Visiting Fellow Program

An overview of Central Asian trade growth and economic integration

JANUARY 2024

MUBINZHON ABDUVALIEV

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An Overview of Central Asian Trade Growth and Economic Integration

by Dr. Mubinzhon Abduvaliev

Project Supervisor: Dr. Hans Holzhacker

January 2024

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Scholars were encouraged to conduct research on CAREC integration topics and carry out comparative analyses between (sub)regions to obtain insights for promoting and deepening regional integration among CAREC member countries particularly, as anticipated in the CAREC 2030 strategy and stated operational priorities.

The paper is written by Dr. Mubinzhon Abduvaliev. Dr. Hans Holzhacker, Chief Economist and Head of the Research Division of the CAREC Institute, advised on this research, and Ms. Emma Tong, Research Specialist of the CAREC Institute, provided grant administration support and coordination throughout the process. The CAREC Institute's Publication Board reviewed the paper and provided comments for its further improvement. The research is funded through the technical and financial assistance from the Asian Development Bank (ADB) under TA-6694 REG: Supporting the Central Asia Regional Economic Cooperation Institute - International Expert (CAREC Institute Visiting Fellow - Batch 3).

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Central Asia Regional Economic Cooperation (CAREC) Institute
21st Floor, Commercial Building Block 8, Vanke Metropolitan,
No. 66 Longteng Road, Shuimogou District, Urumqi, Xinjiang, the PRC, 830028
f: +86-991-8891151
LinkedIn: carec-institute
km@carecinstitute.org
www.carecinstitute.org

Abstract

After the disintegration of the Soviet Union, many Central Asian Republics (CARs) have adopted multivector foreign economic policies to enhance stability and develop their economies through international cooperation. In consequence, multidimensional foreign economic policies became a distinctive characteristic of all CARs.

Although the CARs share many similarities in economics, politics, history, culture, and other aspects, they have chosen to strengthen their inter-regional cooperation rather than their intraregional integration. To assess the prospects of inter- and intra-CARs trade relations, we used panel data to examine the extent to which trade growth in the CARs is related to the performance of their major external partners, including China, the European Union (EU), and Russia over the period 2005-2022.

The coefficient of GDP for CARs takes a significant positive elasticity value of about 0.005 percent to 0.05 percent, indicating that if GDP rises by 1 percent, the amount of exports will go from 0.005 percent to 0.05 percent, respectively. The GDP of China, Russia, and the EU also takes a significant positive elasticity value of about 0.007 percent to 0.09 percent, respectively; this suggests that exports will increase by 0.007 percent to 0.09 percent if their economic size increases by 1 percent.

Keywords: Central Asian Republics, Russia, China, European Union, gravity, trade growth

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1. Introduction

The world is currently undergoing significant change. International relations were significantly impacted by the growth of regional trading blocs since the end of World War II; virtually every country belongs to at least one of them now.

An outstanding degree of heterogeneity existed among the newly independent Central Asian Republics (CARs)[1] following the breakup of the Soviet Union—a heterogeneity that was probably hidden beneath the centralized Soviet hierarchy. However, the creation of new political and economic institutions, together with diverse economic reforms and performance has unveiled deep differences among CARs over the last three decades.

A severe structural shock and deep economic and political crisis occurred in all post-Soviet states after the dissolution of the Soviet Union, whereas the accession of the three Baltic states to the European Union (EU) improved their living conditions substantially. While the other 12 post-Soviet states—particularly the five CARs—are still adjusting their economies and policies on their own, because of the economic and political instability throughout the region. Many of the 12 states, particularly the five Central Asian landlocked countries, suffered substantial hardship.

Perestroika (restructuring of the political and economic systems) in the Soviet Union was on the verge of collapse when the idea of an integrated Central Asian region was born. Throughout the Soviet statehood crisis, there was a strong sense that many challenges were multiplied and needed to be overcome. As a result of the Soviet Union's central loss of ideological, political, and economic influence, for the first time in their Soviet history the CARs needed to act as a unique economic block.

In the current economic system, where global economic dynamics are dominant, regional economic integrations serve to achieve the common goals of countries with similar performances. Having rejected the Soviet Union's control over the economy, the economically and politically independent nations (such as CARs) that emerged were forced to converge with the market economy to integrate into the global economy. There has been a growing interest in regional economic integration in the Central Asian region; regional economic integration has been one of the methods used by these countries to achieve economic cooperation within a relatively short period of time. There is no doubt that the conditions necessary for Central Asian integration exist: geographic proximity, mutual economic complementarity, cultural and linguistic proximity, common traditions, shared historical past, and a common vision for the future. Hence, CARs should be viewed through a regional lens to assess their development challenges. By taking this approach, cross-border cooperation can be facilitated, and knowledge shared, as well as dialog and collaboration between the countries being strengthened.

