

CENTRAL ASIA:
THE PLANET'S PIVOT AREA (The Axis of the World)

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Abstract: this article aims to highlight the major geopolitical and geostrategic characteristics of Central Asia. The central argument is that this is a region of great importance in the current economic arena as a result of its strategic position as a link between East and West, a space of competition and affirmation of the great powers, but also as a result of its extraordinary oil reserves.

Key-words: Central Asia. Pivot area. Oil. Geopolitics.

Resumo: este artigo visa enfatizar as mais importantes características geopolíticas e geoestratégicas da Ásia Central. O argumento central está em que esta é uma região de grande importância na atual arena econômica, resultante de sua posição estratégica como ligação entre o Leste e o Oeste, um espaço de competição e afirmação de grandes potências, mas também resultante de suas extraordinárias reservas de petróleo.

Palavras-chave: Ásia Central. Zona pivot. Petróleo. Geopolítica.

Introduction

This article aims to highlight the major geopolitical and geostrategic characteristics of Central Asia. The central argument is that this is a region of great importance in the current economic arena as a result of its strategic position as a link between East and West, a space of competition and affirmation of the great powers, but also as a result of its extraordinary oil reserves.

Central Asia is one of the pivot regions of the world. It is located in the nucleus of the Eurasian continental space and is a crucial link between several robust and dynamic economies, such as China, European Union, India, Japan and Russia (COMPETITIVENESS OUTLOOK 2011). According to Khwaja (2003, p. 7), "Central Asia owes its importance to the vast economic potential and geostrategic location of which it is endowed, becoming progressively in a world economic center."

1. Characterisation of Central Asia - The intricacies of history and geography

Before the arrival of the Russians, Central Asia was an integrated entity at cultural, linguistic and religious levels (DANI & MASSON, 1992). The colonisation process, initiated by Tsarist Russia, was the starting point for the fragmentation of the region, which has been specially designed to support the power structure of the coloniser (BACON,

1966). This logic of fragmentation was continued and even strengthened by the Soviets (ENCYCLOPÆDIA BRITANNICA, 2013). Fourniau (2006, § 22) explains that, from a historical point of view, "the area had been integrated either into world-empires, during very short periods, either divided over long periods." The various entities that make up Central Asia often correspond to "successor states of these world-empires (as sovereign states today are the successors of the Soviet Republics)" (*Ibidem*).

According to Gleason (1997, p. 27), "the first inhabitants of Central Asia were nomads who traveled from the north and from east to west and south." The regional names 'Transoxiana' or 'Ma Wara'un-Nahr', among other names for Central Asia, have resulted from foreign invasions (DANI & MASSON, 1992). After the Arab governance, during the 9th and 10th centuries, succeeded the Samanid dynasty of Persia (ESENGUL, 2009). The era of the Great Khan of the Mongols, Chingis Khan, began in the thirteenth century (ESENGUL, 2009). The empire of Chingis Khan left a long legacy of Turkic languages, which replaced the Persian and the Arabic (CARRERE D' ENCAUSSE, 1967). The Mongols destroyed the main Persian and Arab centers of learning and trade, which contributed in such way that Turkic languages became dominant in the region (DANI & MASSON, 1992). After the death of the Great Khan, in 1227, his descendants divided Central Asia. The region remained divided until the governance of Timur 'the lame', who united the small Turkish tribes in the middle of the fourteenth century (DANI & MASSON, 1992).

According to Lee Hye (2012, § 5°), "the Russians had a first contact with Central Asia in 1715, when Peter, the Great, sent the first Russian military expedition into the Kazakh steppe. But, the real effort to conquer the region took place in the nineteenth century, around 1860." Since then, the valleys of Central Asia were divided into three khanates: Bukhara (oasis of Zerafshan), Khiva (downstream of the Amur-Darya) and Khokand (Fergana Valley) (GLEASON, 1997).

Foreign invasions were not limited to acts of conquest, to the extent that they generated a vast cultural interaction. Offering a fusion of cultures, languages, religions and people, they contributed so that the notion of identity in the region became extremely complex (DANI & MASSON, 1992). The main Central Asian informal institutions that have proven to stand the test of time were the tribes and clans (ESENGUL, 2009). Therefore, it is not a surprise that more and more experts in matters of Central Asian highlight the importance of political clans with regard to the control they exert on the economy and politics of the region (COLLINS, 2006). Among Central Asians, loyalty

towards the family or the village is the most important at the sub-ethnic level (DANI & MASSON, 1992). This loyalty is based on the core of the political organisation of this society: the family (DANI & MASSON, 1992).

From the historical point of view, Central Asia was called Turkestan, whose literal translation from the Persian means 'the land of the Turks' (ENCYCLOPÆDIA BRITANNICA, 2013). The dominant linguistic group of Turkestan was formed by the Turkic languages such as Turkmen, Uzbek, Kyrgyz and Kazakh (BRUCHIS, 1984). In terms of geography, the territory of Turkistan extended from the area in the east of the Caspian Sea to the Altay Mountains, and from the borders of Persia and Afghanistan, in the south, to the Russian lands in the north (ENCYCLOPÆDIA BRITANNICA, 2013). It had been divided into two parts: Western and Eastern Turkestan (DANI & MASSON, 1992). The Russians occupied the three khanates, having annexed the Khanate of Khokand, and attributed the status of protectorates to the khanates of Khiva and Bukhara (RYWKIN, 1963). Thus, the Western Turkestan, which became part of the Russian Empire in 1867 and was known as Russian Turkestan, encompassed most lands inhabited by Turkic peoples (Turkmen, Uzbek, Kyrgyz and Kazakh), but did not, officially, include the protectorates of Bukhara and Khiva (BACON, 1966). In turn, the Eastern Turkestan (also known as Chinese Turkestan) controlled and remained in the easternmost part of the region, encompassing lands in northwest China, i.e. the territory of the Autonomous Region of Xinjiang (BACON, 1966).

From 1860 until the collapse of the Soviet Union in 1991, Central Asia was under Russian rule for little more than a century (RYWKIN, 1963). Dickens (1989, p. 2) suggests some factors that contributed to the conquest of Central Asia. It is important to emphasize some, like "an instinctive impulse aiming to fill the geopolitical gap created by the collapse of the Great Tatar Horde [...]"; "a historical spirit of *Reconquista*, with respect to the territories conquered by the Horde [...] "; "an anti-Turkish traditional stance which easily translated into anti-Islamic attitudes"; and "the perception that the few people who inhabited the Asian areas of eastern and southwestern Russia [...] were an easy target for the control and exploitation as soon as the region was conquered."

Under Russian leadership, which was essentially colonial, locals experienced important transformations (BACON, 1966). Over time, the term 'Turkistan' had been replaced by the term 'Srednaya Azia' (from the Russian Inner or Central Asia) (ENCYCLOPÆDIA BRITANNICA, 2013). Pipes (1983, § 6°) sustains that "like other colonial masters, the tsarist government believed in the overwhelming superiority of its

culture", and that "the Russians insisted on using their own language, despised the local habits and culture, in particular Islam, and revealed similar attitudes to the others European settlers in the Third World."

The period of Russian dominance were not only marked by political and economic transition, but, above all, by the dominance of Russian culture and language. In practice, the language of the 'colonial occupier' has become the *Lingua Franca* for the Central Asian people (RYWKIN, 1963). The 'imposed' popularisation of the Russian language was a key element in the grand plan of social engineering designed by Moscow, which had been carried out at different levels, in the Soviet republics, the so-called Russification or *Russifikatsia*, (BACON, 1966). Note that later, the Soviets develop a theory according to which, as the socialist society move toward true communism, nations would tend to approach, at the same time that a new Soviet culture would emerge (DICKENS, 1989, p. 4). In this respect, Bennigsen and Broxup (1983, p. 3) explain that

[a] new human being ' the Soviet Man (Sovetskiy chelovek) will tend to emerge, released from the past, free and happy. There will not be spiritual, intellectual, or even physical differences between Uzbeks and Russians, Estonians and Kyrgyz; they will share the same culture, believe in the same Marxism- Leninism, eat the same food and worship the same leaders. The culture of the Soviet Man will consist of a harmonious blend of the best elements of all other cultures.

Among the reasons that explain the end of *tsarist* domain, it is essential to stress the adverse economic conditions experienced throughout the empire, as well as the realities and demands of the First World War (ENCYCLOPÆDIA BRITANNICA, 2013). The insensitivity of the Russians to the needs of local people, their reluctance to adapt to the local culture, and their concern with personal gains, resulted in an atmosphere of constant hostility between indigenous peoples and the Russian colonizer (BACON, 1966).

The Soviet Union was built on the remains of the Russian empire, and continued the same colonial way of its predecessor (MANDEL, 1942). Therefore, the Soviet Union would strengthen and complete the process started by Tsarist Russia, introducing, at the same time, some new concepts and projects, a real characteristic of the communist doctrine (SILVER, 1974). At the moment the Bolsheviks had won the Civil War, all the "old" Russian Empire, its protectorates and colonies, were in an extremely difficult economic situation (ENCYCLOPÆDIA BRITANNICA, 2013). For instance, the famine that followed the war caused the death of thousands of people. Similar conditions were even

more severe in Turkestan, which had been colonised by the Russian Empire (WHEELER, 1977).

