia

The second of the three case studies is devoted to China's energy policy and its formulation in the context of ESC of Central Asia. This chapter is divided into four main parts, namely energy resources, energy actors, energy policy and energy policy in the ESC of Central Asia. These subchapters are based on evaluation of primary and secondary academic sources. The goal of this particular case study is to search for features set by the model on the assessment of the natural gas sector i.e. perception of energy resources as strategically important; perception of energy sector as crucial for state's economy; perception of state-owned energy actors as extension of state apparatus; reliance on bilateral relations; perception of energy sector as state's tool; zero-sum approach; undesirable dependence; emphasis on strategic issues over economic logic. This represents a stepping-stone in the process of answering the research question on the predominant approach to energy policy among the actors of the ESC of Central Asia. Therefore, the chapter is concluded by part on reflection of particular indicators.

Energy resources

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

The situation began to somewhat improve in the 1970s. China was able to utilize the oil crises of 1973 and 1979 for boosting its oil exports. Also, the change in the leadership of the Chinese Communist Party connected with the rise of Deng Xiaoping in 1978 led to opening up of China's economy and even partial economic liberalization. An enormous problem for China's energy policy was self-sufficiency since 1949. After Deng Xiaoping's opening, the problem of self-sufficiency was slowly substituted with ensuring the energy security and diversification of supplies.[206]

[206] Erica Strecker Downs, *China's Quest for Energy Security* (Washington: RAND, 2003): 11–42.

Deng Xiaoping's new economic policy commenced quick industrialization and stark rise in energy consumption. China was energy self-sufficient until the late 1970s when the situation started to change. First import of hydrocarbons from Oman began in 1983, and the domestic demand for oil outmatched domestic production already in 1996. This change was mainly due to a steep rise in the number of passenger cars.[207] In 2013 China consumed 10.5 mil. barrels per day which made it second biggest global consumer of oil after the United States. In the same year, the production of China's oil industry covered only half of this demand.[208] The consumption was rising especially because of remarkable economic growth as shown in the Table 13.[209]

Table 13: Basic socio-economic indicators – People's Republic of China (2007–2018)

Year	GDP (trillion USD)	GDP per capita (current USD)	Inhabitants (billions)
2007	3.552	2 695	1.318
2008	4.598	3 471	1.325
2009	5.11	3 838	1.331
2010	6.101	4 561	1.338
2011	7.573	5 634	1.344
2012	8.561	6 338	1.351
2013	9.607	7 078	1.357
2014	10.482	7 684	1.364
2015	11.065	8 069	1.371
2016	11.199	8 123	1.379
2017	12.143	8 759	1.386
2018	13.608	9 771	1.393

Source: The World Bank

Regarding natural gas reserves, China possesses 5.4 tcm of gas with the use of contemporary technology and 4 tcm more in unconventional resources.[210] China's domestic production of natural gas was 138.4 bcm in 2016 and consumption 210.3 bcm.[211] There is a significant upsurge in the use of natural gas in China because of its

[207] Ibidem.
[208] "China Crude Oil Consumption by Year," *United States Energy Information Administration,* www.eia.gov.
[209] Table 13.
[210] "China's potential oil, natural gas reserves rise: official data," *Xinhua New Agency,* 14 June 2016, www.chinadaily.com.cn/business/2016-06/14/content_25707842.htm.
[211] "China's 2015 natural gas output growth slowest in at least 10 years," *Reuters,* 19 January 2016,

increased use in heavy industry and production of electricity. Another critical factor is the government's attempt to alleviate pollution. Natural gas represents 3 to 5 percent among primary sources of energy in China. However, the government plans to increase this figure up to 10 percent. This notwithstanding, the essential energy source is still by far coal, which covered 66 percent of energy consumption in the country in 2014. The second most important source of energy was oil, which covered 19 percent of overall energy consumption. Hydro energy covered six percent, gas three percent, nuclear energy as well as renewables both one percent.[212] Nonetheless, the most important process is the gradual rise of natural gas share in the energy mix, which has significant geoeconomic and geopolitical implications. The consumption of natural gas in actors of the ESC of Central Asia is compared in Table 14.[213]

Table 14: Consumption of natural gas in bcm (2007–2018)

Year	Russia	Turkmenistan	China	Kazakhstan	Uzbekistan
2007	422	21.3	73	9	45.9
2008	416	21.4	84.1	8.9	48.7
2009	389.6	19.7	92.6	8.3	39.9
2010	414.1	22.6	111.2	8.9	40.8
2011	424.6	23.5	137.1	10	47.6
2012	416.2	26.3	150.9	10.8	47.2
2013	413.5	22.9	171.9	11.2	49.8
2014	409.7	25.6	188.4	12.5	48.8
2015	402.8	29.4	194.8	12.9	50.2
2016	390.9	29.5	210.3	13.4	51.4
2017	431.1	25.3	240.4	15.9	43.1
2018	454.5	28.4	283	19.4	42.6

Source: BP

The chief features of China's five-year plan policy can illustrate the changing approach to energy policy in this country.[214] In the course of the sixth five-year plan, from 1980 to 1985, the subchapter on energy emphasized the necessity of managed energy-saving

www.reuters.com/article/china-economy-output-gas-idUSL3N1532HZ.
[212] Xin Li, *Natural Gas in China: Regional Analysis* (Oxford: The Oxford Institute of Energy Studies, 2015): 4–15.
[213] Table 14.
[214] International Energy Agency, *Developing China's natural gas market* (Paris: IEA, 2002): 51–56.

goals. It also stressed the necessity to keep production in line with the availability of resources.[215] The next, seventh five-year plan, from 1985 to 1990, even focused on awarding enterprises that were saving energy. The construction and improvement of the energy industry were considered one of the utmost priorities of this plan.[216] Eighth five-year plan, from 1990 to 1995, continued with a focus on the energy savings. Moreover, the population growth control policies were linked directly with energy savings.[217]

The ninth five-year plan, between 1995 and 2000, already began with redesigning of China's energy mix. It tried to increase natural gas and renewables share and decrease coal consumption.[218] This attempt was also accompanied by the Asian economic crisis of 1997, which led to China becoming a net importer of oil. Moreover, the ninth plan introduced the policy "Go West" focused on the development of western regions of China and improving its relations with neighbors in this direction.[219] It assumed big volumes of gas transiting from the west to the east and electricity going in the opposite direction.[220]

The tenth five-year plan launched in 2000, even more, stressed the importance of protecting the environment what was linked with rising role of renewables and gas.[221] Eleventh five-year plan, 2005–2010, stressed more opening in both trade and energy policy.[222] The twelfth five-year plan covered the period between 2010 and 2015. It firmly focused on the development of China's western regions. Moreover, it emphasized the importance of renewables and their growing share in the national

[215] "6th Five-Year Plan," *China Daily,* www.chinadaily.com.cn/china/2012npc/2011-02/23/content_14689649.htm.
[216] "7th Five-Year Plan," *China Daily,* www.chinadaily.com.cn/china/2012npc/2011-02/23/content_14689653.htm.
[217] "8th Five-Year Plan," *China Daily,* www.chinadaily.com.cn/china/2012npc/2011-02/23/content_14689657.htm.
[218] "9th Five-Year Plan," *China Daily,* www.chinadaily.com.cn/china/2012npc/2011-02/23/content_14689661.htm.
[219] Andrew Moody, "'Go West policy is an economic milestone for nation," China Daily, 12 September 2011.
[220] Hongyi Lai, "Western Development Program: Its Rationale, Implementation, and Prospects," *Modern China,* Vol. 28, No. 4 (2002): 432–466.
[221] "10th Five-Year Plan," *China Daily,* www.chinadaily.com.cn/china/2012npc/2011-02/23/content_14689665.htm.
[222] "11th Five-Year Plan," *China Daily,* www.chinadaily.com.cn/china/2012npc/2011-02/23/content_14689669.htm.

energy mix.[223] The thirteenth five-year plan period continues in the previous trend of environmental protection and focuses on western parts of the country.[224] It should be stressed that both the environmental protection and energy security represent two most important tasks for not only China's energy policy but also critical priorities of China's government.[225]

This subchapter on energy resources of China shows that the country has significant natural resources but it is rather energy importer due to the character of its economy. Energy sector, however, plays crucial role as it represents a basis for state's economy. China holds the output as the main instrument of maintenance of legitimacy of the CPC. Chinese state is therefore interested in controlling the energy sector and it considers it as strategic asset for maintaining support of the ruling regime. China's attempt to enlarge the share of natural gas in its energy mix is not to be seen only in the narrow scope of the environmental protection but also in the scope of securing control of energy resources that are key to both military and economic powers.[226]

Energy actors

The People's Republic of China was created in 1949, and it is up to this day ruled by the Communist Party of China. Supreme party body is the National Congress of the CPC, which convenes since 1960 every five years. Between sessions of the National Congress, the highest authority lies in the Politburo, the Politburo Standing Committee, and the Central Military Commission.[227] Apart from party's authority, the National People's Congress holds state's authority. It plays the role of parliament and has the right to elect the president, premier and other officials. President and vice-president represent the executive power in the state. The former sets up the State Council of China, which is China's central government.[228]

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[223] "12th Five-Year Plan," *The State Council of the People's Republic of China,* http://english.gov.cn/.
[224] "13th Five-Year Plan," *Xinhua News Agency,* news.xinhuanet.com.
[225] Shi Dan, "China's Energy Policy and its Development," In: Antonio Marquina, *Energy Security: Visions from Asia and Europe* (Madrid: Palgrave Macmillan, 2008): 135–146.
[226] For more on China's perception of Central Asia see: Marléne Laruelle and Sebastiene Peyrouse, *China as a Neighbor: Central Asian Perspectives and Strategies* (Washington: Central Asia – Caucasus Institute and Silk Road Studies Program, 2009).
[227] "Full Text of Constitution of the Communist Party of China," *16th CPC National Congress on November 14, 2002,* www.china.org.cn/english/features/49109.htm#4.
[228] "Constitution of the People's Republic of China," 4 December 1982, en.people.cn/constitution/constitution.html.

China's current political system is plagued by a lack of formal separation of powers and turf wars. This political reality is especially crucial for the formulation of country's energy policy towards neighboring regions. The political top brass does not usually initiate firm decisions on day-to-day matters. It focuses only on strategic decisions and in other situations waits for initiatives from lower levels. Besides, if there is no clear consensus, the political elite is prone to postpone solution, rather than to adopt unpopular one. This lack of decisiveness makes the decision-making process very slow.

In the energy sector, the State Council, Politburo Standing Committee or leadership of the People's Liberation Army are making most decisions.[229] Moreover, there is the substantial influence of the state-controlled energy enterprises that will be addressed in the subsequent paragraphs. The energy sector of the PRC was not sufficiently governed since 1949. As in other sectors, the competences and powers were splintered, and the only unifying authority was vested in the Communist Party of China. However, this changed after severe power outages that occurred in summers 2003 and 2004.[230] China's energy resources are located in sparsely inhabited areas in the northern and western parts of the country while most of the population lives in the coastal areas of south-eastern China. This discrepancy creates enormous pressure on the electricity distribution grid.

National Energy Office was created in 2003 as a reaction to the shortcomings of the elecricity system. This government body was tasked with the preparation of state's energy policy and subordinated to the National Development and Reform Commission. This commission is successor body to the former State Planning Commission and represents important planning structure for the economic development of the PRC.[231] The National Energy Office was restructured into the National Energy Administration. Its competencies were widened, but it is still logistically subordinated to the NDRC.

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[229] "National Energy Administration," *National Development and Reform Commission of the People's Republic of China,* en.ndrc.gov.cn/mfod/200812/t20081218_252224.html.
[230] "China strives to ease power shortage in 2004," *China Daily,* 29 December 2003, www.chinadaily.com.cn/en/doc/2003-12/29/content_294277.htm.
[231] "Main Functions of the NDRC," *National Development and Reform Commission of the People's Republic of China,* en.ndrc.gov.cn/mfndrc.

The National Energy Leading Group was also created for coordination of the energy policy in 2005.[232] This kind of body is quite common in China. It stands above individual ministries and aims at finding consensus among the State Council, involved subjects and armed structures. Even though the formal structure governing the energy sector of China seems to be very complicated, the most important conclusion is the overall dominance of the CPC. It necessarily has to react to different impulses and initiatives, but its main priority is to maintain the legitimacy of its rule through sustainable economic growth and energy security.

China's oil and gas enterprises are more and more involved in country's energy policy making. Three most important state enterprises are the China National Petroleum Company, the Sinopec Group, and the China National Offshore Oil Corporation. At first, the Ministry of Petroleum Industry was reorganized into the CNPC in 1988. It was tasked primarily with upstream activities on China's mainland and was controlled directly by the State Council.[233] At second, the CNOOC had been established already in 1982. It was again directly controlled by the government and tasked with upstream activities in coastal areas.[234] At third, Sinopec was created in 1983, to focus mainly on downstream activities.[235] Both CNPC and Sinopec were administered as a ministry; CNOOC was considered to be on a bit lower bureaucratic level.

All three enterprises were reorganized again in 1998 because of adverse effects of the low levels of world oil prices and the Asian financial crisis. Both CNPC and Sinopec started to undertake upstream and downstream activities. CNPC should have been more active in the northern and western regions of China whereas Sinopec operated in south and east. All three enterprises created joint-stock companies and offered their shares on international stock markets.[236] However, Chinese state possesses a controlling stake in all three of them. The government focuses more on the formulation of energy policy than direct control since the end of the 1990s. Also, more significant investments in these groups are still being approved by the NDRC or in

[232] "Energy Leading Group Setup," *China Daily,* 4 June 2005, www.chinadaily.com.cn/english/doc/2005-06/04/content_448562.htm.
[233] "CNPC at glance," *CNPC,* www.cnpc.com.cn/en/cnpcataglance/cnpcataglance.shtml.
[234] "Company overview" *CNOOC,* www.cnooc.com.cn/col/col6141/index.html.
[235] "About Sinopec," *Sinopec,* www.sinopecgroup.com/group/en/companyprofile/AboutSinopecGroup.
[236] Steven W. Lewis, *Chinese NOCs and World Energy Markets: CNPC, Sinopec, CNOOC* (Houston, TX: Rice University, 2007): 39–48.

some cases directly by the State Council.[237] Hence, the level of state control of these enterprises is on the approximately similar level as that of Gazprom or Rosneft in Russia.

CNPC represents biggest importer and producers of natural gas in China since 2010 with the contribution of natural gas import of 76.7 percent.[238] Its domestic rivals Sinopec Corporation and CNOOC contributed in 2010 with 13.5 and 9.8 percent respectively.[239] CNPC is becoming more proactive in Central Asian ESC and in Russia since the early 2000s. CNPC signed series of agreements with the Sakhalin Energy, Lukoil, and Rosneft providing for oil trade, petroleum exploration, development and oilfield service and engineering from 2003 to 2006. Moreover, CNPC and Rosneft created joint-venture Vostok Energy Ltd. in 2006, which consequently won an auction for licenses to explore oil and gas deposits in two Eastern Siberian fields. CNPC holds 49 percent in this joint-venture. Therefore, it could be stated that the process of acquiring of East Siberian and Far Eastern hydrocarbon deposits by Russia's state-owned enterprises in the 2010s is being accompanied with similar activity on China's side.

Moreover, CNPC concluded with Gazprom a framework agreement to import natural gas to China as well as an agreement with Rosneft on extending oil supply to the Russia-China Crude Pipeline in 2010. Also, CNPC and Rosneft established a joint-venture to develop oil and gas fields in the Far East in 2013. It also joined Novatek's Yamal LNG project with 20 percent stake. Above all, CNPC signed an agreement with Novatek in 2014 to purchase 3 million tons of LNG from Yamal for 20 years. All these transactions show China's thrust to assert control of Russia's energy resources in the Eastern Siberia and the Far East. This dynamics on China's side accelerated after it commissioned vital oil and gas pipelines to Central Asia and got control of significant deposits in that region. It seems that China's achievements in Central Asia enabled it better negotiating positions vis-à-vis Russia.

[237] Ibidem: 39–48.
[238] "CNPC at a glance," CNPC, www.cnpc.com.cn/en/cnpcataglance/cnpcataglance.shtml.
[239] "China's natural gas consumption," *Interfax,* 15 April 2011.

Beijing is also active in directly securing the supply of energy resources from Russia. CNPC and Transneft signed an agreement on the construction and operation of the Russia-China Crude Pipeline in 2008. This pipeline starts at Skovorodino off-take station in East Siberia and continues to Daqing terminal station in China. This pipeline is a thousand kilometers long but out of these just 63 kilometers are on Russia's territory. Its capacity is 15 million tons yearly. The construction started in May 2009 and was completed in September 2010. According to an agreement from 2013, Rosneft would deliver annually 30 million tons by 2018 with contract term 25 years.

CNPC and Gazprom signed a framework agreement on gas supplies through a newly built pipeline from Russia to China in September 2013. The construction of the Power of Siberia Gas Pipeline began in 2014. Its total length should be 2.680 kilometers. It will enter China in Heihe in Heilongjiang Province. This pipeline was to be commissioned in 2019 and contract's length is 30 years. It would deliver 38 bcm yearly since the sixth year of the contract.[240] It is remarkable that the respective projects in Central Asia were commissioned in both cases much earlier than those in Russia. Firstly, the Kazakhstan-China Oil Pipeline was commissioned in 2009 while the Skovorodino-China Crude Pipeline was commissioned one year later. Secondly, the Turkmenistan-China Gas Pipeline was fully commissioned in 2014 while the Power of Siberia Gas Pipeline is expected to be commissioned in 2019 at the earliest.

This subchapter on energy players in China explains how the CPC dominates the entire energy sector of the country. Both CNPC and CNOOC represent key pillars of current political regime in China. These corporations influence the formulation of China's energy policy through political influence, their financial weight, and human resources. Firstly, the political influence of the hydrocarbon enterprises derives from them being created from state institutions. Secondly, the oil and gas enterprises are typically connected with the government or the CPC on a personal level. Thirdly, they generate profit and thus are financially independent. The joint-stock companies Petro China, Sinopec Corporation and CNOOC Ltd., created in 2005, generate approximately 22 percent of all contributions of state-owned enterprises into the national budget.[241]

[240] "CNPC and Russia," *CNPC,* www.cnpc.com.cn/en/Russia/country_index.shtml.
[241] Erica S. Downs, "Who's Afraid of China's Oil Companies?" In: *Energy Security: Economics, Politics, Strategy, and Implications* (Washington: Brookings Institution Press, 2010): 73–95.

The most usual modus operandi is that the government supports them in their actions in exchange for fulfilling national interests outlined in the energy strategy. These findings confirm that the CPC wants to transfer as much as possible national power into state power especially in energy sector. State-owned or state-dependent energy actors are considered to be practically as extension of state's apparatus.

Energy policy

The core of China's energy policy is not so distant from its Russian counterpart. This is because both countries have an authoritarian system, which is being legitimized through guaranteed economic performance and internal stability.[242] Hence, the economic development is in both cases closely linked with the issue of energy security.[243] The big difference is, however, the fact that China is predominantly a consumer country whereas Russia is a major energy exporter. Comprehensive energy strategies are more often to be found in exporter states that are directly dependent on their exports. The consumer states usually start to formulate their energy strategies only in times of crises such as China after electrical blackouts of 2003 and 2004.[244]

China's national interests are defined by the government and the CPC as preservation and modernization of the CPC, strengthening of social and political stability, economic development, integrity and unity of China and strengthening of China's influence in the surrounding region. To have access to diversified energy resources is a key to all those strategic goals.[245] Therefore, energy security plays more and more visible role in China's strategic documents. China lacks any significant historical experience with import disruptions. Nevertheless, this threat is considered as very serious. Import disruptions can eventually lead to economic slowdown and weakening of the CPC's legitimacy. Chinese People's Liberation Army perceives as one of the most critical security threats the United States. This threat is especially real for the ongoing alliance between the US and the Republic of China (Taiwan). If the PLA would one day

[242] Ole Odgaard, "China's energy security and its challenges towards 2035." *Energy Policy* Vol. 71 (2014): 107–117.
[243] Vladimir Kozyrev, "China´s Continental Energy Strategy: Russia and Central Asia." In G. Collins, A. Erickson, L.Goldstein and W. Murray. *China´s Energy Strategy.* (Annapolis: Naval Institute Press, 2008): 103–121.
[244] Monir Alam, "China's Changing Strategic Engagements in Central Asia," *The Journal of Central Asian Studies* Vol. 21 (2014): 13–36.
[245] Hung Ming-Te and Tony Tai-Ting Liu, "China's foreign policy in Central Asia," *Oaka,* Vol. 5 No. 10 (2010): 92–112.

eventually try to invade Taiwan, there is a high probability of a US-led maritime blockade.[246] Hence, China's energy policy attempts to decrease the dependence on naval imports and focuses increasingly on its inland alternatives.

As for the natural gas imports, it is estimated that China's dependence on imported natural gas will rise from 10 percent in 2010 to 42 percent in 2020. China counts with approximately 100 bcm yearly from Central Asia in 2020.[247] The bulk of these volumes will be supplied by Turkmenistan, but Kazakhstan and Uzbekistan would also play an important role.[248] Most importantly, this level of supply would be impossible to reach without commissioning not only Line D of the Turkmenistan-China Gas Pipeline but also the Line E would have to be added to meet the target indicators. The existing natural gas infrastructure of China is depicted on the Map 3.[249]

Based on existing bilateral agreements in place, Russia is going to supply China with 40 bcm per year through the Power of Siberia Gas Pipeline and LNG.[250] There is also functioning gas pipeline from Myanmar that supplies China with natural gas from the Bay of Bengal as a strategic backup. Hence, China's national oil companies own 51 percent of shares in the Myanmar-China Gas Pipeline. Moreover, the LNG imports are also rising quickly. They started in 2006 and reached 20 bcm yearly already in 2012 with leading suppliers being Australia, Indonesia, and Malaysia. Above all, China allegedly owns world largest reserves of non-conventional gas and methane.[251] On the one hand, the development of those non-conventional deposits could change China's import needs. On the other hand, such development is not likely in more massive scale due to the strong accent on the environmental protection policies that represents integral part of the five-year plans since early 1990s.[252] Hence, the external

[246] For more on Belt and Road Initiative see: Cristina Lin, *The New Silk Road: China's Energy Strategy in the Greater Middle East* (Washington: The Washington Institute for Near East Policy, 2011): 13–19.
[247] Joachim Betz, "The Reform of China's Energy Policies," GIGA Working Paper No. 216 (2013): 1–28.
[248] Ole Odgaard, "China's energy security and its challenges towards 2035," *Energy Policy,* Vol. 71 (2014): 107–117.
[249] Map 3.
[250] Simon Kardaś, "The Eastern Partnership of Gas: Gazprom and CNPC Strike a Deal on Gas Supplies to China." *OSW Commentary* No. 136 (2014): 110–133.
[251] Ole Odgaard, "China's energy security and its challenges towards 2035," *Energy Policy,* Vol. 71 (2014): 107–117.
[252] Linda Jacobson, "Does China Have an Energy Diplomacy? Reflections on China's Energy Security and Its International Dimensions," In: Antonio Marquina Barrion, *Energy security: visions from Asia and Europe* (New York: Palgrave Macmillan, 2008): 121–134.

expansion of the energy sector is a consequence of internal political situation and an attempt of ruling regime to maintain its power as in the case of Russia.[253]

Map 3: Natural gas infrastructure of China.

Source: IEA.

China's endeavor to diversify its energy imports is often referred to as a "go-out strategy" or "oil diplomacy."[254] It entails includes that China's political elite utilizes its energy sector as a foreign policy instrument aimed at gaining direct control of energy resources abroad and thus secure diversified and long-term supply of energy resources to China.[255] A few historical examples can prove this assumption. China's CNOOC wanted to purchase the US oil company Unocal in 2005. Its bid of 18.5 billion USD was for 1 billion USD higher than second enterprise ChevronTexaco. This notwithstanding,

[253] 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).
[254] Robert Sutter, "Durability of China's Strategy towards Central Asia – Reasons for Optimism." *China and Eurasia Forum Quarterly*. Vol. 6 No. 1 (2008): 1–21.
[255] Sebastiene Peyrouse, *Economic Aspects of the Chinese-Central Asia Rapprochement* (Washington: Central Asia – Caucasus Institute and Silk Road Studies Program, 2007): 46–69.

the US government stopped this deal because of strategic considerations.[256] CNOOC attempted to buy Canadian oil firm Nexen in September 2012. The shareholders even approved the deal worth 15.1 billion USD. However, Canadian government prevented that transaction due to the company's strategic value. These two bids did not make any sense from the profit-led point of view. However, they seemed fully justified from the strategic point of view.

Russia is also wary of China's purchases of its strategic assets. Also, Yukosneftegaz was Russia's only major oil company that favored cooperation with China's enterprises. Russia's governments also prevented the sale of Slavneft to China. Whereas Western and Russian companies are being protected from China's bids, the situation is completely reversed in Central Asia.[257] This lack of protection goes hand in hand with China's attempt to spread its influence abroad. Modus operandi of this strategy is to tie China with its partner and client states through a dense network of pipelines and another infrastructure.[258] More specific terms related to China's energy security and Belt and Road Initiative are the "go-west strategy" and "string of pearls strategy."[259] The former is predominantly connected with China's increasingly assertive role in Central Asian ESC. Moreover, this go-west strategy aims at an increment of economic development in Xinjiang and Tibet and hence bringing stability there.[260]

This subchapter focuses on China's energy policy. It shows that according to both strategic documents and commercial practice the energy sector of China is considered by the CPC as a tool of internal and external policy. Furthermore, its role in external policy is on growing trajectory due to diversification tendencies such as "go-out strategy", "oil diplomacy" or "string of pearls".[261] All these strategies could be subsumed into the broader framework of the Belt and Road Initiative announced by

[256] For more on the global struggle for energy resources see: Michael Klare, *Rising Powers, Shrinking Planet: How Scarce Energy is Creating a New World Order* (Oxford: Oxford University Press, 2009): 120–142.
[257] Simon Osborne, "China's increasingly powerful role in Central Asia," *Finance Asia,* 1 October 2012.
[258] Georgiy Voloshin, "Hidden Dragon: The Chinese Era in Central Asia." *Global Asia*. Vol. 9, No. 4 (2014): 86–102.
[259] "China builds up strategic sea lanes," *The Washington Times,* 17 January 2015, www.washingtontimes.com/news/2005/jan/17/20050117-115550-1929r.
[260] On the Xinjiang question see: Michael Clarke, *Xinjiang and China's Rise in Central Asia: A History* (London: Routledge, 2011).
[261] The following string of pearls strategy is focused on the strengthening of China's position in maritime trade and especially on securing its oil and LNG imports.