The Central Asian region is a landlocked region located in the heart of Eurasia with a relatively small economy. Developing their economies sustainably requires trade promotion and close integration into the international trading system. Trade policy cooperation at regional level can help them achieve this objective (ADB, 2006). Specifically, reciprocal trade liberalization under regional trade agreements can help CARs liberalize trade policy at relatively low costs. This will reduce the risks of protectionist measures by trading partners at the same time as creating new trade. Depending on the design of the regional trade agreements and the context in which they are implemented, they can also distort existing trade and adversely affect social welfare in the CARs. Furthermore, full

[1] Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, Uzbekistan

integration into the international trade system, as well as sustainable development, are essential for the CARs to overcome the disadvantages and exploit the advantages of their location.

However, CARs are highly dependent on exports of a few primary commodities and share a similar structure of production, making them more susceptible to sudden swings in global commodity prices. Owing to their limited involvement in global production networks and related trade in manufactured products, the CARs receive relatively little benefit from trade in terms of attracting FDI, access to advanced technologies, and fostering sustained economic development. Trade in the CARs is concentrated in a few countries, which makes them vulnerable to changes in import demand. Owing to a lack of complementarities in industries and capacities, infrastructural limitations, the low level of institutional qualities and lack of trade facilitation measures within the Central Asian region, there is limited regional economic cooperation.[2] As a result, CARs are more likely to export their resources to external markets than to trade with one another. There have been numerous efforts undertaken in recent years to address these challenges and promote intraregional trade in Central Asia. Several regional organizations have been established to promote economic cooperation between member countries. These include the Central Asia Regional Economic Cooperation (CAREC),[3] the Eurasian Economic Union (EAEU), the Commonwealth of Independent States (CIS), and the Shanghai Cooperation Organization (SCO). These organizations provide a platform for dialog, negotiation, and coordination on trade-related issues, although progress within these organizations has been slow—with the EAEU, for example (among the five CARs, only two are members of the EAEU)—and there are still significant obstacles to overcome. Furthermore, owing to economic challenges, political instability, lack of effective institutions, diverse interests and priorities among member states, and limited scope of cooperation, CIS effectiveness has been limited. However, CAREC plays a vital role in promoting intraregional trade between CARs.

Furthermore, a number of CARs have embraced a multilateralist policy by becoming members of the World Trade Organization (WTO). The Kyrgyz Republic, Tajikistan, and Kazakhstan have joined the WTO, while the other CARs are in varying stages of accession. Joining the WTO would allow the CARs to expand their trade rapidly and liberalize their trade policy at relatively low costs by gaining better market access to many countries that are already members of the WTO, including their main external partners—China, Russia, and the EU. Although some of the CARs are members of the WTO, the effect of the WTO on Central Asian intraregional cooperation remains relatively less significant.

The limited regional integration of Central Asian sectors and industries into global value chains makes it difficult for them to work well together to integrate into global value chains as well as they might. By integrating economically with non-regional states, the Central Asian region would be able to increase trade and create new opportunities for development (ADB, 2023).

Despite the challenges mentioned earlier, Central Asian policymakers should prioritize increased regional cooperation. The CARs would therefore be able to expand their trade, especially with distant countries; become more involved in global production trade networks and the geography of trade; and become a land bridge for rapidly expanding trade between East and South Asia and Europe. Central Asia has an unprecedented opportunity to emerge as a trade and commerce hub owing to

[2] The RTAs involving the CARs generally have a narrow coverage and complex rules of origin and most of them have remained agreements on paper only (ADB, 2006 p12).
[3] CAREC is a partnership of 11 countries (Afghanistan, Azerbaijan, China, Georgia, Kazakhstan, the Kyrgyz Republic, Mongolia, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan) and development partners that promotes regional economic cooperation and integration.

the rapid economic expansion of China, Russia, and other nearby countries.[4] Furthermore, CARs may be able to benefit from preferential trade agreements, reduced trade barriers, and improved market access within the region if they participate in regional integration efforts. It can result in a reduction of reliance on a few traditional markets and a diversification of export destinations.

Relevance and statement of problem. The importance of CARs can be attributed to several factors, particularly in terms of economy. Firstly, they are strategically located at the crossroads between Europe, Asia, and the Middle East, which makes them crucial in Central Asia's role in promoting economic integration, political cooperation, and cultural exchange within the Eurasian region owing to their role as transit hubs and resource-rich economies.

Second, this region was a stop along the ancient Silk Road, a trade route connecting East and West in ancient times. The increased engagement of CARs with global powers has also contributed to their geopolitical importance in recent years. As part of China's Belt and Road Initiative (BRI), infrastructure projects will pass through Central Asia to enhance connectivity between Asia and Europe. Transport networks and energy infrastructure in the region have been significantly upgraded as a result of this initiative.