Given such circumstances, according to Chinara Esengul (2009, p. 47), "the strategy - more friendly and inclusive – of the Soviet authorities who sought to implement a process of *korenizatsia* ('assimilation') appeared to be promising." According to the author, "the main objective of the *korenizatsia* policy was to incorporate local crew along with the Russians, in the management process, as well as in other areas of production and industry." This process was limited by the low level of literacy, even among the regional elites.

The creation of the Republics, in 1924, was an attempt by Moscow to 'kill two birds with one stone' (RYWKIN, 1963). In other words, to pacify the masses and nationalist elites in Central Asia, giving them formal autonomy and independence. Retaining at the same time, however, control over the politics and economics of the region (RYWKIN, 1963). This limitation was a continuation of the belief "divide and rule", previously adopted by Tsarist Russia regarding Turkestan (MANDEL, 1942). The process of building new Republics was intended to prevent the Central Asians to unite into a single pan-Turkic or pan-Islamic entity (ENCYCLOPÆDIA BRITANNICA, 2013).

The Soviet period was characterised by an intensive process of 'state-building'... the Soviet state (ANDERSON, 1997). At the same time, nation-building was well planned by the center which gave the new states "formal languages and culture, and administrative structures" (ANDERSON 1997, p. 47). However, the process of creating an "ethno-national" identity was limited by and subject to development-oriented policies of supranational identity: the "Soviet people" (MANDEL, 1942). The Soviet nationalities policy advocates a merger into one single Soviet culture (CARRERE D' ENCAUSSE, 1978). According to Dickens (1989, p. 5), "although the Sovietization and Russianization were, in theory, two different processes, in practice they seemed often to coincide." The Russians perceived themselves as civilising agents in Central Asia during the Tsarist era, and this self-image has changed little in the Soviet era (WHEELER, 1966). However, Dickens (1989, p. 5) warns of "the importance of recognising that the Soviets made quite remarkable achievements [in Central Asia]: reduced illiteracy, higher education has become accessible to a larger percentage of the population, medical services have improved significantly, and agricultural and industrial production raised the standard of living compared to anywhere else in the Islamic world."

From the outset, Islam has revealed a sensitive issue in the relation between Moscow and local inhabitants, being perceived by the Soviets as incompatible with the Marxist

doctrine (THROWER, 1987). Considerable efforts have been made to eradicate the cult of Islam (MANDEL, 1942). After all, this was considered a potential unifying political force against the Russian government, and seen, from then on, as a threat to Soviet domination and communist doctrine (RYWKIN, 1963). However, the destruction of mosques and the prohibition of the cult in the late '20s did not produce the expected results (ENCYCLOPÆDIA BRITANNICA, 2013). Instead, it forced people "to live a double life during the Soviet era; publicly pretending to revere their Communist leaders, while in private, cultivating their pre-communist culture" (OLCOTT, 2002: 7).

From an economic standpoint, the region, which had been transformed into a source of raw materials under the Tsarist leadership, remained as such in the Soviet era. The 'white gold' (cotton) continued to capture the interest of the Soviets in terms of regional economy (MANDEL, 1942). These were not particularly active in relation to the development of the industry in the region, and the Central Asian economies were totally dependent on donations from the center, as well as from other Republics, specially, in what concerned to the basic supplies of food (ENCYCLOPÆDIA BRITANNICA, 2013). Such an economic policy "seriously affected the environment of the region" (ANDERSON, 1997, p. 116). Indeed, the excessive use of fertilizers and water resources to improve the crops of cotton would lead to an environmental disaster, as evidenced by the degradation of the Aral Sea (REGIONAL REPORT OF THE CENTRAL ASIAN STATES, 2000).

The last decades of Soviet rule were important for two reasons: a) the liberalisation initiatives (1985-1991) of Mikhail Gorbachev; the *perestroika* and the *glasnost* established "the immediate political context and the catalyst for the early stages of regime transition in Central Asia [and other Soviet Republics]" (COLLINS, 2006, p. 103), b) This period is characterised by "the negotiation of pacts between the main political forces in each Central Asian state" (COLLINS, 2006, p. 50). This had been a time of change in the power configuration.

It is interesting to note how the vision of Russian domination affected the writing of history during the Soviet era (DANI & MASSON, 1992). Prior to 1930, "the official line was that the Russian conquest of the non-Russian areas had been 'an absolute evil' (*absoliutnoe zlo*)" (DICKENS, 1989, p. 6). Thus, those who resisted *Tsarist* forces were considered patriotic heroes. During the 30s and 40s, "Russian expansion had come to be seen as a 'lesser evil' (*naimen'sheie zlo*), compared to what could have happened to the people if the Turks, the Persians, or the British had conquered them" (DICKENS, 1989, p.

6). By 1950, "the official view was that the Russian conquest had been 'an absolute good' ", and those who had fought against it would now be reported (*Ibidem*).

The post-Soviet era would show that the policy in Central Asia has not to do with ideology, but with the control of economic resources by the major clans. One of the reasons for the discontent of most Central Asians is economic, in that the Central Asian Republics were heavily subsidised by Moscow" (ESENGUL, 2009, p. 52). On the other hand, "there was not a strong nationalist sentiment (civic or ethnic)", which "conditioned the passivity of society in terms of political participation and social mobilisation during the years 1990-1991" (*Ibidem*). Loyalty concerned the sub-national identities linked to the clans and family (ENCYCLOPÆDIA BRITANNICA, 2013). As for Islam, after the efforts of the Soviets in eradicating it, this would be no longer a political force susceptible to mobilise people (*Ibidem*).

It is important briefly to consider the geography and geopolitics of the region. According to Roy (2000, p. 1), "Central Asia is an area of variable geometry, whether referring simply to the Transoxiana or to the cultural space defined by the Turkish-Persian civilizations, stretching from Istanbul to the Xinjiang." Central Asia is bounded by the Caspian Sea, Siberia, Mongolia, Tibet and the Hindu Kush. It is, as Kandiyotti (2008, p. 76) explains, "an inner region surrounded by a huge land mass that covers a vast territory of steppes, deserts and mountains, occupying more space than Western Europe and about half the area of the United States." From a geographic perspective, Central Asia includes Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan, while Central Eurasia groups include the aforementioned countries plus the three states of the South Caucasus, that is, Armenia, Azerbaijan and Georgia.

In the opinion of Bradbury (2011), Central Asia is "a more stable region than Afghanistan, Iran and the Middle East in general". Although, as the author mentions, there is a great unawareness on the part of most people with regard to the region", that lies "between some of the major political powers". Among the features common to the Central Asian Republics, it is important to point out the fact that "they're all 'landlocked' countries" (FOURNIAU, 2006, § 17). Uzbekistan, for example, is "a double- isolated country" since "it is surrounded by states that are themselves isolated" (FOURNIAU, 2006, § 18). The fact that the Central Asian Republics do not benefit from direct access to the ocean exerts a major influence on their economic development. This does not mean that Central Asia is a 'one way alley' in the globalised world. The region, which encompasses the "Great Silk

Road", is, as L Hekimoglu (2005, p. 76) notes, "an intersection of global routes, originated essentially from all corners of the planet."

Returning to Fourniau (2006, § 22), the author stresses that "unlike the Indian people, Chinese, Ottoman or Russian, Central Asia is not the result of a major political construction, previous or current." Indeed, this expert points out that "there has never been on record in history, of a single Central Asian state" and, moreover, "the unification of the region was due to forces of conquest, mainly exogenous" (*Ibidem*). According to Khan (2011, p. 62), "Central Asia has been, at various times, divided, fragmented and conquered, but rarely has served as a seat of power to any empire or influential state." Therefore, this author believes that "the region has proved, above all, a battleground for outside powers, than actually a power in its own right" (*Ibidem*).

Central Asia is a region that, strictly speaking, only began to be analysed, from the geopolitical point of view, in terms of field research by Western scholars, since 1991, following the collapse of the Soviet Union (BANUAZIZI & WEINER, 1994; FERDINAND, 1994; FULLER, 1990; MESBAHI, 1994). The term *Central Asia* describes a vast historical collection, built around several subunits, as well as an amalgamation of economic, political and cultural situations, identity processes and ethnic communities. The fact that it is an important meeting point for economic, geopolitical, religious and ethno-linguistic interests, makes Central Asia a region endowed with an extraordinary historical depth, in the heart of the great challenges of the current world.

The territorial division and the administrative status of the units that make up the region attest to certain heterogeneity. The current definition of *Central Asia*, which views it as being formed by the Republics that once were part of the Soviet Union (i.e. Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan and Turkmenistan), was developed in the mid-twentieth century, as a need to distinguish these five Central Asian Republics. Shortly after independence, specifically in 1993, "this definition has been officially recognized by the Central Asian Republics, as well as by the international community" (MALIK, 1994, p. 4).