President Xi Jinping.[262] In the heart of this strategy is the control of material resources that represent the basis of military and economic power. [263] It can be also concluded that China is rewarding or punishing certain behavior of other states. In addition, there is clear preference for bilateral relation in energy sector as it is easier to dominate the bilateral relationships. Furthermore, there are clear examples of attempts to control entire supply chains and markets regardless of commercial logic, as it was the case with US company Unocal, Canadian company Nexen or Russian company Slavneft.[264]

Energy policy in the ESC of Central Asia

Many authors such as Alexander Cooley,[265] Andrey Kazantsev[266] or Julia Kusznir[267] have foretold that Central Asia will have to face a new round of the "great game" for the control of its natural resources. However, most of them perceived as principal contenders the West and Russia.[268] On the other hand, they conspicuously omitted China that is at present one-step from making this region into its zone of influence.[269] Apart from energy security and economic cooperation, China focuses on border stability, security and gaining a leadership role in the region.[270]

China's energy policy in the Central Asian energy security complex focuses mainly on three regional hydrocarbon exporters – Turkmenistan, Kazakhstan and Uzbekistan.[271] Their overall natural gas reserves are being estimated at 27.8 tcm, which

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[262] "One Belt, One Road," *Caixin Online,* 12 October 2014, english.caixin.com/2014-12-10/100761304.html.
[263] Gabriel Collins, *China's energy strategy: the impact on Beijing's maritime policies* (Annapolis: Naval Institute Press, 2008): 81–114.
[264] For more on China's energy policy towards Russia see: Amy Jaffe, *China's Energy Hedging Strategy: Less than Meets the Eye for Russian gas Pipelines,* (Washington D.C.: The National Bureau of Asian Research, 2015).
[265] Alexander Cooley, *Great Games, Local Rulers: The New Great Power Contest in Central Asia* (Oxford: Oxford University Press, 2012).
[266] Andrey Kazantsev, *Bolshaya igra s neizvestnymi pravilami: Mirovaya politika i Tsentralnaya Aziya* (Moscow: Fond Naslediye Evrazii, 2008): 88–94.
[267] Karen Smith Stegen and Julia Kusznir, "Outcomes and strategies in the New Great Game: China and the Caspian states emerge as winners," *Journal of Eurasian Studies,* Vol. 6 (2015): 91–106.
[268] Lutz Kleveman, *The New Great Game: Blood and Oil in Central Asia* (New York: Groe Press, 2003): 144–165.
[269] For more on China's policies in Central Asia see: Robert Sutter, "Durability in China's Strategy Towards Central Asia: Reasons for Optimism," *China and Eurasia Forum Quarterly,* Vol. 6, No. 1 (2008): 18–24.
[270] For China's position on Central Asia see: Jan Šír and Slavomír Horák, "China as an Emerging Superpower in Central Asia: The View from Ashkhabad," *China and Eurasia Forum Quarterly.* Vol. 6, No. 2 (2008): 75–88.
[271] S. V. Zhukov, "Energeticheskiye interesy Kitaya v Srednei Azii." *Vostok. Afro-aziatskie obshchestva: istoriia i sovremennost*. No. 6 (2007): 1–8.

translates into 13.3 percent of world's total.[272] Moreover, Central Asia's leaders need China's investments to satisfy the growing demand of their developing economies. China concluded two loans for energy contracts with Turkmenistan amounting to 8 billion USD in the course of the financial crisis. These loans enabled Turkmenistan to free itself from borrowing privately or from international financial institutions.[273]

In comparison to the West, China did not make any social or political preconditions to the cooperation with its Central Asian partners.[274] China also concluded similar deals for energy with Kazakhstan worth 13 billion USD. The entire trend can be perhaps best described by the rise in mutual trade. In 2000, China's overall trade with Central Asia was estimated at 1 billion USD. However, in 2010 this figure had reached 30 billion dollars and in 2013 even 52 billion.[275] By the end of 2010s, China utilized the global financial crisis and surpassed Russia as region's leading trading partner.

China's activities in Kazakhstan

In the case of Kazakhstan, China firstly focused on gaining position in upstream activities and then moved to downstream. CNPC in this country operates five oil field development projects – CNPC AktobeMunaiGas, North Buzachi, PetroKazakhstan, KAM and ADM and also the Kazakhstan-China Crude Oil Pipeline, the Northwest Crude Pipeline and the Second Phase of the Kazakhstan-China Gas Pipeline. CNPC acquired 60.3 percent stake in the AktobeMunaiGas and obtained the production license for the Zhanzhol, Kenkijak Oversalt, and Kenkijak Subsalt fields in 1997.[276] It now owns 85.42 percent share in the AktobeMunaiGas.[277] This company represents the fourth most prominent oil enterprise in Kazakhstan.[278] In 2005, CNPC also acquired the PetroKazakhstan, which owned rights for exploitation of 16 oil fields and largest Kazakhstan's refinery in Shymkent.[279] PetroKazakhstan is an integrated international energy company with upstream and downstream operations in both oil and gas.

[272] Onur Cobanli, "Central Asian Gas in Eurasian Power Game," *Energy Policy* Vol. 68 (2014): 348–370.
[273] For energy geopolitics in Central Asia see: Alexandros Petersen, *Russia, China and the Geopolitics of Energy in Central Asia* (London: Centre for European Reform, 2011): 89–108.
[274] Evgeny Petelin, "China's Energy Monologue in Central Asia," *Security Index,* Vol. 17, No. 4 (2011): 29–46.
[275] Sebastien Peyrouse, "Testimony before the U.S.-China Economic and Security Review Commission", 18 March 2015.
[276] Ibidem.
[277] "CNPC in Kazakhstan," *CNPC,* www.cnpc.com.cn/en/Kazakhstan/country_index.shtml.
[278] Ibidem.
[279] "Company history," *PetroKazakhstan,* www.petrokazakhstan.kz/eng/pages/history.html.

The upstream assets are located in the South Turgai Basin and the downstream assets represent the Shymkent refinery primarily. Very conveniently, for CNPC, all those oil fields lie on the route of its oil pipeline. North Buzachi oil field is located in western Kazakhstan. CNPC and Lukoil now operate this oil field jointly. Both parties control 50 percent of stakes. The KAM Project mainly includes Konys and Bektas oil field in the South Turgai Basin.

There was a plan on an oil pipeline to Xinjiang already in 1993. Consequently, China and Kazakhstan signed a memorandum of understanding on the construction of this oil pipeline in 1997.[280] However, the initial plan was canceled due to the Asian economic crisis. The situation changed only in 2003 as a consequence of several pullbacks for China's energy diversification strategy. Firstly, the US-led war in Iraq meant the loss of significant Chinese investments in the country. Secondly, internal developments in Russia known as the Yukos Affair meant the end of the project of Sino-Russian oil pipeline. Thirdly, China was unsuccessful in its bid for shares in the vast Kashagan oil field in western Kazakhstan.[281] Fourthly, China experienced unprecedented electricity blackouts in summer 2003.

The Kazakhstan-China Oil Pipeline was built in three stages. The pipeline from Aktobe oblast to Atyrau on the Caspian Sea was finished in 2003. Its flow was first directed to the west and reversed after the completion of the entire pipeline. Next, a pipeline from Atasu to Alashankou on Chinese border was commissioned in 2006. Finally, the first two sections were connected by the third pipeline from Atasu to Aktobe oblast and commissioned in late 2009. At the same time, China built several west-east oil pipelines. A first oil pipeline was constructed in 2004 and connects Tarim Basin with Shanghai. It has a capacity of 17 bcm per year and transports mainly domestic resources. A second oil pipeline was commissioned in 2011. It connects to the Kazakhstan-China Oil Pipeline in the border city of Horgos.[282] At present, three routes are exporting Kazakhstan's oil. First is the old Soviet Atyrau-Samara Oil Pipeline. Second, the Caspian Pipeline Consortium runs from Kazakhstan along

[280] "Brief introduction to relations between China and Kazakhstan," *China Daily,* 27 May 2005, www.chinadaily.com.cn/en/doc/2003-05/27/content_166588.htm.
[281] Abdelghani Henni, "The Mystery of Kashagan," *Society of Petroleum Engineers,* 24 November 2014, www.spe.org/news/article/the-mystery-of-the-kashagan.
[282] "Kazakhstan – China Oil Pipeline," *KazMunaiGaz,* www.kmg.kz/en/manufacturing/oil/kazakhstan_china.

the northern shores of the Caspian Sea to the Russian Black Sea Port of Novorossiysk since 2001. It is the only privately owned oil pipeline going through Russia's territory. Third, the Kazakhstan-China Oil Pipeline is in operation since 2006.[283]

China's activities in Turkmenistan

In the case of Turkmenistan, China firstly signaled possible construction of gas pipeline to Xinjiang in 1992. However, cooperation in this direction was stalled during the 1990s because of three primary reasons. Turkmenistan's President Saparmurat Niyazov was not keen in cooperation with China in the 1990s although he changed gradually his mind; he slightly preferred dealings with Russia or alternative routes to Iran, India or Azerbaijan. Also, there was still considerable influence of Russia in entire Central Asia.[284] Moreover, CNPC was at that time prominently focused on oil and neglected natural gas.

Nevertheless, this changed in 2006 after Niyazov's death and ascending of Gurbanguly Berdimuhamedow. A new power broker in Ashgabat was much more open towards China what resulted in moving further the agreements in construction of gas pipeline from Turkmenistan to China and other agreements on lease and production in gas fields Bagtyyarlyk on the right bank of Amu Darya.[285] Above all, Turkmenistan and China agreed on the supply of 30 to 40 bcm per year with the operation for 30 years.[286] Many experts considered the Turkmenistan-China Gas Pipeline as "largely paper project" still back in 2008.[287] However, the first line of that pipeline was finished as early as December 2009. Also, two other lines soon followed. China simultaneously constructed two west-east gas pipelines that carry gas further east.[288] Hence, it is possible to transport natural gas from Turkmenistan all the way to the Pacific coast of China.

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[283] Thrassy Marketos, "Eastern Caspian Sea Energy Geopolitics: A Litmus Test for the U.S. – Russia – China Struggle for the Geostrategic Control of Eurasia." Caucasian Review of International Affairs Vol. 3 (2009): 2–19.
[284] Slavomír Horák, "Challenges from the East: China." In *Putin's Grand Strategy: The Eurasian Union and Its Discontents.* (Washington D.C.: Central Asia – Caucasus Institute, 2014): 166–179.
[285] "Storony polny reshimosti...," *Turkmenistan.ru,* 18 July 2007.
[286] "CNPC in Turkmenistan," *CNPC,* www.cnpc.com.cn/en/Turkmenistan/country_index.shtml.
[287] Michael Klare, *Shrinking Planet: How Scarce Energy is Creating New World Order* (Oxford: Oxford University Press, 2008): 120–142.
[288] "West-East Gas Pipeline Project Begins Commercial Operation," *PetroChina,* www.petrochina.com.cn/ptr/xwxx/201404/0163d5084c414ee89beb8bed60bb961c.shtml.

China also focused on direct or indirect control of hydrocarbon deposits in Turkmenistan. CNPC and Turkmengaz signed a technical agreement to extend their cooperation in the gas exploration in the Bagtyyarlyk contract area in 2007.[289] Three years later, Turkmenistan announced that a consortium consisting of the CNPC, LG International, Hyundai Engineering, the Gulf Oil and Gas FZE and Petrofac International had won the tender bid for 10 billion USD to develop the South Yolotan natural gas field. Hence, CNPC signed in this framework a 3 billion USD contract in which it can produce ten bcm per year and leave three bcm per year to fill its gas pipeline.[290]

Moreover, China's Development Bank provided Turkmenistan with 3 billion USD loan to develop the South Yolotan gas field and the provision of another 4 billion USD for the completion of the first stage of this project in 2013. Above all, China signed an agreement to finance the second phase of the Galkynysh project for 4 billion USD in 2013.[291] In all China's dealings with Turkmenistan, the exploration rights to the Galkynysh deposit represent the highest prize. Besides, China focuses not only on natural gas but also on oil in its dealings with Turkmenistan. For instance, CNPC also operates since 2002 the Gumdag oil field in western Turkmenistan.[292]

China's activities in Uzbekistan, Tajikistan and Kyrgyzstan

Speaking about relations with Uzbekistan, China's profile stayed lower than in the cases of Kazakhstan and Turkmenistan.[293] It focuses only on the strategic infrastructure and a few key hydrocarbon deposits. CNPC signed an oil and gas exploration agreement with Uzbekneftegaz in June 2006 and the Aral Sea project consortium was created in August 2006. It includes CNPC, Uzbekneftegaz, Lukoil, Petronas and South Korea's KNOC.[294] This consortium signed a PSA with Uzbekistan. CNPC also provides

[289] "Construction commences of the No.1 Gas Processing Plant of Amu Darya project," *CNPC,* 30 June 2008, www.cnpc.com.cn/en/nr2008/201211/5bb0c4ae7f964968b04a68b08be4629a.shtml.
[290] "Asian companies entrusted to develop super gas giant Turkmenistan," *Trend News Agency,* 5 January 2010, en.trend.az/business/energy/1610569.html.
[291] "China asserts clout in Central Asia with huge Turkmen gas project," *Routers,* 4 September 2013, www.reuters.com/article/us-gas-turkmenistan-galkynysh-idUSBRE9830MN20130904.
[292] "CNPC in Turkmenistan," *CNPC,* www.cnpc.com.cn/en/Turkmenistan/country_index.shtml.
[293] Table 8.
[294] "CNPC in Uzbekistan," *CNPC,* www.cnpc.com.cn/en/Uzbekistan/country_index.shtml.

geophysical prospecting, well drilling, and logging services in Uzbekistan. Moreover, it is significant petroleum equipment supplier for Uzbekistan.[295]

Uzbekneftegaz signed an agreement with the China National Oil and Gas Exploration and Development Corporation on exploration work worth 208 million USD for next five years in five blocks in the Ustyurt, Bukhara-Khiva and Fergana regions in June 2006. Moreover, CNPC announced that it would begin developing gas condensate fields of the Karakul block located in the Bukhara-Khiva region of Uzbekistan in May 2011.[296] China also finances through the Chinese Export-Import Bank some critical investment projects in Uzbekistan. In exchange, it obtained easy access to Uzbekistan's natural gas that is being exported to China since 2012.[297]

China also maintains relations based on its energy policy needs with Kyrgyzstan and Tajikistan. However, they have neither intensity nor importance of its relations with Kazakhstan, Turkmenistan and Uzbekistan.[298] On the other hand, this can change if the Line D of the Turkmenistan-China Gas Pipeline would be completed as it traverses the territory of these two states. China invests in Kyrgyzstan and Tajikistan especially into the hydroelectric sector, but it is also active in other sectors such as industry and agriculture.[299] China has also expanded its role of development assistance provided through the Chinese Export-Import Bank. This banking institution remains the most extensive creditor to aid-dependent Tajikistan. This bank held 41.3 percent of Tajikistan's external debt in 2014.[300] Through these credits, China enjoys enormous influence on the internal politics of these two states. This card can be played out in case that they would attempt to hinder the construction of Line D.

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[295] Ibidem.
[296] "China's CNPC to develop gas condensate fields in Uzbekistan," *The Times of Central Asia,* 12 May 2011.
[297] Sergey Luzyanin, „Rossiya i Kitay: Novyi kontekst otnosheniy," 12 January 2015, MGIMO.
[298] Luca Anceschi, "Integrating domestic politics and foreign policy making: the cases of Turkmenistan and Uzbekistan." Central Asian Survey Vol. 29, No. 2 (2010): 143–158.
[299] Sebastien Peyrouse, "The Hydroelectic Sector in Central Asia and the Growing Role of China," *China and Eurasia Forum Quarterly,* Vol. 5, No.2 (2007): 131–148.
[300] "China will lend Tajikistan grant of $ 32.2 million," *Amonatbonk: People Bank of Tajikistan,* 20 May 2015, www.amonatbonk.tj/en/about/press/novosti/121.

Belt and Road Initiative

Almost all China's activities in Central Asia can now be subsumed into the framework of the Belt and Road Initiative.[301] This project has two dimensions. Firstly, it is the Maritime Silk Road attempting to increase China's control over sea-based transport. Secondly, it is the New Silk Road project connecting China with Central Asia and beyond.[302] The latter is an economic and security program to open land connection between China and Europe. It can also replace the existing sea-lanes in the event of a naval blockade.[303]

The Belt and Road narrative largely combines and effectively relabels activities that were pursued by China since the fall of the Soviet Union. Moreover, it elevates transport initiatives to the level of a geopolitical project.[304] To implement the BRI project, China created the Silk Road Fund with 40 billion USD[305] and the Asian Infrastructure Investments Bank with 100 billion USD.[306] These institutions were launched in June 2015. The total resources of these two institutions are approximately similar to the Japan-backed Asian Development Bank, and they are slightly lower than resources operated by the US-backed World Bank. Also, they are two and half times lower than resources controlled by the International Monetary Fund.[307]

China's goal in this direction is the "de-dollarization" of international trade. For this purpose, it tries to conclude agreements with its partners on trading preferentially in yuan. For instance, Gazprom converted its export of oil to China entirely into yuan in June 2015.[308] Russia is sympathetic to China's attempts to decrease the role of the USD in international trade. However, they clash on their vision of the future

[301] William T. Wilson, "China's Huge One Belt, One Road Initiative Is Sweeping Central Asia," *The National Interest,* 27 July 2016.
[302] Peter Frankopan, "The Silk Roads rise again." New Statesman Vol. 10 (2015): 30–33.
[303] Jamie Coomarasamy, "China's Westward Pivot: What It Means for Central Asia and Russia," *Mediterranean Quarterly* Vol.20, No.9 (2014): 48–60.
[304] Justyna Szczudlik-Tatar, "China's New Silk Road Diplomacy." *PISM Policy Paper*. Vol. 34, No. 82 (2012): 1–8.
[305] "Fund History," *Silk Road Fund,* www.silkroadfund.com.cn/enweb/23775/23767/index.html.
[306] "Operational policies," *Asian Infrastructure Investment Bank,* euw.aiib.org/html/aboutus/Operational_Policies/Financing/?show=3.
[307] 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).
[308] Jack Farchy, "Gazprom Neft sells oil to China in renminbi rather than dollars," *The Financial Times,* 1 June 2015, www.ft.com/content/8e88d464-0870-11e5-85de-00144feabdc0.

world order. China favors new bipolarity with two superpowers – PRC and USA while Russia favors multipolarity and return to the global balance of power.[309]

The total prize of the Belt and Road Initiative is the facilitation of trade with the EU that daily generates one billion EUR.[310] If China's goods are transported to Europe via the maritime road, it takes 20 to 40 days. On the contrary, the inland New Silk Road can take only 11 days.[311] However, this project represents a real test to China's doctrine of the Five Principles of Peaceful Coexistence, which still has significant support in the ruling circles in Beijing. These are mutual respect for territorial integrity and sovereignty, non-aggression, non-interference in internal affairs, equality and mutual benefit and peaceful co-existence.[312]

China was traditionally focusing on the economic cooperation with Central Asia and let Russia manage the security dimension. This division, however, could soon change as China became more willing to participate in military operations behind its borders, especially in Africa.[313] On the contrary, Russia's military cooperation structure of the CSTO proved utterly ineffective in the case of the 2010 crisis in Kyrgyzstan.[314] Above all, Russia proved to be unable to control the region from the geopolitical point of view because it did not block the deployment of the US troops after September 2001.[315] China understood that Russia does not have capacities to stabilize Central Asia and to hinder any external penetration by other great power in the course of the 2000s.[316] Hence, it came up with its own bid for regional hegemony.

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[309] 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).
[310] Alessandro Arduino, *China's One Belt, One Road: Has the European Union Missed the Train?* (Nanyang Technological University, 2016): 1–20.
[311] Ibidem: 1–20.
[312] "Backgrounder: Five principles of peaceful coexistence," *Xinhua News Agency,* news.xinhuanet.com/english/2005-04/08/content_2803638.htm.
[313] "Is China contributing to the United Nations' mission?" *Centre for Strategic and International Studies,* chinapower.csis.org/china-un-mission.
[314] Cristina Lin, *The New Silk Road: China's Energy Strategy in the Greater Middle East* (Washington: The Washington Institute for Near East Policy, 2011): 13–19.
[315] Slavomír Horák, "Challenges from the East," In: Frederick S. Starr, *Putin's Grand Strategy: The Eurasian Union and Its Discontents* (Washington: Central Asia and Caucasus Institute – Silk Road Studies Program, 2014): 166–179.
[316] Martin Hála, "Evropa se rozpadá, Eurasie sílí," *Sinopsis,* https://sinopsis.cz/evropa-se-rozpada-eurasie-sili.

It seems that the BRI project is going to play a more critical role in Sino-Russian relations and it gradually overshadows the Shanghai Cooperation Organization that provided for their central collaboration platform up to the present.[317] The member states of the SCO adopted the program of multilateral economic cooperation of the SCO already in 2003.[318] This program assumed that in 2010, there will be significantly lowered barriers for trade and investment and that by 2020 there will be free movements of goods, capital, and services.[319]

All of this has remained, however, on the paper. The SCO instead focused on the security cooperation of its members and circumscription of the US influence from Central Asia. Even the project of the Development Bank of the SCO did not materialize. Any hopes for deeper integration amongst its members were dispersed at the Ufa summit in 2015 when it was agreed that India and Pakistan would join this organization.[320] This enlargement would make any severe economic integration attempt impossible. The development shows that Russia was only buying time and it was not prepared for economic integration in this framework fearing that China's economy would overshadow its own.

China began to support the idea of a land bridge to Europe bypassing Russia soon after 1991. It paid the Asian Development Bank to lead this project despite Russia's vociferous opposition. Coincidentally, the European Union announced similar project TRACECA at this time. Moreover, the US-led invasion of Iraq in 2003 was perceived by China as a threat to its energy security. Since that time, China emphasized its energy security and development of new import routes.

China's motivation for the BRI is threefold. Firstly, the issue of Xinjiang has replaced Taiwan as a principal strategic challenge. China feels threatened by decentralization and

[317] Stephen Aris, "The Shanghai Cooperation Organisation: 'Tackling the Three Evils.' A Regional Response to Non-traditional Security Challenges or an Anti-Western Bloc?" Europe-Asia Studies Vol. 61, No. 3 (2009): 457–482.
[318] Alexander Frost, "The Collective Security Treaty Organization, the Shanghai Cooperation Organization, and Russia's Strategic Goals in Central Asia." China and Eurasia Forum Quarterly, Vol. 7, No. 3 (2009): 83–102.
[319] "About," *Shanghai Cooperation Organisation,* en.sco-russia.ru/docs/about/faq.html.
[320] "After BRICS, Putin Hosts Shanghai Cooperation Organization Summit In Ufa," *RFE/RL,* 10 July 2015, www.rferl.org/a/russia-putin-shanghai-cooperation-organization-summit-brics-ufa/27120442.html.

self-government emancipation of local Turkic and Muslim populations.[321] Therefore, through closer cooperation with the Central Asian states, China diminishes the possibility that these states would support separatist movement in Xinjiang.[322] It also assumes that overall improvement of economic situation decreases the possibility of revolt.

The issue of Xinjiang was being utilized by Russia as leverage against China many times in the past. Most recent example of Russia's attempt to undermine China's possession of that region was during the 1960s when these two states waged war against each other. The Soviet Union at that time increased the militarization of its border with China and began to issue Soviet passports for Turkic peoples of Xinjiang.[323] China changed its regional policy of "stability above all else" in 2010 for a strategy of regional economic development. 78 percent of Xinjiang's exports went into Central Asia in 2015.[324] Xinjiang ranked 20th out of 29 China's provinces regarding wealth in 2015 by China's Statistical Office.[325] The Uighur separatism still represents a severe challenge to Beijing's government. This threat was visible for instance on the example of the assault on Xinjinag's Kunming train station in March 2013 that left 29 dead and 130 wounded.[326]

Secondly, China seeks direct trade route to the West. Moreover, the transcontinental transport goes hand in hand with significant service infrastructure of freight forwarders, logistics firms, insurers, hotels, supply bases, storage facilities, fuel suppliers and others. This development represents both opportunity and a possible threat to Central Asia states. An opportunity to develop their economies with this enormous impulse and threat to their independence if most of these enterprises will be owned by China.[327]

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[321] Yitzhak Shichor, "China's Central Asian Strategy and the Xinjiang Connection: Predicaments and Medicaments in a Contemporary Perspective," *China and Eurasia Forum Quarterly*, Vol. 6, No. 2 (2008): 55–73.
[322] For Xinjiang question see: Graham E. Fuller and Frederick S. Starr, *The Xinjiang Problem* (Washington: Central Asia and Caucasus Institute – Silk Road Studies Program, 2014): 33–50.
[323] Frederick S. Starr, "Looking West: China and Central Asia," *US-China Economic and Security Review Commission,* 18 March 2015.
[324] "A Belt and Road Development Story: Trade between Xinjiang and Central Asia," *Belt and Road,* 8 March 2016, beltandroad.hktdc.com/en/market-analyses/details.aspx?ID=473580.
[325] "Xinjiang," *National Bureau of Statistics of China,* www.stats.gov.cn/english.
[326] "Kunming Terrorist Attack Suspects Captured," *Xinhua News Agency,* 2 March 2014, news.xinhuanet.com/english/china/2014-03/03/c_133157281.htm.
[327] Vladimir Fedorenko, *The New Silk Road Initiatives in Central Asia* (Washington: Rethink Institute, 2013): 12–15.

Thirdly, China sees as a strategic priority that its route to the West is free of Russia's influence and can substitute for maritime transport in case of a naval blockade. China as of now represents for Central Asian states better partner than either Russia or the West in terms of economic collaboration.[328] The cooperation with the West necessitates agreements amongst numerous partners, international oil and gas enterprises, transit countries and destination countries. On the other hand, the cooperation with China necessitates mostly bilateral relations with its government.

This subchapter concludes that China's energy policy towards Central Asian ESC focused on three primary aims. Firstly, China successfully attempted to break Russia's monopsony position with Central Asia's suppliers. The two most important examples of this process were the construction of the Central Asia-China Oil Pipeline and the Central Asia-China Gas Pipeline. Thus, it sought to create system of undesirable dependence with the aim of controlling entire Central Asian market in order to secure energy supplies. Secondly, China became the region's principal trade partner. This was facilitated especially by projects associated with the Belt and Road Initiative. Thirdly, China is trying to translate its economic position in the Central Asia ESC into political and security gains. The most important seems at present an endeavor to stabilize China's potentially separatist regions in the western parts of the country. All this was done with the emphasis on strategic issues over economic logic, which confirms that China's energy policy in Central Asian ESC is executed mostly according to the strategic approach to energy policy.

Reflection on indicators

The presented chapter analyzed China's energy policy in the ESC of Central Asia. The goal of this particular case study was to search for indicators set by the model on the assessment of the natural gas sector. Consequently, it attempted to find out whether Russia's energy policy in Central Asian ESC followed rather either strategic-oriented or market-oriented approach. There are eight such features i.e. perception of energy resources as strategically important; perception of energy sector as crucial for state's economy; perception of state-owned energy actors as extension of state apparatus; reliance on bilateral relations; perception of energy sector as state's tool; zero-sum

[328] Xie Tao, "Back on the Silk Road," *Global Asia,* Vol. 9, No. 1 (2014): 70–76.

approach; undesirable dependence; emphasis on strategic issues over economic logic. The conclusion of this case study is that China's energy policy in the ESC of Central Asia was predominantly led by the strategic-approach to energy policy based on the indicators listed below.

Perception of energy resources as strategically important

Based on the accumulated data, China's current political regime perceives energy resources as strategically important. Security of supplies as well as diversification of resources represent crucial tasks for the CPC if it wants to maintain its legitimacy. There were many occasion when the tendencies to take control of energy resources or their distribution networks manifested themselves. These tendencies were manifested in the cases of Unocal, Nexen and Slavneft.

Perception of energy sector as crucial for state's economy

Present China considers its energy sector as strategically important core of its economy and trade abilities. The case study shows that China tried to control the energy sector as well as energy resources in China and other countries especially in Central Asia, Southeast Asia and Russia. The significance of energy sector and control of energy resources does not lie only in support of economic growth but also in ability to win CPC popular affirmation.

Perception of state-owned energy actors as extension of state apparatus

It was further shown that CPC is at present either directly or indirectly dominating the entire energy sector of China. This means that China was able to increase its power capabilities as it transferred significant portion of national power into state power. Both CNPC and CNOOC represent key pillars of current political regime in China as they directly or indirectly influence the formulation of energy policy of China. Based on the case study's findings, it is clear that China's political elite considers country's state-owned energy actors as tool for both internal and external policies of the state. The role of energy sector in foreign policy is increasing based on the five-year-plans and other blueprints of China.

Reliance on bilateral relations

China's reliance on bilateral relations in energy is foremost visible on its relations with particular Central Asia states or Russia. Based on the accumulated data, China is giving preference for long-term bilateral deals. This is best demonstrated on China's penetration of Central Asia since early 2000s.

Zero-sum approach

The case study shows that China's political elite is behaving according to zero-sum approach as it interprets any success of its potential competitors as its loss. In the heart of China's energy policy is the control of material resources that represent the basis of military and economic power. There are listed many examples of China trying to gain dominant position on the Central Asian markets as well as effort to eliminate competitors.