Despite this, post-Soviet literature has focused primarily on the experiences of Central and Eastern European countries and the Russian Federation; however, less attention has been paid to CARs (Rummer, 2000; Ramfret, 2003; Hausmann et al, 2005; UNDP, 2005; Mazhikeyev et al, 2015). It has been acknowledged that the transition from plan to market success and foreign trade performance is strongly correlated (Winters, 1996; Mazhikeyev et al, 2015). Furthermore, the literature on trade performance has not adequately addressed the performance and development of Central Asia in light of the recent globalization process.

While the governments of Central Asia have been concerned with Central Asia's regional integration since the early years of independence primarily owing to the countries' historical economic and political backwardness, the relevance of the potential effects of regional integration on CARs has become an increasingly significant issue.

Despite numerous attempts, however, regional integration has not been successful in the region owing to a number of factors, including a lack of political will, geopolitical tensions, economic diversion, infrastructure challenges, different economic and political systems, and a lack of regional identity, among others. This has made trade and investment in the region particularly challenging. Economies in Central Asia heavily depend on a few primary commodities, such as oil, gas, and minerals, which limits their ability to diversify their exports. Consequently, countries are vulnerable to fluctuations in commodity prices and external shocks owing to their overdependence on a narrow range of products. The limited economic development and infrastructure of certain CARs make them less attractive for foreign investment and business opportunities than more developed regions. The development of value-added industries and intraregional trade are hindered by a lack of diversification where these combination factors cause CARs to adopt multivector foreign economic policies.

Following the dissolution of the Soviet Union, a number of CARs adopted multivector economic policies, which was an appropriate decision in light of the globalization process. The concept of a

[4] Kazakhstan is one of the regions that has made significant efforts to upgrade its transportation infrastructure at a rapid pace. Western Europe - Western China (WE-WC) International Transit Corridor Project (part of the CAREC) has been undertaken as part of the country's ambitious road development program.

multivector approach refers to the diversification of economic and political relationships with multiple parties rather than heavily relying on one country or region. A multivector approach is required by CARs to improve their economic situation for a variety of reasons. These countries can benefit from this strategy by mitigating risks, improving economic stability, and promoting sustainable development.

In addition, attracting foreign direct investment (FDI) is easier with a multivector approach. CARs will be able to expand their consumer markets and take advantage of more trade opportunities as a result of expanding their network of economic partners. This can lead to higher export volumes, greater competitiveness, and improved economic growth.

Owing to their geographic location, Central Asian landlocked countries face unique economic challenges. Their main problem is that they do not have access to ports or coastlines, which can limit their trade and economic potential. In order to combat this problem, Central Asian landlocked countries have implemented multivector economic policies, in which multiple sectors of their economy are developed, such as agriculture, industry, and services. This will help diversify their revenue streams and reduce their dependence on a single sector of the economy.

Research objectives. As a main focus of our research, we intend to empirically evaluate the trade relations of CARs with their main external partners. In achieving this main goal, we set several specific objectives.

Specifically, the first objective is addressed by reviewing the literature on economic integration, with a focus on the effects of trade openness, geographic disadvantage, distance, and inflows of FDI.

The second specific objective is to attempt to determine the factors associated with the regional integration among the Central Asian region, thereby attempting to explain why intraregional trade shares, as well as investment inflow and outflows among CARs, are low, despite their steady potential extraregional growth in trade and investment inflow. Furthermore, the research aims to understand why the five CARs have been puzzled by the regional agreement in their region for so long.

Thirdly, we examine the empirical identification through the gravity model, with the ultimate objective of assessing the trade relations between CARs and their main trading partners—China, Russia, and the European Union (EU).

Economic outcomes are increasingly being examined empirically as a result of regional trade integration. It has been noted appropriately by the WTO (2005) that these exercises in quantification have been made possible by advances in theory and analysis techniques, and by the greatly enhanced computational power and data processing capabilities of computers. Baier and Bergstrand (2007) argue that it has been four decades since the gravity equation emerged as the primary empirical tool for studying the impact of free trade agreements and customs unions upon bilateral merchandise trade flows.

Although gravity models are valuable tools for understanding spatial interactions, they do have some drawbacks that need to be addressed. A gravity model relies on assumptions and simplifications, assumes homogeneity and linearity, has a limited database, and is not capable of capturing time and spatial dynamics adequately (Beyer et al, 2022; Hsu & Mustafavi, 2021). These limitations should be recognized by researchers and other approaches or models should be supplemented in order to gain a more holistic understanding of complex spatial relationships.

The paper proceeds as follows. Section 2 provides a brief survey of the literature, and section 3 discusses the trade and major trading partners of each CAR. Section 4 discusses the methodology as well as the econometric and economic properties of the tools. A summary of the findings and results is provided in section 5. In the concluding section, the potential implications for development are discussed. The paper is summarized with the policy recommendations.