In turn, for UNESCO, Central Asia is not only "the five former Soviet Republics (Turkmenistan, Kyrgyzstan, Kazakhstan, Uzbekistan and Tajikistan)", but also "Afghanistan, Mongolia, western China and several parts of Pakistan, Iran and India" (ASIMOV, 2001, § 2º). It should be noted, like Cotter (2008) implies, that despite the economic and political heterogeneity of the region, Central Asia is, for all purposes, considered a 'geopolitical entity'. Several post-Soviet studies continue to interpret Central

Asia as being limited to five former Soviet Republics: Kyrgyzstan, Kazakhstan, Tajikistan, Uzbekistan and Turkmenistan (MENON, 2007). Such idea leaves outside, thus, the above areas, although these are deeply intertwined geographically and historically (NABY, 1994) as previously stated. In the Soviet era, the region was called "*Sredniaia Heartburn*" (which, when translated, means Middle Asia), comprising "Tajikistan, Turkmenistan, Kyrgyzstan, Uzbekistan", and leaving out Kazakhstan (LEWIS & WIGEN, 1997, p. 179).

It is interesting to note that while Western experts use the term 'Central Asia', the Russian authors, in turn, have not (yet) abandoned the old expression 'Middle Asia', although, unlike the past, this includes today's Kazakhstan (ISMAILOV & PAPAVA, 2010). The fact that there are multiple interpretations of the concept of Central Asia, attests to the lack of consensus about it.

The boundaries of the region were defined and delimited by the Soviets in 1924, at a time when the Central Asian nations were mentioned in Soviet documents as "a Muslim/Turkish issue " (KOICHIEV, 2003, p. 48). Such references were relatively frequent. In fact, according to Steinberger (2003, p. 235), Islam was perceived as "a differentiating factor between the local population and the newly arrived foreigners, like the Russians, Ukrainians and other settlers during the *tsarist* and *Soviet* domination." With the arrival of Russians to Central Asia, Islam became an ethno-religious category, because they considered all those from Central Asia as Muslims. Before the arrival of the Russians, various ethnic groups of the region, such as Kyrgyz, Kazakhs, Uzbeks, Uighurs, and the Dungan, had coexisted in "khanates and multiethnic empires" (LOWE, 2003, p. 108). Such coexistence under these pre-modern supra-ethnic entities was only possible due to the loyalty of the people towards the supra-ethnic identity, Islam.

According to Esengul (2009, p. 3), "for almost seven decades of Soviet rule, the Central Asian people were economically, politically and socially united as citizens of a single state (*homo sovieticus*)." However, in 1924, before the unification under the Soviet regime, they were divided by Moscow into five Soviet Republics. On the one hand, as Esengul (*Ibidem*) mentions, "this strategy - ambiguous - had created, artificially, political units based on ethnicity"; on the other hand, "loyalty should belong to the supranational unity: the Soviet state." Therefore, "none of these elements had been well developed; the existence of the Soviet supra-state suspended, for several decades, the process of nation building; "and, moreover, this policy of national delimitation had serious consequences, since "these states were 'artificially' created, rather than organically develop."

In addition, the region's infrastructure operates, from the economic point of view, under the strict control of Moscow, for the benefit of the centralised economy. There was little trade between Central Asian Republics themselves, and their economies were considerably subsidised by the central budget. In the early 90s, subsidies from the center constituted "a fifth of gross domestic product (GDP) of Uzbekistan", and "one-seventh of the GDP of Kazakhstan and Kyrgyzstan" (SARYGULOV, 1999, p. 240). That said, the collapse of the Soviet Union brought to the Central Asian nations not only an independence and freedom that they had never experienced, but above all, the end of subsidies, as well as "a widespread negative economic impact on the lives of most people in this vast region of the world" (LINN, 2004, p.1).

This was the moment when a series of political rifts emerged between the Central Asian states. Besides the democratisation of the state structure (TOLIPOV, 2007), ethnic minorities and borders, and the collapse of the common security system, "one of the most pressing issues in the region is the issue of religious extremism and terrorism", analysed among others, by Mariya Omelicheva (2010). The problem of drug trafficking is also urgent in the region, and well-illustrated, among others, by the study of Krambs (2013). Marat (2006, p. 45-6) stresses in this regard that "as is the case in other spheres of organized crime, the Central Asian Republics were not prepared to deal with the increase in drug trafficking, and the problems associated with this." In turn, the issue of water management ranks first among economic and environmental problems of the region, as Road and Eritja (2012, p. 2) mention, "Central Asia is a transnational region with a shared use of water, but with an asymmetric distribution of resources."

Since the collapse of the Soviet Union, the Central Asian Republics have been undermined by instability. With a history based in large part on the life of clans, a relatively new and inexperienced leadership, and an incalculable potential of energy resources, Central Asia has experienced, as Shishkin (2012, p. 4) notes, "significant problems of corruption, abuse of human rights, civil unrest and conflict." Perhaps, showing some fear about the historical divisions within each country, the result of belonging to clans, and the growing of Islamic fundamentalist movements in neighboring countries, such as Iran, Iraq and Afghanistan, the Central Asian leaders have become dictators under the guise of maintaining stability at all costs (DIUK & KARATNYCKY, 1993). However, in a 1999 article (but still very pertinent), *The New York Times* (1999, § 1°), stated the "such artificial and temporary stability ends often in explosive action." Tajikistan, Uzbekistan and Kyrgyzstan have been particularly affected by internal conflicts, although

as Shishkin (2012, p. 14) notes, "of all Central Asian Republics, Tajikistan is the one that probably faces the most troubling set of threats regarding its stability."

The political regimes established in the Central Asian Republics are all authoritarian, even though the levels of authoritarianism vary according to the countries in question. To be precise, as Warkotsch (2008, p. 62) notes, "Kazakhstan, Kyrgyzstan and Tajikistan are semi-authoritarian states, while Uzbekistan and Turkmenistan are run by authoritarian regimes, if not dictatorial." Central Asia is indeed one of the most authoritarian and corrupt regions of the world, as evidenced by evaluations carried out, for example, by Freedom House and Transparency International. In fact, Freedom House (2012) ranks Kazakhstan, Turkmenistan and Uzbekistan as "not free" with regard to political rights and civil liberties. Moreover, these three countries occupy the last positions of the Corruption Perception Index of Transparency International (2012). The central and unifying feature of these states is, in practice, the patriarchal nature of their regimes. In fact, the main political dynamic (albeit informal) is represented by the ratio between the Heads of State and certain interest groups rather than by the rule of law, or the relationship between the government and its people. In other words, "the government's power results from the patronage of powerful networks, tycoons of the business world and regional groups" (AZARCH, 2009, p. 65-6). Therefore, "maintaining the status quo in the region is in the fundamental interests of the Central Asian Governments", since "the transformation of political and social structures may inevitably lead to the loss of power of the current regimes" (AZARCH, 2009: 66).

The region has, in recent years, attracted the attention of foreign investors due to the existence of large reserves of oil and gas in three states: Kazakhstan, Turkmenistan and Uzbekistan (BABAK, 2006; KENISARIN, 2004). However, their authoritarian regimes, the high levels of corruption, an underdeveloped fiscal and banking system, the non-protection of property rights, and many other institutional problems, harm and spoil, of course, the investment climate in the region (STARR 2003; MARAT, 2006).

2. Central Asia as a 'pivot' area of the planet

Under the new energy atlas, Central Asia is located in a strategic region, with strong ties to neighboring regions. Its development depends, firstly, from the access to the rest of the world. Central Asia is an important part of world's political and economic system, being "surrounded by some of the most dynamic economies in the world, among three of the so-called BRICS countries (Russia, India and China)" (CENTRAL ASIA COMPETITIVENESS OUTLOOK, 2011, p. 10). As Guedes stresses (2011), "Central Asia

is, somehow, a strategic zone", which has been "regaining undoubtedly a structural cyclical extraordinary importance". According to Guedes (2011), "if there were three major brands of the century, conflicts that had positive impact on the reconstruction and creation of a new international order, these were Afghanistan, Iraq and the invasion of Georgia by the Russian Federation." Interestingly, according to the author (*Ibidem*), "these three conflicts occurred in Central Asia." And it is true that, if there is "a conflict that humanity currently fears", this involves Iran, which is no more than "a southern extension of Central Asia" (*Ibidem*). For centuries, Central Asia has been the crossroads of Eurasia, or, as Caravelli (2011) notes, "the intersection between East and West", which makes it, according to this author, an "interesting" region. Effectively, it is the point of confluence of four civilisations that have both controlled and been controlled by Central Asian people (ASIMOV & BOSWORTH, 1998). Moreover, as Xu (1999, p. 33) notes, "the civilizations that dominate the region have been able to exert their influence in other parts of the world."