Perception of energy sector as state's tool

The case study shows that according to both strategic documents and commercial practice the energy sector of China is considered by the CPC regime as a tool of internal and external policy. It can be also concluded that China is rewarding or punishing certain behavior of other states. There are also clear examples of attempts to control entire supply chains and markets regardless of commercial logic, as it was the case with the programs "Go West" and "Western Development Strategy". The former is focused on stabilizing Central Asia through economic cooperation. The latter is trying to stabilize China's western provinces of Xinjiang and Tibet through their economic development, which was partly neglected during the era of Deng Xiaoping's reform zeal in the course of the 1980s. Moreover, the threat of the Uighur separatism is assessed very comprehensively in Beijing. Both strategies above can be subsumed into the newer Belt and Road concept.

Undesirable dependence

China succeeded in economic penetration of the ESC of Central Asia and partial displacement of Russia from the region. Thus it tried to create system of undesirable dependence with the aim of controlling entire Central Asia energy market. Local states were more willing to cooperate with China, which is not perceived as a former colonial metropolis but trade partner. China was able to offer attractive and sophisticated

cooperation packages to each regional state bundled with generous investment promises in comparison to western states. This approach was especially possible because China's political elite controls much of its energy sector contrary to western states. Nonetheless, China's lavish promises can be full of falsehood as proven by Indonesia's government in 2015. China invested in Indonesia between 2005 and 2014 only seven percent of planned 24.27 billion dollars.[329] Above all, the only goal the Central Asia-China Gas Pipeline construction did not fulfill was to create profit. It is quite clear that the natural gas from this pipeline is more expensive than domestically produced gas in China. Moreover, this gas could have been easily substituted with China's coal. Hence, this construction was primarily led by a strategic approach to energy resources.

Emphasis on strategic issues over economic logic

China's strategic approach to energy resources became evident in 2005. China National Offshore Oil Corporation tried to purchase the Unocal Corporation by bidding 18.5 billion USD. Its rival Chevron offered 16.4 billion that was deemed as responding to the real value of the company. China's higher bid was perceived as a strategic step. However, the US was against this purchase because of possible implications for its security. In the end, Chevron merged with Unocal. This merger notwithstanding, since that year China began to buy many strategic enterprises in the energy sector.[330] The construction of the Turkmenistan-China Gas Pipeline, which started in 2007, has to be also perceived as China's strategic undertaking. The construction of the first three lines certainly fulfilled several strategic goals of China. It gives China more energy security and thus legitimizes its undemocratic regime.

[329] Linda Yulisman, "Indonesia to push China to realize investment," *Jakarta Post,* 4 April 2015, www.thejakartapost.com/news/2015/04/04/indonesia-push-china-realize-investment.html.
[330] David Barboza, "Chinese Oil Giant in takeover Bid for US Corporation," *The New York Times,* 23 June 2005, www.nytimes.com/2005/06/23/business/worldbusiness/chinese-oil-giant-in-takeover-bid-for-us-corporation.html?_r=0.

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 ESC of Central Asia. This chapter is divided into four main parts i.e. energy resources, energy actors, energy policy and energy policy in the ESC of Central Asia. The content of these subchapters is based on evaluation of primary and secondary academic sources. The goal of this particular case study is to search for features set by the model on the assessment of the natural gas sector i.e. perception of energy resources as strategically important; perception of energy sector as crucial for state's economy; perception of state-owned energy actors as extension of state apparatus; reliance on bilateral relations; perception of energy sector as state's tool; zero-sum approach; undesirable dependence; emphasis on strategic issues over economic logic. This represents a stepping-stone in the process of answering the research question on the predominant approach to energy policy among the actors of the ESC of Central Asia. Therefore, the chapter is concluded by part on reflection of particular indicators.

Energy resources

Turkmenistan's exports are dependent on three resources – natural gas, petroleum, and cotton. Together they create more than half of the GDP.[331] Turkmenistan is the fourth largest gas producer in the world after Iran, Russia, and Qatar. Current proven reserves are at 17.5 tcm, which is 9.4 percent of total world reserves.[332] It should be stressed that Turkmenistan's natural gas reserves have significantly grown during past two decades in comparison to other post-Soviet states. Ashgabat's natural gas deposits were estimated in 2002 to be at 2.3 tcm while in the time of one decade they changed to 17.5 tcm. In the course of the same period, Russia's proven natural gas reserves rose from 29.8 tcm just to 32.9 tcm.[333] In 2012, Kazakhstan's proven natural gas reserves were 1.3 tcm and Uzbekistan's 1.1 tcm.[334] This non-paralleled increase in the proven reserves of natural gas in Turkmenistan significantly strengthened country's economic and geopolitical standing and turned it into the biggest energy exporter of the regional

[331] World Trade Organisation, Turkmenistan.
[332] "BP Statistical Review of World Energy June 2016," *BP plc,* www.bp.com, 1 June 2016.
[333] James Dorian, "Central Asia: A Major Emerging Energy Player in 21st Century." Energy Policy Vol. 34 (2006): 1–13.
[334] Ibidem.

energy security complex of Central Asia.[335] The development of energy sector also manifested itself in the standing of Turkmenistan's economy as proven by Table 15.[336]

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

Year	GDP (billions USD)	GDP per capita (current USD)	Inhabitants (thousands)
2007	12.664	2 600	4 870
2008	19.272	3 904	4 935
2009	20.214	4 036	5 007
2010	22.583	4 439	5 087
2011	29.233	5 650	5 174
2012	35.164	6 675	5 267
2013	39.198	7 304	5 366
2014	43.524	7 962	5 466
2015	35.8	6 433	5 389
2016	36.18	6 389	5 662
2017	37.926	6 587	5 758
2018	40.761	6 967	5 851

Source: The World Bank

Largest proven reserves are located in the Galkynysh gas field, probably the second most abundant gas field in the world after the South Pars gas field in the Persian Gulf, which is divided between Iran and Qatar.[337] Galkynysh field consists of other fields that were formerly regarded as separate. These are Yolotan, Minara, Osman, and Yashlar fields.[338] Other essential gas deposits in Turkmenistan are Döwletabat-Donmez field, Korpedzhe field, Malay field, Samandepe field and Shatlyk field. Production in Döwletabat-Donmez field area began already in 1982. It is located near the border of Iran in Seraghs and pipelines I, II and IV of the Central Asia-Centre Gas Pipeline System originate there. Its reserves are estimated at 1.6 tcm. Korpedzhe gas deposit is located in southwestern Turkmenistan, and it is the starting point of the Korpedzhe-

[335] Arteaga, Félix. "Energy Security in Central Asia: Infrastructure and Risk." Security and Defence Vol.1 (2010): 12–23.
[336] Table 15.
[337] Muhammad Quazi, "Central Asia: Crossroads for Global Economic Stratagem." Journal of Political Studies Vol. 22 (2015): 289–301.
[338] "Sverhgigantskoe gazovoe mestorozhdenie v Turkmenistane poluchilo nazvanie Galkynysh," *Turkmenistan.ru,* 20 November 2011.

Kurdkuy Gas Pipeline commissioned in 1997. Its initial reserves were estimated at 141.9 bcm. Malay deposit is located on the left bank of Amudarya River. It was connected in 2009 to the Turkmenistan-China Gas Pipeline via separate branch called Malay-Bagtyyarlyk Line. Samandepe deposit was discovered in 1964 and had an initial capacity of 102 bcm. An on-site processing plant was built there in 2009. Shatlyk deposit is located in the Amudarya basin. The production on the field began in 1973 when it was connected to the Central Asia-Centre Gas Pipeline System. At present, it is connected to the East-West Interconnector Gas Pipeline.[339] In Turkmenistan, there are many important natural gas deposits. However, they are all dwarwed by the Galkynysh gas field that represents Turkmenistan's most important economic and geopolitical asset.[340]

Turkmenistan is one of the gas producing countries that can export a substantial portion of its production due to relatively low domestic demand. This notwithstanding, the domestic demand is also rapidly increasing, from minimum of 4 bcm in 1992 to 29.5 bcm in 2016. That is because the population of Turkmenistan had long been supplied with gas free of charge under specific quotas.[341] However, this leaves still more than half of the production available for export. For example, neighboring Uzbekistan consumes domestically almost all of its production. Above all, Turkmenistan's budget is mostly dependent on the export of gas, cotton, and petrochemicals while taxes create only approximately one quarter of budget revenues.[342] Turkmenistan's ability to export natural gas is explained in Table 16.[343]

[339] Martha Brill Olcott, *International Gas Trade in Central Asia: Turkmenistan, Iran, Russia and Afghanistan,* James A. Baker III Institute for Public Policy, Geopolitics of Gas Working Paper Series, Working Paper No. 28, May 2004.
[340] Map 4.
[341] "Accounting of a gas consumption according to international standards," *Nebit-Gaz,* 2 February 2016.
[342] Annete Bohr, *Turkmenistan: Power, Politics and Petro-Authoritarianism.* (London: Chatham House, 2016): 20-35.
[343] Table 16.

Table 16: Turkmenistan export of natural gas (bcm)

Year	Russia	China	Iran
2008	39.1	0	6.5
2009	10.7	0	6.5
2010	9.68	3.55	6.5
2011	10.14	14.25	10.14
2012	9.86	21.29	9.05
2013	9.88	24.41	4.66
2014	9.05	25.49	6.55
2015	2.81	27.75	7.24
2016	0	34.2	6.7
2017	0	31.7	1.7
2018	0	33.3	1.9

Source: BP

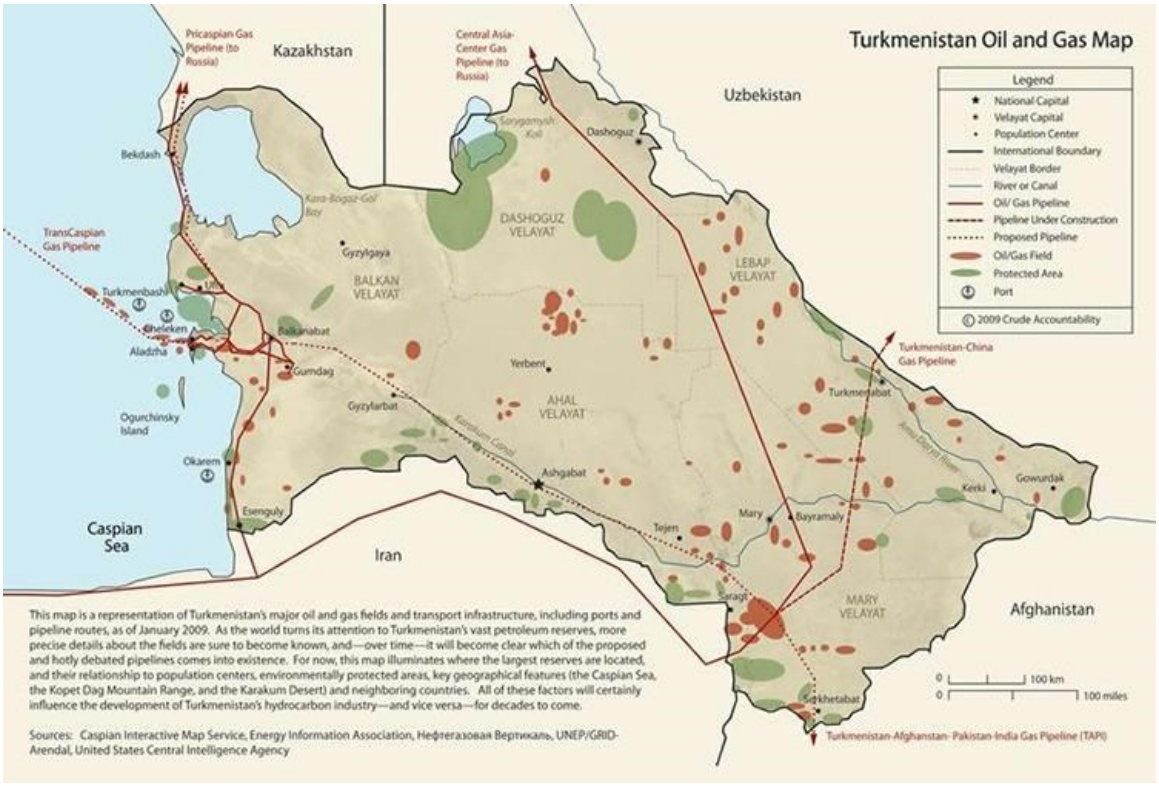
Turkmenistan's gas production reached its Soviet-era maximum in 1989 with 81.4 bcm.[344] The production was quickly decreasing during the 1990s because of the fall of the Soviet Union. Turkmenistan produced only 13.1 bcm in 1998. This trend somewhat improved in the 2000s reaching 66.1 bcm in 2008. However, the production again slumped due to the crisis in relations with Russia and in 2009 fell to 36.4 bcm. This notwithstanding, the overall situation soon improved thanks to the commissioning of the Turkmenistan-China Gas Pipeline. In 2015, the production reached 69.6 bcm.[345] China stands out as a more promising market for Turkmenistan's natural gas than Russia as it represents the direct consumer and its consumption would very likely grow in short- and mid-term period, due to the government policies focused on environmental protection.

This subchapter on energy resources of Turkmenistan shows that energy sector represents the backbone of state's economy. The country became in 2010s one of the most important energy exporters globally because of newly found natural gas deposits. Therefore, Turkmenistan's political elite perceives the energy sector accordingly. Berdimuhammedow's regime utilizes energy subventions for ensuring popular support. Turkmenistan's political elite is therefore interested in controlling

[344] "BP Statistical Review of World Energy June 2016," *BP plc,* www.bp.com, June 1, 2016.
[345] Table 4.

the energy sector and it considers it as strategic asset for maintaining support of the ruling regime.

Map 4: Oil and gas deposits of Turkmenistan



Source: OSW

Energy actors

The key document for the institutional environment of Turkmenistan's energy sector is the Law on hydrocarbon resources that was passed in August 2008.[346] It primarily focuses on the powers and responsibilities of the State Agency for the Management and Use of Hydrocarbon Resources under the President of Turkmenistan. The Agency is the principal institution for the management of oil and gas resources. It has the right to issue licenses for exploration, development of deposits, oil and gas production and transportation, to enclose agreements on production sharing and it has the last say over tariff setting on gas pipelines. It also concludes agreements with external enterprises and sets rules for them to operate.[347]

[346] "Zakon Turkmenistana ob uglevodorodnykh resursakh," *Turkmenistan.ru,* 20 August 2008.
[347] "Gosudarstvennoe agentstvo po upravleniyu i ispolzovaniyu uglevodorodnykh resursov pri Prezidente Turkmenistana," *Nebit-gaz,* www.oilgas.gov.tm.

The Agency was for the first time officially mentioned on 12 March 2007 when the resolution on its establishment was published. This institution efficiently replaced the Competent Body for the Use of Hydrocarbon Resources under the President of Turkmenistan that was disbanded before the creation of the Agency.[348] Incomes of the Agency are derived from royalties, bonuses, income on the PSAs, income on other contracts and others. It then translates twenty percent of all those incomes to the state budget. The rest remains in the budget of the Agency for its operations. The government is controlling it, and only the president who also appoints its director can deride its decisions.[349] The Agency was as of 2017 headed by Berdimuhamedow's son-in-law Döwlet Atabaýew.[350] The settlements above mean that Beridmuhamedow directly controls Turkmenistan's entire hydrocarbon sector and its enormous wealth. Berdimuhamedow himself is thus the essential individual in the making of the energy strategy of Turkmenistan.

The Law on hydrocarbon resources defines conditions of an eventual dispute between the Agency and holder of a license or contract. The disputes should be settled if possible through negotiations. There could be independent international experts involved. Only if negotiations fail, the parties should direct their future actions by dispute settlement procedures previously agreed upon in their contract. Finally, if the dispute cannot be settled within three months, it could be taken to an international arbitration body.[351] This option was incorporated into the law because many foreign enterprises such as Argentinian Bridas had a terrible experience with their investments in Turkmenistan. These bad experiences significantly deteriorated business image of Turkmenistan abroad and harmed its energy sector that still lacks substantive foreign investments. Moreover, it enabled China to gain influence and resources in exchange for investments that can be perceived as unbalanced due to lack of other significant foreign investors.

Other actors also influence the energy sector of Turkmenistan. Turkmenistan's Ministry of Finance has competences in the area of tariffs. Turkmentransgas and Turkmengaz

[348] "Ispolzovanie uglevodorodnykh resursov Turkmenistana budet kontrolirovat novyi organ," *Turkmmenistan.ru,* 10 March 2007.
[349] Kate Watters, "The Private Pocket of the President (Berdymukhamedov): Oil, Gas and the Law," *Crude Accountability,* October 2011.
[350] Maksat Alikperov, "Turkmenskii gaz – semeinyi biznes. U G.Berdymukhamedova tozhe zavelsya khitryi zyat' – Dovlet Atabaev," *Khronika Turkmenistana,* 4 February 2010.
[351] Ibidem.

agree upon gas transportation tariffs. Moreover, the tariffs have to be approved by the Agency. Ministry of Finance also established the stabilization fund in 2008 with primary responsibility to balance outages in state's incomes and plan long-term investment designs.[352] Turkmenistan's Ministry of Oil and Gas Industry and Mineral Resources deals with Turkmenistan's policy in the area of raw mineral resources, analysis, and planning. It is also in charge of state-owned enterprises in the hydrocarbon sector.[353]

State Concern Turkmengaz is the most significant enterprise in the country. Its principal activities center on extraction, production, and export of natural gas. It manages extraction on more than 30 large-scale deposits such as Döwletabat, Shatlyk, Malay, Kerpichli, Gazlydepe, Bagadzha, Garabil, Gurrukbil and the most massive deposit Galkynysh.[354] Turkmenneft focuses on exploration and development of oil and gas fields in Turkmenistan.[355] Its most important oil fields are Goturdepe, Nebitdag, South Gamyshlydzha, Korpedzhe, Akpatlavuk, Keymir, Eastern Keymir and Eastern Cheleken.[356] Turkmengeologiya is tasked with identification, exploration and complex prospecting of various deposits.[357] Turkmenneftegazstroi deals with the development of oil and gas fields, construction of oil and gas pipelines, or reconstruction of refining facilities. It took part in the reconstruction and modernization of refineries in Seydi and Turkmenbashi.[358] Hence, the structure of Turkmenistan's hydrocarbon complex as of 2017 very much resembled other energy exporting post-Soviet republics.[359]

The Law on foreign investments from 2008 made possible production sharing agreement 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 persons or purchase of existing enterprises by foreign

[352] "Ministerstvo finansov Turkmenistana," www.minfin.gov.tm.
[353] "Ministerstvo nefti i gaza Turkmenistana," www.oilgas.gov.tm.
[354] "Gosudarstvennyi kontsern Turkmengaz," www.oilgas.gov.tm/m/page/page/25.
[355] "Turkmenistan narashchivaet eksportnyi potentsial uglevodorodnykh resursov," Turkmenistan.ru, 8 February 2015.
[356] "Gosudarstvennyi kontsern Turkmenneft," www.oilgas.gov.tm/m/page/page/26.
[357] "Gosudarstvennaya korporatsiya Turkmengeologiya," www.oilgas.gov.tm/m/page/page/27.
[358] "Gosudarstvennyi kontsern Turkmenneftegazstroi," www.oilgas.gov.tm/m/page/page/28.
[359] For Turkmenistan's economy see: Jan Šír, "Turkmenistan: A Promised Land for Doing Business? Macroeconomic Reforms under Berdimukhammedow," *China and Eurasia Forum Quarterly ,* Vol. 8, No. 3 (2010): 67–92.

investors to operate in Turkmenistan.[360] However, corruption and barriers to foreign investors plague the investment environment in Turkmenistan.[361] Transparency International ranked Turkmenistan in its Corruption Perception Index as 154th country out of 168 in 2015.[362] Heritage Foundation designated Turkmenistan in its 2016 Economic Freedom Index as 174th country out of 178.[363]

The government used different tools to discriminate "unfavorable enterprises" in the past such as excessive tax examinations, denials of licenses extensions, non-payment of debts or forced renegotiations of contracts. There are several cases of friction between the government and Italian company Eni, Dutch company Larmag and Argentinian Bridas.[364] The hydrocarbon system is in the majority controlled by the state. As much as 59 percent of Turkmenistan's oil production and 94 percent of Turkmenistan's gas production was extracted by the state in 2009.[365] This shows how important is the hydrocarbon sector and especially its gas segment to the Berdimuhamedow's regime. Moreover, it shows that the profit-creation does not have to be necessarily priority over specific strategic goals of the regime. In other words, Berdimuhamedow considers the natural gas resources of Turkmenistan as a too strategic asset to be directed solely by market forces.[366]

There were four active offshore PSAs with external partners and three onshore PSAs in the oil sector in 2016. The offshore PSAs are contracted with Russian company Itera, Cypriot company Buried Hill, Malaysian Petronas Carigali and Dragon Oil which is wholly owned by Emirates National Oil Company.[367] Already mentioned CNPC, Italian ENI and Austrian Mitro International contract the three onshore PSAs. The ENI and

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[360] "Zakonodatelstvo Turkmenistana ob inostrannykh investitsiyakh," *Ministerstvo ekonomicheskogo razvitiya Rossiiskoi Federatsii,* www.ved.gov.ru/exportcountries/tm/about_tm/laws_ved_tm/invest_law_tm, 18 March 2008.
[361] Gavin Hayman and Tom Mayne, "Energy-related Corruption and its Effects on Stability in Central Asia," *China and Eurasia Forum Quarterly,* Vol. 8, No. 2 (2010): 137–148.
[362] "Corruption Perception Index," *Transparency International,* www.transparency.org/country/#TKM.
[363] "2006 Index of Economic Freedom," *Heritage Foundation,* www.heritage.org/index/ranking.
[364] Kate Watters, "The Private Pocket of the President (Berdymukhamedov):Oil, Gas and the Law," *Crude Accountability,* October 2011.
[365] "Ekonomicheskaya strategiya Turkmenistana: opirayas na narod, vo imya naroda," *Turkmenistan.ru,* 24 April 2010.
[366] For more on political development of 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).
[367] "Status morskikh neftegazovykh kontraktov v Turkmenistane na dekabr 2015 goda," *Trend.az,* 24 December 2015.

Mitro are in comparison to CNPC operating in western Turkmenistan on proportionally smaller fields. ENI is active on the Nebit Dag field[368] and Mitro International on Hazar field.[369]

Turkmenistan's leadership prefers to conclude service contracts with Asian or Arab operators. In the first 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, Chinese CNPC Chuanqing Drilling Engineering Company and from a consortium of LG International Corporation and Hyundai Engineering from South Korea. All these contracts signed in 2009 amounted together 10 billion USD.[370] It signaled that Turkmenistan at that time was somewhat willing to entrust the field development to less experienced enterprises than to allow western or Russian involvement in its most important natural gas project.

This subchapter on energy actors in Turkmenistan explains how it is possible that Berdimuhamedow's regime directly or indirectly controls almost the entire energy sector. The State Agency for the Management and Use of Hydrocarbon Resources under the President of Turkmenistan along with company Turkmengaz represent key vehicles for control of Turkmenistan's energy sector for Berdimuhamedow. State's grip on energy sector is even strengthened through restrictions on foreign investments and deliberate diversification of foreign partners that are allowed into energy sector. There were several cases when Turkmenistan's authorities blocked western companies in their actions i.e. Italian company Eni, Dutch company Larmag and Argentinian Bridas. These findings confirm that Turkmenistan's regime wants to transfer as much as possible national power into state power especially in energy sector. State-owned or state-dependent energy actors are considered to be practically as extension of state's apparatus.

[368] "Eni's activities in Turkmenistan," www.eni.com/enipedia/en_IT/international-presence/asia-oceania/enis-activities-in-turkmenistan.page.
[369] "Mitro International Limited," *Crude Accountability,* crudeaccountability.org/campaigns/turkmenistan/whos-who-in-turkmenistan-petroleum-company-dossiers/mitro-international-limited-austriaturkmennebit-consortium-the-khazar-consortium.
[370] Huseyn Hasanov, "Turkmenistan may expand Galkynysh gas field development," *Trend.az*, 27 November 2015.

Energy policy

Saparmurat Niyazov's death on 21 December 2006 represents crucial milestone in the political and economic development of the independent Turkmenistan.[371] He led the country since 1985 when he became the first secretary of the Communist Party of the Turkmen Soviet Socialist Republic.[372] The transition of power after Niyazov's death went exceptionally quickly and most of all very smoothly. The State Security Council, an extraconstitutional body dominated by representatives of power structures, appointed the Deputy Chairman of Government and Minister of Health Gurbanguly Berdimuhamedow.[373] The smooth transition was seemingly the only way in which to secure the existing power brokers in their positions and how to maintain internal and external stability.

Berdimuhamedow started to build his power base immediately after his appointment.[374] He firstly get rid of the people that elevated him to the post of president, especially the Head of the State Security Council Akmurat Rejepow. The elimination of Rejepow was likely linked to the construction of gas pipeline to China. There are two most plausible theories connected with the rise of Berdimuhamedow and the gas pipeline to China. First theory speculates that Rejepow was also a principal advocate of the Turkmenistan-China Gas Pipeline. Hence, Berdimuhamedow had to eliminate him to control the crucial bilateral relationship with China directly. The second theory claims that the timing of Rejepow's demise shows that Berdimuhamedow must have promised Vladimir Putin Turkmenistan's participation in the Caspian Coastal Gas Pipeline project. Hence, he had to eliminate Rejepow to pursue this goal. It is challenging to verify or falsify these two claims. Nonetheless, their existence supports the idea that Berdimuhamedow's rise to power was directly connected with rivalry and even competition for the future of Turkmenistan's energy policy amongst country's ruling elite. In retrospective, it seems that Berdimuhamedow favored from the beginning closer cooperation with China. In this sense, Berdimuhamedow's rise to power played a decisive role in making the Turkmenistan-China Gas Pipeline reality.[375]

[371] "Fradkov priletel v Ashkhabad pokhoronit Turkmenbashi," Gazeta.ru, 24 December 2006.
[372] Igor Yavlinskiy, "Prezident Trukmenii Saparmurat Niyazov: Ya pokinu post glavy gosudarstva eshe pri zhizni," *Izvestiya*, 21 December 2006.
[373] "Opredelilsya kandidat na post prezidenta Turkmenii," *NTV*, 28 December 2006.
[374] "Berdimuhamedow, Gurbanguly," *Lenta.ru,* 18 September 2016.
[375] Based on semi-structured interviews with respective stakeholders.

The transfer of power was both legally and symbolically concluded by the adoption of the new constitution in 2008. This amendment made Turkmenistan's institutional structure more similar to neighboring states while confirming the superiority of president's vertical.[376] Henceforth, Berdimuhamedow proclaimed the "Era of the New Renaissance" that should have supplemented Niyazov's socio-economic program "Golden Age of the Turkmen" presented in 2000.[377] This new "era" was most of all characteristic by large-scale construction projects such as the sea resort Awaza and slow deconstruction of Niyazov's ideological legacy, especially the omnipresent "Holy" book Ruhnama.[378]

The formal political system of Turkmenistan is specific by the excessive role of executive and weak separation of powers among the executive, legislative and judiciary. Moreover, the constitution significantly broadens the powers of the State Security Council, the body that orchestrated Berdimuhamedow's succession, at the expense of the parliament.[379] The constitution also dissolved the former People's Council in attempt to give more power and credibility to the three traditional branches of power. [380]

The succession of Gurbanguly Berdimuhamedow displayed that the political system of Turkmenistan has become somewhat stable. Hence, it is clear that Berdimuhamedow along with Turkmenistan's state apparatus directly controls its most important asset and source of internal and external policy – the energy sector.[381] As was shown already in previous paragraphs, Berdimuhamedow's regime makes every effort to push majority of national power into state power and thus increment its relative 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 for pursuing of its own ends – power consolidation, preservation of power and prosperity of the ruling elite.