2. Literature review

A discussion of the benefits of trade is one of the earliest and most fascinating topics in economics. No country has been able to achieve economic success in recent decades, in terms of a substantial rise in living standards for its citizens, without being open to the rest of the world and their diverse trade external trajectory (IMF, 2001). Liberalization of trade and openness not only promotes exports and imports of a country, but also stimulates the economic activities of the private sector, attracts foreign investment, creates jobs, and increases foreign earnings (WTO, 2008). By reducing trade barriers, CARs increase the gains from international trade as well as reducing associated costs (ADB, 2006). Foreign trade can have detrimental effects on certain segments of society if appropriate policies and measures are not taken to address the challenges posed by import competition. There can be disproportionate effects on certain groups within society as a result of worker displacement, downward pressure on wages, and social consequences. In order to mitigate these negative effects of foreign trade and make sure that the benefits are distributed more evenly, effective policies focusing on requalification and social protection can be implemented.

An economy grows as it produces and consumes more goods and services, while trade is the exchange of goods and services between countries. There are various theoretical frameworks, historical evidence, and empirical studies that can be used to analyze the relationship between trade and economic growth; most of them have demonstrated that trade and economic growth have a positive relationship. Theoretically, trade is considered beneficial for economic growth because it enables countries to specialize in producing goods and services in which they have a comparative advantage. As well as promoting competition, trade facilitates innovation and technological progress by opening up larger markets beyond national borders and facilitating access to a broader range of products.

Even though there is a vast literature that international trade performance is strongly correlated with the success of openness (Romer, 1990; Coe & Helpman, 1995; Jozefína Semančíková, 2016; Mazhikeyev et al, 2015; Elbourgh-Woytek K, 2003; Dollar & Kraay, 2002; Rodriguez & Rodrik, 2001), regional integration and economic growth (Sala-i-Martin, 2007; Badinger, 2005; Bhagwati & Srinivasan, 2002; Baldwin & Venables, 1995; Balassa & Stoutjesdijk, 1975), free trade agreements and economic growth (Rodrik, 2018; Baier & Bergstrand, 2007; Dan Ben-David & Loewy, 1998), development of the economy through exports (Balassa, 1978; Krueger, 1978; Kavoussi, 1984; Renelt & Levine, 1992), geographic diversity (Sarpong & Teirlinck, 2018; Belderbos et al, 2006) and geographic disadvantage and distance (Raballand et al, 2005; Raballand G, 2003; Carrère & Grigoriou, 2007; Berthelon & Freund, 2008), while empirical determinants and performance of CARs' extraregional trade and CARs regional economic integration received relatively less attention.

Growth may be affected both positively and negatively by economic integration, depending on whether it is viewed from a theoretical perspective. Free trade and regional economic integration are still highly debated issues among experts regarding whether a country should adopt it with its neighbors.

Among the leading theoretical free traders of modern times, Jagdish Bhagwati (2004) argues that nondiscriminatory multilateral trade liberalization opens up the economy most effectively. It is also

desirable to pursue unilateral policies of opening up the economy if no multilateral agreements exist. Sala-i-Martin (2007) assert that there is a greater consensus regarding the merits of multilateral and unilateral trade agreements than there is regarding regional trade agreements (RATs), while Bhagwati (2004) points out that RTAs may not only be unbeneficial but may even be detrimental.[5] Trade has been diverted by RTAs, but it appears that greater trade has been created than has been diverted (World Bank, 2005). It appears that the trade diversion argument is particularly compelling for RTAs between rich countries (like the European Union) and poor countries (like Mercosur). Venables (2001) asserts that a trade agreement involving rich and poor (or north and south) nations tends to create new trade opportunities. He also argues that RTAs between developed countries do not appear to stimulate growth, but that RTAs between a developed country and a developing country do, especially since they stimulate growth. Institutional reforms are often induced by RTAs, which make them more credible to investors and provide the poor partner with the opportunity to benefit from the knowledge spillovers and policy credibility of the rich. An increase in inter-regional trade improves access to technology advancements and an increase in institutional credibility is usually associated with RTAs. According to Estevadeordal et al (2004), a reduction in tariffs among potential participants in a free trade area of the Americas (FTAA) would significantly increase trade. Furthermore, it is found that 'the tariff-reducing effect of trade in the Americas is greater than in the sample as a whole.' Torstensson (1999) asserts that investment and knowledge transfers are key channels linking economic integration and growth among OECD countries. While, based on a panel of 23 countries belonging to the OECD, Vanhoudt (1999) finds that EC members have neither positive nor negative growth effects compared with non-member OECD members.

Using the case of EU member states over the period 1950-2000, Badinger (2005) finds that if no integration had taken place since 1950, today's GDP per capita would be approximately one-fifth lower. In a study of economic integration and economic growth, Kamau (2010) finds a positive relationship between economic integration and economic growth for the Common Market for Eastern and Southern Africa, the East African Community, and Southern African Development Community regional cooperation. Similarly, based on data spanning the period 1988-2017, Ejones et al. (2021) found that RTAs and trade openness are significant factors contributing to economic growth in the East African Community. They conclude that the impact of RTAs in the same region is greater than the impact of multilateral agreements on economic growth.