The economic structure of Central Asia and its political characteristics are strongly marked by its geographic location, more precisely, by "the difficult access to other parts of the world" (DUARTE, 2012, § 3º). On the other hand, as Xu (1999, p. 36) mentions, "the survival of the Central Asian Republics essentially depends on the maintenance of several corridors and links." In fact, these corridors are as, or more, important than the energy potential of the region, in that they expand in all directions, connecting China, Russia, Europe, the Caucasus region, and the Indian Ocean (DUARTE, 2012). According to Guedes (2011), "Central Asia is a corridor between the West and China, which runs the Greater Middle East and the soft belly of the former Soviet Union - an area to which the Russian Federation designates horizontal near abroad (as opposed to the vertical near abroad, which begins in the Baltic countries and ends in Ukraine, Georgia and Azerbaijan)". Therefore, according to Guedes (2011), "Central Asia has an umbilical connection to China at one extreme, and in the other extreme, to the West; in the north, a connection to Russia (first to the Russian empire, then, the Soviet Union, and currently, to the Russian Federation); and, in the south, multiple connections to turbulent and unequal areas like India, Afghanistan, Pakistan and Turkey (first to Turkey at Ottoman Empire, and later to the Turkish state."

From a political point of view, as Bradbury (2011) notes, "Central Asia is a more stable region than Afghanistan, Iran, the Middle East, in general". As Huasheng (2009, p. 475) indicates, it "forms a buffer zone between the great powers, although Russia has special relations with the countries of the region." Since the beginning of the 21st century

that the competition between the great powers around energy resources has intensified, contributing to a rapid rise in energy prices, and also to new outlines in terms of energy security into (HISCOCK, 2013; GHOBLE, 2012). In this context, and as a result of its energy reserves, "Central Asia has proved to be an area of competition and rivalry between the great powers" (regional and extra-regional), which affects the relationship between these, as well as the balance power, influencing thus the "international framework" that emerged in the "post-Cold War" (DUARTE, 2012, § 5º). Geopolitics naturally provides an explanation for that fact, considering that it is "in large part determined by the dimensions of a region" (HUASHENG, 2009, p. 475). In fact, "the great powers need to acquire a large land mass to exert influence in the international arena" (*Ibidem*).

Several authors do not hesitate to assign to Central Asia a 'prominent position in the context of a new world order' (XU, 1999, p. 33). If one looks at the history of oil, "the general ambition, since the 70s, since the big oil shocks [by the various consumer countries], has been to rely less on the Persian Gulf, as it is a highly volatile area" (FONSECA, 2011). In fact, as stated by Ottinger, (2007, p. 3), "much of the remaining oil reserves in the world, are located in unstable countries in the Middle East, and far from areas of consumption, "which raises "concerns about the security of oil supplies." Nevertheless, one should note that "the ambition to discover 'other Persian Gulf' never happened and it will probably will never ", since "hardly, other regions of the world will have the same capacity of reserves as the Middle East" (FONSECA, 2011). However, "in the current highly competitive world, at the energy resources level, Central Asia and, particularly, the Caspian region, are of crucial strategic importance in the world market", if one wants to "attempt to diversify energy sources" (*Ibidem*).

When we recall our recent history, it is clear that the "North Sea or West Africa", regions that ultimately serve as a "counterweight to the dominance of the Persian Gulf and the Middle East in world's oil production", had been they, too, object of interest on the part of the consuming powers (*Ibidem*). However, according to Fonseca (*Ibidem*), if "the energy resources of the North Sea" proved "an attractive option in the period that followed the oil shocks", nowadays it is essential to find other alternatives capable of replacing a production that has been falling, "particularly in the UK and Norway." For example, a report from the International Energy Agency, in 2008, about the 800 major world oil reserves, indicates an average annual depletion rate of 5.1%, with a tendency to increase to 8.6% by the year 2030, and the largest declines in oil production between 2000 and 2008, were registered in Mexico, China, Norway, Australia and the UK (WORLD ENERGY

OUTLOOK, 2008). With regard to the North Sea, for example, "production declined from 6.4 mbd in 2000 to less than 2.1 mbd in 2005" (LUFT & KORIN, 2009, p. 2). Given this scenario, Central Asia has, therefore, a "very important role in the diversification of energy sources" (FONSECA, 2011).

According to Guedes (2011), "it is not obvious that Central Asia is an area (within the meaning assigned by the International Relations to the concept of *region*)", provided with "an internal cohesion and distinguished from the other areas" which allows everyone to call it a "region". According to the author (*Ibidem*), this is due to the fact that "a large part of the regionality of Central Asia has fluid borders and often negatively defined." Central Asia is, to this author (*Ibidem*), "a region of variable geometry, situated between Russia, India, China, the Islamic world and the West", which corresponds, in a way, to the "old Silk Road", i.e. Central Asia is not, from the analytical point of view, more than a "label", it "is not a concept" (*Ibidem*).

With a population of 92 million people and abundant energy resources, Central Asia is an attractive destination for investment and trade (COMPETITIVENESS OUTLOOK, 2011). As an example, from 2000 to 2009, "the flows of direct investment in the region increased nine times", while its gross domestic product grew on average "8.2% per year" (AKBAR, 2012, § 13).

Experts, as Edwards (2003, p. 96), believe that Central Asia "continues to be a key piece on the chess table of world power." Among the scholars who have devoted special attention to the geopolitical and geostrategic importance of the Eurasian space, Mackinder, Brzezinski, and Spykman deserve special mention. They all contributed to an original approach to understand the principles of the regional structures of the geopolitical and geoeconomic space of the Eurasian continent. In the early twentieth century, the British geographer Sir Halford Mackinder was the first to highlight the importance of Central Asia, calling the region the 'geographical pivot of history', or 'Heartland'. In Mackinder's view, the world is divided into isolated areas, each of these with a special function. For the author (2005, p. 25), it is the "Heartland" (where the land masses of Eurasia are concentrated) that serves as the pivot to all geopolitical transformations of historic dimensions within the 'World Island'. Mackinder (1904) emphasises that in the context of global geopolitical processes, the Eurasian continent is at the heart of the world, with the Heartland occupying the center of the Eurasian continent. Current interpretations of "Heartland" provide different assessments about the role and importance of Central Asia. For example, trying to balance the contemporary Russian Eurasianists, who argue that the

pivot area and Russia are geographically the same reality, some Central Asian experts, with special highlight to Matikeeva attach to Central Asia the status of "pivot area", referring that "Kyrgyzstan is the Heartland" (i.e., the heart) of this territory.

The influence of the postulates of Mackinder continued to be felt after the fall of the geopolitical pivot, the Soviet Union. Mackinder's ideas influenced the theories developed by the prominent American political scientist Brzezinski (1997), who re-emphasised the significance of the centrality of the Eurasian region in his analysis, in 1997, of the geostrategy of the post-Cold War. Like Mackinder, Brzezinski (1997, p. 21) also supports the postulate that "who dominates the Heartland, will be able to control the World Island and the planet". He (1997) highlights the strategic importance of the Eurasian space, that although inaccessible to shipping, was an easy target for the nomads of antiquity. Moreover, this author also defends that the region offers conditions for the development of military and industrial powers. Brzezinski's thesis, who suggested a postmodern version of Mackinder/Hausofer geopolitical doctrine, served as the "cornerstone" to the "policies of the Clinton and Bush administrations towards the 'new' independent states of Central Eurasia" (TORBAKOV, 2004).

Referring to Central Asia ("the Eurasian Balkans") as geopolitically important for reasons of energy, socio-political instability and potential domain of power area, Brzezinski (1997, p. 76) says that "the main U.S. interest should be to ensure that no power will appropriate the control of this geopolitical space." In this respect, as Iseri (2009, p. 36) warns, "the United States needs to ensure a hegemonic position in the Eurasian balance of power." When defining the geopolitical space in the form of a system of concentric circles, Mackinder (1943) placed the pivot in the heart of the planet, including the basins of the rivers Volga, Yenisey, Amu Darya, Syr Darya, the Caspian Sea and the Aral Sea. For historical and geopolitical reasons, the Pivot became the center where the historical processes were concentrated.

According to Mackinder (1962, p. 150), "who dominates the east of Europe controls the Heartland, who dominates the Heartland controls the World Island; who dominates the World Island rules the world." So, the theory of 'Heartland' is probably the best geopolitical model that emphasizes the primacy of land power over sea power. While developing this postulate, Mackinder's main concern was to warn his compatriots to the decline of the naval power of the United Kingdom (which had been the dominant naval power since the era of revolutionary maritime discoveries of the fifteenth century) (KENNEDY, 1983). According to Mendieta (2006, p. 219),

at the precise moment when the praise of Mahan to the British naval supremacy were the subject of much attention by British, German and Japanese, a British geographer warned that such naval power would only be useful if the Heartland was controlled by a single power, which at the time seemed to be Russia.

