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Central Asia Oil and Gas Industry - The External Powers' Energy Interests in Kazakhstan, Turkmenistan and Uzbekistan

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By Pier Paolo Raimondi, FEEM

Summary

After the Soviet breakup, Central Asia has gained importance for several States because of its geographical location and abundance of hydrocarbon reserves. These hydrocarbon reserves are located mainly in three countries: Kazakhstan, Turkmenistan and Uzbekistan. Each of them has taken different paths regarding its foreign policy and the regulation of investments and participation of external companies and States in its energy sector. Through the development, production and export of their oil and gas reserves, they have pursued a 'multi-vector' policy, consolidating differently their relations with other countries. The main States involved – at different levels and for different reasons – in the oil and gas sector of the Central Asian countries are: Russia, China, United States, European countries, Iran, India and Turkey. Among these players, Russia considers Central Asia still part of its sphere of influence for historical reasons, while it has to deal with an increasing presence of Beijing. The Western countries have gained influence particularly in Kazakhstan, but they have no political leverage in Turkmenistan.
This working paper provides an overview of the current situation of external players' interests in the oil and gas industry of Kazakhstan, Turkmenistan and Uzbekistan. The working paper is structured into four different sections. In the first section, the paper gives an overview of the main interests and pillars of external involvement in Central Asia as a region. The other three sections are devoted to provide separately the current status of energy relations between each Central Asian country and external players, starting from the closest countries (Russia and China) to the regional ones (Iran, Turkey and India) until non-regional countries (United States and European countries). During these analyses, investments in the oil and gas sector as well as energy export routes and volumes are highlighted in order to understand the current situation of the energy relations. At the end of each country section, the main trends and interests of the countries in the regional oil and gas sector are outlined.
Keywords: Energy Geopolitics, Oil&Gas, Central Asia, Russia, China, USA, European Union

JEL Classification: F50, N45, N75, Q40

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CENTRAL ASIA OIL AND GAS INDUSTRY – The external powers' energy interests in Kazakhstan, Turkmenistan and Uzbekistan

Pier Paolo Raimondi, FEEM

Abstract

After the Soviet breakup, Central Asia has gained importance for several States because of its geographical location and abundance of hydrocarbon reserves. These hydrocarbon reserves are located mainly in three countries: Kazakhstan, Turkmenistan and Uzbekistan. Each of them has taken different path regarding its foreign policy and the regulation of investments and participation of external companies and States in its energy sector. Through the development, production and export of their oil and gas reserves, they have pursued a 'multi-vector' policy, consolidating differently their relations with other countries. The main States involved – at different levels and for different reasons – in the oil and gas sector of the Central Asian countries are: Russia, China, United States, European countries, Iran, India and Turkey. Among these players, Russia considers Central Asia still part of its sphere of influence for historical reasons, while it has to deal an increasing presence of Beijing. The Western countries has gained influence particularly in Kazakhstan, but they have no political leverage in Turkmenistan.

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Executive Summary

This research wants to analyze the current situation of external players' interest in the oil and gas industry of three Central Asian countries, Kazakhstan, Turkmenistan and Uzbekistan. As we think to Central Asia, the well-known Great Game comes to our mind. Indeed, Central Asia is a region that has been always at the center of external interests. These interests has increased after the Soviet Union collapse and one of the sectors that received more attention is the oil and gas. Indeed, this region is rich of natural resources, especially oil and gas. The density and the types of energy resources are divided through the region: the Western countries (Kazakhstan, Turkmenistan and Uzbekistan) are richer than the Eastern ones (Tajikistan and Kyrgyzstan) and while oil is more present in the north (Kazakhstan), gas is located in the south (Turkmenistan and Uzbekistan). As soon as these countries became independent, they has started to use their natural resources as a tool of foreign policy and economic development. With different degrees, all of the regional leadership decided to pursue a 'multi-vector' policy with the aim of balancing the dominant position of Russia and finding paths for their economic development. Indeed, Russia held an incredible dominant position over the export routes from Central Asia. The main export route from the region was the Central Asia-Center pipeline system, which connects Turkmenistan with Russia via Kazakhstan and Uzbekistan. In the political vacuum of the 1990s, Western countries started to endorse, support and welcome every attempt of the newly independent countries to diversify their export routes. In the meantime, China has started to increase its presence through significant investments. This situation highlights the reasons for political and economic involvement of the external powers. Russia used to see this region as his backyard, which used to provide cheap gas that Moscow re-sell to European market. This condition allowed Russia to maintain a certain political and economic control over the region, while preventing challenges to its share of European gas market. Additionally, for Russia importing gas from Central Asia was far cheaper than developing its own gas fields in Siberia. Thus, **Russia** used to be driven by **domestic reasons**. Instead **China** has started to look this region for **a combination of external and internal reasons**. As for the internal drivers, Beijing has some concerns for the peaceful development of Central Asia, which is deeply linked with the Western Chinese region, Xinjiang Uyghur Autonomous Region. Indeed, since Xinjiang is the poorest region in China and its people have strong separatist impulses, Beijing has pursued to foster the economic development of the region and its neighbor states. Within this framework, Beijing launched its ambitious Belt and Road Initiative, which aims to connect China with Europe through several infrastructure projects. In this initiative, the energy sector is a key element, because Beijing has been pursuing an **energy security policy** of its needed supplies. This marks the difference from Russia's involvement in the energy sector of the region. **USA** and, in some ways, the **European Union** have engaged with the countries, seeking to **decrease Russian influence** over the region, lessen European dependence to Russian gas and **prevent the rise of new powers**, mainly China and Iran.

The research highlights the current situation of energy sector in the three countries, taking into account external powers' interest. Regarding **Kazakhstan**, it is clear that Kazakhstan has been able to implement the most successful 'multi-vector' policy in the region. It is seen as the most stable and open country in the region. It is member of all regional and international *fora*. The Kazakh leadership has been capable to attract numerous foreign energy companies to develop its significant oil and gas reserves. Three main projects are developed by international consortium composed by different foreign companies: Tengiz, Karachaganak and Kashagan. Since the 1990s, American and European companies have been key players in the development of Kazakh energy sector investing and financing the development of these fields. Indeed, they are the most important stakeholders. While Russia has been able to maintain its control over the Kazakh exports. Indeed, the most of oil and gas exports from Kazakhstan flows through Russia for example, via CPC pipeline that runs in Russian territory. China has significantly increased its presence in the country's energy sector,

providing important loans and credits. This attitude has paid off at the expenses of India, which has been incapable of establishing important collaborations. Indeed, China outbid India in the purchase of the 50% of PetroKazakhstan in 2005, and 8,33% of Kashagan's company in 2013.

Instead **Turkmenistan**, which has a neutrality policy, represents the trend of the external powers' involvement. Indeed, Turkmenistan's energy sector has passed through significant changes in its history. At the beginning, Turkmenistan provided its gas to Russia for a cheap price. Turkmen gas exports were completely monopolized by Russia. However, as the oil prices rose in the 2000s, disagreements and disputes between the two countries started to soar. The year 2009 marked the historical shift, because China agreed with Turkmenistan for the construction of the Central Asia-China gas pipeline, which would provide gas from Turkmenistan with a total capacity of 55 bcm; while Russia stopped its imports from Turkmenistan following an explosion at the Central Asia-Center pipeline. Despite the exports to Russia resumed the year after, the exports never returned to the previous levels. In few years, China has become the most important and only customer of Turkmen gas, reaching the volume of 31,7 bcm in 2017 from about 4 bcm in 2010. In the meantime, Turkmenistan tried to diversify its export routes with Iran, building two pipelines in 1997 and 2010. However, the energy relations with Tehran failed when in January 2017, Turkmenistan decided to halt its exports to Iran due to an $1.8-billion debt unpaid by Iran. For many years, Western governments hoped to import Turkmen gas through an underwater Trans-Caspian pipeline. However, the main obstacle to this project has been the strong opposition of Iran and Russia, which used the legal dispute about the Caspian Sea legal status. This obstacle was overcome in August 2018 with the Convention of Aktau, Kazakhstan. However, its construction remains still hard to achieve, because of high transportation costs and political and economic competition posed by Russian gas. Additionally, Ashgabat seems to prioritize other export routes, despite their effective fulfillment, for example the TAPI pipeline that connects Turkmenistan with India via Afghanistan and Pakistan.

Despite it has significant gas reserves, **Uzbekistan** has failed to become a major exporter because of its high domestic consumption of natural gas that leaves small volume for exporting. In this country, which is strategically important for the stability of the region, Russia has been able to maintain a strong control over the oil and gas sector. Indeed, Lukoil and Gazprom operates in the development and exploration of several oil and gas fields, and Lukoil has consolidated its position, becoming the most important foreign operator in Uzbekistan, handling around 30% of total Uzbek gas production by the next decade. Through Gazprom, Russia still imports small gas volumes, around 5 bcm annually, which allows Russia to provide necessary cash transfers to Uzbekistan's economy. Instead, Lukoil decided to export most of the gas produced in the country to China. China, through its CNPC, gained influence after the relationship between Uzbekistan and Western countries declined following Western criticism over the 2005 Andijan massacre. Since 2005, CNPC has started to operate, develop and produce oil and gas, besides establishing bilateral agreement for the construction of the three lines of the Central Asia-China pipeline system, which passes through Uzbek territory, securing its investments and interests in the country's energy industry. Given the political isolation caused by President Karimov's policies and the deterioration on human rights and democratic violations, Western and other countries have not been able to establish deep and solid economic and energy relations. However, a change took place with the death of Karimov in 2016 and the election of President Mirziyoyev the same year. The new president decided to implement an ambitious reforming agenda, with a focus on the improvement of relations with regional and relevant countries, namely the US and the European countries. The Presidential commitment to resume positive relations with Western countries might lead to a relative increase of Western energy companies in Uzbekistan.

CENTRAL ASIAN COUNTRIES

In the world's history, Central Asia has always been identified as a crossing point, due to its geographical position between Europe, Middle East and Asia. In the ancient times, several trade routes passed through this region, and in the XIX century it was the theater of a great competition among two empires: the British and the Russian. In this competition the tsarist Russian prevailed and conquered the territories of the region, which then remained under the control of the Soviet Union after its establishment; therefore, the countries of the Central Asian region had lived 70 years of almost completed isolation from the rest of the world. Despite the century under Russian control, the region has been always an area where different cultures, languages and religions coexisted together.

Figure 1: Central Asian countries maps

Source: https://www.iai.it/it/pubblicazioni/bull-china-shop-uzbekistan-traces-new-foreign-policy-direction

During the Soviet Union, the region's countries and their economies were part of the wider Soviet machine; therefore the local economies were strongly linked to the entire economic system of the Soviet Union. Indeed, the Soviet leadership basically utilized and exploited the natural resources located in the region for the general benefit of the Union, relegating these countries as mere suppliers of different types of natural resources. For example, Uzbekistan was the main source for the Soviet Union's cotton demand, Kazakhstan was essential in the nuclear sector thanks to its uranium production and Turkmenistan was the gas provider[1]. This policy produced several vulnerabilities in the local economies, disclosed in the years after the Soviet breakup. Indeed, the five countries ended up having economies with a low degree of diversification and unbalanced trades, combined with a conception of planned economy. After the collapse of the communist regime, these five countries (Kazakhstan, Turkmenistan, Uzbekistan, Kyrgyzstan and Tajikistan) entered into a new phase of their history, facing a substantial transition in their economies and societies, but not in their

[1] S. Pirani, Central Asia and Caspian Gas production and the Constraints on Export, p. 10, NG 69 December 2012, The Oxford Institute for Energy Studies

leadership. However, each country decided to take a different path in order to achieve their goals of diversification and development of their economies and their institutions, and to achieve a reduction in terms their dependence on the former regional master, Russia. Kazakhstan, under the Nazarbayev's leadership, implemented major economic reform, aimed to attract foreign investors. It is the country with the most favorable approach about external investments in its economy among the region. Turkmenistan chose an opposite path, keeping a strong control over the economy and, especially, in the energy sector. Only under the new president, Berdymukhamedov, Turkmenistan has pursued a little more, allowing the significant presence of foreign companies, mainly Chinese, in its energy sector. Uzbekistan implemented a policy aimed at stabilizing the country and avoiding any economic and institutional shock[2].

Following the independence process, the region has become more interesting for the ambition of several players, especially for two main aspects: firstly, for strategic and security aspects; secondly, for the significant energy potential. The security aspects are related to the geographical location that poses the region in the vicinity of important security theatres for their international challenges, such as Afghanistan and the international terrorist threat. Indeed, the security factor has received more attention in the aftermath of the 9/11 attacks. Given the American-led Operation Enduring Freedom in Afghanistan, the increasing American military presence and activities in the region has created more concerns for the Russian and Chinese leadership. These two players have promoted a regional multilateralism in order to balance the significant American presence especially through security organizations, such as Shanghai Cooperation Organization (SCO) and Collective Security Treaty Organization (CSTO). Particularly, the SCO was established in order to fight the 'three evils' in the regions, which are terrorism, separatism and religious extremism. Often in the neighboring areas, these three phenomena are strongly connected , especially after the raising of ISIS. One of the main concerns is the return of numerous fighters that have participated to the Syrian war and come from Central Asia. This security fear has grown particularly in recent times, because of ISIS' partial defeat. For this reason, the Turkmen-Afghan border has become one of the top priorities for the external players, especially Russia and China. Indeed, for these two powers the regional security is one of their top priorities, as they consider extremely important to preserve the regional stability and limit the spread of violence that could easily undermine their domestic stability and security.

Besides security interests, the region has received a reinforced attention for its vast natural reserves. In recent years, the vast potential of hydrocarbon reserves located in Central Asia has been greatly emphasized; in particular, the main energy markets have identified the natural resources located in the region as a possible alternative to those located in the unstable Middle East. As Table 1 well represents, the density and the types of energy resources are divided through the region: the Western countries (Kazakhstan, Turkmenistan and Uzbekistan) are richer than the Eastern ones (Tajikistan and Kyrgyzstan) and while oil is more present in the north (Kazakhstan), gas is located in the south (Turkmenistan and Uzbekistan).

Table 1: Data regarding oil and gas proved reserves, production and consumption

	Total Proved Oil Reserves	Oil Production	Oil Consumption	Total Proved Natural Gas Reserves	Natural Gas Production	Natural Gas Consumption
Kazakhstan	30.0	1835	311	1.1	27.1	16.3
Russia	106.2	11257	3224	35.0	635.6	424.8
Turkmenistan	0.6	258	155	19.5	62.0	28.4
Uzbekistan	0.6	54	71	1.2	53.4	41.6

Source: BP Statistical Review of World Energy 2018

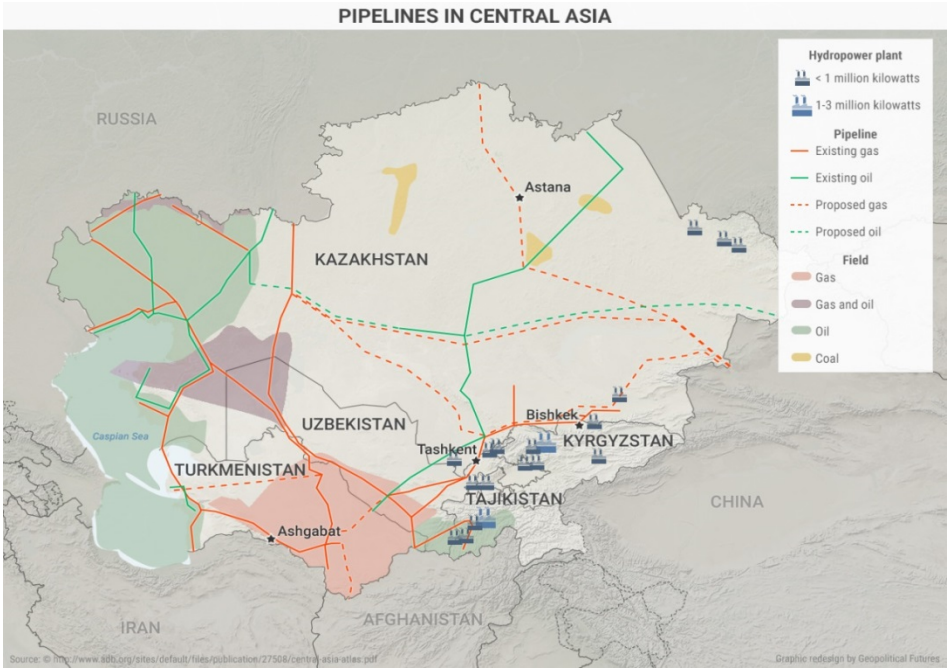
Particularly in this sector, the countries have pursued a 'multi-vector' foreign policy with the aim of balancing the dominant position of Russia and finding paths for their economic development. The local leadership decided to implement a 'multi-vector' policy also in the most prominent sector of their economies, the energy sector. Indeed, all of Central Asian countries have chased to attract foreign investors in order to obtain the necessary technologies and investments required for ramping their production and

[2] Paolo Sorbello, *Oil and Gas Political Economy in Central Asia: the International Perspective,* p. 112 in The International Political Economy of Oil and Gas, by S. Raszewski 2018

exports. The newly independent countries were deeply dependent and connected with Russia. After an almost 70-years-long monopoly of the Soviet Union over the countries, they started to receive serious interests for exploring, developing and producing their oil and gas resources thanks to investments and partnership with foreign energy companies, mainly American, European and Chinese. Nonetheless, these partnerships and investments of international energy companies vary in each countries; for example the Western companies played a more important role in Kazakhstan than in other countries, while China gained an exceptional position in the Turkmen gas industry. Thanks to the increase of oil and gas production and the growth of oil prices after 2000, all three countries increased their energy production and witnessed an incredible GDP growth at an average annual rate of 7%, although their economic structure presents several risks and weak points.

As mentioned above, several external players showed their interests for the region and attempted to assure its presence and control over strategic assets. external players had rarely focused strategies towards this region; Usually, occasional and limited approaches were the general custom in the external presence, generating unpredictable and fluctuant policies about regional stability and security. We can affirm that the energy sector in Central Asia passed through different phases: the first phase is characterized by the Russian dominance; the second phase by the Western approach; and finally, the third phase by the Chinese rise.

Figure 2: Pipelines in Central Asia



Source: https://geopoliticalfutures.com/central-asia-pipelines/

RUSSIA IN CENTRAL ASIA

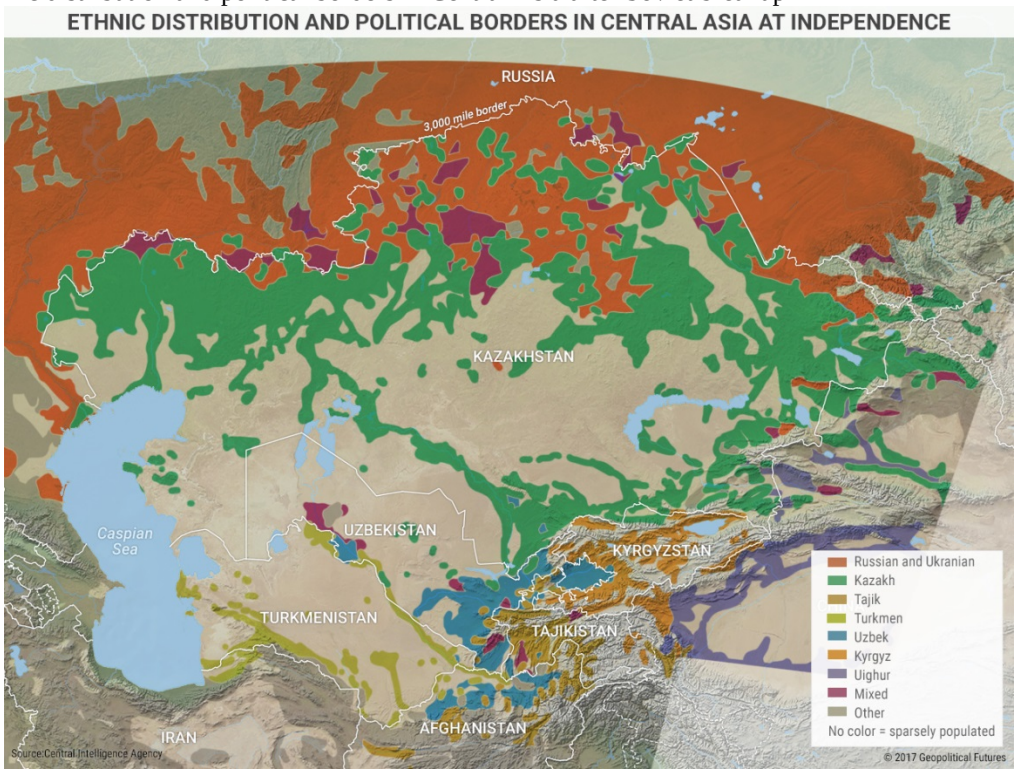
Despite the independence of Central Asian countries, Moscow continues to consider the region as its own 'backyard'. For a century, Moscow controlled the entire region and influenced its history. The security sphere and the strategic mean of the region is particularly relevant in Russia's policy towards the region, because of its proximity with its border. Russia is still the main source of military assistance to the regional countries and its efforts are aimed to limit ad exclude other players in these fields[3]. For these reasons, after a first positive attitude, Moscow has been reluctant to accept the American military presence and the use of military bases in the region as logistic hub for Western operations in Afghanistan. Also, Russia plays an important role in helping the local elites to prevent separatist tendencies, providing security and military support. As already mentioned, the security considerations hold an important place in the Russian presence in the region, especially following the increasing threats posed by international terrorism. Indeed, one of the

[3] https://carnegieendowment.org/files/Dubnov_US-RussiaInsight.pdf

main security priorities of Moscow is the control and security of the Turkmenistan-Afghanistan border, which many international illegal activities pass through, spreading over the region.

Besides security concerns, Russia has other several connections with this area. in the first place, there are some ethnic connections between the region and Moscow, because one of the most important minority groups in the region is indeed Russian. Regarding this factor, the Crimean crisis alienated some regional elite (especially in Kazakhstan), because of the worries about a similar scenario happening in the region; Indeed, in Northern Kazakhstan, Russian minority accounts for 25,9% of the total population.

Figure 3: Ethnic distribution and political borders in Central Asia after Soviet breakup



Source: https://geopoliticalfutures.com/net-assessment-of-central-asia/

Another factor of the Russian influence over the region is the remittances of the migrant workers in Russia from the region. This kind of money is particularly relevant in the poorest countries of the regions, such as Tajikistan and Kyrgyzstan, where the remittances from Russia contributes significantly to their economy. For example, in Tajikistan, remittances from Russia to Tajikistan account for the equivalent of almost 37% of the Tajikistan's economy[4]. However, the recent drop of ruble value, caused by the Western sanctions and the drop of oil prices, has affected the local economies, which heavily rely on them.

Although Russia remains one of the main trade partners of the region, in the last decade trade volumes and values have decreased due to international challenges. Indeed, Russia has been facing several economic challenges after 2008 global financing crisis and 2014 Crimean crisis, along with the significant drop in commodities' prices. These difficulties have consumed the Russian trade position in the region in favor of a new player, China. Indeed, in 2017 Russian trade relations amounted almost to $23 billion, while China's amounted almost to $36 billion as the following table shows:

[4] https://eurasianet.org/remittances-to-central-asia-surge-but-fall-short-of-historic-highs

Table 2: Russia's trade with Central Asia, $ million

1996	**8.169**
1999	**3.825**
2000	**6.472**
2005	**12.681**
2008	**26.752**
2010	**21.497**
2012	**31.987**
2014	**29.983**
2016	**18.551**
2017	**22.860**

Source: UN COMDATA

Among the still existing ties, the energy sector is particularly relevant in bilateral relations. At the beginning of 2000s, Moscow reorganized its priorities and decided its main objectives for the region: the preservation of regional stability and the conservation of a certain degree of influence over the regional affairs (due to the strategic geographical location). Given the relevance of hydrocarbon reserves located in the region, Moscow has pursued these objectives also through energy relations with these countries. Since 1990s, Moscow had a monopsony position in the oil and gas transportation and production from the region, thanks to the ancient privileges and transportation infrastructures. Indeed, until 1997, all pipelines were directed toward Russia and under the monopolistic control of Gazprom. The most important pipeline in Central Asia was the Central Asia-Centre (CAC), which delivered gas to Russia from Turkmenistan via Uzbekistan and Kazakhstan during Soviet times with a total annual capacity of 90 bcm. However, in 2009 the CAC's capacity dropped to about 44 bcm, because of the lack of maintenance. Over the course of 2017, the Gazprom Group purchased 21.3 billion cubic meters of gas in Central Asia.

Table 3: Gas purchases in Central Asia and Azerbaijan by Gazprom Group, billion cubic meters

(bcm)	COUNTRIES	2013	2014	2015	2016	2017
For supplies to Europe	Turkmenistan	10.9	11.0	3.1	-	-
	Uzbekistan	5.7	3.6	3.5	4.3	5.5
	Kazakhstan	11.9	10.9	12.9	12.7	13.8
	Azerbaijan	1.4	0.2	-	-	-
For supplies to southern Kazakhstan	Turkmenistan	0.3	-	-	-	-
	Uzbekistan	3.7	3.7	2.9	1.9	1.7
For supplies to Kyrgyzstan	Uzbekistan	-	0.004	*	*	*
	Kazakhstan	-	0.06	0.2	0.2	0.3

Source: Gazprom website http://www.gazprom.com/about/marketing/cis-baltia/ Note: * = Less than 0.05

Gazprom used to purchase natural gas from these countries, especially Turkmenistan, not for its domestic market but to respond to external demands. Indeed, Gazprom used to buy Turkmen gas at a low price and resell it at an higher price to the more lucrative markets, such as Europe. The reason for this policy was that it was less expensive and more lucrative to buy and resell Turkmen gas than develop the Russian oil and gas fields. Thanks to the infrastructural bound between Russia and Central Asian countries, Gazprom had been able to pursue two different goals: 1) obtaining economic benefits, using the Central Asian gas to respond to its external demands; 2) keeping ties with those countries (due to the importance for the governmental finance) and preventing other players' access to the regional energy sector.

Gazprom's policy is part of the more general strategy adopted by Russia, which pursues both economic and political objectives in its energy strategy. The challenge is always to find the right equilibrium between these two objectives. Central Asia and its energy relations with Russia are a perfect example of this struggle for Moscow. For many years, the Russian energy company managed to find this equilibrium until some important episodes happened. The main factors that undermined the Russian position in regional energy sector are: 1) the 2008 global financial crisis; 2) the 2009 Russia-Ukraine gas dispute; 3) the imposition of

Western sanctions to Russia as a response to the 2014 Crimean crisis; and 4) the drop of oil prices, and raw materials in general, at the end of 2014. The combination of these factors seriously undermined Russia's capabilities to continue importing Central Asian gas. The global financial crisis damaged significantly the financial structures of governments and led to a deep recession, which generated a dramatic drop in natural resources prices. The drop of raw materials prices, especially oil, had relevant consequences on economic decisions of Russian energy companies as well as on the government's revenues. The 2009 Russia-Ukraine gas dispute had some relevant impacts both on the European market and on Central Asia's market. The gas dispute reinvigorated the European debate on energy supply and the need to diversify its supply sources, in order to decrease the burden of dependency to the Russian gas. Additionally, in the context of a serious recession, Russia wanted to preserve and prevent a situation with an oversupplied energy market, which could have led to an additional decrease of the prices; therefore it decided to decrease its gas import from Central Asia. This decision had strong consequences both for the bilateral relations with Central Asian countries and for their economies. Moscow decided to sacrifice its position as reliable buyer and transit country in order to preserve its share of a more lucrative energy market, which is Europe. Additionally, Russia has been committed to protect its important share of European market, limiting the possibilities of Central Asian countries to export their oil and gas to Europe. This is the case of the well-known and ambitious Trans-Caspian pipeline, which should connect Turkmen shore to Azerbaijan in order to export its gas to the European market through the European Southern Gas Corridor. Indeed, for over 20 years Russia used the legal dispute about the legal status of the Caspian Sea to prohibit the construction of the underwater pipeline.

Given the Russian difficulties to maintain influence over the region and the increasing presence of new players, Moscow promoted several regional organizations with a wide range of focuses: in the security field the Collective Security Treaty Organization (CSTO) and the Shanghai Cooperation Organization (SCO), in the economic field the Eurasian Economic Union (EAEU), as well as in the political the Commonwealth of Independent States (CIS). The establishment of Russia-led EAEU is Moscow's answer to balance the increasing Chinese influence over regional economic relations, despite this goal has not fully been achieved. Firstly, EAEU is composed of Russia and other four countries, of which only two are Central Asian countries (Kazakhstan and Kyrgyzstan) and it has little international influence; Also, EAEU has produced several problems for the regional country since 2015, for example the devaluation of the ruble has reduced migrant worker remittances to Kyrgyzstan. Additionally, some countries (Tajikistan, Turkmenistan and Uzbekistan) did not join to the EAEU undermining the success of the Russian strategy. Indeed, without Uzbekistan, which is the most populated country in the region with over 30 billion citizens, the regional organization produces few benefits for its members as well as few positive results for Russia's strategy. In conclusion, some of these organizations fail to provide more international influence and create a serious political and economic block.

CHINA IN CENTRAL ASIA

For many years during the Soviet period, China was able to establish solid relations with the region, but the collapse of the Soviet Union forced China to have a policy towards this region. Indeed, the first policy implemented by China in this region was the negotiations related to border demarcation with Russia, Kazakhstan, Kyrgyzstan and Tajikistan through bilateral and multilateral discussions. A following policy was related to security, due to the critical situation exploded in Afghanistan and the increasing instability in the Western Chinese region, Xinjiang, which is highly populated by Muslims. During those years, China established with Russia and the regional countries the Shanghai Cooperation Organization, which would have an important role for the consolidation of the Chinese presence and security interests in the region.

Especially since 2013, China has made enormous efforts in order to foster positive relations with the new independent republics. In order to create positive relations with this area, China prioritized economic relations, promising reliable and significant credit possibilities for the economic and social development of the regional countries. In doing so, China overthrown Russia as top trade partner of the region in less than a decade. There are several driving reasons that induced Beijing to decide to enhance its influence in this area. Some of these drivers are internal, while others are external. As for the **internal drivers**, Beijing has some concerns for the peaceful development of Central Asia, which is deeply linked with the Western Chinese region, Xinjiang Uyghur Autonomous Region. Indeed, Xinjiang is largely populated by Muslim Uyghurs,

whose communities are also spread in Central Asia countries, namely Kazakhstan, Kyrgyzstan and Uzbekistan. Since Xinjiang is the poorest region in China and its people have strong separatist impulses, Beijing has pursued to foster the economic development of the region and its neighbor states. At the base of this concept, there is the Chinese assumption that economic and social development generates stability and peace. Therefore, Beijing and its leadership are proposing, domestically and internationally, a new economic model that offers massive volume of investments for local infrastructures that contribute to the creation of wealth and development. These infrastructures are essential in order to achieve connectivity within domestic borders and abroad. Especially in the last five years, China has advocated an ambitious project that aims to connect China with Europe through the revitalization of the ancient Silk Roads. Indeed, in Kazakhstan during a visit to Central Asian countries in 2013, the Chinese President Xi Jinping launched the "Silk Road Economic Belt" project, which is part of the larger Belt and Road Initiative (BRI). The purpose of this initiative is to create, reinforce and modernize several trade corridors in order to bring Chinese goods into the European market. In building the needed infrastructures, China allocates billions of dollars in countries between its market and the European countries. In this way, China could transform the entire region from its landlocked condition to a transit region between Asia and Europe. Therefore, Central Asia has gained significant strategic meaning and importance for Chinese ambitions, given the geographical location between the supplier and the final markets. Since the 1990s, Beijing has increased its presence and influence in the region, thanks to its restless economic growth, also during the global financial crisis. This condition enabled China and its leadership to implement their 'Going Out' strategy in different areas. In few decades, China was able to outpace Russia as top trade partner of Central Asia countries, with the exception of Kazakhstan. Instead, Turkmenistan represents the most relevant example of the successful and increasing influence of China in the region; China accounts for 44% of the country's total trade while Russia makes up only 7%[5]. In a broader context, the Chinese total trade with Central Asian countries soared from less than $1 billion annually in the 1990s to more than $30 billion in 2017.

Table 4: China's trade with Central Asia, $ million

1996	**778.209.652**
1999	**1.331**
2000	**1.819**
2005	**8.726**
2008	**30.822**
2010	**30.112**
2012	**45.943**
2014	**45.012**
2016	**30.046**
2017	**35.879**

Source: UN COMDATA

China values the economic development in the region, because it considers the development deeply correlated to political stability, which is essential in order to achieve its goals. As Russia does too, China gives priority to have a stabilized scenario in Central Asia and look suspiciously at any external presence which could undermine the difficult equilibrium in these countries.

Given the amount of money poured in foreign countries by Beijing, some Western observers and politicians raised concerns over the economical sustainability of the Initiative, highlighting the possibility of a 'debt-trap' diplomacy. Despite the fact that more than 65 countries subscribed for this Initiative, some recent studies highlighted the risks posed by the BRI and some of the receiver countries shelved some important projects in their territories, for example Pakistan and Malaysia. In particular, the Trump administration criticized the dangerous consequences of the Chinese 'debt-trap' for the "beneficiary" countries, like Sri Lanka's decision to lease Hambantota port to a Chinese company for 99 years, because its inability to pay the debts to China. Besides the financial risks, analysts warned about the lack of transparency and the risk of corruption related to these funds in the countries.