Using a cross-country growth model based on a generalized method of moments with a dynamic panel framework, Bong and Premaratne (2018) examined the impact of regional integration on economic growth over a 43-year period (1970-2013) in Southeast Asia. Their study suggests that regional integration influences economic growth in a significant manner.

Concerning CARs, however, research and policymakers have long been puzzled by the five CARs regarding regional cooperation. Historically, Central Asian nations have focused more on their own national interests than on regional cooperation. Their establishment of independent economies and political systems after independence from the Soviet Union in 1991 was challenging. It is often the case that efforts towards regional trade integration are overshadowed by this initial focus on nation-building. Despite this, a number of fundamental political and economic changes have taken place in Central Asia since the collapse of the Soviet Union. The first discussion of regional integration and free trade among Central Asian leaders took place the year after independence in 1992 (Bobokulov,

[5] Aside from the arguments against RTAs related to multilateral agreements, Bhagwati argues that there are additional arguments against RTAs related to RTAs involving multilateral agreements, including the 'stumbling block' argument that suggests that countries already involved in an RTA have fewer incentives to enter into multilateral agreements.

2006). In many ways, the transition has adversely affected these countries much more than the challenges of the former Soviet Union's European successor states and the transition from a centrally planned economy to a market economy in CARs (Dieter, 2007). There are signs of stabilization in the Baltic States and the Russian Federation; however, this is not yet the case in the CARs.

Each CAR experienced a steep economic decline as a result of this painful process. They took radical action by their governments, resulting in a sharp drop in output in many sectors, particularly manufacturing, as a result of the drastic changes they introduced (World Bank, 2002). Despite serious economic difficulties in the initial period and a number of other unifying factors, CARs have never established their own regional economic groupings or joined other serious economic integration in their entirety.[6] There is broad agreement among economists that regional economic integration and cooperation have significant benefits for Central Asia. There are, however, a number of obstacles that still need to be overcome in the spheres of politics and governance before these gains can be realized (Linn, 2012; De Tray, 2011). Among newly formed CARs, there is a strong sense of sovereignty, while some compete for water and energy (Tajikistan and Uzbekistan), supremacy in regional leadership (Kazakhstan and Uzbekistan), or prefer strict neutrality (Turkmenistan) (Linn, 2012; Olcott, 2011).

With time, gradually, CARs participate in wider regional organizations like the Eurasian Economic Union (EAEU), the Commonwealth of Independent States (CIS), the Collective Security Treaty Organization (CSTO), and the Shanghai Cooperation Organization (SCO); however, the significant impact of these originations to CAR economy requires an empirical investigation.

The CIS, the first regional intergovernmental organization, was formed as a result of the dissolution of the Soviet Union in 1991. As a result of an amendment to the agreement in 1999, exemptions were allowed to be negotiated bilaterally (Dragneva and Kort, 2007). Despite this, not all member states of the CIS have been able to agree on a list of exclusions. Georgia withdrew because of the Russo-Georgian War of 2008 (BBC News, 2008; New York Times, 2009), while Ukraine withdrew its representatives from the CIS in May 2018 and stopped actively participating in the CIS (UNIAN, 2018).

In 1992, CARs joined the Economic Cooperation Organization Trade Agreement (ECOTA) along with Iran, Pakistan, Afghanistan, and Turkey. However, the member states lack adequate infrastructure and institutions to properly utilize the available resources in the region. Tariff reductions have not yet been achieved in accordance with the original plan (OSCE, 2013). However, ECOTA's weak progress does not necessarily mean that economic cooperation within the ECOTA region has broken down, but rather that alternative approaches or agreements are needed to improve trade and economic integration.

Later in 1994, the Central Asian Cooperation Organization (CACO) was established by Kazakhstan, the Kyrgyz Republic, and Uzbekistan; however, Tajikistan and Turkmenistan did not participate. The CACO was dissolved in 2005 (Kraphol & Vasileva-Dienes, 2020). In light of political frictions and conflicting national and supranational interests, the establishment of a Central Asian common market within the

[6] As a result, our gravity model is not able to incorporate RTA or FTA owing to these issues. Although the gravity model does not explicitly include free trade agreements (FTAs), it indirectly captures their effects through variables like GDP growth and distance. Comparing the CARs to those of other regions, it is evident that they do not engage extensively in FTAs. Various challenges prevent the development of FTAs in Central Asia, limiting their potential impact on trade flows. These include inadequate infrastructure, limited diversification of exports, bureaucratic barriers, and political instability.

