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New Economic Corridors in the South Caucasus and the Chinese One Belt One Road

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INTRODUCTION

This research report studies opportunities for Turkey and Armenia in view of emerging opportunities for regional economic integration. Armenia and Turkey are the main foci of our research; field trips have also been conducted in Azerbaijan, Georgia and Kazakhstan. In particular, our research focuses on economic corridors crisscrossing the region, singling out the Trans-Caspian Corridor or as Turkey calls it, the Middle Corridor, encompassing the countries studied.

Both the report and the fieldwork address geographic and economic possibilities of the region. In doing this, we take a political economy approach. We take stock of changing dynamics in the larger region of Middle Eurasia, where big players i.e. the EU, Russia and the US, have been influential in various degrees in the post- Soviet era. In evaluating the new dynamics, the project addresses the escalating presence of China and to an extent Iran following the lifting of sanctions. China has made a grand entry into Central Asia and has a growing presence in the South Caucasus, since 2013 introducing a comprehensive vision of economic development with its 'One Belt One Road' initiative. The project rests on the assumption that transformations in the region are not simply top-down and big power initiated but individual countries (including those studied in this project) carve their own visions of economic change and development often challenging, if not contradicting, the visions of big powers. In this picture, the actions of big powers serve to facilitate movements of economic actors i.e. companies both state and private. The governments of countries in the region want a piece of the cake by attracting investments and by gaining access to routes and markets.

We argue that from the perspective of countries visited, the Chinese One Belt One Road (OBOR) initiative, through a series of investments and providing transportation links, has the possibility of transforming the economies in this region. For Turkey, we explore why the Middle Corridor, a priority of the Turkish government, is important, how Turkey will benefit and the constraints and possibilities along the way in terms of transport infrastructure projects. Turkey has been treated both as a regional actor with economic and political presence in the South Caucasus and Central Asia and as a market and recipient of investments.

In Armenia, we focus on the country's investment potential. Though Armenia is not included in the Middle Corridor initiative, as an official OBOR country it has the potential to benefit from Chinese foreign direct investment. We also looked at new trade openings for Armenia, especially the North-South Corridor, connecting the Indian Ocean and the Persian Gulf to the Black Sea incumbent on sanctions being lifted from Iran.

Azerbaijan, Georgia and Kazakhstan are included because of their location on the Trans-Caspian corridor; Azerbaijan and Georgia are also studied to measure the extent of China's investments in the South Caucasus.

The Trans-Caspian initiative has been critical from the perspective of EU to circumvent EU's dependency on Russia, primarily in energy, as well as to maintain a foothold in the previously Russian controlled regions. The EU has established good political relations with countries along the Middle Corridor, which are also home to hydrocarbon resources and/or are passageways for transport of such resources. Turkey is an EU accession country (and thus covered by the Instrument for Pre-Accession Assistance) and it has been in a Customs Union with the EU since 1995. Georgia has the EU Association Agreement and Kazakhstan the Enhanced Partnership and Cooperation Agreement (EPCA) with the EU. Most recently,

Armenia signed the Comprehensive and Enhanced Partnership Agreement (CEPA) with the EU. Azerbaijan, which is closely linked to the EU through its energy exports, is in talks with the EU for signing an Association Agreement. Association with the EU is an asset in attracting Chinese investment taking into account the Chinese interest in having access to the larger EU market; also, Chinese companies are integrated into EU companies' value chains.

In the past decade, two factors have given impetus to development of land corridors in Middle Eurasia situated between EU and China, two massive trading blocs. First, China's rise as an exporter of manufactured goods; as a major investor in different countries throughout Eurasia. The One Belt One Road (OBOR) initiative encompasses China's both trade and investment concerns in Middle Eurasia. The second and a related factor motivating development of economic corridors between China and the EU has been the Eurasian Economic Union (EAEU) including Armenia, Kazakhstan, Kyrgyzstan, Russia and Belarus - all countries (except for Armenia) located on the Northern route between China and the EU. This route is currently operational (via Kazakhstan, Russia and Belarus) and the sudden growth of trade over this corridor correspond to the creation of the EAEU. According to HP's director of global logistics Ronald Kleijwegt Kazakhstan (as cited by Shepard, 2016), Russia and Belarus signing the Eurasian Customs Union (EAEU), was "the biggest breakthrough" reducing dramatically the delays and costs on the Northern route for China-EU trade.

In all countries visited there was an emphasis on a future vision for the region, of open borders allowing unhindered flows of goods, services, people as precursors for economic development- creation of new jobs, creation of production networks. The Trans-Caspian route or the Middle Corridor, a multimodal route, which involves crossing several countries between China and Europe, requires a comprehensive network of infrastructure, harmonized customs and cross-border procedures. However, the corridor is still underused, underinvested. China's east-west land trade to Europe primarily focuses on the Northern routes.

Chinese presence or expectations for such presence is a common feature in the regions studied. At the moment, Chinese involvement is relatively modest in the South Caucasus. Expectations from Chinese presence include an influx of much-needed Chinese capital, especially in the under-developed infrastructure connecting a Middle Corridor extending from Central Asia crossing the Caspian to the South Caucasus and Turkey; consisting of roads, railways and ports and with the promise of investments in economic development. The Chinese OBOR or the idea of multiple corridors is understood to serve these ends.

The report consists of five sections, summary highlights and recommendations (the latter in section titled "Future Challenges and the Way Forward").

Section 1 is devoted to regional interactions. First, we briefly describe Armenia – Turkey relations since the collapse of the Soviet Union; second, interactions among Turkey and countries in the South Caucasus with the exception of Armenia. The latter's economy is discussed in relation to its dependencies on Russia. Third, we show for Central Asia low levels of economic activity using night lights data, and low levels of regional integration and poor links among Central Asian countries. Fourth, we describe the activities of big actors (the EU, Russia, Iran, Turkey and the US) in the South Caucasus and in Central Asia, a region crisscrossed by economic corridors linking China to Europe. The final part is devoted to China and its One Belt One Road (OBOR) initiative.

Section 2 includes first a definition of economic corridors assuming development of industrial areas along transport routes, most importantly railroads. In the second part, we explore emerging corridors along the Eurasian landmass linking China to the EU including the Trans-Siberian railway and the New Eurasian Land Bridge in the North; the China–Central Asia–Western Asia Corridor including the route over Iran. The third part of this section addresses the Trans-Caspian route, an alternative to the route over Iran. Section 2.4 deals with openings for Armenia on the North–South Transport Corridor.

Section 3 focuses on Turkey’s efforts to be integrated into the Eurasian corridor networks. The first part looks at Turkey’s expectations from the Middle Corridor as it links up with the OBOR initiative. In Section 3.2, exploring Turkey’s activities in this direction, we focus on Turkey’s investments in transport networks in its attempt towards becoming a logistics hub for EU-China trade. Our focus has been on investments regarding railroad and port development in the context of the Middle Corridor.

Section 4 addresses Armenia’s economic development largely from an investment perspective, primarily because Armenia has fewer openings to trade corridors in the region (except for a possibility of access to the North-South corridor). Section 4.1 looks at Armenia’s openings to key markets i.e. EAEU, the EU, the US. Section 4.2 deals with foreign direct investment in Armenia while Section 4.3. looks at free economic zones in Armenia. In the final part, we argue that China’s interests in Armenia are geopolitical rather than economic so far.

Section 5 is devoted to the study of Kazakhstan, Azerbaijan, Georgia in terms of their trade – related infrastructure investments, primarily those towards the realization of the middle corridor. In the case of Georgia and Azerbaijan we focused on Chinese presence i.e. investments, primarily because we wanted to have a general idea of Chinese involvement in the South Caucasus, as to put that involvement in Armenia in context.

SECTION 1: BACKGROUND TO THE REGION AND ITS ACTORS

This section is devoted to regional interactions. First, we briefly describe Armenia – Turkey relations since the collapse of the Soviet Union; second, interactions among Turkey and countries in the South Caucasus with the exception of Armenia. The latter’s economy is discussed in relation to its dependencies on Russia. Third, we show for Central Asia, low levels of economic activity using night lights data, and low levels of regional integration and poor links among Central Asian countries. Fourth, we describe the activities of big actors (the EU, Russia, Iran, Turkey and the US) in the South Caucasus and in Central Asia, a region crisscrossed by economic corridors linking China to Europe. The final part is devoted to China and its One Belt One Road (OBOR) initiative.

1.1 Armenia – Turkey Relations

The Armenian-Turkish relations continue to be in a diplomatic limbo. Inter-state conflict between the newly independent states of Azerbaijan and Armenia over the disputed area of Nagorno-Karabakh immediately followed the collapse of the Soviet Union. In 1989, Azerbaijan started to block its transport links with Armenia, and since 1991 it has blocked all transport and energy links. In 1993, siding with Azerbaijan, Turkey closed its border with Armenia.

Efforts undertaken to open the Armenian- Turkish border have so far been shelved. In 2009 the Armenian and Turkish governments signed the Protocol on Establishment of Diplomatic Relations and the Protocol on Development of Mutual Relations between the two countries. The first protocol covered the establishment of diplomatic relations and opening of the closed borders. The second focused on development of bilateral relations by forming an intergovernmental body comprised of several sub-commissions including one “to develop trade, tourism and economic cooperation between the two countries.” However, these protocols were never ratified due to domestic political pressures on both sides and due to Azerbaijan’s strong opposition.

The closed border limited the economic development both in Armenia and in the eastern parts of Turkey. In addition to being a landlocked country, Armenia’s economic interactions in the region are constrained due to the fact that two of its borders are closed. As a result, Armenia’s only connection to the outside world is through Georgia and Iran. Notwithstanding its closed border with Turkey, 4.1 % of Armenia’s imports came from Turkey in 2015, according to the BACI International Trade Database (**Table 1.1.1**). Turkish-Armenian trade travels via Georgia. Turkish goods that reach Armenia via Georgian territory, have added costs. Moreover, as pointed out by a previous TEPAV study (Caglar et al., 2014), the closed border situation has been a blow to the economic prospects of landlocked eastern Turkey, which neighbours Armenia (**See Section 3.1**). Regional economic integration is critical for improving economic conditions on both sides (Caglar et al., 2014).

**Table 1.1.1 Trade relationship between Armenia and Turkey by reporter, 2015 (USD million)
(UN Comtrade, BACI, TEPAV data team calculations)**

	Million \$, 2015
Turkey's export to Armenia (Reporter: Turkey)	0.0
Turkey's import from Armenia (Reporter: Turkey)	0.0
Turkey's export to Armenia (Reporter: Armenia)	1.4
Turkey's import from Armenia (Reporter: Armenia)	136.5
Turkey's export to Armenia (Reporter: Consolidated)	134.0
Turkey's import from Armenia (Reporter: Consolidated)	2.4

Note: Turkey does not report its trade with Armenia while Armenia reports its trade with Turkey. The BACI International database uses a unique procedure that reconciles the declarations of the exporter and the importer (CEPII, n.d.).

1.2 Regional Economic Interactions and Connections: Turkey and the South Caucasus

The South Caucasus is situated at the crossroads of Russia, Iran, Turkey, Europe and Central Asia. The region's geopolitical importance is attested by the presence of gas and oil reserves in the Caspian Sea and in Central Asia as well as pipelines crossing the region to Europe.

The economic cooperation between Turkey, Azerbaijan, and Georgia is strong, while Armenia is left out from the trilateral-links except for the trade route which traverses Georgia.

In the region, Turkey has the largest economy, far bigger than Armenia, Azerbaijan and Georgia. Its GDP is larger than all the South Caucasian countries combined (**Table 1.2.1**). Its total exports in 2015 were USD 153 billion compared to USD 16.9, USD 2.77 billion and USD 1.66 billion for Azerbaijan, Georgia and Armenia, respectively (BACI Database).

Table 1.2.1 GDP, GDP per capita and population of Armenia, Azerbaijan, Georgia, Kazakhstan and Turkey, 2016 (World Bank Database)

	GDP, current billion \$	GDP per capita, current \$	Total population, million
Armenia	10.5	3,606	2.9
Azerbaijan	37.8	3,877	9.8
Georgia	14.3	3,854	3.7
Kazakhstan	133.7	7,510	17.8
Turkey	857.7	10,788	79.5

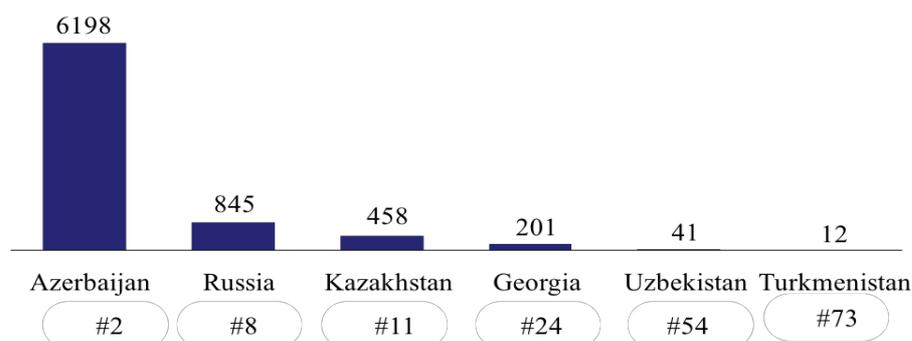
In 2015, Turkey was ranked the number one import partner of Azerbaijan and Georgia after the EU (28) while these countries did not figure among Turkey's top trade partners. The EU is Turkey's top trading partner making up for 47 % and 44 % of Turkish imports and exports, respectively. Turkey has a free trade agreement with Georgia, but not with Azerbaijan. Turkish exports to Azerbaijan (at USD 1.69 billion) are higher than to Georgia (at USD 1.33 billion) in 2015 possibly due to Azerbaijan's relatively larger market size (**Table 1.2.2**). Similarly, Turkey's foreign direct investment in Georgia is USD 201 million, significantly

low compared to USD 6.2 billion FDI in Azerbaijan, USD 845 million in Russia and USD 458 million in Kazakhstan (**Graph 1.2.1**).

Table 1.2.2 Top trade partners for Armenia, Azerbaijan, Georgia, and Turkey, 2015 (UN Comtrade, BACI, TEPAV calculations)

Top 5 export destinations and Russia (EU-28 as a group), 2015					Top 5 import partners and Russia (EU-28 as a group), 2015				
Country	Rank	Export destination	Export volume, million \$	Share in total export, %	Country	Rank	Import partner	Import volume, million \$	Share in total import, %
Azerbaijan	1	EU-28	10433	62	Azerbaijan	1	EU-28	3860	35
	2	Indonesia	1066	6		2	Turkey	1694	15
	3	Norway	674	4		3	Russia	1691	15
	4	Israel	609	4		4	China	532	5
	5	India	609	4		5	Japan	526	5
	6	Russia	427	3	Armenia	1	Russia	916	28
Armenia	1	EU-28	458	28		2	EU-28	824	25
	2	Russia	230	14		3	China	307	9
	3	Canada	212	13		4	Iran	186	6
	4	China	172	10		5	Georgia	151	5
	5	Iraq	131	8	Georgia	1	EU-28	2604	34
Georgia	1	EU-28	855	31		2	Turkey	1329	17
	2	Azerbaijan	249	9		3	China	623	8
	3	Turkey	229	8		4	Russia	571	7
	4	Russia	184	7		5	Ukraine	448	6
	5	USA	169	6	Turkey	1	EU-28	81970	44
Turkey	1	EU-28	71277	47		2	China	24402	13
	2	Iraq	8548	6		3	Russia	12092	6
	3	USA	7475	5		4	USA	10445	6
	4	Switzerland	6089	4		5	Korea	6952	4
	5	UAE	4603	3					
	6	Russia	3810	2					

Figure 1.2.1 Turkish FDI outflows by countries, cumulative 2002-2016 (USD million), and their rank in total Turkish FDI (Central Bank of Turkey, TEPAV calculations)



Turkey, which lies in the middle of energy transit routes, tries to reap the benefits of its geostrategic position. Today, the Turkish port of Ceyhan has become an important hub for both Caspian oil exports (passing through the Baku-Tbilisi-Ceyhan Oil Pipeline) and more recently for northern Iraqi oil. The latter pipeline facing disruptions in supplies due to security concerns on the Turkish-Iraqi border and disagreements between the Kurdish regional government and the central Iraqi government (**Figure 1.2.2**). In 2015, the port of Ceyhan handled more than 650,000 b/d and 400,000 b/d of Caspian and Iraqi crude oil exports, respectively, most of which were heading for Europe via the Mediterranean Sea. Even more substantial volumes of oil (over 2 million b/d in 2015) from Russia and the Caspian move by tanker via the Turkish Straits to international markets. (U.S. Energy Information Administration, 2017)

Turkey was dependent on Russian oil and gas for its domestic consumption for a long time. Since the 2010s Iran and Iraq have replaced Russia as Turkey’s largest supplier of crude oil. In 2015, Turkey imported 41% and 20% of its crude oil from Iraq and Iran, respectively, while Russian imports made up only 11%. However, Turkey remains heavily dependent on Russian gas, which constituted 56% of Turkey’s natural gas in 2015) (U.S. Energy Information Administration, 2017)

Figure 1.2.2 Turkey’s major oil and natural gas transit pipelines (U.S. Energy Information Administration, 2017: p.2)



Georgia plays an important role in the South Caucasus as a transit country for trade flows and energy projects. Yet its economic weight is considerably smaller than that of Turkey and Azerbaijan. The EU (28) is Georgia’s top trading partner followed by Turkey. Russia, with which Georgia has a strained relationship, is also a key trade partner. Our fieldwork suggests that China is also a growing trade partner. In 2015, China was Georgia’s top third import partner; Georgia hopes to expand its exports, especially in beverages, to China¹.

Azerbaijan’s cooperation with Georgia and Turkey primarily focuses on natural resource trade. Azerbaijan has strong economic links with EU countries due to its energy trade with crude oil constituting 86 % of Azerbaijani exports in 2015. As high as 62 % of Azerbaijan’s exports go to the EU (28); Italy, Germany and France are Azerbaijan’s top export destinations. Azerbaijan, possessing the richest oil and gas reserves in the South Caucasus, is a major player in energy projects.

Turkey, Azerbaijan, and Georgia, are increasing their cooperation with each other, especially through mega projects in transportation and energy sectors, some of which also involve Central Asian Republics. Three such mega projects are the Baku-Tbilisi-Ceyhan (BTC) oil pipeline, the Baku-Tbilisi-Erzurum (BTE) or the South Caucasus Pipeline (SCP) and the Baku-Tbilisi- Kars railway link.

¹ Chikovani, N. [Georgian Chamber of Commerce and Industry] 2017, personal communication, Tbilisi, September 4.

- The BTC pipeline, backed by Western companies led by BP, became operational in 2005. It serves as Azerbaijan's "main export pipeline" rising above the Baku-Supsa (via Georgia) and Baku-Novorossiysk (via Russia) pipelines. Crude oil from Kazakhstan and Turkmenistan, key energy suppliers in Central Asia, is also being transported via the BTC pipeline (British Petroleum n.d.).
- The Baku-Tbilisi-Erzurum (BTE) or the South Caucasus Pipeline (SCP) gas connects Azerbaijani Shaz-Deniz fields with Erzurum in Turkey over Georgia. The EU proposed Trans-Caspian gas pipeline to connect the BTE to producers in Turkmenistan and Kazakhstan (Denoon, 2015).
- The Baku-Tbilisi- Kars railway link began in 2007 with the signing of an agreement between Turkey, Georgia and Azerbaijan. This link in all likelihood intended to bypass Armenia in light of the Armenian-Azerbaijani conflict over Karabakh (and Turkey, allied with Azerbaijan in this conflict, closing its border with Armenia). Azerbaijan is a main investor in this railway scheme also making a loan of \$770 million to Georgia for the construction of the missing link on the Akhalkalaki – Kars section and for rehabilitation of the existing route through Georgia (Valiyev, 2016). The railway links to the Trans-Caspian connection reaching out to markets in Turkmenistan and in Kazakhstan and further into Asia to China. It has a capacity to transport 1 million passengers and 6.5 million tons of cargo per year; by 2034 the capacity is expected to reach 3 million passengers and 17 million tons of cargo per year (Ministry of Transport, Maritime Affairs and Communications of Republic of Turkey, 2016a).

Armenia had an important position in the economic networks that linked the different parts of the Soviet sphere of influence. For instance, Armenia was an important high- tech centre during the Soviet period. However, it never recovered a competitive position in the post-Soviet era largely due to its poor links with new networks that are being established in the region. These networks include the Turkish –Azerbaijan connection via Georgia, and possible links with Iran which Armenia was cut off due to sanctions imposed on this country.

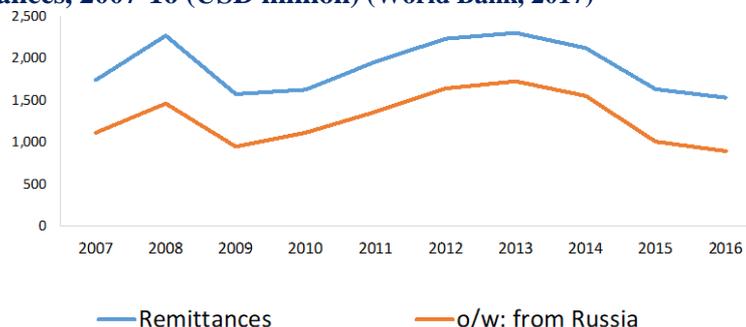
Armenia is a landlocked country with limited economic interactions in the region by contrast to the other countries in the South Caucasus with vital trade and transport connections. Armenia's economic interactions in South Caucasia are limited due to the closure of its borders with Azerbaijan and Turkey. Today, Armenia has two border openings with Georgia to its north and Iran to its south. Georgia provides Armenia with a trade opening. Similarly, Armenia has developed some cooperation with Iran in energy and trade albeit limited. In spite of closed borders Armenia imports goods from Turkey but this remains a one-sided relationship with no significant trade flows from Armenia to Turkey (**See Table 1.1.1**).

Armenia is highly dependent on Russia, which is Armenia's top import partner. Armenia buys its gas from Russia; all Armenian trade with Russia must go through Georgia. Similarly, Armenian telecommunications, and mining sectors remain dependent on Russia. Russian Gazprom bought the final 20% in Armenian gas company (ArmRosGaz) (Gazprom, 2014). Furthermore, Russian Railways is currently upgrading Armenia's railroads under a concession and trust management agreement signed in 2008, valid for 30 years and extendable for another 20 years (Socor, 2013).

Moreover, Russia remains the main destination for Armenian migrant workers; a large number of families in Armenia rely for their livelihood on workers remittances (**Figure**

1.2.3). This situation makes Armenia largely sensitive to the state of economy in Russia including fluctuations in the exchange value of the ruble.

Figure 1.2.3 Remittances, 2007-16 (USD million) (World Bank, 2017)



Armenia further deepened its economic integration with Russia becoming a member of the Eurasian Economic Union (EEU/EAEU) starting in January 2015, along with Belarus, Kazakhstan, Kyrgyzstan and Russia. Armenia does not have a land border with any of the EAEU members nor does it have trade patterns with any member states aside from Russia². Giragosian (2014) argues that Russian pressure on Armenia to join the EAEU was a result of the EU initiatives in the region, in the case of Armenia, the prospect of Armenia signing the EU Association Agreement in 2013. However, the Kazakh Ministry for Investments and Development suggests that trade between Armenia and Kazakhstan is on the rise³. Moreover, EAEU membership has provided important benefits to Armenian workers in Russia (Eurasian Economic Commission, 2015). Iran, which borders Armenia, is looking to sign an agreement with the EAEU; along with the fact that sanctions have been lifted from Iran, this may provide spillovers to Armenia.

Armenia also has major trade partners outside of the region in Europe, North America and China. According to a TEPAV study, the country tried to overcome the negative effects of its closed borders by using air freight. For instance, in 2012, Armenia's average export distance was 3,719 km while Turkey's average export distance was 2,846 km (Caglar et al., 2014).

1.3 A Brief Overview of Economic Closures of Central Asia

Low level activity in Central Asia is identified using night lights data⁴ . In cases where income data on the spatial level is not available, lights data is important in studying growth patterns at sub- and supranational levels (Henderson, Storeygard and Weil, 2012). The figures below show the density of lights based on satellite night lights data, a proxy for economic activity, in 1992 and in 2013. The lights may reflect the changes in growth patterns between 1992 and 2013; and remaining deep gaps in economic activity in Central Asia, as

² Giragosian, R. [Founding Director of the Regional Studies Center (RSC)] 2017, personal communication, September 29

³ Zhankalov, S and Jaikov, T. [Ministry for investments and development of the Republic of Kazakhstan], 2017, personal communication, Astana, September 17.

⁴ The night light data is derived from satellites from the United States' Air Force Defense Meteorological Satellite Program (DMSP). Since the 1970s, these satellites circle the earth recording the intensity of lights on earth with their Operational Linescan System (OLS) sensors. The digital archiving of lights began in 1992. The National Oceanic and Atmospheric Administration's (NOAA) National Geophysical Data Center (NGDC) processing the raw data distributes to the public (Henderson, Storeygard and Weil, 2012)

well as central and western China. The data shows that there have been relative improvements in the South Caucasus and in eastern Turkey⁵.

Figure 1.3.1 Night Lights Data, 1992 (The Defense Meteorological Satellite Program (DMSP) Operational Linescan System (OLS), TEPAV Calculations)

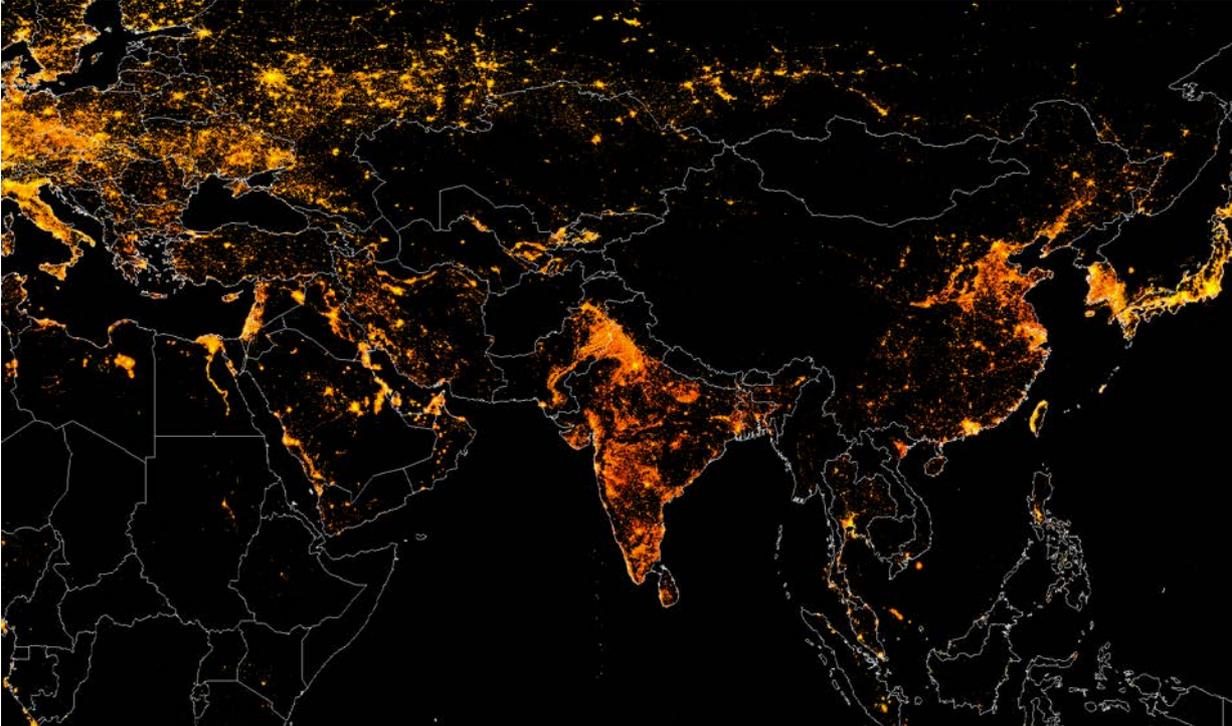
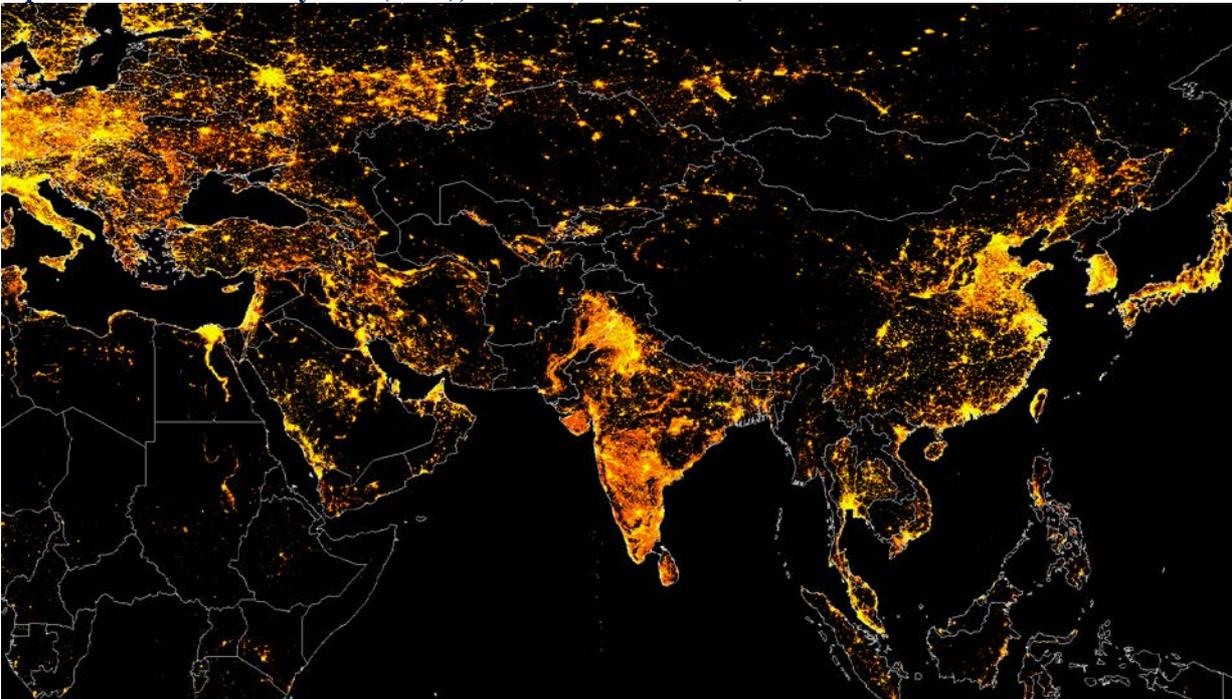


Figure 1.3.2 Night Lights Data, 2013 (The Defense Meteorological Satellite Program (DMSP) Operational Linescan System (OLS), TEPAV Calculations)

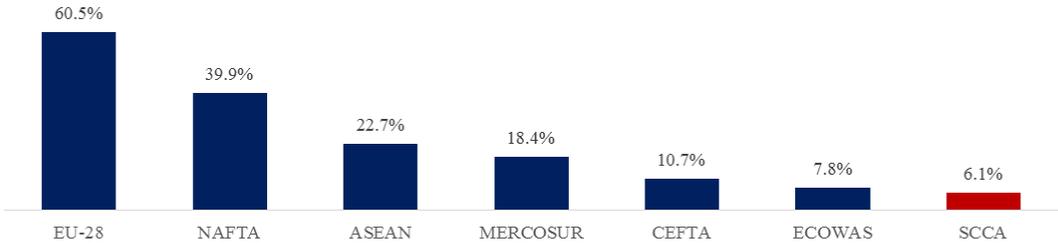


Note: The authors thank Seçil Gülbudak Dil and Aysegül Tasoğ for data calculations and visualization.