[5] Stratfor, Central Asia's Economic Evolution from Russia to China, Assessments, April 5, 2018, https://worldview.stratfor.com/article/central-asia-china-russia-trade-kyrgyzstan-kazakhstan-turkmenistan-tajikistan-uzbekistan

Table 5: China Natural Gas Consumption

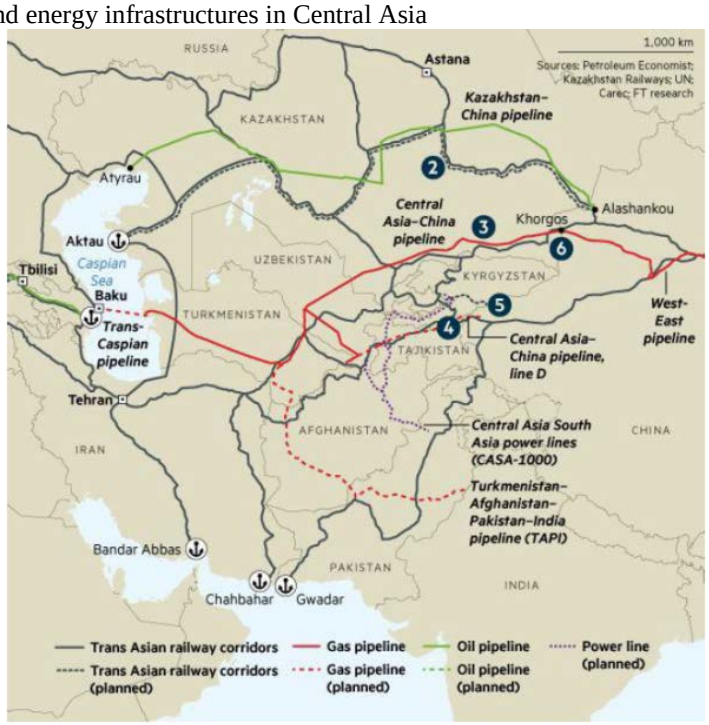
bcm	2007	2010	2013	2016	2017	Growth in 2017	Growth 2006-2016
CHINA	71.1	108.9	171.9	209.4	240.4	15.1%	13.7%

Source: BP Statistical Review of World Energy 2018

Along the market connectivity, China has increased its interests for energy affairs in the region. Indeed, China invested several billions in many infrastructural projects, but the one sector in which Beijing has invested the most is the energy sector. The incredible Chinese economic growth has generated an enormous need for energy in order to meet the significant domestic consumption. Thus, after having become a net importer in the 1990s, Beijing has pursued an **energy security policy** of its needed supplies, looking for new, alternative and reliable routes and sources[6]. The aforementioned policy was driven by three needs: in the first place, China became increasingly dependent on energy imports from the Middle East and Africa imports and therefore it seeks to diversify its energy suppliers; in the second place, it sensed a strategic need to minimize the risk posed by the 'Malacca dilemma', namely the risk related to the excessive percentage of the energy supplies navigating through the Malacca Straits and the consequent risk of a naval blockade; and finally, the growing domestic consumption of natural gas and the 2014 Xi Jinping's decision to make a strong energy transition from coal to gas in order to decrease air pollution in China and tackle the climate change. The domestic reason of the Chinese interest for Central Asia's energy resources is one of the main differences with Russia in the involvement in the region; indeed, Russian engagement with the regional gas was driven merely for external economic reasons, while China is motivated by a domestic demand. These motivations make reasonable to think to a long-term commitment in the Central Asian energy sector by Chinese energy companies. Also, according Boston University's China's Global Energy Finance database, Chinese policy banks (Chinese Development Bank and Export-Import Bank of China) provided $25.6 billion in financing to foreign governments around the world in the energy sector in 2017, increasing the total amount of energy finance by China's policy banks since 2000 to roughly $225.8 billion, which of them, around $128.3 billion are incardinated in BRI[7]. In this context, Central Asia and its countries rich of energy resources can contribute significantly to meet Chinese demand. China has undertook an incredible effort to secure its supply from this region, which has tried to diversify its export markets through a multi-vector energy policy. In few decades, Beijing built several energy infrastructures that directly link regional gas to China. The major achievement in the "pipeline diplomacy" is the construction of the important Central Asia-China gas pipeline, which connects Turkmenistan gas fields (as well as Kazakh and Uzbek too) to the Chinese West-East II pipeline that brings gas to China's eastern regions. In 2009 and 2010, Line A and B of the Central Asia-China gas pipeline became operational; With the completion of the third line, this gas pipeline responds to 20% of China's energy demand. Another major pipeline that links Central Asia to China is the Kazakhstan-China oil pipeline, operation since 2009. Therefore, it is undoubtable that China has achieved its principal energy goals, overcoming the initial Russian influence over the energy affairs of the region.

[6] https://www.nature.com/articles/s41599-018-0125-5.pdf
[7] https://www.bu.edu/cgef/#/intro

Figure 4: Transportation and energy infrastructures in Central Asia



Source: https://www.nature.com/articles/s41599-018-0125-5.pdf

China's success has been possible also because of the different decision making process and its structure in comparison to the Western players. Given the increasing consolidation of power, Xi Jinping and its decisions do not meet, or at least rarely meet opposition, leading to a soft and rapid implementation, unlike in the Western and "pluralistic" governments. The possibility to implement rapidly and without almost any opposition its own political agenda is the great difference with the Western actors and the root cause of the incredible Chinese success in the regional energy sector. Additionally, the regional countries welcomed in a large part the Chinese model of bilateral relations. Differently from European countries and the US, China does not require political improvement in the countries or democratic reforms in exchange for its credits and loans. Beijing does not emphasize the humanitarian situation of minorities or the respect of human rights, maintaining a policy of not intervention in other countries' internal affairs. China's model of economic development has attracted several countries, which can obtain financial assistance, without particular financial and democratic controls.

These factors helped China to reduce its presence gap in the region and consequently to become a solid and reliable alternative partner for regional development, despite some risks behind its Initiative.

REGIONAL ACTORS

Iran

Iran has deep historical and cultural ties with Central Asian countries, since the Persian Empire extended into the region, creating a cultural and linguistic heritage, especially in Tajikistan and in some areas of Uzbekistan. Although, in the recent history, Tehran appealed to these cultural and historical ties in order to enhance positive relations with the regional countries, in years after independence Iran did not have any specific ideas about the opportunities related to this region. Indeed, at the beginning of the 1990s, Iran was almost completely focused on the domestic dimension, after the 10-years-long Iran-Iraq war and political destabilization following the death of Khomeini in 1989.

Another factor in the relations is the religion that became problematic again after the Soviet break-up. In fact, the majority of Central Asian population belongs to the Sunni Muslims and Tehran tried to promote relations with the Shia minority present in the countries in order to safeguard it. However, the promotion of a political

Islam and the support to Shia minority have produced some frictions between the regional elite and Iran, because the main objective of Central Asia's leadership is the stability of the political system and the preservation of the existing structure. Therefore, Iranian policy toward Central Asian Republics (CARs) failed, because of the limits of a policy based on only cultural and linguistic heritages[8]. In fact, Iran expressed its concerns about Turkey's active engagement with the region and its ambitions to consolidate its leadership in the Turkic community, which undermined initial Iran's role in the region[9]. Furthermore, the relations between Iran and central Asia have been affected by the role of the US in the region, especially in the aftermath of 9/11. Indeed, Iran found itself surrounded by US armed forces, that were deployed in Afghanistan and in some military bases in Central Asia. Moreover, Washington pursued a strong isolation policy toward Tehran, imposing economic sanctions and political isolation in response to the nuclear program started by the Iranian regime. This international condition resulted in some caution in the development of relations between Iran and CARs. Indeed, the fact that Iranian market was cut off from international community and severe economic sanctions induced CARs to look for cooperation and commercial opportunities away from Tehran[10].

Nevertheless, Iran has tried to build economic relations with the region in order to balance the Western political and economic isolation. In fact, Iran offers its favorable geographical position for fostering bilateral relations with Central Asia Republics. Indeed, CARs look to Iranian geographical position as a possible way to extend their export alternatives as an access to international waters. Iran and CARs cooperated in several infrastructures projects that aim to increase connectivity among the region and other markets. Some of these infrastructures are transnational projects, such as the Iran-Turkmenistan-Kazakhstan railroad[11] , inaugurated in December 2014, and the International North-South Transport Corridor (INSTC), supported by the Ashgabat Agreement. The Ashgabat Agreement was signed by Uzbekistan, Turkmenistan, Iran, Oman, Kazakhstan, Pakistan and came into force in April 2016; it is a multimodal transport agreement between the countries to create an international transport and transit corridor facilitating transportation of goods between Central Asian and Persian Gulf[12]. Another major infrastructure that could become a logistic hub for Central Asian products is the Chabahar port in Iran. This Port could have positive consequences also for India and its strategy toward Central Asia; indeed, the Indian companies has heavily financed the construction of the Port.

In the economic sphere, Iran has to face some difficulties because of the foreign policy implemented by CARs. Indeed, although CARs pursue a 'multi-vector' policy, they pay attention in particular to maintaining positive relations with other external players in their domestic context. Therefore, they are reluctant to engage with Iran if this would mean being affected by American sanctions. However, Iranian officials affirmed that US sanctions had a little impact on Iran's trade relations with neighboring countries, compared to other countries. Despite that, looking at Iran and Central Asia non-oil trade values, it is clear that the Central Asian countries' share in Iran's foreign trade does not coincide with the potential that these two sides have.

[8] http://carnegieendowment.org/2015/04/17/central-asia-faces-risks-and-benefits-from-iran-deal-pub-59845
[9] Sébastien Peyrouse and Sadykzhan Ibraimov (2010) Iran's Central Asia Temptations, p. 88, Hudson Institute's Current Trends In Islamist Ideology, Vol. 10,
[10] http://carnegieendowment.org/2015/04/17/central-asia-faces-risks-and-benefits-from-iran-deal-pub-59845
[11] https://www.railwaypro.com/wp/kazakhstan-turkmenistan-iran-railway-new-gate-to-asia/
[12] http://www.irna.ir/en/News/82914583

Table 6: Overall Iran-Central Asia Trade

Year (Iranian fiscal)	Export, million US$	Growth, %	Import, million US$	Growth, %	Trade balance, million US$	Trade volume, million US$
(2009-2010)	677	-	829	-	-152	1506
(2010-2011)	730	8	348	-58	382	1078
(2011-2012)	921	26	343	-1	578	1264
(2012-2013)	1281	39	439	28	842	1720
(2013-2014)	1460	14	325	-26	1135	1785
(2014-2015)	1542	6	362	11	1180	1904
(2015-2016)	1269	-18	143	-60	1126	1412
(2016-2017)	1120	-12	356	149	764	14

Source: https://www.azernews.az/region/123182.html

Regarding the energy relations, the Iranian sector was heavily affected by the Western economic sanctions. Therefore, Iran tried to implement a pipeline policy in the region, trying to avoid the fulfillment of the American goal, namely the isolation of Iran. Therefore, Iran engaged especially with Turkmenistan, given shared borders: it played an important role in Turkmenistan's diversification strategy of its exports routes at the end of the 1990s, with the construction of the Korpeje-Kurt Kui pipeline in 1997 and the Dauletabad-Sarakhs-Khangiran pipeline in 2010. This pipelines were particularly relevant for Tehran, because they provide gas to the northern regions, which were poorly connected to the southern region and its gas fields. However, Turkmenistan and Iran are facing legal disputes through international arbitrations about Iranian debt payments to Turkmenistan. Also, Iran, being a Caspian littoral state, has been an important part of the two-decade legal dispute over the status of the Caspian Sea, which has been one of the main obstacles for the construction of the Trans-Caspian pipeline. Iran was an opponent of this project because Tehran can be an energy competitor to Central Asian countries, given its significant reserves, and It could be an alternative supplier to some of the main energy markets, namely Europe, India and China. Particularly, Iran has benefited economically and politically from the major international agreements about the Iranian nuclear program and the relieve of economic sanctions. Hence, the signature of the Join Comprehensive Plan of Action (JCPOA) produced positive effects for the Iranian energy sector, with an increase of exports and a reduction of energy imports, as well as it allows Iran to resume qualitative relations with European countries. However, another major change happened in 2018 after the unilateral decision of the Trump administration to withdraw from the JCPOA, imposing economic sanctions again.

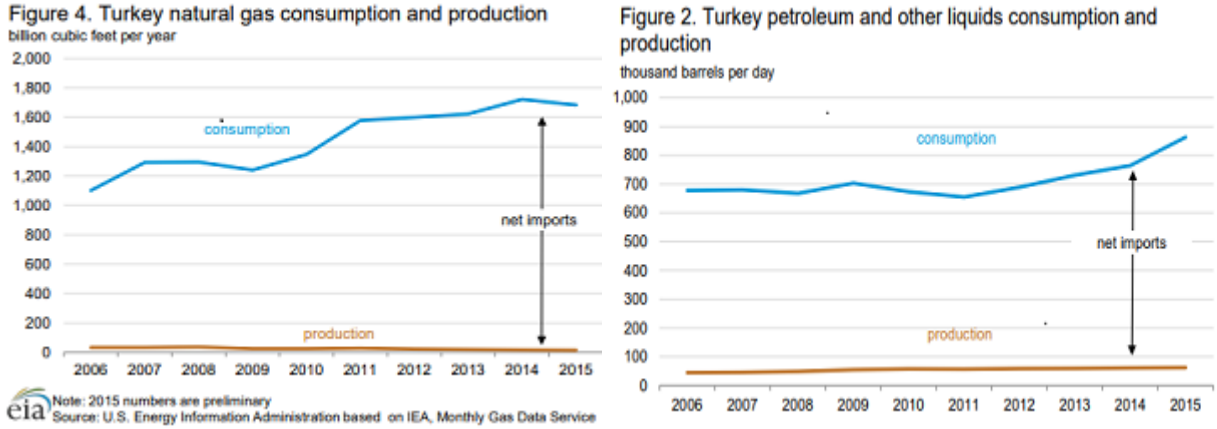
Turkey

Turkey has always had a particular connection with these countries, thanks to its ethno-linguistic ties with the region. At the beginning, the Turkish presence in this region was characterized by a twofold approach:

the first aim was to become a bridge between the post-Soviet states in Central Asia and Western countries, and the second was to reorganize its role with the Western world after the collapse of the Soviet Union. Turkey was invited by Western countries to engage positively with the new CARs in order to curtail Iranian presence in the region and maintain stability in the region after the power vacuum created by the Soviet break-up; this strategic goal was also a consequence of Turkey's NATO membership. Given the alliance between Ankara and the Western countries, the CARs also considered Turkey as a possible bridge for their integration into the international community[13]. Ankara quickly engaged with the new countries and it was the first country to recognize their independence. Turkey's strategy was driven by the pan-Turkic ideology in order to create positive and solid relations with the newly independent Republics. In the years immediately after their independence, Turkey attempted to strengthen its relations with this region promising cooperation in different sectors. At cultural level, Turkey established the International Organization of Turkic Culture in 1993 and the Cooperation Council of Turkic Speaking States in 2009. However, the cultural driving force for cooperation has dual result: it can be a ground where to build further and deeper relations; it can alienate regional leadership, which considers important to strengthen national identity and tackle Turkish nationalism. At the economic level, Turkey's economic relations with the CARs have advanced rapidly. Turkey's trade volume value with the countries with the regional countries reached €4,903 million, becoming the fifth trade partner of the region after EU, China, Russia and Switzerland[14]. Additionally, the total investments of Turkish companies in the region exceeded $13 billion at the end of 2017, and the total value of projects realized by Turkish companies in the region reached a level of above $86 billion in the same period[15]. However, there are several challenges and obstacles that undermine Turkey's ambitions: Firstly, Turkey does not have geographical proximity with these countries; Secondly, Turkey underwent some serious economic and political instability that have created obstacles to its possibility to invest significant sums in the region. at last, Turkey did not received the necessary support from the Western countries to maintain the role in the region, preferring to focus to other regions. All these factors resulted to undermine the Turkish capability to translate its ambitions into actions and resulted in the failure of becoming a model and a bridge country between the two regions, Europe and Central Asia. The Turkish current policy towards Central Asia contains five main components: 1) developing bilateral and multilateral cooperation in the fields of energy, economy, commerce, culture, etc.; 2) assisting them in finding a peaceful solution to the frozen regional conflicts; 3) Serving as an energy terminal; 4) providing assistance to the regional states in their national- and state-building processes; 5) helping them develop and maintain close relations with the other countries[16]. After having failed to become a bridge for the CARs, Turkey decided to pursue the idea of itself as a "central power", moving away from Western interests and more closely to its conception of being a power.

As mentioned before, one of the most important components of the Turkish engagement with the region is the energy sector. Indeed, Turkey has a limited energy production for meeting its domestic energy demand, therefore it requires significant energy imports.

Figure 5: Turkey's gas and oil consumption and production



[13] Zeeshan Fida, Central Asia's Place in turkey's Foreign Policy, Policy Perspectives, Vol. 15, No. 1 (2018) p. 116
[14] http://trade.ec.europa.eu/doclib/docs/2013/november/tradoc_151896.pdf
[15] http://www.mfa.gov.tr/turkey_s-relations-with-central-asian-republics.en.mfa
[16] Thomas Wheeler, Turkey's Role and Interests in Central Asia, p. 4, Saferworld October 2013

Source: EIA https://www.eia.gov/beta/international/analysis.php?iso=TUR

Additionally, Turkish economy has grown significantly in the last decade, stimulating an increase of energy consumption.

Table 7: Turkey's consumption of primary energy, Million tonnes oil equivalent

Mtoe	1996	2000	2005	2008	2010	2015	2017	growth rate 2017	growth rate 2006-2016
Turkey	66.7	86.6	89.2	100.8	107.7	137.5	157.7	9,5%	4,4%

Source: BP Statistical Review of World Energy 2007 and 2018

In the Turkish energy mix, natural gas is the most important fuel. Ankara imports it from Azerbaijan, Russia and Iran by pipelines and LNG from the world market, especially Algeria, Qatar and Nigeria. Given its dependence to energy imports, Turkey has tried to pursue a supply diversification in order to reduce strategic risks. Also, given its geographical position, Turkey has been committed to become an important transit country and regional energy hub for the European market and its supply sources, Russia and Central Asia. The first step for this energy policy was the construction of the Baku-Tbilisi-Ceyhan oil pipeline. This project's main objective, heavily supported by American President Bill Clinton and built through international partnership of foreign companies, was to create an eastwards route for Caspian reserves and, thus, undermine Russia dominance over European gas market. Another important step towards Turkish ambitions to become an energy hub is the Baku-Tbilisi-Erzurum gas pipeline (knows as South Caucasus Pipeline), which runs along the BTC pipeline and it is an essential part of the European Southern Gas Corridor. These two pipelines bypassed for the first time Russian territory, challenging its dominant position in the natural gas exports. Other projects seek to provide gas to Turkey and Europe, creating new routes and reducing dependence, namely the TurkStream, which provides Russian gas to Turkey and Europe bypassing Ukraine, and the Trans-Anatolian Natural Gas Pipeline (TANAP). TurkStream provides 31,5 bcm of natural gas per year, while TANAP would provide 6 bcm to Turkey and 10 bcm to Europe.

In this context, Central Asia could contribute to the Turkish ambitions. Kazakhstan and Turkmenistan already contribute to BTC pipeline with small volumes; nevertheless the main contribution would be provided through the Trans-Caspian pipeline, which would link Turkmen gas fields to Azeri shore with an underwater pipeline. This pipeline would provide significant natural gas to TANAP. However, there are important political and economic challenges in the construction of this ambitious project. Among the political obstacles, we see the strong opposition of Russia and Iran, which used the two-decades legal dispute about the Caspian Sea's legal status.

India

India's relations with Central Asia have a long history, since it has cultural, trade and religious links since the Kushana Empire. Additionally, India was one of the few countries in the world to have diplomatic ties with the region during the Soviet Union, because of the good relations between Moscow and New Delhi. However, after the collapse of the Soviet Union, Central Asia lost its importance in India, which was paying more attention to its conflict with Pakistan. Also, India did not have any more the endorse of the old master of the region, Russia, which had to face economic turbulences during the 1990s. The political vacuum in the region generated the so-called "new Great Game" in the region and India was left behind, politically and economically. One of its greatest obstacles was the lack of connectivity with the Central Asian countries. Indeed, in 2012 the value of the total Indian trade with the whole region amounted to around $500 million. After decades, India understood that it could not lose completely its relations with the region, especially in favor of its rival, China[17] and precisely For these reasons, India's Foreign Minister Ahmed launched the

[17] Martand Jha "India's Connect Central Asia Policy" December 2, 2016 https://thediplomat.com/2016/12/indias-connect-central-asia-policy-2/

"Connect Central Asia Policy" at the first meeting of the India-Central Asia Dialogue in Bishek held in June 2012[18]. The Foreign Minister outlined some of the Policy's priorities, such as strong political relations through strategic and security cooperation; an increase of its multilateral engagement with Central Asian partners; education and medical cooperation; a long term partnership in the field of energy with the regional countries. Indian commitment to increase its presence in the region was driven by the strong need to create connectivity. Indeed, India is mostly separated by Central Asia and in the recent years it has endorsed several infrastructures in order to overcome this gap in comparison to China. Recently, India joined the Ashgabat Agreement that seeks to connect the Eurasian region and synchronize it with other regional transport corridors such as the International North-South Transport Corridor. In joining to the Agreement, India will be able to utilize the existing corridors to facilitate its commercial relations with the region and foster strategic investments. For example, India has significantly financed the construction of the Chabahar port that could become a logistic hub for Indian goods exported to Central Asia and vice versa[19].

Related to energy, India is actually the third largest energy consumer in the world with 753.7 million tonnes oil equivalent (mtoe) consumed in 2017, increasing 4,6% compared to the previous year. According the 2018 BP Energy Outlook, India will overtake China as the largest growth market for energy by late 2020s. Given this future trend, India has to secure its energy supplies, especially considering that India heavily depends on oil and gas imports. Indeed, [according to BP data] India consumed 4690 thousand barrels daily of oil and produced 865 tb/d domestically in 2017. The main supplier of India's crude oil is the Middle East (especially Iraq and Arabian Peninsula's states), followed by South America (mostly Venezuela) and Eastern and Southern Africa. Net oil import dependency increased from 43% in 1990 to almost 71% in 2012. Instead, India consumed 54.2 bcm of natural gas in 2017 in the face of a limited domestic production, amounted to 25.5 bcm in the same year. since India has not been able to produce an adequate supply of domestic natural gas nor to create sufficient natural gas pipeline infrastructure on a national level, it increasingly relies on imported LNG to meet domestic demand. India was one of the largest LNG importers, following Japan, China, South Korea in 2017.

Table 8: India's energy mix, mtoe

mtoe	Oil	Natural Gas	Coal	Nuclear Energy	Hydroelectricity	Renewables	TOT
INDIA	222.1	46.6	424.0	8.5	30.7	21.8	**753.7**

Source: BP 2018

For these reasons, India has always looked favorably at having good relations with Central Asia and its newly formed republics. However, India encountered several obstacles during its approach to the region. Several times, its energy companies were ignored by local state-owned companies in favor of Western and Chinese companies, especially in Kazakhstan. Two episodes represent the regional indifference regarding to Indian involvement: 1) the decision to sell PetroKazakhstan to CNPC instead of Indian ONGC in 2005; 2) the Kazakh decision to sell 8.33% of the Kashagan field to CNPC instead of ONGC in 2013. Despite these obstacles, India continues to show its interests for the region overall. Since the 17th SCO Summit held in Astana in June 2017, New Delhi has been an official member of the regional organization Shanghai Cooperation Organization. This important step strengthened the regional feature of the Organization and it might be an additional attempt by Russia to balance the increasing Chinese influence over the region. Indeed, India might gain more importance in the following years as a balancer to China's power for several players such as Russia and USA as well as Central Asian republics.

Regarding the energy affairs, India has tried to consolidate energy relations with the region, in particular with Kazakhstan and Turkmenistan, as an alternative source to Middle East. One important project of energy cooperation is the TAPI pipeline project, which aims to bring Turkmen gas to India via Afghanistan and

[18] https://www.mea.gov.in/bilateral-documents.htm?dtl/19791/Keynote+
[19] https://idsa.in/idsacomments/significance-of-india-joining-the-ashgabat-agreement_p-stobdan-120218

Pakistan. This project might gain more importance since the Trump Administration is committed to reimpose sanctions against Iran and its economy. Indeed, India is one of the major markets for Iranian energy exports, receiving almost 18% of Iran's oil export in 2017[20]. In fact, after the abolition of Western sanctions, India decided to foster its energy relations with Tehran due to geographical vicinity and favorable price conditions. However, India has to find new alternatives of Iranian imports, or at least part of them. The TAPI project might be a useful tool for the increasing Indian energy demands.

NON-REGIONAL ACTORS

USA

As for other players, the region is strategically significant on different fields also for the United States of America. However, due to historical obstacles, Washington only started to engage with the region only after 1991, slowly developing new policies concerning the US-Central Asia relations. In 1992, the US Congress adopted the Freedom Support Act, which was supplemented with the Silk Road Strategy Act in 1999. However, the first goal of the American policy towards the region in the immediate aftermath of Soviet break-up was the denuclearization of Kazakhstan, successfully removing all former Soviet nuclear weapons present in the country[21] by 1995. With the legislative acts mentioned before, Washington displayed its view of Central Asia as a crucial region located between America's geopolitical rivals (Russia and China) and unstable South Asia. As summarized by Cohen[22], the three main American interests in the region are: security, energy and promotion of democracy. In these fields, Washington seeks to weaken Russian influence in the region and prevent the raising of new influencers, namely China and Iran; to use the region as a logistic hub for military access and operations in the fights against transnational and international threats, such as terrorism and Islamist groups. In 2015, Washington launched the C5+1 format, which is a platform for joint efforts to address common challenges faced by the US and the five Central Asian states. Regarding the security issue, the region has gained much more importance for the American politicians after the 9/11 terrorist attacks and following Enduring Freedom Operation in Afghanistan; after that, United States has been using Central Asian military bases such as the Karshi-Khanabad Air Base in Uzbekistan and the Manas Air Base in Kyrgyzstan, though , they were both closed in 2005 and 2014, respectively, due to some political divergences. Indeed, in previous years, US promoted and proposed economic support and aids, requiring some democratic reforms in the meantime. This approach clashed with the ruling elite of the region and generated strong political divergence in Uzbekistan following the dramatic events of the 2005 Andijan massacre, in which the Uzbek police and army killed several hundred protesters in order to prevent a "colour revolution" in the country. After the strong critics from the Western countries, the Uzbek government ordered the closing of the US air base in Karshi-Khanabad. The difference of involvement between other relevant actors is the focus to human rights and democracy protection, which sometimes caused serious backdrops in the bilateral relations, and the difficulties to invest in countries in which there is a high level of corruption and human rights violations. This approach towards the region generated some obstacles for a fully American engagement, and Western in general, with the region, benefiting the Russian and Chinese counterparts.

Given that energy security is one of the primary US goals in the region, all the American administrations since Clinton have tried to utilize energy routes and economic themes in order to achieve its goal, while undermining the Russian influence over the region, as well as limiting and preventing the expansion of the Iranian influence in the region. The first success was the construction of the Baku-Tbilisi-Ceyhan oil pipeline, which began operations in 2006. This pipeline brings Azeri, Kazakh and Turkmen oil from Baku to the Mediterranean port of Ceyhan in Turkey through Georgia and it is the first alternative route from the region for the European market. Also, in the 90s, the Clinton Administration endorsed the construction of a Trans-Caucasus oil and gas pipeline in order to bring Turkmen gas to the Azeri shores and then to Europe via

[20] https://www.eia.gov/beta/international/analysis_includes/countries_long/Iran/iran.pdf
[21] Richard Sokolsky & Paul Stronski, How Much Should the United States Still Care About Central Asia?, January 25, 2016, Carnegie Endowment https://carnegieendowment.org/2016/01/25/how-much-should-united-states-still-care-about-central-asia-pub-62575
[22] https://www.heritage.org/europe/report/us-interests-and-central-asia-energy-security

Turkey. However, the project encountered several political and economic obstacles, for example the aforementioned long legal dispute about the Caspian Sea's legal status between the Caspian littoral states. Another major project endorsed by the US is the Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline, which should have an annual capacity of 33 bcm. This project was publicly endorsed and welcomed by the then-Secretary of State, Hillary Clinton, during her visit to India in July 2011. TAPI would help Turkmenistan diversify its export routes, which at the time were going to Russia, China and Iran. Furthermore, TAPI would give India an important access to Central Asian energy reserves and exports, and in this way India would help US to balance the incredible raise of China in the region and deteriorate more Russian influence. The speech made by the Secretary of State Clinton in India in 2011 was particularly important for the American policy towards Central Asia, because she launched a new strategy, the "New Silk Road" strategy. This strategy preempted the Chinese Belt Road Initiative of about two years and with a similar concept but different goals. The idea behind of the American strategy was to increase economic, trade and logistic connectivity between countries of Central and South Asia, promoting significant investments on energy, roads and railroads[23]. Meanwhile, the main goal of the American strategy was to create economic development in Afghanistan, from which US and NATO troops were moving away; indeed, Washington desired to connect Central Asia with South Asia, while allowing Afghanistan to profit as an intermediary[24]. However, US failed to implement this ambitious plan because of several disagreements and misunderstandings among high-ranking officials. Some observers suggested that US should reorganize its policy towards this region to more realistic goals, taking into considerations the limited resources the US is willing to commit to the region[25].

European Union

Despite the low levels of the relations with the region during the Russian dominance, European countries started to show interests in engaging with the regional countries after the breakup of Soviet Union. European Union established several commercial agreements in order to increase its political and economic relations with these countries. In 2007, the European Council adopted the 2007 EU Strategy for Central Asia, which embodied the long-term commitment of the EU to regional and bilateral cooperation. It aimed to meet the national needs of single countries and regional cooperation on several issues. The 2007 EU Strategy's main goal is to enhance cooperation about rule of law, education, environment, water and regional security and stability[26]. However, EU failed to exert concrete influence in the region, because of the strong influence of Russia and China over the region. Additionally, as the US, part of the European policy towards to the region is the promotion of the human rights and democracy. Often this part of the European approach to the region produced more obstacles than benefits for the strengthening of bilateral relations.

Recently, Federica Mogherini unveiled a Joint Communication entitled "Connecting Europe and Asia – Building Blocks for an EU Strategy", which many commentators consider to be an European attempt to respond to China's BRI. Ms. Mogherini highlighted that the EU's approach to Euro-Asia connectivity must be sustainable, comprehensive and rule-based, and must not focus only on one sector, but it must aim aims to build connectivity through significant investments in a wide range of sectors. It is clear that this strategy is

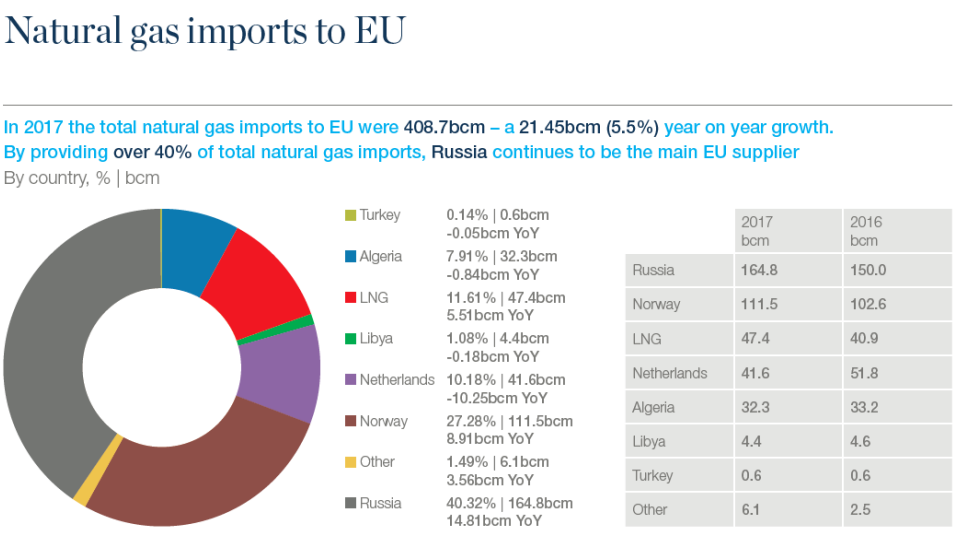
[23] Hillary R. Clinton, Remarks on India and the United States: A Vision for the 21st Century, Chennai, India, July 20, 2011 https://2009-2017.state.gov/secretary/20092013clinton/rm/2011/07/168840.htm
[24] Reid Standish, The United States' Silk Road to Nowhere, Foreign Policy, September 29, 2014 https://foreignpolicy.com/2014/09/29/the-united-states-silk-road-to-nowhere-2/
[25] Richard Sokolsky & Paul Stronski, How Much Should the United States Still Care About Central Asia?, January 25, 2016, Carnegie Endowment https://carnegieendowment.org/2016/01/25/how-much-should-united-states-still-care-about-central-asia-pub-62575
[26] https://www.ispionline.it/it/pubblicazione/revitalizing-eus-central-asia-strategy-19862

driven by a logic of "investing", while the Chinese Initiative is driven by the commercial logic of "selling"[27]. Additionally, the European Council should launch by 2019 a revised EU strategy for Central Asia.

As for the US, European countries looked at these countries as a possible alternative source for its significant energy; therefore, European companies started to be an essential partner in some countries of the region (for example the role played in Kazakhstan oil and gas production of ENI and Total), despite some political challenges. In 2017 (as a whole), EU gas demand reached 491 bcm, 6% more than in 2016, and the highest level since 2010. in the same period, net imports were 11% higher than in 2016, a rise that was driven by both decreasing indigenous output and growing consumption[28].

In 2017 (as a whole), pipeline imports from Russia increased by 12% compared to 2016, reaching a record level of gas supplies to the EU. The country remained comfortably the top supplier of the EU and slightly increased its share from total extra-EU imports from 42% in 2016 to 43% in 2017. Russia remained the top supplier of the EU in the fourth quarter of the year, covering 43% of total extra-EU imports, unchanged from the same period of 2016. In this period, hub prices were firmly on the rise while oil-indexed prices decreased, thereby helping the competitiveness of Russian supplies.

Figure 6: EU natural gas imports



Source: https://www.mckinseyenergyinsights.com/insights/the-2017-european-gas-market-in-10-charts/

Therefore, it is obvious why European Union has always looked to Central Asia as an alternative source to Russia for its energy demand. In the pursuit of this goal, the US tried to play a positive role in helping their European allies to relieve from the Russian dependence. During the years, EU was particularly concerned to find new energy sources. These concerns and needs increased especially after the price disputes between Russia and Ukraine in 2006 and 2009 as well as the 2014 Crimean crisis and the consequent sanctions imposition. However, EU and US engagement with the region is very different. Indeed, EU has carefully moved in the geopolitical landscape of the region, where Russia is still a relevant player with a certain degree of influence. Since Russia is the main gas supplier of European States, any European attempt to alter the structure of the export routes must be carefully decided, in order not to provoke Russian supply cut-offs. The main alternative gas route for EU is the Southern Gas Corridor, which consists of the following components: the Shah Deniz gas field; the South Caucasus Pipeline and its expansion through Azerbaijan and Georgia to Turkey; the Trans-Anatolian Pipeline (TANAP) through Turkey to Greece; and finally, the

[27] Thomas Kruessmann, A missed opportunity: Assessing the EU's Strategy for Europe-Asia Connectivity, http://blogs.lse.ac.uk/europpblog/2018/10/01/a-missed-opportunity-assessing-the-eus-strategy-for-europe-asia-connectivity/

[28] https://ec.europa.eu/energy/sites/ener/files/documents/quarterly_report_on_european_gas_markets_q4_2017_final_20180323.pdf

completion of the Trans-Adriatic Pipeline (TAP) through Greece, Albania and the Adriatic Sea to Southern Italy.