CACO framework was considered to be an overly ambitious goal (OSCE, 2013; Tolipov, 2005). However, in 2001, the Central Asian Regional Economic Cooperation (CAREC) was established as a key initiative for promoting economic cooperation and development, with the goal of enhancing regional economic cooperation and development in the region and beyond. As part of the initiative, regional connectivity is being improved, trade facilitation is being developed, energy infrastructure is being developed, and institutional capacity is being strengthened in the Central Asian region. CAREC has played a crucial role in promoting regional economic integration by facilitating dialog and cooperation among its member countries (Javaid & Siraj, 2022). In recent years, the CAREC region has become increasingly important as a transit area for Euro-Asian trade owing to increased trade and business relations. This has resulted in the strengthening of links between the CAREC countries and the rest of the world (Kalyuzhnova & Holzhacker, 2021).

It is notable that international organizations and multilateral development banks began providing substantial support to regional cooperation in Central Asia after the fall of the Soviet Union in 1991 and the Asian Development Bank (ADB) was the first institution to map out regional integration. Economic growth and poverty reduction in Asia are seen as benefits of regional integration by ADB (ADB, 2019). Its approach to regional integration is economic interdependence, based on the belief that there will be fewer barriers to trade and fewer bureaucracies if economic interdependence is realized.

It is also important to mention the Eurasian Economic Union (EAEU), which promotes regional economic integration in Central Asia even though not all CARs are members of this organization. Featuring Armenia, Belarus, Kazakhstan, the Kyrgyz Republic, and Russia, the EAEU was established in 2015. It has created a common market and facilitated trade among its member states. As part of the EAEU, regulations are harmonized, goods and services are moved more easily, and investments are promoted. However, Wang (2014) claims that there is no clear indication as to whether the EAEU have contributed to the integration of this region. According to him, exports from CARs have benefited from integration; however, the EAEU has failed to meet the expectations of its member states since there are various levels of economic development in EAEU member states, defective industrial structures, and inadequate market integration. He concludes that Central Asia has established an initial market-based trade integration network that has achieved excellent results, but that the governments of these countries have yet to fully recognize the benefits and potential of this network. Roberts and Moshes (2016) assert that, despite some early successes, the EAEU is more concerned with reproducing sovereignty than with transforming it, a discord between rhetoric and reality. Even this modest reality faces significant challenges when viewed from the perspective of their institutions, identity, and international context.

However, Kubayeva (2015) argued that, as a member of the EAEU, Kazakhstan has one of the highest levels of global integration in Central Asia. There are several benefits and challenges associated with the Union for the economy. Being a landlocked Central Asian nation, Kazakhstan is reliant on economic integration to facilitate international trade. She also argues that membership of the EAEU will provide Kazakhstani businesses with more favorable conditions in relation to accessing Russian and European transport infrastructure, resulting in a reduction in the cost of foreign trade transportation. Further, Kazakhstan's position on the world market will be strengthened as it is part of an international economic bloc. However, in comparison to Kazakhstan, the Kyrgyz Republic has experienced largely frustrating expereiences joining the EAEU from mid-2015 to late 2017 (Esenaliev & Asylbek, 2017). They argue that an increase in access to EAEU markets and large-scale capital investment is yet to materialize, even though favorable employment conditions have been created

for Kyrgyz labor migrants. EAEU[7] membership could become more attractive to the Kyrgyz Republic in the short term, provided that the organization works as intended. A Kyrgyz government that can navigate the multilateral structure is more likely to be effective as the grouping expands and the Kyrgyz Republic's membership in the EAEU serves as a test case.

Overall, all member countries of the EAEU for CARs is an important factor (Amirbek et al, 2020; Mogilevskii, 2012). Taking a cautious approach to integration around the EAEU, the remaining three CARs (Tajikistan, Uzbekistan, and Turkmenistan) have done so largely on their own accord, while the Union has maintained an open policy and has repeatedly expressed its interest in expanding it, primarily by including the remaining CARs. Although, it is not possible to conclude that Uzbekistan, Tajikistan, and Turkmenistan are exclusively hostile to joining the EAEU. For instance, Tajikistan has repeatedly stated that it plans to study the issue of joining the EAEU in detail (Schulz, 2020; Vinokurov, 2017). On the other hand, Uzbekistan has made it clear that it does not intend to join the EAEU any time soon (Usmanova, 2020). Turkmenistan[8] has clearly demonstrated its unwillingness to join the Union but has shown its willingness to work closely with it. Considering the national interests of Turkmenistan, while maintaining regional cooperation, is a reflection of the country's approach.