⁵ However, looking at Turkey at the national level, there are imbalances. See Basihos and Tasoğ-Dusundere (2016)

In parallel to low level of economic activity, regional integration in Central Asia is very low. In the post-Soviet era, these countries which were previously linked to the Soviet Union, did not link up to new value chains that emerged, especially those in East Asia. In proximity to China, which has grown rapidly, these countries have been connected to their neighbours largely via their energy exports. Looking at intra-regional trade on the other hand, an Asian Development Bank (2010) report shows that while approximately 58% of Asia’s parts and components trade took place within the region in 2008, in the Asia sub-region of Central Asia intra-regional trade in parts and components was only 1.2% (and as high as 56.3% in the East Asia sub region). Our data comparing intra-regional trade within the South Caucasus and Central Asia to major regional economic blocks shows a similar trend (**Figure 1.3.3**).

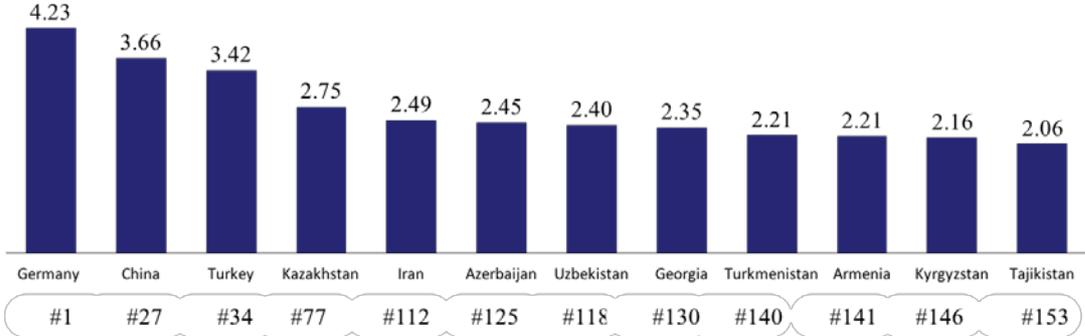
Figure 1.3.3 Share of regional trade in economic unions, 2015 (UN Comtrade, BACI, TEPAV calculations)



Note: SCCA stands for the South Caucasus and Central Asia

Poor connections among five Central Asian countries and their lack of connections with their neighbouring is one of the often cited reasons for low level of economic activity in these countries. According to the World Bank Logistics Performance Index (LPI), countries in both Central Asia and the South Caucasus, with the relative exception of Azerbaijan, are performing very poorly. This index includes evaluation of trade and transport infrastructure (hardware), customs and border management (software) as well as logistics (**See Figure 1.3.4 for LPI general score; See Annex 1 for LPI sub-indicators**). Improvements are already taking place in Kazakhstan where there are substantial efforts to improve inland and cross border transport infrastructure. Following lifting of sanctions, Iran’s connectivity in the region may improve, especially in infrastructure investments, and may further contribute to the development of connections providing regional actors access to the Persian Gulf and maritime routes.

Figure 1.3.4 Logistic Performance Index scores and ranks by countries, overall, 2016 (World Bank LPI, TEPAV visualizations)



Note: Data for Iran refer to 2012 and data for Azerbaijan refer to 2014 instead of 2016. These were the most recent data available for these countries.

1.4 Big Actors, Big Projects: the EU, Russia, Iran, Turkey, the US

Underlying actions of big actors – EU, Russia, China, United States, Turkey – in the larger region, including South Caucasia and Central Asia, are motivated by two overlapping concerns. Most significantly, big actors introduce projects with a Eurasian vision involving transport links, trade networks as well as production networks. These are embodied in different projects including the EU’s TRACECA, the Asian Development Bank’s Central Asia Regional Economic Cooperation (CAREC), presumably Russian –led Eurasian Economic Union (EAEU), the United States’ New Silk Road, China’s One Belt One Road (OBOR) and Turkey’s Middle Corridor. These projects overlap with other region or country based programmes involving infrastructure development, institutional reform and industrialization projects.

Looking at links to the east of the Caspian, the Asian Development Bank initiated the Central Asia Regional Economic Cooperation (CAREC). ADB facilitated the initial regional cooperation processes with a series of regional technical assistance (RETA) initiatives beginning in 1997. CAREC, established in 2001, initially brought together eight countries - Afghanistan, Azerbaijan, People’s Republic of China (PRC) (represented geographically by Xinjiang Uygur Autonomous Region and Inner Mongolia Autonomous Region), Kazakhstan, Kyrgyz Republic, Mongolia, Tajikistan, and Uzbekistan. Pakistan and Turkmenistan joined in 2010 and Georgia joined in 2016. There are six multilateral institutions supporting the programme—the Asian Development Bank (ADB), European Bank for Reconstruction and Development (EBRD), International Monetary Fund (IMF), Islamic Development Bank (IsDB), the United Nations Development Programme (UNDP), and the World Bank. CAREC works on cooperation in transport, trade facilitation, trade policy and energy along different routes; some CAREC routes use the Trans-Caspian connection. (CAREC Website) (See Section 5.1)

The EU sought to play an active role in establishing links between the South Caucasus and Central Asia. Most notably, in 1993, the European Union initiated the TRACECA Programme with an aim to develop transport corridors from Europe, crossing the Black Sea, the South Caucasus and the Caspian Sea reaching Central Asia. The founding members were ministries of trade and transport from eight countries: Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. Between 1996 and 1998 Ukraine, Mongolia and Moldova joined the Programme and in the 2000s, Bulgaria, Romania, Turkey and lastly Iran joined (TRACECA Website.). Furthermore, in 2004, the EU established the European Neighborhood Policy (ENP) to support political and economic transformation in 16 countries to its south and east. In 2009, the EU launched the Eastern Partnership, an extension of the ENP, to deepen its relations with former Soviet countries in the South Caucasus (Armenia, Azerbaijan, and Georgia) as well as with Belarus, Moldova, and Ukraine (European Union, 2017).

The EU has strong bilateral economic connections with all countries in the South Caucasus and with Turkey. The EU is Armenia, Azerbaijan, Georgia and Turkey’s top export partner (Table 1.2.2). In relation to EU’s bilateral links in the region, Turkey is an EU accession country (and thus covered by the Instrument for Pre-Accession Assistance) and it has been in a Customs Union with the EU since 1995. Georgia has the EU Association Agreement. Most recently, Armenia signed the Comprehensive and Enhanced Partnership Agreement (CEPA) with the EU. Azerbaijan, which is closely linked to the EU through its energy exports, is in talks with the EU for signing an Association Agreement. Azerbaijan is

important for the EU to decrease its dependency on Russian energy. Caspian oil is transported to Europe via Georgia and Turkey through the Baku- Tbilisi –Ceyhan pipeline. Yet, Azerbaijan’s share of EU’s crude oil imports was only 4.9 % in 2015 (Eurostat, 2017). By 2019, Azerbaijani gas is projected to be transported to Europe via Southern gas corridor bypassing Russia.

The EU is now developing economic presence in Central Asia. A newcomer in the region, the EU has a more ‘long term and comprehensive’ vision of its relations with Central Asia viewing the region as an extension of its eastern Russian neighbourhood (Romanowski, 2016). In 2015, Europe signed an EU-Kazakhstan Enhanced Partnership and Cooperation Agreement (EPCA). Presently, in terms of trade, the EU (28)’s presence can be best observed in Kazakhstan (**See Annex 2 for top trade partners of Central Asian countries**). Switzerland, which is not an EU (28) country, is present in the region through its gold imports.

According to Romanowski (2016), the EU may face even a greater challenge with China than with Russia in Central Asia. Both China and the EU are interested in facilitating trade in the region although Brussels mainly focuses on Kazakhstan while China is involved with almost all of the countries in the region. The real clash of interests between the EU and China is in the energy sector. While the EU imports 70% of Kazakhstan’s mineral fuels (largely crude oil), it has no access to Turkmen gas for which the primary customer is China. (**See Annex 3 for top trade partners of Central Asian countries in mineral fuels**). It should be noted that Russia is the EU’s top supplier of crude oil and natural gas constituting 27.7 % and 29.4 % of EU’s total imports, respectively. Kazakhstan’s share of EU’s crude oil imports was 6.2 % (ranking sixth) in 2015 while no other Central Asian country figured in EU’s top ten list of importers for gas or crude oil (Eurostat, 2017).

Russia remains an influential economic actor following the Soviet presence of more than 70 years in both the South Caucasus and in Central Asia. Following the collapse of the Soviet Union, in pursuing its economic interests in the region, the Russian Federation reached out to restore integration projections, which defined the Soviet Union. To this end, the Customs Union; the Eurasian Economic Community (EurAsEC); Eurasian Development Bank; Anti-Crisis Fund; the Commonwealth of Independent States (CIS) Free Trade Zone Agreement, among others sought to bring together the former members of the Soviet Union.

Most recently, the Eurasian Economic Union (EAEU) launched in 2015 with Russia, Belarus, Kazakhstan, Kyrgyzstan and Armenia. Recently, Turkey also expressed the wish to negotiate an agreement with the Eurasian Customs Union. In an interview with Sputnik (2017), the minister for trade of the Eurasian Economic Commission (EEC), Veronika Nikishina said that by mid- 2018, China and EAEU could sign an agreement on trade and economic partnership.

Figure 1.4.1 Eurasian Economic Union(EAEU) Nations (Silk Road Briefing, 2017)



Russia is an important trade partner, especially in the region’s imports (See Annex 2 for top trade partners of Central Asian countries). Furthermore, Russia has a say in the passage of oil to the West with 75 % of Kazakh oil crossing Russian territory on its way to European Union (Romanowski, 2016). Kazakhstan’s attempts to take Kazakh oil via Caspian to Europe may be a way of circumventing Russia. At the same time for Kazakhstan, the EAEU representing a market of 180 million people - mostly Russians- is critical for export trade as it attempts to diversify its economy away from energy exports.

In Kazakhstan and other Central Asian countries, Russian economic influence manifests itself in terms of labour migration and regional remittances. According to one estimate, two million seasonal workers from Uzbekistan, 800,000 from Tajikistan, and 600,000 from Kyrgyzstan, are in Russia and Kazakhstan at any given time (Oliphant, 2013). There are also sizable ethnic-Russian minorities in these countries, especially in Kazakhstan.

Russia has considerable influence in the South Caucasus. The Armenian economy is highly dependent on Russia (See Sections 1.2 and 4). Armenia’s economic integration with Russia may further deepen after becoming a EAEU member. Russia and Azerbaijan also have close economic ties. Russia is the second biggest exporter of goods to Azerbaijan and the second biggest FDI investor (See Section 5.3). The two countries share the Baku–Novorossiysk oil pipeline. According to one source, Azerbaijan did not sign onto the Russian led EAEU seemingly using Armenia’s membership as a pretext⁶. It is also likely that

⁶ This point was raised by anonymous interviewee.

Azerbaijan set a balance in its relations with EU and Russia by not joining the EAEU. Russia is Georgia's top third export and import partner in spite of having strained relationship with this country.

Furthermore, Russia and Turkey have strong economic relations. They are both significant trade partners for each other. However, Turkey has a current account deficit with Russia due to its dependence on Russian gas (See Section 1.2).

Iran with Turkey and Pakistan is one of the founding members of the Economic Cooperation Organization (ECO) established in 1985 with its headquarters in Tehran. Other member states include Afghanistan, Azerbaijan, Kazakhstan, Kyrgyz Republic, Uzbekistan, Tajikistan and Turkmenistan. ECO has not been a very effective regional economic cooperation platform. Its members are mainly producers of primary products and commodity exporters, in competition with each other (Wastnidge , 2017) and dependent on outside actors for industrial products.

The isolation of Iran, which provides its neighbours in the South Caucasus and Central Asia with an outlet to the Indian Ocean, has been a major blow to the trade and investment in these regions. Intra-regional trade in Central Asia is significantly low when compared to the trade within other regions. Similarly, Iran's trade with Central Asian countries is limited. In 2015, Iran enjoyed a slightly better position receiving 1.4% and 0.3% of Kazakh and Kyrgyz exports, respectively, while Iranian imports to these countries constitute a mere 0.2% and 0.1 %, respectively, of their total imports (See Annex 4 for Iran's trade with countries in Central Asia and the South Caucasus and with Turkey).

A legacy of Soviet presence in Central Asia has been that all infrastructure - industrial, transport and communications – was oriented northwards servicing the Soviet Union (Wastnidge , 2017). This led to underdeveloped transport and communication links with Iran, which to an extent may explain the weakness of economic cooperation and integration between Iran and Central Asian countries. Earlier in the 1990s the construction of the Tejen (Turkmenistan) - Mashhad (Iran) rail link was a step in the direction of linking central Asia to Iranian rail network providing Central Asia with access to the Persian Gulf (Wastnidge , 2017). Presently, various projects are underway, including north-south transport links to Russia (See Section 2.4) and the new Silk Road connecting China to Europe over Central Asia and Iran (See Section 2.2).

While Iran's role in Eurasian economics is limited, following the lifting of sanctions the country is likely to regain its strategic role in the region participating in both north-south and east-west trade. Iran's central location on the intersection of north –south and east-west routes crossing middle Eurasia makes it an area for opportunities. Even more significantly, Iran's possession of rich energy sources is a key factor for China to include Iran in its OBOR initiative. With the lifting of sanctions, Iran experienced an influx of major European multinationals looking to strike deals in the oil sector and beyond e.g. automotive (Antenore, 2016).⁷ Russia, India and Azerbaijan are partnering with Iran on the North South transport corridor also making investments in Iran's transport infrastructure. According to

⁷ The French carmaker Renault went ahead and signed a deal with Iran in August 2017 in spite of an announcement of possible new sanctions by the US (Erdbrink and Gladstone,2017)

Chen Xiaochen, before sanctions were lifted, there was not much competition for China; in the post-sanctions period China is facing stiff competition from other actors⁸.

The Middle Corridor represents Turkey’s vision for connecting China to Europe via Central Asia and the South Caucasus. Reminiscent of the EU’s TRACECA project, which somewhat stalled,⁹ the Middle Corridor is a trade route project starting from Turkey through Georgia and Azerbaijan in the South Caucasus, crossing the Caspian Sea, to connect to Turkmenistan, Kazakhstan and Uzbekistan, arriving in China covering Afghanistan and Pakistan (Erdogan, 2017). Turkey and China in 2015 signed a memorandum of understanding to align Turkey's Middle Corridor Initiative with the OBOR Initiative including transportation and logistics cooperation as well as cooperation schemes, for instance, in people-to-people contacts. (See Section 3.1)

The precursor for the Middle Corridor was the Silk Road Customs Initiative launched by the Turkish Customs Administration in 2008 that involved Turkey, Azerbaijan, Georgia, Kazakhstan and Kyrgyzstan. This initiative found further elaboration in the ‘Caravanserai Project’ whereby customs administrations of these countries agreed to work together to ease border crossings, harmonize and simplify customs procedures and reduce border crossing time across the ancient Silk Road up till the Chinese border (Ministry of Customs and Trade of the Republic of Turkey, n.d.- a).

Turkey has considerable presence both in the South Caucasus and in Central Asian countries, areas with which Turkey has cultural ties. In the South Caucasus, Turkey ranked the number one import partner of Azerbaijan and Georgia in 2015. Turkey’s cooperation with Azerbaijan and Georgia, led to regional economic projects including the Baku-Tbilisi-Ceyhan (BTC) oil pipeline, and Baku-Tbilisi-Erzurum (BTE) gas pipeline as well as the Baku-Tbilisi-Kars railway Project (See Section 1.2). As part of an effort to transport Azerbaijani gas from Turkey into Europe, Turkey supported the construction of Trans-Anatolian pipeline (TANAP), which is projected to bring 6 billion m³ Azerbaijani gas annually to Turkey starting from 2018 and 10 billion m³ to Europe through Turkey starting in 2020 (Ministry of Energy and Natural Resources of the Republic of Turkey, n.d.). Through its transregional involvement in the South Caucasus Turkey sought to reduce its heavy reliance on Russian gas.

In 2015, Turkey was among the top five import and export partners of the five Central Asia states Kazakhstan, Kyrgyzstan, Tajikistan and Turkmenistan, and among Uzbekistan’s top export partners. (See Annex 2 for top trade partners of Central Asian countries). According to the Turkish Ministry of Foreign Affairs, by 2010, foreign direct investment (FDI) from Turkey into Central Asia exceeded USD 4.7 billion and Turkish contractors were involved in projects worth USD 50 billion with nearly 2,000 Turkish companies present in the region. According to the Ministry, Turkish Eximbank extended loans to Central Asian countries - to Kazakhstan, Kyrgyzstan, Uzbekistan and Turkmenistan - at the level of around USD 1 billion over the last two decades, which constitutes a quarter of Turkish foreign aid. In fact, Turkey’s foreign aid cooperation - the Turkish Cooperation and Development Agency (TIKA) – was established to provide technical assistance to these countries. (Ministry of Foreign Affairs of the Republic of Turkey, n.d.)

⁸ Xiaochen, C [Director of International Studies Department of Chongyang Institute for Financial Studies at Renmin University of China] 2017, personal communication, October 14.

⁹ Several interviews and conversations pointed in this direction, including Denis Daniilidis [European Delegation to Azerbaijan] 2017, personal communication, Baku, September 18.

In Central Asia, Turkey again targets to diversify its energy suppliers to include Central Asian countries and to reduce its reliance on Russia. To integrate itself as an actor in the energy game of the region, Turkey acted to mediate disputes between Turkmenistan and Azerbaijan over Caspian oil and gas supplies, which connect to Turkey through Baku–Tbilisi–Ceyhan oil pipeline and the Baku–Tbilisi–Erzurum gas pipeline (Wheeler, 2013). Also projected since the 1990s, is a Trans-Caspian energy corridor from Turkmenistan and Kazakhstan to Turkey via Azerbaijan and Georgia, which could turn Turkey into the energy hub of the wider region (Wheeler, 2013). Russia, however, opposes the realization of this project.

The US – an extra –regional actor - is a precursor of China with its New Silk Road Initiative presaging Chinese One Belt One Road. The New Silk Road Initiative, announced by Secretary of State Hillary Clinton in 2011, represented a vision for fostering regional development and trade, taking Afghanistan as its starting point. The centrepiece of the initiative was the CASA-1000 project, which is an electricity transmission system, transporting summer energy surpluses from Tajikistan and Kyrgyzstan to Afghanistan and Pakistan. The US effort never really took off mainly due to security concerns in Afghanistan and Pakistan¹⁰. Similarly, the US strongly supports the north-south TAPI gas pipeline to transport Turkmen gas via Afghanistan into Pakistan and India.

1.5 China as a Growing Power and the One Belt One Road (OBOR)

China introduces a comprehensive vision of economic development with its ‘One Belt One Road’ initiative for the region. Among the big players, China has made a grand entry into Central Asia and has a growing presence in the South Caucasus. Our research has shown that China, as investor and trade partner, is an emerging economic presence in Turkey, in Azerbaijan, in Georgia and to a lesser extent in Armenia. China is well established all across Central Asia most notably in the energy sector (**See Section 1.6**). The next two sections take a closer look at China’s ‘One Belt One Road’ initiative, and Chinese interests and the possible ways it will be shaping economies of the Eurasian region.

The economic surge of China has played a key role in the shift of the centre of the world economy. China has become a major global economic power – today, it stands as the world’s biggest economy (looking at GDP on a purchasing power parity basis), excelling as the world’s primary manufacturer, leading merchandise trader, and top holder of foreign exchange reserves. According to Quah (2011), the world’s economic centre of gravity steadily shifted eastwards on account of the rising influence of China and the rest of East Asia with the average location of global GDP moving from the mid-Atlantic and to the east of Helsinki and Bucharest between 1980 and 2008; by 2050 the world’s economic centre of gravity is expected to sit between India and China.

China, with its strong position in global value chains, has become the world’s top merchandise exporter since 2009. In 2009, China overtook Germany as the world’s leading merchandise exporter. In 2012, China overtook the United States as the world’s largest merchandise trading economy (exports and imports). In 2013, China became the largest trading economy for total goods and services (Morrison, 2017). According to Zhou Mingwei

¹⁰ Giragosian, R., 2017 personal communication, September 29.

(2014)¹¹, China was the largest trading partner for 130 countries in 2013. China's growing energy demand is linked to its economic growth, driven by manufacturing exports. China is a primary importer of energy.

China's FDI outflows have risen sharply in the past decade. According to the United Nations Conference on Trade and Development (UNCTAD), in 2016, China's FDI outflows rose by 44% reaching USD 183 billion while its inflows were at USD 134 billion. This places China as the second largest source of FDI and third largest FDI recipient globally (UNCTAD, 2017). More pertinently there has been change in the composition of Chinese FDI outflows. Earlier the share of energy and metals sectors dominated Chinese outflows. While investments in the energy continue to be important, Chinese FDI outflows are increasingly more diverse including substantial investments in transportation. Chinese investments in finance, real estate, and technology sectors have also picked up.¹² At the same time, Chinese brands are moving up the value chain performing in competitive manufacturing sectors e.g. high-end chemicals, electronics, automotive and aircraft (UNCTAD, 2017). Chinese brands such as Huawei, OPPO, Vivo and Xiaomi both dominate the Chinese domestic market and are expanding globally. Huawei, for instance, has a 20 % market share in five European countries (UNCTAD, 2017).

A global economic powerhouse, China launched the "One Belt, One Road" (OBOR) initiative in 2013 – a major economic cooperation platform on infrastructure development as well as trade and investment. The OBOR initiative aims to connect Asia, Europe, Middle East and Africa by means of logistics and transportation infrastructure and by creating synergies with energy and industrial clusters via ports, railways, roads, pipelines, airports, electrical as well as fibre optic networks. Together with providing physical links, through the OBOR initiative, the Chinese government proposes policy coordination, collaboration in investment and trade, financial integration, as well as social and cultural cooperation (National Development and Reform Commission of People's Republic of China, 2015).

The One Belt One Road (OBOR) Action Plan in 2015 had two main components - the Silk Road Economic Belt and the 21st Century Maritime Silk Road. The "belt" is the Eurasian land route connecting China to Europe; the "road" is a maritime trade route connecting Chinese or Chinese invested ports with the African coast and European Mediterranean ports. The 'belt' initiative projects six corridors spanning Eurasia alternating between land and maritime routes:

- 1) *The New Eurasian Land Bridge* consists of a set of railways runs from central China (Wuhan, Chongqing and Chengdu) to Europe via Kazakhstan, Russia and Belarus.
- 2) *The China–Mongolia–Russia Corridor* uses the Trans-Siberian railway.
- 3) *The China–Central Asia–Western Asia Corridor* approximates to the old Silk Road passing through Central Asia, Iran, Turkey to Europe. Yet it is not clearly defined. An alternative passing is through the South Caucasus over the Caspian Sea omitting Iran to reach Turkey and Europe (corresponding to the Turkish Middle Corridor or TRACECA).
- 4) *The China –Pakistan Corridor* involves building highway and railway connections all the way through Pakistan to its Gwadar port.

¹¹ Zhou Mingwei is a member of the National Committee of the Chinese People's Political Consultative Conference and president of the China International Publishing Group (CIPG).

¹² The authors' analysis based on American Enterprise Institute/Heritage Foundation's "China Global Investment Tracker" dataset, available at <http://www.aei.org/china-global-investment-tracker/>

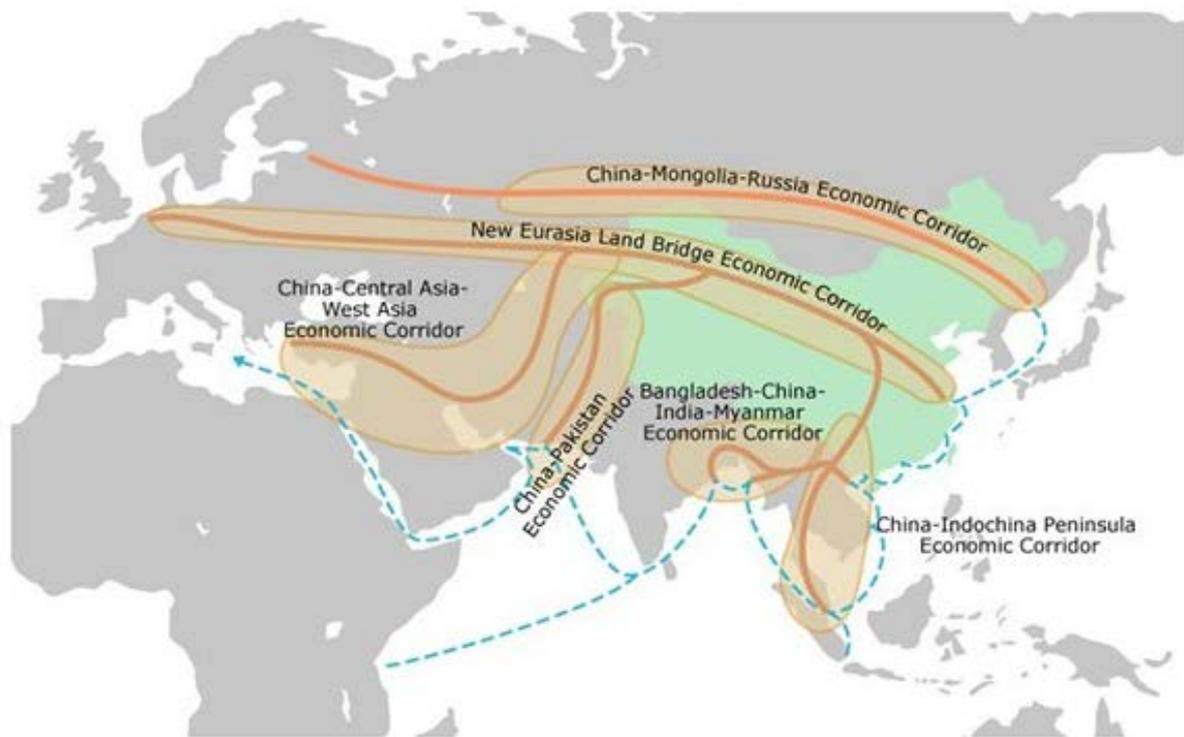
- 5) *The Indo-China Peninsula Corridor*
- 6) *The Bangladesh–China–India–Myanmar Corridor*

So far, the *New Eurasian Land Bridge* and the *China–Mongolia–Russia* corridors go into the EU. The *China–Central Asia–Western Asia* corridor aims to connect to the Europe via Turkey.

The 21st Century Maritime Silk Road targets to connect regional waterways. It provides links through the Straits of Malacca to the Indian Ocean, Middle East and Africa. The ‘road’ begins in China’s Fujian province in Quanzhou, passes Guangzhou (in Guangdong province), Beihai (Guangxi province), and Haikou (Hainan province) and heads south to the Straits of Malacca to Kuala Lumpur. From Kolkata and Colombo in India, it crosses the Indian Ocean to reach Nairobi in East Africa. From Nairobi, the Road goes north around the Horn of Africa moving through the Red Sea into the Mediterranean to Athens before meeting the land-based Silk Road in Venice. In addition to the link through Malacca, the new Silk Road embraces the China-Pakistan economic corridor, ending at the Arabian Sea port of Gwadar and the Bangladesh–China–India–Myanmar corridor (Hajijing and Bo, 2016).

Figure 1.5.1 China One Belt One Road (HKTDC, 2017)

The Belt and Road Initiative: Six Economic Corridors Spanning Asia, Europe and Africa



According to the Chinese Academy of Social Sciences, OBOR includes 65 countries comprising more than two thirds of the world's population, one third of global GDP, 75% of known energy reserves and a quarter of global merchandise trade.¹³ However,

¹³The number of OBOR countries cited by the Institute of Industrial Economics at the Chinese Academy of Social Sciences in its Blue Paper on Industrialization: Overview of the Industrialization Levels of Countries along the Route of the “One Belt, One Road” Initiative (21 January 2016). Other sources have cited different number of OBOR countries e.g. Herrero and Xu (2016).

the definition OBOR countries varies by different sources. According to China's Ministry of Commerce (as cited by Clover and Hornby, 2015), Silk Road countries constitute 26% of China's foreign trade.

China is expanding its global network. China has entered into free trade agreements with Georgia, Australia, Korea, Switzerland, New Zealand, Singapore, Pakistan, Chile, Peru, Costa Rica, Iceland, Switzerland, Hong Kong, Taiwan and ASEAN. Under negotiation are trade agreements with Japan and Korea, Sri Lanka, Maldives, Israel, Norway, the Regional Comprehensive Economic Partnership, and the Gulf Cooperation Council (China FTA Network Website). China's Ningbo Shipping Exchange collaborates with the Baltic Exchange to establish a container index rate between China and the Middle East, the Mediterranean, and Europe (Baltic Briefing, 2015). Along the OBOR corridors, some 200 companies have signed cooperation agreements for projects (Jinchen, 2016).

China has promised to invest substantial resources in its OBOR initiative. In 2014, China established the USD 40 billion Silk Road Fund - with joint-investment from the State Administration of Foreign Exchange, China Investment Corporation, Export-Import Bank of China and China Development Bank- to finance OBOR projects. It also established two development banks - the Asian Infrastructure Investment Bank (AIIB) with a capitalization of USD 100 billion and the New Development Bank (NDB) with a total investment of USD 50 billion, demonstrating China's readiness to shoulder the responsibility for regional and global development. In May 2017, at the Belt and Road Forum held in Beijing, Chinese President Xi Jinping announced a funding boost pledging an extra USD 24 billion (Goh and Chen, 2017).

According to Chinese sources, China's FDI outflows are increasingly directed towards OBOR countries. According to Chinese Ministry of Commerce (MOFCOM) (as cited by Shuiyu, 2017), since the OBOR initiative was first proposed in 2013, trade volume between China and countries along the OBOR trade routes reached USD 3 trillion, total investment USD 50 billion with newly signed contracts exceeding USD 304.9 billion. The Ministry reports that in 2016, Chinese enterprises made USD 14.53 billion worth of investment in OBOR countries; new contracts worth USD 126.03 billion were signed with these countries, which accounted for 51.6% of the newly-signed contract value of all contracted overseas projects of China (MOFCOM, PRC 2017a). In parallel China signed about 50 bilateral cooperation agreements with OBOR economies (including Hungary, Mongolia, Russia, Tajikistan, Turkey, Pakistan) with a total investment of USD 18.55 billion; China has also established 56 economic and trade cooperation zones, which connects these areas to the OBOR project (MOFCOM, PRC 2017a).

According to the blue book of outbound investment and risks, released by Beijing-based China Bond Rating Co Ltd and the Chinese Academy of Social Sciences, which focuses on Chinese investments along the OBOR countries, Chinese investors invested most in energy, transportation and information technology while the top three destinations for investment were Southeast Asia, the Middle East and South Asia (Shuiyu, 2017).

On the other hand, the America Enterprise Institute and Heritage Foundation's (AEI/HF), representing a conservative platform, observes a fall in China's investments to less developed countries in general and to OBOR countries, specifically, with 20% of total Chinese investment reaching these countries in 2016 (Scissors, 2017). According to Scissors (2017), of the USD 1.6 trillion worth of investment and construction made by China between 2005

and 2016, developed countries attracted investments while developing countries experienced Chinese construction. Private Chinese companies played an important role in investments; construction projects are carried out by China's giant state-owned enterprises (Scissors, 2017).

China has made major investments in infrastructure along OBOR routes. The northern railway connections to Europe are already in place. On this route, a China-led consortium in 2015 has a USD 375 million contract to build a 770-km high speed train line between Moscow and Kazan in Russia cutting the distance between two cities from 12 hours to 3.5 hours. The total investment in this project is about USD 16.7 billion (Farchy et al., 2016).

To the South of Russia, China has major energy and transport projects in Central Asia. On the China-Kazakh border, the Khorgos Dry Port is a key cargo hub, in operation since August 2015. The Jiangsu province in China will invest over USD 600 million in the next five years to build logistics and industrial zones in Khorgos (Farchy et al., 2016). In 2015, Kazakhstan announced a plan to build a railway with China between Khorgos and the Aktau port on the Caspian Sea. This project links up with USD 2.7 billion Kazakh project entailing the modernisation of locomotives, freight and passenger cars as well as repairs of 450 miles of rail tracks (Farchy et al., 2016). Similarly, the China-Kyrgyzstan-Uzbekistan railway is scheduled to be completed following the construction of the delayed Kyrgyz leg. The Uzbek leg was completed in 2015 (Farchy et al., 2016).