Another major pipeline project endorsed by the EU is the construction of the Trans-Caspian pipeline, which should bring Turkmen gas to Europe via Azerbaijan. However, several obstacles have delayed the implementation of this project: for instance, the role of Azeri, the, which can be undermined by the purchase of Turkmen gas; Russia, which has made its priority to prevent the access of Central Asian gas to European market; and finally, the necessary agreement on the legal status of the Caspian Sea, which has been reached in August 2018 by the five-littoral states. Regarding this last issue, despite the agreement among the five-littoral States has been reached, many issues related to the Caspian Sea and the exploitation and transportation of its natural resources are unresolved and need bilateral agreements.

Kazakhstan

In the years immediately after its independence, Kazakhstan and its President Nursultan Nazarbayev had to face important institutional and economic transition. President Nursultan Nazarbayev has been capable to handle the political and economic transition but he did not manage to create a political environment, which can be the ground for the country's post-Nazarbayev era[29]. Indeed, he created a "soft authoritarian regime": with his party dominating the legislature, the political institutions are far away from being solid. Despite these political challenges, Kazakhstan is perceived as the most stable and open in the region, and in a certain sense it is, if we consider the regional benchmarks.

Regarding the economic level, the Kazakh economy was part of a planned economy and strongly linked to Russian market during the Soviet times; therefore at the beginning of the 1990s Kazakh President decided to start a transition to a more open economy. Indeed, the ruling elite has pursued several reforms of its economic structure, welcoming foreign investments in its economy: Kazakhstan is the most favorable country to foreign investments in the regional, Yet, in the first years the economy suffered quite a lot, declining significantly until 1995. In fact, Kazakh economy suffered from disrupted supply chains and higher prices for imports, as other regional countries, and Kazakhstan faced deep recessions in the first half of the '90s; it recovered marginally in 1995-1997, but it was hit by the 1998 Russian crisis. However, the economic trend changed significantly at the beginning of the new millennium when Kazakhstan's economy has soared at an averaged 8% rate annually between 2000 and 2010.

Table 1: Kazakhstan's GDP (constant 2010 US$), billion

Bln	1990	1995	2000	2005	2008	2010	2014	2015	2016	2017
GDP	96,294	59,126	66,851	109,482	136,339	148,047	184,052	186,26	188,305	195,842

Source: World Bank, https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=KZ

Table 2: Kazakhstan's GDP growth, (annual %)

%	1991	1995	2000	2005	2008	2010	2014	2015	2016	2017
GDP growth	-11	-8.2	9.8	9.7	3.3	7.3	4.2	1.2	1.1	4

Source: World Bank, https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=KZ

During these years of economic growth, Astana achieved a significant reduction in poverty and remarkable improvements in social development indicators between 2000 and 2010[30]. It witnessed an incredible GDP per capita growth, from $1647 in 1990 to $8,837 in 2017, reaching the peak in 2013 at $13890. Also, Kazakhstan has heavily invested in its integration in the global economy, including through the adoption of international standards in key productive, financial and administrative sectors. Kazakhstan has pursued an engagement policy with international partners through bilateral and multilateral means. As a matter of fact, Astana has given particular importance to multilateralism, for istance, joining several international and regional organizations. President Nazarbayev proposed firstly the creation of the Eurasian Economic Union (EAEU) in 1994, which aimed to include former Soviet states and following the model of the European Union[31], becoming reality only in January 2015. Additionally, it became the first Central Asian country to become a non-permanent member of the U.N. Security Council for 2017-2018, it has been a WTO member since November 2015 and it participates to a wide range of regional organizations, namely for the security sphere the CSTO and SCO.

Despite the incredible economic growth, Kazakhstan has failed to diversify its economy, remaining deeply dependent on energy revenues. The country, in fact, is highly dependent on oil sector, which accounts for

[29] Paul Stronski, Kazakhstan at Twenty-Five: Stable but Tense, February 04, 2016, Carnegie Endowment https://carnegieendowment.org/2016/02/04/kazakhstan-at-twenty-five-stable-but-tense-pub-62642

[30] http://www.europarl.europa.eu/RegData/etudes/briefing_note/join/2013/522303/EXPO-INTA_SP(2013)522303_EN.pdf

[31] Lyailya Nurgaliyeva, Kazakhstan's economic soft balancing policy vis-à-vis Russia: From the Eurasian Union to the economic cooperation with Turkey, Journal of Eurasia Studies, Vol 7 (2016) p. 94

60% of total exports and more than 25% of GDP in 2013[32]. Indeed, the main driver of this economic growth was the boom of oil prices that enabled Kazakhstan to grow its revenues and attract more foreign investors required for stimulating the country's production.

During this period, the President Nazarbayev has pursued a 'multi-vector' policy in order to attract foreign capitals and foster the national economy, since He understood that the only feasible way to foster the economy, securing stability to the entire system, was to exploit the vast hydrocarbon reserves present in the subsoil; therefore, he worked to attract foreign investments and the required technologies, especially from Western countries. This path is considerably different from those chosen by other regional producers, namely Turkmenistan and Uzbekistan, and precisely thanks to its partnerships with international companies and players, Kazakhstan increased its total proved oil reserves from 5,3 thousand million barrels in 1991 to 30 thousand million barrels in 2017, and its total oil production grew from 26,6 million tonnes in 1991 up to 86,9 million tonnes in 2017. Kazakhstan's oil production will grow up to 104 million tonnes per year by 2025[33], thanks to the three major oil and gas projects in the country, Tengiz, Karachaganak and Kashagan. Indeed, the three major fields have positively affected the country's overall production. For example, two giant onshore fields, Tengiz and Karachaganak, produced half of Kazakhstan's total petroleum liquids output in 2016, which amounted to 1698 mbpd. Having vast reserves, a strategic target for the Kazakh oil industry was to restart production from Kashagan field. This target was achieved finally in 2016, after overcoming several technical and logistical problems. The offshore field's first phase is expected to produce 370,000 b/d at full capacity.

These three giant fields helped to counter the decrease of production in other mature fields, mainly in Aktobe and Kyzylorda oblasts[34] and they have been developed and exploited through three main PSAs with several international energy company since the 1990s. Indeed, Kazakhstan undertook a path of liberalization of its energy sector similar to the one implemented in Russia during the Yeltsin presidency. At the end of 1990s through some production-shared agreements (PSA) with foreign companies (ChevronTexaco and ExxonMobil, ENI, and Royal Dutch Shell) Kazakhstan had the goal to acquire the necessary technologies and knowledge in order to exploit its oil and gas fields.

The **Tengiz** field was discovered in 1979 and with its 25,5 billion barrels as total estimated oil reserves is one of the discoveries in recent history. Since 1993 it has been operated by the TengizChevroil Company, composed mainly by American energy companies.

Table 3: TengizChevroil Company's shareholders

TENGIZCHEVROIL COMPANNY (TCO)		
Company	%	Since
CHEVRON	50	1993
EXXONMOBIL	25	1993
KAZMUNAIGAZ	20	1993
LUKARCO (Lukoil's subsidiary)	5	1993 (since 2009, BP has left the JV)

Source: TengizChevroil Company website

This giant field produced 28.7 million tonnes of crude oil, 1.38 mt of LPG and 7.45 million tonnes of dry gas in 2017. It is particularly strategic because it is the supply source of the Caspian Pipeline Consortium (CPC) pipeline, which transports Kazakh oil to European market.

The second giant field, **Karachaganak**, discovered in 1979, is one of the world's largest gas and condensate fields, located in the north-west Kazakhstan. The field is operated and managed by Karachaganak Petroleum Operating (KPO).

[32] http://www.europarl.europa.eu/RegData/etudes/briefing_note/join/2013/522303/EXPO-INTA_SP(2013)522303_EN.pdf p. 5
[33] https://www.azernews.az/region/135391.html
[34] KAZENERGY Association, The 2017 National Energy Report, p. 44

Table 4: KPO's shareholders

KARACHAGANAK PETROLEUM OPERATING (KPO)		
Company	%	Since
ENI	29,25	1995
ROYAL DUTCH/SHELL	29,25	1995
CHEVRON	18	1997
LUKOIL	13	1997
KAZMUNAIGAZ	10	2012

Source: Karachaganak Petroleum Operating website

In 1995 the Kazakhstan's Government signed a PSA with BG Group (later Shell) and ENI to develop the vast reserves of Karachaganak. Successively, Chevron and Lukoil joined the Company and in November 1997 all parties signed a 40 year Final Production Sharing Agreement (FPSA) which will see the partnership operate the field until 2038. KPO produced 247 thousand barrels daily of liquids and 26 million cubic meter daily of natural gas in 2017. The 91% of the liquids produced in the field are exported via CPC pipeline to European market and Atyrau-Samara pipelines where it connects to Russian pipeline system.

The last giant-field is the **Kashagan** offshore field, discovered in 2000, which is the most important Kazakh project because of its possible positive impact on the country's oil production. Indeed, it has approximately 9-13 billion barrels of recoverable oil and it is the fifth largest field in the world in terms of reserves, 35 billion barrels of oil. The terms and conditions for the exploration and development of the giant field is defined by the North Caspian Sea Production Sharing Agreement (NCPSA), which expires at the end of 2041. This field is operated by the North Caspian Operating Company (NCOC), composed by numerous foreign energy companies.

Table 5: NCOC's shareholders

NORTH CASPIAN OPERATING COMPANY (NCOC)		
Company	%	Since
KAZMUNAIGAZ	16.88	2005
ENI	16.81	1998
EXXONMOBIL	16.81	1998
ROYAL DUTCH/SHELL	16.81	1998
TOTAL	16.81	1998
CNPC	8.33	2013
INPEX	7.56	1998

Source: North Caspian Operating Company website

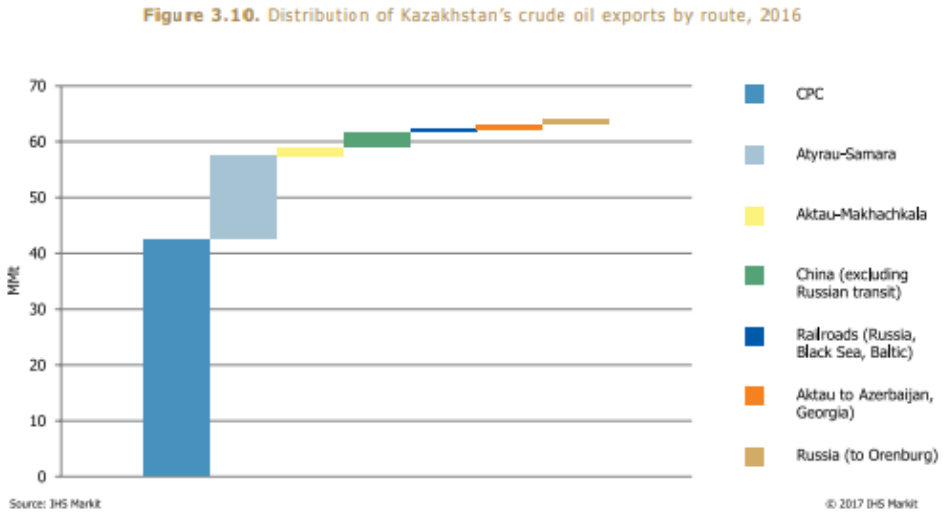
Despite the significant potentiality of the field, its production has faced several and serious setbacks. Indeed, it is located 80 km offshore from the city of Atyrau where environment harshness and a combination of critical technical and operating environment have postponed the production. However, in 2016, after completing successfully a major pipeline replacement, the first Kazakhstan's offshore oil was commercially produced. In the first semester of 2018, Kazakhstan increased its oil, gas and gas condensate production thanks to the increasing production of its three major projects. Kazakh authorities plan to significantly increase oil production over the next eight years, reaching a level of 104 million tons per year[35]. In order to tackle declining production in other fields, Astana unveiled an ambitious project, called the Eurasia Project, which consists of three exploration stages estimated to cost around $500 million in Western Kazakhstan and in the Kazakh zone of the Caspian Sea through collaboration with an international consortium. If successful and market demand to remain unchanged, the project should prolong the position of Kazakhstan as a global-scale oil supplier from 2040 till 2080. Indeed, Kazakhstan estimates that the area could contain up to 60 billion tonnes of oil reserves[36]. However, due to its technological, environmental and ecological complexity Eurasia could cost more than Kashagan field. At the beginning, the consortium was composed by only state-owned companies, mainly Rosneft, CNPC, SOCAR, ENI and KazMunaiGaz. However, in May 2018, a Kazakh official said that Rosneft had quit the Eurasia Project, while Shell had joined it.

[35] https://www.azernews.az/region/133470.html
[36] https://newsbase.com/topstories/astana-lures-consortium-eurasia-project

Besides PSAs, Kazakhstan leadership allowed foreign acquisitions of fields, such as the Aktobe field to the Chinese CNPC in 1997. Indeed, thanks to the presence of foreign investors, Astana's oil production exceeded 1 mbpd in 2003 for the first time. Similarly to what happened in Russia, after 2000 Astana decided to strengthen its energy industry, regaining control of energy sector through state-owned company. Therefore, state-owned company, KazMunaiGaz, was formed in 2002 and acquired shares of the strategic projects back. Additionally, The Subsoil Use Law also establishes the Kazakh government's right to preempt any sale of assets owned by international oil companies. Particularly famous was the decision of Kazakh government to use this right in order to buy ConocoPhillips' 8.33% of the Kashagan field in order to resell 8.33% of them to CNPC instead of the Indian ONGC. As of today, KazMunaiGaz is present with significant shares in all of main fields in Kazakhstan along foreign energy companies. During the last 15 years, Kazakhstan increased consistently its production, especially thanks to these three main fields. The two giant onshore fields, Tengiz and Karachaganak, produced half of Kazakhstan's total petroleum liquids output in 2016, which amounted to 1698 mbpd. A crucial target for the Kazakh oil industry was to restart production from Kashagan field, a target that was finally achieved in 2016, after overcoming several technical and logistical problems. The offshore field's first phase is expected to produce 370,000 b/d at full capacity.

Another major issue for the newly independent Kazakhstan was related to its capability of exporting its increasing oil and gas output. Indeed, given the historical and geographical bond with Russia, Kazakhstan was completely dependent on former Soviet infrastructures; indeed, given the Soviet economy nature, all former Soviet countries were inextricably linked to each other, sharing transportation routes and interdependent industrial processes. In this condition, Russia had a great leverage over these countries. Therefore, Kazakhstan had been strongly committed in building independent and alternative export routes for its hydrocarbons during the last two decades. At the beginning, the entire pipeline system was completely managed by Russia and Kazakh exports used to run into the main pipeline system, the Central Asia-Centre (CAC) pipeline. CAC was the main infrastructure transporting the regional oil and gas to the Russian market and it was composed by five different branches; It was built during the Soviet Union after 1690 and it runs from Turkmenistan to Russia via Uzbekistan and Kazakhstan, making Kazakhstan completely dependent on it. However, at the end of the 1990s, American President, Bill Clinton, endorsed substantially the construction of the Baku-Tbilisi-Ceyhan (BTC) pipeline: This was the first attempt to provide another routes to Kazakhstan's exports. However, the BTC pipeline had a relative impact for the Kazakh oil exports. The first success in this regard is represented by the Caspian Pipeline Consortium (CPC) pipeline, which is the first independent pipeline running in Russia, as it is the only infrastructure not operated by Transneft, and its construction started in 1999 and concluded in 2001. The pipeline transports oil from Tengiz oil field to the Black Sea port of Novorossiysk via Russia. A further step towards export diversification is the construction of the Kazakhstan-China oil pipeline, which is composed by two phases and is built through a joint venture between KazTransOil and the Chinese company, CNODC, and represents the first oil pipeline towards China, allowing Kazakhstan to connect its oil field to a major and close oil market.

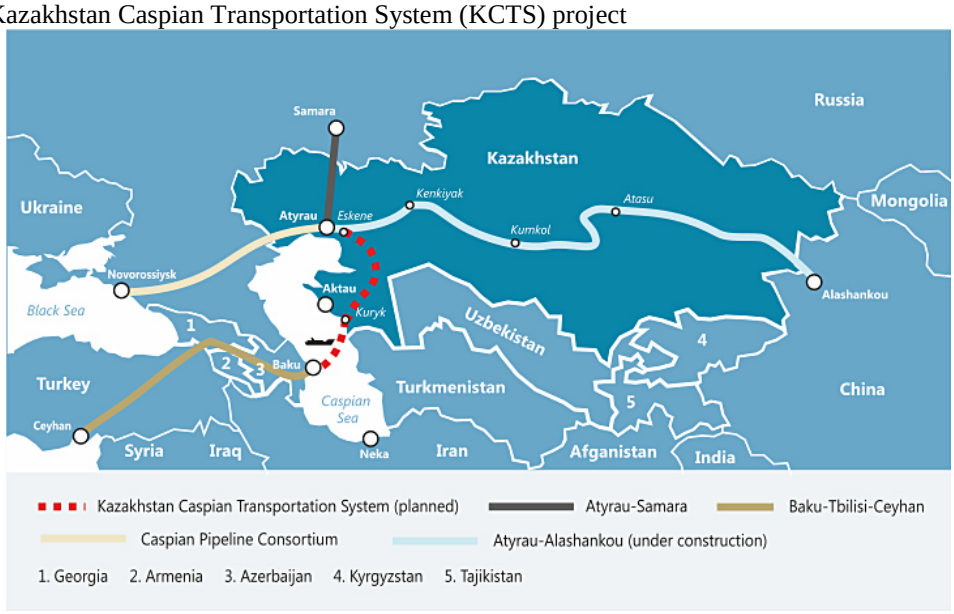
Figure 1: Distribution of Kazakhstan's crude oil exports by route, 2016



Source: Kazenergy Association, 2017 National Energy Report, p. 54

An additional export route would be the Kazakhstan Caspian Transport System (KCTS). The system is expected to consist of the Eskene-Kuryk oil pipeline in Kazakhstan and Trans-Caspian oil Transport System, comprising an oil unloading terminals in Kuryk port on the Kazakh coast, tankers, vessels, oil loading terminals on Azerbaijan's coast and connecting facilities to the BTC system. The KCTS would provide export route to Kazakh oil mainly from the Kashagan's second and third phase. The project was actively discussed in 2007-2009, while oil prices were soaring, but it was postponed due to the uncertainty of launching production at the Kashagan field. However, recently officials in Kazakhstan resumed negotiations on the establishment of the KCTS[37].

Figure 2: The Kazakhstan Caspian Transportation System (KCTS) project



Source: https://rogtecmagazine.com/kazakhstan-caspian-transport-system-needed-kashagan-restart/

Concerning the natural gas, Kazakhstan witnessed an increase of natural gas production in the last period. Kazakhstan's proven natural gas reserves at 1.1 Tcm at the end 2017, according BP 2018 Statistical Review. This is the main reason for the construction of the Beineu-Bozoy-Shymkent gas pipeline. Indeed, the pipeline was constructed for providing gas supply to the Kazakh Southeastern regions and export natural gas to China. Thus, China, through its loans, has heavily funded the project and its construction. Additionally, this pipeline is one of the key elements in the Kazakhstan's General Gasification Scheme for 2015-2030, which aims to increase the natural gas's share in the country's energy mix.

Russia

Despite Kazakh independence and the its multi-vector and balancing policy, Moscow maintains a strong relations with its southern neighbor country, Kazakhstan. Indeed, there is a strong geographical bond, as the two country shares 6,846 km border; Additionally, the physical proximity produced a strong ethnic relations, particularly in the Kazakh northern regions, because 25,6% of the Kazakh total population belongs to Russian minority.

[37] Kamila Aliyeva, Kazakhstan resumes negotiations on Trans-Caspian project, February 2, 2017, https://www.azernews.az/oil_and_gas/108374.html

Figure 2: Russian population in Kazakhstan

Source: Paul Stronski, A troubling Scenario for Kazakhstan, January 2018, American Enterprise Institute

Obviously, the Kazakh leadership expressed some concerns about the significant Russian minority in its territory in several occasions. Particularly, in the early years after independence, Kazakhstan's elite was concerned about the possible secessionist aspirations of these areas and more recently, after the 2014 Crimean crisis, a general concern rose within the ruling elite that Russia could undertake similar actions in other areas, such Kazakhstan, in the future. In the first case, Kazakhstan invited ethnic Kazakhs to move in the northern region and emphasized that the region was an intrinsic part of Kazakhstan and at the same time President Nazarbayev worked to establish a strong national identity among Kazakh population. Therefore, President Nazarbayev operated in a complex context, addressed with a multi-vector policy. Indeed, the Kazakh President strengthened its relations with Russia, joining the EAEU CSTO and CSI, while accepting new partners into its economy. Despite some difficulties, it is clear that Russia-Kazakhstan relationship remains solid, being affected by geographical, cultural and historical factors. Indeed, the two countries are interlinked by a vast network of infrastructures and common security issues. Russia has remained a top 3 trading partner, with a total trade turnover amounted to $16,5 billion in 2017.

Russia is still at the center of Kazakhstan's exports strategy. Indeed, the strong infrastructure ties create a strong relationship between the two sides. At the beginning, Kazakhstan was a transit country for the main Soviet pipeline system, the Central Asia-Center pipeline, which used to bring gas from Turkmenistan to Russia via Uzbekistan and Kazakhstan. Since the Soviet break-up, Astana was forced to use Russia's territory and pipelines in order to bring its oil and gas to Western markets, thus making Russia the most important transit country for Kazakhstan's oil and gas exports by far. In the first years after independence, the only route available for Astana's exports was the Atyrau-Samara pipeline. With the growing presence of international energy companies in the Kazakh strategic fields, Astana and its partners started to study future and feasible routes, in order to decrease Russian control. In this context, Russia saw two different strikes to its dominance: the CPC pipeline and the BTC pipeline. In 2001, Kazakhstan was able to build the CPC pipeline, which is the first private pipeline running through Russia and whose project was essential for providing export routes to the future increase of oil production from major fields, Tengiz, Kashagan and Karachaganak. However, directly and indirectly, Russia managed to own more than 40% of the Company's share, through a 24% stake hold by Russian Federation, Lukarco's 12,5% share and Rosneft-Shell Caspian venture's 7,5% stake. In late 2016, the Russian company, Transneft, declared that Kazakhstan oil transiting via the pipeline could rise by as much as 2 million tonnes in 2017 to 17 million tonnes, due to the start of supplies from the Kashagan oil field[38]. Transneft accepted into its system 16,93 million tonnes of Kazakhstan's oil in 2017 and it delivered to markets beyond the CIS 16 million tonnes from Kazakhstan[39]..

[38] https://www.reuters.com/article/russia-transneft-idUSL8N1BX2OE
[39] Transneft Annual Report, 2017, p. 43

In 2017, CPC shipped 55,1 million tonnes of oil from the Novorossiysk Marine Terminal, including 49,5 million tonnes of oil belonging to shippers from Kazakhstan[40]. Despite the multi-vector policy undertaken by President Nazarbayev, Russo-Kazakh relationship remained undoubtedly strong and vital for both countries. Indeed, most of Kazakhstan's crude has been exported via Russia, and in 2016 over 94% of the Kazakhg international crude exports still transited Russia by pipeline or rail. The oil transit is based on the long-term intergovernmental agreement signed in June 2002. Furthermore, Kazakhstan has become a transit country for Russian oil to China through the Atasu-Alashankou pipeline: the two Governments signed an agreement about transportation of Russian oil through Kazakhstan's territory to China in 2013. Starting from January 1, 2014 KazTransOil and Rosneft have a contract for oil transportation via Omsk-Priirtyshsk-Atasu-Alashankou in the amount of 7 million tonnes annually. with an additional agreement to the existing contract, signed in December 20016, The two sides decided to increase the Russian oil transit volume to 10 million tonnes per year in 2017. In March 2017, the 100th million ton of oil since the launch of the pipeline was accepted at the Alashankou transfer point[41]. In 2017, the Supplementary Agreement between Rosneft and CNPC became effective, involving increase of oil transit supplies to China through Kazakhstan and extending the contract valid from 2013 until the end of 2023. The volume of supplies agreed by both sides will reach 91 million tonnes over a 10-year period. In 2017 Rosneft delivered to CNPC 30 million tonnes, including 10 million tonnes of transit through the Kazakhstan's territory[42]. Finally, in September 2017 Kazakhstan and Uzbekistan signed a Framework Agreement for the transportation of up to 5 million tonnes of oil annually from Russia to Uzbekistan through Kazakhstan[43].

Concerning the exploration and development in Kazakhstan, Russian companies are a little behind of Western and Chinese companies. Indeed, Russia is more relevant in the export sector than in the development sector. Russian presence in the Kazakh fields is mainly represented by the energy private company, Lukoil. The Russian private company owns a 5% stake in the TengizChevroil Company, through its subsidiary LukArco; a 13% stake in the Karachaganak Petroleum Operating and a 12,5% stake in the CPC through LukArco. Additionally, since 1995 Lukoil has hold 50% of the Kumkol North field operated with a 25-year license by Turgai Petroleum, which is a joint venture between Lukoil and PetroKazakhstan. However, the Chinese access in the Turgai Petroleum, after CNPC bought PetroKazakhstan, caused a legal dispute between the Lukoil and PetroKazakhstan. In fact, Lukoil filed a court case to protect its pre-emptive right to purchase half of Turgai Petroleum[44]. Nevertheless, the court approved CNPC's purchase. In August 2010, PetroKazakhstan and Lukoil entered into Amicable Agreement on the dispute and they will continue to jointly own Turgai Petroleum equally. The Kumkol North field's proved reserves is estimated to 86 million barrels of oil and 0,83 bcm of gas, producing 2,5 million tonnes of oil in 2011. Recently, a 33% reduction in the export duty helped increase the field's production life until 2021[45]. Indeed, the field is facing a continuing decline, which highlights the current picture of the country's remaining marginal fields. In 2014, Lukoil closed a deal to sell its 50% share in Caspian Investments Resources to Chinese company, Sinopec, for 1,087 billion. The CIR participated in the development of 5 fields in Kazakhstan[46]. Kazakhstan is particularly relevant for Lukoil strategy, therefore the company decided to strengthen its presence in the country. Lukoil decided to invest more and more into field located in Kazakh part of the Caspian shelf, giving its important role in the Sea. Furthermore, this year Kazakhstan's authorities improved the tax conditions for offshore projects, gaining again investors' interest[47]. In this context, Lukoil signed in June

[40] Idem, p. 46
[41] KazTransOil Press Release, 100 million tons have been pumped through Atasu-Alashankou pipeline, March 31, 2017 http://www.kaztransoil.kz/en/press_centre/press-releases/press-releases/100_million_tons_have_been_pumped_through_atasu-alashankou_pipeline/?1077823891&116544584
[42] Rosneft, Crude Oil Exports https://www.rosneft.com/business/Downstream/crude_oil_sales/crude_oil_exports/
[43] http://kase.kz/files/emitters/KMGZ/kmgz_reliz_210318_eng_1.pdf
[44] Enid Tsui, CNPC bid for Petrokazakhstan wins court approval, October 26, 2005, FT https://www.ft.com/content/68d3f5d8-45d8-11da-981b-00000e2511c8
[45] Praveen Duddu, Report: Falling production from Kumkol North field to impact Kazakhstan's assets, May 19, 2016 https://www.offshore-technology.com/news/newsreport-declining-production-kumkol-north-field-impact-kazakhstans-marginal-field-4897212/
[46] Lukoil PressRelease on Agreement with Sinopec, August 20, 2015 http://www.lukoil.com/InvestorAndShareholderCenter/RegulatoryDisclosure/2015/20082015ReAgreementwithSinopec
[47] Kamila Aliyeva, Lukoil intends to develop field in Kazakh part of Caspian Sea shelf, June 6, 2018, https://www.azernews.az/region/133087.html

2018 a principles agreement with KazMunaiGaz for possible work on the Zhenis license area, located 180 km from Aktau port[48]. In December 2018, the two sides signed agreements on joint cooperation and financing of the Zhenis project and establishing a consortium for the development of the Caspian project[49]. Lukoil holds a stake in another Caspian project, the Tsentralnoye field, through a consortium composed by Russian Gazprom and Kazakh KazMunaiGaz. The field was discovered in 2008 and is located in the northern part of the Caspian Sea. Each Russian company owns 25% of the project, while KazMunaiGaz's share is 50%; The three companies established the Tsentralnaya Oil and Gas Company, which obtained a 27-year hydrocarbon exploration and production license in September 2016. The Tsentralnoye field is one of the three fields (Tsentralnoye, Kurmangazy Khalynskoe)[50] located at the junction of the Kazakh and Russian sectors of the Caspian Sea. In 2002, Kazakhstan and Russia had agreed to jointly develop, after having managed to drew boundaries between their Caspian sectors despite the legal issues related to the Sea. The Kurmangazy field is located in the Kazakhstan part of the Caspian Sea shelf between the Kashagan and Shirotnoye fields and it is operated by Rosneft and KazMunaiGaz with a 25% and 50% stakes, respectively, of the 55-year PSA. Kurmangazy's recoverable reserves are estimated at 900 million to 1 billion tonnes of oil. However, the exploration work has not resulted in any positive development with two dry wells drilled in the field structure, although Russia and Kazakhstan are planning to resume works soon, according to recent newsThe three field projects are implemented in accordance with the protocol dated May 13, 2002 under the Kazakh-Russian agreement on the delimitation of the northern part of the Caspian Sea to exercise sovereign rights for subsoil use. The 2002 agreement confirmed Kazakhstan's ownership of Kurmangazy on two conditions: i) Kurmangazy would be turned into a Kazakhstan-Russia parity venture; ii) its output would have to be exported via Russia, through the CPC pipeline. These conditions highlighted an additional Russian success in tightening its control over the Kazakh oil exports to Western markets[51]. Gazprom, through KazRosGaz a joint venture with KazMunaiGaz established in 2002, is making efforts to obtain subsurface use rights for an additional Caspian project, the Imashevskoye field, according to the intergovernmental agreement signed in 2010 by Russia and Kazakhstan. Moreover, Gazprom provided to Kazakhstan a total of 4,7 bcm of gas in 2016 and 2017[52]. Finally, Gazprom Export signed the first ever contract for supply small scale LNG to Kazakhstan by road transport in 2016[53]; in 2017 the northeastern parts of Kazakhstan and various areas in Astana were supplied with 2,600 tonnes of Russian LNG delivered[54].

Despite positive energy relations, Kazakhstan and Russia might become competitors in one energy sector: the fuel market. Indeed, Kazakhstan has increased its fuel production after having upgraded its three large refineries, Pavlodar, Atyrau and Shymkent plants. Because of these upgrading works, Kazakh refining capacity will increase from 13.8 to 16.5 million tonnes[55]. This increase of oil products offers a chance to Kazakhstan to sell it in the Central Asian markets. In order to use the extensive gasoline surplus, Kazakhstan's authorities proposed to ban Russian gasoline imports by rail for three months. Currently, Kazakhstan is subject to an export ban of light petroleum products, introduced in the current intergovernmental agreement with Russia, which in turn exports about 2 million tonnes of fuel per year to its partner within the EAEU. Therefore, in October 2018, Russia and Kazakhstan signed an intergovernmental protocol on amending the agreement on trade and economic cooperation in the field of oil and oil products

[48] Lukoil Press Release, Lukoil and KMG conclude agreement on Caspian project, June 5, 2018 http://www.lukoil.com/PressCenter/Pressreleases/Pressrelease?rid=222855
[49] Lukoil Press Release, Lukoil and KMG establish a consortium on Zhenis project in the Caspian, December 4, 2018 http://www.lukoil.com/PressCenter/Pressreleases/Pressrelease?rid=308668
[50] Stina Torjesen, Russia and Kazakhstan: A Special Relationship, p. 6, Russian Analytical Digest 56/09
[51] Vladimir Socor, Major Russia-Kazakhstan oil PSA signed. The Jamestown Foundation, July 7, 2005 https://jamestown.org/program/major-russia-kazakhstan-oil-production-sharing-agreement-signed/
[52] Gazprom Press Release, Miller and Kazakh Energy Minister address cooperation prospects, February 26, 2018 http://www.gazprom.com/press/news/2018/february/article408091/
[53] Gazprom Export Press Release, First ever contract for export of Russian LNG to Kazakhstan is signed, December 29, 2016 http://www.gazpromexport.ru/en/presscenter/news/1916/
[54] Idem, http://www.gazprom.com/press/news/2018/february/article408091/
[55] Kamila Aliyeva, Kazakhstan intends to export gasoline to Central Asia, June 12, 2018 https://www.azernews.az/region/133339.html

supply to Kazakhstan[56]. Astana is committed to keep increasing its refining capacity, indeed it announced the plan to build a new oil refinery plant in the county.

As aforementioned, the Caspian Sea is an important theatre for the bilateral relations, both at the political and energy level. On one hand, the two countries managed to agree about the development of certain fields in the Sea; on the other hand, Russia has influenced the negotiations about the legal status for preserving its national interests for over two decades. At the beginning, Russia placed energy issues as its top priority and, indeed, Moscow prevented an agreement that would have allow to build the underwater Trans-Caspian pipeline. However, more recently, Russia's priority shifted from energy to security issue following Kazakhstan's signature of amendments to the 2010 US-Kazakhstan agreement on commercial rail transit of special cargo to Afghanistan through Kazakhstan, which allow US forces to use Kazakhstan's territory for supplying their troops in Afghanistan, in May 2018[57]. In this context, Russia and all the other littoral states signed the Convention, which give the rights to deploy their navies exclusively to littoral States, excluding external powers' ones.

China

China originally started to engage with its newly independent neighbor in order to resolve borders demarcation issues, since the two countries share a 1782 km-long border with numerous cultural, linguistic and historical exchanges. China has been committed to develop its bilateral relations with Kazakhstan because of its need to keep the entire area stable. Indeed, the border areas are populated by Uyghur minority, which is a minority accused of separatist intentions by Beijing. As mentioned in the first part of the analysis, China gives great importance to the generation of economic development in these regions as a way to consolidate political stability and for this reason Kazakhstan has a central role in the Chinese BRI because of its geographical position, at the core of China's logistic and commercial project. It is no coincidence that President Xi Jinping decided to launch his major external strategy in Astana in 2013. China invested heavily in several projects in order to build infrastructures that can facilitate the exports of Chinese goods to Europe and middle markets. The Khorgos Gateway is a perfect example: The stated-owned Chinese shipping company, China Ocean Shipping Company (COSCO) invested in the construction of the "dry port" with the purpose to build a giant logistic hub for overland transportation, hoping to significantly reduce the journey from Asia to Europe[58]. The Khorgos Gateway has witnessed an incredible growth of containers traffic in 2017, and it aims to handle 500,000 containers by 2020. Thus, the logistic aspect and the importance that Kazakhstan's geographical position has in the Chinese wider strategy are particularly relevant in the development of the bilateral relations. At a trade level, in two decades, China has been able to increase its trade turnover with Kazakhstan, becoming the third largest trade partner of the Central Asian country, after the EU and Russia; the bilateral trade grew from almost $460 million in 1996 to almost $18 billion in 2017.