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[376] "Konstitutsiya Turkmenistana," 26 September 2008.
[377] "Epokha novogo vozrozhdeniya v ramkakh zolotogo veka," *Turkmenistan.ru,* 8 August 2008.
[378] "Evolyutsiya neitraliteta," Interview with Gurbanguly Berdimuhamedow, *Turkmenistan.ru,* 11 December 2010.
[379] "Konstitutsiya Turkmenistana," 26 September 2008.
[380] "Konstitutsiya Turkmenistana," 18 May 1992.
[381] Saltanat Berdikeeva, "Turkmenistan's Energy Policy: Risks and Opportunities," Insight Turkey, Vol. 9, No. 3 (2007): 124–128.

It is necessary to analyze also the clan fabric of Turkmenistan in order to fully understand the energy policy of this country, as these informal structures are in fact real backers of the current regime and the principal source of its behavior in the energy sector.[382] While Niyazov was above the traditional tribe structures that tie together Turkmenistan's society, for Berdimuhamedow they are the source of his power and everyday reality. Turkmenistan's tribes are informal agents based on an extensive network of kinship and fictive or perceived kinship relations.

Three factors explain the importance of tribes in Turkmenistan's internal politics. The tribe structures were preserved in Turkmenistan because of the late state formation. Next, they stay in place because of the delayed creation of a nation-state identity due to the annexation of the entire area by the Russian Empire and later by the Soviet Union. Finally, it is so because of the existence of economic shortages and of the non-existent or deformed market economy during the Soviet period.[383] These social structures are so stable that they survived up to the present and still play a very significant role in everyday life. The affiliation to the particular tribe is of the utmost importance for one's social and carrier opportunities.

Territoriality plays an essential role in tribes' identification and the definition of inter-tribe relations. The most important is president's tribe Ahal Tekke. It is also the same tribe to which Niyazov belonged. However, the difference was that Niyazov was an orphan and his wife Muza was of Russian-Jewish parents.[384] Thus, he could afford not to entangle himself in the tribal politics. On the contrary, Berdimuhamedow was very active in the promotion of people from his native region of Gökdepe and also from his own family. Berdimuhamedow's son Serdar and grandson are often shown in media. His son-in-law Döwlet Atabaew is the most powerful figure in hydrocarbon industry as he heads the State Agency for the Management and Use of Hydrocarbon Resources under the President of Turkmenistan since 2008.[385] This fact erases the difference

[382] Nicholas Kunysz, "From sultanism to neopatrimonialism: regionalism within Turkmenistan." Central Asian Survey. Vol. 32, No. 1 (2012): 1–16.
[383] Kathleen Collins, *Clan Politics and Regime Transition in Central Asia.* (Cambridge: Cambridge University Press, 2006): 1–23.
[384] "Niyazov, Saparmurat," *Lenta.ru,* 18 September 2016.
[385] Maksat Alikperov, "Turkmenskii gaz – semeinyi biznes. U G.Berdymukhamedova tozhe zavelsya khitryi zyat – Dovlet Atabaev," *Khronika Turkmenistana,* 4 February 2010.

between Turkmenistan's leadership and other Central Asian states where the place of origin and family ties represent a critical factor in the network of power.

Ahal Tekke tribe was the first and most Russified of the Turkmen clans as it created the core of Russia's Trans-Caspian region. In contrast, other Turkmen tribes stayed for a more extended time under the rule of either Khiva Khanate or Bukhara Emirate. Ahal Tekke belongs to larger tribal group Tekke together with the tribe Mary Tekke located in the Mary region. The Mary Tekke also control some critical posts in the country.[386] However, their position is not comparable to that of Ahal Tekke. Another important tribe is the Yomut from the western Balkan region, which traditionally controlled country's hydrocarbon industry. This division of power changed in 2009 when the state-owned oil company Turkmenneft moved from Balkanabat to Ashgabat.[387] It was also accompanied by a general weakening of Yomut in favor of Ahal Tekke.[388]

Niyazov seemingly did not favor any particular tribe; however, Berdimuhamedow clearly supports his own Ahal Tekke. Hence, he focused on securing it the control over the hydrocarbon complex that is the most critical industry in Turkmenistan. Another important tribe is Saryks, living in the south east, near Afghanistan's border. The tribe Chowdur lives in the area of the Khorezm Oasis. Finally yet importantly the Ersari are living in southern Turkmenistan and northern Afghanistan.[389]

Turkmenistan's political elite under Berdimuhamedow understands the need for diversification of its exports that would bring stability and sustainable growth. The ideal situation would be according to Ashgabat approximately 40 percent share of exports to China and then 20 percent share for Iran, 20 percent for Trans-Caspian Gas Pipeline and 20 percent for TAPI.[390] The country could afford such ambitious diversification of exports due to newly explored deposits. Turkmenistan's government

[386] Nicholas Kunysz, "From sultanism to neopatrimonalism: regionalism within Turkmenistan," *Central Asian Survey,* Vol. 32, No. 1 (2012): 1–16.
[387] Annete Bohr, *Turkmenistan: Power, Politics and Petro-Authoritarianism* (London: Chatham House, 2016): 20–35.
[388] For Turkmenistan's clan structure see: Kathleen Collins, *Clan Politics and Regime Transition in Central Asia* (Cambridge: Cambridge University Press, 2006).
[389] "Zakon Turkmenistana o gosudarstvennom flage Turkmenistana," *Turkmenistan.ru,* 24 January 2001.
[390] "CACI FORUM: The Southern Corridor of the New Silk Road," round table discussion with Turkmenistan's Ambassador to the US Meret B. Orazov, 18 September 2013.

even plans for production of 250 bcm per year by 2030.[391] This supposed production would make Turkmenistan one of the most important energy producers globally.

Northern route

The northern connection through the Central Asia-Centre Gas Pipeline System represented for a long time the only feasible route for Turkmenistan's gas exports. In this way, Russia controlled critical leverage over Niyazov's regime which severely limited its maneuvering possibilities.[392] Moscow and Ashgabat agreed that Turkmenistan could export a limited amount of its natural gas to Europe in exchange for convertible currency calculated at world prices in December 1991.[393]

The export of Turkmenistan's gas to Russia almost wholly ceased in 2000.[394] This notwithstanding, the mutual interdependence was very strong at that point. Both parties concluded a new agreement on cooperation in the gas industry for the next 25 years already in April 2003.[395] This decision was influenced by Niyazov's attempt to gain Russia's support after his position was weakened by the supposed assassination attempt one year prior. This shows how external and even internal policies of Turkmenistan were and still are intertwined with the energy policy.

Niyazov was discontent with the low level of price that Turkmenistan was obtaining for its natural gas exports. It rose from 60 to 130 USD in the first half of 2008 and 150 per 1000 cubic meters in the second half of that year.[396] However, the final price was very different. The Ukrainian intermediary RosUkrEnergo was buying this gas in 2006 for 230 USD and selling to European markets for 250. Russia was trying to secure Turkmenistan's natural gas, and thus it was willing to increase the price to 350 USD in 2008.[397]

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[391] "Kak zhivet strana pri prezidente Berdymukhamedove?" *Neitralnyi Turkmenistan,* 14 November 2010.
[392] Yury Fedorov, "The Turkmen Gas Games," *Security Index,* No. 3, Vol. 16 (2010): 39–49.
[393] Glenn E. Curtis, ed. *Turkmenistan: A Country Study*. (Washington: GPO for the Library of Congress, 1996).
[394] Ibidem.
[395] Farkhod Aminjonov, *Central Asia's natural gas: The Pitfalls of energy export diversification,* (Bishkek: OSCE Academy, 2013): 1–14.
[396] Sergei Blagov, "Russia Bows to Turkmenistan's Gas Pricing Demand," *Eurasianet.org,* 5 September 2006, www.eurasianet.org/departments/business/articles/eav090606.shtml.
[397] Farkhod Aminjonov, *Central Asia's natural gas: The Pitfalls of energy export diversification,* (Bishkek: OSCE Academy, 2013): 1–14.

Sudden rise in price represented a critical step for the future of Turkmenistan's gas exports northwards. Rising demand in Europe firstly influenced Russia's ability to offer a higher price. However, the advent of global financial crisis and slump of European demand was for Turkmenistan bitter pill to swallow. This crisis was followed by an explosion on the Central Asia-Centre Gas Pipeline in April 2009 that significantly limited Turkmenistan's exports to Russia. Turkmenistan blamed for the explosion Russia's unilateral decreasing of capacity whereas Russia just blamed the poor technical state of the pipeline.[398]

The explosion occurred nearby the border between Turkmenistan and Uzbekistan. Subsequently, Russia demanded that Ashgabat either decreases its shipments by 80 percent or reduces its price by 40 percent.[399] This notwithstanding, the exports to Russia remained at a low level. Gazprom pushed Turkmenistan into the decision to either reduce its export or accept a lower price. It did not import any gas until 2010.[400] Hence, Russia decreased the volume of requested gas and the price as well. Although it was a just logical reaction on changing the market situation this approach of Moscow threatened the energy security of Turkmenistan. By the sudden decrease of volume and price, Russia became an unpredictable partner for Ashgabat, which understood that cooperation with Moscow is not going to produce sustainable energy security. Hence, these factors above did not cause directly Turkmenistan's rapprochement with China that was already in the making. However, they significantly reinforced it.[401]

Russia wanted to strengthen its grip over Central Asian hydrocarbons and probably tried to counter China's plans in this region, especially the future Turkmenistan-China Gas Pipeline project back in 2007. Therefore, Moscow came up with the idea of the Caspian Coastal Gas Pipeline. It represented the construction of the new CAC-3 Gas Pipeline, and thus it would be a part of the CAC System. Vladimir Putin undertook a three-day state visit to Turkmenistan already in May 2007. During this visit, Putin, Berdimuhamedow and Kazakh President Nursultan Nazarbayev held a summit

[398] Aleksey Tikhoretskiy, "Zapakh gaza," *Turkmenistan.ru,* 17 April 2009.
[399] Martha Brill Olcott, *Turkmenistan: Real Energy Giant or Eternal Potential?* (Cambridge: Harvard University Press, 2013):62–72.
[400] "Gazprom prekratil pokupku gaza iz Turkmenii," *Vesti.ru*, 4 January 2016.
[401] Martin C. Spechler, "Russia's Lost Position in Central Asia," *Journal of Eurasian Studies,* No. 4 (2013): 1–7.

in Turkmenistan's port Turkmenbashi on natural gas transportation.[402] The presidents declared an intention to build the Caspian Coastal Gas Pipeline. Later on, these three presidents joined with Uzbekistan also declared intention on the strengthening of the Central Asia-Centre Gas Pipeline System.[403]

Both agreements if fulfilled would significantly improve Russia's position in the Central Asian region. These declarations, however, did not materialize into binding documents. On the contrary, US envoys arrived in Turkmenistan and supported the idea of the Trans-Caspian Gas Pipeline in July 2007 and in August China began the construction of the Turkmenistan-China Gas Pipeline.[404] Nonetheless, the agreement on the Caspian Coastal Gas Pipeline was signed in Moscow on 20 December 2007 without much ado.[405] It was binding for Russia, Kazakhstan and Turkmenistan to build this 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.[406] There were also doubts about Turkmenistan's ability to fill up this pipeline from its western regions. This project was entirely halted in 2010 due to significantly decreased European demand.[407] That was the same reason why Turkmenistan chose to focus so sharply on collaboration with China that is not so influenced by the economic cycle, as it is a planned economy.

At approximately the same time of 2010, Turkmenistan also canceled a tender on the East-West Gas Interconnector and claimed that it would instead build it with its own resources.[408] It was initially agreed that Gazprom would be the principal contractor in this strategic project.[409] Hence, that was yet another significant loss for Russia's influence in Turkmenistan, which started to drift towards China gradually. Moreover, the East-West Interconnector was commissioned in 2015, and it allows Turkmenistan to transport its natural gas where needed. It runs 773 km from the Belek Compressor

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[402] "Prezident Turkmenistana dal vysokuyu otsenku trekhstoronnemu sammitu v Turkmenbashi," *Turkmenistan.ru,*15 May 2007.
[403] "Gazovaya deklaratsiya," *Turkmenistan.ru,* 15 May 2007.
[404] "Turkmenistan gotovitsya k torzhestvennomu zapusku gazoprovoda v Kitai," *Turkmenistan.ru,* 11 November 2011.
[405] "Caspian coastal gas pipeline deal may be in jeopardy," Vremya Novostey, 31 August 2007.
[406] "V Moskve podpisano Soglashenie o stroitelstve Prikaspiiskogo gazoprovoda," *Turkmenistan.ru,* 20 December 2007.
[407] "Prikaspiiskii gazoprovod zamorozhen," *Petroleum Kazakhstan Analytical Journal,* February 2011, www.petroleumjournal.kz/index.php?p=article&aid1=16&aid2=52&id=136&outlang=1.
[408] "Turkmeniya nachala stroit gazoprovod k Kaspiyu," *Turkmenistan.ru,* 1 June 2010.
[409] Valentin Yermolenko, "Gazovyi razvod," *Turkmenistan.ru,* 16 April 2009.

Station near Caspian coast to the Niyazovsk Compressor Station in the east, and it has a capacity of 30 bcm.[410] The East-West Interconnector proved critically important for Turkmenistan's maneuvering ability and regional stance. It allows to transit natural gas smoothly for the internal purposes of Turkmenistan's economy. Most of all, it enables to support the export to the east from the offshore deposits in the Caspian Sea or vice versa to transport natural gas from Galkynysh to the west once the Trans-Caspian Gas Pipeline would be built.

In conclusion, Russia had at the beginning of the 1990s an enormous advantage of controlling the only hydrocarbon export transportation in the ESC Central Asia. However, it gradually lost it because of its fixation on the preservation of the European market. It is also necessary to stress that the cooperation with Turkmenistan before 2009 enabled Russia to postpone the high-cost projects in Siberia and the Arctic and to release its gas on the European market. Moreover, it enabled Russia to strengthen its influence in other post-Soviet countries – most importantly in Ukraine.[411]

Nevertheless, Russia did not have any substantive countermeasures when the global economic crisis unfolded in 2009. Issues of overpricing were an inevitable element of the relationship with Turkmenistan and other natural gas importers. However, Russia's position started to unravel when China announced its project of the Turkmenistan-China Gas Pipeline. It tried to respond with the Caspian Coastal Gas Pipeline and reconstruction of the Central Asia-Centre Gas Pipeline System, but it was already too late. Moreover, Gazprom lost the tender on the strategic East-West Interconnector in 2010.

Russia's failure in its bilateral relationship with Turkmenistan is to have consequences in the future. Russia lost cheap Turkmenistan's gas, which it could use for its domestic needs, while sending its own gas on the European market.[412] This change is also tied to the necessity to develop the East Siberian and Arctic deposits that will be technologically and financially more demanding. Next, China did not only press up Russia from Turkmenistan but also gained critical leverage on further pricing

[410] "Vveden v stroi magistralnyi gazoprovod Vostok – Zapad," *Turkmenistan.ru,* 24 December 2015.
[411] Mikhael Fredholm, "Natural Gas Trade between Russia, Turkmenistan and Ukraine," *Asian Cultures and Modernity,* Stockholm University, November 2008.
[412] Aleksei Topalov, "Turkmenskii gaz oboidet Rossiyu," Gazeta.ru, 24 December 2015.

negotiations with Russia itself. As an example of this can be seen the difficult negotiation process over the Power of Siberia Gas Pipeline. Finally, Russia's loss in Turkmenistan seems to have geopolitical implications. Ashgabat officially proclaims its intention to diversify ties with China, Iran, India, Pakistan and the states of the Southern Energy Corridor. However, Turkmenistan's officials almost never mention Russia.

Eastern route

The leading role in the eastern route is occupied by China, which was proposing this option for Turkmenistan's gas exports since the early 1990s. Niyazov already opened the eastern route for Turkmenistan's natural gas during his last visit to China in spring 2006. He and China's leader Hu Jintao agreed on the purchase of Turkmenistan's gas by China and construction of the Turkmenistan-China Gas Pipeline.[413] The commissioning of the pipeline was set to the end of 2009. Above all, Turkmenistan was also under this agreement obliged to supply China with its natural gas for next 30 years and 30 bcm annually.[414] However, this agreement should not be perceived as something set in stone. Ashgabat had a similar agreement with Russia, but when this cooperation began to crumble, the agreement was merely forgotten. Hence, the same could happen to the agreement with China if this bilateral cooperation loses its charm for power brokers in Ashgabat. The 2006 agreement counted with 13 bcm annually from the right bank fields under a PSA with CNPC while Turkmenistan should have obtained 17 bcm annually from other deposits on the left bank of Amu Darya river.[415] Moreover, this amount expanded even before the commissioning of the pipeline to 40 bcm in 2009.[416]

Niyazov's foreign policy was symptomatic of the unwillingness to allow foreign countries onshore contracts. The only exception to this rule was a production sharing agreement on the Bagtyyarlyk gas deposit with the CNPC that, however, helped Turkmenistan conclude with China significant agreement on the construction of the Turkmenistan-China Gas Pipeline. Hence, the CNPC was given the possibility

[413] "Sotrudnichestvo po gazu s Tsentralnoi Aziei," *CNPC,* www.cnpc.com.cn/ru/zytrqgdzt/zytrqgdzt_2.shtml.
[414] "Kitai i Turkmenistan podpisali dva soglasheniya o sotrudnichestve v gazovoi sfere," *Turkmenistan.ru,* 17 July 2007.
[415] "Turkmen, Chinese leaders sign accords, issue statement," ITAR-TASS, 29 August 2008.
[416] Qaya Mammadov, "Turkmenistan positions itself as Eurasian natural gas power," *Oil and Gas Journal,* 12 July 2015, www.ogj.com/articles/print/volume-113/issue-12/transportation/turkmenistan-positions-itself-as-eurasian-natural-gas-power.html.

to develop onshore deposits in Turkmenistan as a first company ever.[417] This offer underlines how crucial it was for Turkmenistan to switch to cooperation with China. If the cooperation with Russia would continue to deteriorate and there would be no option to ship natural gas to China, it could have even caused weakening of the regime in Ashgabat.

One of the first Berdimuhamedow's foreign visits led to Beijing in July 2007. He assured Chinese side of ongoing support for the 2006 agreement and its provisions. Moreover, he reported on new gas deposits on the right bank of the Amu Darya. These newly found deposits changed the geopolitical weight of Turkmenistan and made it the country with fourth-largest natural gas reserves in the world. Subsequently, both parties agreed on technological and economic cooperation. China also offered Turkmenistan interest-free loan for the purchase of its drilling rigs used for development of upstream gas fields.[418]

The CNPC organized a ceremony celebrating the start of the Turkmenistan-China Gas Pipeline construction in the village of Bagtyyarlyk in the eastern Lepab region on 29 August 2007. This pipeline was commissioned in December 2009 and is 1833 kilometers long.[419] It starts at the Bagtyyarlyk field and goes 188 km to the border with Uzbekistan. Then it traverses 530 kilometers in Uzbekistan and enters Kazakhstan near Shymkent. On Kazakhstan's territory, it resumes for another 1115 kilometers until it reaches China's border in Horgos. The natural gas then continues further to China's megalopolises in the east. Line B was commissioned one year later in 2010. Both Line A and Line B have a capacity of 30 bcm combined.[420] It was thus inevitable that there would be built at least one more pipeline to fulfill the agreement to ship to China 40 bcm annually.[421]

The cooperation between Turkmenistan and China was developing abruptly and well. Both sides agreed to new framework agreement in 2012. They plan to increase

[417] "CNPC in Turkmenistan," *CNPC,* www.cnpc.com.cn/en/Turkmenistan/country_index.shtml.
[418] "Storony polny reshimosti...," *Turkmenistan.ru,* 18 July 2007.
[419] "Leaders gather to inaugurate Turkmenistan-China gas pipelinee," The Canadian Press, 13 December 2009.
[420] "Sotrudnichestvo po gazu s Tsentralnoi Aziei," *CNPC,* www.cnpc.com.cn/ru/zytrqgdzt/zytrqgdzt_2.shtml.
[421] "Ashgabat, Beijing stand for ensuring the security of Turkmenistan-China Gas Pipeline," Tribune Business News, 25 November 2011.

Turkmenistan's export to China to 65 bcm per year by 2020. The year 2020 represents the deadline for China's current Five Year Plan. Hence, it is very likely that there would be substantial incentive to fulfill this target. The road plan to develop the capacity of the Bagtyyarlyk and Galkynysh fields and to add Line C to the Turkmenistan-China Gas Pipeline with a capacity of 25 bcm was also agreed upon in 2013.[422]

Line C runs parallel to previous two lines and was commissioned in June 2014.[423] Moreover, both parties agreed on the construction of Line D with additional 25 bcm capacity in September 2013. However, its tracing should be much different from previous three lines. It would start at the Bagtyyarlyk field and then run 205 kilometers through Uzbekistan. Subsequently, it would traverse 415 kilometers in Tajikistan and 225 kilometers in Kyrgyzstan before reaching Kashgar on China's border.[424] Construction of some segments of Line D started already in 2014 and it was under construction as of 2019 with proposed commissioning in 2020.[425]

It is now clear that 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 represented Turkmenistan's primary trade partner before the crisis in their relations in 2009. China has taken its position since then. Above all, China is becoming for Turkmenistan much more dominant trade partner than Russia ever was. Turkmenistan supplied Russia in 2008 with 39.1 bcm and sent to Iran additional 6.5 bcm. The supplies to Iran remain quite similar up to the present. However, Russia obtained from Turkmenistan in 2008 only 10.7 bcm. Turkmenistan's supplies to China overpassed Russia already in 2011 with 14.25 bcm to China and only 10.14 bcm to Russia. In 2014 China obtained from Turkmenistan 25.9 bcm while Russia only ten bcm. In 2015 due to the opening of Line C, China obtained 27.75 bcm and Russia 2.81 bcm. In 2016, Turkmenistan stopped all gas exports to Russia. Hence, China supplanted Russia as Turkmenistan's dominant economic partner in less than eight years' time.

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[422] "Turkmen gas exports to China to hit 65 bcm/year by 2020," *Reuters,* 3 September 2013.
[423] "Flow of natural gas from Central Asia," *CNPC,* www.cnpc.com.cn/en/FlowofnaturalgasfromCentralAsia/FlowofnaturalgasfromCentralAsia2.shtml.
[424] Jack Farchy, "China seeking to revive the Silk Road" *Financial Times,* 9 May 2016.
[425] "Tajikistan resumes building Turkmenistan-China Pipeline," *Eurasianet,* 31 January 2018, eurasianet.org/s/tajikistan-resumes-building-turkmenistan-china-pipeline.

Nowadays China does not limit its investments in Turkmenistan only to the hydrocarbon sector. It also recently invested in transport and chemicals, telecommunications, construction or light industries. This investment goes hand in hand with China's Belt and Road Initiative that focuses on connectivity and infrastructure development in the Central Asian region and beyond.[426] It is also linked to older strategy "Go West" aimed at the economic development of China's western regions and adjacent Central Asian territories.

It is necessary to perceive China's actions in Central Asian ESC as broader strategic initiative, which is not only aimed at profit-generation when the price of natural gas from Central Asia is higher than domestically extracted gas in China, not to speak of China's coal.[427] There are three chief strategic priorities of China in the region. China wants to stabilize and keep stable both its western region including Tibet and Xinjiang as well as adjacent Central Asian states. It is in this light that the project of Line D of the Turkmenistan-China Gas Pipeline should be seen primarily. Next, Central Asia represents for China both source of economic diversification and bridgehead towards resources of the Middle East and markets of Europe. Part of China's elite believes that only more pipelines can provide for more security.[428] This belief can be true especially in the case that for some reason the maritime routes would be temporarily cut off. Finally, China gained significant leverage in its relationship with Russia by penetrating Central Asia. Among others, this is already being visible during the negotiations over the Power of Siberia Gas Pipeline.

Southern route

The leading role in the southern route occupies at present Turkmenistan, which attempts to strengthen its position through export diversification. Turkmenistan understood the importance of Pakistan's and India's energy markets for its future hydrocarbon exports since the early 1990s. Hence, this is how the idea of the Turkmenistan-Afghanistan-Pakistan Gas Pipeline was conceived. This endeavor also tunes up with

[426] William T. Wilson, "China's Huge 'One Belt, One Road' Initiative Is Sweeping Central Asia," *The National Interest,* 27 July 2016.
[427] Andrew Moody, "Go West' policy is an economic milestone for nation," *China Daily,* 12 September 2011.
[428] Michael Schoenhals and Xiaolin Guo, *Cadres and Discourse in the People's Republic of China* (Stockholm: ISDP, 2007).

the interests of the United States in the region. This idea was firstly supported by the New Silk Road Act in the US Congress in 1999.[429]

Subsequently, Secretary of State Hillary Clinton proposed the New Silk Road initiative in 2011. This initiative's goal was to connect Central Asia more closely with the Indian subcontinent through Afghanistan.[430] Therefore, this should have led to the increased prosperity of both regions and a decreased influence on Russia and Iran in Central Asian ESC.[431] However, the US approach was too much focused on the stabilization of Afghanistan and lacked more precise and solicitous relations with its Central Asian partners who were regarded more as means than goals of the US regional policy.

The pipeline to Indian subcontinent was in the making since the early 1990s. Niyazov concluded memorandum of understanding on the construction of gas pipeline to Pakistan with its Prime Minister Benazir Bhutto in March 1995. The international consortium for the Turkmenistan-Afghanistan-Pakistan Gas Pipeline was created and headed by the US enterprise Unocal in 1997. This initiative did not materialize soon because of the unstable situation in Afghanistan, US embargo against Taliban and following events after terrorist attacks in the US on 11 September 2001.[432]

The pipeline was resuscitated again on the trilateral summit in Islamabad in 2002 still as the TAP Gas Pipeline.[433] India showed its interest in the project only in 2005, and since then it was referred to as the TAPI Gas Pipeline.[434] The Asian Development Bank initially estimated the costs of the TAPI project at 2.6 billion USD in 2006.[435] However, it changed its estimate in 2015 to 7.6 billion USD. The price was as of 2016 estimated

[429] "Silk Road Strategy Act of 1999," *Library of Congress,* www.govtrack.us/congress/bills/106/hr1152/summary.
[430] Michael Clarke, "China's Strategy in Greater Central Asia: Is Afghanistan the Missing Link?" Asian Affairs: An American Review Vol. 40 (2013): 1–19.
[431] "U.S. Support for the New Silk Road," *US Department of State,* www.state.gov/p/sca/ci/af/newsilkroad.
[432] Fatima Quamar and Sumera Zafar, "New Great Game: Players, Interests, Strategies and Central Asia." *A Research Journal of South Asia Studies* Vol. 29, No. 2 (2014): 623–652.
[433] "Niyazov i Karzai zayavili o gotovnosti svoikh stran reanimirovat proekt transafganskogo gazoprovoda," *Turkmenistan.ru,* 7 March 2002.
[434] "Indiiskii diplomat zayavil, chto ego strana khochet stat odnim iz samykh krupnykh pokupatelei turkmenskogo gaza," *Turkmenistan.ru,* 16 August 2006.
[435] "Niyazov i Karzai zayavili o gotovnosti svoikh stran renimirovat proekt transafganskogo gazoprovoda," Turkmenistan.ru, 7 March 2002.

at 10 billion USD due to various delays.[436] The projected capacity of this pipeline is 33 bcm per year. It should start at the Galkynysh field in southeast Turkmenistan and continue to Afghanistan along the road from Herat to Kandahar. Subsequently, it should continue to Pakistan's Baluchistan and Punjab reaching the border with India in Fazilka.[437] The uneasy relations with warring Afghanistan's factions are considered as the most substantial obstacle to the implementation of this project.[438]

The agreement on TAPI's construction among four participating countries was signed in 2010 due to the active approach of Turkmenistan, and the length of the contract was set at 30 years.[439] Moreover, Turkmenistan signed agreements with potential purchasers – the Gas Authority of India and the State Gas Systems of Pakistan in 2012.[440] There was also a clause stating that in a case of Pakistan's blocking of gas supplies to India, Turkmenistan was obliged to do the same to Pakistan.[441] In this way, the negotiators attempted to exclude the Indo-Pakistani conflict in Kashmir from the implementation of this project. Turkmenistan also signed an agreement with the Afghan Gas Corporation in 2013.[442]

The participating countries agreed a year later to create a consortium that would build and operate the pipeline. Turkmengaz was endorsed as the leader of the consortium TAPI Pipeline Co. Ltd. in August 2015. Turkmengaz, Afghan Gas Corporation, Inter State Gas Systems Ltd. and GAIL Ltd. from India equally divided shares in the consortium.[443] The steering committee initiated the shareholding agreement setting rights and obligations of involved parties in October 2015. Turkmengaz promised to contribute 85 percent of the pipeline's costs. The rest would be divided among other three members.[444] Turkmengaz's promise to cover 85 percent of the pipeline costs goes

[436] Manish Vaid, "TAPI pipeline progresses, but future uncertain," *Oil and Gas Journal,* 2 May 2016.
[437] "TAPI Gas Pipeline," *Asian Investment Bank,* 8 April 2016, www.adb.org/news/infographics/tapi-gas-pipeline.
[438] "Caspian: the US Steps Up Diplomacy," Energy Compass, 14 February 2008.
[439] Oleg Lukin, "Novoe ruslo gazovoi reki," *Turkmenistan.ru,* 24 January 2011.
[440] Sanket Sudhir Kulkani, "The Elephant and the Tiger: Energy Security, Geopolitics, and National Strategy in China and India's Cross-border Pipelines." Energy Research and Social Science Vol. 11 (2016): 16–19.
[441] Ibidem.
[442] "V Ashkhabade sostoyalos zasedanie turkmeno-pakistanskoi mezhpravitelstvennoi komissii," *Turkmenistan.ru,* 21 April 2012.
[443] "TAPI Shareholders Agreement Initialed," *Asian Investment Bank,* 26 October 2015, www.adb.org/news/tapi-shareholders-agreement-initialed.
[444] Ibidem.

directly against Turkmenistan's policy of selling gas on the state border that was in place since Niyazov. Hence, this obligation shows how vital the energy exports diversification is for the ruling regime in Ashgabat. It is clear that without the TAPI, Turkmenistan's dependence on China would grow unchecked.