The railroad line connecting eastern China with Iran will possibly extend to Europe (**See Section 2.2**). Moreover, the planned China-Pakistan economic corridor is projected to receive USD 46 billion in investments and credit lines. In South East Asia, new rail links Laos and Thailand as well as high-speed-rail projects inside Indonesia.

Regarding gas pipelines, predating the OBOR project, China earlier built a 3,666-km gas pipeline that runs from the Turkmenistan-Uzbekistan border to Jingbian in China costing USD 7.3 billion. In 2013, China agreed with Uzbekistan, Tajikistan and Kyrgyzstan to build a fourth gas pipeline in Central Asia, which is expected to increase Turkmen gas export capacity to China from 55 billion cubic meters annually to 85 billion cubic meters (Farchy et al., 2016).

1.6 Chinese Perspective for Opening Up Eurasia by Land

The Europe Union remains China's most important trade partner in Eurasia. In 2015, the EU (28) was China's second biggest export market after the United States covering 18 % of its total exports. In turn, European multinationals are key investors in value chains involving China. Furthermore, the geographical landmass between the EU and China accounts for 64 % of the world's population and 30 % of global GDP (Herrero and Xu, 2016). Chinese trade interests may not simply be confined to accessing European markets but may also seek opportunities to enter new markets along the way. The land route may branch out to reach these markets in a more direct way.

Table 1.6.1 China’s top export and import partners, 2015 (UN Comtrade, BACI, TEPAV calculations) (UN Comtrade, BACI, TEPAV calculations)

Top 5 export destinations, EU-28 as a group, 2015				Top 5 import partners, EU-28 as a group, 2015			
Rank	Export destination	Export volume, billion \$	Share in total export, %	Rank	Import partner	Import volume, billion \$	Share in total import, %
1	USA	458	19	1	EU-28	194	15
2	EU-28	423	18	2	Korea	132	10
3	Hong Kong	273	12	3	USA	129	10
4	Japan	153	6	4	Japan	116	9
5	Korea	90	4	5	Taiwan	73	6

China faces the challenge of security of sea trade. China is heavily dependent on foreign trade – 90 % of Chinese exports travel by sea according to Lin Shanqing, Deputy Head of the State Oceanic Administration, (as cited by Xinhuanet 2017b). According to Vien (2015), the transit routes along six corridors seek to reduce maritime interdiction. Recent clashes in the South China Sea, increased proliferation concerns from North Korea (with missile launches into the sea), may trigger new maritime security concerns¹⁴. Also by building roads and pipelines across Pakistan and Myanmar, China hopes to escape a major strategic vulnerability, the chokepoint of the Strait of Malacca (presently secured by the United States), through which 75 % of its oil imports go through. Already China no longer depends on seaborne imports of its natural gas. Its natural gas supplies are transported overland from Central Asia (Clover and Hornby, 2015).

Transporting goods from China to Europe via sea, though the cheapest alternative, takes too long. Sea and air freight dominate EU–China trade. 62% Chinese exports to the EU are by sea and as high as 24% are by air. Roads and railways make up 8 % and 2 % of Chinese exports to the EU (**Table 1.6.2**) Railroad transport could cut down transportation times for China’s exports. For instance, to transport a 40-foot (12.2 meters) container from a warehouse in China to a warehouse central Poland takes about three days by air, two weeks by train and six weeks by sea, costing USD 40,000, USD 10,000 and USD 5,000, respectively (Mount, 2014). Moreover, transporting goods from inner China to Chinese port is expensive (Bradsher, 2013).

¹⁴ Giragosian, R., 2017, personal communication, September 29.

Table 1.6.2 EU's trade by mode of transport, 2016 (Eurostat, TEPAV calculations)

EU's import from China			EU's export to China		
	Volume	Weight		Volume	Weight
Sea	€ 213.7 billion 62%	90,80%	Sea	€ 101.9 billion 62%	96,40%
Air	€ 83.4 billion 24%	2,00%	Air	€ 52.5 billion 32%	1,50%
Road	€ 27.7 billion 8%	4,40%	Road	€ 3.5 billion 2%	1,30%
Rail	€ 5.6 billion 2%	1,00%	Rail	€ 4.5 billion 3%	0,80%
Total	€ 342.5 billion		Total	€ 164.2 billion	

EU's import from outside of the EU			EU's export to outside of the EU		
	Volume	Weight		Volume	Weight
Sea	€ 870.5 billion 54%	88,90%	Sea	€ 830.2 billion 49%	82,00%
Air	€ 419.8 billion 26%	0,30%	Air	€ 503.9 billion 30%	2,30%
Road	€ 255.4 billion 16%	4,90%	Road	€ 315.5 billion 19%	12,70%
Rail	€ 20.6 billion 1%	5,20%	Rail	€ 21.2 billion 1%	2,70%
Total	€ 1616.3 billion		Total	€ 1694.2 billion	

Faster transportation of its exports may become increasingly important for China, given that China is upgrading the value of its exports and given its growing e-commerce market. Time sensitive but heavy products, including car parts, processed food, and high technology products, may be better transported by rail which is faster than sea but cheaper than air freight (Mount, 2014). As the Chinese economy transforms into a high tech one, the land routes will be a more viable alternative. Moreover, e-commerce, which requires speed, is gaining importance. China's e-commerce giant Alibaba is pushing for a global e-commerce agenda and there is potential to attract aviation to land routes on the Eurasian continent.

Regional inequalities between poor inland western regions bordering Central Asia and rich eastern coastal states is a serious challenge for the Chinese government. Central to the OBOR project, the Xinjiang region in western China contains some of China's largest energy reserves and is an underdeveloped region, poorer than the coastal regions of China (Clover and Hornby, 2015). For instance, Shanghai in the east is five times wealthier than Gansu, an inland province which is part of the old Silk Road (The Economist, 2016a) (For regional disparities also see **Figures 1.3.1 and 1.3.2 for Night Lights Data**).

Since 1999, the Chinese Government, to bridge the development gap between different provinces, adopted the so-called 'western development strategy.' These efforts including preferential policies, large-scale fiscal injections and state-directed investments, delivered few results (Cai, 2017). This led to the government to decide to look for other solutions for invigorating the economies of western China. Integrating them into neighbouring Central Asian economies through the OBOR initiative has been such a solution (Cai, 2017). In 2014, Beijing adopted three regional development plans to address uneven regional development in China - OBOR was one such plan (The Economist, 2016a). To this end, the China- Pakistan

economic corridor that reaches out to the Gwadar port provides an outlet for landlocked Xinjiang, which rests 4,000-5,000 km away from China's coastal ports (Shulin 2016 as cited by Cai, 2017). According to Shulin (2016 as cited by Cai, 2017), the outlet will significantly reduce transportation costs for the province and it is believed that the benefits of the corridor will remedy solve the problem of poverty in both Pakistan and Xinjiang and put an end to the social unrest in the region.¹⁵

Furthermore, China's western frontiers in continuum with Central Asian regions contain vast reserves of oil and gas. China imports hydrocarbons from oil exporters in the region (natural gas from Turkmenistan and Uzbekistan; crude oil from Kazakhstan and Azerbaijan). According to the IMF, since 2000, China's imports from countries in Central Asia and the South Caucasus (called by the CCA region by the IMF), which are oil exporters, have grown tenfold, reaching USD 15 billion in 2015; imports from non-oil exporters in the region quadrupled reaching 400 million in 2015 (International Monetary Fund, 2016). China has invested in the region to expand roads and pipelines to facilitate better access to resources in the region necessary for its development. According to the International Monetary Fund (2016), China aims to invest an additional cumulative USD 35 billion or 2% of its GDP in Central Asia and the South Caucasus (CCA) focusing on infrastructure and mining.

OBOR is a way for China to address its excess capacity. No doubt China needs to channel its USD 4 trillion in foreign currency reserves, largest in the world, as well as its surpluses in real estate, cement and steel (Clover and Hornby, 2015). According to western sources, in addressing over capacity in the steel and manufacturing sectors, the Chinese government is hatching a plan to increase exports.¹⁶ However, Chinese experts argue that China would prefer moving excess production capacity outside of China, through increased investment, to increasing exports. Cai (2017) further argues that China is using OBOR not simply to export its high value goods but "to export China's technological and engineering standards" (p.1), including in high speed rail, telecommunications. From a Chinese perspective, OBOR in fact, is about channelling Chinese investments into OBOR countries. This implies building of industrial bases in these countries whereby Chinese "domestic economic liabilities become foreign economic and diplomatic assets" (Cai, 2017: p.13).

According to one perspective, China is reconfiguring existing value chains, which exploited differences in freight prices, by opening new industrial sites in OBOR countries (Maçães, 2016). According to Maçães (2016), though it is not cost-effective to invest in land routes given historically low sea freight rates, Chinese investments in land routes indicates that OBOR is not about exploiting differences in freight prices but is about capital investments in industrial projects. Maçães further argues that, while currently existing value chains are dominated by multinational corporations, OBOR is projected to shift the control to national governments and their agreements with the Chinese government. At the same time, investment in land routes are projected to be time-effective by comparison to sea routes (**See Section 2.2**).

The Chinese *modus operandi*, however, indicates that top down decision making by the Chinese government is generally preceded by explorations by the Chinese cooperate

¹⁵ Cai (2017) notes that the head of the Chinese Central Bank of Xinjiang, Guo Jianwei, also emphasized how improved connectivity between Xinjiang and Central Asian will serve both "economic and national security dividends."

¹⁶ In his critique of these western sources, Cai (2017) points to the Financial Times article by Clover and Hornby (July 12, 2015).

actors, state or private. Chinese experts and officials suggest that China's social capitalism simultaneously accommodates top down and bottom up movements (Former Chinese Official as cited by Clover and Hornby, 2015)¹⁷. For instance, in Georgia, the Hualing group, a private company from Xinjiang in western China, began investments in 2007 whereas the relationship between the Chinese and Georgian governments is relatively new with the two countries signing a free trade agreement (FTA) in 2017.

From a Chinese perspective, the benefits OBOR are summed up as follows:

- Providing faster transportation of Chinese goods, especially as China upgrades its products to high tech ones and given the growing e-commerce market.
- Reducing China's risk in maritime interdiction stemming from American dominance in key spots in the seas surrounding China.
- Facilitating development in China's poor inland western regions, especially Xinjian that borders Mongolia, Russia, Kazakhstan, Kyrgyzstan, Tajikistan, Afghanistan, Pakistan and India.
- Unlocking investment potential and creating industrial bases across the Eurasian landmass to address China's surplus problem in domestic markets.

¹⁷ Also pointed out by Xiaochen, C, 2017, personal communication, October 14.

SECTION 2: ECONOMIC CORRIDORS OF EURASIA

This section includes first a definition of economic corridors assuming development of industrial areas along transport routes, most importantly railroads. In the second part, we explore emerging corridors along the Eurasian landmass linking China to the EU including the Trans-Siberian railway and the New Eurasian Land Bridge in the North; the China–Central Asia–Western Asia Corridor including the route over Iran. The third part of this section addresses the Trans-Caspian route, an alternative to the route over Iran. Section 2.4 deals with openings for Armenia on the North–South corridor.

2.1 The Concept of Economic Corridors

Trading routes and networks across wide territories have existed for hundreds of years. Perhaps the best known of these is the ancient Silk Road connecting China to Central Asia and the Middle East. The Silk Road did not only enable movements of goods and peoples but also influenced economic development in the region which it traversed.

Today the corridor approach has gained traction as a means to facilitate national and regional economic development and integration. A narrow definition of a corridor addresses trade and transport, where transport and logistics infrastructure and services are coordinated with an eye to facilitate flows between key centres of economic activity. The coordination can be carried out by national or regional bodies with the involvement of public and /or private sector actors (Kunaka and Carruthers, 2014).

Regional corridors are critical for landlocked countries that suffer from serious trade and accessibility issues. Poor connections can damage economic prospects of landlocked developing economies, especially affecting their small and medium-size enterprises (Arvis, Carruthers and Willoughby, 2011). Limão and Venables (2001) show that a 10% fall in transport costs increases trade by 25%. Moreover, landlocked economies transport costs 50% higher compared to coastal economies (Limão and Venables, 2001). Furthermore, transport costs are bigger barriers to trade than tariffs on imported and exported goods for landlocked countries (Ki-Moon, 2008). Similarly, a study by United Nations Conference on Trade and Development (UNCTAD, 2010), has shown that landlocked countries, when compared to other developing countries, spend on average nearly double their export earnings to pay for transport and insurance services; they spend about three times more when compared to developed countries.

Different properties of corridors highlight transport, logistics, and economic development - these are often presented in terms of developmental stages. One approach to the evolution of regional corridors shows them as being constructed through stages with each stage representing different conceptual models in developing an area. One such model is: transport corridor (stage 1), multimodal transport corridor (stage 2), logistics corridor (stage 3), economic corridor (stage 4) (Banomyong, 2008). Other models include: transport corridor (stage 1), transport and trade facilitation corridor (stage 2), logistics corridor (stage 3), urban development corridor (stage 4), and economic corridor (stage 5) (Srivastava, 2011) ; or transport corridor (stage 1), logistics corridor (stage 2), transport and trade facilitation corridor (stage 3), economic or growth corridor (stage 4), and development corridor (stage 5)

(Nogales, 2014). For all evolutionary categorizations that are proposed differences between stages are not always clear cut and often overlap (Srivastava, 2011).

Transport corridors generally refer to the infrastructure dimension that provides physical links to an area in a country or region that previously lacked connection (Nogales, 2014). The infrastructure dimension takes into account the physical capacity of the corridor (Arnold, Olivier and Arvis 2005). The physical dimension also includes *multimodal transport corridors* that creates more complex linkages by integrating a variety of transport modes – road, rail, inland waterways and short sea shipping. Transport corridors can be part of a transportation networks on a regional basis (Nogales, 2014). Furthermore, a transport network can be part of broader infrastructure programmes that can be linked to power and telecommunication networks (Nogales, 2014).

A logistics corridor is the second stage of corridor development where establishing physical links to an area are accompanied by the harmonization of the institutional framework (Banomyong, 2008). The main objective of a logistic corridor is to optimize the flow and storage of goods, people, and related information. It involves improving logistics and all technological, organizational and legal conditions to be achieved with the support of service providers and a facilitating institutional environment. The strength of a logistics corridor lies in its ability to address concerns and interests of public and private stakeholders by tackling logistics issues including issues encountered in border crossings, effectively and swiftly (Banomyong, 2008).

While the concept of trade corridors lacks a widely agreed upon definition, it can be regarded as an augmented form of transport or logistics corridors with additional facilities to ease trade flows. In concrete terms, trade corridors seek to streamline and simplify trade and customs procedures and trade policies (Nogales, 2014).

Building on physical, institutional and legal aspects, the idea of an economic corridor incorporates analytical dimension and policy planning perspective for achieving integration. The analytical dimension addresses corridors as linear clusters of land uses, which interact with each other in such a way that the whole is greater than the sum of its parts. The policy perspective in turn views corridors in terms of policy and as spatial planning instruments (Albrechts and Tasan-Kok, 2009). The concept of an economic corridor was popularized through the Asian Development Bank’s Greater Mekong Subregion (GMS) project (Wiemer, 2009). While the definition of an economic corridor in the literature is not conclusive, it is generally understood that economic corridors facilitate economic activity along the corridor crossing a region by generating investments. De and Iyengar (2014) of the Asian Development Bank characterize “an economic corridor as public capital summed over transportation networks, human resources, communication facilities, energy grids, and institutional infrastructure.” (p.16)

The conditions for building effective economic corridors depends on both physical and institutional infrastructure as well as further incentivizing investments. Banomyong (2013) argues that the physical infrastructural links and logistics must already be in place in order to attract investment. Srivastava (2011) notes that while connectivity enhancing physical infrastructure i.e. road, highway may be a catalyst for physical development, it is also true that the causality may be reverse and demand for physical connectivity may come from already developed areas. Since an economic corridor, like other corridors, can be national, regional, or even international (De and Iyengar, 2014), incentives for the private

sector may need to be reviewed and harmonized among different countries along the economic corridor, especially to attract investment to the least developed areas along the corridor (Banomyong, 2008).

The challenges to the development and effective functioning of economic corridors can broadly be divided into hardware and software aspects, which will require intervention from governments and policymakers. The hardware aspects, such as transport facilities (physical infrastructure, logistics networks, maintenance), ensure the flow of goods and services (De and Iyengar, 2014). Most projects focus on infrastructure development, typically road infrastructure; however, the so-called soft dimension of trade facilitators has received less attention (Kunaka, and Carruthers, 2014). The software aspects, including customs formalities and administrative procedures, enabling logistics services, institutions and governance, dispute settlement procedures, safeguard measures among others, are critical to make hardware work (De and Iyengar, 2014). Corridor performance depends “on quality and competitiveness of transport and logistics services, capacity and condition of public infrastructure used by these services, and domestic, bilateral, and sometimes, multilateral regulation of these services and the trades that they serve” (Arnold, 2006: p. 50). Governments could improve corridor performance through capital investment, legislative measures, setting of technical standards, and initiating regulatory reform (Arnold, 2006).

As importantly, economic corridors, by lowering real trade costs and barriers to trade, may encourage countries to realize production sharing arrangements (De and Iyengar, 2014). This goes beyond identifying economic corridors simply in terms of trade policy but makes them an integral part of production policy. This is especially so in fragmentation of production across a region where improved service links, flow of information and communication technologies, and better connectivity serve to facilitate expansion of production networks (De and Iyengar, 2014). For Kimura and Kobayashi (2009) the key to drawing fragmented production blocks into networks is developing special economic zones (SEZs) in the region with improved local investment environment and connecting remote production blocs by improving customs procedures and logistics facilities.

2.2 Corridors on the Land Route between China and the EU

There are different possibilities for economic corridor development emerging on the land route from China to Europe. The idea of an overland route from China to Europe was revived following the fall of the Soviet Union. Initially, the opening of the route was blocked by red tape, low capacity, and complicated border procedures (Winterbottom, 2012). However, China’s emergence as a major economic power gave further impetus. In 2015, of China’s USD 2.37 trillion exports approximately USD 423 billion went to Europe and USD 12.1 billion to the five Central Asian countries of Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmenistan, and Tajikistan.

Table 2.2.1 China’s exports and imports to/from partners: EU, Kazakhstan, Kyrgyzstan, Turkmenistan (UN Comtrade, BACI, TEPAV calculations)

China' exports by destinations, 2015		China' exports by destinations, 2015	
Export destination	Export volume, billion \$	Import partner	Import volume, billion \$
EU-28	423,0	EU-28	194,1
Kazakstan	5,6	Turkmenistan	7,0
Uzbekistan	2,2	Kazakstan	5,5
Tajikistan	1,8	Uzbekistan	1,2
Kyrgyzstan	1,7	Kyrgyzstan	0,1
Turkmenistan	0,8	Tajikistan	0,05

Initially, the Northern routes gained traction for the conduct of China–EU trade. Two of six economic corridors proposed by the OBOR initiative are in the North: 1) the China–Mongolia–Russia corridor, which uses the Trans-Siberian railway 2) the New Eurasian Land Bridge consisting of railways running from central China to Europe via Kazakhstan, Russia and Belarus.

Figure 2.2.1 Trans-Eurasian land bridge – a transport alternative (Deutsche Bahn AG, 2016)

Trans-Eurasian land bridge – a transport alternative

2020: DB transports 100.000 container by train between China and Germany



- Since 2011 **weekly container train services**
- 2015: **400 trains** transport **30.000 container** on North and South Route
- **12 to 16 days** for **10.000** resp. **13.000 kilometres**
- **New Silk Road** connects Central Asia via West Asia and Middle East with Europe

Source: Deutsche Bahn

Date: March 2016

The northern route through Russia (bypassing Central Asia) is about 13,000 km long, taking around 16 days (Kemp, 2016). The Trans-Siberian route has two alternatives – in addition to the Trans-Mongolian line through Ulaanbaatar there is the passage crossing directly from China into Russia in the Russian Far East. The Trans-Siberian route that

bypasses Central Asia has the advantage of crossing only few countries on its way to Europe. However, on this route, the freight crosses into Russia through far north-eastern China, servicing China's eastern port cities that have access to the Chinese ports in the east. Moreover, a significant part of the demand for rail freight is from inner parts of China and not from the east (Bradsher, 2013; Debreczeni, 2016).

More south, the New Eurasian Land Bridge, was built in response to the demand for rail freight from inner parts of China in 1990 (Winterbottom, 2012). However due to a lack of demand as well as red tape, it did not come into use until 2011 (Winterbottom, 2012). Today, red tape on the New Eurasian Land Bridge route is minimized to the extent that only goods imported to China are subjected to customs inspection upon arrival at their destination (Winterbottom, 2012). The route passes through the Chinese interior onto Kazakhstan, Russia, Belarus, Poland and Germany with some trains going on to France and Spain. On the other hand, the New Eurasian Land bridge is an umbrella term comprising multiple links between Chongqing (China) to Duisburg (Germany), Chengdu to Poland among others.¹⁸ The longest transportation distance between China and Europe is the 13,000 kilometre Yiwu – Madrid train which began operations in 2014. In 2017, the first train from Yiwu arrived in London completing a 12,000-km journey (Iyengar, 2017). According to Shepard (2017c), there are now 39 lines connecting 15 European cities with 20 Chinese cities.

Among the freight customers on different lines of the New Eurasian Land Bridge are the leading electronics and automotive companies (Rastogi and Arvis, 2014). Major companies that have set up shop in Chongqing and Chengdu in China including Foxconn, Inventec, Acer, IBM, Honeywell, CISCO, Hewlett-Packard, DHL, Philips, Ericsson, Seagate, Samsung, FIAT, BMW, Audi, Volkswagen among others, use inland routes to Europe i.e. the Chongqing -Duisburg line and the Chengdu-Poland line (Szakonyi and King, 2013; Miller, 2017). At the same time, the land route is delivering results in the form of introduction of production sites of several multinationals in Central Asia that are taking advantage of the region's location between Europe and China i.e. General Motors in Uzbekistan, General Electric and Toyota's investments in Kazakhstan (Rastogi and Arvis, 2014; Bradsher, 2013).

Both speed and costs are falling for rail freight transportation between China and the EU. The 11,000-km journey between Chongqing (China) and Duisburg (Germany) via the Kazakhstan route, which took about 18 days in 2014 (Deutsche Bahn Schenker, 2014; Rastogi and Arvis, 2014), now takes about 14 days¹⁹ - considerably less than the time for goods travelling to Europe via the maritime route, which takes anywhere between 25 to 45 days (Kuester, 2017). According to Erich Staake (2017), CEO of Duisburg group (inland port), the travel time between the two destinations has been reduced to 11-12 days in 2017 due to technical improvements.

The establishment of the EAEU has played a key role in the effective operationalization of the route. At the same time, the cost for transporting containers on the route has fallen from around USD 7,000 (when the train was first introduced in 2014) to USD 4,000 by 2016 and is expected to fall to around USD 2,000 soon. According to Hewlett Packard's Director of Global Logistics Ronald Kleijwegt (as cited by Shepard, 2016), currently, shipping by rail between China and Europe costs just 20- 25% more than by sea for door-to-door services.

¹⁸ For more on China- EU railway lines see: Li, Bolton and Westphal, 2016; HKTDC, 2016; and Rastogi and Arvis 2014.

¹⁹ According to Kuester (2017), while transit time depends on different factors, on average it takes about 14 to 18 days for block-trains and 18 to 21 days for single container shipments between EU and China.

Furthermore, Kleijwegt points to the Eurasian Economic Union (EAEU), launched in July 2011, as the key factor in making the train route between China and the EU effectively operational: “The biggest breakthrough was when Kazakhstan and Russia together with Belarus signed the customs union. Why this was a breakthrough was because originally you had to cross borders between Kazakhstan and Russia, [where] by default there was a 10% physical inspection required. Which means on a container train of 50 containers you'd have five containers for physical inspection, which at the least would take two days or more.” (Shepard, 2016: p. 3)

Similarly, Rastogi and Arvis (2014) show that the EAEU had a direct facilitation impact removing customs control between borders of the EAEU members (Kyrgyzstan, Kazakhstan, Russia and Belarus). Moreover, the system is simplified for transit trade (trading with non – EAEU members) whereby it is treated like one single national transit system. Additionally, transport services, including railways, are better integrated and trucks can more easily operate across borders (Rastogi and Arvis 2014).

There is a market to expand beyond the northern options discussed above. Northern options have so far met Chinese expectations²⁰. However, the massive amount of trade between China and EU (40 million 20-foot containers and 500 million tons of bulk merchandise via maritime crossing the Suez Canal each year) could allow for more rail freight, at present capacity (Rastogi and Arvis, 2014).

The old Silk Road or the *China–Central Asia–Western Asia corridor* passing through Central Asia, Iran, and Turkey to Europe is yet another alternative to the Northern options. The first Silk Road train, carrying cargo from China to Iran, arrived in Tehran on February 15, 2016 suggesting a new chapter in the cooperation between China and Iran in the post-sanctions era. The train, before arriving in Iran, passed through Kazakhstan and Turkmenistan after it left Yiwu city in east China's Zhejiang Province, travelling a distance of 10,399-km in 14 days - one month less than sea travel from Shanghai port to the Bandar Abbas port in Iran (Xinhuanet, 2016b; Dehghan, 2016). On September 06, 2017, another cargo train linking Yinchuan, capital of Northwest China's Ningxia Hui autonomous region to Tehran began operation carrying machinery, daily commodities, ceramics and glassware. Travelling again through Kazakhstan and Turkmenistan, the cargo took 15 days to reach Tehran (Xinhuanet, 2017a).

According to Mann (2014), China plans to invest USD 150 billion in high-speed railways from Xinjiang in China to Turkey and the EU via Kazakhstan, Turkmenistan, and Iran (leaving out the South Caucasus). Representing the eastern leg of this corridor, the China Railway Corporation (CRC) has already proposed a high-speed rail network, starting in Urumqi in Xinjiang and ending in Tehran passing through Kazakhstan (Almaty), Kyrgyzstan (Bishkek), Uzbekistan (Tashkent and Samarkand) and Turkmenistan (Ashgabat) (Yanpeng 2015). According to the Chief Engineer of China Railway Corporation (CRC), He Huawu (as cited by Yanpeng, 2015), the high-speed railway would seamlessly connect China to its west. Huawu argues that because the worldwide standard for high speed rail is the 1.435mm gauge, a high-speed connection along the China–Central Asia–Western Asia corridor would have the advantage of avoiding gauge changes on the borders of Central Asian countries, which use the Russian-built train system²¹ (Yanpeng, 2015).

²⁰ Tong, W [Embassy of the People's Republic of China in the Republic of Kazakhstan] 2017, personal communication, Astana, September 17.

²¹ Russia and Central Asian countries use a 1.52mm gauge, while both Europe and China use a 1.435mm gauge.

Figure 2.2.2 China-Iran Rail Route (The Economist, 2016b)



There are, however, challenges to the route between Iran and China. The route involves crossing too many countries (among them Kyrgyzstan, Uzbekistan, Turkmenistan and Iran), which perform poorly in terms of connectivity. (See Section 1.3 for World Bank Logistic Performance Index (LPI) general score; See Annex 1 for LPI Sub indicators). In addition to lacking transport infrastructure, entry to these countries are restrained by border delays and burdensome customs procedures.

2.3 The Trans-Caspian Route Promises and Shortfalls

An alternative to the route via Iran is the route passing through the South Caucasus over the Caspian Sea to reach Turkey and Europe. The corridor corresponds to the EU's TRACECA and Turkey's Middle Corridor visions for connecting China to Europe. The trade route starting from China through Kazakhstan and possibly through Turkmenistan in Central Asia, crossing the Caspian Sea to the South Caucasus and Turkey extends to the EU. This is the preferred route of the Turkish government (See Section 3.1); it is a critical priority for countries in the South Caucasus. From an EU perspective, the Trans-Caspian corridor has the advantage of promoting Chinese – EU trade as well as promoting EU's access to energy markets in Central Asia circumventing its dependency on Russia, primarily in energy. The EU has established good political relations with countries along the Middle Corridor, which are also home to hydrocarbon resources and/or are passageways for transport of such resources.

At present the Middle Corridor is operational via a highway system extending from Turkey to Georgia and Azerbaijan crossing the Caspian into Kazakhstan or Turkmenistan. Most west-east trade on this route is Turkish. Yet this is a small part of Turkish trade going eastwards - the larger part of that trade goes over Iran. Moreover, trucks returning west do so mostly empty²². On the east-west direction, some bulk commodities such

²²Mustafayev, A. [Permanent Representative (National Secretary) of the IGC TRACECA in Azerbaijan] 2017, personal communication, August 18.

as oil and grain products, are shipped out of Aktau to travel to Turkey or Iran (Brown, 2017; Shepard 2017b²³)²⁴.

The Trans-Caspian route or the Middle Corridor, a multimodal route, which involves crossing several countries between China and Europe, requires a comprehensive network of infrastructure, harmonized customs and cross-border procedures. Recently the Baku-Tbilisi - Kars leg of the corridor, connecting the Caspian to eastern Turkey, is completed. In western Turkey, the newly built Yavuz Sultan Selim Bridge in Istanbul, including a railroad, aims to ensure a corridor for a seamless flow of goods and people between Asia and Europe (See Section 3.2). Furthermore, Azerbaijan and Kazakhstan have recently constructed modern ports on the Caspian Sea, Kuryk and Alat, respectively (See Section 5.1 and Section 5.3). At the other end of the Trans-Caspian corridor, Kazakhstan's internal rail network stretching from China to the Caspian Sea is also completed (See Section 5.1). In collaboration with China, Kazakhstan plans to construct a railway from Khorgos²⁵ on the Kazakh-Chinese border to the Caspian Sea port of Aktau (Farchy et al., 2016), a promising development adding to the value of the Caspian connection.

However, the corridor is still underused, underinvested. China's east-west land trade to Europe primarily focuses on the Northern routes. On the Caspian route, China is at the stage of exploring the possibilities of transportation i.e. the DHL case (See below). At the same time, China is investing in individual countries in the building of infrastructure ports, high speed trains, free economic zones, logistics centres, which are not necessarily related to transport over the middle corridor but may eventually be complementary. Gradually, also encouraged by Chinese investments, the Trans-Caspian route may become an alternative route to the Northern ones in accessing EU markets.

Problems remain along the corridor.

First, the most frequently cited issue is the high costs of the Caspian crossing between the Aktau port in Azerbaijan and ports in Kazakhstan and Turkmenistan. As of 2015, it costs USD 1,200 one way to cross from Baku to Aktau route and USD 1,100 from Baku to Turkmenbashi amounting to USD 4 and USD 6.5 per nautical mile, respectively. By contrast Ro-Ro shipment from Mersin in Southern Turkey to Italy's Trieste costs USD 1 per nautical mile (Kurguzova and Sahbaz, 2016).

Contributing to costs are inadequate containerization, which is expected to speed up the process. The cargo coming through Aktau is shipped by ferry across the Caspian Sea. The process through which this takes place is inefficient whereby rail wagons and trucks are loaded onto ferries and chained down to the deck to be carted across the Sea where they are unchained and transported (Shepard, 2017b). According to Martin Voetman (as cited by Shepard, 2017b), who is a member of DP World's management team, containerization is expected to speed up the process, eliminating inefficiencies of loading and unloading of rail wagons of trucks and the like.

Furthermore, ferry schedules are irregular due to weather conditions (on average 90 days a year ferries are unable to operate due to big waves) and as significantly due to low trade

²³ Also indicated by Zhankalov, S and Jaikov, T. [Ministry for investments and development of the Republic of Kazakhstan], 2017, personal communication, Astana, September 17.