[56] Abdul Kerimkhanov, Kazakhstan to launch gasoline exports, October 4, 2018, https://www.azernews.az/region/138578.html

[57] Nurlan Aliyev, US-Kazakhstan Transit Agreement Faces Challenges From Russia, September 20, 2018, CACI Analyst, https://www.cacianalyst.org/publications/analytical-articles/item/13534-us-kazakhstan-transit-agreement-faces-challenges-from-russia.html

[58] Andrew Higgins "China's ambitious new 'port': Landlocked Kazakhstan" NYTimes, January 1, 2018 https://www.nytimes.com/2018/01/01/world/asia/china-kazakhstan-silk-road.html ; Emily Feng "China-Kazakhstan border woes dent Silk Road ambitions" FT December 21, 2017 https://www.ft.com/content/1606d70a-9c31-11e7-8cd4-932067fbf946

Table 6: Chinese trade turnover with Kazakhstan, $ million

Year	Trade turnover
1996	459,8
1999	1,138
2000	1,556
2005	6,806
2008	17,552
2010	20,428
2012	25,676
2014	22,451
2016	13,097
2017	17,943

Source: UN COMDATA

Another major driver and feature of Sino-Kazakh relationship is energy; As already mentioned, China has been pursuing a strategy aimed to diversify its energy supplies. In this strategy, Beijing values particularly the construction of overland pipelines, that respond to a security and strategic need to lessen the risk of naval blockade by the US navy forces. Given the importance of foreign investments for the Kazakh oil and gas industry, China has actively provided financial support to the country's energy sector. China officially entered in Kazakhstan's oil sector in 1997, when CNPC bought 60% of the Aktobe field from the AktobeMunaiGas. With the acquisition, the Chinese side committed itself to invest $4 billion in the development of the gas field. Since then, slowly but firmly, China has gained more and more control in Kazakhstan's energy industry along with increasing trade cooperation in general, through important projects and providing to Astana a substantial amount of loans for developing its economy. In 2003, Chinese acquisition started again significantly, with the purchase of the remaining 40% of AktobeMunaiGaz by CNPC and the acquisition of a 35% stake in the North Buzachi company from Saudi Nimr Petroleum, followed by an additional acquisition of the remaining 65% from Texaco (now Chevron). Furthermore, a major success in the Chinese acquisitions of strategic energy companies and fields happened in 2005, when CNPC bought the Canadian company, PetroKazakhstan, for almost $4.3 billion. This purchase is particularly relevant, because of the importance that PetroKazakhstan has in the country's energy sector. Indeed, PetroKazakhstan owns the major site of Kumkol and it is considered the second largest foreign petroleum producer based in Kazakhstan. It also owns the largest refinery in the country, Shymkent, through a joint venture with KazMunaiGaz. Given the strategic importance of the company, in 2006, the Kazakh Government demanded that CNPC sell one third of the company to the state-owned company, KazMunaiGaz. The Chinese company agreed to the request, and since 2006 PetroKazakhstan is controlled by CNPC (67%) and KazMunaiGaz EP (33%). This acquisition represented the most important acquisition ever undertaken by the Chinese company abroad[59]. China succeed to outbid the competition of the Indian company ONGC and the Russian company Lukoil[60], an achievement that triggered a legal dispute with Lukoil and its subsidiary Turgay Petroleum . In 2004, Sinopec bought the American First International Oil Company (FIOC), which holds exploitation licenses for small deposits located in the west of the country, especially in Aday. In 2009, CNPC bought the Kazakh MangistauMunaiGaz, which had residual oil reserves of 812 million tonnes, in a joint venture with KazMunaiGaz for $2.6 billion; the acquisition was part of a $10 billion 'loan for oil' deal agreed in the same year between China and Kazakhstan[61]. Also, in the same year China Investment Corp, the Chinese sovereign wealth fund, bought an 11% stake of the KazMunaiGaz Exploration Production for $939 million[62]. However, China had to wait until 2013 in order to become partner of one of the three major fields in the country. Indeed, during Xi Jinping's visit to Kazakhstan in 2013, CNPC bought from KazMunaiGaz 8,33% of the North Caspian Operating Company (NCOC) that operates the giant Kashagan field for $5 billion. This acquisition allowed China to reach better qualitative relations

[59] Sébastien Peyrouse, Chinese Economic Presence in Kazakhstan, China Perspectives, 03/2008, p. 44
[60] http://www.petroleum-economist.com/articles/corporate/ma/2005/china-beats-india-to-petrokazakhstan
[61] https://www.reuters.com/article/kazmunaigas-cnpc-mangistaumunaigas-idAFGEE5AO12420091125
[62] https://www.ft.com/content/be3bd146-ad88-11de-bb8a-00144feabdc0

with Kazakhstan. Indeed, according to the Kazakh law, KazMunaiGaz decided to use its preemptive right to buy ConocoPhillips' stake[63], that had supposed to be sold for $5 billion to the Indian state-owned company ONGC. In doing so, Kazakh Government halted the long-waited India's intention to enter in Kazakhstan's oil sector and allowed China to increase its stake in Kazakhstan's oil and gas production[64]. CNPC agreed to pay up to $3 billion to cover half of Kazakhstan's financing of the second phase of Kashagan's development, expected to start after 2020. China's capabilities to finance strategic projects made it an important partner for Kazakhstan, and Central Asian countries in general. Several other acquisitions were concluded in the period 1997-2014 for a total volume of $16 billion.

Along with numerous acquisitions of oil and gas fields undertaken by Chinese energy companies, China has been committed to build its investments and make sure that they were linked to transportation routes in order to achieve its diversification strategy. In doing so, China decided to finance some domestic pipelines along with several transnational pipelines running into Kazakhstan. Indeed, Kazakhstan became a transit state for three lines (Line A, B and C) of the Central Asia-China pipeline. With a total combined capacity of 55 bcm annually, the three lines export 38.7 bcm of natural gas to China in 2017.

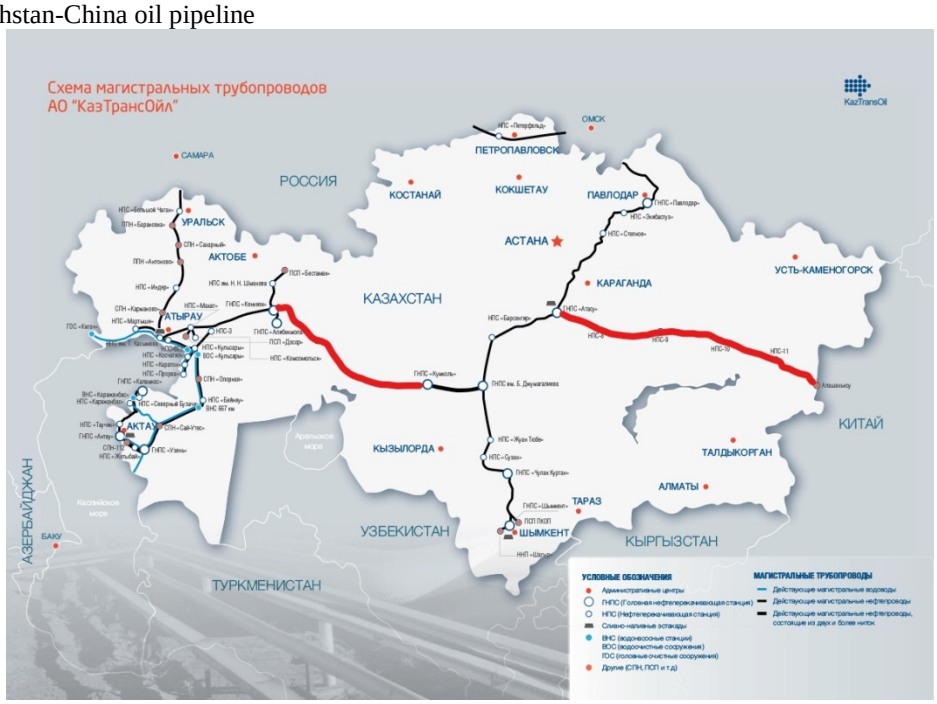
China provided significant loans for the construction of the Beineu-Bozoy-Shymkent gas pipeline, which is 1475 km long and aims to provide natural gas to Kazakh southern regions as well as to transport it to China. The project started in December 2010 with the establishment of a company founded by KazTransGaz and the Chinese Trans-Asia Gas Pipeline Company Limited. In 2015, China Development Bank and Bank of China signed an agreement for a syndicated loan of $2.5 billion to help fund the completion of the gas pipeline[65]. The domestic pipeline is the biggest pipeline project in the history of independent Kazakhstan with a particular relevance for domestic energy security. Indeed, the gas pipeline allows the main existing pipelines of Kazakhstan to be connected into one single gas transportation system and it would allow Kazakhstan to refuse completely import supplies for the southern regions, which currently depend on the gas imports. The Gas Pipeline consists of two phases with a total capacity of 10 bcm, but that might be expanded up to 15 bcm in order to increase natural gas exports to China from Urikhtau and Zhanazhol fields. The project has two stages: the first phase (Bozoy-Shymkent) with a capacity of up to 2,5 bcm per year was concluded in December 2013, while the second phase (Beineu-Bozoy), which has a capacity up to 5 bcm per year, was completed in December 2016. As of February 2017, a total of 5,4 bcm were transported since the beginning of transportation[66]. At the end of 2017, Kazakhstan started to export 5 bcm to China, after KazTransGas agreed with PetroChina, with an expected earnings of $1 billion[67]. The export volume from Astana to Beijing is set to double in 2019; indeed, KazTransGas is expected to send 10 bcm, after an agreement with PetroChina[68] that is expected to bring more than $2 billion earnings[69].

China invested in oil pipeline too, in order to secure its upstream investments undertaken in Kazakhstan. The two countries agreed on building an oil pipeline that enables Astana to export crude oil to China. In July 2004 KazTransOil and China National Oil and Gas Exploration and Development Corporation (CNODC) established the Kazakhstan-China Pipeline LLP, responsible for engineering, construction and operation of the Atasu-Alashankou oil pipeline, in accordance with the Framework Agreement between the two Governments dated May 2004. The oil pipeline consists of two phases: in the first phase, the *Atasu-Alashankou* section was officially launched in December 2005; in the second phase, the *Kenkiyak-Kumkol* section was completed in September 2009. The former runs for 965 km and it has a maximum pipeline capacity of 20 million tonnes a year, despite it transported 12,277 million tonnes of oil in 2017; It is built for transporting Kazakh oil from West-Kazakhstan, Aktobe and Kumkol oilfields, to China, as well as Russian oil. The latter is 794 km long and it has an initial capacity of 10 million tonnes. In 2017 it transported 5,210

[63] http://www.conocophillips.com/news-media/story/conocophillips-completes-sale-of-kashagan-interest/
[64] https://www.reuters.com/article/us-oil-kashagan-china-idUSBRE98606620130907
[65] https://www.reuters.com/article/kaztransgas-loan/refile-kazakh-gas-pipeline-operator-gets-2-5-billion-loan-from-chinese-banks-idUSL5N10U36D20150819
[66] http://www.kaztransgas.kz/index.php/en/main-page/projects/projects-of-export-gas-pipelines
[67] https://energy.economictimes.indiatimes.com/news/oil-and-gas/kazakhstan-to-start-exporting-natural-gas-to-china-on-october-15/60937064
[68] https://asia.nikkei.com/Business/Markets/Commodities/Kazakhstan-to-double-gas-exports-to-China-in-2019
[69] http://bsgp.kz/en_US/8229-2/

million tonnes of oil. This oil pipeline is particularly meaningful and strategic for Kazakh's export strategy, because it is the first and only Kazakh oil pipeline that does not transit through third countries.

Figure 3: Kazakhstan-China oil pipeline



Source: Author's red remarks on KazTransOil Pipeline Scheme Map, http://www.kaztransoil.kz/en/about_the_company/main_pipelines_scheme/

In 2018, Kazakhstan and China are implementing 51 joint projects in industry, transport and logistic worth approximately $28 billion[70]. Additionally, until 2015, the total volume of financial resources used by Beijing to strengthen its position in Kazakh oil and gas sector is assess at $43,5-45,7 billion, including around $22,2-24,4 billion in investments, around $16,3 billion in acquired assets, and $5 billion in loans[71].

However, despite the positive impact of the Chinese presence on the Kazakh economy, Chinese investments and acquisitions have also caused some domestic collateral damages: there are increasing concerns about the exaggerated control of China over Kazakh energy sector, for example it is reported that China buys almost 25% of Kazakh oil output reducing the share going to other partners[72], as well as social demonstrations about the increasing control of sections of the Kazakh economy in general . A major demonstration took place in 2016 calling for the Kazakh government to halt land reforms, which protesters feared to be a way for foreigners, especially Chinese, to gain control over vast areas of Kazakh land. The Kazakh authorities were persuaded to suspend the plan.

Iran

Iran and Kazakhstan are both Caspian littoral states and Iran's geographical position is one of the most important features for the bilateral relations. Indeed, the Iranian position in terms of access to the open sea and connection with other countries in the region, Europe and Asia, is a valuable characteristic that might be a driver for further and deeper relations. Currently at the commercial level, Iran is an important market for the Kazakh agricultural products, especially grain. During the last President Nazarbayev's visit to Iran in 2016, the two countries signed 66 cooperation agreements between Astana and Tehran for a total volume that exceeds $2 billion. Also the two littoral countries agreed on the establishment of a joint shipping company, a

[70] https://astanatimes.com/2018/09/kazakhstan-china-sign-1-9-billion-investment-agreements-in-beijing/
[71] Vladimir Paramonov and Alexei Strokov, The Chinese presence in Kazakhstan's oil and gas industry, Central Asia and The Caucasus, Vol. 16, Issue 2, 2015, p. 83
[72] https://carnegieendowment.org/2018/05/04/kazakhstan-must-look-beyond-belt-and-road-pub-76266

sign of their shared commitment to increase also the rail transport, especially through the International North-South Transport Corridor. Within the INSTC, the Kazakhstan-Turkmenistan-Iran railway plays an important role in fostering connectivity and trade between the Caspian countries. In this international project, Iran might be a bridge between Central Asia and India. Both countries are members of the Economic Cooperation Organization (ECO), whose framework is similar to ASEAN. ECO is a political and economic intergovernmental organization that aims to improve and develop trade and investment opportunities among the members.

Concerning energy relations, Iran is always considered an additional export route for Central Asia. Indeed, Iran used to have oil swap agreements with Kazakhstan, according to which Iran used to trade its own crude oil from its Persian shores in exchange of the Kazakh oil for its northern region. Iran started to receive swap operations with Caspian states in 1997 according to 12-year oil swap agreements. According to these deals, Tehran received oil from Caspian Sea littoral States at the Caspian port, Neka, whose loading capacity is about 150,000 barrels per day, although it is estimated that the actual capacity that flows through it is about 50,000 barrels per day. From this port, the Caspian crude oil is transported to Tehran and Tabriz refineries, and, In return, Iran exports the same amount of crude oil from Kharg Island. From 1997 to 2009, Iran received a total income that amounted to $880 million from swap transactions. However, in 2010, Tehran decided unilaterally to halt the swap transactions, claiming an increase of transit tariff from $1 a barrel to be based on the international crude oil price. Because of these condition, the then-Iranian oil minister Mirkazemi declared that Iran had been losing a few dollars on each barrel of Iranian crude swapped for Caspian oil. Additionally, Tehran complained that the poor quality of the oil received was damaging its northern refineries. The Hague International Court of Justice of Justice fined the National Iranian Oil Company $5.5 million due to stopping the swap of oil with its international partners. In 2012, Iran tried to resume oil swap deals with its Caspian neighbors. However, the international sanctions to the Iranian energy sector prevented a positive result of the talks. Indeed, the American and European sanctions put Iranian company on a US blacklist, prohibiting a direct trade with it. After the signature of the JCPOA, Iran expressed its interests in resuming the previous swap agreements. In August 2017, S&P Platts reported that Iran's oil swap in the Caspian Sea had resumed after 7 years of suspension[73]. It remains unclear how Astana will be able to handle the oil swaps with Tehran under the threat to be sanctioned by the US, which is an important player in the Kazakh energy sector. Nevertheless, during recent years, Tehran has looked to it northern neighbors as a possible counterbalance to its political and economic isolation.

Turkey

Turkey has been consolidating a stable relationship with Kazakhstan, as one of the more stable and open countries in the region. As already mentioned, Turkey was the first country that recognized the independence of the Central Asian countries. The strong Turkish desire to establish solid relations at the highest level resulted in the signature of the Strategic Partnership Agreement in 2009, and the two countries established the High Level Strategic Cooperation Council in 2012. Moreover, The two countries also gave each other mutual support on several international issues and *fora*.

Their economic relations went through some ups and downs in the last decade, mainly because of the global economic turbulences and the decrease of oil prices, since the trade volume was around $1 billion in 2005, $4.5 billion in 2012 and $2 billion in 2016. The two sides are committed to increase their bilateral trade to $10 billion in the next seven or eight years. Recently, Ankara and Astana signed 22 agreements, seventeen of which are commercial, whose total value is estimated to be $1.7 billion. This development shows the strong commitment of the two leaders to increase and strengthen the bilateral relations.

As already mentioned, Ankara's geographical position is one of the main features of its domestic and foreign energy policy. The BTC pipeline was constructed to transport Caspian crude oil from Baku to Ceyhan Terminal via Georgia, and The Caspian crude oil was mainly from Azerbaijan and some from Turkmenistan

[73] Charles Newbery, Iran restarts oil swaps with other Caspian states after 7-year hiatus, August 14, 2017, S&P Global Platts https://www.spglobal.com/platts/en/market-insights/latest-news/oil/081417-iran-restarts-oil-swaps-with-other-caspian-states-after-7-year-hiatus

and Kazakhstan. Astana joined the BTC pipeline in 2006 but it stopped the transportation of its oil in the second half of 2015. Recently, Kazakhstan has resumed its use of the BTC pipeline for transporting its crude oil and roughly 90,000 tonnes of the Kazakh oil was exported via the BTC pipeline since early 2017. In 2009, Russia and Turkey signed an intergovernmental agreement concerning the participation of Russian oil companies in the Samsun-Ceyhan pipeline project. This pipeline, endorsed by the Italian ENI, would have carried 1,5 million barrels of oil per day, bypassing the Bosporus an Dardanelles. This pipeline should have been an additional export route for the Kazakhstan's oil; however, due to economical obstacles as well as political divergences, the project failed in 2013. As aforementioned, Turkey relies heavily on oil and gas imports. Turkey imported 3% of its total oil imports from Kazakhstan in 2015, while it imported no natural gas from the Central Asian country. Regarding the natural gas, which holds the main share of Turkey's energy mix, Kazakhstan could improve its energy relations with Turkey through the construction of the well-known Trans-Caspian pipeline. However, this project has to face serious economic and political obstacles; moreover, the recent expansion of the CPC pipeline and the current capacity of existing pipelines from Kazakhstan meet the exportable volume of the country. Therefore, it seems difficult to imagine the construction of new export routes in the foreseeable future.

India

India-Kazakhstan relationship is historically deeply rooted : the two countries have had cultural, spiritual and economic connections and contacts for many centuries. After the collapse of the Soviet Union, India recognized Kazakhstan as a newly independent country and established diplomatic relations with it in 1992. In the following years, the two countries increased their economic and political relations through several official and reciprocal high level visits. The main mechanism for the development of bilateral relations is the India-Kazakhstan Intergovernmental Commission (IGC), established in 1993, and On January 24, 2009, during President Nazarbayev's visit to New Delhi, the two countries signed the "Joint Declaration on Strategic Partnership"[74].

Kazakhstan is India's most important trade and investment partner in Central Asia. Astana and New Delhi; the bilateral trade reached $1 billion in 2017 and cumulative investments from India into Kazakhstan and vice versa in the period 2005-2016 amounted to $244 million and $83.09 million respectively, according to the data of the Indian External Affairs Ministry. The two countries are committed to increase economic relations in wide range of sectors like agricultural products, food processing, pharmaceuticals, tourism, logistics and energy. Additionally, negotiations on signing a free trade zone agreement between the EAEU and India have started recently and represent another multilateral cooperation project.

Concerning energy relations, although India is a strong importer of the Kazakh uranium, New Delhi had to deal with numerous defeats before having access to the Kazakh oil and gas. India has tried to access into Kazakhstan's oil and gas sector since 1995 and at the beginning of 2009 ONGC Mittal Energy Limited (OMEL) signed an initial agreement with KazMunaiGaz for cooperation in the hydrocarbon sector. This agreement determined the main direction of cooperation in Satpaev block, located in the Kazakh sector of the North Caspian Sea near four major discoveries, which was said to have two prospective areas that hold an estimated 256 million tonnes of oil and natural gas resources. Later on, OMEL was replaced with ONGC Videsh (OVL), and In 2010, KazMunaiGaz was awarded as operator of the block with a 75% stake in the project. The following year, OVL entered officially into the project with a 25% share[75], it paid $13 million to Kazakhstan's authorities and an additional $80 million as a one-time assignment fee to state-owned KazMunaiGaz. At the signing of the contract, OVL committed itself to a minimum exploration investment of $165 million and an additional expenditure of $235 million in the project. In July 2015, the first exploratory well of Satpaev block took place. However, the exploration works have not resulted into commercial hydrocarbon discoveries, and Therefore in 2018 OVL decided to exit from the Satpaev contract after no commercially exploitable hydrocarbon resources were found. Furthermore, India has been overcome by its

[74] https://mea.gov.in/bilateral-documents.htm?dtl/4776/Joint+Declaration+on+Strategic+Partnership+between+India+and+Kazakhstan

[75] Embassy of the Republic of Kazakhstan in India, Trade and Economic Cooperation between Kazakhstan and India, http://mfa.gov.kz/en/delhi/content-view/torgovo-ekonomiceskoe-sotrudnicestvo-mezdu-kazahstanom-i-indiej

rival, China, a few times in the attempt to purchase stakes in Kazakhstan's major projects. Two episodes are particularly meaningful, showing the Indian difficulties to gain share of Kazakhstan's oil and gas assets. The first episode took place in 2005, when after having negotiated back and forth for many years, the Indian ONGC Videsh-Mittal venture received guarantees for its purchase of PetroKazakhstan's stake for around $3.9 billion. However, later Astana decided to favorite CNPC, which gained the stake for $4.18. Besides a small increase of the Chinese bid, India felt that Kazakhstan had undertaken a political decision. However, India did not give up and it continued to be committed to bilateral relations, looking for new opportunities. In 2013, India concluded an agreement with ConocoPhillips for purchasing its 8,33% stake in the major Kashagan field. This purchase would have meant a major success for the Indian energy company and a strong step toward a more strategic relation with the Central Asia country. However, Kazakhstan's authorities decided again to favor the Chinese company, using KazMunaiGaz's pre-emptive right to buy foreign stake in national assets and then selling it to CNPC. This episode represented a major success for China, which officially entered into one of the main fields, and at the same time a major Indian defeat, highlighting India's strategy limits. Indeed, despite India's high demand for energy supplies, New Delhi has not been able to gain and strengthen solid energy relations with Central Asia in general. The main reason is the geographical and geopolitical isolation caused (frase poco chiara) by India's unclear and stable strategy towards the region. New Delhi might be seen as a counterbalance to China's growing power, but Kazakhstan does not consider India to be a good performer, mainly concerning its investing capabilities.

USA

First and foremost, US-Kazakhstan relationship has reached levels that Washington had not been able to reach with any other Central Asian country. Indeed, US and Kazakhstan have several *fora* for strengthening their bilateral relation in numerous sectors.

Since Kazakhstan's independence, US engaged actively with the country in order to guarantee a complete denuclearization of the former Soviet country. Indeed, Kazakhstan became a nuclear state after Soviet collapse, having in its territory more than one thousand warheads and hundreds of intercontinental ballistic missiles. By February 1994, the Kazakh government removed all the nuclear warheads to Russia., and after having achieved this important goal, the Clinton Administration concentrated its efforts in engaging with energy affairs, that were one of the three key elements of the American Central Asia strategy.

One of the features of the relations is undoubtedly related to energy partnership. In 2001, the two sides established the US-Kazakhstan Energy Partnership, focused on several cooperative areas such as nuclear security and energy; oil and gas; renewables and energy efficiency[76]. In 2017, Washington and Astana elevated the previous Partnership to the level of a Strategic Energy Dialogue, which started technical discussions in 2018[77].

American energy companies have held an essential role in the Kazakh oil and gas industry, because they were able to establish strategic partnerships in the most important Kazakh energy assets, thanks to the positive attitude of the Kazakh government towards foreign investments. Undoubtedly, the first objective in the American energy strategy towards Kazakhstan was to diminish and weaken Russian control over the natural resources and export routes from the region. Kazakhstan has been the more favorable country in the region to diversification of its energy partnerships. For these reasons, two major oil companies, Chevron and ExxonMobil, have been able to start partnerships with Kazakh Government for exploring and developing major fields.

Chevron and ExxonMobil arrived in Kazakhstan in 1993, when successfully signed a PSA that formed the TengizChevroil Company (TCO) responsible for the development and production of the strategic Tengiz field. As shown in precedent table 3, Chevron has been the major stakeholder in the company, holding a 50 % of TCO, while ExxonMobil owns a 25% stake of the Company. In 2017, the field produced 28.7 million

[76] https://www.energy.gov/ia/international-affairs-initiatives/us-kazakhstan-energy-partnership
[77] https://www.state.gov/r/pa/prs/ps/2018/01/277475.htm

tonnes of oil, setting a new annual record and achieved a milestone of producing 3 billion barrels of oil since TCO's formation 25 years ago. The project has positive economic outcomes for Kazakh economy, since in 2017 TCO's direct payments to Kazakhstan totaled $8.5 billion and it has invested more than $24 on Kazakh good and services since 1993[78]. In 2016, Chevron, along with TCO partners, announced its final investment decision for the expansion of the Tengiz field. This project, called Future Growth Project – Wellhead Pressure Management Project (FGP-WPMP), will increase Tengiz crude oil production by 12 million tonnes of oil per year (reaching about 39 million tonnes per year) and maintain full production rates at the existing Tengiz facilities[79]. The additional oil production from the expansion is expected to be on stream in 2022[80]. FGP-WPMP is estimated to cost $36,8 billion ($27.1 billion for facilities, $3.5 billion for wells and $6.2 billion for contingency and escalation) and it represents a strong commitment of the American companies into Kazakhstan oil and gas sector, strengthening the important role played in the country by Chevron, which is already the largest private oil producer in Kazakhstan.

Indeed, Chevron also owns an 18% stake in the Karachaganak Petroleum Operation (KPO) since 1997, when it signed a 40 year Final Production Sharing Agreement along with Lukoil, ENI and BG Group in November 1997. The field is one of the world's largest gas and condensate fields; It holds estimated hydrocarbons initially in place of 13.3 billion of liquids and 1.7 tcm of gas, of which approximately 11% of liquids and 12% of gas has been recovered. In 2017, KPO reached a record level of 146 million barrels of oil in the form of stable and unstable liquids. KPO Partners has invested more than $23 billion into the development of the field whilst direct payments into Kazakhstan's budget exceeded $15 billion. In September 2018, KPO announced a $1.1 billion investment in the giant field aimed at sustaining plateau production levels and creating significant value from the field[81]. The Karachaganak Debottlenecking Project aims to extend the duration of the plateau liquid production and will bring significant value creation for the country and energy companies. The Project will enable the processing of up to 4 bcm annually of additional volumes of raw gas, which will be used for reinjection to maximize incremental production of liquids by 10 million tonnes[82].

Besides its shares in TCO, ExxonMobil owns 16.81% of North Caspian Operating Company (NCOC) that operates the giant Kashagan field. Despite numerous legal disputes between international partners and Kazakh government and numerous postponements, in late 2016 NCOC managed to resume commercial output, and in 2018 it produced and exported 10 million tonnes of stabilized oil and condensate. NCOC plans to exceed 370,000 barrels per day after an equipment upgrade in 2019. The estimated cost of Kashagan Phase 1 is about $55 billion. Until 2013, another American energy company, ConocoPhillips, was partner of the NCOC, with a 8,4% stake. In 2013, ConocoPhillips decided to quit the partnership and it had planned to sell its stake to the Indian ONGC; however, Kazakh government, which had decided to use its right to buy back stake of national project, blocked it. Consequently, Kazakh government agreed to sell the former ConocoPhillips' stake to the Chinese CNPC, denying the long-awaited access of an Indian company in a strategic Kazakh energy asset.

As mentioned before, one of the main goals of America in Central Asia has been to weaken and break Russia monopolistic position in the Central Asian export routes. Therefore, American administrations have been committed to endorse and implement alternative export routes from this region towards Europe. The first strike to the status quo was the construction of the 1505-km long Caspian Pipeline (CPC) pipeline in 2001, commenced in May 1999, which is the only private pipeline (not operated by Transneft) that runs through Russian territory. Chevron and ExxonMobil own 15% and 7,5%, respectively, of the Company. The CPC pipeline is the primary route for exporting crude oil from the Tengiz, Korolev and Karachaganak fields to a marine terminal in the Russian Black Sea port of Novorossiysk. In October 2001, CPC loaded its first tanker in Novorossiysk, and since then, CPC has increased its capacity every year, reaching 28.2 million tonnes annually in 2004 and 35 million tonnes per year in 2005. In 2015, CPC completed the first increase in

[78] TengizChevroil Year in Review, 2017, p. 11 http://www.tengizchevroil.com/docs/default-source/publications/erk/2017-year-in-review_erk_final.pdf?sfvrsn=8
[79] http://www.tengizchevroil.com/about/media/stories/story/tco-stories/2018/07/01/future-of-tengiz
[80] https://www.chevron.com/stories/chevron-approves-next-major-tengiz-expansion-project-in-kazakhstan
[81] https://www.spglobal.com/platts/en/market-insights/latest-news/natural-gas/091718-kazakhstans-11-billion-karachaganak-project-to-sustain-high-output
[82] http://www.kpo.kz/en/news-room/company-news/company-news/article/karachaganak-partners-agree-major-deal.html

incremental capacity of the pipeline. The expansion project is estimated to cost $5.4 billion and aims to increase CPC annual throughput capacity up to 67 million tonnes annually, from the currently volumes of 55,1 million tonnes[83]. The largest source of CPC pipeline is Tengiz, while Karachaganak is being overtaken by Kashagan, after Kashagan field came on stream recently[84]. With the increasing output, CPC handled 68% of total Kazakh crude exports in 2016[85].

Another important step towards Kazakh export diversification was the construction of BTC pipeline, from Baku to Turkey, opened in 2005. Indeed, Kazakhstan started to export through BTC in 2006 until the second half of 2015. Kazakhstan should join the BTC again from 2019, giving the clear sign that Kazakh authorities are confident the oil production will grow from the major fields. Kazakh exports through BTC pipeline has been halted since the second half of 2015 due to the expansion of the system of the Caspian Pipeline Consortium (CPC) pipeline.

Figure 4: KPO export routes

Source: http://www.kpo.kz/en/operations/export-routes.html

Figure 5: NCOC export routes

Source: 2017 NCOC Sustainability Report, p. 170

[83] http://www.cpc.ru/EN/expansion/Pages/general.aspx
[84] https://www.spglobal.com/platts/en/market-insights/latest-news/natural-gas/091718-kazakhstans-11-billion-karachaganak-project-to-sustain-high-output
[85] Kazenergy Association, National Energy Report 2017, p. 54

European Union

EU-Kazakh relationship has been growing, both bilaterally and multilaterally, since the two sides established diplomatic relations in 1992. In 1999, the Partnership and Cooperation Agreement entered into force, after having been signed in 1995, for a ten-year period. The signature of the Partnership and Cooperation Agreement represented an important development in the relationship: it instituted a regulatory framework for the EU-Kazakh partnership, which was then essentially conceptualized as an economic relationship[86].

The bilateral relations upgraded in 2015, when the EU and Kazakhstan signed the Enhanced Partnership and Cooperation Agreement (EPCA), which regulated trade and economic relations between the two and replaced the previous Agreement. The signature of the EPCA represents the positive development of bilateral relations. The EU has become a key trade partner, becoming the first trade partner before the old master Russia and the newcomer China. Indeed, EU is the main trade partner of Kazakhstan, receiving almost 40% share in its total external trade. Exports from Kazakhstan to the EU (almost entirely oil and gas sectors) totaled €17,6 billion and the import volume from the EU to Kazakhstan €5,1 billion in 2017. Also, the European Union states are Kazakhstan's largest investment partners, accounting for about half of the country's foreign direct investments[87].

EU pursued a Strategy with Kazakhstan, and Central Asia overall, focused on the promotion of democratic reforms, respect of the human rights, security issues, economic and investment cooperation as well as energy issues.

Kazakhstan became the European Union's preferred partner in the energy sector, because Kazakhstan has been committed to consolidate partnerships with foreign players. Energy issues are one of the key features of the Kazakh-European relationship, because EU seeks to establish new alternative routes for its energy imports. However, Kazakhstan mainly exports oil to Europe, while natural gas exports have still been relatively small, with the majority of them going to Russia and China. In December 2006, the two sides signed a Memorandum of Understanding in the Field of Energy, proving the positive and important developments as regards energy cooperation. The memorandum regulated several important elements related to security of supply, transit options and EU assistance to the Kazakh energy sector. Nevertheless, it failed to address the Kazakh government commitment to participate its participation in the Trans-Caspian Gas Pipeline[88] .