Even though the TAPI Gas Pipeline represents untenable pipe dream still for many, it is progressing abruptly. The involved parties showed a great deal of negotiating skill and especially Turkmenistan was able to attain the position of project's leader. There are threefold positive implications for the involved parties. Initially, due to this project, Turkmenistan can lower its growing dependence on China's demand. At present, this relationship is still advantageous for both parties, but it can soon change. There is a high possibility that China would either decrease its demand due to the economic downturn or try to use the Turkmenistan-China Gas Pipeline as leverage against Ashgabat. Next, all parties would profit from this project economically despite its high costs. This fact is especially actual for Pakistan and India with their increasing energy demand. Finally, TAPI would create much desired political ties between Central and South Asia.

Route through Iran

There is still open the question of Turkmenistan's connection with the outside world through Iran. In August 1994, Niyazov met Iran's President Akbar Hashemi Rafsanjani, and they concluded an agreement on a gas pipeline from Turkmenistan to Iran that should have been built in seven years. However, both Russia and the US were against this deal at the time. Russia was against any possible diversification of Turkmenistan's exports. Moreover, the US actively preferred the Trans-Caspian Gas Pipeline. There were also significant personal contradictions between Niyazov and Heydar Aliyev. The Korpeje-Kordkuy Gas Pipeline to Iran was commissioned already in 1997.[445] However, it did not represent a decisive step in diversification due to its low capacity and only regional importance.

Nonetheless, Iran rose to Turkmenistan's second most important hydrocarbon export partner after Russia since that year. It represented the only alternative to Russia's controlled northern route until 2009. This gas pipeline runs 200 km from Korpeje field

[445] "Chernomyrdin v Ashkhabade i Dushanbe," *Nezavisimaya Gazeta,* 14 November 1998, www.uni-potsdam.de/u/slavistik/zarchiv/0198wc/k002-13.htm.

to Iranian town Kordkuy.[446] Furthermore, the two countries opened second gas pipeline in 2010 connecting the Dowletabat gas field in southern Turkmenistan with Iranian Sarakhs.[447] The capacity of the Dowletabat-Sangbast Gas Pipeline is also 12 bcm yearly.[448] Even though the combined capacity of those two pipelines reaches 24 bcm yearly, it is usually not used entirely. Iran imports from Turkmenistan approximately ten bcm annually.

Iran represents Turkmenistan's second largest gas export market since 2011 when it overpassed Russia.[449] These two gas pipelines have for Iran rather local significance. They help to supply with natural gas some remote areas of the country that are closer to Turkmenistan's gas deposits than those of Iran. Also, these pipelines show the ambitions and limits of Iran's regional designs and policies. There are no significant hopes that Turkmenistan can transport its natural gas further west utilizing Iran's natural gas grid at present. This is because Iran as a most considerable world producer of natural gas firstly focuses on the export of its own resources.[450] There are yet no signs that Iran would be willing to allow Turkmenistan to re-export its gas through its territory to Europe. On the other hand, Iran already plans to supply with its own gas India and thus tries to counter the TAPI Gas Pipeline project.[451]

Western route

Finally, there is the critical issue of the connection to the west. The mutual relations between Azerbaijan and Turkmenistan were complicated during Niyazov's era although the Caspian Sea should not be perceived as a barrier and somewhat as a functional connection between Central Asia and the Caucasus. It was primarily caused by disputes in the Caspian Sea with four significant oil and gas deposits claimed by both Turkmenistan and Azerbaijan.[452] This dispute impeded both states from developing

[446] "Saparmurat Niyazov inaugurates gas compressor station at Korpeje natural gas field," *Tukrmenistan.ru,* 14 September 2005.
[447] "Torzhestvenno zapushchen novyi gazoprovod iz Turkmenistana v Iran," Turkmenistan.ru, 7 January 2010.
[448] Bruce Pannier, "Turkmen Gas Exports To Iran A Boon For Both Countries," *RFE/RL,* 6 January 2010.
[449] "BP Statistical Review of World Energy June 2016," *BP,* www.bp.com, 1 June 2016.
[450] "Prezident Turkmenistana posetit s vizitom Iran i primet uchastie v sammite glav gosudarstv – eksporterov gaza," Turkmenistan.ru, 22 November 2015.
[451] "TAPI Stuck As Iran, LNG Provide Better Options," *BMI Research,* 24 March 2016.
[452] Gawdat Bahgat, "Pipeline Diplomacy: The Geopolitics of the Caspian Sea Region." International Studies Perspectives Vol. 3 (2007): 310–327.

their resources in the Caspian Sea.[453] The United States vigorously promoted the project of the Trans-Caspian Gas Pipeline since early 1990s. Washington hoped that this economic link can bring more prosperity to the Caspian region, give Europe diversified source of energy and lower the influence of Russia and Iran.[454]

The US and Turkey's governments even proposed that they would partly finance and guarantee the construction in 1998.[455] However, the prospects for quick construction of the Trans-Caspian Pipeline were soon destroyed by Azerbaijan that found in 2000 sizeable offshore field. It claimed half of the proposed pipeline capacity and thus left potential Turkmenistan's profit in doubt.[456] This development pressed Turkmenistan to renegotiate the new gas deal with Russia in 2003. It was also more prone to find alternative export markets that can secure and maintain adequate demand. Turkmenistan found such reliable partner in China in 2006.

However, the stalemate of the Trans-Caspian Gas Pipeline started to melt after Berdimuhamedow's succession. He met for the first time his Azerbaijan's counterpart Ilham Aliyev in the course of the CIS summit in Saint Petersburg in June 2007.[457] They agreed on re-opening of Turkmenistan's embassy in Baku that was closed since 2001 when the talks on the Trans-Caspian Gas Pipeline failed due to personal antipathies between Aliyev's father Heydar, and Niyazov.[458] Furthermore, Berdimuhamedow re-started the debate on the Trans-Caspian Gas Pipeline and even connected it with the planned East-West Interconnector in 2010.[459]

The European Commission was tasked to lead the negotiations on the deal with Azerbaijan and Turkmenistan that would allow building the pipeline in the framework

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[453] Slavomír Horák and Jan Šír, *Dismantling Totalitarianism: Turkmenistan under Berdimuhamedow* (Washington: Central Asia and Caucasus Institute – Silk Road Studies Program, 2006): 44–68.
[454] Nuri Akyol, *A natural gas pipeline crossing the Caspian Sea basin – which factors contribute to its advancement or impediment?* (Delft: Delft University of Technology, 2009): 39–74.
[455] Stephen J. Blank, *Turkmenistan and Central Asia after Niyazov* (Washington: Strategic Studies Institute, 2007): 26–43.
[456] Ibidem: 26–43.
[457] "V Baku sostoyalis peregovory mezhdu Gurbanguly Berdymukhamedovym i Ilkhamom Alievym," *Turkmenistan.ru,* 20 May 2008.
[458] "V Baku sostoyalis peregovory mezhdu Gurbanguly Berdymukhamedovym i Ilkhamom Alievym," Turkmenistan.ru, 20 May 2008.
[459] "Turkmeniya nachala stroit gazoprovod k Kaspiyu," *Turkmenistan.ru,* 31 May 2010.

of the Southern Gas Corridor in 2011.[460] It means that this project has strategic value for the European Union and will be supported as such.[461] In the same year, Azerbaijan substituted the ill-fated project of the Nabucco Gas Pipeline with the Trans-Anatolian Natural Gas Pipeline (TANAP).[462] It should start at Azerbaijan's Shah Deniz II field and resume through Turkey to Europe. Its proposed capacity is 16 bcm per year, and it should be commissioned by 2018.[463] In 2013, it was agreed that the Trans-Adriatic Pipeline would transport the gas from TANAP further into Europe. Also, there is an open-door policy for the additional link to Turkmenistan.[464]

In the future, Turkmenistan can play an essential role in the diversification of Turkey's energy needs in regards to its high-energy consumption. Above all, Turkmengaz agreed with Turkey on a memorandum of understanding to supply TANAP in 2014.[465] This document would not exist if both parties would not sincerely believe in the plausibility of this project. Moreover, Azerbaijan, Turkey, and Turkmenistan established a trilateral mechanism on energy cooperation in 2015 to prepare the potential construction of the Trans-Caspian Gas Pipeline.[466]

If the Trans-Caspian Pipeline is constructed, it would represent enormous success for the European energy security. It would complement the Southern Gas Corridor and extend it into Central Asia.[467] The Ashgabat Declaration from 2015 on cooperation in the energy sphere between the EU and Turkmenistan, Azerbaijan and Turkey can be considered as an essential step.[468] In this regard, the importance of the East-West Interconnector in Turkmenistan commissioned in 2015 should be stressed. It would enable to send to European market natural gas from the gas fields of eastern Turkmenistan. Next, this project would finally complete bypass of Russia and enable

[460] "Gas and oil supply routes," *European Comission,* ec.europa.eu/energy/en/topics/imports-and-secure-supplies/gas-and-oil-supply-routes.
[461] "EU-Turkmenistan relations – Factsheet ," European External Action Service, eeas.europa.eu/factsheets/news/eu-turkmenistan_factsheet_en.htm.
[462] 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): 41–45.
[463] "Trans-Anatolian Gas Pipeline Project," *TANAP,* www.tanap.com/tanap-project/why-tanap.
[464] "V Ashkhabade sostoyalis peregovory prezidentov Turkmenistana i Turtsii," Turkmenistan.ru, 8 November 2014.
[465] "Ashgabat Declaration," *European Commission,* 1 May 2015, ec.europa.eu/commission/2014-2019/sefcovic/announcements/ashgabat-declaration_en.
[466] Ibidem.
[467] Jos Boonstra, "EU Assistance to Central Asia: Back to the Drawing Board?" EUCAM Working Paper Vol. 8 (2011): 1–43.
[468] "Turkmen gas for Europe," *Nebit-Gaz,* 29 July 2016.

Europe to lessen its dependence on Russia. Finally, if this project would be concluded, it would also broaden maneuvering room for Central Asian states vis-à-vis China whose presence in the region is rapidly increasing. This notwithstanding, it is clear that big western oil and gas companies are not going to invest in this pipeline unless they obtain big onshore PSAs in both oil and gas. Turkmenistan will be also more tempted to focus on this endeavor when the TAP-TANAP is finished in 2019 and the gas from Azerbaijan pouring to the west.[469]

Table 17: Turkmenistan gas export infrastructure

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

The subchapter focuses on Turkmenistan's energy policy. It shows that present-day Turkmenistan is becoming an assertive player in the areas of energy and foreign policy. This shift is most of all bound up with the succession of President Gurbanguly Berdimuhamedow in late 2006. The subchapter also explains how the Ashgabat's energy sector is strongly influenced by the inner fabric of Berdimuhamedow's regime and its clan power brokers. The regime uses country's energy potential as principal means of its internal and external policies and thus they are almost inseparable. The energy sector is considered by Berdimuhamedow's regime as the crucial tool

[469] "Turkmen president mulls gas deliveries to the EU," Daily News Egypt, 29 August 2016, www.dailynewsegypt.com/2016/08/29/turkmen-president-mulls-gas-deliveries-to-the-eu.

for pursing country's internal and external policies. It can be also concluded that Turkmenistan is rewarding or punishing certain behavior of other states. This was especially showcased on the example of Turkmenistan's energy policy to Russia and China. There is also clear preference for bilateral relation in energy sector as it is easier to dominate the bilateral relationships. This was proven in all five parts of the subchapter devoted to the northern, eastern, southern, Iranian and western routes for Turkmenistan's hydrocarbon exports. There are also clear examples of attempts to control entire markets regardless of commercial logic. Nonetheless, this has to be measured with Turkmenistan's real capabilities. The existing and proposed gas pipelines are listed in the Table 17.[470]

Energy policy in the ESC of Central Asia

The classical division amongst external, internal and energy policy just does not work in the case of Turkmenistan. These three branches of government policies serve only for preservation and prosperity of the ruling regime. The energy policy to large degree shape the priorities of foreign or external policy, even internal policy to some extent, and vice versa.[471] The fact that both foreign policy and energy policy of Turkmenistan aims primarily at the preservation of the ruling regime supports the argument that in this country the strategic approach to energy resources prevails.[472] The control of energy resources represented for both Niyazov's and Berdimuhamedow's regimes the key to the control of the country. This proved to be true especially in the context of the project of the Central Asia-China Gas Pipeline.[473]

Turkmenistan's relationship with Gazprom

The relationship of Turkmenistan and Gazprom significantly differed between the presidencies of Yeltsin and Putin. Under Yeltsin, Gazprom represented a golden calf creating much-needed profits while the Russian elite perceived Turkmenistan as a mere business rival. Under Putin, Gazprom turned into a foreign policy tool of his regime,

[470] Table 17.
[471] Yusin Lee, "Opportunities and risks in Turkmenistan's quest for diversification of its gas export routes." Energy Policy Vol. 74 (2014): 330–339.
[472] Aleksander Maslenikov, "Diverzifikaciya gazovogo eksporta Turkmenistana." In *Centralnaya Aziya: rol v perestroyke mirovykh rynkov prirodnogo gaza* (Moscow: IMEMO RAN, 2014): 115–121.
[473] For more on the geopolitical situation in Central Asia in 2000s see: Eugene Rumer, Dmitrij Trenin and Huasheng Zhao, *Central Asia: Views from Washington, Moscow and Beijing,* (New York: M. E. Sharp, 2007).

and Turkmenistan turned into the desired zone of influence that should have been secured. Neither first nor second approach, however, led to the establishment of sustainable and amicable relations between these two parties.

The natural gas remained key to the evolving relationship between Turkmenistan and Russia for the entire period after 1991. The only feasible route for transport of this commodity was the old Soviet-era Central Asia-Centre Gas Pipeline System. The route was controlled since 1989 by Gazprom. Minister of Gas Industry of the Soviet Union Viktor Chernomyrdin and his Deputy Minister Rem Vyakhirev created the enterprise in August 1989. They were both actively against liberalization and privatization of Russia's gas sector what had a dire impact on Turkmenistan's maneuvering space. Moreover, this course of maintaining gas sector under governmental control was even strengthened in 1992 when Chernomyrdin became prime minister and Vyakhirev became the head of Gazprom.[474]

In the time of the fall of the Soviet Union, Turkmenistan produced approximately one-third of its natural gas output. Hence, Niyazov wanted to get 30 percent of Gazprom's profits. However, Vyakhirev blatantly claimed that Turkmenistan's natural gas did not go to Europe but only to Ukraine and Georgia and therefore Niyazov had to deal with them. Niyazov went to Kyiv and concluded a barter trade agreement with President Kravchuk in 1992. Gazprom was not against this deal as it mainly focused on curbing Turkmenistan's access to western markets.

Turkmen businessman with Russian ethnicity Igor Makarov created company Itera that conveyed, with Vyakhirev's consent, selling Turkmenistan's natural gas to Ukraine in 1994.[475] Makarov's company Omranyia supplied Turkmenistan with sugar since the early 1990s. However, when Turkmenistan ran out of money, it offered to pay for sugar in gas. This barter agreement would have been not possible without the consent of Gazprom. At the same time, Turkmenistan and Ukraine had already started to barter

[474] Jan S. Adams, "Russia's Gas Diplomacy." *Problems of Post-Communism,* Vol 49, No. 3 (2002): 14–22.
[475] "Istoriya ottsa Gazproma: ot bezgranichnoi vlasti do zabveniya na pensii," *Forbes,* www.forbes.ru/sobytiya/lyudi/116519-istoriya-ottsa-gazproma-rema-vyahireva-ot-bezgranichnoi-vlasti-do-zabveniya-na.

trade foodstuffs for natural gas. Vyakhirev agreed that Makarov would sell gas to Ukraine and that to get money from Kyiv would be solely Makarov's responsibility.[476]

This barter system was not something entirely new in the trade relationship between Ukraine and Turkmenistan. It was first proposed and managed by Ukrainian tycoon Ihor Bakay and his company Respublika. Its transactions were possible due to the agreement between Ukraine's President Leonid Kravchuk and Niyazov. Ukraine's second President Viktor Kuchma who won the elections in 1994 was strongly pro-Russian and befriended both Vyakhirev and Chernomyrdin. They agreed that Bakay's business would be taken over by Makarov and his US registered enterprise Itera. This company soon managed to control the majority of Ukraine's market with the help of Gazprom and Ukraine's Deputy Prime Minister for Energy Yulia Tymoshenko. Itera became the second most prominent gas company in Russia after Gazprom by the end of the 1990s. Its focus on gas sales of Central Asia's natural gas to Ukraine and other post-Soviet countries paid off.[477]

Chernomyrdin was forced to resign due to the emerging economic crisis in 1998.[478] Without this support, Makarov's ally in Gazprom Vyakhirev left his post in 2001, and as a result, the company's business with Turkmenistan was taken over by the newly created Eural TransGas in 2002 and later by the company RosUkrEnergo in 2004.[479] The Eural TransGas was notorious for its opaque nature. Three unemployed persons and one Israeli advocate registered the company in a Hungarian village. Kuchma ultimately decided to replace this company with the RosUkrEnergo due to public pressure in Ukraine. This new company was registered in Switzerland and was owned 50 percent by Gazprom and another 50 percent by Raiffeisen Investment. At first, the RosUkrEnergo controlled just the gas trade between Turkmenistan and Ukraine. However, since 2006 it additionally controlled all the trade with Central Asia's gas.

Soon it became clear that it is in structure and personnel very similar enterprise to its predecessor, the Eural TransGas. Furthermore, Ukraine was hit by series of scandals

[476] Jan S. Adams, "Russia's Gas Diplomacy." (2002): 14–22.
[477] Ibidem.
[478] "Chernomyrdin v Ashkhabad i Dushanbe," Nezavisimaya Gazeta, 14 November 1998, www.uni-potsdam.de/u/slavistik/zarchiv/0198wc/k002-13.htm.
[479] Dmitrii Simakov, "Itera perestala byt razborchivoi nevestoi," *Vedomosti,* 1 March 2012, www.vedomosti.ru/opinion/articles/2012/03/01/itera.

connected with the RosUkrEnergo after the Orange Revolution. It was found out that infamous Ukrainian oligarch Dmytro Firtash owned 50 percent of this company through the Raiffeisen Investment and that he had controlled the Eural TransGas and Respublika beforehand. There even appeared inklings that Firtash represented only a figurehead for either Kuchma or Yanukovych. Tymoshenko tried to get rid of the RosUkrEnergo and reinstall Itera that she knew from her time when she served as the deputy minister for energy. However, President Viktor Yushchenko released her from her office before she could finish this task in September 2005.

Yushchenko then announced that it was necessary to cancel barter trade and replace it with market prices. Putin reacted by an increment of prices almost to the level of Germany, and he even stopped Russia's supplies to Ukraine at the beginning of 2006. Russia was willing to agree to any discounts only under the condition that the RosUkrEnergo would retain its status. This approach implies that the RosUkrEnergo and the Eural TransGas could have been connected in some way to the government circles in Putin's Russia.

As was already stated, Turkmenistan's number one problem during the 1990s was its overall dependence on Russia's monopsony in its gas exports and pricing policy. Niyazov and Vyakhirev agreed on Itera in July 1996. However, Niyazov was soon discontent with the state of affairs. He vociferously criticized that he was obtaining six times less than what was the market price in Europe.[480] He blamed for this especially Itera. Gazprom replied to Niyazov's accusations by stating that it had over-filled pipelines and thus it would have sent Turkmenistan's gas to Ukraine via the twice as long route. Ukraine, however, was not prepared to pay double the price. Niyazov reacted by curbing of Turkmenistan's supplies and went to Moscow in August 1997 to solve the crisis. However, both Vyakhirev and Chernomyrdin told him bluntly that Russia does not need Turkmenistan's gas and he did not get support from Yeltsin either.[481]

[480] Ibidem.
[481] "Chernomyrdin reacts angrily to the Central Asian summit," The Jamestown Foundation, jamestown.org/program/chernomyrdin-reacts-angrily-to-central-asian-summit.

Hence, Niyazov had to retreat and continued disadvantageous collaboration with Itera. To decrease the dependence on Russia, Central Asian presidents met on 6 January 1998 and expressed a preference for new gas and oil pipelines.[482] They especially studied proposed oil pipeline from Kazakhstan via the Caspian Sea, Azerbaijan and Georgia to Turkey and for further export to Europe; a gas pipeline from Turkmenistan via Iran and Turkey to Europe; and gas pipeline from Turkmenistan to Afghanistan and Pakistan. Russia's Prime Minister Viktor Chernomyrdin harshly reacted to this meeting claiming that oil and gas export pipelines from Central Asia are more cost-effective if routed via Russia.[483]

Russia's grip over Turkmenistan's economy was most strongly manifested later in that year when Chernomyrdin decided to cut off natural gas imports from Turkmenistan and its economy almost collapsed. Subsequently, he proposed very protectionist policies in the wake of Russia's financial crisis and even stated to Turkmenistan's leaders, "Europe does not want your gas."[484] However, this development led Turkmenistan to look more vigorously for new export routes and Niyazov got his revenge in December 1999. Gazprom's production started to decrease in the second half of the 1990s, and it was more than clear that it would not satisfy the European demand without cooperation with Turkmenistan. Vyakhirev was afraid of the planned construction of the Trans-Caspian Gas Pipeline, and thus he came personally to Ashgabat, and he publicly apologized for his statements and behavior to Niyazov and Turkmenistan in live broadcast. Nevertheless, this episode did not help to improve the relationship between Turkmenistan and Russia. On the contrary, it made it almost unrepairable.[485]

The gas issue was so critical for Russia that even Putin's first foreign visit as president headed to Turkmenistan and Uzbekistan in 2000. This issue was soon merged with the internal politics of both countries. Niyazov was harboring growing fear of his life and the stability of his regime. He withdrew from the visa free regime with the CIS states in 1999. However, with respect to Russia there remained the issue of dual

[482] Ibidem.
[483] "Chernomyrdin reacts angrily to Central Asian summit," *The Jamestown Foundation*, 9 January 1998, jamestown.org/program/chernomyrdin-reacts-angrily-to-central-asian-summit.
[484] S Frederick Starr, "Uzbekistan and Turkmenistan: Staying Away," In: *Putin's Grand Strategy: The Eurasian Union and Its Discontents* (Washington: Central Asia and Caucasus Institute – Silk Road Studies Program, 2014): 156–166.
[485] Dmitrii Simakov, "Itera perestala byt razborchivoi nevestoi," *Vedomosti,* 1 March 2012, www.vedomosti.ru/opinion/articles/2012/03/01/itera.

citizenship. This issue was important primarily because many of those accused of the attempted assassination in 2002 had dual citizenship of Turkmenistan and Russia. Hence, Niyazov was willing to consent to the new gas deal with Russia in April 2003 in exchange for effective cancellation of the dual citizenship.

The mutual relations between Russia and Turkmenistan significantly deteriorated under Putin. Vyakhirev and Chernomyrdin perceived Gazprom as a business and Turkmenistan as a competitor. However, Putin perceives Gazprom as a tool of foreign policy and Central Asia as a region that should be under Russia's firm control. The new aim was to take all Turkmenistan's gas exports and to curb its direct access to Europe.[486] This notwithstanding, Russia continued to abuse its high ground over Turkmenistan. Turkmenistan was trying to escape Russia's stranglehold on its hydrocarbon resources, and after frustration with the West and failed deals with Iran, it chose to embrace cooperation with China.[487]

No matter what Russia did after Chernomyrdin's fateful decision to antagonize Turkmenistan in 1998, Saparmurat Niyazov decided that he needed a robust alternative to natural gas export route to Russia. In the matter of only one decade, the natural gas was to pour from Turkmenistan via the Turkmenistan-China Gas Pipeline to China. Turkmenistan's export to Russia had been gradually decreasing and in early 2016 ceased to exist whatsoever. Thus, Russia's high-handed approach to its post-Soviet neighbor did not pay off.

Loss of Turkmenistan's resources will have substantive consequences for Russia's economy. Moreover, weak and corrupt handling of Turkmenistan's natural gas exports to Ukraine also contributed to antagonizing this country in the course of so-called "gas wars" of Russia and Ukraine between 2005 and 2010. Russia tried to use the natural resources in the post-Soviet area to its opaque version of divide et impera policy. However, its figureheads were not willing to play any longer.

[486] Mikhail Zygar' and Valery Panyushkin, *Gazprom: novoye russkoye oruzhiye* (Moscow: Zakharov, 2008): 121–148.
[487] Kathleen J. Hancock, "Escaping Russia, Looking to China: Turkmenistan Pins Hopes on China's Thirst for Natural Gas," *China and Eurasia Forum Quarterly,* Vol. 4, No. 3 (2006): 67–87.

The crisis in 1998 was in essence very similar to the crisis in 2008. In both cases, Russia was struck by the economic crisis and therefore unilaterally diminished its gas imports from Turkmenistan. The first crisis in 1998 led Turkmenistan's ruling elite to the conclusion that it needs to find an alternative to the irresponsible Russian intermediary. The second crisis in 2008 convinced Turkmenistan's elite in its belief that Russia was a sick business partner and it, even more, cemented its decision to switch its attention to China.

Turkmenistan's relationship with CNPC

The first two lines of the Turkmenistan-China Gas Pipeline were in the making since 1998. However, plans were being translated into reality only eight years later during Turkmenistan's President Saparmurat Niyazov's third state visit to China on 3 April 2006.[488] He signed there an agreement with his Chinese counterpart Hu Jintao on the purchase of 30 billion cubic meters of natural gas per year for the period 30 years.[489] Russia's economic dominance in Central Asia was broken on that day, although only on the paper. It was to take three more years before the first branch of the Turkmenistan-China Gas Pipeline was commissioned and hence these agreements fulfilled.[490]

Most important parts of the general agreement on the implementation of the Turkmenistan-China Gas Pipeline project and the sale of natural gas from Turkmenistan to the PRC were articles 2, 4 and 11. Article 2 defines that the Chinese party will purchase 30 bcm of natural gas annually from the Turkmen party at the border of Turkmenistan over 30 years and start from the date the pipeline was commissioned in 2009. Moreover, Turkmenistan was at the time still very intent on preserving its overall policy of selling natural gas on its borders.