²⁴ Commodities are shipped in tankers and to a lesser extent in ferries (Smirnov, 2009)

²⁵ Khorgos is expected to become the main portal for OBOR (Diener, 2015).

levels on the route, results in long waits by ferries waiting to be filled before leaving. The result is higher costs²⁶.

Existence of monopolies of transportation on the Caspian drives up prices. Azerbaijan's state-owned Caspian Shipping Company, CASPAR, monopolizes transportation on the Caspian Sea between Baku- Aktau and Baku – Turkmenbashi lines (Egis International/Dornier Consulting, 2013). The Kazakh government is looking for new investors in carriers to break the Azerbaijani monopoly²⁷.

The second problem refers to connection deficiencies. Notwithstanding the completion of the Baku -Tbilisi –Kars railway, Turkey lacks an effective railway network linking Kars to western Turkey and then to the EU. The Turkish government prioritizes the construction of a high-speed railroad network between Edirne on the EU border and Kars crossing eastern and central Anatolia. Costs considerations are behind delays for the Kars- Erzincan- Sivas – Ankara connections, for which, Turkey is looking to the Chinese (**See Section 3.2**). Earlier China invested in Turkey's first high speed rail between Ankara and Eskisehir. Possibly due to the absence of an effective internal rail network in Turkey, DHL, which started its operations on the Trans-Caspian international corridor route in 2015, chose the route over the Black Sea. The first container cargo train from Lianyungang in China passing through Kazakhstan over the Caspian Sea to Azerbaijan onto Georgia's Poti Port from where its cargo was shipped to Istanbul (**See below**).

Moreover, inadequate ports in Turkey, poorly connected to their hinterlands, hinders the flow of trade from Georgia via Turkey to Europe. As it is, the focus is on Istanbul. Turkish policymakers aim to address unclogging Istanbul and distributing benefits of trade by utilizing ports across Turkey (**See Section 3.2**).

The third issue is the gauge difference (spacing of the rails) along the Trans-Caspian route. Central Asian and South Caucasian countries use the 1.520m gauge, a legacy of the Soviet era, while China, Turkey and the EU use the 1.435m, known as the standard gauge. Trains coming from China (and subsequently entering Turkey and the Europe) must undergo a change in gauge adding to delays and costs. Along the Baku Tbilisi Kars line, the gauge is changed at Akhalkalaki in Georgia. While China Railway Corporation (CRC) proposed adopting the world standard of 1.435m in high speed railways for the Tehran – Urumqi line via Central Asia (Huawu as cited by Yanpeng, 2015) (**See Section 2.2**), on the whole, on both Russian and post-Soviet territory, the Russian gauge prevails, even in the newly built systems.

The fourth issue, relates to tariffs, border crossing procedures, national regulation/legislation and other software dimensions of trade, all contributing to costs. While these issues are not covered in detail in this report, they are primarily the subject of bilateral and multilateral agreements and all constitute significant barriers to trade along the Trans-Caspian route.

²⁶ Kolbay, A. [Embassy of the Republic of Kazakhstan in the Republic of Turkey], 2017, personal communication, October 18.

²⁷ Kolbay, A. [Embassy of the Republic of Kazakhstan in the Republic of Turkey], 2017, personal communication, October 18.

One attempt to overcome such obstacles is the Trans Caspian International Transport Route (TITR) project²⁸, an extension of TRACECA. In 2016, railway and port authorities of Azerbaijan, Kazakhstan, and Georgia signed an agreement on developing the Trans Caspian International Transport Route Association (Nazarlı, 2017). The objective of the Association is to facilitate shipments across the Trans-Caspian corridor. To this end, through bilateral and multilateral cooperation schemes, countries are focusing on developing effective tariff policy, easing barriers in customs and border crossings (i.e. digital integrated services), thus reducing administrative costs²⁹. Azerbaijan, Kazakhstan, Georgia and Ukraine introduced competitive feed-in tariffs for cargo transportation on the route starting from June 1, 2016 (Shirinov 2016).

In 2017, the International Association of the Trans-Caspian International Transport Route (TITR) signed a memorandum of cooperation with the China Communications and Transportation Association in a meeting attended by 80 representatives of railway departments, port, shipping and logistics companies from Kazakhstan, China, Ukraine, Poland, Turkey, Azerbaijan, Georgia, Lithuania and Latvia (Israfilbayova, 2017)

On the national level, Turkey for instance, recently adopted the single window system, which makes it possible for applicants to submit digital applications to a single contact point which then is forwarded to relevant agencies for approvals and permissions required for customs (Ministry of Customs and Trade of the Republic of Turkey, n.d.- b).

In 2015, the container train ‘Nomad Express’ on the China (Shihezi) - Kazakhstan (Dostyk- Aktau Port) - Azerbaijan (Kishly) route was launched as a result of efforts on the part of the TITR. In August 2015, the first container train ‘Nomad Express’ from China to take the Trans-Caspian route reached Baku International Sea Trade Port in 6 days travelling approximately 4,000-km (Valiyev 2016; TITR Website). Together with Azerbaijan and Kazakhstan, China was a major player in the implementation of this project (Valiyev 2016) (See **Figure 2.3.1**).

Similarly, DHL Global Forwarding launched a multi-modal corridor service between China and Turkey in collaboration with Kazakhstan Temir Zholy Express and partners from Azerbaijan, Georgia and China (DHL, 2015).³⁰ On December 2015, the first container cargo train from Lianyungang, China arrived in Tbilisi, Georgia en route to Istanbul, Turkey. The train passed through Kazakhstan ferried through the Caspian Sea to Azerbaijan onto Georgia, from Georgia’s Poti Port from where its cargo was shipped to Istanbul. Trains over this route are expected to reach Istanbul, Turkey in 14-15 days. (TITR Website)

²⁸ In 2014, the Coordination Committee for the Development of the Trans-Caspian International Transport Route (hereinafter - TITR) was established with membership of trading institutions from three countries including Azerbaijan Caspian Shipping, Azerbaijan Railways, Baku International Sea Trade Port, Georgian Railway, Aktau International Sea Commercial Port, Kazakhstan Railways and Batumi Sea Port. China Communications and Transportation Association, Ukrzaliznytsia" (State Administration of Railway Transport of Ukraine), Ukrferry and the Constantza port in Romania subsequently joined to become TITR partners (TITR Website).

²⁹ Gvenetadze, G and Edilashvili, G. [Ministry of Economy and Sustainable Development of Georgia], 2017, personal communication, Tbilisi, August 4.

³⁰ DHL signed of a memorandum of understanding (MOU) with Kazakhstan Temir Zholy Express (KTZ Express), Kazakhstan’s national multimodal operator. DHL also worked closely with China, Lianyungang’s municipal government, and governments of Azerbaijan, Georgia and Kazakhstan in addition to trading institutions i.e. Azerbaijan and Georgia Railways, Karvan Logistics and RTSB Logistics. (DHL, 2015)

Adding to the functionality of the Trans-Caspian connection, in 2016 Ukraine launched a test cargo train in the west –east direction from its port of Illichivsk to China via the same route crossing Georgia, Azerbaijan and Kazakhstan. Ukraine pointed to the speediness of the route as a main advantage covering 5,471-km from Ukraine to China in 9 to 14 days whereas average time by ship takes about 40 days (Xinhuanet, 2016c).

Figure 2.3.1 TITR’s Multimodal container line «Nomad Express» (TITR Website)



Summary Box: China’s Investments that may related to the Middle Corridor

Chinese actors have been carrying out or have shown interest in carrying out infrastructure projects in different countries that were included in our research that may benefit the trans-Caspian connection:

In Turkey, Chinese state-owned shipping and logistics company COSCO Pacific, together with China Merchants Holdings International and CIC Capital acquired a majority stake in Kumport located in Istanbul paying USD 940 million. Previously, China was an investor in the Ankara-Eskisehir rail line, Turkey’s first high-speed rail (See Section 3.2).

In Georgia, Chinese company Hualing group established a Free Industrialized Zone in Kutaisi near, which is near the still under construction Anaklia Port projected to transport Chinese goods travelling to Europe. The China Energy Company Limited (CEFC) purchased 75% of shares in the Poti Free Industrial Zone located in the Poti port (See Section 5. 2).

In 2015, Kazakhstan announced a plan to build a railway with China between Khorgos and the Aktau port on the Caspian Sea (See Section 5. 1).

In Armenia, high level Chinese activity is least seen. The most notable is China’s interest in the Black Sea and the Persian Gulf connection. In this relation, China Communications Construction carried out a feasibility study for the construction of the Southern Armenia Railway project connecting the Black Sea and the Persian Gulf (See Section 4.4).

On the other hand, not necessarily related to the Middle Corridor, in Azerbaijan, China largely focuses on the energy sector in Caspian Sea oil and gas resources (See Section 5. 3).

2.4 The North-South Corridor and Armenia

Presently, the soul opening for landlocked Armenia is the North-South corridor connecting the Indian Ocean and the Persian Gulf to the Black Sea over Iran from, Armenia and Georgia reaching up to North Europe via Russia. The advantage of the route is that it enables Armenia to bypass the route through Azerbaijan and Turkey with which its borders are closed. The Persian Gulf-Black Sea transportation corridor would link Armenia to the pan-European transportation networks. In relation to the North –South connection, following the lifting of sanctions from Iran, Iran and Armenia lifted visa requirements for nationals of the two countries in 2016. Georgia also lifted the visa requirement for Iranian citizens in 2016.

The Armenia-Iran railway, also known as the Southern Armenia Railway project is part of the North –South corridor linking the Persian Gulf to the Black Sea. In 2012, the Armenian government signed a concession agreement with Dubai –based Rasia FZE Company for the construction of the Southern Armenia railway. A year later, Rasia FZE signed a contract with China Communications Construction to carry out a feasibility study for the construction of the project. According to the Chinese Ministry of Commerce, the Southern Armenia Railway can serve as a key commodities transit corridor, carrying oil from Iran to Europe over Armenia and Georgia then crossing the Black Sea (MOFCOM, PRC 2017b).

The Meghri- Yerevan – Bavra highway is another North-South connection linking the Southern border of Armenia with its Northern point. It is financed by the Armenian government as well as through loans from the Asian Development Bank (ADB) and the European Investment Bank (Ministry of Transport and Communication and Information Technologies of the Republic of Armenia n.d.). On the North –South route the Iran –Armenia connection is time efficient. It takes less amount of time to ship from any port of China to Yerevan via the Iranian port Bandar Abbas than to ship from Georgian ports (Asian Development Bank, 2011). As a member of the EAEU, Armenia is likely to find an opening via Iran, which is negotiating an agreement with EAEU.

At the same time, Azerbaijan is also putting in substantial resources to redirect the North-South corridor in its own direction. The future of Iran’s proposed USD 3.2 billion link with Armenia is ambiguous while Iran has sped up work on the Rasht (in Iran) – Astarra (in Azerbaijan) railway linking the rail networks of Iran, Russia, and Azerbaijan (Railway PRO, 2017). Baku has made Iran a USD 500 million loan for the completion of this railway (Valiyev, 2016). This line will let the Russian goods to reach the Persian Gulf and perhaps more importantly it will facilitate trade between Russia and India via the Indian Ocean.

Figure 2.4.1 North-South Transport Corridor (NSTC) “Iran’s Vision” (CSIS Reconnecting Asia, n.d.)



China does not appear to be involved in the North –South option that involves the crossing over Azerbaijan. In fact, the North-South Transport Corridor (NSTC) can be viewed as part of an Indian plan crossing the continent. Initiated in 200, the NSTC involves as an association between Russia, India, and Iran. In addition to NSTC, India helped Iran to build Chabahar Port. India is also backing the construction of a major road project connecting Afghanistan among other projects (Hindustan Times, 2016). In the competitive environment of trade access, one Russian media report claimed that Turkey and China were out to kill the North –South corridor. (Tsatutyan, 2017) (Also See Shepard, 2017a).

While Armenia is not part of the Trans-Caspian initiative, as an official OBOR country, Armenia will benefit from Chinese foreign direct investments. It may also benefit from the regional development set into motion by the Middle Corridor.

Furthermore, a future prospect of opening up Armenia’s borders with Turkey and Azerbaijan would enable a Caspian trade flow which would be a cost-effective alternative to the current and longer route over Georgia. There are two possible routes through Armenia connecting Azerbaijan to Turkey:

1. The first route from the Turkish border (in Doğu Kapı) extending to Kirovakan and Delican in Armenia) into Azerbaijan to the Caspian coast. The railway connecting between Kirovakan and Dilijan is not yet built.
2. The second southern route from the Turkish border to Yerevan extending to Azeri territory in Nakhichevan and then back to Armenia through the Meghri corridor into Nagorno-Karabakh, contested territory between Armenia and Azerbaijan, onto Baku

on the Caspian. Both parts of this corridor are functional except for the parts through Nakhchivan and Nagorno-Karabakh.

Figure 2.4.2 East-West Railways Crossing Armenia



SECTION 3: TURKEY AND THE MIDDLE CORRIDOR

This section focuses on Turkey's efforts to be integrated into the Eurasian corridor networks. The first part looks at Turkey's expectations from the Middle Corridor as it links up with China's OBOR initiative. In Section 3.2, exploring Turkey's activities in this direction, we focus on Turkey's investments in transport networks in an attempt towards becoming a logistics hub for EU-China trade. Our focus has been on investments regarding railroad and port development in the context of the Middle Corridor.

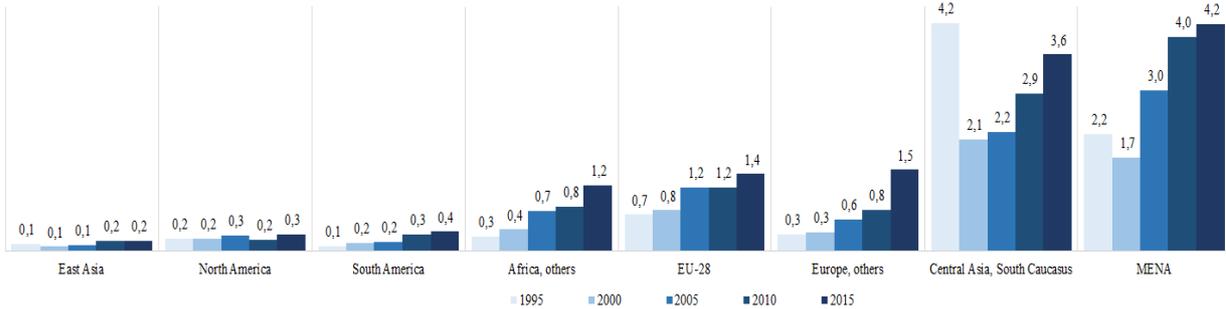
3.1 Turkey's OBOR Perspective

The Turkish government considers the Middle Corridor as its primary opening to the east (See Section 1.4). To this end, Turkey signed a memorandum of understanding with China in 2015 to establish a link between the Middle Corridor Initiative and the OBOR initiative. Turkey would like to reach export markets, to be a logistics hub for EU-China trade while dealing with regional imbalances in its eastern regions. At the time this research was conducted, an alternative route through Iran was not a preferred option for Turkish policymakers. Finally, Turkey is seeking to attract FDI, especially from China.

First, Turkey intends to build networks of relationships to the East in South Caucasus and the Middle East as well as in Central Asian and China, in search of export markets, investment partners. European integration and change in the structure of Turkey's exports in the past decades, provide an advantage for Turkish exports in Eastern markets where Turkish manufactures goods are sought after. Turkey's accession to the European Customs Union in 1994 resulted in a significant increase of Turkish exports to the EU. European market integration also increased competitiveness of Turkish exports pointing to a change in the structure of exports from predominantly agricultural products to manufacturing goods. In 1980, Turkey's top five export products were nuts, cotton, tobacco, yarn and grapes while in 2014 its top exports were certain vehicles, textile, motor vehicles and articles of iron or steel (UN Comtrade). While 47 % of Turkish exports was to the EU in 2015, the value of this trade is relatively low due to the fact that Turkish products are medium tech and low value added (See Figure 3.1.1).

Turkey's access to export markets largely depend on geographical proximity of markets and to the availability of transport connections. Looking at Turkey's share in total imports in different world regions, Turkey has a growing presence in its neighbouring Middle East and North Africa (MENA) region. While Turkey's presence in Central Asia and the South Caucasus dropped since the 1990s – possibly due to the entry of China – there is an upward trend in the past decade. Turkish presence in East Asia, and North and South America is insignificant.

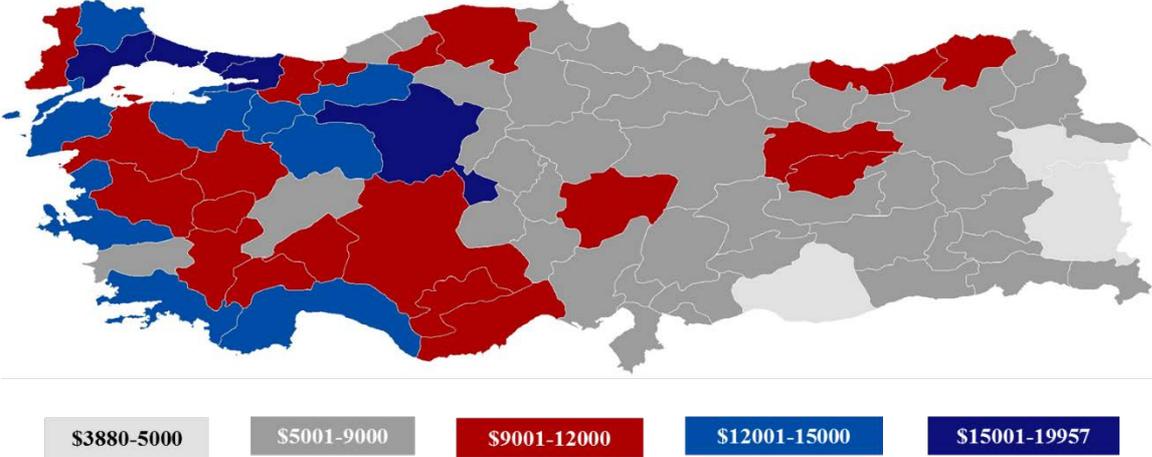
Graph 3.1.1 Turkey’s share in world markets, Turkey’s share on region’s total import, %, 1995, 2000, 2005, 2015 (UN Comtrade, BACI, TEPAV data team calculations)



Note: The authors thank Aysegul Tasoş for data calculations and visualization.

The second reason why the Middle Corridor is important for Turkey is that the corridor crossing Turkey’s underdeveloped eastern region, provides an opportunity for development for that area. This is similar to China’s interest in east-west routes crossing its underdeveloped western regions, most notably Xinjian. In Turkey’s eastern region’s GDP per capita often range between USD 3,880 and USD 9,000 whereas in western regions this range is between USD 15,001 and USD 19,957. It is expected that Turkish trade to the east will serve to correct this imbalance and contribute to the region’s development. At the same time, eastern Turkey suffers from security issues given that the region borders conflict ridden areas in the Middle East.

Graph 3.1.2 GDP per capita of Turkish provinces, \$, 2014 (TURKSTAT, TEPAV visualization)



Note: The authors thank Seçil Gülbudak Dil and Aysegul Tasoş for data calculations and visualization.

Thirdly, the Turkish emphasis on the Middle Corridor was a response to disadvantages posed by the southern route via Iran for Turkish trade with South Caucasian and Central Asian countries as well as with China. Travelling on the “Southern Corridor” Turkish trucks are subjected to delays resulting from long queues at the Gürbulak customs post (at the Iranian –Turkish crossing point) and suffered from taxes on fuel imposed by Iranian officials (Koru and Kaymaz, 2016). However, Koru and Kaymaz (2016), point to the political tensions between two countries as a serious impediment to trade.

Lastly, Turkey can benefit from Chinese Foreign Direct Investment (FDI). Although this project has not focused on FDI in Turkey (which we have done for Armenia), Turkey, which has a high current account deficit, needs foreign savings to sustain its current GDP per capita

levels and to grow more rapidly. Currently, Turkey is largely dependent on foreign savings coming from Europe (Central Bank of the Republic of Turkey, 2017). Chinese FDI will lower Turkey's dependency on the EU and has the potential to help Turkey increase its capital stock. China, which has significantly improved its export sophistication, may also help Turkey enhance its productivity growth and make a technological leap in terms of the sophistication and diversification of its exports.

3.2 Turkey's Transportation Priorities

The following section is devoted to Turkey's infrastructure investments and policies, railroads and ports in particular, towards the realization of the Middle Corridor.

To these ends, the Turkish Ministry of Transportation is preparing the National Transport Master Plan and the Turkey Logistic Master Plan to be completed in 2018. At completion, the latter project will indicate freight routes and volumes that pass-through Turkey and the international corridors of access. At the same time same, the Ministry of Development, is preparing an action plan for the shift from transport to logistics as part of the 10th National Development Plan (Ministry of Development of the Republic of Turkey, 2015). Last but not least, the Turkish Customs Ministry of Customs and Trade, adopted the "Single Window System in the Customs Services" which became fully operational in 2016. The single window system makes it possible for applicants to submit digital applications to a single contact point, which then is forwarded to relevant agencies for approvals and permissions required for customs. The 'single window' is an integrated management system between related institutions and organizations to reduce time taken and costs in customs operations (Ministry of Customs and Trade of the Republic of Turkey, n.d.- b)

The Turkish government emphasizes the Trans-Caspian route or the Middle Corridor as its primary Eurasian connection. One of the most significant parts of the Trans –Caspian route is the Baku –Tbilisi- Kars railway, which is completed following significant delays. The railway has a capacity to transport 1 million passengers and 6.5 million tons of cargo; by 2034 the capacity is expected to reach 3 million passengers and 17 million tons of cargo (Ministry of Transport, Maritime Affairs and Communications of the Republic of Turkey, 2016a)

Notwithstanding the completion of the Baku -Tbilisi –Kars railway, Turkey lacks an effective railway network to link this connection located in eastern Turkey to western Turkey and then to the EU. While railroads are far more time efficient than roads and are key to Turkey's vision of becoming a logistics hub between east and west, presently road dominate freight transport. In 2016, 92.6 % of freight was transported via roads, while railroads and maritime made up 4.3 % and 3.1 % of freight traffic, respectively.³¹ Railway per 1,000 km² in Turkey is as low as 13 km compared to 50 km in the EU (28), 109 km in Germany, 53 km in France and 31 km in Spain (Eurostat Statistics). Our research showed that there is a road transport lobby in Turkey³² partly explainable by the prominence of the automotive sector in Turkish industry.

³¹Turkstat summary statistics on transportation looking at freight transport by transport modes in Turkey (tonne - km).

³² Various interviews pointed in this direction including with Kadioğlu, M and Konuk, O [Mersin International Port], 2017, personal communication. Mersin, August 2.

Setting up a high-speed railroad network is part of Turkey's 2023 Vision. Turkey aims to increase its railway network to 25.000 km by 2023 building 13,000 km of railway including 3,500 km high speed, 8,500 km fast track and 1,000 km conventional railway lines. It aims to expand this network to 31,000 km by 2035. At the same time, Turkey targets to increase the share of railway transport to 10% for passengers and 15% for freight transport by 2023 and 15% and 20%, respectively, by 2035 (Turkish State Railways, n.d.) The high-speed network will have Ankara at its centre with connections in both east –west and north –south directions including the İstanbul-Ankara-Sivas, Ankara-Afyonkarahisar-İzmir, Ankara-Konya and İstanbul-Eskişehir-Antalya high speed railways (Ministry of Transport, Maritime Affairs and Communications of Republic of Turkey, 2016a).

Moreover, in 2017, the law on liberalizing (not privatizing) the Turkish railways was passed giving more weight to private operators to operate their own trains and use their own personnel in transporting cargo and people and to achieve flexible pricing (Ministry of Transport, Maritime Affairs and Communications of Republic of Turkey, 2016a).

Figure 3.2.1 Historical Evolution of Turkish Railways (Ministry of Transport, Maritime Affairs and Communications of Republic of Turkey, 2016b)



Note: The legend on the lower right margin of the map reads in the following order: Pre-Republic era (black line), Early years of the Republic (1923-1950) (green line), Between 1951 and 2003(light blue line), Between 2004 and 2015(red line), Currently under construction (Purple line).

Figure 3.2.1. High Speed Railway Network (Ministry of Transport, Maritime Affairs and Communications of Republic of Turkey, 2016b).



Note: The legend on the lower right margin of the map reads in the following order: Completed (red line), Under construction (blue line), Tendering Stage (yellow line), Project Development Phase (green line), Project Feasibility Phase (brown line), Current Conventional Railway Network (black line).

The 2,000 km Edirne- Kars high speed railway projects are planned to link Baku -Tbilisi – Kars on the east to western Turkey. These projects, some of which may be financed by Chinese investors, include the Edirne-Istanbul-Ankara – Kırıkkale-Yerköy –Sivas – Erzincan – Erzurum-Kars connections. According to one estimate, building just the Sivas and Kars line could cost about \$35 billion (Koru and Kaymaz, 2016).

The Ankara-Eskisehir rail line is Turkey's first high-speed rail becoming operational in 2009; the line was extended to Istanbul on July 25, 2014 (a total length of 533-km). In partnership with two Turkish companies China Railway Construction Corporation and China National Machinery Import and Export Corporation, constructed a 158-km-long between the Inonu-Vezirhan and Vezirhan-Kosekoy sections. The current express line reduced the travel time from Ankara to Istanbul to 4 hours from 7 to 9 hours on a conventional train (Xinhuanet, 2017c).

Our research showed that the main problem lies in the internal connection between Ankara-Sivas-Erzincan-Kars that will link up to Baku-Tbilisi-Kars railway³³. Some of the projects along this route are taking shape while others are waiting to be contracted.

The Ankara-Sivas railway high speed railway is under construction. This new line will reduce travel distance from the existing railway of 603-km to 405-km and is expected to reduce travel time between the two cities from 12 hours to 2 hours. The Turkish funded project is expected to be completed in 2018 (Ministry of Transport, Maritime Affairs and Communications of Republic of Turkey, 2016a).

³³ Çetin, V.C [Ministry of Development of the Republic of Turkey], 2017, personal communication, Ankara, October 10.

The 245-km high speed railroad connecting Sivas to Erzincan (via Sivas-Zara, Zara-İmranlı, İmranlı-Erzincan, İmranlı – Refahiye and Refahiye – Erzincan) is planned to be operational by 2021. The project is just getting underway. The preliminary qualification contracting for the first phase, the Sivas-Zara route, took place in 2017. For the 414-km Erzincan-Erzurum-Kars connection, a project preparation contract will only be open in 2017 (Daily Sabah, 2017a).

In addition to the Baku –Tbilisi- Kars railway, other land connections linking to Turkish domestic land routes to the east are the Southern Corridor over Iran and the Kars-Iğdır-Nakhichevan connection that has recently gained momentum. The only rail connection between Turkey and Iran is via Lake Van in Turkey which represents a bottleneck with poor ferry services on the lake. This bottleneck is in the process of being resolved and new ferries are expected to be launched in late 2017 (Uysal, 2017).

There is a proposed alternative via Kars-Iğdır-Dilucu-Nakhchivan, which could bypass the passage through Lake Van. This would also bypass the already existing Kars-Gyumri-Nakhichevan-Meghri-Baku rail road that runs through Armenia. In a recent interview, Maritime Affairs and Communications Minister Ahmet Arslan (as cited by Daily Sabah, 2017b) stated that Turkey is in talks with Iran and Azerbaijan for the Kars-Iğdır-Nakhichevan corridor to reach Iran, then Pakistan, India, and the south of China.

Further to the West, in Istanbul there are the Marmaray rail connection, the Yavuz Sultan Selim Bridge (including a railroad), the Eurasian Tunnel road connection and crossing the Dardanelle straits by the Çanakkale Bridge (the longest suspension bridge in the world). The latter, currently under construction, will be part of the Kınalı – Tekirdağ – Canakkale – Balıkesir motorway project. These projects aim to ensure a corridor for a seamless transportation of goods and people between Asia and Europe. The Yavuz Sultan Selim Bridge, which is a priority of the Turkish government, via the new Istanbul airport, will link to the Halkalı railway station. The Halkalı (Istanbul) - Edirne (on the Turkish-Bulgarian border) high speed train project, which will reduce the time between the points to one hour, is underway.

Moreover, Turkey is developing its ports for the maritime leg of the Middle Corridor project. Ports and railways connecting ports to their hinterlands are key for becoming a logistics hub. Turkey lacks internationally competitive ports. Istanbul containing a number of ports is clogged where maritime and land routes converge. Turkish policymakers focus on unclogging Istanbul and distributing benefits of trade by utilizing ports across Turkey³⁴.

For decades, Turkish government policy has singled out three ports for development: Filyos on the Black Sea, Çandarlı Port on the Aegean coast and the Mersin New Container port on the East Mediterranean. This policy rested on Turkey's Port Development Master Plans inspired by the Japan International Cooperation Agency (JICA)³⁵. Yet, little progress has been made in port development, especially with regards to Filyos and Çandarlı.

On the Aegean coast, Çandarlı Port is targeted to be the 10th largest container port of Europe (Ministry of Transport, Maritime Affairs and Communications of Republic of Turkey, 2016c).

³⁴ Öner, E. [Turkish Logistics Masterplan Executive] and Kaplan, H. [Turkish Logistics Masterplan Main Consultant], 2017, personal communication, August 7.

³⁵ Esmer, S. [9 Eylül University, Maritime Faculty, Logistics Management Department], 2017, personal communication, October 17.

It was eyed for development by Chinese investors who in 2016 bought the Greek port of Piraeus. The Chinese have also invested USD 2.89 billion on a 350-km high-speed railway from Belgrade to Budapest (albeit coming under EU investigation for violating EU public tenders law); this connection would ultimately link to the Piraeus port in Greece (Hope, 2016). Çandarlı, on the Mediterranean coast, will represent an important competition to Piraeus.

However, so far only the breakwater structure and few other infrastructures have been built costing USD 290 million while the railway connection of Çandarlı to its hinterland is yet to be completed. The delay in building Candela has been due to mishaps in the contracting phase with the consequence that the government now has undertaken to build a connection to the hinterland and the capacity of the port has been reduced to 4 million TEU from the formerly projected, rather unrealistic target of 12 million TEU. This becomes clear when one considers Izmir, the biggest port in that region, which operates at 800.000 TEU with a capacity to develop up to 2.5 million³⁶. However, Izmir primarily serves internal markets while Çandarlı is projected as a trans-shipment port. With the development of connections to its hinterland, Çandarlı may also serve land trade.

The Filyos port, on the black sea is envisioned as an industrial and logistics centre. Filyos will have the advantage of having the city planned around it, thus, providing ample space for the port to develop. Furthermore, Filyos is seen as part of the larger regional development project including an industrial zone in its hinterland. Finally, Filyos is projected to lessen the burden of traffic in Istanbul.

However, many experts we spoke to were wary about Filyos' development. These experts claim that Filyos became a fixture of government policy while it does not respond to any real need or requirement of the trade on the Black Sea³⁷. According to Soner Esmer (2017, personal communication, October 17), the Black Sea has a certain disadvantage with respect to bigger ships which have difficulties in crossing the Bosphorus straits. Besides there are ports in Zonguldak, which serve the hinterland making Filyos rather redundant.

On the other hand, the development of Black Sea ports in eastern Turkey may be more important to compete with Georgian ports. This is especially true given the fact that Turkey's internal rail network is not yet developed (and transport by road is expensive and unreliable) to carry goods travelling on the east- west Silk road from Kars, which is only connected by the old conventional track to west Turkey. As a result, with the development of its ports, Georgia may harbour an ambition to direct goods to the northern route to Europe via Ukraine or Romania.

According to Soner Esmer (2017, personal communication, October 17), Hopa Port is a good option situated in eastern Turkey, at the point where the middle corridor meets the Black Sea and with the possibility of being connected to its hinterland. Such possibility is limited for Trabzon surrounded by a high mountain range. Samsun located at the middle of the Turkish Black Sea coastal line, both historically and presently serves its hinterland.