[86] Luca Anceschi (2014), The Tyranny of Pragmatism: EU-Kazakhstani Relations, Europe-Asia Studies, Vol 66, No. 1, p. 7

[87] http://www.mfa.gov.kz/en/brussels/content-view/rassirennoe-partnerstvo-mezdu-kazahstanom-i-evrosouzom-vstupaet-v-prakticeskuu-fazu-2

[88] Luca Anceschi 2014, p. 9

Figure 6: Main origin of primary energy imports, 2006-2016

Main origin of primary energy imports, EU-28, 2006-2016
(% of extra EU-28 imports)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Solid fuels											
Russia	25.0	24.8	26.1	30.0	26.9	26.0	25.5	28.8	29.1	28.9	30.2
Colombia	11.4	12.7	12.3	17.4	19.9	23.5	24.1	21.8	21.1	23.9	23.4
Australia	12.0	13.0	11.7	7.5	10.5	8.7	7.3	7.5	6.3	9.8	14.6
United States	7.8	9.1	14.0	13.5	16.8	17.9	22.9	22.4	20.5	16.1	14.1
South Africa	23.1	20.1	16.5	15.8	9.6	7.8	6.3	6.7	9.8	7.7	5.1
Indonesia	9.3	7.8	7.3	7.0	5.5	5.0	4.5	3.1	3.4	3.5	3.0
Canada	2.8	3.0	2.6	1.4	2.0	2.2	1.6	1.8	2.5	1.6	2.0
Mozambique	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.3	0.5	0.8
Kazakhstan	0.2	0.1	0.3	0.2	0.2	0.3	0.3	0.3	0.5	0.5	0.8
Others	8.5	9.4	9.2	7.3	8.6	8.6	7.4	7.5	6.4	7.4	6.0
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Crude oil											
Russia	33.8	33.7	31.8	33.6	34.7	34.8	33.7	33.7	30.4	29.1	31.9
Norway	15.4	15.0	15.0	15.1	13.7	12.5	11.2	11.8	13.1	12.0	12.4
Iraq	2.9	3.4	3.3	3.8	3.2	3.6	4.1	3.6	4.6	7.7	8.3
Saudi Arabia	9.0	7.2	6.8	5.7	5.9	8.0	8.8	8.7	8.9	7.9	7.8
Kazakhstan	4.6	4.6	4.8	5.3	5.5	5.7	5.1	5.7	6.4	6.6	6.8
Nigeria	3.6	2.7	4.0	4.5	4.1	6.1	8.2	8.1	9.1	8.4	5.7
Azerbaijan	2.2	3.0	3.2	4.0	4.4	4.9	3.9	4.8	4.4	5.2	4.5
Iran	6.2	6.2	5.3	4.7	5.7	5.8	1.3	0.0	0.1	0.0	2.9
Algeria	2.5	1.9	2.5	1.6	1.2	2.6	2.9	3.9	4.2	4.2	2.8
Others	19.7	22.4	23.3	21.8	21.6	16.1	20.9	19.7	18.7	19.0	17.0
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Natural gas											
Russia	39.3	38.7	37.4	33.0	31.9	34.4	34.9	41.1	37.4	37.6	39.9
Norway	25.9	28.1	28.5	29.7	27.9	27.6	31.8	30.4	32.1	32.0	24.8
Algeria	16.3	15.3	14.7	14.1	13.9	13.1	13.3	12.6	12.0	10.8	12.4
Qatar	1.8	2.2	2.3	5.9	9.7	11.6	8.3	6.5	6.8	7.7	5.6
Nigeria	4.3	4.6	4.0	2.4	4.0	4.4	3.1	1.7	1.5	2.0	2.0
Libya	2.5	3.0	2.9	2.9	2.7	0.7	1.9	1.7	2.1	2.1	1.3
Peru	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.5	0.5	0.3	0.5
Trinidad and Tobago	1.2	0.8	1.7	2.0	1.4	1.2	0.9	0.7	0.9	0.6	0.2
Turkey	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Others	8.8	7.3	8.3	9.7	8.2	6.8	4.8	4.5	6.5	6.7	13.1

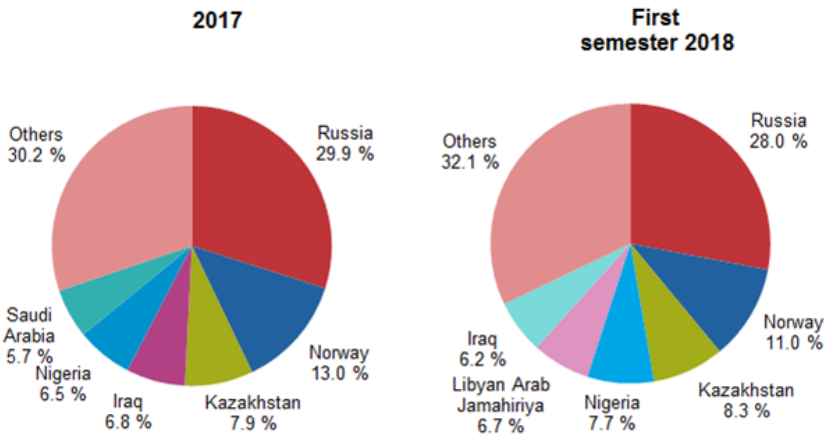
Source: Eurostat (online data codes: nrg_122a, nrg_123a and nrg_124a)

eurostat

Source: EUROSTAT[89]

Figure 7: Extra-EU imports of petroleum oil from main trading partners, 2017 and first semester 2018

Extra-EU imports of petroleum oil from main trading partners, 2017 and first semester 2018
(share (%) of trade in value)



Source: Eurostat database (Comext) and Eurostat estimates

eurostat

Source: EUROSTAT[90]

[89] https://ec.europa.eu/eurostat/statistics-explained/index.php/Energy_production_and_imports#More_than_half_of_EU-28_energy_needs_are_covered_by_imports

[90] https://ec.europa.eu/eurostat/statistics-explained/index.php/EU_imports_of_energy_products_-_recent_developments#Main_suppliers_of_natural_gas_and_petroleum_oils_to_the_EU

The increasing shares of Kazakh oil exports to EU is driven by the construction of the BTC and CPC pipelines, which receive the ever growing oil production of major fields. Indeed, Kazakhstan endorsed and welcomed the construction of these pipelines, because they enable to diversify routes for increasing production from Karachaganak, Tengiz and Kashagan fields. On the other hand, natural gas exports are still linked to Russia and China. The construction of the CPC pipeline was welcomed by those European companies that are particularly present in these major fields. Indeed, the Italian ENI, French Total and the British-Dutch Royal Dutch Shell managed to gain significant shares of the three main oil and gas fields in the country. ENI and Shell are key partners in KPO, while the two companies along French Total are also in the NCOC with key shares. The French company Total increased its presence in the country in 2017, after the acquisition of the Danish company Maersk Oil for $7,45 billion. Indeed, through this acquisition, Total acquired also the 60% of the Dunga field, located in the southwestern Mangystau region. Dunga field has been onstream since 2000 and currently produces about 15,000 barrels per day. Maersk Oil started in 2012 Dunga Phase II, with an initial budget of $1 billion, in order to increase oil production up to 30,000 barrels per day. However, despite most of proposed wells were completed by end of 2015, the partners reduced investment and deferred the remaining Phase II work because of the low oil prices. At the same time, ENI increased its presence in the country, signing an agreement with KazMunaiGaz to receive 50% of the subsoil use rights of the Isatay block, located in the Caspian Sea[91]. The initial agreements between the sides were signed in 2014. A joint operating company between KazMunaiGaz and ENI will develop the Isatay block, estimated to hold significant potential for hydrocarbon reserves, which are geologically not complex and technologically developable in short time.

despite the importance of European companies for the country's oil production and exploration, energy relations are not preserved by legal and economic disputes. Indeed, Kazakhstan started dispute with foreign companies over the production and governance of main fields. Concerning the Karachaganak condensate fields, in 2015 Kazakhstan filed a $1,6 billion claim, claiming it had not received its fair share of income from the giant project. Recently, the consortium declared that it will pay $1.1 billion to Kazakhstan's government to settle the profit-sharing dispute.

Given the high costs, around $50 billion, and long delays to the beginning of the production, Kazakhstan started to question the role of the Kashagan Operator, ENI. Indeed, in 2008, the partners agreed with the Kazakh authorities to cede some shares (from 18,5% to 16,81%) in order to let KazMunaiGaz increase its interests to 16,81%. Also, because of the financial loss caused by the prolonged delays and the high costs of development in the Kashagan field, Kazakh government decided to take more control, establishing NCOC as Project Operator replacing ENI in 2015. Indeed, Kazakh officials claimed that the economic damage from delays and overruns is estimated at least $10 billion[92].

However, some elements of the European strategy towards Central Asia, and more specifically Kazakhstan, have blocked the expansion of energy relations. Indeed, concerning the development of democratic reforms, reduction of corruption in economic and political sphere, Kazakhstan has not implemented significant policies, and the widespread corruption has caused several incidents in the foreign engagement. previously some observers wrote that the Kazakh national welfare fund, Samruk-Kazyna, had offered Shell the purchase of a 10-20% stake of KazMunaiGaz before holding its IPO in order to attract other foreign investors. Nonetheless , Shell recently announced to drop its plan to buy stake in KazMunaiGaz after a due diligence process that included discussions about the risk of corruption at the Kazakh state oil company[93].

Finally, EU must take into consideration the Kazakh membership to EAEU for the future of bilateral relations: the fact that Kazakhstan participates to the Russian-led EAEU could pose risks for further cooperation in several affairs, especially energy ones because of the international sanctions.

[91] https://www.eni.com/en_IT/media/2017/12/eni-and-kmg-complete-transfer-of-subsoil-use-rights-of-isatay-block-kazakhstan
[92] https://www.nytimes.com/2007/09/06/business/worldbusiness/06iht-eni.1.7401497.html
[93] https://www.bloomberg.com/news/articles/2018-10-09/shell-said-to-drop-plan-to-buy-stake-in-kazakh-state-oil-company

Conclusion – Kazakhstan

Kazakhstan has been the most west-oriented country in the region. It has been able to implemented a 'multi-vector' policy, starting from the attraction of foreign investments of several countries, and President Nazarbayev has been able to walk the thin line between his two major neighbors, Russia and China, and Western countries. It seems that external powers are cooperating in several and relevant projects, for example in the three main oil and gas fields, Tengiz, Karachaganak and Kashagan, without any major disputes. One particular element that will determine future energy relations and cooperation among Kazakhstan and external powers is the Kazakhstan's political future, after President Nazarbayev will step down.

Russia has preserved a certain influence in the Kazakh energy sector, and in the country overall. Moscow is interested in the exploration and development of certain oil and gas fields; through Lukoil, t is a partner in two of the three main fields, Tengiz and Karachaganak fields. Russia has managed to preserve its ancient influence over Kazakh hydrocarbons exports. It has an essential role in exporting oil and gas produced by Kazakh fields. Historically, most of Kazakhstan's crude has exported via Russia, and, in 2016, over 94% of Kazakhstan's international crude exports still transited Russia by pipeline or rail. The Kazakh crude flows via Russia either through the CPC or Atyrau-Samara system, which is connected to Transneft's system in Russia. Moscow maintains a certain influence over the CPC, despite it is the only private pipeline running in Russia; indeed, the Russian government owns a 24% stake, and Lukarco (a Lukoil's subsidiary) owns an additional 7,5% stake in the consortium. Therefore, it seems that Astana was able to find a balance among the increasing Chinese influence, Russian interests and Western involvement. However, one sector in which Kazakhstan might challenge Russian energy influence is the oil products exports in the region; currently, Astana has increased its refining capacity after having implemented an important program of modernization in its three refineries.

Since its access to the Kazakh oil industry in 1997, **China** has gained more and more power through numerous acquisitions of fields and companies that operate in the country. Three major purchases exemplify the rising influence of China: AktobeMunaiGaz in 1997, 50% of PetroKazakhstan in 2005 and 8.33% of the NCOC that operates Kashagan field in 2013. The first company represents the arrive of China into Kazakhstan's energy industry, the second represents a major improvement, because the company operates the major site of Kumkol field among others, and finally the access to the Kashagan field in 2013 represents the Chinese success for having becoming a partner to one of the three main Kazakh fields at the expenses of its rival, India. Additionally, Beijing contributed to the construction of both oil and gas pipelines through loans and credits, in order to secure their massive investments in the country's energy sector. Besides building three lines of Central Asia-China gas pipelines which are crossing Kazakhstan, China built the Kazakhstan-China oil pipeline, which is the only pipeline that does not transit through third countries, and the Beineu-Bozoy-Shymkent gas pipeline. Kazakhstan is an important transit country for natural gas supplies from Central Asia to China, and it is also a transit state for Russian oil and gas exported to China via Kazakh territory. Astana recently agreed to double its gas exports to China in 2019, increasing its export volumes from 5 to 10 bcm annually.

The **United States of America** has contributed significantly to the development of the Kazakh oil and gas industry. Indeed, two major American companies, Chevron and ExxonMobil, own important stakes of three major fields. They are also part of the Caspian Pipeline Consortium, which enables oil and gas produced in these fields to flow toward Europe through the CPC pipeline, and their commitment to the development of these fields is particularly relevant. In fact, Chevron and its partners announced a development program for Tengiz field that amounts to $37 billion and it will allow TCO to increase field's production by 12 million tonnes of oil annually, reaching about 39 million tonnes. Another important development project was decided by KPO's partners, one of which is Chevron, in September 2018: KPO announced a $1.1 billion investment aimed at sustaining plateau production levels and creating significant value from the field. These important investments, and those already implemented, show the great interests and strategic importance of Kazakh oil and gas for American companies. Particularly if it is taken into account the recent plans of Chevron and ExxonMobil to sell their stakes in Azerbaijan's largest oilfield, Azeri-Chirag-Gunashli field, located in the Caspian Sea.

Europe is the main trade partner of Kazakhstan and it has been actively engaged with Kazakh oil and gas industry, given the role played by some European energy companies in the main fields, mainly ENI, Royal Dutch Shell and Total. Furthermore, Total and ENI have increased their presence in the energy sector, through new acquisitions; Total purchased the Danish company Maersk Oil, which operated some fields in the country, while ENI recently announced that it will jointly develop with KazMunaiGaz the Isatay block, located in the Caspian Sea. Kazakhstan exported mostly of its crude oil through CPC pipeline and transiting Russian territory. However, natural gas exports from Kazakhstan are still connected to Russia and China. Some elements of European strategy towards Kazakhstan pose some obstacles to the increase of political and economic relations. In the energy sphere, Shell recently declared its intention to drop its plan to acquire a stake of the Kazakhstan's energy company, KazMunaiGaz, after a due diligence process highlighted the risk of corruption at the Kazakh company.

Iran plays an important role in Kazakhstan transportation and logistics sectors, but currently it has small energy relations with Kazakhstan. Indeed, Tehran used to have oil swap agreements during the period 1997-2009, but, following several disputes, Iran decided to stop Kazakh oil imports through the Neka port. Iran is placed in a key geographical position for Kazakhstan, and the region as a whole, but it has to deal with a strong political isolation led by USA and Saudi Arabia. Given the importance of American companies in Kazakhstan, it seems difficult to contemplate a stronger energy relations between Kazakhstan and Iran.

Turkey has strong relations with Kazakhstan on several political and economic international and bilateral issues. The main energy priority for Ankara is to secure its energy supplies and become a regional energy hub. In this effort, Kazakhstan can contribute through its imports via BTC pipeline, which joined in 2006. However, Astana decided to interrupt its oil export via the BTC in 2015 because of the CPC expansion. In 2017 Azerbaijan and Kazakhstan discussed potential transportation of Kashagan oil via the BTC pipeline. Another export project has been taken into account recently in response to Kashagan increasing production: the Kazakhgstan Caspian Transport System, KCTS, which consists of a pipeline to the Kazakh Kuryk port, tankers for oil transportation to Baku and connecting facilities to the BTC pipeline.

India has faced several standstills in its effort to strengthen its energy relation with Kazakhstan. Indeed, despite India's strong commitment to increase its presence in Kazakh energy sector, it faced two serious defeats against its rival, China: PetroKazakhstan and NCOC's Kashagan. In both cases, Astana preferred to sell important and strategic stake to China, instead of the Indian initial offers. These episodes represents the political consideration that Astana has about India's contribution to the country's oil and gas production. Indeed, Kazakh authorities pondered the capabilities of the Indian investors and decided in favor of the well-known financing and political will of the Chinese companies. These decisions caused disappointment and India's commitment to enhance its energy relations with Astana decreased, leading it to decide to focus on different spheres.

Turkmenistan

Turkmenistan is one of the five former Soviet republics as well as one of the Caspian Sea littoral countries. After gaining independence, its President, Saparmurat Niyazov, who managed to maintain the power after the collapse of the Soviet Union, decided to pursue a policy of neutrality, which was formally accepted by the U.N. General Assembly in 1995. This decision provided Ashgabat a solid basis for resisting pressure from outside powers; it also helped the country to avoid becoming a member of any regional organizations, especially Russia-led EAEU, CSTO and SCO. Indeed, these organizations are often considered to be an attempt by external players to control and influence Central Asian countries. However, this political isolation might lead to a problematic situation in the future, because of the increasing international and transnational threats that put Turkmenistan's stability at risks and require international and coordinated responses (for example, to face the increasing threats from the Turkmen-Afghan border, which is actually one of the main security challenges for the entire region). Despite the fact that the GDP increased from $3.20 billion in 1991 to $42.35 billion in 2017, both President Niyazov and President Berdimuhamedow (in power since the death of the previous President, in 2007) have maintained tight administrative controls and a strong role of public sector in the economic scenario. Indeed, Turkmenistan has made few pro-market economic reforms in every sector of its economy and has provided numerous social services thanks to energy revenues. The country's economy mostly relies to exports, which are almost entirely concentrated in one market (i.e., China) and one commodity (i.e., natural gas).

The economic growth is strictly tied to the commodities trends. Indeed, Turkmenistan's economy is highly dependent on the hydrocarbon sector; it accounts for 90% of total exports and for 44% of Turkmenistan's budget revenues[94]. The main natural resource located in Turkmenistan is natural gas, having the world's fourth-largest natural gas reserves, because of a significant increase of its estimated proven natural gas reserves, from 2.6 Tcm at the end of 1997 up to 19.5 Tcm at the end of 2017. Although the data are not fully available, according the only independent audit conducted in the country by Gaffney, Cline and Associates, it is reasonable to consider Turkmenistan's gas reserve the fourth or fifth largest worldwide. In 2017 it produced 62 bcm of natural gas and in 2012 the Government affirmed that it expected to increase gas production up to 230 bcm per year by 2030[95]. Natural resources represent the main source of income and funding for national development programs and policies.

Table 1: Turkmenistan's GDP (constant 2010 US$), billion

Bln	1989	1990	1995	2000	2005	2008	2010	2014	2015	2016	2017
GDP	10,104	13,68	8,644	10,754	13,789	19,492	22,583	34,98	37,254	39,563	42,135

Source: World Bank https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=TM

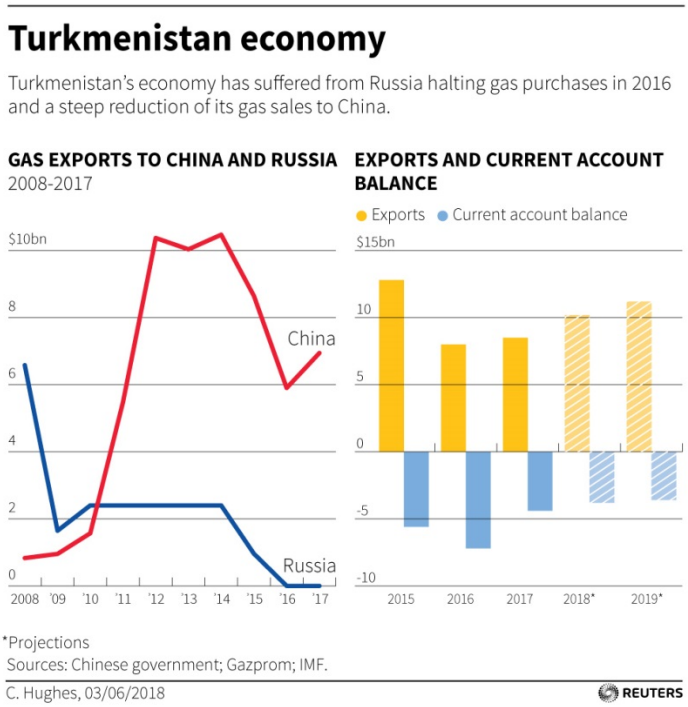
However, this condition makes Turkmen economy vulnerable to oil and gas prices' fluctuations and to its restricted possibilities for exports markets. Therefore, in its independent history, Turkmenistan has given great importance to the diversification of its exports routes in order to be less vulnerable, prevent political instability and reduce the burden of its landlocked nature. Particularly, the country has been facing economic difficulties since 2015, because of a combination of factors, namely the drop of oil prices and the worsening of relations with Russia and Iran, two of its three major markets. The economic issues are starting to lead to some serious problems for foreign companies, which are struggling to make sales and collect payments[96].

[94] Nazik Muradova, 2015, An Ideal Investor to Come: Diversification of the Energy Exports of Turkmenistan, p. 3, The Central Asia Program, August 2015

[95] https://www.neweurope.eu/article/trans-caspian-gas-pipeline-really-important-europe/

[96] https://uk.reuters.com/article/us-turkmenistan-economy/foreign-companies-struggle-in-cash-strapped-turkmenistan-idUKKCN1IZ0Q4

Figure 1: Turkmenistan's gas exports to China and Russia



Source: https://uk.reuters.com/article/us-turkmenistan-economy/foreign-companies-struggle-in-cash-strapped-turkmenistan-idUKKCN1IZ0Q4

Turkmenistan encounters many obstacles in developing and converting its enormous resources into a lucrative tool for achieving economic and social development. These challenges are linked both to the geographical (it is a landlocked country) and political isolation, in which the country operates. As mentioned before, the government maintains a strong control over the economy, limiting FDI outside the hydrocarbon sector. Foreign investors and companies can operate in the sector through two legal instruments: Production Sharing Agreement (PSA) or Join Activity Agreements (JVA). The is a major difference between these two legal means: the former awards the exploration and production rights of a resource to a foreign company in exchange for a share of the profits from the production of the resource; instead, the latter, utilized for downstream infrastructure projects, does not provide as much as leverage over resource extraction and profit making as PSA does, because the host country and the private company share the costs, risks, and liability for the implementation of the project. Turkmenistan prefers JVA, which requires cooperation with the state company and, sometimes, with a number of other partners. Additionally, Ashgabat decided to attract foreign investors exclusively to develop its offshore gas resources, avoiding any PSA for the onshore activities. The only exceptions to this rule are the PSA with CNPC for the Bagtyyarlyk area on the right bank of the Amu-Darya River and with ENI, through the Burren Energy Company for the Nebit Dag area.

Another significant obstacle to a successful exploitation of these reserves is the lack of infrastructure for the transportation of natural gas. Conversely to other energy producers in the region, Turkmenistan finds itself facing a strong isolation in terms of infrastructure and political connectivity. This shortage of infrastructure has generated a main problem for the Turkmen economy; indeed, given the substantial contribution of this sector to the entire country, Turkmenistan had to attempt with great effort to connect its oil and gas fields to plausible export markets, diversifying its routes and guaranteeing long-term options.

After gaining independence, Turkmenistan inherited the Soviet pipeline system, which exported Turkmen gas north through the Central Asia-Center pipeline based on the South-North axis. This gas pipeline system consists in five branches: four of them (CAC-1, 2, 4 and 5) run from Eastern Turkmenistan to Russia via Uzbekistan and Kazakhstan, while the remaining one (CAC-3) runs from Turkmenistan's Caspian coast to Russia via Kazakhstan. The entire system has a maximum capacity of 90 bcm annually, though it has been used under its capacity because of several disputes between Russia and Turkmenistan.

Since the mid-90s, depending deeply on Russian infrastructure and having limited choice for its export routes, Turkmenistan has been committed to find new export routes in order to diversify its revenue sources and respond to increasing disputes with Russia over gas price agreements. In 1997 the first alternative route toward Iran was opened with the construction of the Korpeje-Kurt Kui pipeline, and Iran became the first alternative export market alternative to the country. the most important shift in export strategy was made in the 2000s, when Turkmenistan decided to build a transnational pipeline system toward China. In 2009 and 2010, the two parties built successfully the first two lines (Line A and B) of the Central Asia-China gas pipeline (CACGP), which sent Turkmen gas to China via Uzbekistan and Kazakhstan. At a later stage, Ashgabat decided to enhance its energy relation with Tehran building the Dauletabad-Sarakhs-Khangiran pipeline in 2010 and, later on with Beijing too, building the third line (Line C) of the CACGP in 2013. At the end of this diversification strategy, Turkmenistan was able to transport its gas volumes towards three different directions for the first time in its history: north toward Russia with a potential 50 bcm route; south toward Iran with a potential 20 bcm route; and finally, east toward China with a potential 55 bcm route. Throughout the years, China has unequivocally become the main export market for Turkmen gas. In 2017, Ashgabat exported 33,6 bcm of natural gas by pipeline, 31,7 bcm of which went to China.

In recent years, Ashgabat perceived the excessive dependence on Chinese market, and thus started to seek new alternative export routes. A major alternative export route would be the Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline, whose length is 1814 km and whose total capacity is 33 bcm annually. The source of this ambitious project will be the Galkynysh gas field. The pipeline would definitely diminish/ the subordination of Turkmen exports to Chinese market, but it faces serious security and financial challenges. The main challenges are, on the one hand, that the proposed pipeline route should run through Afghan unstable regions, and, on the other hand, that the construction costs are critically high, being around $8 billion. As for the security issue, Turkmen authorities affirmed that they have reached an agreement with some of the principal tribes in the Afghan regions, which consider the project beneficial for the Afghan people. As for the financing issue, the Turkmen company affirmed that it was able to secure all the financing, thanks to the involvement of the Saudi Development Fund. The Saudi involvement might be part of the containment policy against Iran undertaken by Riyadh. The project would result in a positive increase of connectivity among these four countries and between Central and South Asia. Moreover, Afghan stability and economy would greatly benefit from the transit fees. Indeed, Afghanistan would receive about $500 million annually in transit duties, while Turkmen Foreign Minister Meredov claimed that the neighbor country would earn about $1 billion a year in transit fees.

Historically, the main gas source for Turkmen exports is the Dauletabad field in the south-east of the country. In the post-Soviet time, it has been the main source of supply for the Central Asia-Centre pipeline and its related markets, namely Russia and Ukraine. After the 2009 episodes, it became also the supply source for the newly built Turkmen-Iran pipeline (Dauletabad-Sarakhs-Khangiran pipeline), fostering a diversification of markets.

Additionally, a significant development in the gas sector has been the exploration and production in the enormous Galkynysh gas field, thanks to the fundamental contribution of Chinese energy company CNPC and Chinese loans. Indeed, in 2009 Chinese Development Bank issued an initial $3 billion loan to Turkmenistan for the development of this gas field, and two years later Turkmenistan received an additional $4.1 billion tranche. The Galkynysh area (formerly known as South Yoloten) was discovered in 2006 and, according to an independent audit by Gaffney, Cline & Associates, the entire area holds around 27 trillion cubic meters of gas reserves, 21.2 tcm in the Galkynysh field, 5 tcm in the adjacent Yashlar field and 1.2 tcm in the nearby Garakel field. This area plays an essential role in the strategy of Turkmenistan to expand its exports, because it could provide gas for the TAPI pipeline, in addition to the already existing Central Asia-China gas pipeline. The commercial production from the Galkynysh field began in 2013, reaching roughly 1 Tcf at full capacity. The second phase, started in 2014, followed the same plan as the first phase, while the third phase plans to add over 1.2 Tcf of natural gas; therefore, Turkmenistan plans to produce abound 3.3 Tcf annually from this strategic asset[97].

[97] https://www.eia.gov/beta/international/analysis.php?iso=TKM

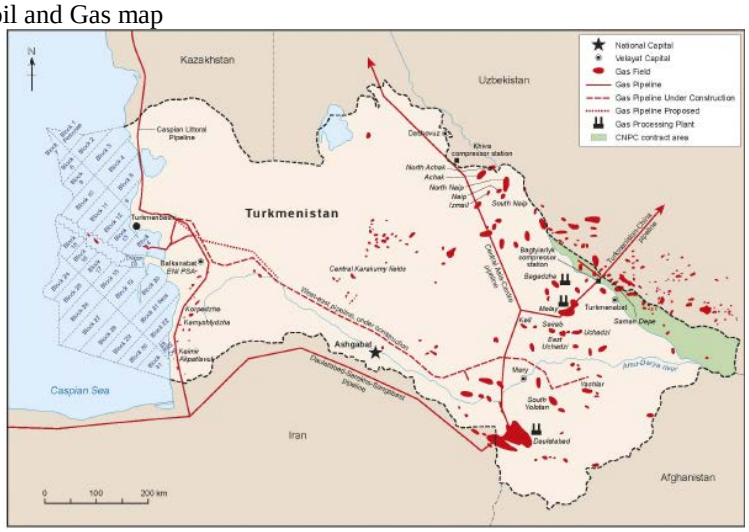
Also, in the midst of the difficult economic situation that has been troubling Turkmenistan, Ashgabat managed to build one major domestic pipeline: the East-West Gas Pipeline. This pipeline is capable to bring gas from east to west and vice versa, and its project was proposed within the energy relations with Russia since its role would also be to bring additional gas from East Turkmenistan to the proposed Caspian Coastal pipeline. Indeed, the aim was to transport 30 bcm per year through its 773 km, with constructions costs that amounted to $2.5 billion. However, the energy relations started to worsen, and Turkmenistan decided to build this domestic pipeline by itself. The fate of this pipeline was originally linked to the Nabucco project, but despite the Nabucco pipeline failed, Turkmenistan was still committed to complete the project by 2015, just slightly later than expected initially. The East-West pipeline was built in line with a diversification strategy and in order to create new possibilities for its gas exports; indeed, the pipeline might have a positive impact because it can transport in both directions. However, as it will be highlighted later in the analysis, its original goal will hardly be achieved, because there are relevant problems related to its feasibility and this pipeline might not help Turkmenistan to tackle and address its economic challenges.

Table 2: Turkmenistan's existing and proposed pipeline routes and their annual capacity

	NAME – FINAL MARKET	CAPACITY (bcm/y)
Existing gas pipelines routes	*Central Asia-Centre gas pipelines* – **Russia**	45
	Central Asia-China gas pipelines (Line A, B and C) – **China**	55
	Korpeje-Kurt Kui pipeline – **Iran**	8
	Dauletabad-Sarakhs-Khangiran pipeline – **Iran**	12
	East-West Interconnector pipeline	30
Proposed gas pipelines routes	*Trans-Caspian Pipeline* – **Europe** via Southern Gas Corridor	30
	Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline – **India**	33
	Central Asia-China gas pipeline (Line D) – **China**	25

Source: Authors

Figure 2: Turkmenistan oil and Gas map



Source: Pirani, 2012, p. 22

Russia

Turkmenistan is emblematic of the loss of Russian influence over the region. Indeed, in the last decades, Russia has been overshadowed by China as export partner and dominant player in Turkmenistan's energy sector. The commercial relationship between Moscow and Ashgabat has been affected by the Turkmen neutral policy and its decision not to access to regional organizations; thus, over the years, Moscow has not been able to contrast the rising influence of China.

Table 3: Russia's total trade with Turkmenistan, $ million

	1996	1999	2000	2005	2008	2010	2012	2014	2016	2017
Turkmenistan	283,2	136,9	602,7	300,7	909,2	865,5	1,394	1,228	901,7	427,5

Source: UN COMDATA

Additionally, Turkmenistan's President Niyazov implemented a domestic policy that discouraged the use of Russian language and other measures in order to promote Turkmen nationalism and reduce Russian influence in the country. Therefore, the two countries have always had difficult relations, which were mainly driven by the energy factor.

Since the independence, Turkmenistan has had a troubled relation with Russia, because of the nature of their energy trade that generated continuous gas-price disputes and economic disagreements. Additionally, the increasing influence of China in the country and the neutral policy implemented by Turkmen authorities significantly weakened the Russian influence in the country, since Russia ceased to be as advantageous to the country as it was before.. Indeed, the neutral policy has prevented Russian from attempting to integrate its agenda with the country's policy and economic development, through different regional mechanisms in both the security sphere, with the CSTO, and the economic sphere, with the EAEU. In the first years after the independence, Turkmenistan increased its natural gas production, and Russia was simply the only transit state to export markets, mainly former Soviet countries. Indeed, Russia used to import Turkmenistan's gas produced in the Dauletabad field and transport it through the Central Asia-Centre pipeline system, which was the only available route for Turkmen exports. Therefore, Russia used to hold a great political and economic leverage at Turkmen expenses, a situation that led to challenging energy relations between the two countries, due **to price dispute** and **almost-total dependence**, which ended with the Turkmen shift to China's gas market. Historically, Russia, through its gas company Gazprom, used to buy Turkmenistan's gas at a low price and resell it to third markets, such as the Ukrainian one, at a higher price, while Moscow was able to fulfill its external market position in the more lucrative markets like Europe. This strategy, driven by external factors, relegated Turkmenistan to the role of gas provider to third countries through Russia, not being able to develop its economy and benefit fully from its exports.

Before the new millennium, the gas imports were purchased at a price below the market value and also consisted in a split between 40% in hard currency and 60% in barter. The first important development in the energy bilateral relation was an agreement signed in December 1991 that allowed Turkmenistan to export a limited volume of natural gas to European markets through Russian pipelines in exchange of hard currency; however, soon after the agreement, the two parties disagreed over pricing and transit issues, ending with the suspension of Turkmen export which did not resume until 2000. In April 2003, the two sides achieved a 25-years contract for importing Turkmen gas to Russia. The agreement provided for an increasing purchase of Turkmen gas by Russia starting from 5-6 bcm in 2004, rising to 6-7 bcm in 2005, 10 bcm in 2006, 60-70 bcm, in 2007 and up to 70-80 bcm in 2009-2028[98]. It is noteworthy the fact that Gazprom has never imported more than 45 bcm annually from Turkmenistan, which is far below the volumes agreed in 2003.

Successively, the oil and gas prices began to soar particularly; thus Ashgabat decided to renegotiate the price a few times in the following years in order to maximize the positive situation and reduce the excessive profit for Russia. Ashgabat demanded that the initial price ($18-22/tcm) should be doubled and paid fully in cash. After some controversies, the Turkmen President managed to reach a new price, $44/tcm in 2006 up to $150/tcm in 2008, thanks to the positive trend in oil market and gas price linkages to oil prices[99].

Along with the 2003 agreement, another major agreement between Russia and Turkmenistan provided for significant investments in the modernization of Turkmenistan's transport capacities for receiving the agreed gas volumes. Therefore, the two sides agreed on the reconstruction of the Central Asia-Centre gas transport system and the expansion of an existing pipeline along the Caspian coast. the next year, Gazprom began to work on the expansion of the CAC gas pipeline. This agreement seemed to be an important economic and political commitment from the Russian side, providing a long-term and more economic beneficial option for Turkmenistan. Additionally, the long-term contract was essential for Russian commercial commitments with

[98] Luca Zs. Vasànczki, Gas Exports in Turkmenistan, p. 8, November 2011, Note de l'Ifri
[99] Ibidem, p. 9

Western markets and it allowed to postpone the development of high-cost gas projects in Siberia and its Arctic region.