For its part, Article 4 claimed that the price for natural gas would be set at reasonable levels and on a fair basis, proceeding from the comparable international market prices. Moreover, the payment should have been exclusively executed in the USD. Finally, Article 11 specified that the conclusion of the agreement would be conducted by

[488] "Turkmenistan, China sign cooperation deals," *Turkmen TV Altyn Asyr,* 4 April 2006.
[489] "Turkmenistan Seen Cultivating Gas Markets under New Leadership," *Oil Daily,* 5 January 2007.
[490] For more on energy geopolitics of Turkmenistan see: Slavomír Horák, "Turkmenistan's shifting energy geopolitics in 2009–2011," *Problems of Post-Communism,* Vol. 59, No. 2 (2012): 18–30.

the Ministry of Oil and Gas Industry and Mineral Resources of Turkmenistan and the State Development and Reform Commission of the PRC. Moreover, the authorities responsible for conducting further talks and agreements were the Ministry of Oil and Gas Industry and Mineral Resources for Turkmenistan and the CNPC for China.[491]

It can be reasonably stated that this agreement with China would possess the same precarious value as the agreement with Russia from 2003 and this conclusion would be entirely correct. However, the key here lies in the conclusion of Turkmenistan's elite that Moscow's and Gazprom's reputations were next to zero while China and CNPC seemed more robust. In other words, the key lies not in gas agreements that constitute just an overall framework but in the securitization of Turkmenistan's approach to energy security. At that time, Ashgabat's elite considered Russia as unreliable and perhaps dangerous trade partner while China positioned itself as a reliable and trustworthy partner willing to pay a fair price and not going to interfere with Turkmenistan's internal affairs.

Since the beginning of closer cooperation between China and Turkmenistan, it was clear that Beijing was not looking solely for profit but also for stabilization of Central Asian ESC, China's western provinces, and energy security as well. China's policy experts assume that import of energy resources from Central Asia would lessen China's "Malacca dilemma" and vulnerability in the event of a naval blockade. The "Malacca Dilemma" is a term coined by their President Hu Jintao on the over-reliance on the Malacca Straits where some 80 % of China's energy imports pass en-route from the Middle East, Angola etc. through the Malacca Straits. Malacca dilemma thus should be avoided and transformed into the strategy of "Go West" into Central Asia, which is the most accessible area for spreading Beijing's influence behind its borders.[492]

This approach was evident in the interactions between Turkmenistan and China since 2006. Shortly after signing of an agreement with China, Niyazov ordered the Deputy Minister for Oil and Gas Industry Isanguly Nuryýew to start preparatory work

[491] "Text of Turkmen-China Gas Pipeline Deal," *Neitralnyi Turkmenistan,* 4 April 2006.
[492] Hongyi Lai, "China's Western Development Program: Its Rationale, Implementation, and Prospects." Modern China Vol. 28, No. 4 (2002): 432–466.

on the pipeline project.[493] Turkmenistan officially claimed that it had earmarked and made available 1300 bcm of natural gas for its pipeline to China already at the beginning of 2008.[494] Moreover, Nurýyew led Turkmenistan's delegation to China to discuss the issues of exploration and development of gas deposits in Turkmenistan's east already in May of 2008.[495] On the other hand, China's delegation led by a high-ranking representative of CNPC Zhang Jianhua arrived in Ashgabat in June 2006 to further discuss the recently signed agreements and prepare further implementation of the pipeline project.[496] The heightened diplomatic traffic between China and Turkmenistan signalized that both parties were genuinely interested in making this 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 passing, Gurbanguly Berdimuhamedow ascended as his successor. Hepromptly pledged to continue in the export diversification policies of the late president as a part of his presidential election program in January 2007: "Great leader Niyazov set goals connected with new Turkmen gas exports and ways to world markets. To achieve these aims, the work will be continued to develop and broaden the frameworks of mutually beneficial cooperation with foreign partners in the oil and gas sector".[497] He claimed at the time that the most promising projects were the TCGP and the TAPI Gas Pipeline.

On the other hand, Berdimuhamedow also attempted to assure Russia that Turkmenistan would continue to fulfill its oil and gas obligations in February 2007. However, Russia launched a discreditation campaign against the TCGP.[498] Turkmenistan was exporting 42 bcm per year to Russia via the Central Asia-Centre Gas Pipeline System at the time of the presidential elections in February 2007. It had also a gas contract on with Iran. However, the capacity of 12 bcm annually was used only from one-half due to the two

[493] "Turkmen president warns top officials over poor management," *Turkmen TV First Channel,* 14 April 2006.
[494] "Turkmenistan details gas resources earmarked for China pipeline," *ITAR-TASS,* 16 January 2008.
[495] "Turkmen experts to visit China shortly for gas talks," *Turkmen Foreign Ministry press release,* 26 May 2006.
[496] "Chinese delegation to examine gas exports potential of Turkmenistan," *Turkmen TV First Channel,* 14 June 2006.
[497] "Fresh Start: Turkmenistan to Boost Energy Ties with Foreign Partners," *NEFTE Compass,* 10 January 2007.
[498] "Turkmenistan Reassures Russia," *Oil Daily,* 14 February 2007.

parties' failure to agree on an increase in the price above 42 USD for tcm. The price for gas to Russia was at that time on 100 USD for tcm.[499] Nonetheless, it should not remain so for long due to the looming global financial crisis.

At this point, a prominent but critically important fact has to be emphasized – Turkmenistan and China do not share a common border. This necessitated cooperation with other Central Asian states willing to participate in this project. China was able to bring both Uzbekistan and Kazakhstan quickly to the negotiating table due to irresistible offer of investments, transit fees and the stemming opportunity to export their natural gas to China.[500] Russia was not able to respond to this package because of its unfortunate economic situation at that time. As for the West, it was unable to offer similar kind of broad cooperation packages caused by different property and market structures. Central Asians just needed money to make their energy industries running, and China was the only international actor willing to provide such financial resources.

China's generous loan offers are part of its global "oil-for-loans" policy. Its two state-run banks, 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 supplies of oil and gas at stable prices. Such loans were earlier provided not only to Central Asian states but also to Venezuela, Angola, and Russia. In Turkmenistan, China Development Bank provided Turkmengaz with loans amounting 8.1 billion USD for the development of the South Yolotan gas field in 2010. Turkmengaz repays these loans with supplies of natural gas to China. Ashgabat sought this loan almost immediately after the explosion on the Central Asia-Centre Gas Pipeline System in late 2009.[501] In the same manner, China Export-Import Bank provided 5 billion USD loan to Kazakhstan's government and CNPC another 5 billion USD to the KazMunayGaz.[502] China is in this way securing for itself the control of energy resources in Central Asia –

[499] "Turkmenistan Seen Cultivating Gas Markets Under New Leadership," *Oil Daily,* 5 January 2007.
[500] Sebastien Peyrouse, "Discussing China: Sinophilia and sinophobia in Central Asia." J*ournal of Eurasian Studies* No.10 (2015): 429–445.
[501] Charles J. Sullivan, "Pipeline Politics in the Post-Soviet Space: A View from Ashgabat," *The Journal of Energy and Development*, Vol. 34, No. 21 (2011): 121–128.
[502] Dennis Shea, "The Development of Energy Resources in Central Asia," *Testimony before the House Foreign Affairs Subcommittee on Europe, Eurasia and Emerging Threats,* 21 May 2014.

securing thus its supply security. This is especially caused by steeply rising consumption and import of natural gas in China as exemplified in Table 18.[503]

Table 18: China natural gas consumption, production, and import (bcm)

Year	Consumption	Production	Import
2007	70	69	3.9
2008	81	80	4.5
2009	89	85	7.5
2010	107	95	17
2011	131	101	31.4
2012	147	108	42.4
2013	168	118	53
2014	184	127	59.5
2015	192	132	61.6
2016	209	118	72.8
2017	240	128	92
2018	283	138	123.4

Source: CNPC

The cooperation with Uzbekistan and Kazakhstan proved to be smooth and fast. Kazakhstan's Prime Minister Karim Masimov organized a working visit to Turkmenistan where he discussed the specific route on Kazakhstan's territory in May 2007.[504] Uzbekistan's Foreign Minister Vladimir Norov visited Ashgabat on 26 July 2007. Norov announced Uzbekistan's full support for the project of the Turkmenistan-China Gas Pipeline and its part running on Uzbekistan's territory.[505]

Berdimuhamedow met in Ashgabat his both Central Asian partners in the implementation of the Turkmenistan-China Gas Pipeline in 2007 – Nursultan Nazarbayev in May and Islam Karimov in October.[506] The constellation for China's proposal could not be better. Karimov was attempting to distance his country from Russia's influence after he had to tactically embrace closer cooperation due to

[503] Table 18.
[504] "Kazakhstan Ready to Assist in Construction of Turkmenistan-China Gas Pipeline," *Interfax,* 4 May 2007.
[505] "Uzbekistan backs Turkmen-Chinese gas pipeline project," *Turkmen TV Altyn Asyr,* 26 July 2007.
[506] "Turkmen leader meets Uzbek minister to discuss cooperation," *Turkmen TV Altyn Asyr,* 11 December 2007.

the Andijan events in May 2005. Nazarbayev was very content with cooperation with China after the commissioning of the Kazakhstan-China Oil Pipeline and welcomed another opportunity to strengthen bilateral relationship with its eastern neighbor.

Nonetheless, Turkmenistan became the most active and devoted proponent of the gas pipeline project soon as it assessed its further cooperation prospects with Russia as futile. Berdimuhamedow undertook a state visit to China on 17–18 July 2007. Subsequently, he called the Turkmenistan-China Gas Pipeline "the utmost priority" of their bilateral relationship.[507] Later on, in August, he signed a decree endorsing the personal composition of the board responsible for the implementation of the bilateral agreement on the construction of the gas pipeline. This board was tasked to draft an action plan by 1 September 2007 that would ensure that the gas exports to China would start in 2009 as planned in the agreement from 2006.[508]

Moreover, Berdimuhamedow also had to prepare his domestic audience for the trading switch. He undertook a working visit to the eastern Lebap region of Turkmenistan on 29 August 2007 and announced there a comprehensive development program for the right side of the Amudarya River. Above all, he took part in the ceremony starting the construction of the Turkmenistan-China Gas Pipeline in Bagtyyarlyk. Berdimuhamedow at this occasion solemnly provided the President of the CNPC Jiang Jiemin with operator's license to explore and extract natural gas in the area and other documents necessary to launch the implementation of the project. Turkmen leader stressed that it was the first time that his country provided such license to a foreign company.[509]

The Bagtyyarlyk area that also includes the Samandepe field of sulfur dioxide gas became a contracted area for development under production sharing agreement. This PSA violated Niyazov's era resource nationalism policy that allowed signing major

[507] "Turkmenistan set to speed up implementation of gas export plans to China," *Turkmen TV Altyn Asyr,* 26 July 2007.
[508] "Berdimuhamedow endorses board to handle Turkmenistan-China Gas Pipeline construction project," *Interfax,* 4 August 2007.
[509] Ibidem.

PSAs only for the offshore projects that were technologically more challenging.[510] However, it seems that the Bagtyarlyk PSA represented the price that Turkmenistan had to pay for China's involvement in the gas pipeline project. Likewise, Berdimuhamedow also did not forget to stress during this ceremony that the seven-thousand-kilometer-long pipeline would not bring benefit only to China and Turkmenistan but also to Uzbekistan and Kazakhstan.[511] This was very important because these states would not be able to implement a joint project of this scale without China's impetus.

Russia was not willing to let Central Asia go and thus it was trying to counter both China's and Western initiatives in penetrating the region. Russia planned to import from Central Asia as much natural gas as possible and in this way to drain any future supply for diversified export routes from the region. This should have been ensured with the construction of the new Caspian Coastal Gas Pipeline that was agreed by Russia, Turkmenistan, and Kazakhstan in May 2007.[512] However, after the inauguration of the pipeline to China in Turkmenistan, Russia's media openly speculated about the possible failure of the Caspian Coastal Gas Pipeline project. The presidents of Russia, Turkmenistan, and Kazakhstan set 1 September 2007 as the deadline for the preparation of necessary documents and conclusion of the trilateral agreement on the construction of the pipeline. This notwithstanding, the documents were not ready in time, and thus the signing procedure was postponed.

Russia's policy in Central Asia included also the creation of the "gas OPEC" with Iran. Russia was interested in a grand bargain in which it would direct Iran's exports to the east and remain in control of European markets. It even considered that the Turkmenistan-China Gas Pipeline can be used for Iran's gas export to China.[513] Steven Martin who was appointed by the US State Department to the newly established position of coordinator of the Eurasian energy diplomacy at the beginning of 2008 was welcoming both the Kazakhstan-China Oil Pipeline and the Turkmenistan-China Gas Pipeline projects because they would decrease Russia's grip on the economies

[510] Michael Fredholm, "The World of Central Asian Oil and Gas." Asian Cultures and Modernity No. 16 (2008): 89-97.
[511] "Turkmen president kicks off China-bound gas pipeline construction," *Turkmen TV Altyn Asyr,* 29 August 2007.
[512] Stuart Elliot, "Turkmenistan, China agree to speed up gas pipeline," *Platt's Oilgram News,* 19 July 2007.
[513] Vladimir Radyiuhin, "Russia-Iran ties on the upswing," *The Hindu,* 7 January 2008.

of Central Asian countries. On the other hand, he kept stressing that for the US the priority is the Trans-Caspian Gas Pipeline.[514] Thus, Russia was not able to curb China's "march to the west," and the US considered this development as a lesser evil. This development paved way for China's economic expansion into Central Asian ESC.[515]

Lines A and B

The implementation phase of the project smoothly followed political and technical consultations on 22 February 2008.[516] President Berdimuhamedow authorized Turkmengaz to conclude a contract with Russia's joint-stock company Stroytransgaz on the turnkey construction of Turkmenistan's portion of the first two lines of the gas pipeline - the Malaý-Bagtyýarlyk Gas Pipeline in the length of 188 kilometers. Stroytransgaz contracted the construction of the gas treatment and dehydrating facilities and gas metering units. The total construction costs were set at 395 million EUR.[517] Turkmenistan's portion of the pipeline commences in the area of the Malaý gas field and continues to the gas metering unit in the area of the settlement Bagtyýarlyk on the border with Uzbekistan.[518] This swift construction showed that Turkmenistan was the most interested party in the pipeline project.

As was stated earlier, the support of transit states and their consent was critical for the fruition of this project. In this sense, the Turkmenistan-China Gas Pipeline represented for China a challenge more significant than the Kazakhstan-China Oil Pipeline that does not cross any third country. Nevertheless, Uzbekistan and China signed an intergovernmental agreement on the construction of Uzbekistan's portion of the pipeline in April 2007. On 1 July 2008, the construction on Uzbekistan's portion of the Turkmenistan-China Gas Pipeline began near the village Sayet in the Dzhonodzhor district of the Bukhara region. The Asia Trans Gas, a joint venture of Uzbekneftegaz and CNPC, operates the project since that time.

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[514] "Caspian: US Steps Up Diplomacy," *Energy Compass,* 14 February 2008.
[515] For large infrastructure projects see: Benjamin Sovacool, *The Governance of Energy Megaprojects: Politics, Hubris and Energy Security* (London: Edward Elgar Pub, 2013).
[516] "Construction of gas pipeline between Turkmenistan, China enters active stage," Interfax, 19 February 2008.
[517] "Russian company to lay 395-euro Turkmen-China pipeline," *Neitralnyi Turkmenistan,* 22 February 2008.
[518] "Malai-Bagtyyarlyk gas pipeline," *Stroytransgaz,* www.stroytransgaz.ru/en/projects/oilgas_engineering/2612/?sphrase_id=33675.

The project involved the construction of two branches of the main pipeline and cost two billion USD. The pipeline passes in Uzbekistan three provinces – Bukhara, Navoi, and Kashkadarya. The China Petroleum Pipeline Bureau, China Petroleum Engineering Construction Corporation and Swiss Zeromax GmbH built Uzbekistan's portion of the gas pipeline. From this portion, China's enterprises built the section from Gazli to Kazakhstan and Zeromax the section from Turkmenistan to Gazli.[519] There were no plans to export Uzbekistan's gas through this gas pipeline in 2008.[520] However, in May 2009, Deputy Head of Uzbekneftegaz Shavkat Mazhitov contrary to previous intentions announced that gas of Uzbekistan's origin would also be shipped through the Turkmenistan-China Gas Pipeline.[521] It was also agreed that the pipeline will be used to export ten bcm of Uzbekistan's gas to China. This decision to include Uzbekistan among suppliers has paramount importance for China's energy security as it diminished its dependence on Turkmenistan's imports through this pipeline.

Kazakhstan's Mazhilis approved a draft law ratifying the construction and operation of the TCGP on 25 November 2009. However, many legislators voiced their restraint to China's further influence in country's hydrocarbon sector. China controlled at that time approximately 30 percent of Kazakhstan's oil industry.[522] These concerns were also linked to the fact that CNPC had acquired 50 percent of the MangistauMunaiGas in April 2009 and the China Investment Corporation acquired 11 percent in KazMunayGaz Exploration and Production in September 2009.[523]

This criticism notwithstanding, the project had the unwavering support of President Nazarbayev who was trying to gain some maneuvering ground vis-à-vis Russia. Kazakhstan's segment of the pipeline, called also the Kazakhstan-China Gas Pipeline, was built by the Asian Gas Pipeline Company, which was founded by Trans Asia Gas Pipeline Company Ltd. affiliated with CNPC and Kazakhstan's state-controlled gas transportation company KazTransGaz.[524] The principal contractors of Kazakhstan's portion of the gas pipeline were the China Petroleum Pipeline Engineering and

[519] "Uzbekistan to test Uzbek section of the Turkmenistan-China gas pipeline," Trend News Agency, 10 December 2009.
[520] "Uzbekistan-China Gas Pipeline construction gets underway," *Interfax,* 1 July 2008.
[521] "Turkmenistan-China gas pipeline to ship Uzbek gas," *Interfax,* 14 May 2009.
[522] "New China link heightens Kazakh concerns," *NEFTE Compass,* 25 November 2009.
[523] "China secures gas supply from Turkmenistan: Who is true winner?" *Phil's Stock World,* 22 December 2009.
[524] "Russian plant to supply pipes for Central Asia-China Gas Pipeline," *Interfax,* 24 October 2008.

the KazStroyService. The implementation of this project meant that Kazakhstan would not be able to participate either in the Caspian Coastal Gas Pipeline nor the Nabucco Gas Pipeline projects. Kazakhstan's Deputy Minister for Energy and Mineral Resources Aset Magaudov explained in June 2009 that his country at the time participated in one major project – the Turkmenistan-China Gas Pipeline – and thus it did not possess additional free gas for other projects.[525]

The implementation of the first two lines A and B continued with incredible smoothness and celerity compared to other similar gargantuan infrastructure projects in the world. Turkmenistan's and Uzbekistan's gas transportation infrastructure for the future Turkmenistan-China Gas Pipeline were connected at their shared border in August 2009.[526] Moreover, the "dress rehearsal" of the launch of the first spur of the Turkmenistan-China Gas Pipeline took place already on 16 December 2008.[527] Finally on 14 December 2009, China's President Hu Jintao, Kazakhstan's President Nursultan Nazarbayev, Turkmenistan's President Gurbanguly Berdimuhamedow and Uzbekistan's President Islam Karimov gathered in Turkmenistan's city of Turkmenabat to celebrate the commissioning of Line A of the Turkmenistan-China Gas Pipeline.

The gas pipeline was connected inside China to the newly built second East-West Gas Pipeline, which brings natural gas to consumers in 14 provinces and autonomous regions all across China.[528] China's President Hu Jintao stressed that the newly commissioned pipeline would bring benefit to all participating states. It is not only about the selling of natural gas but also the transit fees will represent significant revenue. Berdimuhamedow added in tune with the Chinese side that the pipeline would not only bring economic benefit but also provide stability and security in the region.

Turkmenistan's president alleged that a joint commission of Turkmen and Chinese specialists calculated that the reserves on the right bank of the Amudarya comprise of 1.3 tcm. Berdimuhamedow called the TCGP to be construction "project of the century." The cost of the entire pipeline was estimated at 8 billion USD and was

[525] "Kazakhstan has no free gas reserves to join Nabucco project," *ITAR-TASS,* 26 June 2009.
[526] "Soedineny turkmenskii i uzbekskii uchastki gazoprovoda v KNR," *Turkmenistan.ru,* 14 August 2009.
[527] "First spur of Turkmenistan-China gas pipeline to be test launched December 15," *Interfax,* 3 December 2009.
[528] "Turkmenistan-China gas pipeline enters operation," *Interfax,* 15 December 2009.

mostly covered by China Development Bank.[529] This shows that China was from the beginning focused at not only profit gains but also at stability promotion and direct control of natural resources in the Central Asian ESC. Moreover, this event was so crucial for Turkmenistan's elites that soon after Berdimuhamedow proposed to make 14 December an annual holiday of the oil and gas industry.[530]

This ceremonial occasion was soured, however, by the ongoing dispute between Turkmenistan and Russia. Turkmenistan's gas supplies to Russia ceased in April 2009 due to an explosion on the Central Asia-Centre Gas Pipeline System – CAC 4.[531] Turkmenistan blamed Gazprom for this accident and vice versa. Even though the pipeline was quickly repaired, the supplies did not re-start as fast. It was estimated that due to this shortage Turkmenistan was losing one billion USD monthly.[532] The most logical explanation of these lower supplies was that it coincided with the beginning of the global financial crisis and hence decreasing European demand for Russia's and therefore also Turkmenistan's gas.

Gazprom was trying to secure European markets but happened to antagonize Turkmenistan. Russia's officials likely soon grasped the danger that the newly commissioned Line A of the Turkmenistan-China Gas Pipeline posed, but they tried pretending that everything went as planned. Russia's Prime Minister Vladimir 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.[533] Moreover, Russia's hydrocarbon sector representatives such as the Head of Russia's Oil and Gas Industry Union Yury Shafrannik alleged that the commissioning of the first line of the Turkmenistan-China Gas Pipeline was a positive message for Russia but a bad one for Europe. He claimed that this commissioning meant the swan song

[529] "Turkmenistan-China Gas Pipeline Launched," *Trend News Agency,* 14 December 2009.
[530] "Turkmen leader suggests marking Turkmenistan-China gas pipeline opening day," *Interfax,* 16 December 2009.
[531] Sergej Zhilcov, "Pipelines in Central Asia and the Caspian Region: Competition Takes New Turn." *Central Asia and the Caucasus*. Vol. 15, No. 3 (2014): 1-7.
[532] "Leaders gather to inaugurate Turkmenistan-China gas pipeline," *The Canadian Press,* 13 December 2009.
[533] "Russia's Putin rules out cabinet reshuffle, sees no threat to China energy ties," *Interfax,* 3 December 2009.

for the Nabucco Gas Pipeline project. As a result, Europe would be more dependent on Russia's supplies, he claimed.[534]

China was quickly cementing its unique position in Central Asia. The parallel second branch of the TCGP was commissioned as soon as on 25 December 2011.[535] Hence, the first two lines of the Turkmenistan-China Gas Pipeline stretch seven thousand kilometers – 188 kilometers in Turkmenistan, 530 kilometers in Uzbekistan, 1300 kilometers in Kazakhstan and over 4500 kilometers in China.[536] The Turkmenistan-China Gas Pipeline transported ten bcm of natural gas already between December 2009 and May 2010.[537]

Kazakhstan's KazMunayGaz commissioned two compressor stations No. 4 and No. 8 on the Line A and B of the Turkmenistan-China Gas Pipeline in 2015. This improvement would make it possible to increase the capacity of this line to 20 bcm per year.[538] KazMunayGaz contracted gas turbines and compressor equipment from leading western manufacturers Rolls-Royce and General Electric. Vice-president of KazMunayGaz Kayrat Sharipbayev alleged that the compressor stations were designed considering the possibility of construction of the fourth line in Kazakhstan.[539] This then would become Line E of the Turkmenistan-China Gas Pipeline.

Presidents of Turkmenistan and China met again on 28 August when Hu Jintao visited Turkmenistan. They agreed on the increment of Turkmenistan's export to 40 bcm annualy and established the Turkmen-Chinese joint governmental commission. This agreement also included a commitment by China to lend Turkmengaz 4 billion USD on zero interest. This loan was earmarked for the development of the vast South Yolotan gas field that is necessary for securing Turkmenistan's supplies to China. Moreover, a framework agreement between Turkmengaz and CNPC on expanding cooperation

[534] "Russian official puts a brave face on Turkmenistan-China gas pipeline impact," *ITAR-TASS,* 23 December 2009.
[535] "Uzbekistan commissions phase two of Turkmenistan-China gas pipeline section," *Interfax,* 10 January 2011.
[536] "Turkmenistan begins work on gas pipeline to China," *Oil and Gas Journal,* Vol. 234, No. 10 (2007).
[537] "Central Asia-China Gas Pipeline transmits 10 bcm of gas since 2009," *Interfax,* 7 June 2011.
[538] "Ashgabat hosts a joint meeting on Turkmenistan-China gas pipeline," *Tribune Business News,* 7 September 2011.
[539] "Kaztransgaz JSC increases the capacity of Kazakhstan-China gas pipeline," *KazTransGaz,* www.kaztransgas.kz/index.php/en/press-center/press-releases/1013-kaztransgaz-jsc-increases-the-capacity-of-kazakhstan-china-gas-pipeline.

in the gas sector was signed as well as an agreement between Turkmenistan and China on technical and economic partnership.[540]

These large loans were crucial for Turkmenistan's energy sector that did not have sufficient financial sources for such large-scale projects. However, it also meant that China through these loans gained control over critical natural resources in Turkmenistan. This project was for China so crucial that even CNPC obtained sizeable financial support – 2.5 billion USD loan from China Development Bank for the construction of the Turkmenistan-China Gas Pipeline.[541]

Berdimuhamedow soon started to support China also on a political level. He awarded Hu Jintao with Turkmenistan's highest award – the Order of Saparmurat Turkmenbashi the Great. Moreover, he officially confirmed Turkmenistan's support for the One China policy.[542] On the other hand, already in March 2008, President Berdimuhamedow as well as the chief executive of the State Agency for the Management of the Hydrocarbon Resources Baymuhammet Myradow emphasized that Turkmenistan followed pragmatic energy policy aimed at the multi-directional approach. They both considered the Turkmenistan-China Gas Pipeline's construction as only a first step of this policy.[543] This notwithstanding, while 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

The plans to build the third line of the gas pipeline to China appeared already during 2011.[544] It was estimated at the time that this line can be commissioned by 2013. This construction aimed at boosting the capacity of the Turkmenistan-China Gas Pipeline to 55 bcm per year by 2016. Line C itself should deliver 25 bcm per year.[545] The first two lines were a significant breakthrough to Russia-dominated natural gas markets of Central Asia. However, the construction of Line C signaled a tipping point for China

[540] "Turkmenistan, China to expand gas sector cooperation," *Interfax,* 29 August 2008.
[541] "CNPC seeks loans to fund Central Asia-China gas pipeline construction," *Xinhua News Agency,* 23 July 2008.
[542] "Turkmenistan backs One China policy," *Turkmen TV Altyn Asyr,* 29 August 2008.
[543] "Turkmenistan committed to diverse gas export routes – president," *Turkmen TV Altyn Asyr,* 17 March 2008.
[544] "Uzbekistan, China ink agreement on third line of Turkmenistan-China gas pipeline," Interfax, 21 April 2011.
[545] "China to get more Central Asian gas," *Voice of the Islamic Republic of Iran,* 10 March 2011.

becoming the most important economic player in the ESC and its principal energy importer. There would exist relative balance among region's leading energy import partners if this line were not built. However, its construction set the stage for China creating new monopsony for Turkmenistan's and Uzbekistan's natural gas exports.[546]

The agreement between Turkmenistan and China to build Line C was reached in the inception of 2011. To consult this process, Berdimuhamedow undertook a state visit to China on 22–25 November 2010. In the joint statement with China's President Hu Jintao, they 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." The statement continued with the determination of both parties to create a long-term and stable strategic partnership in energy. They also agreed to increase volumes of Turkmenistan's supplies up to 40 bcm annually to 65 bcm. This increment would not be possible without adding third and even fourth line to the newly established pipeline system. Moreover, the statement also claimed that both parties were interested in further cooperation in trade, investment, transport, communications, chemicals, textiles, agriculture, medicine and high technology.[547] This relationship shows that China used the natural gas issue only as a spearhead of its general economic expansion into Turkmenistan.