Mersin, Turkey's second largest port, situated on the southern Mediterranean, has the advantage of a railway going through it. However, Mersin, similar to Trabzon on the Black Sea, suffers from an overlapping of city and port, thus not allowing for an expansion of the port. In the case of

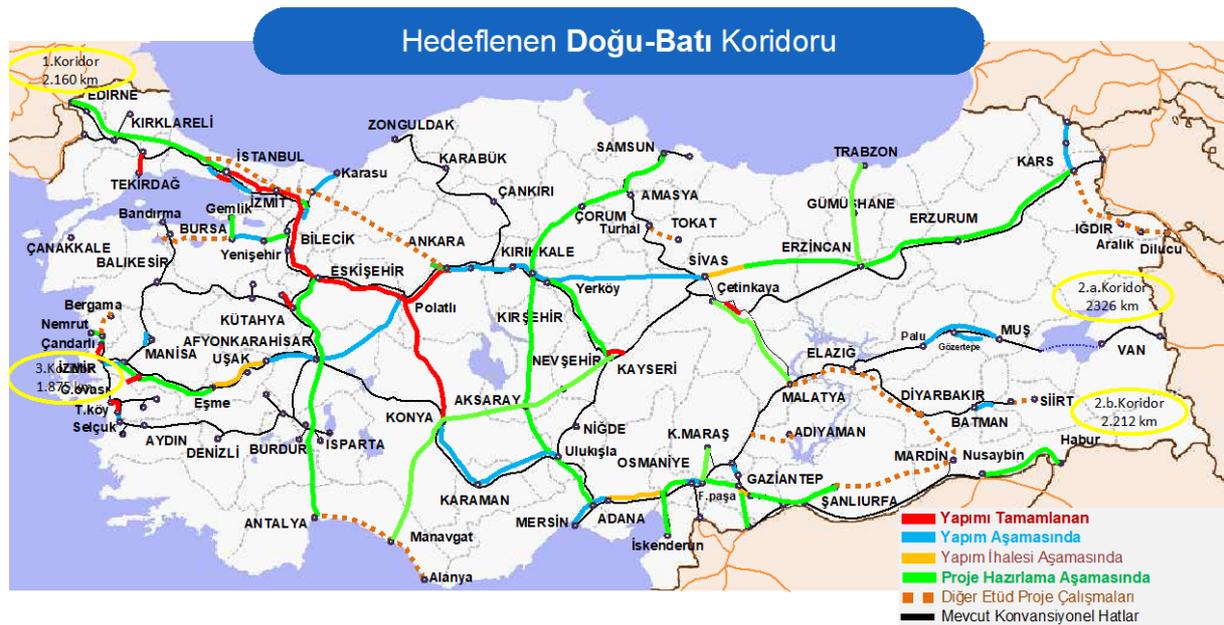
³⁶ Esmer, S. [9 Eylül University, Maritime Faculty, Logistics Management Department], 2017, personal communication, October 17.

³⁷ Several interviews point in this direction including Esmer, S. [9 Eylül University, Maritime Faculty, Logistics Management Department], 2017, personal communication, October 17.

the new ports under construction, for instance, in Zonguldak Filyos in Turkey and Anaklia in Georgia, cities are planned around the port area. Presently, the Mersin port does not serve transit trade but primarily serves as an outlet for Turkish exports to the EU. Previously, before the Syrian war, Mersin served the transit trade to northern Iraq and Iran. The potential for recovery of cross border trade seems unlikely under present war conditions in the Middle East. However, Mersin aims to become a trans-shipment port in the near future³⁸.

China has shown interest to develop ports in Turkey. In 2015, Chinese state-owned shipping and logistics company COSCO Pacific, together with China Merchants Holdings International and CIC Capital acquired a majority stake in Kumport located in Istanbul paying USD 940 million. The location of Kumport on the Marmara Sea is critical for connecting to the Black Sea as well as the Mediterranean Sea via the Aegean Sea.

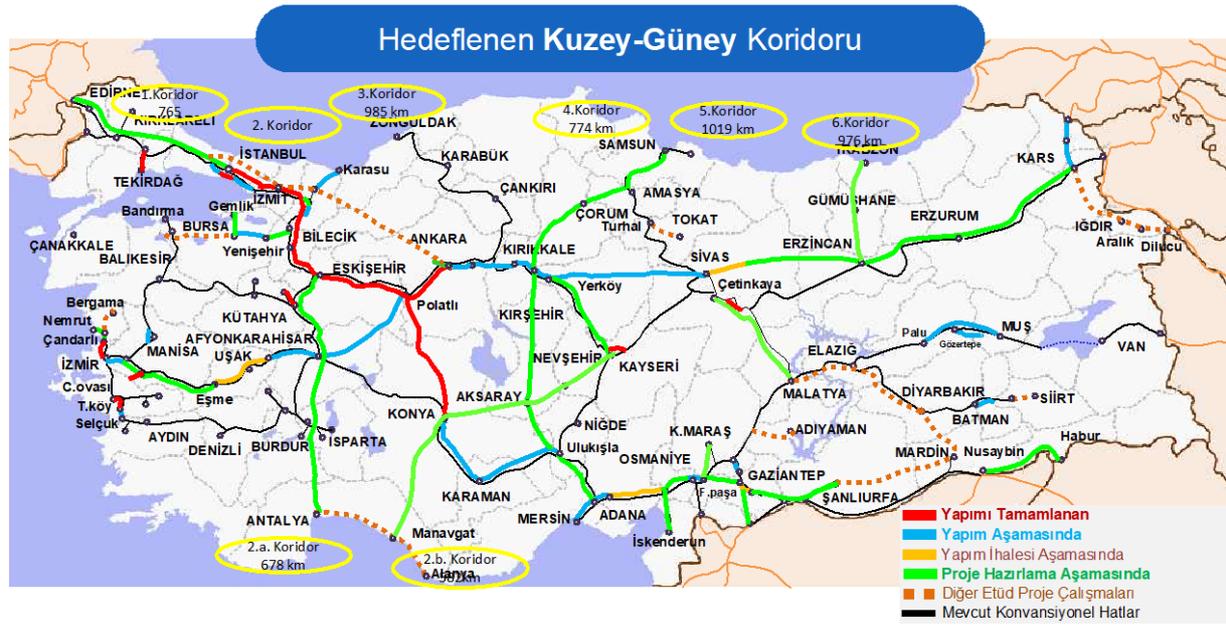
Figure 3.2.3 Planned East- West Corridor (Ministry of Transport, Maritime Affairs and Communications of Republic of Turkey, 2016b).



Note: The legend on the lower right margin of the map reads in the following order: Completed (red line), Under construction (blue line), Tendering Stage (yellow line), Project Development Phase (green line), Project Feasibility Phase (brown line), Current Conventional Railway Network (black line).

³⁸ Kadioğlu, M and Konuk, O [Mersin International Port], 2017, personal communication. Mersin, August 2.

Figure 3.2.4 Planned North-South Corridor (Ministry of Transport, Maritime Affairs and Communications of Republic of Turkey, 2016b).



Note: The legend on the lower right margin of the map reads in the following order: Completed (red line), Under construction (blue line), Tendering Stage (yellow line), Project Development Phase (green line), Project Feasibility Phase (brown line), Current Conventional Railway Network (black line).

SECTION 4. ARMENIA AND THE POTENTIAL FOR INVESTMENT

This section addresses Armenia's economic development largely from an investment perspective, primarily because Armenia has fewer openings to trade corridors in the region (except for a possibility of access to north-south routes). Section 4.1 looks at Armenia's openings to key markets i.e. EAEU, the EU, the US. Section 4.2 deals with FDI in Armenia while Section 4.3. looks at free economic zones (FEZs) in Armenia. In the final part, we argue that China's interests in Armenia are geopolitical rather than economic so far.

4.1 Armenia's Access to Key Markets

Since January 2015, Armenia is a member of the Eurasian Economic Union (EAEU), which gives Armenia access to a single Eurasian economic market of 180 million. This means favourable import tariffs for about 750 products, duty-free import of raw materials, no customs formalities during mutual trade between EAEU member states (leading to financial costs reduction and saving time for business) and no non-tariff measures of commerce and trade technical barriers between EAEU member countries (KPMG, 2016). According to the World Bank (2017), Armenia could also attract FDI from countries seeking to invest in EAEU because its investment climate is relatively more attractive than other EAEU members.

Currently, EAEU is considering FTAs with China, India, Iran, Turkey and Egypt among others. In this picture, Iran, with an 80 million market, holds particular significance for Armenia, which does not have a direct border with any EAEU country. Having a border with Iran would increase chances of economic cooperation and integration between Armenia and Iran within the framework of EAEU. According to a study assuming the EAEU adopting a full FTA with Iran, the GDP growth impact for Armenia would be USD 27 million. The same study points to the energy, oil and gas industries, in addition to fruits and cotton, as main sectors to benefit from such an FTA (Russia Briefing, 2017).

Presently, Armenia is looking to enhance its links through a North – South corridor involving India, Iran and Georgia (See Section 2.4). Iran and India's increased economic integration with Armenia via the EAEU may contribute to the development of the North-South Transportation Corridor. India is pushing for the speedy operationalization of the International North-South Transportation Corridor (INSTC) and Green Corridor between India and the EAEU (Press Trust of India as cited by Business Standard, 2017). According to one estimate, the operationalization of the North-South corridor will enable the cutting of transit distance between EAEU countries and India by %40, time taken for trade by 50% and transport costs by 30% (Press Trust of India as cited by Business Standard, 2017). The priority areas of cooperation on the Indian side are energy, pharmaceuticals, IT, health services and jewellery sectors. Considering, that these areas are leading or promising Armenian economic sectors, India can become an important investor in Armenia. Moreover, the EAEU has established a common pharmaceutical market (Eurasian Economic Commission 2017), which could speed up Indian access to the EAEU. This may constitute an important opening for Armenia where medical tourism is an emerging sector (World Bank, 2017).

Armenia is attempting to diversify its economic partners signing the EU-Armenia Comprehensive and Enhanced Partnership Agreement (CEPA) in November 2017. This

agreement is not an Association Agreement, which was earlier blocked in 2013 by Russia, Armenia's main economic partner, which then pressured Armenia to sign the EAEU. According Richard Giragosian (2017, personal communication, October 10), however, the new agreement will be deeper and at a higher level than the Enhanced Partnership and Cooperation Agreement (EPCA) that EU signed with Kazakhstan in December 2015. According to Petros Sourmelis, the Head of Unit of the Directorate General Trade, European Commission, (as cited by PanArmenian News Agency,2017), the agreement is expected to boost the demand for Armenian agricultural products.

At the same time, Armenia is part of various bilateral and multilateral economic arrangements. Since 2003, Armenia is a member of the World Trade Organisation enjoying favorable trade regime with 149 countries. Armenia signed a Free Trade Agreement with most of the CIS countries (except Uzbekistan and Azerbaijan), which means 0 % customs duty when entering these markets. Armenia enjoys the improved regime of Generalized Scheme of Preferences (GSP+) with the EU countries enabling Armenia to export over 1000 items into EU countries under zero or reduced tariff rates. Countries such as the USA, Canada, Japan, Switzerland and Norway have a GSP regime with Armenia (The Development Foundation of Armenia Website). Armenia also signed the Trade and Investment Framework Agreement (TIFA) with the US in 2015.

Armenia and Georgia completed the Integrated Border Management Program across the Bagratashen-Sadakhlo Border Crossing Point. In 2013, the EU Eastern Partnership Program and the United Nations Development Program (UNDP) launched a project on the joint Armenian-Georgian border management, assisting both governments to reduce barriers to trade and transit, and movement of people; to prevent smuggling and trafficking; to increase professionalism of border and customs personnel and cooperation between Armenian and Georgian border agencies in border management (UNDP, n.d.).

4.2 Foreign Direct Investment in Armenia and the ICT sector

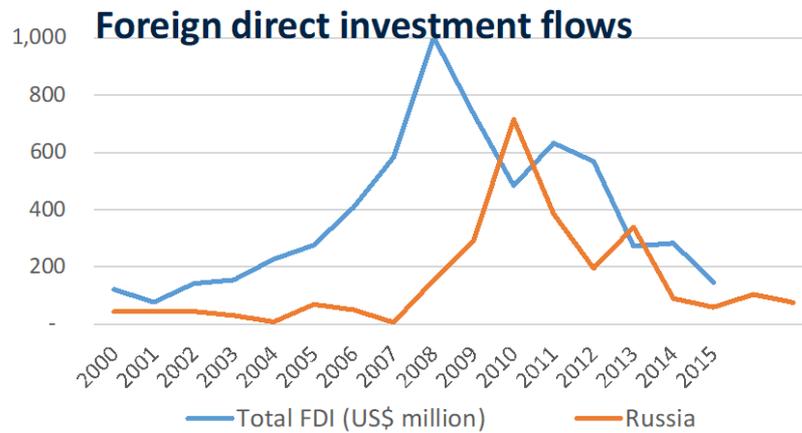
While Armenia has undertaken comprehensive reforms to improve its business environment, implementation of reforms has not always been successful. Armenia scores relatively well in World Bank's Doing Business Index³⁹ and its economy is fairly liberalized. Yet, it still retains features of a closed economy with significant barriers to market entry and obstacles to competition.

Russian investments are significant in Armenia. Between 2003 and 2014, cumulative FDI from Russia was as high as 31.67% of Armenian FDI (**Figure 4.2.2**). After 2008, Russian economic actors consolidated the key sectors of Armenian economy, as has been the case in the gas sector with Russian Gazprom taking over the Armenian gas company (ArmRosGaz) (Gazprom, 2014) (**See Section 1.2**).

FDI inflows from Russia have a significant impact on the Armenian economy. As was the case with remittances (**See Section 1.2**), this situation makes Armenia sensitive to the state of economy in Russia. Economic sanctions imposed on Russia and fluctuations in the Russian ruble may partly explain the drop in FDI inflows to Armenia in recent years.

³⁹ Armenia came in 38th place out of 190 countries in 2017, behind Georgia (ranking 16th) while performing better than Turkey (ranking 69th) and Azerbaijan (ranking 65th) .

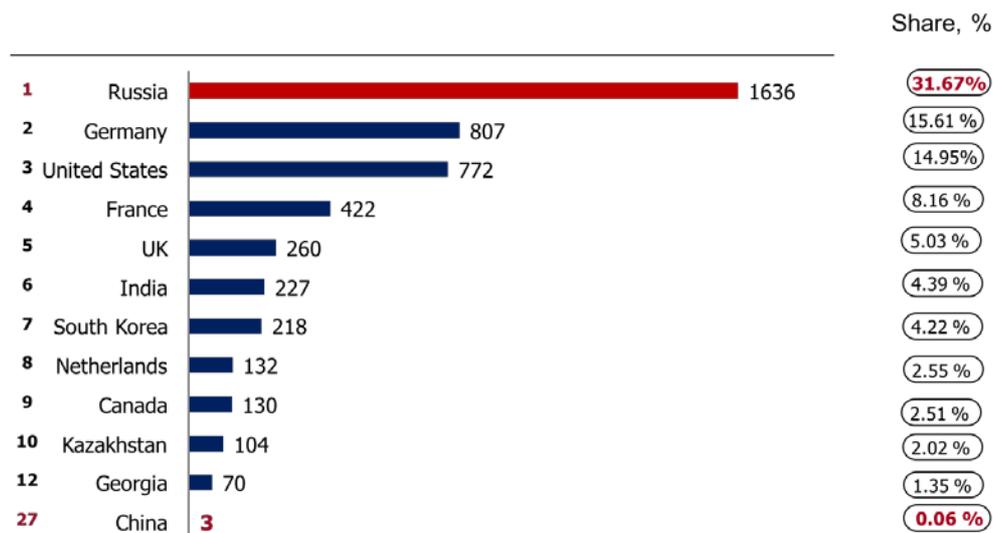
Figure 4.2.1 Foreign Direct Investment flows (USD million) (World Bank, 2017)



Russian FDI is likely to grow with Armenia’s joining the Eurasian Economic Union (EAEU). As significantly, investment cooperation was further strengthened between the two countries with the establishment of the Russia-Armenia Investment Fund under the auspices of the Russian Direct Investment Fund (RDIF) (Russian sovereign wealth fund). The first business project, the construction of a major hydroelectric plant on the Debed River, has already been approved by the the Russia-Armenia Investment Fund (Danielyan, 2017).

EU countries and the US are major investors. The comprehensive agreement with the EU, which was signed in November 2017, may boost investments from EU countries. The US, which is already a major investor in Armenia, signed the Trade and Investment Framework Agreement (TIFA) in 2015. Armenia aims to diversify its investment partners. China and Iran are at the moment minor investors.

Figure 4.2.2 FDI inflow volume into Armenia, top countries, million USD, share (%), rank (#), cumulative 2003-2014 (FDI Markets, TEPAV Calculations) (Also see Annex 5)



On a sectorial basis, the mining, renewable energy, and IT sectors promise to be important destinations for FDI. While the mining sector is one of the largest contributors to FDI (World Bank 2016), we focus on the Information Technology (IT) sector.

Armenia, an important high-tech centre in the Soviet Union, emerged as an information technologies outsourcing base following the Soviet Union's collapse. Armenia was a key hub for software development, industrial computing, electronics, and for the manufacturing of semiconductors during the Soviet period (Enterprise Incubator Foundation, 2009). The post-Soviet era witnessed an influx of large US companies into Armenia, which sought to take advantage of Armenia's qualified workforce. Among these companies were "Boomerang Software (internet applications), Credence Systems (semiconductor design-to test solutions), Cylink (network security products and VPN solutions), Epygi Technologies (IP PBXs), HPL Technologies (yield management software and test chip solutions) and Virage Logic (advanced embedded memory IP)" (Enterprise Incubator Foundation, 2009: p.9).

ICT remains one of the fastest-growing sectors of Armenia's economy. The industry's total revenue grew by 17.7% in 2014, reaching USD 559.1 million in 2015.⁴⁰ (Enterprise Incubator Foundation, 2015). Above 450 ICT companies operate in Armenia, showing average annual growth of 10%. Though more than 88% of ICT companies are based in Yerevan, there is a growing tendency to expand the operation of companies in other regions of Armenia, particularly in the Shirak and Lori regions (Enterprise Incubator Foundation, 2015).

It should be noted, however, that Armenia's human capital performance is not as strong for the younger generations indicating that educational qualifications obtained during the Soviet era are becoming obsolete (World Bank, 2017).⁴¹ On the other hand, a World Bank (2017) study shows that skills are not a constraint for most firms; yet a high share of firms that invest in R& D report skills to be a constraint.

Moreover, to attract FDI, Armenia could take an advantage of its Diaspora, which has rich know-how in ICT⁴². The Armenian Diaspora is already an important sponsor in the development of education in Armenia e.g. the American University of Armenia affiliated with University of California at Los Angeles; TUMO Center for Innovative Technologies, a free of charge digital media learning centre combining technology and art; Armath that established more than 100 engineering laboratories/clubs in schools to promote technological education (KPMG, 2017).

In recent years, the Armenian government together with the Armenian diaspora has given significant support to the development of the IT sector, as an important source of FDI. The objective has been to establish Armenia as a unique regional hub for IT and creative technologies. To this end, innovative technoparks, incubators, and other IT infrastructures are being put in place. At the same time, policies are implemented to transfer best practices of know how to Armenia, to introduce state-support programs for SMEs and start-ups in IT, as

⁴⁰ The entire industry consists of the Software and Services sector and the Internet Service Provider sectors.

⁴¹ According to the World Economic Forum's Human Capital Report in 2016, which looks at the existing stock of education, economic participation and skills across generations, Armenia performs exceptionally well in the age groups of 55 – 64 and 65 + (ranking 11th and 5th out of 130 countries, respectively) while its human capital performance for age groups of 0-14, 15-24 and 25-54 is significantly lower (ranking 48th , 56th and 43rd , in these age categories respectively) (World Economic Forum, 2016).

⁴² Sevimli, O. [World Bank Senior Operations Officer for the South Caucasus Europe and Central Asia] 2017, personal communication, August 4.

well as supports to IT companies offering innovative products or services. Additionally, the Armenian government offers special tax privileges for IT Companies and profit tax privileges for large exporters (not applicable for companies operating in mining or processing of metallic minerals, and precious stones, precious metals and jewellery sectors) (KPMG, 2016).

4.3 Free Economic Zones (FEZs) in Armenia

In Armenia, Free Economic Zones (FEZs), which often serve to attract foreign direct investments, are established and operated by the Law “About Free Economic Zones”⁴³ prioritizing export –oriented and high-tech sectors. Given Armenia’s own small market, the key requirement for enterprises operating in FEZs is export-oriented production. Initially, the Armenian FEZs were established to attract high-tech companies. These covered a wide range of activities such as electronics production, biotechnology, and pharmaceuticals and industrial design and telecommunications. Later on, the Armenian Government extended their mandate, welcoming any type of manufacturing project as well as to include goods that are not produced in Armenia for the domestic market.⁴⁴ Similar to other FEZs, Armenia provides large benefits for companies operating in FEZs. The benefits include VAT exemptions for delivering services and supplying goods in FEZ territory, tax-free profit to legal entities, no property taxes on public and industrial buildings and structures within FEZs as well as freely convertible currency⁴⁵ (Global SPC, n.d.).

At present, there are three FEZs in Armenia: the “Alliance” FEZ, the “Meridian” FEZ and the recently established FEZ in the Syunik Region. Currently, there are a total of 14 operating companies in the “Alliance” FEZ and the “Meridian” FEZ, focusing on high tech industries and the jewellery sector, respectively. Both the “Alliance” FEZ and the “Meridian” FEZ are located in the Armenian capital of Yerevan.⁴⁶

The “Alliance” is the first free economic zone established in Armenia in August, 2013 focusing on high tech. It was established in the territory of “RAO Mars” Corporation and Yerevan Research Institute of Mathematical Machines. The “Sitronics Armenia” CJSC was established in 2009 in order to manage the FEZ. The company is a 100 % subsidiary of Russian tech company “Sitronics” OJSC, which is part of “RTI-Systems” Holding (AFK “SISTEM”) – the largest high-tech company in Eastern Europe (Sitronics Website). The primary objectives of the Alliance FEZ are to attract investors in ICT, electronics, pharmaceuticals and biotechnology, engineering, industrial design, and alternative energy sectors (including energy-saving technologies)⁴⁷.

The “Meridian” , Armenia’s second free economic zone, focuses on jewelry with different investors from the EU as well as Russia and Iran. Armenia has rich traditions in jewellery art and is one of the well-known international jewellery industry centres. Armenia is the second biggest exporter of cut diamonds and jewellery of the CIS

⁴³The full text of the Law is available at this link:

http://www.translation-centre.am/pdf/Translat/HH_orenk/Free_Econ_Zone/Free_Econ_Zones_en.pdf

⁴⁴ Sargsyan, A. [Counselor, Advisor to CEO "Sitronics-Armenia" Ltd.] 2017, personal communication, 28 July.

⁴⁵ Unlike the entire territory of the Republic of Armenia, where trade is allowed only through the use of the national currency.

⁴⁶ The FEZ “Alliance” has about 56,000 square meters of industrial area and 38,000 square meters of office space while the “Meridian” FEZ has about 25,500 square meters of manufacturing, service and office area, 10,180 square meters of exhibition halls, 6,000 square meters of diamond production area and around 10,000 square meters of the auxiliary area (parking, storage, safes) (KPMG, 2016).

⁴⁷ Sargsyan, A. [Counselor, Advisor to CEO "Sitronics-Armenia" Ltd.] 2017, personal communication, 28 July.

(Commonwealth of Independent States) region. This zone attracts a diverse portfolio of investors from France, Belgium, the USA, Russia, Iran, Lebanon among others. The “Meridian” Free Economic Zone gives benefits to investors in the form of customs duty exemption for materials and technologies imported from a non-EAEU country and not available in an EAEU country (Meridian Free Economic Zone Website). Products are generally exported to the North, to Russia and other CIS countries.

A third FEZ was established in August 2017 in the Syunik region, in the southern Armenian Meghri, on the border with Iran. The FEZ in the Syunik region is expected to contribute to the development of the Southern Armenian province, one of the least developed regions of Armenia with a high rate of unemployment, and suffering from the lack of transport and communication links. Notwithstanding its poverty, the Syunik region is home to rich natural resources of copper, molybdenum, zinc, gold, silver as well as minerals (Ministry of Economic Development and Investments of the Republic of Armenia, 2017).

Syunik FEZ is expected to become the biggest in terms of its scale and it is a priority for the Ministry of Economy of Armenia. The estimated cost of the Syunik FEZ 28 million USD, with a total area of 10-15 hectares on available plot land of 37 hectares. The Syunik FEZ aims to attract a wide range of investor with the prospect of attracting 100- 120 companies with a total investment of USD 350-400 million creating 2,500 new jobs and USD80- USD100 million worth of exports annually. The main target export destinations are Iran, Eurasian Economic Union, Middle East (UAE, Kuwait, Qatar, Oman, Iraq, and Lebanon), Turkmenistan among others. (Ministry of Economic Development and Investments of the Republic of Armenia, 2017).

The FEZ is expected to become an industrial and logistics hub. Most significantly, the Syunik FEZ’s proximity to the border with Iran, which determined its location, provides it with the advantage of becoming a gateway between Iranian and EAEU markets, enhancing North-South economic cooperation. The planned North-South Meghri-Yerevan-Bavra highway, which will pass nearby to the FEZ, will connect Southern Armenia to its northern point.

4.4 China’s geopolitical interests in Armenia

Chinese interest in Armenia at the moment is more geo-political than economic.

China looks to the North-South route between the Black Sea and the Persian Gulf and infrastructural investment in that relation. In this connection China Communications Construction carried out a feasibility study for the construction of the Southern Armenia Railway project (**Section 2.4**). Secondly, China focuses on building soft power including provisioning of services (e.g. ambulances, city transport) and cultural activities (e.g. establishment of the Institute of Confucius)⁴⁸. A third area of Chinese interest in Armenia is that of military engagement including a potential missile deal as well as investments in military education in Armenia. There are even small Chinese entrepreneurs in Nagorno-Karabakh, a conflict zone, where Russian speaking Chinese small business can be sighted.⁴⁹

Although Chinese FDI at large scale is so far limited, there is Chinese interest in investments in renewable and alternative energy (solar and wind in particular) and in the Armenian IT

⁴⁸ Giragosian, R. 2017, personal communication, July 28.

⁴⁹ Giragosian, R. 2017, personal communication, July 28.

sector with good potential for growth⁵⁰. Earlier in 2011, FortuneOil, a major Chinese energy company, bought a significant stake in three Armenian iron mines. According to Armenia's ambassador to China, Sergey Manasaryan (as cited by Khalatyan, 2017), a Chinese company is doing a feasibility study for the construction of a copper smelting plant in Armenia worth USD 500 million.

The Armenian government is adamant about being included in the wider OBOR project and attracting Chinese investments. Armenia aspires to build the north-south connection between the Persian Gulf and Georgia's black sea ports where Chinese are investing (See Section 5.2). In addition, Armenian policymakers and managers of free economic zones in Armenia are rather enthusiastic about attracting Chinese investment.

Our interviewees pointed to the Russian led EAEU as a new twist in the Armenian argument for attracting Chinese investments presenting Armenia as part of a bigger market⁵¹. Furthermore, both Iran and Turkey are considering an agreement with EAEU. According to one perspective access EAEU markets may provide impetus in Turkey to open their closed border with Armenia. Similarly, Armenia provides both an exit and entry port for Iran to penetrate much larger Eurasian markets, especially the Russian market (about 144 million in 2016). According to Richard Giragosian (2017, personal communication, July 28), Armenia is also a platform for Iran's engagement with the West. Specifically, northern Iran, location for Iran's automobile sector and for manufacturing of airplane spare parts, is a point of attraction for European investors (Erdbrink and Gladstone, 2017; Antenore, 2016) (See Section 1.4).

On the other hand, according to Richard Giragosian (2017, personal communication, July 28), a further Chinese commitment in Armenia would depend on the opening of the country's border with Turkey and on further involvement of Iran in regional markets. Otherwise, despite its potential Armenia remains economically remote and marginal for China's engagement.

⁵⁰ Giragosian, R. 2017, personal communication, July 28.

⁵¹ Giragosian, R. 2017, personal communication, July 28.

SECTION 5. OBOR PERSPECTIVES: KAZAKHSTAN GEORGIA, AZERBAIJAN, KAZAKHSTAN

The following sections are devoted to the study of Kazakhstan, Azerbaijan, Georgia in terms of their trade – related infrastructure investments, primarily those towards the realization of the Middle Corridor. In the case of Georgia and Azerbaijan we also focused on Chinese presence i.e. investments, primarily because we wanted to have a general idea of Chinese involvement in the South Caucasus, as to put that involvement in Armenia in context.

5.1 Kazakhstan: A focus of Multi-Actor Interest and Transportation Priorities

Kazakhstan is located on the crossroads of expanding markets, linking China and South Asia, Russia and Western Europe by road, rail, and a port on the Caspian Sea. The strategic importance of Kazakhstan, which has the longest border with China, will continue to increase with China’s aspirations to revive the Silk Road linking China and Europe. Fittingly, President Xi Jinping announced the idea of a Chinese Silk Road Economic Belt initiative on a state visit to Kazakhstan in September 2013.

Of all the Central Asian countries, Kazakhstan has the strongest cooperation with the EU with a majority of its oil exports going to the EU (while a majority of other Central Asian countries’ energy exports go to China). In 2015, Kazakhstan signed an enhanced EU-Kazakhstan Enhanced Partnership and Cooperation Agreement (EPCA).

Moreover, Kazakhstan is critically important for the South Caucasus, forming a link between China and the Caspian Sea and works closely on the development of Trans-Caspian trade with partners including Azerbaijan, Georgia and Turkey.

Kazakhstan having one of the largest territories in the world and with one of the lowest population densities, has a programme to increase its domestic rail and road system. In the context of the Soviet Union, the routes crossing Kazakhstan were in the South-North direction. Our research indicates that in the post-Soviet era, Kazakhstan is seeking to develop routes to connect the country in other directions⁵². The USD 9 billion “Nurly Zhol” economic stimulus plan proposed in 2014, targets developing and modernizing roads, railways, ports, IT infrastructure, and education and civil services. Kazakhstan aims to develop transit trade increasing its volume from the current 18 million tons of cargo to 33 million tons in 2020 and 50 million tons in 2030.

Northern transport connections over Russia remain a priority for the Kazakh government. Presently, the northern corridor option via Russia is operational including the Western Europe-Western China highway and the New Eurasian land bridge rail connection (See Section 2.2). Both connections crossing approximately the length of Kazakhstan more than 1,5 thousand km. The Khorgos Dry Port on Kazakhstan’s Chinese border, a key cargo hub in operation since August 2015, provides an opening for Chinese trade into Europe via Russia (Farchy et al., 2016).

⁵² Zhankalov, S and Jaikov, T. [Ministry for investments and development of the Republic of Kazakhstan], 2017, personal communication, Astana, September 17.

Kazakh policymakers we talked to also indicated that, as a member of the EAEU, the Russian market continues to be vital to Kazakhstan's economy pointing to the size of the Russian market (about 144 million in 2016) when compared to the 17 million population of Kazakhstan. However, when asked about Armenia's EAEU membership, Kazakh policymakers' response was: given that there are roads linking Kazakhstan to Armenia, Armenia was not a trade priority whereas Azerbaijan linked to Kazakhstan via the Caspian Sea connection, was definitely an economic priority⁵³.

Kazakhstan prioritizes the Trans-Caspian connection via the Middle corridor, notwithstanding its trade partnership with Russia and preference of China, another major partner, for the northern corridor to reach western Europe. The Kazakh policymakers we talked to indicated that the use of this route provides an alternative to the northern corridor, thus a way for Kazakhstan to gain relative autonomy from Russian domination of its economy. "Nurly Zhol" state program targets the modernization of the Aktau Port on the Caspian Sea to increase the Port's throughput.