In 2008 Turkmenistan delivered to the Russian Federation up to 40 bcm of gas. the beginning of the global economic crisis in 2008-2009 and the Russia-Ukraine gas dispute in 2009 challenged the relation even more. Before the global financial crisis spread around the world and affected the global economy, European gas demand witnessed an incredible growth and the gas price fixed to oil prices soared. Therefore in 2008 Gazprom declared to be ready to use a pricing formula based on the price that Europeans was paying for Russian gas exports also for its imports from Turkmenistan. At that time, Gazprom was selling gas to Europe at an average price of $360/tcm, which soon rose to $410/tcm[100]. In this way, Russia could also prevent the Turkmen gas exports to Europe, consolidating its energy relations with Ashgabat.

In 2008 Russia reevaluated the volume agreed in 2003 and decided with Turkmenistan to increase gas purchase up to 70-80 bcm annually at the European price of $350 per 1,000 m^3. However, because of the recession caused by global financial crisis and the following European gas demand drop, the European price fell to $280 per 1,000 m^3, which posed a significant economic damage for Russia, having to face a loss for each cubic meter imported from Turkmenistan at the price condition agreed previously. Also, Central Asian gas became irrelevant and Russia tried to reduce the gas imports from Turkmenistan, fearing a deeper depression due to a possible oversupplied market. Within this context, in 2009, a blast damaged the Central Asia-Center gas pipeline, the main gas pipeline from Central Asia to Russia, interrupting exports to Russia. Indeed, although the damage was quickly repaired, Russia did not resume its gas imports, forcing Turkmenistan to suspend the delivery of 92% of its exports to Russia with enormous consequences for the Turkmen economy. Indeed, Turkmenistan suffered a GDP loss of 25% over this period, as a result of the inoperative pipeline, which cost an estimated $1 billion every month. The episode represents a critical moment for the energy relations between the two countries, because each party blamed the other for the accident and the flows did not resume until the following year , undermining significantly the mutual trust. The two parties agreed that Gazprom would purchase Turkmen gas at $240 per 1,000 cubic meters and either resell it or use it domestically in Russia[101]. After the explosion, Russia has not resumed the previous volume of gas imported from Turkmenistan. Indeed, Gazprom agreed with Turkmengaz to import only 30 bcm, but delivered until 2028. The gas supply resumed on January 2010 at a proclaimed level of 11 bcm per year, dropping from a peak of 41.6 bcm in 2007, and later in 2015 until 4 bcm. This drop had serious consequences on the bilateral relations and the credibility of Gazprom as a reliable buyer started to crumble in Ashgabat, which simultaneously began to export to China. Indeed the Russian decisions to reduce gas imports from Ashgabat generated a loss equals to one fourth of its GDP in 2009. In 2010, since the European gas demand fell significantly, Russia and Turkmenistan agreed to suspend the expansion works on the long-stalled Caspian Coastal Pipeline, which should have ensured a transit route for the gas produced in Western Turkmenistan to north through Russia and had been proposed in opposition to the Trans-Caspian pipeline (Annette Bohr, Turkmenistan: Power, Politics and Petro-Authoritarianism, p. 80, Research Paper 03/2016, Chatham House). Gazprom expressed several times its intention not to increase its purchases from Turkmenistan. After further disputes and new gas fields coming on the line operated by Gazprom, the Russian gas company decided to withdrawal from importing Turkmen gas in 2016. The Turkmen economy has been deeply affected by this decision, both in terms of economic struggles and in terms of increasing dependency on a single market, namely China. However, recently, Gazprom CEO Miller announced that the Russian energy company was in talks with Turkmenistan about the possibility of a resumption of purchases of Turkmen gas starting with the beginning of the 2019[102].

For many years, Russia has held a monopsonist position over Turkmen gas exports, which was initially broken by the construction of the Korpeje-Kurt Kui pipeline to Iran in 1997 and, more significantly, by the completion of the Central Asia-China gas pipeline in 2010. However, one main objective of Russia's strategy was to prevent the construction of a Turkmen pipeline toward Europe and its market. Therefore, Russians obstructed several attempts of the Western and Turkmen authorities to find feasible ways to export Turkmen

[100] Idem
[101] Paul Stronski, Turkmenistan at twenty-five: the high price of authoritarianism, January 30, 2017, CARNEGIE ENDOWMENT, https://carnegieendowment.org/2017/01/30/turkmenistan-at-twenty-five-high-price-of-authoritarianism-pub-67839
[102] https://oilprice.com/Energy/Natural-Gas/Russia-To-Resume-Gas-Imports-From-Turkmenistan.html

gas. One project in particular met a strong Russian opposition: the Trans-Caspian pipeline, which is an underwater pipeline that connects Turkmenistan with Azerbaijan and would supply the European Southern Gas Corridor project.

Perhaps as a consequence to the fact that China has gained more and more influence over the country's energy sector and increasing economic and political importance, recently Russia has decided to shift its major priorities related to its bilateral relations with Ashgabat to a more security-focused relations, with a particular attention to the new challenges coming from the Turkmen-Afghan border. This transformation of priorities and relation characteristics might be the result of Russian awareness about its difficulties to tackle Chinese influence in the country's energy sector and economy overall.

In response to these economic and political developments, Turkmenistan decided to strengthen energy relations with a strong alternative market, the Chinese one.

China

The bilateral relations between Turkmenistan and China show the successful rise of influence of China in the region; indeed Turkmenistan is the Central Asian country in which China has gained more power at the expense of Russia. Both in economic and in energy spheres, China has achieved a great political and economic leverage in the country, moving the Turkmenistan's natural gas flows from northwards to eastwards. The energy relations must be considered within the wider range of commercial relations' improvement. Indeed, the total trade turnover raised from $11,5 million in 1996 to almost $7 billion, allowing China to become the top trade partner for the country.

As mentioned in the paragraph above, a combination between the complex relations between Russia and Turkmenistan, the almost full dependence on Russia and its infrastructure induced Ashgabat leadership to find new markets for their vast natural gas resources. In addition, Russia's attitude during the several disputes with Ashgabat made Turkmen leadership more and more well disposed toward China's access into its energy sector. Despite some attempts of Western countries, China was the only country showing the political commitment and the financial power required to build long-term alternative options for Turkmen gas and the only one able to overcome Russia's monopsony position. Indeed, China was moved by domestic needs, given its growing gas consumption and the possibilities that its market can hold for energy suppliers. These factors convinced Ashgabat about the Chinese long-term commitment to energy relations. In order to do so, China used its financial strength offering significant and conspicuous loans for financing new infrastructure and alternative export routes. Indeed, the talks between the two parties began during the Turkmen President's visit to Beijing in April 2006, that ended with the signing of a contract for $1.5 billion to develop natural gas in Turkmenistan. The energy discussions proceeded in the following years, and in July 2007 during another presidential visit in China the two countries signed a PSA for the Bagtyyarlyk gas field on the right bank of the Amu Darya[103]. In August 2008, new consultations were held in Beijing and resulted in the agreement for the construction of a pipeline by the end of 2009 with a capacity of 40 bcm per year. The construction of the first two lines (Line A and B) of the Central Asia-China gas pipeline successfully ended in December 2009 and October 2010, respectively. This gas pipeline, with a length of 1830 km, is the longest gas pipeline network in the world and it runs from Turkmenistan to China via Uzbekistan and Kazakhstan. Also, this project was the first strategic achievement of China, which secured its energy supply from the region while preventing the flows reorientation toward the Western market. With an additional agreement signed in 2011, the two parties agreed to increase the volume exported to 40 bcm annually by 2015. A third line with a capacity of 25 bcm, Line C, was completed in 2015. It is important to highlight that China decided to sign bilateral agreements with each country crossed by the pipeline: in this way Beijing obtained a tighter control of the infrastructure and its flows. In the meantime, in June 2012, Chinese President Hu Jintao agreed with its Turkmen counterpart to increase the volume of gas exported to 65 bcm per year by 2020. successively, in 2013, new agreements between China and Uzbekistan, Turkmenistan, Tajikistan and Kyrgyzstan were signed to build a fourth line (Line D) in order to export an additional 30 bcm of gas, provided by the Galkynysh field. However, the construction of the fourth line has been delayed and halted. Nonetheless, the first three lines of the Central Asia-China gas pipeline can meet 20% of Chinese gas

[103] S. Zhiltsov, 2015, The Great Oil and Gas Road: First Results and Prospects, p. 69, Central Asia and the Caucasus, Vol. 16, Issue 3-4 2015

demand. In 2014, the two sides revised commercial deal Looking the timeline of the agreements signed between Turkmenistan and China and the construction of pipelines, it is clear that China has overthrown Russia in Turkmenistan as reliable energy partner in few years. Indeed, as mentioned before, after the 2009 pipeline explosion, Turkmen gas exports to Russia declined sharply from more than 40 bcm in 2008 to zero by 2017. Russia used to receive around 90% of Turkmen gas before 2009. In the meantime, China became the only customer of Turkmen gas, reaching the volume of 31,7 bcm in 2017, out of 33,6 bcm total exported in the same year, starting from about 4 bcm in 2010.

China also achieved a relevant role in the exploration and production in the Turkmen gas fields. Chinese companies such as CNPC signed key agreements for the development of key fields, namely Galkynysh and Bagtyyarlyk areas. The significant amount of Chinese loans and investments in the Turkmen gas sector contributed the exploration and production in key assets.

Indeed, Chinese Development Bank (CDB) issued an initial $3 billion loan for developing the Galkynysh gas field in 2009, and, in 2011, Turkmenistan received an additional $4.1 billion[104]. The commercial production, around 30 bcm, began in 2013 and it was launched by international contractors, namely CNPC, Petrofac, South Korean Hyundai and Gulf Oil and Gas (UAE) at a cost of $9,7 billion[105]. The service contracts to develop the field signed between Turkmengaz and foreign contractors were divided as follows: $3.128 billion CNPC, $3.979 billion Petrofac International (UAE), $1.15 billion Gulf Oil & Gas (UAE), and $1.485 billion consortium of LG International and Hyundai Engineering (South Korea)[106]. The second phase of development at the Galkynysh field will be implemented only by CNPC, which will have the responsibility to build facilities at the field that will process 30 bcm of gas annually as well as to provide the proper financing. However, the time frame and the amount of the financing have not been disclosed.

China has gained such relevance in the country's energy sector that it was able to obtain the rights to explore and produce onshore. Indeed, in 2007 Turkmengaz and CNPC signed a PSA for the exploration, development and production of gas in the Bagtyyarlyk area, located in the Lebap region on the right bank of the Amu Darya River. This agreement made CNPC one of the only international energy companies to receive the rights to carry out onshore gas extraction activities within Turkmen territory. In the same occasion, the two sides signed a 30-year gas sale and purchase agreement for up to 30 bcm annually. The original PSA covered 13 bcm per year for export form the right-bank fields, while the remaining 17 bcm was to be provided by Turkmengaz from other production sites on the Amu-Darya's left bank[107]. CNPC has invested around $4 billion in the industrial development of the Bagtyyarlyk contract area and the construction of two gas-purifying enterprises[108]. The project was launched in August 2007 and production started in 2010. CNPC used the gas produced in this field for supplying the Central Asia-China pipeline. In June 2011, the natural gas coming from the Right Bank of Amu-Darya River in Turkmenistan arrived at Guangzhou City through the Second West-East Gas Pipeline for the first time. This marked the introduction of Central Asian gas to the energy-hungry regions of Eastern China.

Although in less than 10 years Turkmenistan's gas exports have shifted from Russian dominance to Chinese dominance because of the unprofitable situation with Russia, some analysts highlighted that the current situation actually does not provide more economic benefits to the Turkmen economy. Indeed, in 2016, China paid for its gas imports an average price of $228 per 1,000 cubic meter, and according to the few available data, Turkmenistan's gas is the cheapest supply with a giveaway rate of $185 per 1,000 cubic meter, while Australia, the second-largest China's supplier, sold its LNG at $220 per 1,000 cubic meter[109]. For these reasons, Ashgabat failed to profit from the export shift towards China. Therefore, Turkmenistan did not benefit more than when it used to sell its gas to Russia. Indeed, it is assumed that Turkmenistan sells its gas at a lower price in the first place in order to honor the debts and loans issued by Beijing for the construction of pipelines and other projects. This condition could lead Turkmenistan to search alternative export markets

[104] https://eurasianet.org/china-striving-to-boost-energy-imports-from-turkmenistan
[105] https://www.reuters.com/article/us-gas-turkmenistan-galkynysh/china-asserts-clout-in-central-asia-with-huge-turkmen-gas-project-idUSBRE9830MN20130904
[106] S. Pirani, 2012 p. 29
[107] A. Bohr, Turkmenistan: Power, Politics and Petro-Authoritarianism, p. 76, Chatham House, Research Paper, 03/2016
[108] https://www.azernews.az/region/66927.html
[109] https://eurasianet.org/china-figures-reveal-cheapness-turkmenistan-gas

again. Additionally, China uses the economic advantage of Turkmen cheap gas in negotiations with other gas suppliers, for example with Russia and Gazprom during their prolonged talks for the construction of Power of Siberia pipeline, and maybe in other Sino-Russian energy projects such as the Altai pipeline. In particular, because it was reported that Turkmenistan, along with other Central Asian countries, had failed to meet the expected gas volume toward China, particularly in the first months of 2018[110]. Still, China is committed to purchase Turkmen gas but it is considering to strengthen other sources (Russia and LNG suppliers).

Iran

Turkmenistan is the only country that shares both its land and maritime borders with Iran. The two countries shares deep cultural ties and because of their geography they can help each other in order to expand their economy and exports, and Indeed both countries see each other as a useful tool for their expansion. Tehran considers Turkmenistan as a possible partner for balancing the American policy toward Iranian regime, and Turkmenistan does not see Iran only as a consumer of its energy, but also as a transit state for exporting its product to important energy market, like India and partly Europe. In the independence aftermath, a good relationship between Ashgabat and Tehran remained vital. In 1996, the two sides launched a new railway, connecting Tejen (TM) to Mashhad in the Northern Iran, and it allowed the landlocked Turkmenistan to access to the Persian Gulf and into the Asian greater railway system.

The energy relations between the two neighbor countries used to have a strategic relevance. Indeed, Iran became the first alternative export market for Turkmen gas, breaking the Russian monopolistic position in 1997. Turkmen gas was essential in order to meet the increasing energy consumption in the Northern Iranian regions, which are too remote and poorly connected from the main Iranian gas fields. given the logistic difficulties for Tehran to bring its gas to the northern regions, Turkmen gas was the cheapest and most reliable way to satisfy Iranian growing energy consumption in those regions; indeed, Tehran benefited more from the cheap gas price imported from Turkmenistan than from the delivery of its own gas from the southern region. In this context, in 1995 the National Iranian Oil Company signed an agreement for the construction of the 200-km gas pipeline from the Korpeje fields in Western Turkmenistan to the Iranian industrial town of Kurt Kui and, in 1997, the first Turkmen gas flowed to the northern region of Iran, opening the first alternative export route for Turkmen gas. This pipeline had an important meaning for Turkmen gas exports, because it enabled Turkmenistan to open a new export market and diversify its routes away from Russia although the relative small volume exported, around 8 bcm of annual. In 2009, Turkmenistan and Iran agreed to build a second pipeline as a consequence of the Russian halt to the Turkmen gas imports after the 2009 explosion, and in 2010 the 182-km long Dauletabad-Sarakhs-Khangiran gas pipeline was completed, with an annual capacity of 12 bcm, more than doubling the total export capacity toward Iran up to 20 bcm annually. This pipeline connects with Iran's internal supply network in Khangiran. Turkmenistan's decision to diversify the source of its exports for the first time is particularly relevant, because the second pipeline received gas from the important Dauletabad gas field, which had exported to Russia for more than 20 years. Although the two pipelines never reached full capacity, Iran became Turkmenistan's second-largest gas export market after China, after having overtaken Russia in 2011. Indeed, Turkmenistan has always exported an average 8 bcm annually to Iran, with a peak of 9 bcm in 2012.

Despite the important role played by Iran in the Turkmen strategy of exports diversification, the energy relations between the two countries underwent several tensions. In the winter of 2012, after the Turkmen decision to reduce gas supplies by some 50% without prior notice, Iran declared that it was the result of a breakdown in negotiations over purchase conditions although Ashgabat denied any price dispute with Tehran. The energy relations significantly worsened in 2016, because of financial disputes. Indeed, Turkmen authorities claimed from Tehran a debt payments, around $1.8 billion, as a result of gas imports between 2007 and 2008. During this period, Iran kept purchasing Turkmen gas despite international sanctions were undermining its economy and ability to pay for it. Iranian authorities refused to comply with Turkmen request; therefore, Ashgabat decided to cease gas supplies starting in January 2017. Iranian claimed that the source of the dispute was that Turkmenistan had taken advantages of the shortages in Iran during the cold winter 2007-2008, increasing gas prices nine-fold from $40 to $360 per 1,000 cubic meter. Additionally,

[110] https://www.bloomberg.com/news/articles/2018-02-25/china-s-traditional-gas-allies-fail-to-meet-winter-demand-boom

Iranians responded with filing a complaint to the International Court of Arbitration (ICA) against Turkmenistan's request of repayments through arbitration. Iran's complaint was related to the Turkmenistan's cutting off gas exports without prior notice starting in January 2017, low quality of gas exported and the high price[111]. However, it is unclear whether Turkmenistan's decision originated from domestic economic turbulences and the need of recollecting debts or from the awareness to hold a strong alternative market for its gas, China. It is obvious the fact that this decision closed a strategic export market, despite its size, and made Turkmen gas sector, and its economy in general, more dependent on China's demand.

Although Iran does not need to import Turkmen gas anymore, Tehran values the energy relations with its neighbor country, because one of its priorities is to maintain and strengthen its presence in the region and, thus, counterbalance the reinvigorated American aggressive policy towards Iran. Indeed, Iran tried to foster energy relations with Ashgabat, proposing itself as a transit state for Turkmen gas headed to third markets, such as India or Asiatic markets[112]. Differently, Turkmenistan and Iran looked at the profitable markets, such as Europe and Turkey. In order to export gas volumes to Europe, both Iran and Turkmenistan need to pass through Turkey, feeding its growing energy consumption and its well-known aspirations to become a regional energy hub. Indeed, the route through Iran could be feasible and immediate instead of the more complicated Trans-Caspian pipeline. Iran might be used as a transit country for Turkmen gas enhancing the capacity of Iranian northern pipeline system. Turkmenistan might build a pipeline to Tabriz and connect with the Iranian Tabriz-Dogubayazit gas pipeline for transporting its gas to Turkey and Europe through TANAP[113].

For these reasons, Turkmen proposed to establish a swap contract with Iran in order to export some of its gas to Turkey[114]. The swap agreement would consist in Iran importing Turkmen gas to Iranian northern regions, while exporting the same amount from Iranian southern regions into a pipeline to Turkey. However, Tehran opposed the Turkmen proposals, following their dispute, and at the same time, Tehran opposed to favor a direct competitor in accessing to lucrative markets, such as Turkey and Europe. Indeed, Iran is potentially better positioned to provide gas to TANAP, especially in a period in which Iran has been able to strengthen its relations with Europe after the sanctions were lifted. However, Iran expressed its willingness to establish a swap agreement for Azeri market. Despite being a main regional gas supplier, Azerbaijan imports Turkmen gas during the summer when the price is low in order to maximize its commercial storage facilities. Currently Iranian officials declared that Turkmenistan is sending near 6 million cubic meters of its gas to Azeri market through Iran[115]. The main obstacles for enhancing these energy swaps are the limited capacity of existing pipelines that run through Iran's northern regions and the possibility for Tehran to increase its exports to Europe.

Turkey

The ties and relations between Turkey and Turkmenistan are deep and ancient; the connections between these two countries are rooted firstly in the cultural and linguistic spheres, strengthened in the membership to the Cooperation Council on Turkic-Speaking States, and secondly in the political and economic spheres. Ankara is one of the top trade partners for Ashgabat, ranking second in the Turkmenistan's top partners after China and followed by the European Union. In the years after the independence, Turkish companies became more and more important for the Turkmen economy. Indeed, Ankara invested an estimated $1.5 billion between 2002 and 2016 and 33% of Turkmenistan's imports came from Turkey in 2015. Therefore, Ankara has been able to develop increasingly trading, economic and political relations with Turkmenistan. The positive trend of bilateral relations can help Ankara in leveraging its relationship with Ashgabat in order to pursue its Central Asia strategy, which focuses on issues of energy and regional security. As mentioned

[111] https://www.azernews.az/region/126305.html
[112] https://jamestown.org/program/iran-and-turkmenistan-inaugurate-gas-pipeline/
[113] http://www.atlanticcouncil.org/blogs/new-atlanticist/iran-turkey-key-to-turkmenistan-realizing-its-energy-potential
[114] https://www.rferl.org/a/iran-rejects-turkmenistan-proposal-gas-shipments-turkey/28824118.html
[115] https://oilprice.com/Energy/Energy-General/Iran-Looks-To-Boost-Energy-Relations-With-Turkmenistan.html

before, the main goal of the Turkey's Central Asia strategy is to become a regional energy hub, thus Ankara is driven in the bilateral relations with Ashgabat by this ambition[116].

Ankara seeks to become more and more an energy bridge between the producing countries and the consumers and to strengthen its geopolitical role thanks to its geographical position. Turkey has tried to find possible routes to receive Turkmen gas, looking to the Central Asian countries as an alternative market while enhancing the Turkish ambition to become a regional energy hub. Turkmenistan is living difficult economic conditions, because of the legal dispute over debt payments with Iran, the temporary blockade of gas exports to Russia and the more relevant dependence on Chinese market. In this context, Ankara might play a crucial role in helping Turkmenistan tackle economic troubles and create gas routes westwards through its territory.

Turkey is well positioned in the region for playing this role and becoming a bridge between European and Central Asian markets. Also, Turkey's gas demand has grown significantly and has led to overdependence on energy imports, especially of natural gas. Indeed, in 2016 Turkey imported more than 99% of its total gas usage[117]. In meeting its domestic demand and the chance to increase its stake in the European energy security strategy, Turkey welcomed in several occasion the possibility to receive Turkmen gas through the Trans-Anatolian Natural Gas Pipeline (TANAP)[118]. This project, along with the Russian TurkStream, is an essential element in the geopolitical strategy of Ankara. TANAP is a key element of the European Southern Gas Corridor project. In the efforts to receive Turkmen gas for increasing annual capacity of the project, Turkey and Turkmenistan signed a memorandum of understanding in 2014 stipulating that the Central Asian country would become a supplier of TANAP, exporting gas to Turkey[119]. A further step was the meeting in 2015 in which Turkey, Azerbaijan, the EU and Turkmenistan made the Ashgabat Declaration, which highlighted the common intention and will to strengthen energy cooperation among these countries. The Declaration endorsed also the construction of the Trans-Caspian pipeline in order to provide a direct link with TANAP for the Turkmen gas. Turkey is essential in the process of bringing Turkmen gas to Western markets, because of its role of mediator between Azerbaijan and Turkmenistan, and of easing the economic and political differences between the two gas producers. The pipeline became operations in June 2018 and at the ceremony Turkey's President Erdogan affirmed that for the first time Azeri gas would reach European consumers. Also, he stated that the first gas delivery to Greece will start in June 2019[120].

Yet, the achievement of this goal seems to present serious challenges: as mentioned before in relation to a possible route that connects Turkmen gas to TANAP, the ongoing dispute between Iran and Turkmenistan represents an obstacle to the possibility to transport it through Iranian territory and, secondly, the political and economic harsh context for the construction of Trans-Caspian pipeline complicates the feasibility of the project.

India

India increased its economic relations with Turkmenistan in the recent years, after the Indian recommitment towards Central Asia. The two countries total trade turnover improved from $35.89 billion in 2010-2011 to $109.39 billion in 2015-2016.

[116] https://carnegie.ru/commentary/57249

[117] G. Rzayeva, Gas Supply Changes in Turkey, p. 2, OIES Energy Insight 24 https://www.oxfordenergy.org/wpcms/wp-content/uploads/2018/01/Gas-Supply-Changes-in-Turkey-Insight-24.pdf

[118] https://en.trend.az/casia/turkmenistan/2330824.html https://www.azernews.az/oil_and_gas/132639.html

[119] https://www.reuters.com/article/turkmenistan-turkey-tanap-idUSL6N0SX2QK20141107

[120] https://www.dailysabah.com/energy/2018/06/12/dubbed-the-silk-road-of-energy-tanap-begins-gas-delivery

Table 4: India's exports and imports with Turkmenistan, $billion

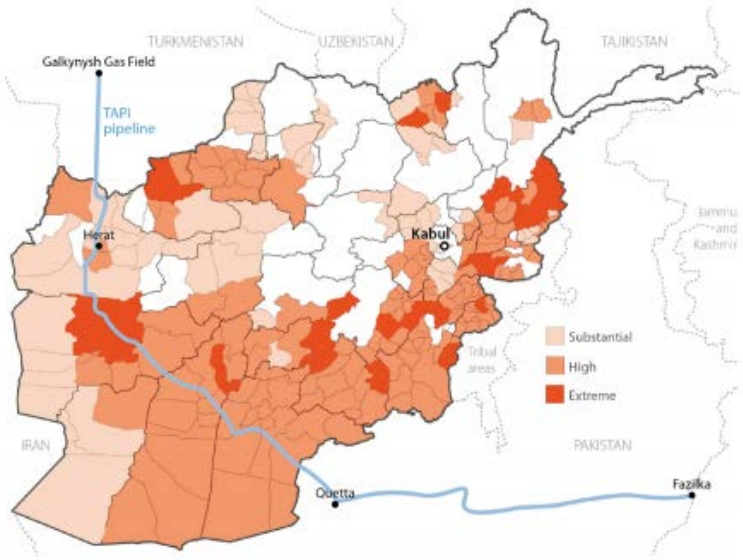
YEAR	INDIAN EXPORTS	INDIAN IMPORTS	TURNOVER
2010-2011	26.16	9.73	35.89
2011-2012	43.95	16.89	60.84
2012-2013	69.92	8.33	78.25
2013-2014	73.63	14.10	87.73
2014-2015	91.98	13.05	105.03
2015-2016	63.30	46.09	109.39
2016-2017	57.75	21.32	79.07

Source: https://eoi.gov.in/ashgabat/?0760?000

Regarding the energy affairs, India might play an important role in the region sector, especially in Turkmenistan, because the relative vicinity of the two countries as well as the increasing energy needs in India and the potential export capabilities of Turkmenistan. In recent years, New Delhi expressed its interests in the Turkmen gas sector; one energy project became the most popular in the bilateral relations of the two countries: the Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline. The TAPI project consists in a 1800 km long pipeline that would connect Turkmenistan gas with Indian market, passing through the unstable Afghanistan and Pakistan. The project is highly ambitious because of the elevate cost, around $10 billion, and the potential export capacity, 33 bcm annually. Indeed, through this pipeline, Turkmenistan would be able to transport its gas to Afghanistan (5 bcm) and to Pakistan and India (14 bcm each) for a period of 30 years[121]. The pipeline would export gas produced in the Galkynysh gas field in Turkmenistan. This project gained new stamina in the recent years, because of the growth of gas production and exportable volumes in Turkmenistan, which were the principal obstacles for the feasibility of the project in the 90s, and the increasing dependence of the Turkmen gas on China as a single market. Additionally, security issues are particularly relevant to the success of this project; indeed, one of the main issue of the project is that it should run through the most insecure and unstable regions of Afghanistan such as Helmand and Kandahar provinces, which are Taliban strongholds.

[121] http://www.europarl.europa.eu/RegData/etudes/BRIE/2016/593554/EPRS_BRI(2016)593554_EN.pdf

Figure 3: TAPI path in Afghanistan



Source: *New York Times*; adapted by EPRS.
Source: http://www.europarl.europa.eu/RegData/etudes/BRIE/2016/593554/EPRS_BRI(2016)593554_EN.pdf

The unstable and insecure situation in Afghanistan has influenced the project since the first attempts, being one of the main concerns related to the entire project. The security of the Afghan section was one of the main reasons behind the failure in the first attempts. An international consortium composed by Argentinian Bridas and American UNOCAL, among others international companies, attempted to build TAPI pipeline the first time. However, this attempt failed because of UNOCAL withdrawal following bombings of the US embassies in Africa by Al-Qaeda in August 1998, which prompted US missile attacks on Afghanistan in retaliation. Another attempt took place at the beginning of the 2000s driven by Turkmenistan, Afghanistan and Pakistan. In that occasion, India hesitated to join immediately, because it was working on the possibility to build an alternative pipeline from Iran through Pakistan, the IPI pipeline, in order to circumnavigate Afghanistan. However, this alternative route was strongly opposed by US policy against Iran through sanctions imposed and more recently by the Saudis. In December 2010, the four energy ministries signed a Gas Pipeline Framework Agreement (GPFA), followed by the signature of the Gas Sales and Purchase Agreement (GSPA) in 2012 between Turkmen Turkmengaz, India's GAIL and Pakistan's Inter State Gas System Ltd. In 2014, the four national companies established the TAPI Pipeline Company Limited, which will build, own and operate the pipeline. On 13 December 2015, the first stone of the Turkmen section was laid at the presence of the four countries. In February 2018, the four parties attended to the groundbreaking in a ceremony in Herat, Afghanistan for the launch of the Afghan section[122], after the Afghan government affirmed to have closed a deal with Taliban groups about the security of the pipeline. Pakistan will start constructions of its section by December 2018[123].

Indian participation to the project is driven by the need to diversify its energy supplies. India is one of the main purchaser of Iranian gas, therefore it has to find new routes in order to reduce political risks related to US policy, although US guaranteed waivers for its imports to India and other seven countries (China, South Korea, Turkey, Japan, Greece, Taiwan and Italy). However, after the decrease of global energy markets, India proposed to renegotiate the price agreed in the 2013 GPSA that benchmarked the price of imported gas at about $7,5 per million British thermal unit (mmBtu) at the Turkmen border. Indeed, to this price, transit

[122] https://www.nytimes.com/2018/02/23/world/asia/afghanistan-pipeline-tapi.html
https://russiabusinesstoday.com/construction/afghanistan-begins-construction-russia-bypassing-tapi-pipeline/
https://www.rferl.org/a/qishloq-ovozi-tapi-pipeine-afghanistan-launch/29059433.html
[123] https://en.trend.az/business/energy/2965307.html

fee and transportation charges must be added, bringing it up to over $10.5 per mmBtu which could end up to $13/mmBtu for Indian consumers[124].

Despite the potential benefit of the project, the TAPI pipeline has to overcome the competition of the Central Asia-China pipeline, which almost-monopolized Turkmen gas exports, and the IPI which is more secure and has lower costs. However, India might be used and supported by other countries in this project, especially United States and Saudi Arabia. Riyadh accepted to finance part of the project through the Islamic Development Bank (IDB) during Turkmen President's visit in May 2016, signing a $700 million loan agreement with the IDB in October 2016. Additionally, in November 2017, the Saudi Fund for Development signed an agreement for the purchase of gas pipes designed for the construction of Turkmen section of TAPI[125]. The increasing interests of Saudi Arabia in the possible export routes of Turkmen gas might be explained with the worsening relations between the Sunni country and the Iranian regime, which is fighting the international isolation posed by the Trump administration (the closest ally of the Saudis)[126].

USA

United States of America has looked at Turkmenistan as a potential partner in the region; however, the political environment and the policy of neutrality undertaken by Turkmen leadership limited the possibilities of a deeper collaboration and cooperation between the two countries. US policy towards to the country is similar to its regional strategy, which is focused on energy, security, and promotion of democracy. Given the difficult and close political environment in Turkmenistan, American companies have not been able to access to the economy as they have in other countries of the region, for example Kazakhstan. Indeed, the total trade turnover between the two countries amounted to $18 million ($11.7 million US exports to Turkmenistan and the rest US imports from Turkmenistan) during the period January-July 2018[127]. However, the vast amount of energy resources and reserves could enrich the bilateral cooperation; for such reason, several American administrations praised the growth and diversification of Turkmen gas exports. Indeed, at the beginning of 1990s, the number one goal of America was to weaken the complete monopolistic position of Russia in the country while preventing and limiting influence of new players, such as Iran and China. Therefore, Washington endorsed several pipeline projects in order to guarantee a diversification to Turkmenistan. The two main projects are the TAPI pipeline and the Trans-Caspian pipeline. The TAPI pipeline could have positive effects for the country and the region, and at the same time it could fulfill the strategic priorities of the US. Firstly, the pipeline would create a new alternative route for Turkmen gas away from the excessive dependence on Chinese market, as it happened previously regarding to the Russian influence with pipelines to Iran and China. Secondly, the TAPI project would produce economic benefits for Afghanistan's economy. Indeed, Afghanistan would earn significant transit fees, in a range between $400 and $500 million annually, for being crossed for 774 km, besides receiving 5 bcm of Turkmen gas annually per 30 years. The economic benefits would help Afghanistan in its current and critical situation . The US gives great value to positive impacts on Afghanistan's situation, especially in a time in which Washington is trying to understand a possible way out of the country. Thus, TAPI is considered a project that can respond to two of the American goals in the region at the same time: energy and security. Already the then-Secretary of State, Hillary Clinton, promoted the pipeline that connects Central Asia with South Asia, when she presented America's "New Silk Roads" strategy in July 2011[128]. In that occasion, the Secretary of State expressed her appreciation for the project, highlighting the positive effects about the increase of connectivity and development for the four countries. At the center of this Strategy (not implemented in the following years due to different views about its implementation among American officials), there was the strategic role of India, which should have balanced the rising of China in the entire region. Despite the failure to implement the Strategy, US has kept promoting this project and the potential role of India as a balancer against China's

[124] https://economictimes.indiatimes.com/industry/energy/oil-gas/india-seeks-revision-in-gas-price-from-tapi-pipeline/articleshow/65497724.cms
[125] http://turkmenpetroleum.com/en/2017/11/28/the-saudi-fund-of-development-will-finance-the-purchase-of-pipes-for-the-construction-of-tapi/
[126] https://jamestown.org/program/what-turkmenistani-presidents-visit-to-gulf-means-for-tapi-pipeline-project/
[127] https://www.azernews.az/region/138641.html
[128] https://2009-2017.state.gov/r/pa/prs/ps/2011/09/173765.htm

influence[129]. This policy might gain more importance in the following years in light of the increasing competition between China and US.