Further, to establish economic integration and a greater sense of integration with the rest of the world, the CARs considered joining the WTO. Central Asian economies are working to diversify their trade relations with the rest of the world as the global economy continues to worsen. In the event of external economic shocks, strong trade links can help increase stability. Several of these economies, which are still outside the multilateral trading system, have become interested in joining the WTO (UNECE, 2022). The transition economies were required to adopt a range of commitments beyond the formal WTO agreements to become members, including the deregulation of FDI and the transformation of closed, centrally planned economies into market economies. However, the WTO presented the reforms as an opportunity to transform countries into knowledge-based economies despite its lack of knowledge of the nature of such a transition. WTO terms and conditions are often required to be accepted by newly acceding countries owing to the importance of being integrated into a global trading system and to the intransigence of WTO members (United Nations, 2001). According to the United Nations Economic Commission for Europe (2012, p51), the Soviet Union innovation system was characterized in the following manner: 'The National Innovation System of centrally planned economies had a number of unique characteristics. New knowledge generated by basic research was transferred in a planned[9] manner to applied research institutes, design offices, pilot factories, and, in the end, to final production. State resources were allocated in a centralized manner to achieve specific goals, but the role of bottom-up initiatives was virtually non-existent.'[10] Further, Becker and Becker (1996) assert that, despite the lack of knowledge about how to transform former Soviet republics, they advocated market fundamentalism.

Three out of five Central Asian nations (Kazakhstan, the Kyrgyz Republic, and Tajikistan) are now WTO members (WTO, 2023). The WTO is perceived as being a means of enhancing economic growth,

[7] The Kyrgyz Republic has allegedly been pressured by the Russians to join the Union, which has drawn much attention. However, little consideration has been given to the actual motivations for joining the Union or to the possibility that it may even result in real benefits. (Peyrouse, 2015: pp10-11).

[8] Since Turkmenistan followed a neutral policy bordering on isolation in its relations with such multilateral institutions, its unwillingness to participate in the integration process was evident from the very beginning (Olcott, 2011).

[9] An experiment that was tried, failed, and rejected was the planned economy as a historical anomaly, as an aberration (Shields, 2012).

[10] See also T Mukhammadiyev, 2020.

improving competitiveness, and strengthening the rule of law in these countries. While these countries were undergoing the process of membership, they faced a number of different challenges.

A negotiation process of two years and eight months culminated in the Kyrgyz Republic becoming the first Central Asian member of the WTO in 1998.

Having been admitted to the WTO so quickly, the Kyrgyz Republic was criticized for not having the time or space to develop or implement a strategic liberalization policy. There were several challenges facing the country during this time, including political instability and economic difficulty (Ismailova & Du, 2017). Several reforms have been implemented by the Kyrgyz Republic to align its policies with WTO standards. Based on WTO rules and norms, the country has adopted a package of regulatory and institutional documents governing its trade regime. In addition to customs activities of enterprises, intellectual property rights, investments, and other specific sectors—such as banking, insurance, and telecommunications—several other key aspects of trade have been addressed (Voronkov, 2008). WTO membership may also have enhanced the ability of policymakers to resist a bad trade policy decision. By joining the EAEU, the Kyrgyz Republic would have to backslide on reforms due to substantial increases in Kyrgyz tariffs and reduced competition as a result of tariff harmonization with countries such as the Russian Federation. As a member of the WTO, the Kyrgyz Republic has found it challenging to join the EAEC customs union because many of the tariffs that were agreed upon joining were lower than any common external tariffs that the Russian Federation could accept. As a pseudo-cost of WTO membership, the Kyrgyz Republic's trade policy autonomy is restricted to the extent that it restricts its ability to do something that is not in its own interest (Romfret, 2007). The Kyrgyz Republic's small economy did not pose a challenge to incorporating it into the rules-based global economy of the WTO, which is why it joined the WTO so rapidly. He also argues that the Kyrgyz Republic did not suffer from a first-mover disadvantage since other CARs had not pledged to complete WTO negotiations in the 1990s.

In 2001, Tajikistan applied for membership of the WTO. Trade-related issues include market access for goods and services, intellectual property rights, investment measures, and other trade-related issues. Tajikistan has maintained a relatively open trading and investment regime since its accession to the WTO in 2013. There is strong potential for growth in the country, which can be attributed to the abundance of hydro resources, the young population, the mountainous landscape and the attractiveness of the country to tourists, as well as its proximity to large markets in the region. However, there are a number of challenges at sectoral level, including obstacles in the financial sector and infrastructure bottlenecks, as well as attracting more private investment, diversifying and upgrading exports, and creating non-farm job opportunities (WTO, 2021). Based on the ADB Completion Report (2016), a number of issues arose during Tajikistan's accession to the WTO, including regulatory, legal, administrative, and economic impediments to trade, a low level of FDI, poor performance, and internally untenable conflicts of interest within the Standards Agency (Tajikstandart). During the WTO negotiations, the government committed to conducting policy research and analysis on Tajikstandart's organizational reforms for rationalizing and reducing technical barriers (Wu, 2013). Reforms undertaken by Tajikistan in its trade and investment policies, as well as its efforts to improve its business environment, were instrumental in its accession to the WTO (WTO, 2013) Overall, Tajikistan's membership in the WTO enabled it to expand its economy and participate more actively in international trade. It has provided benefits such as improved market access, a rules-based trading system, and an improved legal framework, but it may also pose challenges owing to domestic reforms and increased competition. The Tajikistani government has successfully positioned itself as an attractive investment destination by adhering to international trade rules and regulations.