Attesting to the importance Kazakhstan attaches to the Caspian connection, the Kazakh government, using its own funds, constructed a second port on the Caspian Sea, Kuryk⁵⁴. The Turkmenbashi Port in Turkmenistan, connecting to a railway coming from Kazakhstan competes with Kazakhstan's Caspian ports. A Turkish construction company, the Turkish Gap İnşaat, is building a modern seaport in the city of Turkmenbashi on the Caspian.

Policymakers we interviewed indicated that containers pointed to the need to include Chinese goods going in the in the east –west direction. At present, only bulk commodities such oil and grain products are shipped out of Aktau, to Turkey or Iran (Brown, 2017; Shepard 2017b⁵⁵)⁵⁶. On the other hand, Kuryk Port is planned to handle more transit cargo of manufactured goods travelling from China to Iran, Turkmenistan, Azerbaijan, and Turkey and further to Europe. Currently, the Aktau and Kuryk Ports carry 15.5 million tonnes and 4 million tonnes, respectively⁵⁷.

Kazakhstan's internal rail network stretching from China to the Caspian Sea is completed. The 4,200-km rail network stretches from Hami–Urumqi–Alashankou in China crossing the length of Kazakhstan (Dostyk– Mointy–Zharyk–Saksaulskaya–Shalkar–Beineu) before finally reaching Aktau on the Caspian Sea (*CAREC Corridor 201*, See **Figure 5.1.1**). On this route, 24% of the railroads have been electrified and 19% double-tracked; approximately another 800 km of electrification is being planned (Asian Development Bank, 2016). The missing link of 988 km between Zhezkazgan and Beineu, connecting Central Kazakhstan to the Caspian port of Aktau, was completed in 2014.⁵⁸ According to Davydenko et al (2012), the section between Shalkar and Beineu will decrease by 1,000-km the transport distance between China and Europe. In 2015, Kazak President Nursultan Nazarbayev

⁵³ Zhankalov, S and Jaikov, T. [Ministry for investments and development of the Republic of Kazakhstan], 2017, personal communication, Astana, September 17.

⁵⁴ Zhankalov, S and Jaikov, T. [Ministry for investments and development of the Republic of Kazakhstan], 2017, personal communication, Astana, September 17.

⁵⁵ Also indicated by Zhankalov, S and Jaikov, T. [Ministry for investments and development of the Republic of Kazakhstan], 2017, personal communication, Astana, September 17.

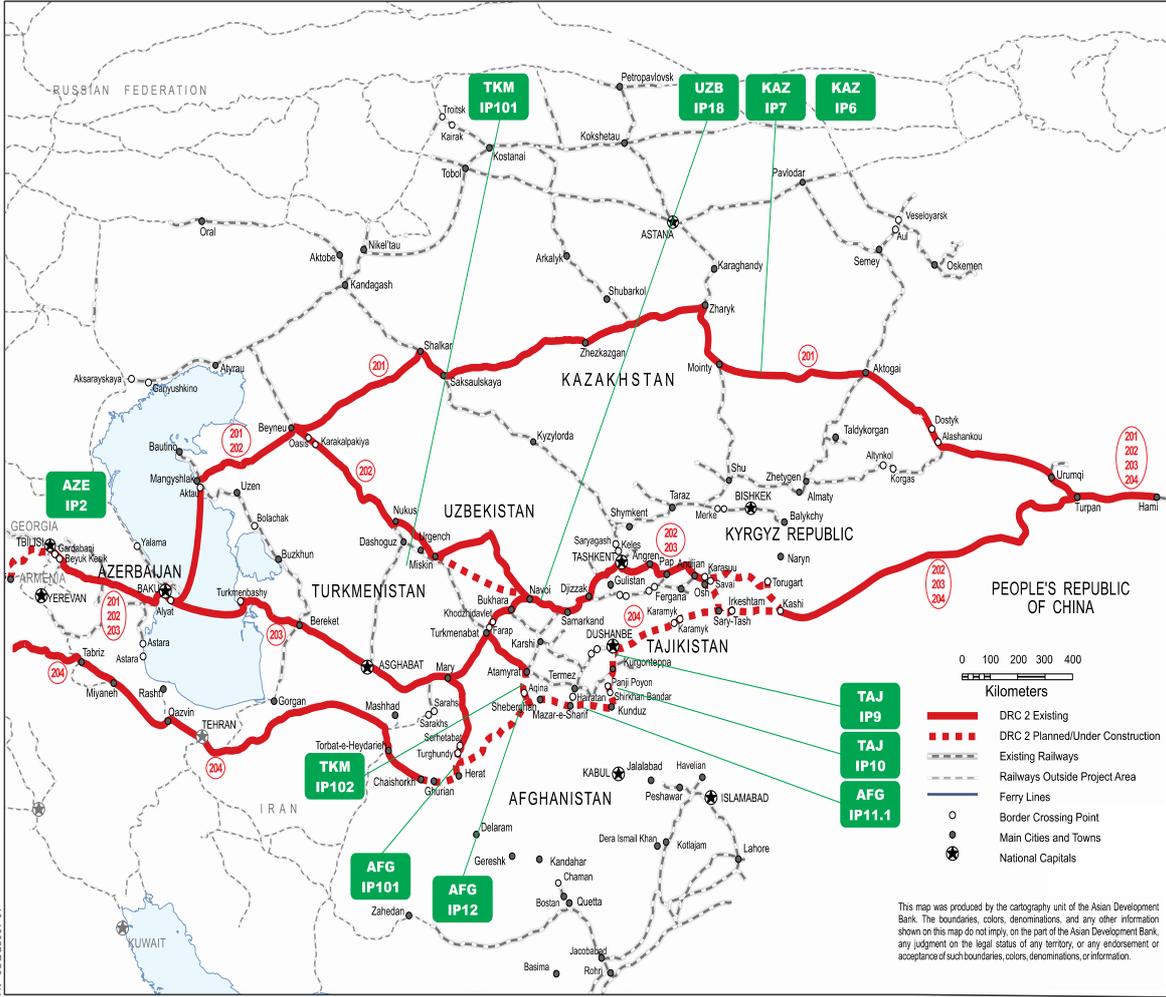
⁵⁶ Commodities are shipped in tankers and to a lesser extent in ferries (Smirnov, 2009)

⁵⁷ Zhankalov, S and Jaikov, T. [Ministry for investments and development of the Republic of Kazakhstan], 2017, personal communication, Astana, September 17.

⁵⁸ In 2014, the new rail lines of Zhezkazgan-Beineu to the Caspian and Arkalyk- Shubarkol were completed at a cost of USD 2,7 billion.

announced, in collaboration with China, a plan to construct a railway from Khorgos on the Kazakh-Chinese border to Aktau (Farchy et al., 2016). At the same time, the rail system out of Kuryk is already constructed and the highway will be completed soon⁵⁹.

Figure 5.1.1 Central Asia Regional Economic Cooperation Designated Rail Corridor 2: Mediterranean–East Asia (CAREC Secretariat, cited by Asian Development Bank, 2016)



Speaking about the development of the external network, Kazakh policymakers also emphasized the presence of Iran which provides Kazakhstan with access to the Persian Gulf⁶⁰. Parallel to the northern and Caspian options and the Chinese OBOR, is the transport route linking India-Iran-Kazakhstan-Russia – Europe. In 2014, the Kazakhstan, Turkmenistan and Iran rail link was opened.

⁵⁹ Zhankalov, S and Jaikov, T. [Ministry for investments and development of the Republic of Kazakhstan], 2017, personal communication, Astana, September 17.

⁶⁰ Zhankalov, S and Jaikov, T. [Ministry for investments and development of the Republic of Kazakhstan], 2017, personal communication, Astana, September 17.

5.2 Georgia: A focus of Multi-Actor Interests including China's involvement and Transportation Priorities

Georgia, together with being a loyal western ally and having signed the Association Agreement with the EU, is looking to China as a key trade partner and an investor. The Association Agreement placed Georgia in a key position to become a transit hub for Eurasian trade with the EU as well as a destination for FDI. It is possible to understand Georgia's significance for the EU just looking at Georgia's trading links, both in the South Caucasus, reaching to Central Asia and China to the east, Iran to the south and to the west via the Black Sea to Romania and Ukraine.

Our project focused on evaluating Georgia's position as a transit hub and on Chinese presence in Georgia, which makes Georgia unique in the South Caucasus as the only country to sign a free trade agreement (FTA) with China (effective end of 2017).

Transport Priorities

As a transit hub for the Trans-Caspian corridor, an infrastructure investment is a top priority for Georgia⁶¹. Georgia is looking to a wide range of actors as potential sources for infrastructure development including the World Bank, Japan Bank for International Cooperation, Japan International Cooperation Agency, Asian Development Bank and European Bank for Reconstruction and Development as well as resources from Azerbaijan and China.

Similar to the pattern in Turkey, presently, the Georgian highway system is far more developed than its railroad system. Existing railroads are old Soviet style (1.52mm gauge as opposed to the 1.435mm gauge used by Europe and China), and are today primarily for passenger use⁶². Georgian policymakers view the Baku-Tbilisi-Kars railway project as a centre piece for a future railway system.

In addition to the Baku – Tbilisi – Kars railway connection, maritime connections on the Black Sea are gaining traction. Georgian policymakers are very keen on developing Anaklia, the country's first deep-sea port on the Black Sea, in addition to its Poti Port. Anaklia envisioned as a future smart city harbouring a special economic zone and industrial clusters; it aspires to become a maritime hub for the region competing with the Turkish ports to the west. Anaklia is planned as an alternative to the Batumi and Supsa Ports for transshipment of oil and gas⁶³.

Georgia has emphasized its partnerships with Azerbaijan and Kazakhstan not only in the land trade over the Baku-Tbilisi – Kars line but also in maritime from the Caspian to the Black Sea reaching the Ukraine emphasizing its ports on the Black Sea. Georgia is an active member of the International Association "Trans-Caspian International Transport Route" TITR (**See Section 2.3**) with Georgia, Azerbaijan and Kazakhstan as founding members. The

⁶¹ Gvenetadze , G. and Edilashvili , G. [Ministry of Economy and Sustainable Development of Georgia], 2017, personal communication , Tbilisi, September 4.

⁶² Galdava, E [Ministry of Regional Development and Infrastructure of Georgia] 2017, personal communication, Tbilisi, September 4.

⁶³ Gvenetadze , G. and Edilashvili , G. [Ministry of Economy and Sustainable Development of Georgia], 2017, personal communication , Tbilisi, September 4.

Association has as its priority the development of Georgia's position as a transit hub on the Black Sea.

Lastly, Georgian policymakers express interest in establishing links with Iran on the north-south route from the Persian Gulf to the Black Sea over Armenia to Georgia. However, as discussed in **Section 2.4**, presently, the North South connection appears to be diverted to Azerbaijan and away from Georgia.

Chinese interests and investments

In Georgia, China is interested in the country's ports for trade connections across the Black Sea; the fact that Georgia signed the Association Agreement with the EU is also a point for attraction.

Through Georgia, Chinese investors hope to link with the EU and other markets. In addition to the EU Association Agreement Georgia has a FTA with CIS countries since 1994. It also has a FTA with the European Free Trade Association (EFTA) giving Georgian products duty-free access to markets in Iceland, Liechtenstein, Norway and Switzerland. The General Schemes of Preference applies for Georgia with the US, Canada, and Japan, which means lower tariffs on 3,400 goods exported from Georgia to these countries (Georgian National Investment Agency n.d.).

Georgia considers good relations with China as a possible counterweight to Russia's dominance in the region. China's presence in Georgia, while growing, is still limited. In 2014, China was the third largest foreign direct investor in Georgia (12.4 %) after the EU (46, 6 %) and Azerbaijan (19,4 %).⁶⁴ Georgian policymakers as well as the business community aim do all they can to attract Chinese investment. The Georgian Chamber of Commerce (GCC) is setting up a Silk Road Information Desk in Tbilisi, it is also negotiating with different provinces in China to open GCC representation offices (for instance, in Guangzhou)⁶⁵.

Chinese companies are investing in Georgia in infrastructure, energy, mining, healthcare, finance and agriculture sectors as well as in free economic zones. Hualing Corporation, a private company from Xinjiang province, is Georgia's single largest foreign investor (Larsen, 2017) and has been involved in a variety of projects since 2007.

Hualing has invested infrastructure development including the Hualing Tbilisi Sea New City and Youth Olympic Village, and the Hualing Tbilisi Sea Plaza that aims to become the largest wholesale and retail trading centre in the Caucasus region (Hualing Group Website).

In 2009 Hualing group signed a memorandum of understanding with the Georgian Ministry of Economy and Sustainable Development to establish a Free Industrialized Zone in Kutaisi; it was granted the status of Free Industrialized Zone in 2015. Located near the Anaklia Deep Water Sea Port Project, the Free Industrialized Zone in Kutaisi is intended to become an industrial, logistics and trading hub, especially for Chinese goods travelling to Europe.

⁶⁴ Statistics from the brochure provided by the Georgian Chamber of Commerce and Industry titled "Georgia – Discover the Place of Growth, Safety & Opportunities"

⁶⁵ Chikovani, N. [Georgian Chamber of Commerce and Industry], 2017, personal communication, Tbilisi, September 4.

Hualing invested USD 40 million in the Zone, which is expected to handle 40 million tons of cargo annually (Hualing Group Website).

In the banking sector, Hualing, which already owns “BasisBank” in Georgia, bought a controlling stake of another Georgian bank – “Bank Republic” - in 2016 with a plan to merge the two banks (Reuters, 2016).

At the same time, the China Energy Company Limited (CEFC) purchased 75% of shares in the Poti Free Industrial Zone signing a memorandum of understanding with Georgia’s Ministry of Economy and Sustainable Development. The agreement stipulated that CEFC would contribute to the development of FIZ through sharing best practices and technologies, and attract investments (Larsen, 2017). According to one source, China would use the Caspian international transport route and the Poti Port in Georgia to transport cargo to Belgium twice a week (Pieter van Dijk and Martens, 2016).

In the energy sector, the Chinese state-owned enterprise, Dongfang Electric, in 2015 pledged USD 180 – USD 200 million for the construction of thermal power plant (150 megawatt) in western Georgia, the Tkibuli region (Pieter van Dijk and Martens, 2016).

5.3 Azerbaijan: Balancing the East and the West and Transportation Priorities

Azerbaijan seeks to establish a balance in its relations with the EU and Russia. Situated between Russia in the north and Iran in the south, it has benefited from its position as a link between the EU and Central Asia. On the EU side, this meant circumventing dependence on Russian energy and Iran under sanctions. Azerbaijan’s largest trading partner today is not Russia but the EU due to its energy exports to this region. The biggest investor by a large margin is the UK constituting 50% of Azerbaijan’s FDI inflows between 2003 and 2014 (due to investment made by British Petroleum) (See Annex 5). Still Baku and Moscow have close economic ties. Russia is the second biggest exporter of goods to Azerbaijan and its second largest FDI investor. The two countries share the Baku–Novorossiysk oil pipeline; in 2010, Azerbaijani state petroleum company, SOCAR struck a deal with Russian Gazprom agreeing to supply some Azerbaijani 500m cubic metres of gas to Russia annually. More recently, with the opening of Iran, Russia and Azerbaijan are working closely together on developing the International North–South Transport Corridor (See Section 2.4). However, Azerbaijan did not sign onto the EAEU probably not to upset the balance it maintains between the EU and Russia.

Our project focused on Azerbaijan’s trade infrastructure priorities in the South Caucasus region and on China’s presence in Azerbaijan.

Transport Priorities

Azerbaijan, possessing oil and gas reserves, is a major player in energy projects that look west to Europe i.e. the Baku-Tbilisi-Ceyhan (BTC) oil pipeline, the Baku-Tbilisi-Erzurum (BTE) gas pipeline (See Section 1.2). More than half of Azerbaijan’s energy exports go to the EU (28). Azerbaijan supports the EU proposition for a trans-Caspian gas pipeline to connect the BTE to producers in Turkmenistan and Kazakhstan (Denoon, 2015).

Understanding that it has to diversify its economic strategies before depleting its own energy resources, Azerbaijan is investing in positioning itself as a transit hub. Crude oil constituted 85,5 % of Azeri exports in 2015 ⁶⁶. However, according to an IMF report, Azerbaijani oil reserves will last about 15- 20 years while increased gas production will not be able to offset the decline in oil revenues (Albino-Warand Quillin, 2013). The same report indicates that Azerbaijan’s “oil dependence and fiscal vulnerabilities are rapidly increasing” (Albino-Warand Quillin, 2013: p.3). A more recent study found that the current Azerbaijani gas supply squeeze may last until 2021 at least, and even then, Azerbaijani gas would be available in small volumes. At these low levels, Azerbaijan would struggle to compete with other gas importers to Europe given high transport costs (Pirani, 2016).

Given that Azerbaijan’s energy resources are limited compared to that of some Central Asian countries, to be part of the Trans-Caspian project proposed by the EU, would be important for Azerbaijan to maintain its stature in the region. Russia, however, opposes the realization of this project.

Azerbaijan has made significant investments in the Trans-Caspian trade corridor. Azerbaijan has signed multiple agreements relating to the Trans-Caspian transport network (including the Trans-Caspian transport consortium to boost China –EU trade, which it initiated) (See Section 2.3).

The Baku –Tbilisi-Kars line has been a major priority of Azerbaijan. Azerbaijan is a main investor in this railway scheme making a loan of USD 700 million to Georgia for the construction and rehabilitation of the railroad through Georgia (Valiyev, 2016).

Azerbaijan is building Alat Port on the Caspian Sea, approximately 85 km south of Baku. The new port will replace Baku as Azerbaijan’s main commercial and industrial port including a centre for international logistics and a Free Economic Zone. The Port that will be built in three phases will cost about USD 544.74 million with the first phase planned to be completed by late 2017 (Export.gov, 2016). It will initially have a capacity 10 million tons of cargo and 40,000 containers a year, upon completion that capacity will rise to 25 million tons of cargo and 1 million containers. Alat will be the Caspian’s largest port with ample room to expand (Export.gov, 2016).

At the same time, Azerbaijan is putting in substantial resources to redirect the North-South corridor in its own direction. Baku has made Iran a USD 500 million loan for the completion of the Rasht (in Iran) – Astar (in Azerbaijan) railway linking the rail networks of Iran and Russia via Azerbaijan (Valiyev, 2016). This line will let the Russian goods to reach the Persian Gulf and perhaps more importantly it will facilitate trade between Russia and India via the Indian Ocean (See Section 2.4).

Chinese interests and investments

Azerbaijan embraced China’s OBOR project, especially in the face of increased reluctance on the part of the EU to participate in various regional projects (i.e. TRACECA)⁶⁷. Azerbaijan looks to Chinese investments in land routes and high-speed rail

⁶⁶ As reported by MIT’s “The Observatory of Economic Complexity.”

⁶⁷ Mustafayev, A. [Permanent Representative (National Secretary) of the IGC TRACECA in Azerbaijan] 2017, personal communication, August 18.

links between East Asia and Europe. In doing so, Azerbaijan seeks to curb Russian influence (Valiyev, 2016). According to Valiyev (2016), in line with Azerbaijani policy of balancing the interests of different actors, China does not pose a threat to the EU's position in the region as much as EAEU or Russian presence might.

From a Chinese perspective Azerbaijan's insistence in balancing the interests of different actors in the region is welcomed (Lianlei, 2016). For China, Azerbaijan is located at the point of convergence of east –west, north –south corridors including the Trans-Caspian route (Lianlei, 2016).

China's involvement in Azerbaijan is older and more extensive than in other South Caucasus countries. According to Yu Chunchi, a Chinese Embassy official in Azerbaijan, (as cited by Shahbazov , 2016) the first Chinese investments date back to 2002 reaching USD 300 million in 2016. At the same time, Azerbaijan granted interest rate tax breaks to commercial and policy-oriented Chinese banks; so far it has not succeeded in attracting commercial Chinese banks to come to Azerbaijan (Yan, 2017).

Preceding the announcement of the OBOR, intergovernmental relations, aimed to deepen economic and trade relations between China and Azerbaijan were underway (Embassy of the Republic of Azerbaijan to the People's Republic of China n.d.). During Azerbaijani President Ilham Aliyev's official visit to China in 2005, an Azeri-Chinese business forum took place with representatives of 40 Azerbaijani and 400 Chinese companies. Among the 20 contracts signed by businesses at the forum, one agreement established a base in Azerbaijan for developing Chinese know-how in manufacturing of fiberglass cables, mobile drilling rigs used in oil and gas industry, materials for storage/packaging of agricultural products as well as computer technology (Babayan, 2014).

More recently, in its sixth meeting in 2016, the Intergovernmental Commission on Trade and Economic Cooperation, focused on cooperation in transport and logistics, in particular the Baku-Tbilisi-Kars railway (Nazarli, 2016).

Chinese capital is introduced into Azerbaijan through different channels but is still primarily in the energy sector in Caspian Sea oil and gas resources. Chinese energy giant, Sinopec, has stakes in K&K and Gobustan with investments more than USD 250 million. The K&K project delivering an annual output of about 300,000 tons of crude oil is Azerbaijan's biggest onshore oil field (Babayan, 2014; People's Daily Online, 2010). During the high-level international forum held as part of the 'One Belt – One Road' heads of state meeting in Beijing in May 2017, SOCAR signed a memorandum of understanding with China National Petroleum Corporation (CNPC) and the China Development Bank for SOCAR's Oil-Gas Processing and Petrochemical Complex (OGPC) project (SOCAR GPS n.d.).

In 2016, the China-led multilateral Asian Infrastructure Investment Bank (AIIB) extended a USD 600 million loan for the construction of the Trans-Anatolian Natural Gas Pipeline Project (TANAP) linking Azerbaijan to Turkey and Southern Europe (Suokas, 2016). The loan is small, representing 10% of the total projected cost (USD 11.7 billion) (Valiyev, 2017). Yet, AIIB's sponsoring of the pipeline together with the World Bank and other private corporations, indicates China's interest in establishing a presence in the South Caucasus (Valiyev, 2017).

Another channel of Chinese investment is in the modernization of thermoelectric and hydropower plants. The top investor in this field is the China National Electric Equipment Corporation (CNEEC). In 2007, CNEEC won a contract to reconstruct the Azerbaijani Thermoelectric Power Station, which accounts for 45% of electric power generated in Azerbaijan; in 2010, CNEEC won another contract to repair the Mingechevir and Varvara hydropower stations (Babayan, 2014).

In the cement sector, the Chinese state-owned construction firm, China Triumph International Engineering Group (CTIEC Group) was the first company to build a major construction project in 2014 adding new production capacity to the Qızılbaş cement plant (Yan, 2017).

Also investing in Azerbaijan, are major Chinese cellular and telecommunication companies. According to Dongliang Zhang (as cited by Xinhuanet, 2016a) VP at HUAWEI Caucasus & Central Asia Region, Huawei Corporation, China's largest telecommunications equipment manufacturer, has been working with the Ministry of Communication and New technologies of Nakhchivan Autonomous Republic since 2002. More recently, Huawei partnered with the Azerbaijani Ministry of Transport, Communications and High technologies for the Smart City project for Baku being launched with the Baku Public Wi-Fi project in 2017 (AzVision.az, 2017).

Similar to its activities in Armenia, China is building soft power in Azerbaijan e.g. establishment of the Institute of Confucius in 2011, cooperation agreement between the Chinese and Azerbaijani education ministries (2012-2015) including student exchanges (Xinhua as cited by Gov.cn, 2012).

Last but not least, again similar to Armenia, China and Azerbaijan have military cooperation and military exchanges since 2010 (Xinhua as cited by Gov.cn, 2010).

SECTION 6 SUMMARY HIGHLIGHTS

In the past decade, middle Eurasia has been a domain of intensifying commercial activity. Countries are working together and compete for access to trade corridors for new openings. While Chinese entrance provided an important impetus, other actors such as Russia, India, Turkey, Iran as well as countries in Central Asia and in the South Caucasus have developed their priorities in parallel. Russia is seeking to direct land trade northwards collaborating with Kazakhstan in the east –west route (**Section 2.2**); on the north-south route, in partnership with India, Iran and Azerbaijan as well as Central Asian countries (**Section 2.4**). Armenia and Georgia, compete with Azerbaijan for access to the north-south corridor over Iran to Russia (**Section 2.4**). Turkey competes with the Ukraine for east-west trade on the Black Sea (**Section 2.3**). Azerbaijan and Turkmenistan are in competition over the Kazakhstan-Turkmenistan–Iran route. Kazakhstan and Turkmenistan are locked in competition on the Caspian Sea (**Section 5.1**). Iranian transshipment ports increasingly pose competition to Turkish ports in the Mediterranean (**Section 3.2**).

The Tran-Caspian corridor is an area of such competitive activity. The Baku-Tbilisi - Kars leg of the corridor, connecting the Caspian to eastern Turkey, is completed after long delays. In western Turkey, the newly built Yavuz Sultan Selim Bridge in Istanbul including a railroad aims to ensure a corridor for a seamless flow of goods and people between Asia and Europe. Furthermore, Azerbaijan and Kazakhstan have recently constructed modern ports on the Caspian Sea, Alat and Kuryk, respectively (**Section 2.3**). On the eastern coast of the Caspian, Kazakhstan’s internal rail network stretching from China to the Caspian Sea is completed (**Section 5.1**). In collaboration with China, Kazakhstan plans to construct a railway from Khorgos (expected to become the main portal for OBOR) on the Kazakh-Chinese border to the Caspian Sea port of Aktau, a promising development adding to the value of the Caspian connection.

Both physical and software infrastructure problems remain along the Tran-Caspian corridor. But given rising interest by governments and business, there is reason to hope that problems may be addressed. Along these lines, Turkey is opting to build an ambitious high speed rail network stretching from Kars to Edirne, on Turkey’s border of Europe (**Section 3.2**).

Regarding the software, Asia’s integration into global trade system will depend on standardization of border crossing procedures. Kazakhstan, Azerbaijan and Georgia, through the Trans Caspian International Transport Route (TITR) initiative (established in 2014), are working towards attracting Chinese east –west trade and investment to ensure that high costs on the Caspian crossing are reduced (**Section 2.3**). TITR’s activities picked up in 2016 towards improving software infrastructure along the corridor, focusing on competitive tariffs, customs and border management (by means of digitization) (**Section 2.3**). Individual countries are also looking to simplifying border procedures, through “single window” system using digital technology (**Section 3.2**).

The example of the Northern corridor is telling. The establishment of the EAEU customs union together with investments in physical infrastructural led to a reduction of travel time from 18 days in 2014 to 11-12 days in 2017. Costs are also rapidly falling. (**Section 2.2**)

Last but not least, closed borders/administrative boundary lines and /or frozen conflicts in the region, constitute hurdles to the development of economic corridors. These

include the conflict between Azerbaijan and Armenia, the closed border between Turkey and Armenia, and tensions between Georgia and Russia over the breakaway regions of South Ossetia and Abkhazia hindering the free flow of goods and people in these regions. In relation to the Middle Corridor, a future prospect of opening up Armenia's borders with Turkey and Azerbaijan would enable a Caspian trade flow, which would be a cost-effective alternative to the current and longer route over Georgia (**See Section 2.4**).

Armenia and Turkey: Their Strategic Assets and Needs

All three actors in the South Caucasus, Armenia, Azerbaijan and Georgia, view Chinese investments as a way to counter balance Russia influence. The Chinese presence offers a geostrategic advantage introducing China as a third player into the region breaking the bind of the West –Russia stranglehold. This is especially true for Armenia, where Russia has a dominant economic presence.

Armenia desperately needs connections and investments. The present situation offers a number of openings for Armenia. The increased energy along the Middle Corridor, most significantly instigated by Chinese presence in Georgia and Azerbaijan, will have spillover effects on Armenia (**Sections 5.2, 5.3**). Membership in EAEU, by making Armenia part of a larger market, could make Armenia attractive for Chinese investments (**Sections 2.4, 4.1**). The EAEU and the collaboration between Kazakhstan, Russia and Belarus it enabled, led to the success of the Northern route, linking China to EU (**Section 2.2**). Another pull factor for Chinese investments would be Armenia's comprehensive agreement with the EU, signed in November 2017 (**Section 4.1**). Lastly, lifting of sanctions in Iran and Iran's interest in membership in EAEU will provide spillovers to Armenia from Iran's development, for instance, participation in new corridors accessible through Iran (i.e. the North-South corridor) and European investments in Iran (**Section 4.1**).

Turkey aspires to be a logistics hub in the region, especially for east-west trade, attracting investments in transport infrastructure, most significantly from China (**Section 3.2**). For Turkey, opening to the east is also important for the development of its eastern regions (**Section 3.1**). At the same time, Turkish investors and exporters are involved in markets in the South Caucasus and Central Asia, especially in the construction sector. The Middle Corridor, prioritized by the Turkish government, is part of these aspirations. Turkey has channelled big investments in transportation infrastructure including in high-speed railway projects and bridges, underwater rail systems crossing the Istanbul and Canakkale straits (**Section 3.2**). It has a customs union with the EU, which may be an attraction point for further Chinese investments. Turkey also has a history of strong economic relations with Russia (i.e. substantial Turkish investments in Russia and as export and import partners) and is looking to sign an agreement with the EAUE (**Section 1.4**). As was the case for Armenia, another important opening for Turkey is relations with Iran (**Sections 2.2, 3.2**). However, the Iran –Turkey opening is not a substitute for Turkey's Middle Corridor priority given instability in the Middle East.

SECTION 7. FUTURE CHALLENGES AND THE WAY FORWARD

From the perspective of individual countries, the most important issue at hand will be to absorb the benefits corridor in the making, to partake in production sharing activities along value chains of multinationals. The Chinese transformation itself from the world's factory to a high-tech economy is telling. The Global Innovation Index(GII) released in 2016, placed China in the top 25 among 128 countries to become the first middle-income economy to join this group. According to the same GII report, China's transformation reflects the unique way in which China introduced international connections throughout its national innovation system (Cornell University, INSEAD, and WIPO, 2016). One such way China did so was to position itself at the centre of value chains of western companies.

The Northern corridor is an example of Chinese transformation. The first most prominent Northern lines, the Chongqing -Duisburg and the Chengdu-Poland, developed in parallel with major western electronics and automotive companies setting up shop in Chongqing and Chengdu in China (**Section 2.2**). The Northern route is also delivering results in the form of introduction of production sites of several multinationals in Central Asia that are taking advantage of the region's location between Europe and China (**Section 2.2**).

From the perspective of the countries along the Trans-Caspian corridor, it is expected for the new situation to simulate a chain of reactions that might allow them to approximate to the Chinese experience in terms of participation in global value chains.

First, countries should develop smart strategies to attract investments. In the absence of innovative capabilities, companies are attracted by competitive labour costs for investment. Although not studied in this report, low labour costs can be an advantage of economies in the South Caucasus and in Central Asia.

Logistics infrastructures and centres are also points of attraction. The Armenian FEZ in the Syunik on the Iranian border may present such an opportunity (**Section 4.3**). Countries like Turkey, Kazakhstan, Azerbaijan and to an extent, Georgia, envision themselves as logistics hubs (**Sections 3.2, 5.1, 5.3 and 5.2, respectively**).

Partnership models between the government and industry provide an opportunity to expand industrial capabilities. Domestic companies benefit from partnerships with foreign investors. These can be further encouraged by governments entailing an active policy in assisting domestic firms and start-ups to partake in value chains of multinationals. Governments can facilitate global companies to move a portion of their R&D and production activities to domestic markets (Sak and Inan, 2015). As significantly, governments would benefit from adopting technology transfer policies.

Second, governments need to focus on industrial policy frameworks that emphasize upgrading industrial capacities, the sophistication level of their industries by focusing on their competitive advantages. This can help countries move up value chains. In the case of Armenia this can be the ICT sector (**Section 4.2**). In Turkey, new technologies can be utilized in manufacturing i.e. with an emphasis on defence industries. Kazakhstan is also looking to improve sophistication of its exports; in Azerbaijan, where the economy is highly dependent on oil, diversification is critical (**Section 5.3**). More generally, emerging technology platforms—such as biotechnology, nanotechnology and ICT, which have wide-

ranging impact and spillovers to other industries, need to be the focus of development policies (Arslanhan-Memis, 2016).