Regarding one of the main purposes of every American administrations (meaning, to weaken Russian influence), the US proposed, endorsed and praised the construction of another pipeline: the Trans-Caspian pipeline. The project consists of a 300 km underwater pipeline laid in the Caspian Sea that connects Turkmenistan coastal city Turkmenbashi to Azerbaijan, with an estimated construction cost of $5 billion. This pipeline would connect to the South Caucasus Pipeline (the Baku-Tbilisi-Erzurum Pipeline) and it would provide 30 bcm per year of Turkmen natural gas to the European Southern Gas Corridor. The idea of the pipeline was suggested in 1996 primarily by the United States, along with the European governments. In 1999, the Turkmen government signed an agreement with General Electric and Bechtel for a feasibility study of the project. In the following years, the US hoped to realize the project in order to diminish Russian dominance over the European gas market, in light of the successful projects in the region, namely the South Caucasus pipeline. However, Russian and Iranian strong oppositions to the project, the prolonged legal dispute over the Caspian Sea and the major discovery of the Azeri Shah Deniz gas field have blocked the implementation of the projects.

One of the main obstacles for an improvement of the cooperation between US companies and Turkmengaz is surely the lack of transparency[130] in the energy sector as well as the difficult access to important and strategic assets for international energy companies except the Chinese. Recently, US officials highlighted the need for landlocked countries with significant energy reserves to create the right opportunities for foreign investors that can develop these reserves. Also, several American energy company, such as Chevron, ExxonMobil, expressed their interest in the TAPI project. Indeed, the US considers that Turkmenistan would be obliged to open more its energy sector in order to tackle the economic suffers caused by the drop in export revenues[131].

Another critical aspect of the Turkmen energy sector is the lack of available, reliable and independent data to the public concerning the proven reserves, potential production of the oil and gas fields. Additionally, American administrations, and Western administrations in general, have little political and economic leverage to implement its agenda in Turkmenistan, because of the nature of its political and economic system. Indeed, the political system, the difficult investor climate and the repression of political and civil opponents generate a more complicate environment to engage with Turkmenistan for the Western countries, which take in consideration, in some extends, the social and political system in the investing countries. The Western reluctance to invest in Turkmen energy sector and make Ashgabat be a serious alternative and reliable source of energy for Europe creates the vacuum for the rise of China in the energy sector of the country.

European Union

As mentioned before, Europe has looked at Turkmenistan as a possible source of natural gas for its market that relies too much to Russian supply. Therefore, after the US proposal of the Trans-Caspian pipeline, Europeans expressed their agreement on the pipeline, that could eventually represent an alternative route.

For these reasons, European political support for the project remained high and gained new impetus in the 2000s. In 2004 the European Commission launched the Baku Initiative, a policy discussion with Caspian states, while in 2006 it presented an energy policy document in which it expressed the desire for a cooperation between Caspian countries and EU on pipeline projects and boost their energy trade. Particularly, in Brussel it became clear the need of having alternative gas routes after the gas dispute between Russia and Ukraine in 2006 and 2009, which highlighted the European dependence on Russia's gas imports and Ukrainian condition of transit state. In 2008, the EU and Turkmenistan signed a Memorandum of Understanding aimed at strengthening their energy relations and enhancing mutual cooperation in the energy

[129] https://www.heritage.org/europe/report/us-interests-and-central-asia-energy-security
[130] https://www.reuters.com/article/turkmenistan-energy-idUSL15697720071115
[131] https://www.reuters.com/article/turkmenistan-gas/turkmenistan-should-ease-gas-investment-rules-u-s-official-says-idUSL8N13I07820151203#CfhtmrQYBWkjyf4Z.97

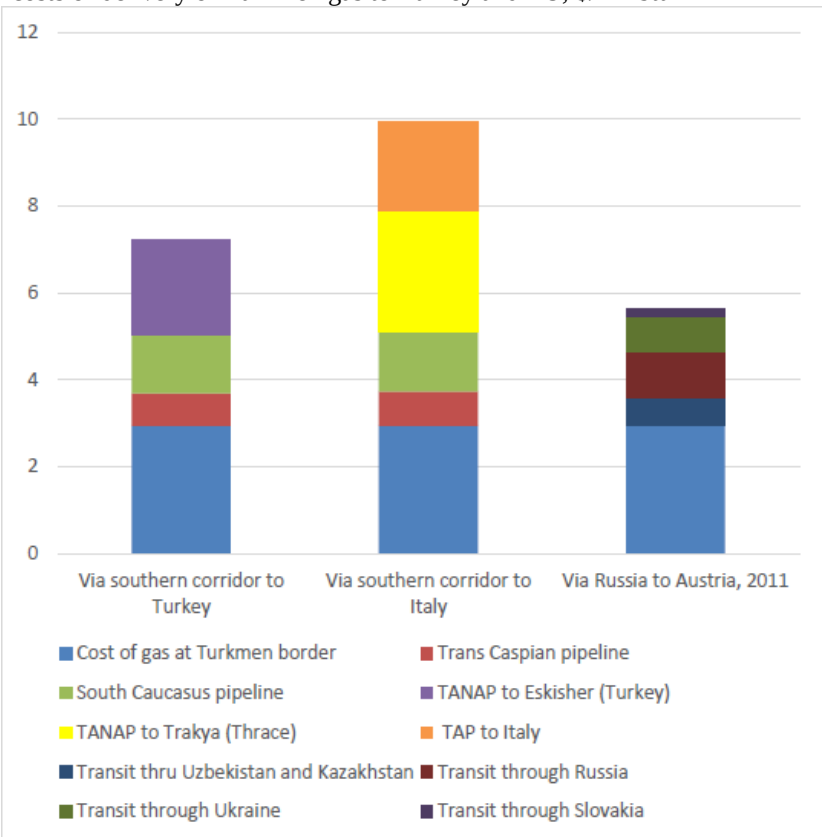
sector[132]. The strategic answer to the energy security needs was represented by the Southern Gas Corridor, presented in the EU Energy Security and Solidarity Action Plan in 2009. In 2011, the European Commission received the mandate to negotiate a legally binding treaty with Azerbaijan and Turkmenistan for the construction of this strategic infrastructure. This episode showed the political commitment for this project, especially if one considers that this was the first time that the EU had proposed a legally binding treaty in support of an infrastructure project. The events related to the 2014 Crimean crisis, and the international consequences of it, reinforced the European fears related to Russian gas.

A further step was made with the Ashgabat Declaration signed by Turkey, Azerbaijan, Turkmenistan and the EU in 2015, which expressed the intention and commitment to enhance the energy cooperation among these countries. However, the ambitious project had to deal with several issues. Firstly, this project is strongly opposed by Russia, and in similar ways by Iran. Indeed, Russia considers the European market the main and most lucrative market for its gas exports. For this reason, it has obstructed any serious attempt made by Central Asian countries to export their natural resources to Europe. In the last years, it proposed and started to build several projects that aim to consolidate its share of the European market, such as TurkStream and the North Stream 2. Besides promoting and implementing alternative pipelines, Russia has obstructed the Trans-Caspian pipeline through the long-lasted legal dispute about the legal status of the Caspian Sea; nevertheless, this relevant obstacle was overcome with the signature of the Convention on the legal status of the Caspian Sea by all Caspian littoral states at the 5th Caspian Summit held in Aktau on 12 August 2018. Although the end of the long legal dispute removed a significant obstacle to the Trans-Caspian pipeline, it does not take away political and commercial issues. However, as Arkady Dubnov highlighted, it seems that Iran and Russia (the two most fierce opponents of the Trans-Caspian pipeline) have relegated the gas issues to the second place, while giving top priority to security ones[133]. Indeed, another issue is the dispute between Azerbaijan and Turkmenistan regarding several oil and gas fields as well as the fact that the distribution of the natural resources in the Sea must be done through additional bilateral agreements, according to the Convention.

Besides political challenges, Europe has to take into serious consideration the economic aspects of the project, evaluating the actual costs of transportation of the Turkmen gas through the Trans-Caspian pipeline. Indeed, it is the commercial aspect of the Turkmen gas transportation that raises questions on economic advantages in comparison to other options, namely additional Russian imports and LNG. According to Pirani's recent paper[134], the issue is not the high cost of constructing the pipeline, amounted between $2 and $2.2 billion, but the significant costs of transportation that pose critical and important question on the convenience to import Turkmen gas for the European countries. Indeed, the cost of delivering gas from Azerbaijan is estimated to be cheaper both for Turkey ($179-189/mcm) and for Europe (for Italy $273-293/mcm) than Turkmen gas, whose delivery cost is estimated to be $236.52/mcm to Turkey and $335.52/mcm to Italy[135].Moreover, if one considers the fact that political and strategic considerations are deeply linked to the economic considerations, we can affirm that the European purchase of Turkmen gas seems difficult to become reality in the foreseeable future. Certainly, Russia might propose new agreements if it takes seriously the possibility of a new competitor in the European market; also, Azerbaijan would evaluate its own economic interests, being the main source of the TANAP and the possible economic and political loss caused by a new gas provider.

[132] http://europa.eu/rapid/press-release_IP-08-799_en.htm
[133] https://carnegie.ru/commentary/77078
[134] Simon Pirani, Let's not exaggerate: Southern Gas Corridor prospects to 2030", OIES PAPER: NG 135, July 2018, The Oxford Institute for Energy Studies
[135] Idem, p. 20

Figure 4: Estimates of costs of delivery of Turkmen gas to Turkey and EU, $/mmbtu



Source: S. Pirani, 2018, p. 15

Furthermore, Europe has to deal with Turkmenistan's prioritization of its exports, despite positive declarations and statements. Indeed, Turkmen authorities seem to prioritize: a) its exports towards China, its only purchaser; b) the construction of the TAPI, although it is not an easy path, and c) the energy relations with the United Arab Emirates. This prioritization of other export markets highlights the lack of commitment of Turkmen authorities to the Trans-Caspian pipeline cause. Finally, another relevant obstacle to the realization of the Trans-Caspian pipeline is Turkmenistan's gas processing policy, which requires foreign companies to let Turkmengaz process and export the gas extracted. This policy represents a major disincentive for international energy companies and their involvement to Turkmen gas industry.

In conclusion, Europe should reconsider the burden of importing Turkmenistan's gas, in a very complex and competitive political environment that does not seem to be entirely resolvable in the foreseeable future.

However, some European energy companies were able to access Turkmenistan's energy sector. As already mentioned, the Italian company ENI is one of the only two foreign companies owing a PSA for the operation in an onshore gas field, in the Nebit Dag area, after acquiring the Burren Energy Company in 2007, from which ENI produces an average of 9,000 barrels per day[136]. In 2014, the Italian company extended for additional 10 years the PSA for the Nebit Dag onshore block of fields (until February 2032). The Company's commitment to the country is shown by the fact that over 10 years it has invested about $2 billion[137] and is willing to expand its activity to new blocks for example, it expressed its interests for onshore blocks 19 and 20 in the Caspian Sea[138].

[136] ENI https://www.eni.com/enipedia/en_IT/international-presence/asia-oceania/enis-activities-in-turkmenistan.page
[137] https://www.azernews.az/region/141289.html
[138] https://af.reuters.com/article/idAFL6N0T81W820141118

Conclusion – Turkmenistan

In conclusion to this section, we can affirm that Turkmenistan's energy sector has passed through important changes during its history. According the first independent audit conducted in the country, Turkmenistan might have the fourth or fifth largest gas reserves in the world. Historically, Turkmen gas was transported to Russia at a cheap price, but this condition changed drastically after China built the Central Asia-China gas pipeline at the end of the 2000s. The fundamental shift to the Chinese market marked an initial loss for Russia and its policy of maintaining influence over this strategic region. Turkmen authorities maintains a strong control and limitations about foreign access to the country's energy assets. It seems unreasonable to think that Turkmenistan's leadership will decide to reverse its control, despite economic and financial difficulties are increasing.

In less than a decade, **China** has become the only market for Turkmen gas and the main investors in the country's sector. Beijing holds an incredible political and economic leverage in this country; an example is the fact that CNPC is one of the only two foreign companies that was awarded with an onshore PSA. According the agreement signed by China and Turkmenistan in 2007, the Central Asian country would deliver to China 30 bcm annually. This volume was subsequently increased up to 40 bcm annually, and, at a later stage, it was reported in 2013 that the two sides had reached an additional agreement on increasing export volumes to 65 bcm per year by 2020. However, this final volume will not be reached any time soon because of the current capacity of existing lines and the suspension of the construction of the fourth line (Line D), which will be necessary in order to achieve this ambitious target. China diversified its energy supplies between LNG and pipelines; therefore, it might not need to import more Turkmen gas.

Meanwhile, **Russia** seems to agree with the current situation and it seems to be more committed to prevent Ashgabat exporting to Europe than preserve its share of Turkmen gas. Gazprom used to import Turkmen gas in order to meet its international demands, without developing its own fields. As soon as the conditions changed, Russia was not interest anymore in importing Turkmen gas; this is the major difference with Chinese involvement to Turkmen gas industry. Nonetheless, it has been reported that Gazprom plans to resume some Turkmen gas imports from 2019. This decision can be seen as a way to conserve relative power in the country, giving a small alternative revenue to the critical Turkmen budget. Indeed, the Turkmen complete dependence to China's market made Ashgabat extremely vulnerable; furthermore after the suspension of gas exports to Iran due legal dispute. Moreover, we must take into considerations that Russia is building the first gas pipeline connected to Chinese market, Power of Siberia, which will enter service in December 2019 with an final annual capacity of 38 bcm. The improvement of Sino-Russian relationship will pass also through energy cooperation. For example, besides Power of Siberia, Moscow and Beijing are discussing about other two pipeline projects: Power of Siberia 2 (knows also as Altai pipeline) and the Far East project that connects PoS1 to Sakhalin. These projects might undermine China-Central Asia energy relations.

Western (USA and EU) and **Turkey** are connected by the possible construction of the Trans-Caspian pipeline. However, we must take into account that currently Western governments lack of a substantial political and economic leverage with Ashgabat. Therefore, it would be difficult for these countries to gain space in energy relations in the foreseeable future, also because of the strong limitations to foreign access to the sector. One of the main differences between China and Western countries is that while China is willing and capable to provide significant, Western countries have faced economic crisis and have some concerns about investing in countries, where political and social scenario is neither respecting several international standards nor completely transparent. Additionally, Trans-Caspian pipeline is facing serious economic challenges, for example the strong competition from Russian gas and to some extend also Azeri. The tariff costs would make Turkmen gas more expensive. Moreover, Europe deals with Turkmen prioritization of exports routes, which seems to leave little space to create an additional one toward Europe. Finally, it must take into account also President Trump's strong intention to sell more US LNG to Europe; thus, Turkmenistan's gas might be seen as possible competitor to US LNG and therefore it would not be part of the American interest. Instead **Turkey** is facing economic and political unsettles that might undermine its alliance with Western countries; also, recently it has strengthening its energy relation with Russia, after the

construction of TurkStream. Therefore, Russian interests will be taken into account during Turkish energy relations toward Turkmenistan's strategy to export westwards.

India and Iran are at critical points in their energy relations with Turkmenistan. Indeed, **India** expressed its strong intention to be more connected to this region; however, TAPI pipeline has to overcome serious security and financing obstacles. India might be helped by US and Saudi Arabia, which are strongly committed to limit and isolate Iranian regime, while American might be concerned to create for Turkmenistan alternative routes to Central Asia-China gas pipelines. Indeed, Saudi Arabia is contributing to finance TAPI construction. Instead, currently **Iran** and Turkmenistan have gas swap agreements for bringing gas to Armenia and Azerbaijan. Iran proposed Ashgabat a gas swap agreement for bringing gas to Pakistan, avoiding unstable Afghan regions, but it seems difficult to reach an agreement, because of Saudis opposition to it.

Uzbekistan

Uzbekistan is located at the heart of Central Asia. It is the only country that borders with all other regional countries: to the north with Kazakhstan; to the east with Kyrgyzstan and Tajikistan; to the southwest with Turkmenistan; and finally, to the south with Afghanistan. Also, Uzbekistan is the most populated country of the region, with more than 30 million of citizens, with a growth rate. The country has passed through the independence with no major shocks, because of the strong and firm hand of its first leader, Islam Karimov. Karimov has been Uzbekistan's uncontested ruler from 1989 to 2016, controlling the country with a combination of political skills and heavy reliance on his security services, which undermined any attempts to opposition as well as created an extremely opaque political environment. Despite he was reelected in March 2015, he suddenly died after a stroke on September 2, 2016. The Parliament appointed former Prime Minister Shavkat Mirziyoyev acting president a week later. Mirziyoyev had been able to maneuver behind the scenes in order to be appointed acting president. Mr. Mirziyoyev managed to be elected as the second President of Uzbekistan's history in the first presidential election without Karimov at the end of 2016, after having been Prime Minister since 2003. The new administration declared and launched a program of political and economic reforms in order to address some political and economic problems. Furthermore, the new administration needed to address its numerous problems in a complicated international and regional context, because of Karimov's policies that had brought Uzbekistan to isolation within the region and the world, particularly after the withdrawal from CSTO and refusing to join EAEU. Indeed, Uzbekistan is at the center of Central Asian transportation routes and it is particularly important for all of regional countries. President Mirziyoyev has undertaken some serious efforts to reform the conservative economic scenario; for this reason, he is trying to improve relations with its regional neighbors in order to lessen the burden of isolation as well as his reforms are aiming to attract more foreign investors. This situation might lead to stronger relations and presence of Western countries. Indeed, in 2017 Uzbekistan launched an ambitious program of market-oriented reforms that were unprecedented in the country's modern history. This program, called the Government's National Development Strategy for 2017-2021, aims to adapt the country to a more liberalized economy, enabling private sector growth.

The previous political power was translated also in the economic sphere; national economy is structured as a top-down economy, state-driven enterprise and strong limitations to foreign investors and ownerships in strategic sectors. The government carried out various state-led interventions based on export-oriented and import-substituting policies. The country is highly dependent on raw materials exports, mainly cotton, gas and gold. Indeed, the Uzbek republic has been the source of cotton for the Soviet Union and it still remains a major producer and exporter cotton, although it has to face some international sanctions on its exports due to its social and political bad records. The cotton exports allowed the government to receive substantial revenues and, as a result, the Uzbek state was able to maintain social services better than other Central Asian countries. After a decade of almost flat growth, domestic GDP has increased since 2005 at an average rate of 8%. It is important to highlight the fact that the Uzbek economy has been more or less insulated from the economic and financial downturns that other countries have faced in the past years (i.e. global financial crisis in 2008 and decline of oil prices in 2014). A reason to this output might be the adoption of the Anti-Crisis Programme implemented by President Karimov.

Table 1: Uzbekistan's GDP (constant 2010 US$), billion

$bn	1990	1995	2000	2005	2008	2010	2014	2015	2016	2017
GDP	20,458	16,593	20,046	26,085	33,535	39,333	53,657	57,949	62,469	65,78

Source: World Bank https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=UZ

However, most of the population has not enjoyed the improvement of national GDP. The high unemployment rate forced many Uzbeks to flee in search of jobs in more developed economy, especially Russia. These labor migrants sent around $3.9 billion from Russia to their homeland in 2017.

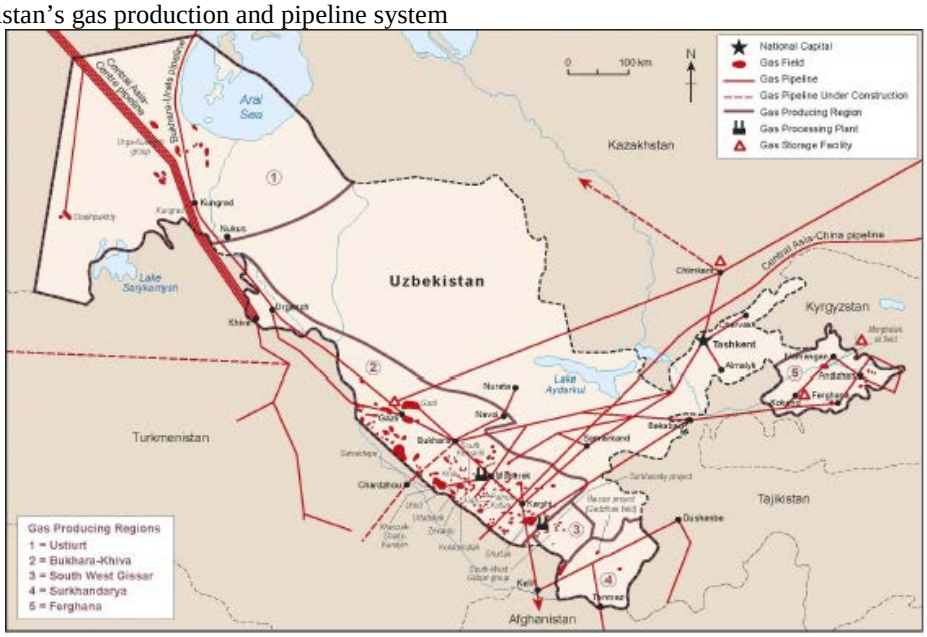
Uzbekistan presents some differences from Turkmenistan and Kazakhstan, because it is not a major exporter of energy, despite significant hydrocarbon reserves. As mentioned above, cotton and gold are the main raw materials exported from this Central Asian country. However, Uzbekistan has considerable energy resources, mostly natural gas, which is principally used in the national market. The oil and gas industry constitutes about 16% of the national GDP and contributes for more than 20% to the budget's revenue section.

According to 2018 BP Statistical Review of World Energy, Tashkent's total proved reserves of natural gas in the country amount to 1.2 Tcm at the end of 2017. However, conversely to the other regional gas producer, Turkmenistan, Uzbekistan has limited exportable volumes because of its high domestic consumption. Natural gas accounts for the majority of the energy consumption (88%), while petroleum products for 5%, coal 2% and hydroelectricity for 5%. The high domestic gas consumption is driven by the fact that the government has used gas as a subsidy for local industry and a direct economic benefit to the population. The vast majority of exploration, development and production has been undertaken by the state-owned company, renamed as Uzbekneftegaz in 1998. The current domestic production is estimated around 53.4-56.6 bcm in 2017 is mostly used to meet the high domestic consumption, that is estimated around 41.6-44.2 bcm in 2017[139]. This domestic condition gives limited exportable volumes, around 11.8-12.4 bcm in 2017, for the three markets: Russia, China and Kazakhstan. In order to develop its resources and reserves Uzbekistan imporved its legislation, with the introduction of a law on PSAs in 2001 and a new version of the law on mineral resources in 2002. However, initially Uzbekistan decided to limit the foreign involvement, in line with its policy of self-sufficiency and its view of the sector as a strategic one for the country. In the mid1990s some foreign companies accessed in Uzbekistan, but their involvement decreased as a consequence of decline of the oil prices and Uzbek production. Lukoil, Gazprom and CNPC are currently the most important foreign companies in the country's sector.

The most important region for Uzbek gas production is the southern Bukhara-Khiva region, where more than two thirds of Uzbek gas is produced. In 1953, the first natural gas field, Setalan-Tepe field, which is located in the Kyzyl-Kum desert, was discovered in the region. But, an important development for Uzbek gas industry took place when the Gazli oil and gas field was discovered in the Romitan district of Bukhara-Khiva, because the initial gas reserves of the field reached about 500 bcm. Hence, Tashkent became a gas producer for the Soviet Union, which decided to build two pipelines: Bukhara-Ural pipeline and the Central Asia-Center main gas pipelines. Nearly all gas fields located in the region are operated by the state-owned energy company, Uzbekneftegaz, and most of them are relative small fields according to international standards. Uzbekneftegaz has to manage constantly the decline of some fields, given their long productive history. In this region, there is also a field operated jointly with Lukoil under a 35-year PSA that is the Kandym-Khauzak-Shady project. Additionally there are also Uzbekistan's two major gas processing plants: Mubarek and Shurtan Another important region is the Ustiurt region, located in the north-western Uzbekistan. In this region there is a gas gield, Shakhpakhty field, operated by Gazprom under a 15-year PSA signed in 2004. However, the most promising area of Uzbekistan's gas sector is the area called "25 Years of Independence", which located in the Surkhandarya region in the southern part of the country and is estimated to be the largest in Uzbekistan with more than 100 bcm of natural gas. This project is operated under a 30-year PSA between a Gazprom's subsidiary, a Uzbekneftegaz's part and Altmax Holding. Other oil and gas regions in Uzbekistan are Hissar and Fergana, while there are three promising regions that are Khorezm, Middle Syr Darya and Zarafshan.

[139] 2018 BP Statistical Review of World Energy & Asian Development Bank's 2018 key indicators for Asia and the Pacific, Uzbekistan

Figure 1: Uzbekistan's gas production and pipeline system



Source: S. Pirani, Central Asia and Caspian Gas Production and the Constraints on Export, OIES NG 69, December 2012, p. 31

Recently, the government adopted a special five-year program to boost energy production. Through this special program, Uzbek authorities plan to increase gas production by 53.5 bcm, oil production by 1.9 million tonnes and gas condensate production by 1.1 million tonnes by 2022. In February 2017, the President signed a presidential decree on expanding geological exploration in the Ustyurt oil and gas region, giving a new impetus to exploration. Recently, new industrial reserves of gas condensate were discovered on the Ustyurt plateau in Karakalpakstan. Uzbekistan's energy company declared that under the investment program in 2016 with the participation of foreign investments and loans 14 projects with a total value of foreign investments of $16,3 billion are implemented, focusing on geological exploration, production and processing of hydrocarbons and other areas. Until 2020, Uzbekistan plans to implement 38 projects in the oil and gas industry with a total cost of about $20,6 billion[140]. Investments in the oil and gas sector are considered to be the most liquid among long-term projects, receiving half of all attracted funds[141]. Nevertheless, Uzbekistan is facing difficult time to meet the forecasts and the fall of oil and gas prices have also affected some projects, where some foreign investors decided to pull out. One of them is the Malaysian Petronas Carigali, which decided to withdraw from all existing petroleum upstream projects in the country in May 2011.

One important development in the country's energy industry is the Uzbekistan authorities' decision to promote the construction of petrochemical facilities in an effort to diversify the industry, shifting the focus of exports from raw materials to added-value products. The first important event for the fuel industry was the beginning of the operation of Mubarek Gas Processing Plant in the Kashkadarya region in 1972 and in 1980 another major gas processing plant was built in Shurtan. Also through international partnerships Uzbekneftegaz is building new processing plants, for example in 2013 it started the construction of a petrochemical plant for processing Surgil field's gas or the Kandym Gas Processing Facility built jointly with Lukoil or the oil refinery in Jizzakh region with Gazprom.

Concerning to the oil sector, Uzbekistan had 594 million barrels of proven crude oil reserves in 2016, while its production amounted to 54,000 barrels per day in 2017. However, Uzbekistan has been facing a declining oil production over the last decade as oil fields are depleted. Around 70% of the country's oil production are located in the Bukhara-Khiva region. In order to tackle this declining trend, Uzbekneftegaz decided to invest some $200 million in geological prospecting to find heavy oil in the south and east areas of Uzbekistan. The state-owned company has already undertaken discovery works for hevy oil and bitumen in the Korsagly-Dasmamagin area, in the Besharcha block in the Surkhandarya region as well as in the Fergana area. It

[140] https://www.azernews.az/region/125948.html
[141] https://www.azernews.az/region/132412.html

believes that it will be possible to produce at least 100,000 more tonnes of oil annually in those areas after these works are completed. The limited oil production affects also the three oil refineries' production, which have to operate below their capacity. It also obliges Tashkent to import some oil from Kazakhstan mainly. However, Uzbekistan plans to gradually reduce its oil imports by converting natural gas into other hydrocarbon products; for example, through the construction of a GTL (gas-to-liquid) facility.

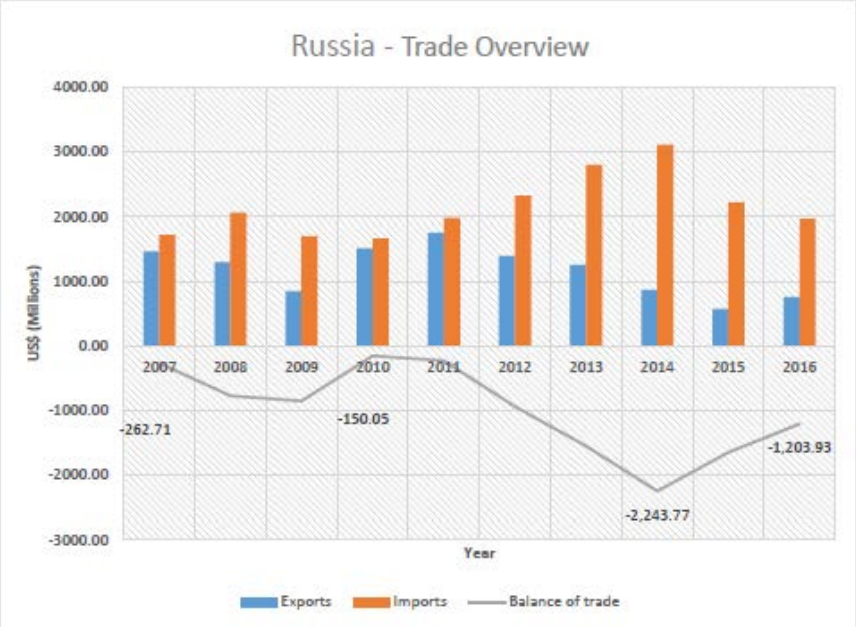
As we already mentioned, Uzbekistan does not export significant gas volume because of its high domestic consumption. In 2017, it exported 11.8 bcm mainly to Russia and China, and a smaller quantity to Kazakhstan. In 2017, Gazprom purchased 5,5 bcm of natural gas from the Central Asia country via the Bukhara-Ural pipeline, while China and Kazakhstan received 4,3 bcm and 1,5 bcm, respectively. These volumes might increase in the future, because Uzbekistan signed contracts to export up to 6 bcm of gas to Russia and up to 10 bcm to China annually. In order to provide more gas, Uzbekistan recently built two additional pipelines, Gazli-Kagan and Gazli-Nukus, in order to connect the Ustyurt and Bukhara-Khiva regions with the existing pipeline system. Additionally because of its geographical position, Uzbekistan is a transit country for Turkmen gas that flows through the three lines of the Central Asia-China gas pipeline as well as Central Asia-Center pipelines. Through Uzbek territory Lukoil exports gas produced in Uzbekistan to China. In 2014, Uzbekistan signed an agreement with China for the construction of the fourth line of Central Asia-China pipeline, but in 2016 the project was suspended and it is not expected to begin operation before 2020. Recently, in an effort to improve relations with neighbors, President Mirziyoyev announced that Uzbekistan might take part in the TAPI project, which would deliver Turkmen gas to India, passing through Afghanistan and Pakistan. In order to increase export of Uzbek gas, the Government plans to increase the production and use more alternative energy for domestic consumption.

Russia

Under Tsarits Russia and Soviet Union, Uzbekistan was entitled to produce cotton for Moscow, becoming for a century a single economy. After the collapse of Soviet Union, Uzbekistan tried to diversify its economy and find alternative markets, balancing its dependence to Russian market. Therefore, from 1991 to 1999 Uzbekistan opened its market especially to the world, especially to Western countries, China and South Korea. From its independence in 1991 until 1993, Uzbekistan remained in the Ruble zone. In 1991 Russia made up about 53% of both imports and exports, in terms of trade structure between Russia and Uzbekistan[142]. By 1995, Uzbekistan's export to Russia declined drastically. For instance, between 1994 and 1995, Uzbekistan's exports to Russia declined as a percentage of its total to 29.7%, while import over the same period increased by 40%. After 1995, Uzbekistan's export to Russia as a percentage of total trade averaged about 20%. Despite it was surpassed by China as top trade partner, Russia remains one of the major trade partners of Uzbekistan, having also important economic influence because of remittances from Russia, that amount roughly to 16% of Uzbekistan's GDP.

[142] Oybek Madiyev, Why have China and Russia become Uzbekistan's biggest energy partners? Exploring the role of exogenous and endogenous factors, Cambridge Journal of Eurasian Studies, 2017, 1

Figure 2: Uzbekistan's trade with Russia, 2007-2016, US$ millions



Source: The Pakistan Business Council, 2017 Republic of Uzbekistan, The Central Asia Country Series, p. 50

Uzbekistan still exports mainly two categories of products; cotton and clothing accessories. These products accounts about 50% of Uzbekistan's export to Russia, while it imports a large variety of goods from the Russian Federation. In the entire trade history of these two countries, one factor affects the most the commercial relations and the trade value: Ruble value. Indeed, Uzbekistan's economy was deeply affected by the 1998 Russian crisis and the devaluation of Ruble in 2014, following the sanctions and the drop of oil prices.

After 2000, Russia has started to strengthen its relations with Uzbekistan following the signature several security agreement in 1999 and 2000, the two countries signed the Treaty of Strategic Partnership in June 2004 and a treaty on alliance relation in November 2005. Furthermore, Russia needed to balance the increasing presence of US troops in the country during their activities in Afghanistan. For this reason, one area of notable cooperation is defense.

Despite some disagreements, Moscow has managed to maintain a significant presence in the country's energy sector, thanks to Lukoil and Gazprom, in the mid-2000s following the rise of oil price and Russian demand for Central Asian gas. Since then, the two Russian companies started to negotiate PSAs with the government[143].

The first PSA between Lukoil and Uzbekistan was established in 2004, for the development of three gas fields (namely Kandym, Khauzak and Shady) located in the Bukhara-Khiva region near the border with Turkmenistan, which were projected to achieve 11 bcm annually of gas production at peak. The PSA signed in 2004 is expected to expire in 2046 and Lukoil owns 90% of the project, while the remaining 10% is owned by Uzbekneftegaz. The first production started in the Khauzak and Shady gas fields in 2007, and in November 2011 first gas was launched at the Western Shady block of the area. Thanks to these actions, in 2012 the two gas fields delivered 3.8 bcm of gas and 19.000 tonnes of condensate. The Kandym group of gas fields consists of six separate gas condensate areas, namely Kandym, Kuvachi-Alat, Akkum, Parsankul, Khodzhi and West Khodzhi. The key facility of the Kandym project is the Kandym Gas Processing Complex, with a total annual capacity of 8 bcm divided in two process lines, 4 bcm each, making it one of the largest in Central Asia. The Processing Complex is designed to convert sour natural gas to marketable gas, stable gas condensate and marketable sulfur from the development of the six gas condensate areas

[143] S. Pirani, Central Asia and Caspian gas production and the constraints on export, p. 32

belong to Kandym area[144]. Lukoil launched the first line of the processing complex in November 2017, six months ahead of the schedule. While the 88% of Phase 2 was completed as of the end of 2017. In 2006, Lukoil joined an international consortium, composed by Petronas Carigali, Korean KNOC, CNPC in order to sign a 25-year PSA for the Uzbek section of Aral Sea, but Malaysian Petronas left the consortium in 2011, followed by Korean KNOC in 2013.