Mackinder (1904, 1943, 1981) argued, therefore, the consolidation of an earthly power able to allow one state to control the Eurasian landmass between Germany and Central Siberia. In this sense, following the hypothesis of Mackinder, Iseri (2009, p. 33) argues that "if well served and supported by industry and modern means of communication, a consolidated terrestrial power that controls the Heartland, can exploit the energy riches of the region and eventually ascend to the global hegemony."

The doctrine developed by Mackinder inspired other strategists, for example, Nicholas Spykman, an influential American political scientist in the forties. However, unlike the emphasis that Mackinder attributed to the Eurasian Heartland, Spykman (1944) stressed essentially the importance of the Eurasian border, i.e. Western Europe, the Pacific Basin and the Middle East. According to Spykman (1944), whoever controlled these regions, would be able to contain any emerging power in the Heartland. The author relied on what Mackinder had written before him, so as to draw his own version of the geopolitical base model, which differs significantly from its predecessor. According to Spykman, Mackinder had overvalued the geopolitical importance of the Heartland. To Spykman (1942, 1944), the dynamics of the geopolitical history of the "crescent interior" - the *Rimland*, the coastal areas - was a product of its internal momentum of development, rather than the result of external pressures, as Mackinder (1904) had argued. Moreover, Spykman (1942, 1944) argued that the Heartland was just a geographic space open to cultural and civilisational impulses from the Rimland. For the author, while Mackinder's Pivot had no independent historical role to play, the Rimland was the key to world domination (SPYKMAN, 1944; PETERSON, 2011). Therefore, his premise was: "Who controls the Rimland governs Eurasia, and who governs Eurasia controls the world" (SPYKMAN, 1944, p. 43).

In Mackinder and Spykman's geopolitical conceptions, "the spacial and functional" structure of the world consist of three main levels. For Mackinder, the Heartland, Eurasia, and the Planet; and for Spykman, the Rimland, Eurasia, and the Planet (ISMAILOV & PAPAVALA, 2010, p. 89). If, as Ismailov and Papava (*Ibidem*) underlined, "the first model reinforced the decisive role of the Heartland in the geopolitical space of the World Island",

the second model, in turn, "advocated the same role for the Rimland." Now, it is time to emphasise the main features of the energy's potential of the region, which explains why this region is playing a growing role in the context of global energy security.

3. The oil reserves of the region

Despite the high cost of exploration and transportation of oil, and legal and environmental problems associated with it, the world has been witnessing a "competition between oil companies", in the Caspian and Central Asia, with regard to the deals and contracts for commercial transactions leading to the exploration of oil and gas (NUTTAL, 2012; FORMENTINI & MILANI, 2012; NASROLLAHZADEH, 2010; ZEINOLABEDIN *et al*, 2009; FIELD, 2000).

In 1998, "[one] initial optimistic forecast", guessed that "the proven or recoverable amount of existing oil reserves in the Caspian region and Central Asia" was "200 billion barrels", although "most geologists accept the estimation of 40 to 60 billion barrels in the reserve base of the region" (U.S. CONGRESSIONAL RECORD 1998). About 15 years after the above prediction, a special report, prepared for the Caspian region and Central Asia, maintains virtually the same figures, i.e., "it is estimated that the total oil reserves of the region is more than 60 billion barrels, and some forecasts bring this number up to 200 billion barrels" (GLOBAL BUSINESS REPORTS, 2012, p. 1). Chenoy (2007, p. 114) believe that "the first estimates of the energy potential of the region, was purposely overvalued, essentially to serve political purposes and were suitable to U.S. penetration in Transcaucasia and Central Asia." However, despite the 'instrumentalisation' of figures, according to Koolae and Imani-Kalesar (2010, p. 86), "there is consensus on the existence of abundant oil and gas in the Caspian region." According to these experts (*Ibidem*), "it is estimated that the Caspian contains two to four percent of the world's hydrocarbon reserves", which is not comparable to the reserves of the Persian Gulf, but to the energy potential of the North Sea."

Energy resources are unevenly concentrated in the region, being Kazakhstan and Azerbaijan the states with the largest reserves of recoverable oil. According to the BP Statistical Review of World Energy (2012), in late 2010, Azerbaijan had 7 billion barrels of proven reserves, representing 0.5% of global reserves. In turn, Kazakhstan held at the end of 2010, about 30 billion barrels of proven reserves. Based on an article in The Business Year (2013, § 4°), "Kazakhstan has the world's 11 largest oil reserves, and the second largest after Russia, the Commonwealth of Independent States"; the country

produced "1.6 million barrels of oil per day in 2011", making it "the 17th largest oil producer in the world."

The oil production in the region, in 2010, was around 3 million bpd, of which about 2.5 million were exported (BP, 2011). Weiss *et al* (2012, p. 9) report that these exports represent "an important part in the world's oil trade", equivalent to "about 10% of the total exports of liquid fuel" by the member states of OPEC". Oil production and exports from the Caspian tend to grow substantially, i.e. to more than double over the next 25 years, as stated by the International Energy Agency (2011). This will be possible with the expected increasing, in the coming years, of the oil production from the Kashagan field (located in the northern Caspian Sea), which is believed to be one of the most important [in terms of energy] discoveries of the world, in the last 30 years (THE ASTANA TIMES, 2011; ENI, 2012). According to Cutler (2011, § 2°), "the offshore Kashagan oil field is generally rated as the 5th or 6th largest in the world, and has the largest reserves of any oil field outside the Middle East." Its reserves are estimated at "38 billion barrels", of which an estimated 11 to 13 billion are recoverable" (*Ibidem*). Initially scheduled to go into production in 2005, this date has been continually extended due to "technical difficulties related to on-site exploration issues", and because of "quarrels about the nature of KazMunaiGaz's participation" (*Ibidem*).

Apart from onshore fields, Kazakhstan has also a developed offshore oil industry in the Caspian Sea. According to Arkhipov *et al* (2010, p. 16-7), "about 70% of the Kazakh oil and gas reserves are concentrated in the western region of the country, around the city of Atyrau (aprox. 154000 inhabitants)." Some oil reserves are also located in southern Kazakhstan, although the prospects for new discoveries are not very promising (US-KAZAKHSTAN BUSINESS ASSOCIATION, 2012). A seismic test in the Caspian Sea, in 1996, revealed that there are about 73 billion barrels of oil in Kazakhstan's Caspian Sea area (LUONG, 2000). But Worley (2006, p. 21) explains that "this amount is highly controversial" since "various estimates point to much lower values, in the order of 10 billion barrels of oil."

Kazakhstan, in 2011, produced 80.1 million tons of oil, and its oil exports increased by 3.3 % compared to 2010 (XINHUA, 2012). In fact, because the country has great infrastructures to extract, refine and transport oil, it has been doing it at a very high pace when compared to any other regional state and has become thus an important player in the world's energy supply (AMBROSI, 2011; THE WORLD FACTBOOK, 2013). Indeed, Smith (2012, § 2°) states that "Kazakhstan has the second largest oil reserves and

production among the former Soviet Republics, after Russia, having achieved a production of 1.6 million barrels per day in 2012." The Kazakh state company, KazMunaiGaz, is "the second largest oil producer in Kazakhstan, after the consortium called "Tengizchevroil" which was "the first joint venture that the Kazakh government established in 1993 with Chevron to extract and refine the oil in Tengiz" (KAZAKHSTAN FACT SHEET, 2012, p. 3). According to Luong (2000, p. 89), "with the success of this joint venture, the Kazakh government has since then been involved in a number of consortia around the world, such as: Vito Munay, Hurricane Hydrocarbons, Tractebel, Triton-Vuko Energy Group, Medco Energy Corporation, and Chinese National Petroleum Company." Such initiatives have made it easier for the Kazakh Government to build new oil infrastructure, and have led to a faster economic growth since 1997 (COUNTRY COMMERCIAL GUIDE FOR U.S. COMPANIES, 2010).

According to Marten (2007, p. 23-4), "a significant part of the Kazakh and Russian oil is relatively expensive and technically difficult to extract." Its reserves are primarily concentrated on a large onshore depth (unlike, for example, to the oil fields of Saudi Arabia, located on the surface), which requires special equipment for the operations (MARTEN, 2007, p. 24). Offshore reserves in the Caspian Sea are faced with a set of specific problems, as the most promising fields are located in shallow and fragile environmental waters that sometimes freeze (*Ibidem*). Moreover, "many of the Kazakh oil fields, and pipelines linking them to markets are buffeted by a frequent seismic activity, as well as extreme weather conditions" (*Ibidem*). The most important deposits are significantly distant from population and logistics centers, which requires the construction of "long pipelines", and even generates "a variety of difficulties, not only in terms of the delivery of equipment and maintenance, but also in terms of supply of the basic workforce in the oilfield" (*Ibidem*).