Third, governments of countries on the Trans-Caspian corridor together with multinational companies can coordinate their contribution to the production process. The EU, which is home to largest number of multinationals, can coordinate such activities.

The EU remains critical for the Trans-Caspian corridor as well as individual countries in the South Caucasus and Turkey. Many interviewed for this report directly or indirectly indicate that China with its OBOR initiative was filling the vacuum left by the EU. While continuing with soft infrastructure reforms, removing barriers across borders along the corridor, expectations from the EU are largely financial in the form of financing infrastructure development and investment. However, these countries would benefit from the EU's technological power and knowledge accumulation (e.g. company know-how) to make industrial advances themselves.

From the perspective of the EU, the region which constitutes a diverse group of emerging, and /or resource rich economies (Turkey, Iran, the South Caucasus, Central Asia), with prospects of further growth, provides the EU access to consumer markets, energy and human resources. However, the EU lacks a broader political vision regarding Middle Eurasia. A political vision would not only release market possibilities for the EU but also help its global visibility.

REFERENCES

- Albino-War, M, and Quillin, B, (2013), *Republic of Azerbaijan, - Selected issues*, International Monetary Fund (IMF) Country Report No.13/165, June 2013.
<<https://www.imf.org/external/pubs/ft/scr/2013/cr13165.pdf>> [viewed 4 September 2017]
- Albrechts, L. and Tasan-Kok, T. (2009) Corridor and axis development. In: Kitchin, R. and Thrift, N. *International Encyclopaedia of Human Geography*, MS number 833, pp. 298-304.
- Antenore, B. (2016) “EU Companies Race for Deals in Post-Sanction Iran” *The European Institute*, March 2016.
<<https://www.europeaninstitute.org/index.php/ei-blog/279-march-2016/2137-eu-companies-race-for-deals-in-post-sanction-iran-3-9>> [viewed 4 September 2017]
- Arnold, J. (2006), *Best Practices in Corridor Management*, World Bank, Washington D.C.
- Arnold, J., Olivier, G. & Arvis, J.F (2005). *Best Practices in Corridor Management*. World Bank Report No 45128, World Bank, Washington, DC.
- Arslanhan-Memis, S. (2016) *G20 Hangzhou Zirvesi'nin Ardından Küresel Gündem: Türkiye Bu Gündemin Neresinde?*, The Economic Policy Research Foundation of Turkey (TEPAV) Policy Analysis, September 2016. [http://www.tepav.org.tr/upload/files/1474286742-4.G20 Hangzhou Zirvesi nin Ardından Kuresel Gündem Türkiye Bu Gündemin Neresinde.pdf](http://www.tepav.org.tr/upload/files/1474286742-4.G20%20Hangzhou%20Zirvesi%20nin%20Ardindan%20Kuresel%20Gundem%20Türkiye%20Bu%20Gundemin%20Neresinde.pdf) [viewed 4 September 2017]
- Arvis, J., Carruthers, R., Smith, G. and Willoughby, C. (2011) *Connecting Landlocked Developing Countries to Markets: Trade Corridors in the 21st Century, Directions in Development*, World Bank, Washington D.C.
- Asian Development Bank (2016) *Unlocking the Potential of Railways: A Railway Strategy for CAREC (2017–2030)*, Asian Development Bank, Central Asia Regional Economic Cooperation Program (CAREC), Endorsed at the 15th CAREC Ministerial Conference Islamabad, Pakistan, 26 October 2016.
<https://www.adb.org/sites/default/files/institutional-document/227176/carec-railway-strategy-2017-2030.pdf> [viewed 30 October 2017]
- Asian Development Bank (2011), *Armenia's Transport Outlook, Transport Sector Master Plan*, Asian Development Bank, Philippines.
<https://www.adb.org/sites/default/files/publication/28298/armenia-transport-outlook.pdf> [viewed 15 October 2017]
- Asian Development Bank (2010) *Institutions for Regional Integration: Toward an Asian Economic Community*, Asian Development Bank, Philippines.
- AzVision.az (2017) *China's Huawei to build 'Smart City' in Baku*, 21 March.
<https://en.azvision.az/news/61486/china%E2%80%99s-huawei-to-build-%E2%80%98smart-city%E2%80%99-in-baku.html> [viewed 15 October 2017]
- Babayan, D. (2014) “New Silk Roads in the Southern Caucasus: Chinese Geopolitics in a Strategic Region”. *Yale Journal of International Affairs*. October 2014.
http://yalejournal.org/article_post/new-silk-roads-in-the-southern-caucasus-chinese-geopolitics-in-a-strategic-region/ [viewed 15 October 2017]

Baltic Briefing (2015) *Baltic Exchange collaborates with Ningbo Shipping Exchange*, 23 October. <<http://thebalticbriefing.com/2015/10/23/baltic-exchange-collaborates-with-ningbo-shipping-exchange/>>. [viewed 4 September 2017]

Banomyong, R. (2008), “Logistics development in the Greater Mekong Subregion: a study of the North-South Economic Corridor”, *Journal of Greater Mekong Subregion Development Studies*, vol. 4, December, pp. 43-58.

Basihos, S. and Tasoz-Dusundere (2016) *Gelişmişlik Göstergesi Olarak Gece İşiklari: İller Arası Gelir Eşitsizlikleri Ne Durumda?*, The Economic Policy Research Foundation of Turkey (TEPAV), Evaluation Note, May 2016. http://www.tepav.org.tr/upload/files/1462442708-2.Gelismislik_Gostergesi_Olarak_Gece_Isiklari_Iller_Arasi_Gelir_Esitsizlikleri_Ne_Durumda.pdf [viewed 4 September 2017]

Bradsher, K. (2013), “Hauling New Treasure Along the Silk Road”, *The New York Times*, 20 July. <<http://www.nytimes.com/2013/07/21/business/global/hauling-new-treasure-along-the-silk-road.html?pagewanted=all>> [viewed 10 September 2017]

British Petroleum (n.d.) *Baku-Tbilisi-Ceyhan pipeline*, British Petroleum (BP) Azerbaijan, Website. <http://www.bp.com/en_az/caspian/operations/projects/pipelines/BTC.html> [viewed 4 September 2017]

Brown, A. (2017), “Aktau – the gateway to Kazakhstan”, *World Bank Blogs*, [web blog post], 11 September. <http://blogs.worldbank.org/europeandcentralasia/aktau-gateway-kazakhstan> [viewed 30 September 2017]

Business Standard (2017) *India for early FTA with five-nation Eurasian Economic Union*, 1 June. http://www.business-standard.com/article/pti-stories/india-for-early-fta-with-five-nation-eurasian-economic-union-117060100621_1.html [viewed 30 September 2017]

Çağlar, E., Şahbaz, U., Sökmen, A., İnan, F., Benli, İ., and Kızılcıca, I. (2014), *Strengthening connections and business synergies between Turkey and Armenia: Towards a Roadmap for Confidence Building Through Economic Cooperation*, The Economic Policy Research Foundation of Turkey (TEPAV) Report, November 2014. <http://www.tepav.org.tr/upload/files/1420818799-5.Strengthening_Connections_and_Business_Synergies_Between_Turkey_and_Armenia.pdf> [viewed 1 August 2017]

Cai, P. (2017) *Understanding China’s Belt and Road Initiative*. Lowy Institute Analysis, March 2017. <https://www.lowyinstitute.org/publications/understanding-belt-and-road-initiative#_edn17> [viewed 1 September 2017]

CAREC, (Central Asia Regional Economic Cooperation) Website. <http://www.carecprogram.org/>[viewed 4 September 2017]

Central Bank of the Republic of Turkey (2017) “Uluslararası Yatırım Pozisyonu İstatistikleri”, Central Bank of the Republic of Turkey, August 2017. <http://www.tcmb.gov.tr/wps/wcm/connect/TCMB+TR/TCMB+TR/Main+Menu/Istatistikler/Odemeler+Dengesi+ve+İlgili+Istatistikler/Uluslararası+Yatırım+Pozisyonu/Veri+%28Tablolar%29> [viewed 30 September 2017]

CEPII (n.d.) *BACI : Data 2015*, CEPII Website, <http://www.cepii.fr/cepii/en/bdd_modele/presentation.asp?id=1> [viewed 30 September 2017]

China FTA Network, Website.

<<http://fta.mofcom.gov.cn/english/>> [viewed 30 September 2017]

Clover, C. and Hornby, L. (2015), “China’s Great Game: Road to a new empire”, *Financial Times*, 12 October.

<<https://www.ft.com/content/6e098274-587a-11e5-a28b-50226830d644>> [viewed 15 October 2017]

Cornell University, INSEAD, and WIPO (2016) *The Global Innovation Index 2016: Winning with Global Innovation*, Ithaca, Fontainebleau, and Geneva.

CSIS Reconnecting Asia (n.d.) *Competing Visions*, Center for Strategic and Intentional Studies (CSIS) Analysis. <https://reconnectingasia.csis.org/analysis/competing-visions/> [viewed 15 October 2017]

Danielyan, E. (2017) “Yerevan Approves First Deal with Russian-Armenian Investors”. *Azatutyun.am*, 10 August.

<<https://www.azatutyun.am/a/28669583.html>>. [viewed 12 September 2017]

Daily Sabah (2017a) *Plan for new high-speed rail in Istanbul waiting for approval*, 7 June.

<<https://www.dailysabah.com/business/2017/06/07/plan-for-new-high-speed-rail-in-istanbul-waiting-for-approval>> [viewed 8 September 2017]

Daily Sabah (2017b) *Turkey seeks to build an alternative road to Baku-Tbilisi-Kars Railway*, 31 May.

<<https://www.dailysabah.com/business/2017/06/01/turkey-seeks-to-build-an-alternative-road-to-baku-tbilisi-kars-railway>>. [viewed 4 September 2017]

Davydenko, I., Landa Maxta, I., Martens, R., Nesterova, N., Wark T. et al. (2012) *Potential for Eurasia Land Bridge Corridors and Logistics Developments Along the Corridors*, RETRACK (Integrated EU Project) , Work Package (WP).

https://www.tno.nl/media/2825/report_potential_eurasia_land_bridge_rail-corridors_final_25042012.pdf [viewed 20 September 2017]

De, P. and Iyengar, K. (2014) *Developing Economic Corridors in South Asia*, Asian Development Bank.

Debreczeni, G. (2016), “The New Eurasian Land Bridge. Opportunities for China, Europe, and Central Asia”, MA Thesis, Johns Hopkins University. <http://publicspherejournal.com/wp-content/uploads/2016/02/02.eurasian_land_bridge.pdf>.[viewed 8 September 2017]

Denoon, D. B.H. (2015) *China, The United States, and the Future of Central Asia: U.S.-China Relations*, Vol. I., New York University Press, New York and London.

Dehghan, S. K. (2017), “China’s Silk Road revival steams ahead as cargo train arrives in Iran”, *The Guardian*, 15 February. <<https://www.theguardian.com/business/2016/feb/15/chinas-silk-road-revival-steams-ahead-as-cargo-train-arrives-in-iran>> [viewed 20 September 2017]

Deutsche Bahn AG (2016) *Trans-Eurasian land bridge – a transport alternative*, Deutsche Bahn AG. http://www.deutschebahn.com/en/group/im_blickpunkt/11887130/20160318_china_en.html [viewed 20 September 2017]

Deutsche Bahn Schenker (2014) *18 days to Germany*, [news], DB Schenker, 30 July .

<http://www.dbschenker.com.cn/log-cn-en/news_media/news/7565488/chinatrains-2014.html> [viewed 20 September 2017]

DHL (2015) *DHL lays tracks for new Silk Road with China-Turkey rail corridor*, DHL, [press release], December 17. <http://www.cn.dhl.com/en/press/releases/releases_2015/local/121715.html> [viewed 20 September 2017]

Diener, A. C. (2015), “Parsing mobilities in Central Eurasia: border management and New Silk Roads”, *Eurasian Geography and Economics*, Vol. 56 Issue 4, Pages 376-404.

Egis International/Dornier Consulting (2013), *Logistics Processes and Motorways of the Sea II. Progress Report IV – Annex 6*, TRACECA Project funded by European Union, No. ENPI 2011 / 264 459, April 2013.

<http://www.traceca-org.org/fileadmin/fm-dam/TAREP/65ta/Project_reports/LOGMOS_Progress_Report_IV_April_2013/Progress_Report_IV_Annex_6_Shipping_Lines_en.pdf>. [viewed 20 September 2017]

Embassy of the Republic of Azerbaijan to the People’s Republic of China (n.d.). *Chronology of bilateral relations*. <http://beijing.mfa.gov.az/content/3> [viewed 20 September 2017]

Enterprise Incubator Foundation (2015) *Armenian ICT Sector, State of the Industry Report: Information and Telecommunication Technologies Sector in Armenia*. Enterprise Incubator Foundation.

Enterprise Incubator Foundation (2009) *Armenian Information Technology Sector: Software and Services*, Enterprise Incubator Foundation.

Erdbrink, T. and Gladstone, R. (2017) “Iran Reaches Deal with Renault Despite New U.S. Sanctions”, *The New York Times*, 7 August. <<https://www.nytimes.com/2017/08/07/business/iran-renault-cars-sanctions.html>>. [viewed 20 September 2017]

Erdogan , R. T. (2017) “A New Era will be Heralded in Our Region Based on Stability and Prosperity”, Speech at the Belt and Road Forum for International Cooperation in Beijing, Presidency of the Republic of Turkey, 14 May. <<https://www.tccb.gov.tr/en/news/542/75199/a-new-era-will-be-heralded-in-our-region-based-on-stability-and-prosperity.html>> [viewed 15 October 2017]

Eurasian Economic Commission (2017) *In the EAEU, a common medicines market is launched*, [news], Eurasian Commission, 5 May. <http://www.eurasiancommission.org/en/nae/news/Pages/5-05-2017.aspx> [viewed 4 September 2017]

Eurasian Economic Commission (2015) *The Treaty on the Eurasian Economic Union is effective*, [news], Eurasian Commission, 1 January. <<http://www.eurasiancommission.org/en/nae/news/Pages/01-01-2015-1.aspx>> [viewed 4 September 2017]

European Union (2017) *EU Neighbors Library*, European Union Neighbours, Website. <<http://www.euneighbours.eu/en/policy>> [viewed 20 September 2017]

Eurostat (2017) *Main origin of primary energy imports, EU-28, 2005-2015 (% of extra EU-28 imports) YB17.pn*, Eurostat Statistics Explained.

<[http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Main_origin_of_primary_energy_imports_EU-28_2005-2015_\(%25_of_extra_EU-28_imports\)_YB17.png](http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Main_origin_of_primary_energy_imports_EU-28_2005-2015_(%25_of_extra_EU-28_imports)_YB17.png)> [viewed 20 September 2017]

Farchy, J., Kyngé, J., Campbell, C. and Blood, D. (2016) “One belt, one road -A ribbon of road, rail and energy projects to help increase trade”, *Financial Times*, 14 September. <https://ft.com/sites/special-reports/one-belt-one-road/> [viewed 20 September 2017]

- Export.gov (2016) *Azerbaijan – Transportation*, Export.gov, Website, 18 August 2016
<https://www.export.gov/apex/article?id=Azerbaijan-transportation> [viewed 20 September 2017]
- Gazprom (2014) *Gazprom increasing its stake in Arm Rosgazprom to 100 per cent*, [news], Gazprom, 16 January. <<http://www.gazprom.com/press/news/2014/january/article182633/>> [viewed 20 September 2017]
- Georgian National Investment Agency (n.d.) *Free Trade Regimes*, Georgian National Investment Agency, Invest in Georgia, Website <https://investingeorgia.org/en/georgia/free-trade-regimes> [viewed 20 September 2017]
- Giragosian, R. (2014) “Armenia’s Strategic U-Turn”, *European Council on Foreign Relations (ECFR)*, Policy Memo, ECFR/99. <www.ecfr.eu/page/-/ECFR99_ARMENIA_MEMO_AW.pdf> [viewed 20 September 2017]
- Global SPC (n.d.), *Investment Incentives*, Global SPC Business and Legal Consulting, Website. <<http://www.investinarmenia.am/en/84-contents/investment-environment>>, [viewed July 1, 2017].
- Goh, B. and Chen, Y. (2017) “China pledges \$124 billion for new Silk Road, says open to everyone”, *Reuters*, 14 May.
 <<https://defence.pk/pdf/threads/2017-international-conference-belt-road-forum-cpec-watch-thread-for-updates.495280/page-2>> [viewed 20 September 2017]
- Gov.cn (2012) *China, Azerbaijan to boost ties in education*, 14 July. http://www.gov.cn/misc/2012-07/14/content_2183302.htm [viewed 4 October 2017]
- Gov.cn (2010) *China, Azerbaijan pledge to strengthen military ties*, 27 October. http://www.gov.cn/misc/2010-10/27/content_1730996.htm [viewed 4 October 2017]
- Hajijing, X. and Bo, Z. (2016) “Belt and Road Initiative to benefit SE Asia, South Asia with Chinese investment”, *Xinhua*, 17 April.
 <http://news.xinhuanet.com/english/2016-04/17/c_135286862.htm> [viewed 1 September 2017]
- Henderson, J. V., Storeyard A. and Weil, D. N. (2012) “Measuring Economic Growth from Outer Space”, *American Economic Review* Volume 102(2), April 2012, p. 994–1028
- Herrero, A.G. and Xu, J. (2016) *China’s Belt and Road initiative: Can Europe expect trade gains?*, Bruegel Working Paper, Issue 5.
 <<http://bruegel.org/wp-content/uploads/2016/09/WP-05-2016.pdf>> [viewed 1 September 2017]
- Hindustan Times (2016) *India, Iran and Afghanistan sign Chabahar port agreement*, 24 May.
 <<http://www.hindustantimes.com/india/india-iran-afghanistan-sign-chabahar-port-agreement/story-2EytbKZeo6zeCIpR8WSuAO.html>> [viewed 16 September 2017]
- HKTDC (2017), *The Belt and Road Initiative*, HKTDC Research, 13 September. <http://china-trade-research.hktdc.com/business-news/article/One-Belt-One-Road/The-Belt-and-Road-Initiative/obor/en/1/1X000000/1X0A36B7.htm> [viewed 16 September 2017]
- HKTDC (2016), *China-Europe Express Trains: On Track to Access Belt and Road Businesses*, HKTDC Research, 1 November, <http://hkmb.hktdc.com/en/1X0A7UXL/hktdc-research/China-Europe-Express-Trains-On-Track-to-Access-Belt-and-Road-Businesses> [viewed 1 September 2017]
- Hope, K. (2016) “Greece sells controlling stake in Piraeus port”, *Financial Times*, 8 April,
 <<https://www.ft.com/content/003bad14-f52f-11e6-95ee-f14e55513608>> [viewed 16 September 2017]

Hualing Group, Website <<http://hualing.ge/language/en/hualing-georgia/>> [viewed 16 September 2017]

International Monetary Fund (2016) *Regional Economic Outlook : Middle East and Central Asia*, IMF, Washington D.C.

Israfilbayova, S. (2017) "TITR International Association to cooperate with China", *Azernews*, 15 June. <<https://www.azernews.az/business/114765.html>> [viewed 4 October 2017]

Iyengar, R. (2017) "China's first freight train to the U.K. arrives in London", *CNN Money*, 19 January. <<http://money.cnn.com/2017/01/18/news/economy/china-uk-freight-train-yiwu-london/index.html>> [viewed 16 September 2017]

Jinchen, T. (2016) "One Belt and One Road: Connecting China and the world", *McKinsey & Company Insights*, July 2016. <<http://www.mckinsey.com/industries/capital-projects-and-infrastructure/our-insights/one-belt-and-one-road-connecting-china-and-the-world>> [viewed 16 September 2017]

Kemp, J. (2016) "China develops continent-spanning railroad to Europe", *Reuters*, 7 April, <<https://www.reuters.com/article/us-china-railway-kemp/china-develops-continent-spanning-railroad-to-europe-kemp-idUSKCN0X41U7>> [viewed 16 September 2017]

Khalatyan, H. (2017) "Посол: для китайских инвесторов Армения — не слишком знакомая страна", *EADaily*, 10 August. <<https://eadaily.com/ru/news/2017/08/10/posol-dlya-kitayskih-investorov-armeniya-ne-slishkom-znakomaya-strana>>, [viewed 1 September 2017]

Ki-Moon, B. (2008) "Transport Costs Now Bigger Barrier to Trade Than Tariffs, Secretary-General Tells High-Level Meeting On Special Needs Of Landlocked Developing Countries", *United Nations SG/SM/11846-GA/10761-DEV/2695*, 2 October. <<https://www.un.org/press/en/2008/sgsm11846.doc.htm>> [viewed 16 September 2017]

Kimura, F., and Kobayashi, I. (2009) "Why is the East Asia Industrial Corridor Needed?" *Economic Research Institute for ASEAN and East Asia*, ERIA Policy Brief 2009–01. <<http://www.eria.org/ERIA-PB-2009-01.pdf>> [viewed 16 October 2017]

Koru, S. and Kaymaz, T. (2016) "Turkey: Perspectives on Eurasian integration", *European Council on Foreign Relations (ECFR)*, Essay, 8 June. <http://www.ecfr.eu/article/essay_turkey_perspectives_on_eurasian_integration> [viewed 16 October 2017]

KPMG (2017) *Armenia. Great Country. Smart Opportunities*, KPMG Armenia. <<http://eba.am/wp-content/uploads/2017/06/KPMG-Armenia.pdf>> [viewed 16 October 2017]

KPMG (2016) *Investment guide Armenia*, KPMG in Armenia, in association with Ministry of Economic Development and Investments Republic of Armenia. September 2016. <http://www.amcham.am/img/Investment_guide_Armenia.pdf> [viewed 16 October 2017]

Kuester, F. (2017) "The New Silk Road – The Vision of an interconnected Eurasia", *Combined Transport Magazine*, January 10, <<https://combined-transport.eu/the-new-silk-road-obor>> [viewed 16 October 2017]

Kunaka, C. and Carruthers, R. (2014) *Trade and Transport Corridor Management Toolkit*. World Bank, Washington D.C.

- Kurguzova, A. and Sahbaz, U. (2016) *Operationalizing the 'Belt and Road' in 2016 Implementation ideas from Business/Think20 and Pilot Projects for the Middle Corridor*, January 2016. <<http://www.reinventingbrettonwoods.org/sites/default/files/Anna%20Kurguzova.pdf>> [viewed 16 October 2017]
- Larsen, J. (2017) "Georgia: The Black Sea Hub for China's 'Belt and Road'", *The Diplomat*, 3 May. <<https://thediplomat.com/2017/05/georgia-the-black-sea-hub-for-chinas-belt-and-road/>> [viewed 16 September 2017]
- Li, Y., Bolton, K. and Westphal, T. (2016) *The effect of the New Silk Road railways on aggregate trade volumes between China and Europe*, Working Paper on East Asian Studies, University of Duisburg-Essen, Institute of East Asian Studies IN-EAST, , <https://www.uni-due.de/imperia/md/content/in-east/about/publications_green_series/paper109-2016.pdf> [viewed 16 September 2017]
- Lianlei, Bai. "Azerbaijan in the Silk Road Economic Belt: A Chinese Perspective". *China Institute of International Studies (CIIS)*. http://www.ciis.org.cn/english/2016-08/30/content_8999522.htm [viewed 8 September 2017]
- Limao, N. and Venables, A. J. (2001) "Infrastructure, geographical disadvantage, transport costs, and trade". *The World Bank Economic Review*, Vol. 15, no. 3 (September 2001), pp. 451-479. <http://documents.worldbank.org/curated/en/662351468331778084/Infrastructure-geographical-disadvantage-transport-costs-and-trade> [viewed 16 September 2017]
- Mações, B. (2016), "China's Belt and Road: Destination Europe", *Carnegie Endowment for International Peace*, 9 November. <http://carnegieendowment.org/files/Maes_Chinas_Belt_and_Road.pdf> [viewed 16 September 2017]
- Mann, W. (2014), "China considers high-speed 'silk railroad' to Europe", *New Civil Engineer*, 7 August. <https://www.newcivilengineer.com/china-considers-high-speed-silk-railroad-to-europe/8667079.article> [viewed 16 October 2017]
- "Meridian" Free Economic Zone, Website. <http://www.meridianfez.com/>
- Miller, T. (2017) *China's Asian Dream: Empire Building along the New Silk Road*, Zed Books Ltd., London.
- Mingwei, Z. (2014) "Promoting China-Japan relations through culture", *China.org.cn*, 18 June. <http://www.china.org.cn/opinion/2014-06/18/content_32690843.htm> [viewed 16 October 2017]
- Ministry of Customs and Trade of the Republic of Turkey (n.d.-a) *Silk Road Customs Initiative and Caravanserai Project*, Ministry of Customs and Trade of the Republic of Turkey, Website. <<http://english.gtb.gov.tr/external-relations/multilateral-relations/silk-road-customs-initiative-and-caravanserai-project>> [viewed 15 October 2017]
- Ministry of Customs and Trade of the Republic of Turkey (n.d.- b) *Single Window System*, Ministry of Customs and Trade of the Republic of Turkey, Website. <<http://english.gtb.gov.tr/trade/customs/facilitation/single-window>> [viewed 15 October 2017]
- Ministry of Development of the Republic of Turkey (2015). *Onuncu Kalkınma Planı (2014 - 2018) Taşımacılıktan Lojistiğe Dönüşüm Programı Eylem Planı*, Coordinators Ministry of Transport, Maritime Affairs and Communications and Ministry of Development of the Republic of Turkey), 16 February 2015. http://odop.kalkinma.gov.tr/dokumanlar/18Tasimaciliktan_Lojistige_Donusum_Programi.pdf viewed 15 October 2017]

Ministry of Economic Development and Investments of the Republic of Armenia (2017) *Establishment of Free Economic Zone in Syunik , Business Plan 2016/17* , Ministry of Economy of the Republic of Armenia, Investment Policy Department.
<http://www.investmentprojects.am/media/2017/02/108.pdf> [viewed 15 October 2017]

Ministry of Energy and Natural Resources of the Republic of Turkey (n.d.) , *Natural Gas Pipelines and Projects*, Ministry of Energy and Natural Resources of the Republic of Turkey, Website.
<<http://www.enerji.gov.tr/en-US/Pages/Natural-Gas-Pipelines-and-Projects>>

Ministry of Foreign Affairs of the Republic of Turkey (n.d.) *Turkey's Relations with Central Asian Republics*, Ministry of Foreign Affairs of the Republic of Turkey, Website.
http://www.mfa.gov.tr/turkey_s-relations-with-central-asian-republics.en.mfa [viewed 15 October 2017]

Ministry of Transport and Communication and Information Technologies of the Republic of Armenia (n.d.) *North-South Corridor Investment Programme*, Ministry of Transport and Communication and Information Technologies of the Republic of Armenia Website
http://mtcit.am/main.php?lang=3&page_id=664 [viewed 15 October 2017]

Ministry of Transport, Maritime Affairs and Communications of the Republic of Turkey, (2016a), *Ulaşan ve Erişen Türkiye, Demiryolu Sektörü*, Ministry Publications.
<<http://www.udhb.gov.tr/images/faaliyet/c19d85352980eaf.pdf>> [viewed 15 October 2017]

Ministry of Transport, Maritime Affairs and Communications of the Republic of Turkey, (2016b), *Bütçe 2017*, [Power Point Presentation], Ministry of Transport, Maritime Affairs and Communications of the Republic of Turkey, 9 November.
<http://www.udhb.gov.tr/images/butce/6c72b7bc5767c2a.pdf> [viewed 15 October 2017]

Ministry of Transport, Maritime Affairs and Communications of the Republic of Turkey, (2016c) *Ulaşan ve Erişen Türkiye 2016- Denizcilik*, Ministry Publications.
<http://www.udhb.gov.tr/images/faaliyet/b77aacc22cbfc6d.pdf>> [viewed 15 October 2017]

MOFCOM PRC (2017a) *MOFCOM Department Official of Outward Investment and Economic Cooperation Comments on China's Outward Investment and Cooperation in 2016*, [news release], Ministry of Commerce People's Republic of China, 18 January.
<<http://english.mofcom.gov.cn/article/newsrelease/policyreleasing/201701/20170102503092.shtml>> [viewed 15 October 2017]

MOFCOM PRC (2017b) *The Southern Armenia Railway Project Description*, Ministry of Commerce People's Republic of China. <<http://images.mofcom.gov.cn/oys/201703/20170302121125534.pdf> > [viewed 15 October 2017]

Morrison, W. M, (2017), *China's Economic Rise: History, Trends, Challenges, and Implications for the United States*, Congressional Research Service. <<https://fas.org/sgp/crs/row/RL33534.pdf>> [viewed 15 October 2017]

Mount, I. (2014) "Spain to China by rail: A 21st Century Silk Road riddled with obstacles", *Fortune*, December 24, <<http://fortune.com/2014/12/24/spain-china-%20rail-trade/>> [viewed 15 October 2017]

National Development and Reform Commission of People's Republic of China (2015) *Vision and Actions on Jointly Building Silk Road Economic Belt and 21st-Century Maritime Silk Road*, First Edition Issued by the National Development and Reform Commission, Ministry of Foreign Affairs, and Ministry of Commerce of the People's Republic of China, with State Council authorization, 28 March.