China and Uzbekistan signed the agreement on the construction of the third branch of the gas pipeline during President Karimov's state visit to China on 19–20 April 2011. The costs of this pipeline amounting to 2.2 billion USD were to be financed with loans from China Development Bank and direct financing from CNPC. The contractors were the China Petroleum Pipeline Bureau, China Petroleum Engineering and Construction Corporation and Uzbekneftegaz. CNPC and Uzbekneftegaz also signed a framework agreement on the supply of 10 bcm to China through the Turkmenistan-China Gas Pipeline in June 2011.[548]

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[546] Yusin Lee, "Opportunities and risks in Turkmenistan's quest for diversification of its gas export routes," *Energy Policy* Vol. 74 (2014): 330–339.
[547] "Ashgabat, Beijing stand for ensuring security of Turkmenistan-China Gas Pipeline," *Tribune Business News,* 25 November 2011.
[548] "Uzbekistan, China ink agreement on third line of Turkmenistan-China gas pipeline," *Interfax,* 21 April 2011.

The operator of pipeline's portion on Uzbekistan's territory is the Asia Trans Gas as is the case with previous two lines.[549] KazMunayGaz and CNPC signed an agreement on design, financing, and construction of the third line of the gas pipeline on 4 October 2011. Uzbekneftegaz and CNPC signed a similar deal already on 21 September 2011.[550] The operator of the pipeline's portion on Kazakhstan's territory is the Asia Gas Pipeline Limited Liability Partnership. It was created on 15 February 2008 based on an agreement between Kazakhstan and China on the construction and operation of the Kazakhstan-China Gas Pipeline. The Asia Gas Pipeline LLP is a joint venture on equal share basis between KazTransGaz JSC and Trans-Asia Gas Pipeline Company Limited.[551] In connection with the construction of Line C of the TCGP a coordinating committee on the "Turkmenistan-Uzbekistan-Kazakhstan-China Gas Pipeline" was also established. This body was meant to coordinate and prioritize activities of main involved actors.[552]

Turkmenistan also began to be more active in another China's multilateral instrument in Central Asia – the Shanghai Cooperation Organization. Berdimuhamedow attended the SCO Summit in Beijing on 7 June 2012. There he met the head of CNPC Jian Jiemin. They primarily discussed progress on Line C construction.[553] In the same period as the building of Line C, the output of the Turkmenistan-China Gas Pipeline was also expanded by two projects that started operations in 2012 and 2013. Firstly, in Kazakhstan the Hanan branch of the gas pipeline runs 1164 kilometer from Aktyubinsk to Chimkent where it joins the main pipeline; the third branch has a capacity of 6 bcm per year. The Asia Gas Pipeline LLP oversaw this project. Secondly, the Uzbekistan-China Gas Pipeline runs from gas fields in Uzbekistan to the main gas pipeline. It has a capacity of 25 bcm. CNPC constructed this pipeline in collaboration with Uzbekneftegaz.[554] Hanan branch's primary purpose is to supply gas to Kazakhstan's domestic consumers to the west. However, it could also serve

[549] "Turkmenistan-China gas pipeline to reach throughput capacity of 55 bcm by 2016," *Interfax,* 16 December 2011.
[550] "CNPC, KazMunaiGaz to build Line C of Kazakhstan-China gas pipeline," *The Times of Central Asia,* 4 October 2011.
[551] "Asia Gas Pipeline – Project Structure," *Asia Gas Pipeline,* www.agp.com.kz/?page_id=1313.
[552] "Ashgabat hosts joint meeting on Turkmenistan-China gas pipeline," *Tribune Business News,* 7 September 2011.
[553] "Turkmen president, head of Chinese gas giant discuss energy cooperation," *Turkmen TV Altyn Asyr,* 7 June 2012.
[554] "Central Asia-China gas pipeline capacity 55 bcm per year by 2015," *Interfax,* 31 August 2011.

reversely to supply China. Uzbekneftegaz branch is more focused on the energy export volumes to China.[555]

The third branch of the TCGP was finally commissioned on 31 May 2014. Its total length is 1.830 kilometers and capacity 25 bcm per year. CNPC claimed that China would receive ten bcm of natural gas from Turkmenistan, ten bcm of natural gas from Uzbekistan and five bcm of natural gas from Kazakhstan through this new pipeline. Uzbekistan gradually increased its supply to China from 6 bcm in 2013 to 10 bcm in 2015.[556] The newly built pipeline starts on the border between Turkmenistan and Uzbekistan in Gedaim and enters China in Horgos. From this city, it continues as the third West-East Gas Pipeline.[557]

This construction decisively turned the energy initiative in the ESC of Central Asia into China's advantage. It does not only show that China can negotiate with its Central Asian partners complex energy deals, but it is also able to turn them into reality in a concise period of time. This ability is something Russia was unable and unwilling to do beforehand. On the other hand, China skillfully used the economic crisis of 2009 that hit hard Russia's economy and more importantly the European demand for hydrocarbon imports from the east.

China created a system of the dependence of Central Asian hydrocarbon exporters on its market and thus strengthened its energy security. The fact that this process was accompanied by generous "oil for loans" policy on China's side has twofold consequences. Firstly, the hydrocarbon infrastructure was mainly constructed for China's financial resources and thus confirmed the indirect control of region's energy resources by Beijing. Hence, the control of material resources represents the gist of the realist paradigm and China's energy strategy as well. Secondly, by providing these loans, China strengthened interdependence of Central Asian ESC. The Central Asian state actors are now dependent on China not only as a monopsonist of their

[555] "Trans-Asia Gas begins welding spur of Central Asia-China Gas Pipeline," *Interfax,* 8 September 2011.
[556] "Third branch of Central Asia-Centre Gas Pipeline," *12news.uz,* 2 June 2014.
[557] "Line C of the Central Asia-China Gas Pipeline becomes operational," *CNPC,* 3 June 2014, www.cnpc.com.cn/en/nr2014/201406/16f4f5d0b0414501afe67fedab39286a.shtml.

hydrocarbon exports but also as a critical financial lender. In fact, this situation can soon turn into a political dependence.

Line D of the Turkmenistan-China Gas Pipeline by its routing validates the fact that this construction has significant geostrategic importance for China. If Line D was commissioned, all Central Asian states' economic interests would 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 its hegemony that would be at first of economic character but can soon overlap into the political sphere.

China's National Development and Reform Commission approved the pre-feasibility study for the fourth branch in June 2013.[558] It plans to complete construction of Lines A, B, C and D by the end of the Five-Year Plan period 2016-2020 at the latest. At the end of this period, 80 bcm of natural gas should be transported to China annually making up 40 percent of China's overall gas consumption at the time.[559] The US-supported project of CASA-1000 can be considered as a predecessor to the construction of Line D. The idea of this project emerged already in 2005. The principal goal was to supply Kyrgyzstan's and Tajikistan's hydropower to Afghanistan and Pakistan.[560] The US wanted to stabilize the region through offering a mutually beneficial economic project that would create positive regional interdependence.

The plans for Line D already appeared before commissioning of Line A in 2009. Kyrgyzstan's President Kurmanbek Bakiyev attempted to include his country into the gas pipeline project during his meeting with Chinese President Hu Jintao on 15 August 2007. Bakiyev proposed that part of the Turkmenistan-China Gas Pipeline should traverse Kyrgyzstan's territory.[561] Moreover, Kyrgyzstan's officials started to discuss the possibility to build one of the branches of the TCGP through their territory since 2009. According to Kyrgyz side, to build another branch of the pipeline from

[558] "China and Tajikistan plan construction of fourth link of Central Asia-China gas pipeline during year," *Albawaba Ltd.,* 11 March 2014.
[559] "CNPC Trans-Asia Gas Pipeline Company Limited signs agreement with Tajiktransgaz on establishing a gas pipeline company," *Albawaba Ltd.,* 11 March 2014.
[560] "Afghan woes risk regional energy plan," *Oxford Research Daily Brief Service,* 19 October 2015.
[561] "Kyrgyzstan wants China to use its territory as transit point for Turkmen gas," *Interfax,* 15 August 2007.

Turkmenistan through Uzbekistan and Kyrgyzstan to China should facilitate and improve the bilateral relations between Kyrgyzstan and Uzbekistan that are not ideal due to border tensions and occasional ethnic clashes.[562]

China's President Xi Jinping undertook state visit of Kyrgyzstan on 11 September 2013. During this occasion, the Minister of Energy Industry of Kyrgyzstan Osmonbek Artykbaev and Chairman of the State Committee for Development and Reforms Xiu Shaoshi signed a loan agreement on cooperation in the construction and operation of the Kyrgyzstan-China Gas Pipeline.[563] The portion of Line D of the Turkmenistan-China Gas Pipeline on the territory of Kyrgyzstan should run 220 kilometers in regions Chon Alay and Alay and then continue to Kashgar.

Kyrgyzstan announced that the construction would be very beneficial due to investments from China. However, no gas supply is being planned for Kyrgyzstan.[564] On 16 December 2015, Kyrgyzstan and China signed an agreement on construction of Kyrgyzstan's section of the Turkmenistan-China Gas Pipeline Line D. Present were China's Prime Minister Li Keqiang and his counterpart Temir Sariyev. Kyrgyzstan's section will be 215-kilometer-long with an annual capacity of 30 bcm.[565]

The construction of Line D was not only supported by Kyrgyzstan but also by another transit country Tajikistan. CNPC's subsidiary Trans Asia Gas Pipeline Company signed an agreement with Tajiktransgas[566] for the creation of joint venture that would manage the construction of Line D of the TCGP.[567] This new enterprise was tasked with construction and maintenance of Line D. Tajikistan should represent only a transit state in this project and is thus prohibited to import Turkmenistan's natural gas for its use.[568]

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[562] "Construction of Turkmenistan-China gas pipeline via Kyrgyzstan to bring Tashkent and Bishkek together," *Tribune Business News,* 4 May 2012.
[563] "Kyrgyzstan, China sign agreement on construction of Central Asia-China gas pipeline through Kyrgyzstan," *AKI Press News Agency,* 11 September 2013.
[564] "Kyrgyzstan to benefit from Central Asia-China gas pipeline project," *AKI Press News Agency,* 11 September 2011.
[565] "The Kyrgyz government and CNPC subsidiary sign agreement to build the Kyrgyzstan section of Line D of the Central Asia-China Gas Pipeline," *Albawaba,* 19 December 2015.
[566] Government of Tajikistan created Tajiktransgas joint-stock company in 2009 and it controls hundred percent of its shares. It is primarily responsible for the gas supply in Tajikistan.
[567] "China and Tajikistan plan construction of the fourth link of Central Asia-China gas pipeline during the year," Albawaba Ltd., 11 March 2014.
[568] "OAO Tadzhiktransgaz," *Informatsionno-poznavatelnyi portal o Tadzhikistane,* www.tajik-gateway.org/wp/?page_id=26489.

China's government signed intergovernmental agreements on this construction with its counterparts in Uzbekistan, Tajikistan, and Kyrgyzstan during China's President Xi Jinping state visits to Central Asia's capitals in September 2013.[569]

The ceremony marking the start of the Line D construction in Tajikistan took place in Rudaki district near Dushanbe on 15 September 2014. The President of Tajikistan Emomali Rakhmon said at the event, "We witness events of enormous political, economic, historical importance – the ceremony of the start of construction of the Tajik section of Central Asia-China trans-Asia gas pipeline."[570] Line D will be shortest of four planned lines of the pipeline system to China. It is for approximately 1000 kilometers shorter than its predecessors. The construction in Tajikistan was planned for three years. In 24 places the pipeline would go underwater, and 76 tunnels would be carved out during the construction. The cost of Tajikistan's portion of the project was 3.2 billion USD as of 2014 estimates.[571] Moreover, Tajikistan can soon become the ultimate prize. There are some estimates that this country can possess 1.14 tcm of natural gas that would turn it into the second-largest reserve of natural gas in Central Asia. Hence, CNPC started to explore Tajikistan's oil and gas deposits in 2013.

CNPC and Uzbekneftegaz agreed to give priority to the construction of Line D in 2014, along with the construction of a natural gas chemical plant. CNPC alleged that fully functioning four lines of the TCGP would transport to China 85 bcm of natural gas per year.[572] The length of Uzbekistan's portion of Line D would be approximately 200 kilometers. It would connect existing pipeline infrastructure in Uzbekistan with Tajikistan. Its costs were estimated at 800 million USD.[573] This construction represents the second most expensive oil and gas project in Uzbekistan after Lukoil's 2.6 billion USD construction of natural gas processing plant at the Kadym gas field near

[569] "CNPC subsidiary sign agreement with Tajiktransgaz for construction of D branch of Central Asia-China gas pipeline," *AKI Press News Agency,* 11 March 2014.
[570] "Presidents of China, Tajikistan inaugurate start of construction of Tajik section of Central Asia-China gas pipeline," *AKI Press News Agency,* 15 September 2014.
[571] Ibidem.
[572] "Tashkent-Beijing alliance will strengthen," *Oxford Research Daily Brief Service,* 24 September 2014.
[573] "Date of construction of Uzbek section of gas pipeline to China announced," *TCA Regional News,* 12 February 2015.

Bukhara.[574] There was also an option to carry Line D through Afghanistan, but it did not materialize as of yet.[575]

Uzbekistan postponed the construction of Line D to 2019. The cause of this postponement was according to Uzbekistan's officials of technical nature.[576] Above all, Kyrgyzstan suspended the construction of Line D on Bishkek's territory in May 2016.[577] It claimed that as soon as China clarifies the cost of the project, work would continue.[578] Construction of some segments of Line D started already in 2014 and it was under construction as of 2019 with planned commissioning in 2020.[579]

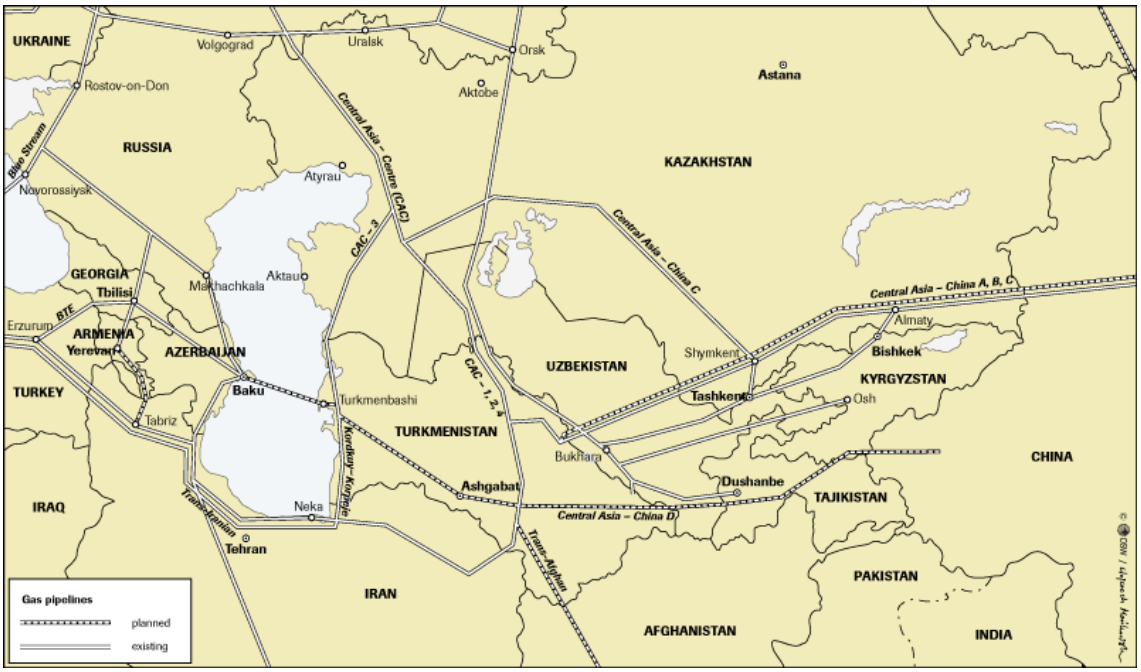
Under the agreement between CNPC and Turkmengaz, Turkmenistan is obliged to send to China annually 65 bcm by late 2021.[580] However, this can be affected by decreasing China's demand for natural gas due to the economic slowdown and other factors. The demand averaged 16 percent between 2010 and 2013. However, it dropped to 6 percent in 2014. This development is affected by high city-gate prices in China and environmental policies focusing on cutting emissions from coal-fired power stations rather than the promotion of switching to a gas alternative.

Another critical factor is the price competition with spot LNG and long-term LNG contracts to China. The Central Asian supplies are oil-indexed and have high fixed transportation tariffs to and across China.[581] This notwithstanding, it seems at present that the construction of the TCGP has strategic importance for China and its existence is not solely based on its ability to create profit. If China's demand for natural gas falters, it can significantly alter its policy towards Turkmenistan and especially its position

[574] "Uzbekistan economy: state energy companies plan infrastructure," *EIU ViewsWire,* 10 April 2015.
[575] "China seeking to build gas pipeline from Turkmenistan to China through Tajikistan and Afghanistan," *Bakhtar News Agency,* 7 July 2012.
[576] "Uzbekistan postpones construction of fourth branch of Central Asia-China gas pipeline," *Trend News Agency,* 23 December 2015.
[577] "Construction of Kyrgyzstan – China gas pipeline postponed for indefinite period," Kyrgyzstan News Agency, May 25, 2016.
[578] "Line D of the Central Asia-China Gas Pipeline Delayed," *Energy Monitor Worldwide,* 1 June 2016.
[579] "Tajikistan resumes building Turkmenistan-China Pipeline," *Eurasianet,* 31 January 2018, eurasianet.org/s/tajikistan-resumes-building-turkmenistan-china-pipeline.
[580] "Turkmenistan increases gas export to China," *Trend News Agency,* 8 May 2015.
[581] "The new reality for Central Asian gas," *Petroleum Economist,* 20 June 2015.

to Line D pipeline. The actual situation of gas pipeline infrastructure in the Central Asian ESC is shown on the Map 5. [582]

Map 5: Existing and planned gas pipelines in Central Asia.



Source: OSW

The project of the Turkmenistan-China Gas Pipeline and its implementation has been decisive in shaping Turkmenistan's natural gas infrastructure since 2006. The head of Turkmengaz Ashirguli Begliyev stated at the annual conference "Oil and Gas of Turkmenistan" in 2015 that Turkmenistan would be able to produce 230 bcm by 2030 and export 180 bcm annually. He alleged that the work on the second and third stage of the Galkynysh gas field was underway and when finished it would produce 93 bcm annually. Besides, Turkmengaz is according to him developing more than other 30 gas fields throughout the country. Turkmenistan's production of natural gas reached 66.8 bcm of which 40.9 bcm was used for export in 2016.

Moreover, Begliyev does not only plan export of natural gas but also several projects in gas chemistry with a total value of 30 billion USD. These projects should include the production of synthetic liquid fuels, glycols, polymers, methanol, caustic soda, sodium sulfate, ammo sulfate, iodine, urea-formaldehyde and melamine-formaldehyde

[582] Map 5.

resins.[583] Above else, Ashgabat continuously emphasizes its intention to diversify its energy exports as was seen for example at the international conference "Oil and Gas of Turkmenistan 2013" that took place in Dubai.[584]

To have more maneuvering possibilities, Turkmenistan started the construction of the East-West Interconnector on 31 May 2010. The pipeline was commissioned on 29 December 2015 and runs from Mary province in the east to Balkan province in the west.[585] The pipeline's length is 773 kilometers and capacity 30 bcm per year and the construction costs were 2.5 billion USD.[586] The primary purpose of this pipeline is to broaden Turkmenistan's strategic choice of gas customers. It can be either used to support country's export to China from its offshore deposits in the Caspian Sea or to divert the gas partly from eastern onshore deposits to the West.

CNPC has been active in Turkmenistan since 2002.[587] Based on the preliminary agreements between China and Turkmenistan, natural gas for the TCGP should have been supplied from the Samandepe and Altyn Asyr gas deposits as well as from newly developed gas fields.[588] Two above-mentioned deposits are part of the contractual area Bagtyyarlyk-Amudarya Natural Gas Project.[589] This project consisting of Block A and Block B represents CNPC's largest gas cooperation project abroad.[590] The first phase of the project covers an area of the 983-kilometer square. It is an integrated project including exploration of new blocks, prospecting and exploration of new fields, rejuvenation and adjustment of mature field and construction of processing plant and its supporting facilities.[591]

CNPC Amudarya River Company is EP operator and processing contractor in the Bagtyyarlyk contract area, and it constructed Gas Processing Plant No. 1 and No. 2

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583 "Turkmenistan plans to increase gas exports," *Trend News Agency,* 18 November 2015.
584 "V Dubae proshla Mezhdunarodnaya konferentsiya Neft i gaz Turkmenistana – 2013," *Turkmenistan.ru,* 15 March 2013.
585 "Turkmeniya nachala stroit gazoprovod k Kaspiyu," *Turkmenistan.ru,* 31 May 2010.
586 "Major events in Caspian countries' oil and gas industry," *Trend News Agency,* 29 December 2015.
587 "CNPC in Turkmenistan," *CNPC,* www.cnpc.com.cn/en/Turkmenistan/country_index.shtml.
588 "Gurbanguly Berdymukhamedov i Khu Tszintao vmeste otkroyut gazoprovod Turkmenistan – Kitai," *Tukmenistan.ru,* 23 September 2009.
589 "Work continues in schedule in Turkmenistan-China gas pipeline," *Trend News Agency,* 7 January 2009.
590 "China receives 330 mln cubic meters of gas from Turkmen wells," *Interfax,* 24 February 2010.
591 "Amu Darya Natural Gas Project Phase I," *CNPC,* www.cnpc.com.cn/en/Project/Amu_Darya_I.shtml.

in Block A and Block B respectively.[592] The Gas Processing Plant No. 1 became operational on 14 December 2009 and started to supply natural gas to China. CNPC began construction of the Gas Processing Plant No. 2 on the right bank of Amudarya in December 2011, and it was commissioned on 7 May 2014.[593] President Berdimuhamedow and representatives of the CNPC that is the contractor in the Bagtyyarlyk area attended the ceremony. The two plants combined have a capacity of 15 bcm per year in total.[594] These successful constructions on the one hand boosted Turkmenistan's export capabilities. On the other hand, they, even more, confirmed China's position in country's upstream.

This notwithstanding, the hopes of Turkmenistan and China to maintain growing gas exports lie in the sizeable Galkynysh gas field. In September 2013, the commissioning of the first phase of the Galkynysh gas field development was celebrated with the presence of Turkmenistan's and China's presidents. The production capacity of this complex is 30 bcm annually.[595] CNPC launched the second phase of development in the Galkynysh gas field at the beginning of 2013. At present, the Galkynysh gas field along with nearby Yashlar gas field is estimated to have 26.2 tcm of natural gas. The second phase is expected to be completed in 2021 and processing capacity will be around 30 bcm yearly.[596]

Both first and second phases of Galkynysh development are paid for by loans from China State Bank.[597] In this manner, China seeks to get 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 in total 9.7 billion USD in December 2009. The contractors are the Gulf Oil and Gas Fze, Petrofac International LLC, NPC Chuanging Drilling Engineering Company and consortium of LG

[592] "No. 2 Gas Processing Plant of Amu Darya Project Becomes Operational," *CNPC,* www.cnpc.com.cn/en/No2GasProcessingPlantofAmuDaryaProject/Features.shtml.
[593] "Turkmenistan finds new gas field on right bank of the Amu Darya River," *Interfax,* 11 March 2011.
[594] "No. 2 Gas Processing Plant of Amu Darya project becomes operational and the EPC project on the Galkynysh Gas Field starts," *CNPC,* 5 May 2014, www.cnpc.com.cn/en/nr2014/201405/c491b93a6d3146ec94b5a2a26ab05dbc.shtml.
[595] "Glavy Turkmenistana i KNR prinyali uchastie v tseremonii otkrytiya pervoi ocheredi gazovogo mestorozhdeniya Galkynysh," *Turkmenistan.ru,* 5 September 2013.
[596] Aleksander Maslennikov, "Diverzifikatsiya gazovogo eksporta Turkmenistana," In: *Tsentral'naya Aziya: rol' v perestroyke mirovykh rynkov prirodnogo gaza* (Moscow: IMEMO RAN, 2014).
[597] "Will China get Turkmen gas?" *Trend News Agency,* 20 April 2015.

International and Hyundai Engineering.[598] Petrofac was involved in 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 this 3.4 billion US dollar project was Turkmengaz. Galkynysh represented most massive Petrofac's project up to date.[599] Turkmengaz likely chose less skilled operators from the Persian Gulf because it did not wish to give access to this strategic asset to Western or Russian operators.[600]

It should be noted that China or Turkmenistan was not able to provide for all necessary equipment for the construction of the Turkmenistan-China gas pipeline and other gas infrastructure elements. The metallurgical components were usually imported from the former Soviet Union. The Russian United Metallurgical Company delivered between 2008 and 2009 260.000 tones of pipes with diameter 1.067 mm for the Line A and Line B. It was also tasked with supplies for the Line C. It delivered 125.000 tonnes with pipe diameter 1.218 mm.[601] Additional 200.000 tonnes of pipes of 1.218 mm diameter for the Line C were supplied by the Chelyabinsk Tube Rolling Plant in 2013.[602] Ukraine's Sumy NGO after M.V. Frunze JSC has provided processing heaters, flare installations, air coolers and other equipment for the Bagtyyarlyk gas and oil complex in Turkmenistan since 2013. Its principal partner in this country is the Petro Gas LLP Corporation from the United Kingdom.[603]

The high technologies, however, were supplied mostly by Western enterprises. Rolls-Royce provided the gas turbine driven pipeline compressors on all three lines of the gas pipeline to China.[604] Czech enterprise Rimera group supplied equipment for the construction of compressor stations on the first two lines of the Turkmenistan-China Gas Pipeline. Its contract was signed with the China Petroleum Engineering and

[598] "China implement several major projects in Turkmenistan," *Tribune Business News,* 1 August 2012.
[599] "Galkynysh gas field processing facility, UAE", *Petrofac,* www.petrofac.com/en-gb/regions/cis/projects/galkynysh-gas-field-processing-facility.
[600] "CNPC and Turkmengaz ink an agreement on boosting natural gas shipments to China and a gas field EPC contract," *CNPC,* 6 September 2013, www.cnpc.com.cn/en/nr2013/201309/1b81b6a8106947d4a1c55b6699a9d03d.shtml.
[601] "OMK to supply large-diameter pipe for Central Asia-China Gas Pipeline," *Interfax,* 30 January 2013.
[602] "ChelPipe to supply 200.000 tonnes of pipe for Central Asia – China gas pipeline," *Interfax,* 7 February 2013.
[603] "Ukraine begins to supply equipment for base field of Turkmenistan-China gas pipeline," *TCA Regional News,* 25 September 2014.
[604] "Rolls-Royce to supply compressor units for Central Asia-China gas pipeline," *Interfax,* 11 September 2011.

Construction Corporation – subsidiary of the CNPC.[605] Honeywell supplied its Experion Process Knowledge System and Safety Manager technology to all three lines of the TCGP.[606] This fact shows that both China and Turkmenistan are not in the position to implement these massive infrastructure projects without at least technical cooperation with the West.