Neither Kyrgyzstan nor Tajikistan has substantial oil reserves. While Tajikistan has shown reserves of "12 million oil barrels", and most of which are located "in the north, in the region of Leninobod Soghd", Kyrgyzstan, in turn, may have, currently, according to the Global Security (2013, § 5°), "40 million barrels of proven oil reserves." Moreover, the energy infrastructure of Tajikistan and Kyrgyzstan is extremely limited (PANTUCCI & PATERSEN, 2012). There are few refineries to process the oil, and there are several difficulties associated with its transportation to the Tajik market, fruit of the Civil War 1992-1997 (TRILLING, 2012). Moreover, we must point out that the mountainous

landscape of Tajikistan hinders the extraction of oil (this also applies to the case of Kyrgyzstan) (LIBRARY OF CONGRESS, COUNTRY PROFILE - TAJIKISTAN, 2007).

Therefore, due to these difficulties, both Tajikistan and Kyrgyzstan are potential oil importers, which explains, in large part, that both countries are relatively uninteresting from the point of view of foreign investment to China, as well as to other external powers (BBC NEWS ASIA, 2012). In the case of Tajikistan, for example, RPantucci and Petersen (2012, § 1°) stress that "the few natural resources and the mountain chains that hinder the transit [of people and goods]" are some of the reasons why the country is "the least attractive of the Central Asian Republics" for Chinese investors. In both countries (Kyrgyzstan and Tajikistan), the oil industry is state-owned. However, despite the relative insignificance of its oil and gas resources, they are still "important for energy infrastructure" - understood in a "general perspective" – of the region (FELD, 2002).

It is important, however, introduce here a brief note concerning Tajikistan. Indeed, according to Melis (2012), OSCE expert on water and energy issues, "there are strong indications of the possible existence of vast reserves of oil and gas in southern Tajikistan, near the border with Afghanistan". As Mashrab (2012, § 3°) notes, in an article in the Asia Times,

in mid-July [2012], the Tethys Petroleum, that has been prospecting oil and gas in Tajikistan, Uzbekistan and Kazakhstan, has updated its estimates for oil and gas reserves under the production sharing contract in the area of Bokhtar, Tajikistan, to 27.5 billion barrels of oil equivalent, of recoverable resources, consisting of approximately 3 trillion cubic meters of gas and 8.5 billion barrels of oil.

If this estimate becomes real, it is, as Melis (2012) explains, one of the largest reserves in the world, as shown by the seismic analyses conducted by Tethys Petroleum". According to Hanova (2012), the discovery of more oil, which goes beyond the oil reserves of Norway, helps to put Tajikistan in front of Kazakhstan, which has, to date, been the leading country in Central Asia, in terms of oil reserves.

Although for Melis (2012), the discovery of oil is a fact "99% sure", it is important to verify" if [its] exploration is technically and economically viable", since to date "experts are not sure about the depth at which these reserves are". Moreover, as Hanova (2012) mentions, the climate of insecurity in which the country lives offers no certainty over the development of the Tajik oil sector. Besides, we should note that the location of Bokhtar in the Amudarya basin, shared by Tajikistan, Uzbekistan and Afghanistan, is another factor

likely to exacerbate the difficulties of extracting oil and gas which, presumably, reside over there (*Ibidem*).

If the exploitation of the Bokhtar reserves is feasible, Melis (2012) believes that Tajikistan - "Republic with scarce oil reserves" - can become one of the "major world countries in the production of oil and gas per capita". On the other hand, that fact "is likely to postpone further the discussion on the construction of Rogun", because, if one shows that the extraction of Bokhtar's oil and gas is feasible, Melis (2012) predicts that "the construction of the Rogun hydropower plant may become less of a priority for Tajikistan", and, it is the "only hope" for the area. To date, "the Tajik government has not yet confirmed the discovery", since it is waiting for the Canadian company "to conclude whether it is possible to extract this oil and gas" (MELIS, 2012). If it becomes practicable, the concession agreement signed between Tethys Petroleum (2008) and Tajikistan establishes that the Tajik Government will receive 30% profit, allocating the remaining 70% to the Canadian private company.

Oil production in Turkmenistan and Uzbekistan is relatively insignificant, with a tendency to continue to meet the domestic needs of these countries (WORDPRESS, 2011). According to estimates by the U.S. Energy Information Administration (2012, § 1°), in 2012, "Uzbekistan had 594 million barrels of proven oil reserves, 171 oil and gas fields defined, of which 51 produce oil and 17 gas." In turn, in regards to Turkmenistan, the same source above quoted reports that this remains "a small oil exporter". In January 2012, the country had "proven oil reserves of 600 million barrels". Most Turkmen oil deposits are located in the south of the Caspian Basin and in the onshore area of Garashyzyk, in the west part of the country (THE ENCYCLOPEDIA OF EARTH, 2008).

In Turkmenistan, the oil industry faces two major obstacles. First, similarly to what occurs in the gas supply, oil supplies need foreign investment due to the isolation of the country, over the last decade, and the consequent weakness of infrastructure (REJEPOVA, 2013). In fact, according to Nichol (2012, p. 6), "the physical infrastructure has been the subject of corrosion [...], and the sectors of electricity and transport have a level of service increasingly weakened." Secondly, as Davis (2011, p. 438) mentions, "most of the Turkmen oil is concentrated both in the margins and at the bottom of the well disputed waters of the Caspian Sea." Thus, "the ongoing debate about whether this is in terms of international law, a sea or a lake, makes that, in practice, it is difficult for Turkmenistan, and for any foreign investor, to explore the existing oil in the Caspian" (DAVIS, 2011, p. 438).

Kazakhstan, in October 2011, had accounted for more than 40 deposits of oil and gas as being of strategic importance, among which are Kashagan, Tengiz and Karachaganak (TENGRINEWS, 2012). Indeed, these three fields are the main target of investments (U.S. ENERGY INFORMATION ADMINISTRATION, 2012). As Azarch (2009, p. 57) underlines,

since 2006 the Kazakh oil has flowed in all directions - north, through the Atyrau-Samara pipeline into the Russian distribution network (about 480 000 bpd); to the West, through the Caspian Pipeline Consortium (about 620 000 barrels per day) to the Russian port of Novorossiysk; to south, through a swap deal with Iran; and to China, through the pipeline Atasu-Alashankou (about 85,000 barrels per day).

However, with respect to the China-Kazakhstan pipeline, for example, Erickson and Collins (2010, p. 94) note that "Kazakh oil production is still not enough to completely fill the pipeline." On the other hand, the largest and oldest pipelines operate virtually at the limit of their capacity. In the case of the Caspian Pipeline Consortium, Rudnitsky (2013) estimates that it will reach its full capacity by 2015.

With regard to the external involvement in Kazakh oil industry, it is characterised by the interaction of various actors. North American and Western European companies are leaders in the upstream sector of Kazakhstan, Chevron, for example, owns, individually, a 50% stake in Tengiz, which is the world's largest oil field with deeper location - about 3657 meters (CHEVRON, 2012; STYNES, 2012). However, the role of Russia and China should not be underestimated. Indeed, according to Peterson (STATOIL, 2013, § 5°), "it is likely that China National Petroleum Company (CNPC) and, to a lesser extent, other state-owned Chinese energy companies, tend to boost their investments and operations in the Kazakh oil market over the next five to 10 years." Finally, "the international oil companies Shell and Lukoil are likely to increase their upstream operations in Kazakhstan, although to a much lesser extent than Kazmunaigaz and CNPC" (STATOIL, 2013, § 1°).

Due to its dominant role in the regional network of oil and gas pipelines, Moscow has an advantaged position to exert influence in the region. According to Du (2011, p. 7) "it is widely recognized that the economic resurgence of Russia under President Vladimir Putin (2000-2008), was largely stimulated by the increase in oil prices." In this case, "the control of exports of Kazakh oil is likely to preserve Russia's monopoly in the regional oil market" (DU, 2011, p. 7). One such area is equally or more important as the Kazakh oil presents a higher quality when compared to the Siberian oil, which makes it even more profitable (RADIO FREE EUROPE/RADIO LIBERTY, 2007). In addition, mentioning Du

(2011, p. 7), "the monopoly over the export routes of Central Asian gas is likely to strengthen the negotiating position of Russia, allowing it to reach lower import prices and higher prices to export again." On the other hand, "the oil and gas from Central Asia may contribute to meeting the growing demand on domestic energy in Russia", allowing Moscow reasons to regulate the prices of domestic energy" (*Ibidem*).

The Russian Transneft owns a majority stake in the Caspian Pipeline Consortium "(24%)" - responsible for over half of the exports of Kazakhstan - operating, moreover, the Atyrau-Samara pipeline, through which a quarter of exports of Kazakhstan is drained (MARKETOS, 2009, p. 5). Therefore, as Lough (2009, p. 7-8) mentions, "as a result of its pre-eminent position as 'guardian' [of the energy infrastructure logistics], Russia controls about 80% of Kazakh oil exports", something that is not necessarily beneficial to Astana.