- <http://en.ndrc.gov.cn/newsrelease/201503/t20150330_669367.html> [viewed 15 October 2017]
- Nazarlı, A. (2017) “Tariffs for Trans-Caspian transport route to be agreed soon”, *Pressreader*, 5 April. <<https://www.pressreader.com/azerbaijan/azer-news/20170405/281689729662669>> [viewed 15 October 2017]
- Nazarli, A. (2016) “Azerbaijan, China discuss trade, economic cooperation”, *Azernews*, 19 August. <<https://www.azernews.az/business/101105.html>> [viewed 15 October 2017]
- Nogales, E. G. (2014) *Making economic corridors work for the agricultural sector*, Food and Agriculture Organization of the United Nations. <<http://www.fao.org/3/a-i4204e.pdf>> [viewed 15 October 2017]
- Oliphant, C. (2013) *Russia’s role and interests in Central Asia*, Saferworld, Briefing, October 2013
- PanArmenian News Agency (2017) *New EU deal ‘will boost export of Armenian agricultural produce*, 15 September. <<http://www.panarmenian.net/eng/news/246566/>> [viewed 15 October 2017]
- People's Daily Online (2010) *China oil giants join hands for Caspian Sea oil field*, 23 February <http://en.people.cn/90001/90776/90882/6900258.html> [viewed 15 October 2017]
- Pirani, S. (2016) Azerbaijan’s gas supply squeeze and the consequences for the Southern Corridor, The Oxford Institute for Energy Studies, OIES PAPER: NG 110, July 2016, <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2016/07/Azerbaijans-gas-supply-squeeze-and-the-consequences-for-the-Southern-Corridor-NG-110.pdf> [viewed 15 October 2017]
- Quah, D. (2011), “The Global Economy’s Shifting Centre of Gravity,” *Global Policy*, Volume 2, Issue 1.
- Railway PRO (2017) *Azerbaijan inaugurates new rail link to Iran*, 8 March. <http://www.railwaypro.com/wp/azerbaijan-inaugurates-new-rail-link-iran/> [viewed 4 September 2017]
- Rastogi, C. and Arvis, J. (2014), *The Eurasian Connection: Supply-Chain Efficiency along the Modern Silk Route through Central Asia*, The World Bank. [viewed 4 September 2017]
- Reuters (2016) *China’s Hualing Group to acquire control over Georgia's Bank Republic*, 6 July. <<http://www.reuters.com/article/us-georgia-bank/chinas-hualing-group-to-acquire-control-over-georgias-bank-republic-idUSKCN0ZM0ZN>> [viewed 4 September 2017]
- Romanowski, M. (2016) *The EU in Central Asia: The regional context*, European Union, Directorate-General for External Policies European Parliament’s Committee on External Affairs, Presented to the Members and staff of the European Parliament for their parliamentary work, 25 January. [http://www.europarl.europa.eu/RegData/etudes/IDAN/2016/535020/EXPO_IDA\(2016\)535020_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/IDAN/2016/535020/EXPO_IDA(2016)535020_EN.pdf) [viewed 4 September 2017]
- Russia Briefing (2017) *Eurasian Economic Union Agrees to US\$2 Billion Free Trade Deal With Iran*, 17 August. <<https://www.russia-briefing.com/news/eurasian-economic-union-agrees-us2-billion-free-trade-deal-iran.html/>>. [viewed 8 September 2017]
- Sak, G. and Inan, F. *An Investment Policy Framework for Turkey in the Twenty-First Century*, The Economic Policy Research Foundation of Turkey (TEPAV) Report, February 2015. [http://www.tepav.org.tr/upload/files/1426001674-9.An Investment Policy Framework for Turkey in the Twenty First Century.pdf](http://www.tepav.org.tr/upload/files/1426001674-9.An%20Investment%20Policy%20Framework%20for%20Turkey%20in%20the%20Twenty%20First%20Century.pdf) [viewed 8 September 2017]

- Scissors, D. (2017), “Chinese investment: Revenge on the state”, *American Enterprise Institute*. July 2017. <<https://www.aei.org/wp-content/uploads/2017/07/China-Tracker-July2017.pdf>>.[viewed 8 September 2017]
- Shahbazov, F. (2016) “Baku-Beijing Relations and China’s Growing Interest in the South Caucasus”, *Jamestown Foundation*. Eurasia Daily Monitor Volume: 14 Issue: 51. 25 February 25. <https://jamestown.org/program/baku-beijing-relations-chinas-growing-interest-south-caucasus/> [viewed 8 September 2017]
- Shepard, W. (2017a), “Watch Out, China: India Is Building A 'New Silk Road' Of Its Own”, *Forbes*, 28 June. <<https://www.forbes.com/sites/wadeshepard/2017/06/28/watch-out-china-india-is-building-a-new-silk-road-of-its-own/#f064a5ba90ec>> [viewed 15 October 2017]
- Shepard, W. (2017b), “A Look Inside Aktau, Kazakhstan's Other Hub On The 'New Silk Road’”, *Forbes*, 15 April. <<https://www.forbes.com/sites/wadeshepard/2017/04/15/a-look-inside-aktau-kazakhstans-other-hub-on-the-new-silk-road/#4dea0fc97e1c>> [viewed 15 October 2017]
- Shepard, W. (2017c), “London Links Deeper Into The 'New Silk Road' With New Direct Train To China”, *Forbes*, 13 April. <<https://www.forbes.com/sites/wadeshepard/2017/04/13/london-links-deeper-into-the-new-silk-road-with-new-direct-train-to-china/>> [viewed 15 October 2017]
- Shepard, W. (2016) “How Those China-Europe 'Silk Road' Trains First Began”, *Forbes*, 29 June. <<https://www.forbes.com/sites/wadeshepard/2016/06/29/the-story-of-how-those-china-europe-silk-road-trains-first-began/4/#76f574415595>>.[viewed 16 October 2017]
- Shirinov, R. (2016) “Azerbaijan, Kazakhstan, Turkey, Georgia sign MoU on TITR development”, *Azernews*, 7 December. <<https://www.azernews.az/business/106200.html>> [viewed 15 October 2017]
- Shuiyu, J. (2017), “Facts confirm success of Belt and Road Initiative”, *The State Council the People’s Republic of China*, 12 April. <http://english.gov.cn/news/top_news/2017/04/12/content_281475624422018.htm> [viewed 15 October 2017]
- Silk Road Briefing (2017) In: Devonshire-Ellis, C. “The Eurasian Economic Union – OBOR’s Free Trade Card”, *Silk Road Briefing*, 31 August, 217. <https://www.silkroadbriefing.com/news/2017/08/31/eurasian-economic-union-obor-free-trade-card/> [viewed 20 September 2017]
- Sitronics, Website <http://www.sitronics.com/> [viewed 15 October 2017]
- Smirnov, S. (2009) “Танкеры вместо трубы”, *Expert Kazakhstan*, N46 (237), <<http://expert.ru/kazakhstan/2009/46/tankery/>> [viewed June 12, 2017].
- SOCAR GPS (n.d.) *Service agreement under the SOCAR Polymer Project was signed in China*, [news], SOCAR GPS. <http://socargpc.az/en/news/3.html> [viewed 15 October 2017]
- Socor, V. (2013), “Armenia’s Economic Dependence on Russia Insurmountable by the European Union”, *The Jamestown Foundation*, Vol.10, Issue: 221.
- Sputnik (2017) *EAEU, China Could Sign Trade Partnership Deal in 2018*, 7 June. <<https://sputniknews.com/world/201706071054387387-eaeu-china-trade/>> [viewed 15 October 2017]

Srivastava, P. (2011), *Regional Corridors Development in Regional Cooperation*, Asian Development Bank, No. Working Paper Series No. 258.

Staake, E. (2017) “Duisburg is the key link between China and Europe,” *EuropeanCEO.com*, 19 July. <<https://www.europeanceo.com/finance/duisburg-is-the-key-link-between-china-and-europe/>> [viewed 15 October 2017]

Suokas, J. (2016) “China-led AIIB invests in gas pipeline linking Azerbaijan with Turkey, Europe”, *gbtimes.com*, 2 December. <https://gbtimes.com/china-led-aiib-invests-gas-pipeline-linking-azerbaijan-turkey-europe> [viewed 15 October 2017]

Szakonyi, M. and King, M. (2013) “China-Europe Intermodal: ‘Just Right’?”, *Joc.com*, 20 December. <https://www.joc.com/rail-intermodal/international-rail/asia/china-europe-intermodal-%E2%80%98just-right%E2%80%99-20131220.html> [viewed 4 September 2017]

The Economist (2016a) *Regional Development: Rich Province, Poor Province*, 1 October. <<http://www.economist.com/news/china/21707964-government-struggling-spread-wealth-more-evenly-rich-province-poor-province>> [viewed 4 October 2017]

The Economist (2016b) *Iran’s new trains - Joining the dots*, 2 April. <<https://www.economist.com/news/middle-east-and-africa/21695765-some-treats-ahead-railway-enthusiasts-iranu2019s-new-continent-spanning>> [viewed 4 September 2017]

The Development Foundation of Armenia, Website. <<http://www.dfa.am/>> [viewed 4 September 2017]

TITR, (Trans-Caspian International Transport Route) Website. <<http://titr.kz/en/association-members/partners>> [viewed 4 September 2017]

TRACECA, (Transport Corridor Europe, Caucasus and Asia) Website. <<http://www.traceca-org.org/en/traceca/history-of-traceca/>> [viewed 4 September 2017]

Tsatutyan, S. (2017), “Россия и Иран на грани изоляции: Китай и Турция убивают коридор Север-Юг”, *Regnum*, 23 June. <<https://regnum.ru/news/2291764.html>>. [viewed 4 September 2017]

Turkish State Railways (n.d.) *2035 Yol Haritasi 11. Ulaştırma Denizcilik Ve Haberleşme Şurası'nda Belirlendi*, [news], Turkish State Railways. <http://www.tcdd.gov.tr/haberler/2035%20YOL%20HAR%C4%B0TASI%2011.%20ULA%C5%9ETIRMA%20DEN%C4%B0ZC%C4%B0L%C4%B0K%20ve%20HABERLE%C5%9EME%20%C5%9EURASI%27NDA%20BEL%C4%B0RLEND%C4%B0/737>

UNCTAD (2017), *World Investment Report 2017: Investment and The Digital Economy*, United Nations, Geneva.

UNCTAD (2010), *World Investment Report 2010: Investing in a Low-carbon Economy*, United Nations, Geneva.

UNDP (n.d.) *Integrated Border Management at Bagratashen-Sadakhlo*, United Nations Development Programme Website. <http://www.ge.undp.org/content/georgia/en/home/operations/projects/democratic_governance/integrated-border-management-bagratashen-sadakhlo.html> [viewed 15 October 2017]

U.S. Energy Information Administration (2017) *Country Analysis Brief: Turkey*, U.S. Energy Information Administration. February 2, 2017, p.2.

<https://www.eia.gov/beta/international/analysis_includes/countries_long/Turkey/turkey.pdf> [viewed 20 September, 2017]

Uysal, O. (2017) “When Turkey’s transit projects be commissioned?”, *Rail Turkey*, 12 May. <<https://railturkey.org/2017/05/12/when-turkeys-transit-projects-be-commissioned/#more-7036>> [viewed 24 June, 2017]

Valiyev, A. (2017) “China Targets Azerbaijan for Transportation Projects”, [articles news], *Caspian Policy Center*, 22 March. <http://www.caspianpolicy.org/news/china-targets-azerbaijan-for-transportation-projects/> [viewed 15 October 2017]

Valiyev, A. (2016) “Azerbaijan: Perspectives on Eurasian integration”, *European Council on Foreign Relations (ECFR)*, 8 June. <http://www.ecfr.eu/article/essay_eurasian_integration_azerbaijan> [viewed 4 September 2017]

Van Dijk, M. P., and Martens, P. (2016) *The Silk Road and Chinese interests in Central Asia and the Caucasus: the case of Georgia*. Maastricht School of Management, Working Paper No. 2016/12. <<https://www.msm.nl/resources/uploads/2016/09/MSM-WP2016-12-1.pdf>> [viewed 15 October 2017]

Vien, T. (2015) “The Grand Design of China’s New Trade Routes”, *Stratfor*, 24 June. <<https://worldview.stratfor.com/article/grand-design-chinas-new-trade-routes>> [viewed 4 September 2017]

Wastnidge, E. (2017) “Central Asia in the Iranian geopolitical imagination”, *Cambridge Journal of Eurasian Studies*, 1, article no. 1YRJ04. <<http://oro.open.ac.uk/49201/1/Central%20Asia%20in%20the%20Iranian%20geopolitical%20imagination.pdf>> [viewed 4 October 2017]

Wheeler, T. (2013), *Turkey’s role and interests in Central Asia*, Saferworld, Briefing, October 2013.

Wiemer, C. (2009), *Economic Corridors for the Greater Mekong Subregion*. EAI Background Brief No. 479. East Asian Institute, National University of Singapore. <http://www.eai.nus.edu.sg/publications/files/BB479.pdf>> [viewed 4 October 2017]

Winterbottom, V. (2012) “The Silk Railroad”, *China Today*, Vol. 61 Issue 3, 21 March, pp.40-42. <http://www.chinatoday.com.cn/ctenglish/se/txt/2012-03/21/content_441363_2.htm> [viewed 4 October 2017]

World Bank (2017) *Armenia: Systematic Country Diagnostic, Key Findings*, [Power Point Presentation], World Bank Group. <http://pubdocs.worldbank.org/en/528851497370212043/Armenia-SCD-External-170613-with-full-pics-Nistha-update.pdf> [viewed 24 October 2017]

World Bank (2016) *Country Programme Snapshot*, World Bank-Armenia Partnership, April 2016. <http://pubdocs.worldbank.org/en/291641460382841836/Armenia-Snapshot-April-2016.pdf> [viewed 24 October 2017]

World Economic Forum (2016) *The Human Capital Report 2016*, World Economic Forum. <http://www3.weforum.org/docs/HCR2016_Main_Report.pdf> [viewed 4 October 2017]

Xinhuanet (2017a) *Cargo train services launched between Yinchuan, Tehran*, 6 September. <http://www.chinadaily.com.cn/business/2017-09/06/content_31626069.htm> [viewed 4 October 2017]

Xinhuanet (2017b) *China Focus: Arctic sea route strengthens Sino-Europe trade bonds*, 31 August. <http://news.xinhuanet.com/english/2017-08/31/c_136571955.htm> [viewed 4 October 2017]

Xinhuanet (2017c) *China's high-speed railway: the best "souvenir" foreigners wish to bring home*, 2 August. <http://news.xinhuanet.com/english/2017-08/02/c_136487552.htm> [viewed 4 October 2017]

Xinhuanet (2016a) *China's Huawei unveils 4G mobile services in Azerbaijan*, 27 October. http://news.xinhuanet.com/english/2016-10/27/c_135783169.htm [viewed 4 October 2017]

Xinhuanet (2016b) *First train from China to Iran stimulates Silk Road revival*, 15 February. <http://news.xinhuanet.com/english/2016-02/16/c_135101037.htm> [viewed 4 October 2017]

Xinhuanet (2016c) *Feature: Ukraine-China cargo train on Silk Road opens up prospects for trade promotion*, 1 February. <http://news.xinhuanet.com/english/2016-02/01/c_135062009.htm> [viewed 4 October 2017]

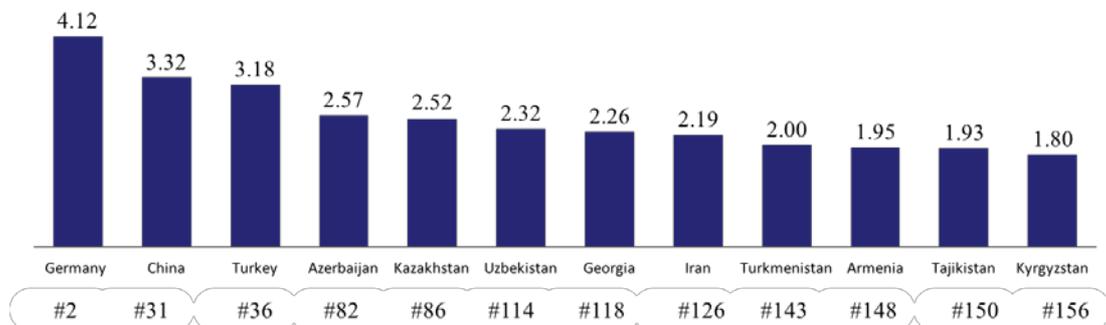
Yan, D. (2017) *China's Strategy in the Caucasus*. Foreign Policy Research Institute, 3 April. <https://www.fpri.org/article/2017/04/chinas-strategy-caucasus/> [viewed 4 October 2017]

Yanpeng, Z. (2015), "New rail route proposed from Urumqi to Iran", *China Daily*, 21 November, http://www.chinadaily.com.cn/china/2015-11/21/content_22506412.htm [viewed 4 October 2017]

ANNEXES

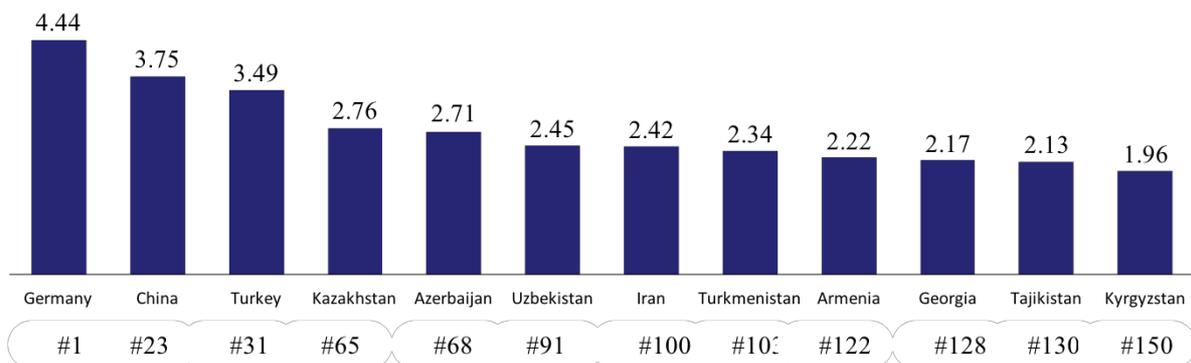
Annex 1 Logistic Performance Index, sub-indicators, scores and ranks by countries (World Bank LPI, TEPAV visualizations)

Customs sub indicator, 2016



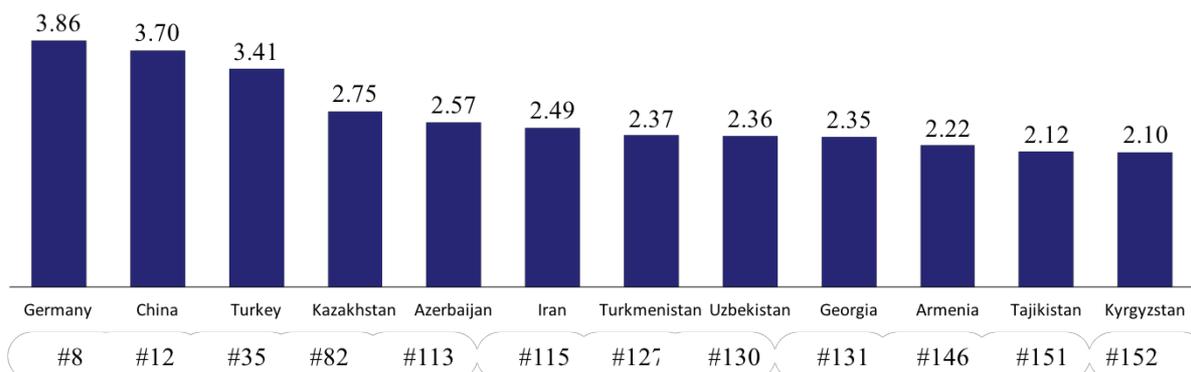
Note: Data for Iran refer to 2012 and data for Azerbaijan refer to 2014 instead of 2016. These were the most recent data available for these countries.

Infrastructure sub indicator, 2016



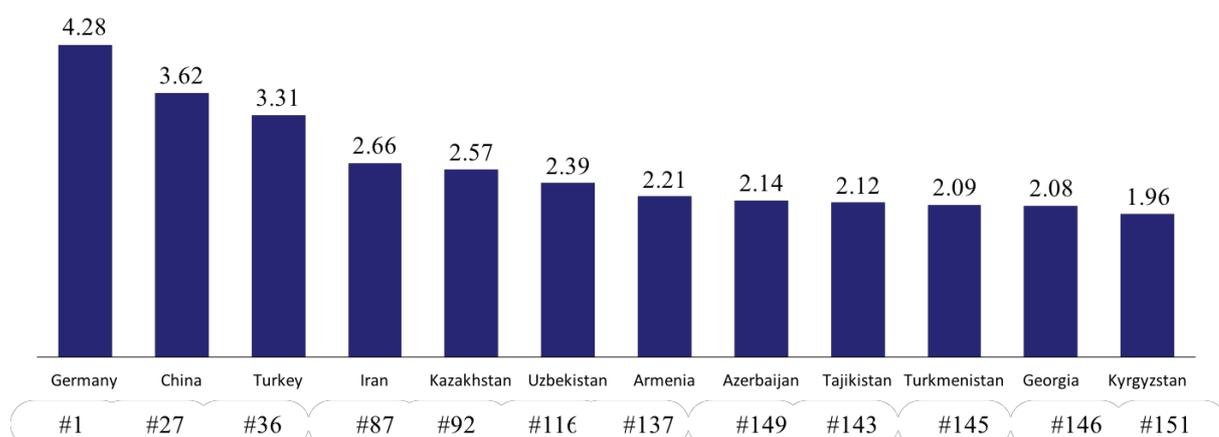
Note: Data for Iran refer to 2012 and data for Azerbaijan refer to 2014 instead of 2016. These were the most recent data available for these countries.

International shipments sub indicator, 2016



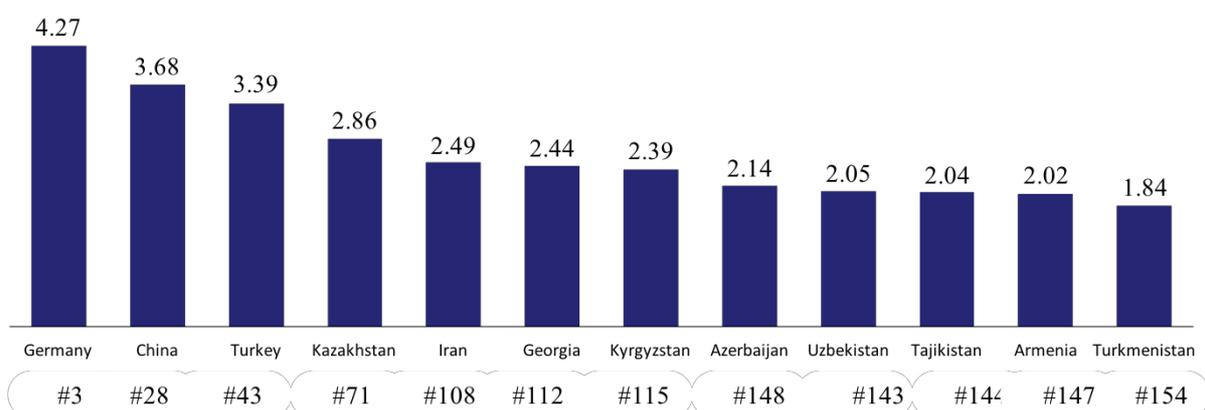
Note: Data for Iran refer to 2012 and data for Azerbaijan refer to 2014 instead of 2016. These were the most recent data available for these countries.

Logistics quality and competence sub indicator, 2016



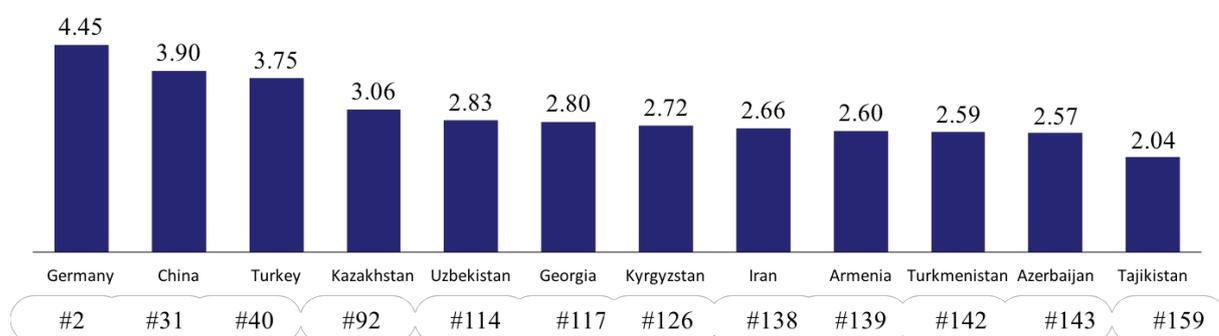
Note: Data for Iran refer to 2012 and data for Azerbaijan refer to 2014 instead of 2016. These were the most recent data available for these countries.

Tracking and tracing sub indicator, 2016



Note: Data for Iran refer to 2012 and data for Azerbaijan refer to 2014 instead of 2016. These were the most recent data available for these countries.

Timeliness sub indicator, 2016



Note: Data for Iran refer to 2012 and data for Azerbaijan refer to 2014 instead of 2016. These were the most recent data available for these countries.

Annex 2 Top trade partners for Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, 2015 (UN Comtrade, BACI, TEPAV calculations)

Top 5 export destinations, total trade, 2015					Top 5 import partners, total trade, 2015				
Country	Rank	Export destination	Export volume, million \$	Share of total export, %	Country	Rank	Import partner	Import volume, million \$	Share of total import, %
Kazakhstan	1	EU-28	20365	50	Kazakhstan	1	Russia	10503	33
	2	China	5526	14		2	EU-28	7647	24
	3	Russia	4657	11		3	China	5606	18
	4	Turkey	1603	4		4	USA	1372	4
	5	Ukraine	1175	3		5	Turkey	756	2
Kyrgyzstan	1	Switzerland	441	34	Kyrgyzstan	1	China	1673	36
	2	Kazakhstan	205	16		2	Russia	1274	27
	3	UAE	98	8		3	Kazakhstan	536	11
	4	Turkey	96	7		4	EU-28	355	8
	5	Uzbekistan	95	7		5	Turkey	216	5
Tajikistan	1	Turkey	198	23	Tajikistan	1	China	1797	51
	2	Kazakhstan	156	18		2	Russia	759	21
	3	Switzerland	141	17		3	Kazakhstan	418	12
	4	EU-28	63	7		4	EU-28	173	5
	5	Algeria	55	6		5	Turkey	163	5
Turkmenistan	1	China	7000	78	Turkmenistan	1	Turkey	1850	33
	2	Afghanistan	550	6		2	EU-28	1116	20
	3	Turkey	542	6		3	Russia	844	15
	4	EU-28	436	5		4	China	814	15
	5	Georgia	112	1		5	Rep. of Korea	182	3
Uzbekistan	1	Switzerland	1884	32	Uzbekistan	1	China	2236	22
	2	China	1212	21		2	Russia	2221	22
	3	Turkey	704	12		3	EU-28	1635	16
	4	Kazakhstan	691	12		4	Rep. of Korea	1284	13
	5	Russia	570	10		5	Kazakhstan	941	9

Annex 3 Top trade partners in mineral fuels for Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, 2015 (UN Comtrade, BACI, TEPAV calculations)

Top 5 export destinations, mineral fuels trade, 2015					Top 5 import partners, mineral fuels trade, 2015				
Country	Rank	Export destination	Export volume, million \$	Share of total export, %	Country	Rank	Import partner	Import volume, million \$	Share of total import, %
Kazakhstan	1	EU-28	17118	70	Kazakhstan	1	Russia	1276	70
	2	China	2140	9		2	Uzbekistan	234	13
	3	Russia	1141	5		3	China	111	6
	4	Ukraine	1037	4		4	EU-28	77	4
	5	Turkey	557	2		5	Turkmenistan	49	3
Kyrgyzstan	1	Russia	22	28	Kyrgyzstan	1	Russia	632	78
	2	Turkey	19	25		2	Kazakhstan	156	19
	3	Afghanistan	10	13		3	EU-28	11	1
	4	Tajikistan	9	11		4	Uzbekistan	4	0
	5	China	6	8		5	Tajikistan	3	0
Tajikistan	1	Afghanistan	4	55	Tajikistan	1	Russia	322	76
	2	Kyrgyzstan	3	45		2	Kazakhstan	84	20
	3	Kazakhstan	0	0		3	Kyrgyzstan	9	2
	4	China	0	0		4	Turkey	2	1
Turkmenistan	1	China	6899	85		Turkmenistan	5	EU-28	2
	2	Afghanistan	509	6	1		Turkey	14	39
	3	EU-28	385	5	2		EU-28	13	36
	4	Georgia	110	1	3		Russia	5	14
	5	Turkey	61	1	4		Belarus	1	2
Uzbekistan	1	China	334	55	Uzbekistan	5	Rep. of Korea	1	2
	2	Kazakhstan	234	39		1	Russia	453	74
	3	Afghanistan	19	3		2	Kazakhstan	60	10
	4	EU-28	8	1		3	Azerbaijan	56	9
	5	Turkey	5	1		4	EU-28	21	3
					5	Turkey	8	1	

Annex 4. Position of Iran in trade relations of Armenia, Turkey, Kazakhstan, Georgia, Azerbaijan, Kyrgyzstan, 2015 (UN Comtrade, BACI, TEPAV calculations)

Position of Iran as an export destination, 2015				Position of Iran as an import partner, 2015			
Country	Rank	Export volume, million \$	Share in total export, %	Country	Rank	Import volume, million \$	Share in total import, %
Armenia	7	78	4.7	Armenia	4	186	5.7
Turkey	7	3622	2.4	Georgia	12	92	1.2
Kazakhstan	10	566	1.4	Azerbaijan	17	86	0.8
Georgia	14	36	1.3	Turkey	21	1295	0.7
Azerbaijan	17	139	0.8	Kazakhstan	24	67	0.2
Kyrgyzstan	19	4	0.3	Kyrgyzstan	25	4	0.1

Note: BACI does not provide data for Iran's trade with Turkmenistan, Tajikistan and Uzbekistan since 2011.

Annex 5 FDI inflow volume by countries, cumulative 2003-2014, million USD, share (%) (FDI Markets, TEPAV Calculations)

Georgia			Azerbaijan			Kazakhstan			Armenia		
	Million \$	Share		Million \$	Share		Million \$	Share		Million \$	Share
Germany	1.680	12%	UK	15.221	50%	Russia	11.017	21%	Russia	1.636	32%
Egypt	1.450	11%	Russia	2.855	9%	Bahrain	10.000	19%	Germany	807	16%
Russia	1.303	9%	Turkey	2.123	7%	UK	6.963	13%	United Sta	772	15%
Azerbaijan	1.215	9%	France	1.571	5%	United Sta	5.774	11%	France	422	8%
UAE	1.086	8%	United Sta	1.467	5%	China	3.421	6%	UK	260	5%
Czech Republic	1.042	8%	Switzerland	960	3%	France	1.943	4%	India	227	4%
India	927	7%	South Kor	917	3%	Italy	1.473	3%	South Kor	218	4%
United States	853	6%	China	843	3%	Germany	1.324	2%	Netherlan	132	3%
Turkey	687	5%	Poland	831	3%	South Kor	1.204	2%	Canada	130	3%
Ukraine	510	4%	UAE	655	2%	Luxembou	1.198	2%	Kazakhsta	104	2%
UK	466	3%	Netherlan	516	2%	UAE	1.006	2%	Taiwan	71	1%
Singapore	333	2%	Germany	335	1%	Japan	902	2%	Georgia	70	1%
Belgium	253	2%	Singapore	325	1%	Turkey	872	2%	Latvia	70	1%
Austria	240	2%	Sweden	321	1%	Cyprus	642	1%	Cyprus	70	1%
Cyprus	221	2%	Belgium	255	1%	Belgium	586	1%	Lebanon	40	1%
Switzerland	183	1%	Denmark	190	1%	Netherlan	477	1%	Philippine	35	1%
Kazakhstan	178	1%	Ukraine	171	1%	Czech Rep	367	1%	Singapore	28	1%
Denmark	140	1%	Qatar	140	0%	Singapore	353	1%	Italy	17	0%
Sweden	110	1%	Kazakhsta	140	0%	Switzerland	352	1%	Czech Rep	10	0%
Portugal	108	1%	Armenia	139	0%	Austria	304	1%	Greece	9	0%
Netherlands	101	1%	Philippine	70	0%	Poland	299	1%	Sweden	9	0%
France	91	1%	Latvia	70	0%	Iran	285	1%	Switzerla	8	0%
Poland	86	1%	Czech Rep	53	0%	Sweden	266	0%	Ireland	7	0%
Qatar	70	1%	Italy	52	0%	Finland	260	0%	Ukraine	6	0%
Latvia	70	1%	Pakistan	47	0%	Romania	253	0%	Japan	6	0%
South Africa	53	0%	Luxembou	38	0%	Canada	209	0%	Norway	4	0%
Hungary	48	0%	Georgia	35	0%	Ukraine	189	0%	China	3	0%
South Korea	46	0%	Saudi Ara	35	0%	Thailand	180	0%	Total	5.165	100%
China	45	0%	Canada	33	0%	Lithuania	150	0%			
Luxembourg	38	0%	Belarus	23	0%	Greece	125	0%			
Philippines	35	0%	Japan	17	0%	India	106	0%			
Slovakia	23	0%	Israel	14	0%	Latvia	104	0%			
Japan	10	0%	Finland	14	0%	Denmark	88	0%			
Lithuania	6	0%	Greece	10	0%	Belarus	83	0%			
Italy	6	0%	Bulgaria	9	0%	Indonesia	82	0%			
Malta	5	0%	Austria	7	0%	Taiwan	68	0%			
Canada	4	0%	Vietnam	7	0%	Spain	60	0%			
Armenia	2	0%	Malaysia	7	0%	Malaysia	57	0%			
Hong Kong	1	0%	Lithuania	6	0%	Azerbaijan	56	0%			
Total	13.722	100%	Norway	5	0%	Kuwait	35	0%			
			Cyprus	3	0%	Saudi Ara	35	0%			
			Australia	1	0%	Pakistan	35	0%			
			Total	30.526	100%	Philippine	35	0%			
						South Afr	34	0%			
						Norway	22	0%			
						Australia	11	0%			
						Georgia	10	0%			
						Portugal	10	0%			
						Jordan	5	0%			
						Hong Kon	2	0%			
						Brazil	1	0%			
						Slovenia	1	0%			
						Total	53.332	100%			