This subchapter concludes that Turkmenistan's energy policy in Central Asian ESC in no small degree overlaps with both external and internal policies of this country.[607] This fact means that the areas of internal, external and energy policies are significantly blurred and difficult to distinguish.[608] However, the raison d'état of Turkmenistan's external policy is obvious, and thus the regime is quite predictable based on the realist approach. Its reasons d'état is the preservation, power-consolidation, and prosperity of the ruling regime, as is the case in many 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 with China was concluded in 2006, and in the time of only six years, the natural gas from Turkmenistan already reached Hong Kong.[609] Above all, 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.[610] China is at present Turkmenistan's largest trading partner.[611] It seems that the Beijing-Ashgabat axis is gradually developing from energy based cooperation to a political partnership. Turkmengaz estimates that the share of natural gas in China's energy mix would rise from 4 percent in 2015 to 11 percent by 2040. That should lead to the increased importance of Turkmenistan in China's economy and energy industry. Turkmengaz also estimates that rising gas demand in India and other

[605] "Rimera to deliver equipment worth 5.27 USD for Turkmenistan-China gas pipeline," *AKI Press News Agency,* 11 March 2014.
[606] "Honeywell Automation, Safety Technology Selected for Third Phase of Central Asia-to-China Natural Gas Pipeline Project," *PR Newswire Association,* www.honeywellprocess.com/en-US/news-and-events/Pages/pr-05012014-honeywell-automation-safety-technology-selected-for-third-phase.aspx.
[607] Jean Garrison, "Explaining the Central Asian Energy Game: Complex Interdependence and How Small States Influence Their Big Neighbors," *Asian Perspective* Vol. 35 (2011): 381–405.
[608] Luca Anceschi, "Integrating domestic policies and foreign policy making: the cases of Turkmenistan and Uzbekistan," *Central Asian Survey,* Vol. 29, No. 2 (2010): 143–158.
[609] "V 2012 godu turkmenskii prirodnyi gaz doidet do Gonkonga," *Turkmenistan.ru,* 26 May 2011.
[610] "Gas supply via Turkmenistan-China pipeline increases," *Energy Monitor Worldwide,* 23 April 2016.
[611] "Turkmenistan seeks closer energy, transport cooperation with China," *Turkmen TV Altyn Asyr,* 24 June 2016.

states would significantly improve country's standing.[612] On the other hand, Russia lost in one decade a beneficial energy partner that had been connected and dependent on its energy infrastructure since the 1950s. The dependence of Turkmenistan on natural gas exports is shown in Table 19. There is clearly visible the slump caused by the switching between Russia and China as key export partner. [613]

Table 19: Export of Turkmenistan's natural gas

Year	Export value (bln. USD)	Percent of overall export
1998	0	0
1999	0.424	47
2000	0.869	64
2001	1.59	80
2002	1.77	79
2003	1.81	77
2004	2.33	73
2005	3.12	72
2006	3.57	73
2007	4.24	74
2008	5.52	67
2009	0.768	39
2010	0.898	40
2011	4.77	72
2012	7.63	81
2013	8.07	78
2014	8.6	81
2015	7.17	80
2016	5.26	74
2017	5.92	83

Source: UNCTAD

Russia tried to come up with a counter-offer in the form of the Caspian Coastal Gas Pipeline. However, it did not work this time because of three principal reasons. At first, Turkmenistan is still very sensitive to Russia's neo-imperial ambitions due to its

[612] "Posledovatelnyi rost znachimosti Turkmenistana na mezhdunarodnom gazovom rynke," *Turkmengaz,* 8 November 2015, www.oilgas.gov.tm/compositions/24.
[613] Table 19.

experience with the Soviet Union. Ashgabat was wary of Russia using its gas for its geostrategic games while representatives of Gazprom and Moscow government mocked Central Asian suppliers. At second, Russia did not represent for Turkmenistan a reliable energy partner due to repeated pricing clashes. This was magnified mainly due to the global financial crisis when the European demand significantly decreased. At third, Russia was simply not able to compete with China's economic and financial might when Beijing decided to "march westward." These findings confirm Turkmenistan's emphasis on strategic issues over economic logic, which confirms that Turkmenistan's energy policy in Central Asian ESC is executed mostly according to the strategic approach to energy policy. Strategic approach to energy policy was exemplified on the case of Turkmenistan's approach to the project of the Central Asia-China Gas Pipeline.

Reflection on indicators

The presented chapter represented a case study on Turkmenistan's energy policy in the ESC of Central Asia. The goal of this particular case study was to search for indicators set by the model on the assessment of the natural gas sector. Consequently, it attempted to find out whether Turkmenistan's energy policy in Central Asian ESC followed rather either strategic-oriented or market-oriented approach. There are eight such features i.e. perception of energy resources as strategically important; perception of energy sector as crucial for state's economy; perception of state-owned energy actors as extension of state apparatus; reliance on bilateral relations; perception of energy sector as state's tool; zero-sum approach; undesirable dependence; emphasis on strategic issues over economic logic. The conclusion of this case study is that Turkmenistan's energy policy in the ESC of Central Asia was predominantly led by the strategic-approach to energy policy based on the indicators listed below. At this place, it has to be stressed that Berdimuhmedow's regime is very closed and thus all the internal processes are untransparent. Almost all details regarding particular agreements in energy sector are classified. Nonetheless, based on the accessible data, it is possible to arrive to the conclusion presented in this case study.

Perception of energy resources as strategically important

Based on the accumulated data, Berdimuhamedow's regime perceives energy resources and especially natural gas as strategically important. There were many occasions under

Berdimuhamedow when the tendencies to take or maintain control of energy resources or their distribution networks manifested themselves. These tendencies manifested in several cases of friction between the Ashgabat government and Italian company Eni, Dutch company Larmag and Argentinian Bridas. Furthermore, they are especially visible in governmental policy of limited number of onshore PSAs and overall restraint towards western energy operators.

Perception of energy sector as crucial for state's economy

Turkmenistan considers its energy sector as strategically important backbone of its economy and Berdimuhamedow's regime. The case study shows that Turkmenistan controls the energy sector with increased vehemence since the fall of the Soviet Union. Its internal significance does not lie only in support of economic growth but also in ability to win Berdimuhamedow's regime popular affirmation through energy supplies quotas.

Perception of state-owned energy actors as extension of state apparatus

It was shown that Berdimuhmedow's regime is at present either directly or indirectly dominating the entire energy sector of Turkmenistan. This means that Berdimuhamedow's regime was able to increase its power capabilities as it transferred significant portion of national power into state power. State's grip on energy sector is even strengthened through restrictions on foreign investments and deliberate diversification of foreign partners that are allowed into energy sector. Hence, Turkmenistan perceives itself as one of the most important energy players in Eurasia. Based on the case study's findings, it is clear that Turkmenistan's political elite considers The State Agency for the Management and Use of Hydrocarbon Resources under the President of Turkmenistan along with company Turkmengaz as tools for both internal and external policies of the state.

Reliance on bilateral relations

Turkmenistan's reliance on bilateral relations in energy is foremost visible on its particular dealings with present or potential energy partners. Both the relation with Russia and China is dominantly bilateral. The same pays for the relations with would be energy importers such as India, Pakistan or Azerbaijan. Evidence suggests that Turkmenistan is giving preference to long-term bilateral deals. Although it is willing to

cut off these relations if it is more favorable. The case study exemplifies this behavior on several cases when Turkmenistan utilized tap energy weapon in relation with Russia.

Zero-sum approach

The case study shows that Berdimuhamedow's regime repeatedly attempted to maintain its position and even enhance Turkmenistan's international standing. Turkmenistan's political elite was due to its zero-sum approach willing to undertake the U-turn on China because it perceived Russia as irresponsible partner. Russia was before 2008 reluctant to increase the price it paid for Turkmenistan's gas and utilized its monopsony over this country. The tipping point that persuaded Ashgabat to shift its allegiance to China was the disruption of demand after the outbreak of the global financial crisis and lower demand from Russia.

Nonetheless, the process of constructing gas pipeline to China started earlier but perhaps if Russia would have behaved differently it could at least maintain stronger trade position with Turkmenistan. In short- and mid-term period, China seems like a more responsible and reliable partner. This is also because of a higher level of mutual interdependence than with Russia. Beijing pays fair price according to Ashgabat, and it plans to not only maintain its demand but also significantly increase it in decades to come. This notwithstanding, Turkmenistan's ruling elite seems to understand that China can one day become a problematic partner as Russia. It can also try to meddle into the internal politics of Turkmenistan and thus endanger Berdimuhamedow's regime and its clan backers. Hence, the only way to genuinely sustainable energy security, Turkmenistan needs to broaden its maneuvering opportunities through diversification of export routes. The country wants to move forward also with the Trans-Caspian Gas Pipeline project as well as with the TAPI Gas Pipeline.

Perception of energy sector as state's tool

The case study shows that according to both strategic documents and commercial practice the energy sector of Turkmenistan is considered by Berdimuhamedow's regime as a tool of internal and external policy. The political elite is perceiving the energy policy as a mere tool for achieving three overarching goals of preservation, power-consolidation, and prosperity of Berdimuhamedow's regime. Moreover, the energy policy and energy sector are even more crucial to attaining these goals than foreign

policy. Turkmenistan does not possess any other significant foreign policy assets. On the other hand, its energy potential makes it one of the key state actors in its respective ESC of Central Asia. It was concluded by Robert Gilpin that the control of natural resources represents the core of realist paradigm. This fact means that the military, economic and political powers are dependent on the control of energy resources. If there is a lack of energy resources, these powers cannot materialize, or they are weak. Hence, the energy policy serves as the main driver of Turkmenistan's internal and external policies. Moreover, the ruling elite of Turkmenistan is well aware of this fact, and thus it prioritizes the role of energy policy above external policy. Based on this, it can be also concluded that Turkmenistan is rewarding or punishing certain behavior of other states. There are also clear examples of attempts to develop energy projects regardless of commercial logic.

Undesirable dependence

China teamed up with Russia after 9/11 in an attempt to squeeze the United States out of Central Asian regional energy security complex. However, when the US left after the termination of the International Security Assistance Force in Afghanistan in 2014, China was not willing to let Russia in and restore its sphere of influence. Russia already proved unable to maintain its privileged zone in Central Asia. Turkmenistan joined and accelerated this development, which means gradual weakening of Russia in the ESC of Central Asia and rise of China. Beijing's approach, however, goes beyond natural gas. It started penetration of Central Asia with large infrastructure projects that would encompass all regional actors, then begin to gain control over vital natural resources in the regions and consequently start to invest in industries and infrastructure other than energy. It is already clear that China is an economic behemoth in Central Asia and its economic power gradually translates into political power.

The only way out of rising undesirable dependence on China is to pursue other alternative export routes – most of all the TAPI Gas Pipeline and the Trans-Caspian Gas Pipeline. However, it would be almost impossible to materialize these endeavors without the support of western corporate sector and its investment. Also, the energy security was defined as an adequate supply of energy resources for an adequate price. The only way for Turkmenistan to strengthen its energy security and get adequate price for its energy exports is, therefore, to diversify its energy exports as much as possible.

This approach would enable it to have better negotiating position vis-á-vis its trading partners and thus stronger maneuvering stance in pricing negotiations. Moreover, it would also enable Turkmenistan to secure adequate levels of supplies that could be adjusted according to actual economic but also political developments. In this sense, more independent energy policy also means more independent foreign policy.

Emphasis on strategic issues over economic logic

Turkmenistan's overarching goals are preservation, power-consolidation, and prosperity of the ruling regime but preservation of ruling regime has definitely a priority. The principal tool and source of its internal and external policy is the energy sector and especially hydrocarbon sector. Turkmenistan abruptly switched cooperation with Russia to cooperation with China contrary to economic logic because it was in line with the interest preservation of current regime. At present, Turkmenistan regardless of economic considerations seeks routes for diversification of its energy exports. However, it has to be emphasized that Turkmenistan's political elite understands that growing dependence on China can one day threaten the goal of preservation of Berdimuhamedow's regime.

5 Conclusion

Findings

My research examined 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). Henceforth, it worked with one overarching research question that dealt with the environment and actors inside the ESC. The research question was as follows: "What is the predominant approach to energy policy among the actors of the regional energy security complex of Central Asia?" I addressed the research question through combination of security studies and realist paradigm. Based on this combination, I created a model of strategic-oriented behavior and consequently applied it on the case studies of three key actors involved in the ESC of Central Asia – Russia, China and Turkmenistan. The construction of the ESC represents main prerequisite for eventual classification of its individual actors. It creates isolated system that can be further analyzed through application of theoretical instruments.

The research question asked about the predominant approach to energy policy among the actors of the ESC of Central Asia. There can be two major behavioral patterns of actors in the ESC from the point of view of energy policy. It can be either market-oriented behavior focused on maximization of profit, or strategic-oriented behavior focused on maximization of energy security of particular actors inside the ESC. The strategic-oriented approach was defined by following indicators: perception of energy resources as strategically important; perception of energy sector as crucial for state's economy; perception of state-owned energy actors as extension of state apparatus; reliance on bilateral relations; perception of energy sector as state's tool; zero-sum approach; undesirable dependence; emphasis on strategic issues over economic logic.

Perception of energy resources as strategically important

Based on accumulated data, I conclude that Putin's regime, regime of the CPC and Berdimuhamedow's regime identically perceive energy resources as strategically important. There were many occasions that manifested the tendencies to take control of energy resources or their distribution networks. It was Yukos or Sibneft affairs in the case Russia; Unocal, Nexen or Slavneft affairs in the case of China; or Larmag and

Bridas affairs in the case of Turkmenistan. Russia is predominantly interested in security of supplies and diversification of its energy exports. China is predominantly interested in security of supplies as well as diversification of resources. Turkmenistan is predominantly interested in diversification of its energy exports.

The perception of energy resources as strategically important by majority of state actors in the ESC of Central Asia definitely lays ground for tension or potential conflict. This was best traced on the case of the Turkmenistan-China Gas Pipeline, which showed all three actors approaching this project from the strategic perspective. Therefore, I conclude that this feature of my model is completely met in all three cases of Russia, China and Turkmenistan.

Perception of energy sector as crucial for state's economy

The aforementioned energy needs translate into perception of energy sector as crucial for state's economy in all three cases. My study shows that all three state actors endeavor to control directly or indirectly their respective energy sector, as they perceive it as a backbone of their economies. The internal significance of the control of energy sector does not lie only in support of economic growth but also in ability to win these three highly autocratic political regimes popular affirmation though energy prices subventions or supply quotas.

Hence, I conclude that the energy policy of Russia, Turkmenistan and China in the ESC of Central Asia has profound impacts on the internal politics in these states. Their successful or unsuccessful energy policy in the ESC of Central Asia can strengthen or endanger the internal political status quo. This feature of my model is completely met in the cases of Russia and Turkmenistan. It is also extremely important for China but its economy is much more complex in comparison with Russia and Turkmenistan. Thus, I consider this feature of my model as only partly met in the case of China.

Perception of state-owned energy actors as extension of state apparatus

Putin's regime, regime of the CPC and Berdimuhamedow's regime are dominating energy sectors of their countries, as evidence shows in my research. The principal vehicles of this dominance are in Russia Gazprom and Rosneft, in China CNPC and CNOOC and in Turkmenistan the State Agency for the Management and Use

of Hydrocarbon Resources under the President of Turkmenistan along with the company Turkmengaz. This means that all three examined political regimes were able to increase their power capabilities as they transferred significant portion of national power into state power.

Perception of state-owned energy actors as extensions of state apparatus means that these actors cannot be considered by market-oriented approach but strictly by strategic-oriented approach. Hence, it is clear that political elites of Russia, China and Turkmenistan consider their country's state-owned energy actors as tool for both internal and external policies of the state and thus this feature of my model is completely met in all three cases.

Reliance on bilateral relations

Further, I show that the reliance on bilateral relations in energy was exemplified in all three cases on Russia's, China's and Turkmenistan's use of tap and transit weapons against its energy and trade partners. The preference for bilateral deals is mostly provable in the case of Russia in its strong opposition against any multilateral regime in the sphere of energy. The same conclusion is true for Turkmenistan, which is limited the most by its geographical, geopolitical position and self-imposed isolationism.

As for China, its entire energy penetration of Central Asia since 2000s has been based on strictly bilateral dealings. However, it is true that these bilateral dealings can be seen in broader framework of regional initiatives such as the One Belt, One Road or more concretely the Turkmenistan-China Gas Pipeline and the Kazakhstan-China Oil Pipeline. Therefore, I conclude that this feature of my model is fully met in the cases of Russia and Turkmenistan as well as partly met in the case of China.

Zero-sum approach

My study shows that Russia's, China's and Turkmenistan's political elites are behaving according to zero-sum approach as they interpret any success of their potential competitors as their own loss. In the heart of energy policy of these three states is the control of material resources that represent the basis of military and economic power. My thesis shows that Russia's political elite was due to its zero-sum approach willing to let China in Central Asia in order to preserve its position in the west. China's

westward thrust into Central Asia is also led by zero-sum understanding that if it will not fill the void after the fall of the Soviet Union, other state actors will. Turkmenistan's political elite was due to its zero-sum approach willing to undertake a U-turn on China because it perceived Russia as untrustworthy partner. Hence, this feature of my model is completely met in all three cases.

The construction of the TCGP represents likely the best example of zero-sum approach by all the involved state actors as it was shown in all the three case studies. This construction strengthened China's position vis-à-vis Turkmenistan and Russia. Position of Turkmenistan vis-à-vis Russia also strengthened but its position vis-à-vis China weakened as it is now deeply dependent on China's import. The most unfavorable outcome of the TCGP's construction is for Russia because it weakened its position with both China and Turkmenistan.

Perception of energy sector as state's tool

Based on both strategic documents and commercial practice the energy sector of Russia, China and Turkmenistan is used by their respective political elites as a tool of internal and external policy. It can be also concluded that these state actors are rewarding or punishing certain behavior of other states in the energy sphere with the aim of controlling foreign resources or markets. Having in mind the conclusion of my research that the strategic-oriented approach prevails in the ESC of Central Asia, it can be argued that Russia, China and Turkmenistan are utilizing their energy sector not only for attainment of economic goals but also for political reasons.

There are also clear examples of attempts to control entire supply chains and markets regardless of commercial logic, as it was the case with both the European markets in the west and Asia-Pacific markets in the east in the case of Russia and with the Central Asian and Russian markets in the case of China. In the case of Turkmenistan, its attempt to diversify its energy export routes plays similar role. Nonetheless, it is clearly not the same attempt to control entire supply chains and markets regardless of commercial logic as in the case of China and Russia. Therefore, this feature of my model is fully met with China and Russia and only partly met with Turkmenistan.

Undesirable dependence

My research further proved that there is a network of undesirable dependence in the sphere of energy amongst the actors of the ESC of Central Asia. Russia attempted to exploit its inherited monopsony position with Central Asia's suppliers, contractually locking in supplies and taking ownership shares in upstream and processing. Thus, it tried to create system of undesirable dependence with the aim of controlling entire Central Asia market. All this with the emphasis on strategic issues over economic logic, which confirms that Russia's energy policy in Central Asian ESC is executed according to the strategic-oriented approach to energy policy.

However, China succeeded in economic penetration of the ESC of Central Asia and partial displacement of Russia from the region. Thus, it tried to create a system of undesirable dependence with the aim of controlling the entire Central Asian market. China was able to offer sophisticated cooperation packages to each regional state bundled with generous investment promises in comparison to Russia and western states. Turkmenistan joined and accelerated this development, which means gradual weakening of Russia in the ESC of Central Asia and rise of China. The only way out of rising undesirable dependence on China is to pursue other alternative export routes – most of all the TAPI Gas Pipeline and the Trans-Caspian Gas Pipeline. In this sense, more independent energy policy also means more independent foreign policy for Turkmenistan. Based on the aforementioned, I conclude that Russia, China and Turkmenistan fully met this feature of my model of strategic-oriented behavior.

Emphasis on strategic issues over economic logic

The strategic approach to energy policy is dominant in the Central Asian ESC if compared to market-oriented approach to energy policy in all three cases. Firstly, the aim of Russia's energy policy in the Central Asian ESC was to ensure its energy security through dominance in energy sector of Central Asia. It attempted to use its energy potential as one of its crucial foreign policy tools as it is stated many times in the foreign policy or security blueprints of Russia. Nonetheless, it has to be stressed that the principal goal is of genuinely political nature – the preservation of Putin's regime and its position in internal and external affairs.

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

Finally, Turkmenistan's overarching goals are preservation, power-consolidation, and prosperity of the ruling regime but preservation of ruling regime has definitely a priority. The principal tool and source of its internal and external policy is the energy sector and especially hydrocarbon sector. Turkmenistan abruptly switched cooperation with Russia to cooperation with China contrary to economic logic because it was in line with the interest of preservation of the current regime. At present, Turkmenistan contrary to economic logic seeks routes for diversification of its energy exports. Thus all three cases confirm overwhelming dominance of strategic issues over economic logic in the ESC of Central Asia. The conclusions of the application of my model of strategic-oriented behavior on the ESC of Central Asia are summarized in the Table 20.[614]

I concluded that the strategic-oriented approach to energy policy is the dominant approach to energy policy in all three cases of Russia, China and Turkmenistan. This means that the strategic-oriented approach to energy policy is in majority in the ESC of Central Asia. Therefore, the construction of new infrastructure projects can be interpreted in terms of the maximization of energy security and hence it has clear political overlaps. In this way, my research interprets energy-related disputes between Russia and Turkmenistan or China's rising presence in Central Asia in terms of their approach to energy policy.

[614] Table 20.

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

Feature	Russia	China	Turkmenistan
Energy resources perceived as strategically important.	completely met	completely met	completely met
Energy sector crucial for state's economy.	completely met	mostly met	completely met
State-owned energy actors perceived as extension of state's apparatus.	completely met	completely met	completely met
Reliance on bilateral relations.	completely met	mostly met	completely met
Zero-sum approach.	completely met	completely met	completely met
Energy as a state's tool.	completely met	completely met	mostly met
Undesirable dependence.	completely met	completely met	completely met
Emphasis on strategic issues over economic logic.	completely met	completely met	completely met
Strategic-oriented behavior	**predominant**	**predominant**	**predominant**

My scheme.

I concluded that the strategic-oriented approach to energy policy is the dominant approach to energy policy in all three cases of Russia, China and Turkmenistan. This means that the strategic-oriented approach to energy policy is in majority in the ESC of Central Asia. Therefore, the construction of new infrastructure projects can be interpreted in terms of the maximization of energy security and hence it has clear political overlaps. In this way, my research interprets energy-related disputes between Russia and Turkmenistan or China's rising presence in Central Asia in terms of their approach to energy policy.

Furthermore, I showed that the trio of the aforementioned state actors behaved predominantly according to the strategic-oriented approach to energy policy concerning the construction of the TCGP. The fact that market-oriented approach to energy policy in the ESC of Central Asia is virtually absent at first glance seem peculiar. However,

it is first of all determined by the specific ESC and its constituting actors, which are highly autocratic political regimes with robust control of their respective energy sectors and zero-sum world-view. If similar research would have been focusing on other region e.g. European Union, it is quite possible that the predominant approach to energy policy would be different.

Discussion

In this thesis, I have partly created and partly adjusted theoretical model for analysis and classification of the formulation and implementation of energy policy by various state actors. This theoretical instrument was showcased on the transformations of the ESC of Central Asia since the fall of the Soviet Union. My application appears to testify the viability and analytical benefits that are inherent to this model on the classification of strategic-oriented and market-oriented approaches to energy policy, what is especially true for closed systems such as the ESCs. This is where possible theoretical contribution of my thesis lies.

This notwithstanding, the use of this analytical tool is limited by the fact that it only shows which of the two ideal types – strategic-oriented or market-oriented approach – prevails. Moreover, I have focused in my research mostly on the hydrocarbon sector of the ESC of Central Asia. This kind of approach is possible in countries with hypertrophic hydrocarbon sector such as Russia and Turkmenistan but in countries with more complex energy sectors more nuanced approach would be necessary.

There is open space for further improvement of my model connected with its further application. At first, the improved model should encompass also other types of energy than only hydrocarbons. This would really test the model's broader viability. At second, other researchers are free to apply it on other ESCs. I deem that it would be beneficial if the application was focused on ESCs where are presumably in majority state actors leaning to market-oriented approach to energy policy, this would further test the viability of my model.

Both the presented theoretical model on classification of energy policy and the pilot study that I present in my thesis are framed by other crucial theoretical tool – regional energy security complex. Novelty of my approach lies not only in the adaptation of this

concept but also in its likely first application on the region of Central Asia. The regional security complex concept was in the past applied on Central Asian reality but not the more nuanced and precise concept of the regional energy security complex (ESC). As my work shows, the application of the ESC is more than suitable for this particular region interlinked by complex web of energy related dependence.

All in all, my application appears to testify the viability of the ESC concept and its usefulness in the concrete case of Central Asian reality. Its application was crucial as it created isolated system where other theoretical instruments can be employed. This is both the principal benefit and limitation of the ESC concept. The chief purpose of the construction of an ESC lies in opportunity to create closed system for researchers to apply other theoretical instruments. The concept itself works with closed system that is defined by intense network of positive or negative energy dependence. However, the interactions inside this system and the energy dependence are analyzed by additional theoretical tools. In my concrete case, it meant that the construction of the ESC of Central Asia represented just a prerequisite for the research on the classification of the energy policy behavior of the state actors inside this ESC.

The ESC is a flexible framework concept. As such, it allows for application on other regions or on other types of energy resources. My research shows that it would be the most advantageous if used on analysis of regional impact of large-scale energy projects that significantly transform the network of energy dependence amongst a group of state actors. The most logical choice are the projects from the field of natural gas because of the geographical and political difficulty with its transportation. Nonetheless, the net of energy dependence can also emerge in connection with other types of energy such as petroleum or nuclear energy.

The two aforementioned theoretical tools allowed me to deliver analytical results on the changing energy security in Central Asia and beyond. These analytical results are of utmost value to everyone who is dealing with Central Asia, Russia, China or energy security on academic or state-administration levels. Nonetheless, my findings represent just a stepping stone in a general attempt to better understand the complex situation of Central Asian energy and the formulation of respective energy security policies. Only

other researchers that will continue in my footsteps can prove the viability of this particular branch of research.

In conclusion, principal theoretical contribution of my doctoral research lies in the novel creation of robust model for classification of the formulation and implementation of energy policy by various state actors. I have shown the benefits and profitability of my model through its successful application on the newly defined regional energy security complex of Central Asia.

Analytical contribution of my doctoral research, then, is in the practical significance of my findings for various political stakeholders and decision makers. My research showed that Russia, China and Turkmenistan are pursuing strategic-oriented energy policies and approach to energy resources in general, what has imperative implications for all their possible counterparts including possible instrumentalization or weaponization of energy resources. These findings can represent a foundation for formulations of respective state-level policy or strategy documents dealing with energy security, Central Asia, Russia and China.

Summary

The doctoral thesis analyses the energy security in the Central Asia region, with an emphasis on the natural gas sector. The research sought to answer the question of whether individual state actors in Central Asia are more inclined towards a strategic-oriented or market-oriented approach to energy policy in the formulation of their energy policy. Answering this research question aimed at better understanding the approach of individual state actors to large infrastructure projects, such as the construction of the Central Asia-China Gas Pipeline.

A regional energy security complex of Central Asia was constructed for work purposes. In addition to the five Central Asian states, it also included Russia and China as two major natural gas importers from the region. Based on theoretical literature, a model was developed for assessing the natural gas sector in terms of the formulation of energy policy by individual state actors. This model was subsequently applied to three case studies of key state actors within the Central Asia energy security complex. These are case studies on Turkmenistan, Russia and China.

Applying the model's criteria to individual cases, the research concluded that for all three players in the Central Asian regional energy security complex, a strategic approach to energy policy formulation prevailed in the studied period after the fall of the Soviet Union. The same was shown in the formulation of each actor's energy policy on the construction of the Central Asia-China gas pipeline. It should be noted, however, that elements of a market-oriented approach to energy policy formulation also manifested themselves, but remained a minority.

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