According to Azarch (2009, p. 58), "Transneft, for example, refuses to reinforce the volume of oil transported by the Caspian Pipeline Consortium, unless the transit tariffs are increased and the debt of the consortium restructured." Russia seeks therefore to consolidate its dominant position with regard to inter-regional transport as well as in the field of production and oil exports from Kazakhstan (ROUSSEAU, 2011). One must, however, recall that "if in the Soviet era all pipelines were destined for the North (i.e. Russia), in turn, in the post-Soviet era new pipelines have been built, and new routes have been planned" (COBURN, 2010, p. 19). The author affirms that, with European support, "the United States has promoted such diversification, likely to break the Russian monopoly" (*Ibidem*).

China, in turn, has been a dynamic player in the Kazakh oil sector since 1997, investing in oil fields and pipelines. As Korniyenko and TSakatsume (2009, p. 12) note, "Chinese multinationals have been active in the region over the past few years, in a certain number of countries, including Kazakhstan, Mongolia, Romania and Russia." According to Azarch (2009, p. 58), "having appeared late in Kazakh oil market, at a time when the doors to the large consortia had closed, China was confronted with the need to invest in oilfields of lower capacity and more distant." Nevertheless, for now, Chinese companies control "about a quarter of Kazakh oil production" (REUTERS, 2011). As Azarch (2009, p. 58-9) indicates, "the idea of a Sino-Kazakh pipeline, under discussion since 1997", was, however, achieved "only after the discovery of the giant Kashagan in 2002", since "Astana needed, urgently, more consumers" and , moreover, "China wanted to make sure that Kazakhstan had sufficient quantities of oil to justify the construction of the designed pipeline."

4. The gas reserves in the region

According to the Global Business Reports, the Caspian region has "proven gas reserves of more than 6 trillion cubic feet", most of which held by Turkmenistan and Uzbekistan (2012, p. 1). On the other hand, Russia is a key player with regard to the Central Asian gas industry, as "while importing this resource of the region, Moscow can delay its own (and more expensive) gas production in Yamal and in the Seas of Barents and Kara, without suffering loss in exports and consumption" (AZARCH, 2009, p. 61).

According to the Energy Information Administration, "Turkmenistan is currently positioned between the six countries holding the largest reserves of natural gas in the world, and among the 20 largest producers of gas in the world states", possessing "reserves of approximately 7 trillion cubic meters in 2012, a considerable increase from about 2 trillion cubic meters in 2009" (COUNTRY ANALYSIS BRIEFS – TURKMENISTAN, 2012, p. 4). According to Socor (2012), Turkmenistan produced 59.5 billion cubic meters (bcm) of gas in 2011 - a small fraction of a vast untapped potential – and the exporting numbers of Turkmen gas, in that year, were 10 bcm to Russia, another 10 bcm to Iran and 14 bcm to China.

Turkmenistan has increasingly become the focus of international investors, especially "since the confirmation by the energy consultant Gaffney, Cline & Associates, that the Turkmen gas reserves may actually be ranked among the five most important in the world" (DOWNS, 2011, p. 76). The giant South Yolotan-Osman, located in southeastern Turkmenistan, holds, by itself, (i.e. without taking here into account the other deposits in the country), between 4-14 trillion cubic meters of gas (CHAZAN, 2008). In addition, there are several deposits in the basins of the Amu Darya, the Murgab and southern Caspian (PANNIER, 2008). The two main gas fields are Dauletabad and Shatlyk (BAHGAT, 2009; CIA WORLD FACTBOOK, 2013).

The existing energy transportation infrastructure in the country is primarily directed to Russia, due to the legacy of over a century of links, first to Tsarist Russia and later to the Soviet Union. The death of Niyazov, in December 2006, fueled some hope that Turkmenistan opened its energy sector to the international market (DALY, 2008). Of course, the big players, i.e. "the United States, the European Union and Russia want to come forward as there seems to be signs of a certain openness" (CHIVERS, 2007, § 6°). The three largest investors, who have signed several energy deals with Turkmenistan, since

its independence, are the Russian Gazprom, the Argentine Bidas, and the American Unocal (WORLDPRESS, 2010).

As for Uzbekistan, the country is one of the largest gas producers in the Commonwealth of Independent States, "with about 1.8 trillion cubic meters of proven gas reserves in 2012", making it "the third largest producer of gas in the Commonwealth of Independent States and one of the 10 largest in the world" (ENERGY INFORMATION ADMINISTRATION, 2012, p. 4). Although its oil reserves are not significant - The Oil and Gas Journal (2013) estimates that Uzbekistan had 594 million barrels of proven oil reserves in 2012 - the country is, however, rich in gas and equipped with a geographical position conducive to energy transit to China or southeast Asia. Moreover, according to Denison (2009, p. 8), "there are promising energy reserves in the Aral Sea basin and the Ustyurt plateau in western Uzbekistan, which can be easily connected to the broader infrastructure of regional transit." According to the Energy Information Administration, "Uzbekistan produces gas from 52 deposits", and 12 of them are responsible for "more than 95 % of gas production in the country" (ESHCHANOV, 2006, p. 12). These deposits are concentrated in the Uzbek border of the river Amu Darya basin in southeastern and central highlands of Ustyurt, near the Aral Sea, in the west of the country (ENERGY INFORMATION ADMINISTRATION, 2012).

As for Kazakhstan, where, as the The Business Year (2013) mentions, there are about 2 trillion cubic meters of gas reserves (the 14 largest in the world), is the 27th world largest producer of gas, having produced 1.3 bcm in 2010. According to AzerNews (2013), the gas production, in 2012, in Kazakhstan increased 1.5% compared to 2011, the equivalent to 40.1 billion cubic meters. According to GObserver (2011, § 7°), "Kazakhstan is an important transit country with regard to the exports of gas from Uzbekistan and Turkmenistan to Russia and China." Most Kazakh gas reserves are located in the western region of the country, especially in the field of Karachaganak, which is estimated to have "proven reserves of about 1 trillion cubic meters" (GLOBERVER, 2011, § 1°).

According to Global Security (2013, § 3°), "Kyrgyzstan has about 5.6 trillion cubic meters of gas reserves, although these are technically difficult to explore." Currently, "Kyrgyzstan has no infrastructure or financial capital to increase the exploitation of its gas reserves, and the country imports most of its gas from Uzbekistan" (GLOBAL SECURITY, 2013, p. 4). This business relationship has been difficult for both countries, taking into account that "Kyrgyzstan often delays payments" and, therefore, "Uzbekistan

stops supplying gas to the Kyrgyz", causing "serious problems in winter", since "gas is used either both for heating and for electricity production" (*Ibidem*).

Finally, it is estimated that Tajikistan has, like Kyrgyzstan, "also 5.6 trillion cubic meters of gas reserves" (GLOBAL SECURITY, 2013, § 6°). In 2000, "Tajikistan began operations in the field of Khoja Sartez in the region of Khatlon, and intensified the exploitation of the Qizil Tumshuq deposit, in the district of Kolkhozobod" (*Ibidem*). However, since its domestic gas production is scarce, "Kyrgyzstan imports approximately 95% of the gas it consumes" (GLOBAL SECURITY, 2013, § 9°).

5. The hydrological characteristics of the region

Central Asia has, as main rivers, the Amu Darya and the Syr Darya. There are other important rivers such as: "the Murgab, the Zeravshan, the Ili, the Emel, the Irtysh, the Atrek, the Chu, the Talas, the Assa and the Tedzhen" (ALLOUCHE, 2007, p. 46). The Amu Darya originates at the confluence of the Panj and Vakhsh rivers, measures "1415 km in length", and is the river with the greatest flow in the region (DEVDAIANI *et al*, 2006, p. 19). The Amu Darya flows along the borders of four states - Tajikistan, Afghanistan, Turkmenistan and Uzbekistan. Tajikistan contributes with "80% of the flow generated in the Amu Darya river basin", followed by "Afghanistan (8%), Uzbekistan (6%), [and] Kyrgyzstan (3%)" (MICKLIN, 2000, p. 7).

Although it has a lower flow than the Amu Darya, the Syr Darya is the longest river in the region, with 2212 km long (ENCYCLOPAEDIA BRITANNICA, 2013). This river flows from the Tien Shan mountains, over four countries - Kyrgyzstan, Uzbekistan, Tajikistan and Kazakhstan - before ending up in the Aral Sea (*Ibidem*). One must note that "Kyrgyzstan contributes with 74% of the river flow, followed by Kazakhstan (12%), Uzbekistan (11%) and Tajikistan (3%)" (MICKLIN, 2000, p. 7). Both river basins of the Amu Darya and Syr Darya have "an extensive network of dams, reservoirs and irrigation canals, [which constitute] one of the most complex water systems in the world" (ALLOUCHE, 2007, p. 46). In addition, there are a number of other "trans-boundary" rivers. China and Kazakhstan share about 20 rivers, among which stand out the Ili and the Irtysh (the latter also flows through Russian territory) (PEYROUSE, 2007).

China shares the watershed of the Tarim River with Kyrgyzstan, as well as other rivers which have their sources in Kyrgyzstan and flow into China (ALLOUCHE, 2007). Afghanistan is the upstream state for the Murgab and Tedzhen rivers, which the country shares with Turkmenistan (the Tedzhen river is also shared with Iran). The Chu, Talas and

Assa rivers run through Kyrgyzstan and Kazakhstan. Finally, the river Atrek crosses Turkmenistan and Iran (ENCYCLOPAEDIA BRITANNICA, 2013).