Lukoil presence increased in March 2008, when it joined the South-Western Gissar project, regulated by a 35-year PSA signed the year before. The license area includes seven fields: the gas condensate fields Dzharkuduk-Yangi Kyzylcha, Gumbulak, Amanata, Pachkamar and Adamtash; the oil and gas condensate field Southern Kyzylbayrak; and finally the oil field Koshkuduk. In 2011, Lukoil produced early gas at the Dzharkuduk-Yangi Kyzylcha field. In 2017, Lukoil reached a milestone in this project as it successfully launched the main production and process facilities. These include a gas treatment plant (with the annual capacity of 4,4 bcm per year) a gas pre-treatment unit and six gas gathering facilities. Following the launch of these facilities, Lukoil ramped up gas production to the plateau level of 5 bcm annually. These projects has enabled Lukoil to became the most dominant international operator in Uzbekistan's oil and gas sector, handling around 30% of total Uzbek gas production by the next decade[145]. Reports stated that the Russian company is planning to produce 14,6 bcm of gas in Uzbekistan in 2018, a 60% more than the previous year's production, and up to 18 bcm by 2020[146]. Lukoil-operated projects has reached 60 bcm of cumulative gas production and its total investment (amounting about $8 billion) in the country's economy make Lukoil the country's largest foreign investor. Lukoil was able to surpass its compatriot, Gazprom, which decided to focus more to develop its role in the Russian Far East. Indeed, Lukoil decided to use Uzbek gas to increase its exports to China via the Central Asian country. The Kandym gas processing complex is seen as central to its efforts to boost gas production and exports to China[147]. Indeed, Lukoil affirmed that the gas produced in the Central Asian country flows only in two directions: north to Russia and Kazakhstan and east to China, which will receive around 80% of the gas production[148].

Gazprom has covered two different role in the Uzbek energy industry: producer and transporter. Gazprom's role in Uzbekistan began in December 2002, when it signed with Uzbekneftegaz the Agreement on Strategic Cooperation in the gas industry. The Agreement established long-term purchase of Uzbek gas for the period 2003-2012, Gazprom's participation in natural gas production projects under PSAs as well as cooperation in Uzbek gas transmission infrastructure development and Central Asian gas transmission in the country. In February 2005, Gazprom signed another agreement with UzTransGaz: the Mid-Term Agreement on natural gas transmission across Uzbekistan over 2006 to 2010, which pursues the objective of transporting Central Asian natural gas through the Central Asia-Center and Bukhara-Urals pipelines. In 2009, in close correlation with the prices achieved by Turkmenistan, Uzbekistan signed with Gazprom an addendum to the Uzbek gas supply contract providing for a pricing formula based on the European average gas prices[149]. In April 2017, Gazprom and Uzbekneftegaz signed a contract for the purchase of 4 bcm per year of Uzbek gas for a period of up to 5 years starting from 2018[150]. At one hand, this agreement represents the Russian commitment to maintain relations with Uzbekistan and its gas exports, providing Tashkent some certainty of cash transfers in economically uncertain times, however, at the other hand, it represents the steadily withdraw of Russia from Central Asia gas imports. Indeed, in 2016 Gazprom imported around 6.2 bcm of gas from Uzbekistan, while 5.5 bcm were purchased in 2017 by the Russian company.

Concerning the production and exploration part, Gazprom signed a PSA with Uzbekistan to develop the Shakhpakhty deposit in Ustyurt region, which had been in production between 1971 and 2002, through two subsidiaries (Zarubezhneftegaz and Gas Project Development Central Asia (GPD). The 15-year PSA came into effect at the end of July 2004 and in August of the same year the operator commenced the operations on the re-entry of wells and natural gas production. Meanwhile, the operator decided to launch the upgrade of

[144] https://www.ogj.com/articles/2018/04/lukoil-uzbekneftegaz-start-up-kandym-gas-processing-complex.html
[145] https://www.azernews.az/region/135995.html
[146] https://www.azernews.az/region/136355.html
[147] https://www.reuters.com/article/us-russia-lukoil-uzbekistan-gas/russias-lukoil-starts-up-uzbekistan-gas-plant-for-chinese-exports-idUSKBN1HQ1GR
[148] http://caspianbarrel.org/en/2018/04/lukoil-to-send-about-80-of-uzbek-gas-to-china/
[149] http://www.gazprom.com/press/news/2009/december/article72939/
[150] http://www.gazprom.com/press/news/2017/june/article335166/

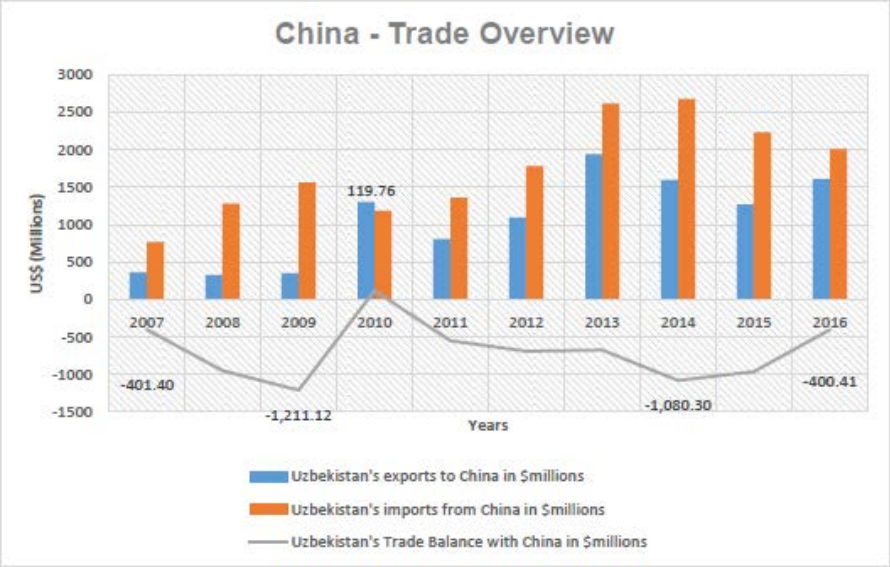
the gas field infrastructure in order to reach the design capacity for gas collection, treatment and transmission from the field. In 2006, construction of the Shakhpakhty booster compressor station (BCS) and a gas treatment facility were completed. In 2018, the sides signed the Supplementary Agreement No. 2 to the PSA, extending the operation of the PSA until 2024. In May 2006, Gazprom received geological exploration licenses for 7 investments blocks in the Ustyurt region, after having signed an agreement with Uzbekenftegaz in January 2006. The overall investment program is valued at $400 million. In May 2009, the Dzhel natural gas field was discovered on the Ustyurt region and in 2018 Gazprom signed a 25-year PSA for the development of this field. Annual gas recovery is expected to reach 150 million cubic meters within first 4 years (2021-2024) and rise up to 300 mcm annually from 2025[151]. In 2009, Gazprom discovered also the Jel gas field, whose reserves could reach about 10 bcm. Gazprom and Uzbekneftegas are discussing about the possibility to sign another PSA for developing this field. Besides being member of the Shakhpakhty PSA, One of Gazprom's subsidiaries, Gas Project Development Central Asia (GPD) owns 25% of the Kokdumalakgaz joint venture, which is engaged for the extraction and utilization of associated gas in the fields in the Kashkadarya region. GPD plays an important role also in the construction of the oil refinery in the Jizzakh region, which will have a processing capacity of 5 million tonnes annually of crude oil and it will produce clean-burning gasoline, diesel and jet fuel. This refinery is a key element of the Uzbek plans to increase production of high value-added products. Finally, GPD is part of the Surhan Gas Chemical Operating Company, which develops the entire investment block, Uzbekistan Mustakilligi. In the investment block, it was discovered the largest field in Uzbekistan: "25 Years of Independence" field[152]. The reserves of the field and the entire block are estimated at more than 100 bcm of natural gas. The Company has been established under a 35-year PSA signed in April 2017 between Uzbekistan and an investor consortium, composed by: GPD, Uzneftegazdobycha (a part of Uzbekneftegaz) and Altmax Holding Ltd. The project will be implemented in two stage. The volumes of gas processing could be brought up to 2 bcm annually at the first stage, which will cost $2 billion, and up to 4 bcm per year at the second stage. The total investment that may reach $5.8 billion, making the investment project become the largest in the modern history of Uzbeksitan. In 2018, a 50% stake of Altmax Holding was acquired by Andrey Filatov through Brighttree Holding Ltd; in this way, the new investor will have a 37,5% share in the development project. The 25 Years of Independence field will be the raw material base for the gas chemical complex in the Surkhandarya region. Another interesting development is the possible creation of a joint venture between Uzbekneftegaz and the Russian Tatneft for the development of oil and gas sector in Uzbekistan. They will jointly conduct research work on the development and production of shale oil and gas, bitumen and heavy oil in the country[153].

China

The establishment of bilateral relations started after the Uzbek independence and in October 1992 Beijing opened its embassy in Tashkent. Despite the countries signed an Economic and Trade in 1992, at the beginning of their relations Beijing had to pay the Uzbek decision to prioritize the Western countries for its development and the historical ties with Russia; therefore until the mid2000s, the trade between the two parties grew slowly. However, China has started to increase its trade volume with Uzbekistan since 2005. The countries have developed strong bilateral relations, mainly in the last decade. China has been able to become one of the most important trading partners and a major source of investment for Uzbekistan so much that in 2014 it overtook Russia as the Uzbekistan's biggest trade partner, with total trade more than $3 billions. As the figure below shows, Uzbekistan has seen a trade deficit with China, with the exception of 2010. The Uzbekistan's trade turnover with China kept growing up to $5 billions ($2.2 bn exports and $2.8 imports) in 2017.

[151] https://www.uzdaily.com/articles-id-46205.htm & http://gazprom-international.com/en/news-media/articles/gazprom-international-and-uzbekistan-signed-psa-dzhel-field
[152] http://www.sgc-oc.com/?lang=en
[153] https://neftegaz.ru/en/news/view/177138-Uzbek-and-Russian-companies-will-produce-shale-oil-and-gas

Figure 3: China's trade with Uzbekistan



Source: The Pakistan Business Council, 2017, p. 47

The turning point for the Chinese activities in the country took place after 2003, when its involvement became more visible. In 2004, Chinese President Hu Jintao visited Tashkent and signed agreement on the development of political, economic, military-technical, and cultural cooperation. Another important factor that improved bilateral relations is the deterioration of relations between Uzbekistan and Western countries after the 2005 Andijan massacre. Within the criticism caused by the massacre, Uzbekistan has started to turn east and China was ready to gain influence in the country offering economic and financing cooperation.

One of the main reason for the increasing influence of China in this country, it is undoubtedly the development of the Belt and Road Initiative. Indeed, Beijing looks positively Uzbekistan's central geographical position. In few years, Chinese investment in Uzbekistan's economy reached about $6,5 billion. The most part of these investments was directed to transportation projects, but Beijing has invested also in the energy sectors, mainly financing the construction of three lines of the transnational pipeline system, Central Asia-China, and for developing oil and gas fields. China and Uzbekistan are both members of the Shanghai Cooperation Organization, which Beijing used to foster its trade relations with Tashkent and balance the renewed American interest for the country after 9/11 attacks.

As already mentioned, China invested significantly in the country's energy sector developing and exploring the country's oil and gas fields as well as investing in transportation system for natural gas due to the country's strategic importance as transit state. For the reasons mentioned before, the beginning of the energy relations is considered the year 2004, when CNPC and Uzbekneftegaz signed a framework agreement on cooperation; CNPC intended to implement a number of projects in the Uzbek oil and gas industry[154]. During an official meeting in May 2005, CNPC signed a $600 million contract to create a joint venture with Uzbekneftegaz to develop 23 oilfields in the Bukhara-Khiva region[155]. Immediately after this deal, Sinopec signed a small contract to rehabilitate aging oil fields in Andijan and Namangan provinces and for exploration in the same regions for a total of $106 million. This deal symbolized the strong Chinese commitment to strengthen its relations with Uzbekistan during difficult times for Western-Uzbek relationship. CNPC joined an international consortium that in August 2006 signed with Uzbekistan a 35-year PSA to develop offshore oil and gas fields in the Uzbek section of the Aral Sea. The international consortium was composed initially by Lukoil, Uzbekneftegaz, Petronas, CNPC and Korean KNOC.

[154] Vladimir Paramonov, China's Economic Presence in Uzbekistan Realities and Potentials, Uzbekistan Initiative Papers, No. 5, February 2014, p. 5

[155] https://www.ogj.com/articles/print/volume-104/issue-10/exploration-development/central-asia-oil-and-gas-2-russian-chinese-competition-may-marginalize-us-european-influence.html

The same year came into force an oil and gas exploration agreement signed by CNODC and Uzbek state-owned energy company; the project includes five onshore exploration blocks, located in Ustyurt, Amu Darya and Fergana basins, with a total investment in five years amounted to $396 million. While in 2008 CNPC and Uzbekneftegaz signed a letter of intent to jointly boost the output of mature oilfields in Fergana basin. In October 2008, CNPC and Uzbekneftegaz signed a cooperation agreement to create a joint venture to develop Mingbulak oilfield, which was discovered in 1992 and contains more than 30 million tons of recoverable reserves[156]. In 2013, Uzbekneftegaz and CNODC created a joint venture called New Silk Road Oil & Gas for the Karakul investment block[157]. In 2018, New Silk Road Oil & Gas, a joint venture between CNPC and Uzbekneftegaz, announced that phase one of the Karakul block is ready to start production and it will be able to pump 1 bcm annually to China through the Central Asia-China pipeline[158]. It is expected that after the start of gas production at all three fields of the block in 2021 the production will be up to 1 bcm per year, allowing to produce about 6,5 thousand of gas condensate for sale on the domestic and export markets. The project cost was about $400 million, mainly funded by loans under the guarantee of CNPC[159].

Following the same strategy used in the other Central Asian countries, China signed bilateral agreements with Uzbekistan in order to secure the transportation of natural gas produced in the region. In August 2008 CNPC created with Uzbekneftegaz the Asia Trans Gas JV for the design, construction and operation of the Uzbek section of the Central Asia-China gas pipeline with a total capacity of 30 bcm and a length of 530 km[160]. In 2011, Uztransgaz signed with PetroChina a contract to supply Uzbek gas to China. It was reported that China was planning to buy 10 bcm annually from Uzbekistan[161]. However, the volume never reached the target. Neverthless, in August 2014 CNPC and Uzbekneftegaz signed an agreement on Line D of the Central Asia-China Gas Pipeline in Uzbekistan, which would have provided China with an additional 15 bcm. However, works for the fourth line have been suspended. Regarding gas export volume, during Uzbek President Mirziyoyev's visit to China in May 2017, the two parties decided to increase the gas export to 10 bcm annually by 2020 with a three-year agreement[162].

Iran

Iran had long historical and cultural ties with Uzbekistan, but its cultural ties formerly ended with Soviet control over the entire region. The relations resumed after Uzbekistan's independence, after Iran and Uzbekistan launched formal diplomatic relations in May 1992. However, at the beginning, President Karimov saw Iran as an Islamic-fundamentalist threat, fearing the proliferation of Islamist terrorist groups; therefore, he decided to limit its economic and political relations with the Iranian regime. The new Uzbek President, Mirziyoyev, expressed his intention to change path in an effort to improve relations with neighbors. Therefore, recently the two countries affirmed that they are working for increasing the trade volum from $400 million to $1 billion in few years[163]. Indeed, in the last year the bilateral relations has gained more and more importance. As with other regional countries, Iran proposes its geographical location as a basis for further relations. Indeed, Iranian officials invited Uzbek to take into consideration Iran geographical that provides the shortest route for Uzbek exports to access the Persian Gulf and international waters. Both countries have a strong interest in cooperating to build transportation infrastructure based on a north-south route. Therefore, Iran has offered the access to open sea to Uzbek goods through the Iranian Chabahar port, which is an ambitious and strategic project. In order to create this link, the two sides need to boost a trilateral cooperation between them and Afghanistan. Indeed, Iran and Uzbekistan might be

[156] https://www.reuters.com/article/cnpc-uzbekistan/cnpc-uzbekistan-tie-up-to-develop-mingbulak-oilfield-idUSPEK30407220081020
[157] https://www.azernews.az/region/137802.html
[158] https://www.reuters.com/article/china-uzbekistan-gas-idAFL3N1O5205
[159] http://enews.fergananews.com/news.php?id=3641&mode=snews
[160] https://www.worldoil.com/news/2012/2/9/cnpc-to-begin-field-development-in-western-uzbekistan
[161] https://www.azernews.az/oil_and_gas/39631.html
[162] http://interfaxenergy.com/gasdaily/article/26388/uzbekistan-plans-to-up-china-gas-exports-to-10-bcmy-by-2020
[163] https://www.azernews.az/region/140312.html

connected via the extension of the Termez-Hairatan railway, which links Uzbekistan to Mazar-e-Sharif in Afghanistan[164].

Additionally, both Iran and Uzbekistan are members of the Ashgabat Agreement, the multimodal transport between India, Oman, Kazakhstan, Oman, Turkmenistan and Afghanistan. This Agreement aims to enhance connectivity within Eurasia and connect it with other important transport corridors, mainly the International North-South Transport Corridor. Uzbekistan plans to connect to Chabahar port through the Iranian railway system and. The idea is to connect Tehran and Tashkent by a railroad route via Afghanistan.

The two country currently have almost no energy relations, because of their previous policies. However, within an improvement of political relations, Uzbekistan started to discuss with Iran also the possibility of purchasing Iranian crude oil, in order to tackle Tashkent's limited production and oil shortages in the country. In October 2017, energy officials from both countries started to discuss possible export routes for Iranian crude oil. Given Uzbek landlocked nature, exports to the country would be carried out through land and probably by rail. Such a rail line already exists, so it should not take long for shipments of Iranian crude oil to start arriving in Uzbekistan after the two finalize a deal. Moreover, Uzbekistan expressed its willingness to have a stake in Iran's petrochemical ventures around the Persian Gulf; Tashkent is particularly interested in methanol-to-olefin projects[165]. This positive scenario was deeply shocked by President Trump's unilateral withdrawal from the JCPOA and the consequent restart of the economic sanctions. In this new context, an improvement of energy relationship between the two countries might meet economic and political obstacles, because the strong opposition of the US and Saudi Arabia as well as the need of new Uzbek President to receive economic support for his reforms from Western governments.

Turkey

In 2017, Mirzoyoyev's official visit to Turkey marked the resume of bilateral relations after almost 20 years of ideological differences and political tensions. Indeed, Uzbekistan was the only Central Asian and Turkic country with which Ankara had limited relations. Although Turkey was the first country to recognize the newly independent country, the bilateral relations started to decline around 1993, when Muhammed Salih, the Uzbek opposition leader, fled to Turkey, accusing Ankara of meddling in internal affairs. Since then, tension among the two countries had been soaring due to episodes: firstly in 1999, when Tashkent accused a Turkish citizen to be part of an assassination plot against President Karimov and secondly, when Ankara condemned the 2005 Andijan massacre. Thus, between 1999 and 2012, relations were at an almost standstill. Only in 2012 Turkey tried to restart bilateral relations with some meetings. In 2014, then-former minister Davutoglu made an historic visit to Uzbekistan, during which he declared that a new era was beginning for Uzbek-Turkish relations and resumed communication channels between the two countries. After 16 years, Erdogan made an official visit to Tashkent in July 2016, marked further improvements in the bilateral cooperation[166]. During this visit, the two countries signed 25 agreements in several fields. The advent of reforming policies in Uzbekistan with the new president, Mirziyoyev, has enhanced the positive development. Also, at the commercial level, the two countries witnessed a positive trend also in their trade volumes; for example, in 2018 the trade volume is expected to reached $2 billion and both countries are committed to expand it up to $5 billion over the next years[167]. Since the bilateral relations have been resumed recently, the energy relations are almost irrelevant.

India

India's relations with Uzbekistan have deep historical roots; these ties remained also during the Soviet period though a steady exchange of high level visits between the two countries. In 1993, the two countries signed an agreement on Trade and Economic Cooperation, which has strengthened economic relations. India exports to Uzbekistan mainly medicines, various technological equipment and ferrous metals, while it imports from

[164] https://en.mehrnews.com/news/139009/Connecting-to-Chabahar-Port-via-railroad-significant-for-Uzbekistan
[165] https://www.azernews.az/region/122752.html
[166] https://www.trtworld.com/turkey/how-did-turkey-uzbek-relations-improve-after-two-decades-of-stagnation--11677
[167] https://www.azernews.az/region/136453.html

Uzbekistan edible vegetables and fertilizers. The volume of bilateral trade amounted to $326 million in 2017[168]; this figure represents how small is the Uzbek share in the India's total trade with SCO countries as well as the great asymmetric difference between external powers' influence in Uzbekistan. Nevertheless, the Central Asian country is particularly important for India's connectivity strategy. Indeed, through transnational railroad projects and agreements, such as Ashgabat Agreement and INSTC, New Delhi aims to increase connectivity with Eurasia[169]. Within this strategy, India might look for Iranian cooperation due to Iran's geographical location. With India joining the SCO, a further political and economic cooperation might increase.

Concerning energy relations, the two countries failed to improve their relations even though they had expressed their positive intentions in doing so. In April 2006, Indian Prime Minister Singh visited Uzbekistan and signed several bilateral agreements. Among them, there was the memorandum on the development of gas fields signed between Gas Authority of India Ltd (GAIL) and Uzbekneftegaz. Also, after the visit Karimov promised eplorqtion acreages to Indian firms in Uzbekistan's energy sector, including PSAs between ONGC and Uzbekneftegaz; however, the exploration status is still unkown after more than a decade[170]. In October 2018, Uzbekneftegaz announced that it signed with Indian ONGC a cooperation agreement and a confidentiality agreement, which provide for joint preparation of specific cooperation proposals within 4 months by exchanging information on investment blocks of Uzbekistan[171]. Besides these limited developments, India has not been capable to enhanced its energy relations with Uzbekistan. One of the reasons is the strong and long presence of Russian and Chinese companies in the Uzbek energy sector, which poses serious restrictions for Indian access in to the energy sector.

USA

In the immediate aftermath of the Soviet Union's collapse, Washington expressed an increasing interest for Uzbekistan. The first major bilateral economic agreement between the two countries was the Bilateral Trade Agreement came into effect on 14 January 1994. During President Karimov's visit to the US in march 2002, the two countries signed a Declaration on Strategic Partnership and Cooperation that established broad-scale goals for political, economic, security and humanitarian cooperation. Uzbekistan became more and more relevant in the US foreign policy, because the country's strategic position for military operations in Afghanistan, after 9/11 attacks. Indeed, the two countries signed an agreement on the US use of the Karshi-Khanabad airbase for Operation Enduring Freedom in Afghanistan in October 2001. Uzbek awarded the use of this airbase to US military forces, because they undertook several operations that had killed also many terrorists belonging to the Islamic Movement of Uzbekistan (IMU). However, bilateral relations were seriously set back in 2005 after Washington criticized the 2005 Andijan massacre. The American criticism resulted to Uzbekistan's closure of US-supported NGOs in the country, but above all the termination of US basing rights at Karshi-Khanabad base within six months, under strong Russian and Chinese advice. In the following years, US officials made several efforts in order to resume and improve bilateral relations; then-Secretary of State Clinton stated that an improved bilateral relationship was crucial to US interests[172]. A serious obstacle to an improved relationship has been the lack of respect for human rights as well as progress on democratic reforms. Uzbekistan has increased its importance regarding the positive development of Afghanistan due to geographical proximity and possible mutual economic development. Regarding commercial relations, US remained a marginal trade partner for Uzbekistan even though the strategic importance of the country. Indeed, the total trade amount around $284 million as of October 2018.

[168] https://www.azernews.az/region/142333.html
[169] https://economictimes.indiatimes.com/news/politics-and-nation/uzbekistan-seeks-to-be-indias-all-weather-ally-in-central-asia/articleshow/63472248.cms
[170] https://thewire.in/world/as-uzbek-president-visits-india-must-rethink-its-central-asia-policy
[171] http://www.uzneftegaz.uz/en/press-center/news/uzbekneftegaz-i-ongc-videsh-limited-indiya-podpisali-soglashenie-o-sotrudnichestve/
[172] Jim Nichol, Uzbekistan: Recent Developments and US Interests, Congressional Research Service, August 21, 2013, p. 19 https://fas.org/sgp/crs/row/RS21238.pdf

Table 2: US trade in goods with Uzbekistan (US$ million)

YEAR	EXPORT	IMPORT	TOTAL
1992	*50,7*	*0,8*	**51,5**
1995	*69,4*	*18,8*	**82,2**
1998	*147,3*	*34,1*	**181,4**
2001	*144,8*	*53,6*	**198,4**
2007	*88,8*	*164,5*	**253,3**
2014	*21,9*	*14,4*	**36,3**
2017	*136,1*	*14,3*	**150,4**

Source: https://www.census.gov/foreign-trade/balance/c4644.html

In May 2018, President Mirziyoyev visited Washington and met for the first time President Trump. At the end of this historic visit, the two Presidents issued a Joint Declaration "The US and Uzbekistan: Launching a New Era of Strategic Partnership"[173]. Along the declaration, corporations of the two countries signed more than 20 large contracts estimated to be worth $4.8 billion. This visit has shown the increasing interest of the US for this country and the strong Uzbek effort to improve its international reputation with a constructive foreign policy. In this effort, American companies and US government's support are essential for Tashkent's reform policies, especially because of US enormous influence in international financial institutions. Moreover, in October 2018 Uzbekistan and US signed additional agreements worth $2.5 billion at the business forum in Tashkent.

The Presidential visit in May 2018 gave a positive impetus also for energy relations. Indeed, some American energy companies signed contracts or started negotiations for further cooperation in the Uzbek energy sector. General Electric signed a memorandum of understanding with Uzbekneftegaz on the modernization and expansion of Uzbekistan's gas transport system, while ExxonMobil signed a letter of intent with Uzbekneftegaz to assist in the production of base oils at the Fergana refinery in eastern Uzbekistan. The cost of ExxonMobil's project is about $150 million for an implementation period between 2018 and 2021[174]. Also, Honeywell signed a MoU with Jizzakh Petroleum to license its technology for the new refinery in the Jizzakh region. In August 2018, another American company, Air Products, announced its plan to invest $1 billion in the oil and gas industry of Uzbekistan. Air Products is interested in organizing production, use and distribution of industrial gases in Uzbekistan and it possesses serious technologies that can be very useful for the development of the country's oil and gas industry[175]. However, particularly in the energy affairs US companies and government has to face a consolidated influence of Moscow and Beijing.

European Union

The European Union established relations with Uzbekistan since its independence in 1991. Their relations are in the wider context of the European partnership with Central Asia countries and the EU Central Asia strategy, which outlines the EU overall goals and priorities for its engagement with Central Asia. The

[173] https://www.whitehouse.gov/briefings-statements/united-states-uzbekistan-launching-new-era-strategic-partnership/
[174] https://www.marketwatch.com/press-release/exxonmobil-to-implement-unique-oil-and-gas-project-in-uzbekistan-2018-10-02
[175] https://www.azernews.az/region/136245.html

Partnership and Cooperation Agreement (PCA) that came into force in 1999 is the way for a broader bilateral relationship[176]. Since 2017 in line with his ambitious reforms, President Mirziyoyev has requested a formal upgrade of the PCA and, finally, the European Council adopted the negotiation mandate for the opening of negotiations for an upgraded, Enhanced Partnership and Cooperation Agreement (EPCA) in July 2018. The EPCA should reinforce the status of the EU as an important partner. Currently, EU is the third top import partner and the eight top export market of Uzbekistan, being the fourth largest trade partner with a total trade amounted to €1,9 billion in 2017[177]. One of the main European partner is Germany, whose trade with Tashkent amounted to $613 million in 2017 and it has provided more than €341 million for technical and financial cooperation projects with Uzbekistan[178].

Regarding the energy relations, the European Union has not many exchanges with Uzbekistan for several reasons: first, because of the geographical distance and lack of infrastructures; second, because of the limited volumes of gas that Tashkent can export due to its high domestic consumption; third, the political isolation due to Karimov's policies and reported human rights violations. However, some developments are recently reported; for example, within framework of the British-Uzbek energy forum in April 2018 the UK Export Finance Agency (UKEF) signed with the Uzbekistan Reconstruction and Development Fund a MoU on the financing of investment projects in the oil and gas industry in Uzbekistan worth £1,25 billion[179]. One of the project that UK might allocate funds for is the construction of the Jizzakh refinery in Uzbekistan. An additional step is the decision of the European Bank for Reconstruction and Development (EBRD) to finance two projects in Uzbekistan in 2017 after 10 years. Indeed, the EBRD limited lending in Uzbekistan in 2004 and stopped operations there by 2007. In October 2018, the President of the EBRD expressed the high interest of the bank in the participation of financing a program of technical re-equipment, modernization and development of the gas transmission system of Uzbekistan[180]. As for other countries, Europeans has met difficulties to gain significant influence in the Uzbek oil and gas sector, but the EU might gain more importance and influence in the renewables energy sector; for example, French Total EREN and Uzbekenergo have agreed to jointly implement a project for the construction of a photopower station in the Samarkand region[181].

[176] https://eeas.europa.eu/delegations/angola/11047/eu-uzbekistan-relations_it
[177] http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc_113461.pdf
[178] https://www.auswaertiges-amt.de/en/aussenpolitik/laenderinformationen/usbekistan-node/uzbekistan/228618
[179] https://www.uzdaily.com/articles-id-45890.htm & https://www.azernews.az/region/130747.html
[180] http://www.uzneftegaz.uz/en/press-center/news/abr-mozhet-okazat-sodeystvie-v-korporativnom-razvitii-ao-uzbekneftegaz/
[181] https://www.azernews.az/region/138787.html

Conclusion – Uzbekistan

In the years after independence, President Karimov had maintained a stable country even though his policies isolated the country. A major change took place after 2005, after Western governments strongly criticized the government for the 2005 Andijan massacre. In this context, China increased its influence while Western countries saw their presence declining. However, a drastic change happened after the death of Karimov and the rise of Mirziyoyev, who decided to improve relations with regional countries and other countries, besides Russia and China. Moreover, he has undertaken an important and ambitious plan of reforms. Uzbekistan is the third gas producer of Eurasia, starting its gas production back to the 1953. However, it has failed to become a major gas exporter because of its high, and inefficient, domestic consumption. Indeed, natural gas accounts to 97% of the national energy mix. Because of limited export volumes, Uzbekistan decided to increase the production of high-added value products, thus it has started building oil refineries and gas processing complexes.

Russia has been able to maintain its control over the Uzbek energy sector. The two companies that operate in the county are Lukoil and Gazprom. Both companies have developed and explored important oil and gas fields through PSAs and joint ventures, but Lukoil has been able to become the main player in the country at the expenses of Gazprom. Indeed, reports affirmed that Lukoil has become the most dominant international operator in the country, handling around 30% of total Uzbek gas production by the next decade. Both companies responded to the Uzbek goal of increasing its production of high added-value products; they are responsible for main gas processing and oil refinery projects, such as the Lukoil's Kandym Gas Processing Complex and Gazprom's Jizzakh refinery. Concerning the export, Lukoil mainly uses natural gas produced in Uzbekistan for its exports to China, while Gazprom affirmed its commitment to import Uzbek gas, although in small quantities. The Gazprom position shows its intention to provide stable cash transfer to Uzbekistan's economy and, at the same time, the steadily withdraw of Russia from Central Asia gas imports.

China has increased its influence in the country after 2004-2005. CNPC has become one of the main international operators in the country, investing in several oil and gas projects. CNPC entered in the country in 2005, with an $600-million deal to develop 23 oilfields in the Bukhara-Khiva region. Since then, it increased its operations and in 2006 it signed, within an international consortium, its first PSA in Uzbekistan for the development of offshore oil and gas fields in the Uzbek section of the Aral Sea. In 2018, it announced that beginning of production from the Kakul investment block, which will provide 1 bcm per year available for export. Concerning exports, China secured its gas supplies from the country and the region, financing the three lines of Central Asia-China gas pipeline. In 2014, CNPC signed an agreement on Line D, which would have provided China with an additional 15 bcm. However, the project has been suspended. Despite the small volume of exportable gas, in 2017 Uzbekistan and PetroChina signed an agreement to increase the gas expot to 10 bcm annually by 2002 with a three-year agreement.

Given the significant influence and position in the oil and gas sector of Uzbekistan, Russia and China companies are hardly to be challenged by other countries in the foreseeable future.

The other external actors have had difficult and small relations with Uzbekistan, because of Karimov's policies. Indeed, **Turkey** has resumed its bilateral relations in 2016 after strong political disagreements. India has a lack of connectivity and strategy with the country, and with the region in general. However, they started to increase political agreements, especially in the transportation and infrastructure sector. In 2018, ONGC and Uzbekneftegaz signed a cooperation agreement for investment blocks in Uzbekistan. But development has not translate in tangible contracts and investment opportunities. **Iran** started to discuss possible export routes for Iranian crude oil to Uzbekistan, which has limited oil production. However, the new policy from Trump Administration might be put at risk the improvement of Uzbek-Iranian energy relations.

USA has used Uzbekistan as an important logistic base for its Operation Enduring Freedom in Afghanistan. However, the strong criticism expressed by American administration for the 2005 Andijan massacre caused a strong political disagreement. Indeed, under Russian and Chinese advice, Tashkent imposed the termination of US basing rights at Karshi-Khanabad base. However, in 2018 President Mirziyoyev visited Washington

and signed 20 large contracts estimated to be worth $4.8 billion. Since then, ExxonMobil and other companies expressed their intention to invest in the country's oil and gas sector, signing MoUs and agreements. For example, Air Products announced its plan to invest $1 billion in the oil and gas industry of Uzbeksitan, while Honeywell signed a MoU with Jizzakh Petroleum to license its technology for the new refinery in the Jizzakh region. Given the strong influence of the US in the international financial institutions, which are needed for implementing reforms, it will be reasonable to think that Uzbekistan will look for enhancing its relationship with Washington.

Also, the **European Union** has been through political disagreements with Tashkent, especially after 2005. However, the EU was the fourth largest trade partner in 2017 with a total trade amounted to €1,9 billion; one of the main European partner of Uzbekistan is Germany. The EU has not had significant energy relations, because of the geographical distance and lack of infrastructures as well as the limited volumes of exportable gas. However, in 2018 the UK Export Finance Agency (UKEF) signed with Uzbekistan Reconstruction and Development Fund a MoU on the financing of investment projects in the oil and gas industry worth £1,25 billion; one of these projects is the Jizzakh refinery. An important step was the return of the EBRD in 2017 after ten years without any project financed. One role in which Europeans might increase their influence is the renewables energy projects.

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