Tajikistan enjoys a significant strategic importance due to its position upstream in the Amu Darya (STEVENSON, 2010). Indeed, "about 63% of the flow of the Amu Darya River is formed in Tajik territory" (UNITED NATIONS, 2011, p. 11). In turn, Kyrgyzstan controls the flow of the river Syr Darya (BRAUCH, 2009).

Water management was "highly centralized" during the "Soviet era", as mentioned above (ALLOUCHE, 2003, p. 47). However, with the independence, it now constitutes more of a "national concern" rather than only regional (MOSELLO, 2008, p. 160). Issues such as land leasing and rights over the waters would be treated in bilateral negotiations (rather than centrally, through Moscow, as had happened in the past) and control over the territory meant direct control over the resources that could produce a strong currency or improve the strategic position of a state (WEINTHAL, 2006).

A few months after independence, the five Ministers in charge of water management in Central Asia signed a cooperation agreement in the field of 'Joint Management of Water Resources and Conservation of interstate sources', which recognised the community and unit of water resources in the region (ALMATY AGREEMENT, 1992). Under this agreement, each Central Asian state is obliged to prevent actions on its territory susceptible of violating the interests of the other parties and to cause them harm, as well as lead to a deviation from the agreed values for the discharge of water and pollution of water sources (*Ibidem*).

This rapid post-independence cooperation is explained by the concern to "exploit the maximum the cotton harvest" (CONCA & DABELKO, 2002, p. 23). Since 1992, however, other regional agreements have been signed in the field of water resources management. This is the case, for example, of the "Joint Activities for Addressing the Crisis of the Aral Sea and the Zone around the Sea" agreement, in order to improve environmental quality and to ensure economic and social development of the region of the Aral Sea, signed in March 1993, which established a political body, the "Interstate Council for the Aral Sea (ICAS)", and an executive body, the "International Fund for Saving the Aral Sea (IFAS)" (INTERNATIONAL WATER LAW PROJECT, 2013, § 19).

Many commitments are not honored and, moreover, "the regional and international efforts have not been able to find a lasting solution, due to mistrust and weak political will to cooperate on the part of the Central Asian leaders" (IZQUIERDO *et al*, 2010, p. 7). Moreover, most decisions are made in bilateral talks between the heads of state, rather than

through regional agreements (ASIA TIMES, 2012). Asked if there is any international treaty to regulate the management of water/electricity, Murphy (2012) explains that most agreements are not only well respected as well as elaborated in a short-term basis, based on weak beliefs such as "you give us this and we sell you that". It is also not systematic because "these states dislike cooperation or long-term agreements as they do not care about well-written contracts and do not trust each other [...]". Indeed, "there a suspicion that the only mechanism which allow the heads of these countries to trust is if they control the total resources" (MURPHY, 2012). All this means that "there will be much money spent on facilities that turn out to be redundant" (*Ibidem*).

According to the Central Asia Atlas of Natural Resources (2010, § 3°), the "water resources have proven to be a key component in energy use in Central Asia, for over half a century", as "the hydroelectric potential of the region is more than 450 billion kilowatts per year, with the estimate that 90% of these are not currently used". Kramer (2013, § 8°) believes that "the hydroelectricity potential in Central Asia is extraordinary", highlighting the case of Tajikistan that has, by itself, "the capacity to generate 4,700 megawatts of electricity, of which 98% from hydropower plants."

As Peyrouse (2007, p. 132) mentions, "the two countries with more water resources of the region are Kyrgyzstan and Tajikistan, both states upstream of the main rivers, with capacity to allow for several possible sites for [building] hydropower plants." In this sense, it was chosen to refer here only the case of Tajikistan and Kyrgyzstan, as the existing water resources in the other Central Asian Republics are not (as) significant. There are about 40 hydropower plants installed along the rivers that flow in Kyrgyzstan and Tajikistan (CENTRAL ASIA ATLAS OF NATURAL RESOURCES, 2010). The largest are "the power plant of Toktogul in Naryn river in Kyrgyzstan and the one of Nurek in Vakhsh river in Tajikistan" (*Ibidem*).

Regarding the potential of its hydroelectric resources, "Kyrgyzstan ranks third among the countries of the Commonwealth of Independent States, after Russia and Tajikistan" (SAADUEV, 2012, p. 1). Kyrgyzstan has over 25,000 rivers and streams that are born and run along the country (ALLOUCHE, 2007). On average, "more than 50 km³ of water flow annually from mountain areas to the surrounding valleys, of which only 25% are used by the Republic" (DALY, 2009, § 6°). The total production capacity of electricity in Kyrgyzstan is 3787 MW, using 18 hydropower plants with a capacity of 3071 MW, and two thermoelectric power plants with a total capacity of 716 MW (SAADUEV, 2012). The production of electricity in Kyrgyzstan, in 2011, was 14 957.2 million kWh, being the

domestic utilisation 87% of the electricity generated (KYRGYZ ENERGY DEVELOPMENT STRATEGY FOR 2012-2017, 2011). About "90% of the total electricity in the country has hydroelectric origin" (SAADUEV, 2012: 1). However, "only 10 % of its potential has been developed" (ZOZULINSKY, 2010, p. 2).

The electricity sector in Kyrgyzstan has a significant impact on the conditions and prospects of its economic development, in that it "produces about 3.9% of its GDP, 16% of the volume of industrial production and 10% of budget revenues" (SAADUEV, 2012, p. 1). Kyrgyzstan exports electricity to the Republic of Kazakhstan, to China, to Tajikistan and to zbekistan (*Ibidem*). Exports of electricity in 2011 were 2634.4 million kWh (TAJHYDRO, 2011). Note, however, that "currently the energy sector in Kyrgyzstan is in critical condition, taking into account the expected wear of the equipment" (SAADUEV, 2012). The 16 existing hydroelectric plants are the result of the Soviet legacy, needing repair due to the lack of maintenance in recent years (ZOZULINSKY, 2010).

In turn, Tajikistan , with its water resources, is "one of the greatest countries in the world with regard to the capacity of hydroelectric engineering" (TAJHYDRO, 2011, § 2°). Tajikistan has "4% of the world's hydroelectric resources and 53% of Central Asian resources" (ENERGYEDIA, 2013, §7°). The country has the capacity to produce "up to 527,000 million kWh of electricity", with a "total capacity of 4070 megawatts at its hydroelectric plants", although it is currently using only "about 5% of its potential" (TAJHYDRO, 2011, § 2°). The largest Tajik hydroelectric plants are "the power plant of Nurek in the Vakhsh river, with a production capacity of 3000 megawatts, and the power plant of Baypasinskaya with capacity to generate 600 megawatts" (*Ibidem*). In addition, there are "several hydroelectric plants with capacity to generate between 25 to 285 megawatts in Vakhsk, Varzob and Syr-Darya rivers" (*Ibidem*). Nevertheless, taking into account "all of the water's potential, such power production capacity is not enough, being naturally expected that the country will develop its energy potential in the future" (*Ibidem*). One of the reasons relies on the fact that "Tajikistan faces an energy deficit of 3.0 to 3.5 GWh, which causes frequent blackouts from October to April" (ENERGYEDIA, 2013, §7°).

Final remarks

The Central Asian Republics, with their considerable energy and human potential are, as Linn (2007, p. 5) notes, confronted simultaneously with "a challenge and an opportunity", insofar as "the Eurasian economic space is an active part of a new phase of global

integration." In fact, Central Asia is, according to Xuetao (2006, p. 117), "the region where the effects of geopolitics and competition between the great powers has been more felt compared to any other part of the world." Indeed, according to this author (2006, p. 117-8), "ethnic and religious conflicts, energy competition, the strategic positioning of the various actors and the political unrest in the region, have proved a recurring feature in Central Asian regional context." As such, it is hardly conceivable that any energy study about the region be limited to the discussion of the relationship between supply and demand of energy resources in Central Asia. It is also necessary to consider the geopolitical and geo-economic aspects.

According to Antunes (2012), there are three fundamental reasons that explain "the importance of Central Asia to the great powers". First, "[the area] has energy resources, in relevant amounts of both, oil and gas." In this respect, Akbar (2012, § 14) states that "regional and trans-regional states are well aware of the importance of the energy potential of Central Asia". The region is in fact about to become "a major global supplier of energy", in particular "in the sectors of oil and gas" (AKBAR, 2012, § 14). Second, another reason for the importance of the region to the major powers, is due to the fact that its neighbors, "namely China, Russia, the Caucasus and Europe" are facing logistic problems related to "transportation". These problems are likely to be resolved and/or mitigated by "the countries of Central Asia". Finally, the region is significant, since it is composed of countries which became independent about 20 years ago, and now, for Antunes (2012), "have a very significant potential of economic growth."

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