In 2015, Kazakhstan became the next Central Asian republic to join the WTO after a 20-year process that was the longest in the history of the organization. A number of challenges were encountered during the country's accession negotiations, including those relating to agriculture, intellectual property rights, and the trade of services. As a result of the reduction in tariffs, the Kazakh agricultural sector has been subjected to increased competition from imported goods. Consequently, local farmers had to adjust and improve their competitiveness to remain competitive in the global market (Amirbekova & Gulyamova, 2016; Kalymbek & Alimzhanova, 2013). As Kazakhstan's institutional and organizational structures were reformed more gradually than in any other transition economy that joined the WTO (Mukhamadiyev, 2020), there was a greater opportunity for it to avoid systemic problems caused by a mismatch between formal and informal[11] elements. Similar problems are likely to be experienced by other transition economies if they encounter mismatches between formal and informal structures. Nevertheless, Kazakhstan has successfully implemented reforms and made commitments to align its trade policies with those of the WTO. In addition to attracting foreign investment, Kazakhstan's membership of the WTO contributed to the development of its economy. Trade has been opened up, transparency and predictability in trade policies have been enhanced, a dispute resolution mechanism has been provided to assist in the resolution of disputes, and domestic reform has been encouraged (Bekturova et al, 2017).

Regarding the remaining CARs, the accession negotiations with Uzbekistan began in 1994. There was, however, a delay of 15 years in the process between 2005 and 2020. As a result, Uzbekistan has participated actively once again in negotiations, holding three rounds of meetings of the Working Party. Uzbekistan's recent policy developments, particularly those following the inauguration of its new president in 2016, raise hopes for the country's economic and political openness in the global market (Normatov, 2018). It is expected that the country's WTO accession will progress as a result of these changes.

In the case of Turkmenistan, the country became one of the first former Soviet republics to become a participant in the General Agreement on Tariffs and Trade in June 1992, but Turkmenistan did not continue to participate in the WTO. The Turkmenistan Working Party was established in February 2022, shortly after the country became a WTO observer in July 2020 (WTO, 2023). In light of the Roundtable and Donor Engagement to Support Turkmenistan's Accession to the WTO, held in Ashgabat, Turkmenistan on 30 May 2023, the technical sessions facilitated the preparation of sections of the Memorandum of Foreign Trade Regime pertaining to economic policy, foreign trade, and related legislation (CAREC, 2023).

Thus, regional economic cooperation among CARs has not yet been significantly impacted by the CARs' WTO membership; however, accession of the remaining CARs to the WTO would facilitate greater regional integration in the region (International Trade Center, 2023).

There is a strong link between regional integration and trade growth, as regional integration is likely to result in the removal of trade barriers, increased investment, improved infrastructure, and an increase in economic activity—all of which will facilitate the growth of trade. Regional integration is positively correlated with comparative advantage. With economic integration and the removal of trade barriers, countries are able to take advantage of their comparative advantages and specialize in producing goods and services that are most efficient for them. This leads to increased trade and economic growth.

[11] Politics and courts can change formal rules overnight, but customs, traditions, and codes of conduct tend to resist deliberate policy changes more readily (North, 1990).

In the view of pioneer economists Adam Smith (1776) and David Ricardo (1817), trade plays an important role in the growth of an economy. In international trade, comparative advantage[12,13] is considered one of the most fundamental principles. In his 1817 book *On the Principles of Political Economy and Taxation*, David Ricardo introduced this concept for the first time. A country's objective is to specialize in producing goods and services that have a lower opportunity cost, or comparative advantage, in comparison to its competitors. The overall productivity and output of countries can be increased by doing so.

In his study of economic growth in Asian developing countries over the period 1960-1970, Ekanayake (1999) found bidirectional causality between exports and economic growth in India, Sri Lanka, Indonesia, Korea, Pakistan, and Thailand. He asserts that, in the short run, there is no solid evidence of causality, as per the study. Later Din (2004) employed the Johansen cointegration tests and Granger causality tests to obtain data from 1960 to 2002, including Asian countries and found a bidirectional relationship between exports and output growth. For a short period of time, Sri Lanka, India, and Bangladesh experienced a negative balance between exports, imports, and output, whereas for a longer period of time, Pakistan and Bangladesh experienced a positive balance.

As a result of Kılavuz and Topcu's (2012) analysis of 22 developing countries between 1998 and 2006, concluded that in the first model—which included variables such as exports, investments, and the population of high- and low-tech manufacturing industries—only two variables, exports, and investments, have a positive and significant effect on growth. A second model, in addition to the first model, examined how imports of high- and low-tech manufacturing industries affected growth.

Economic growth is also attributed to a wide range of factors, including trade openness. This argument is based on a solid theoretical foundation that includes comparative advantage, competition, and foreign direct investment. In addition, empirical evidence suggests that trade openness is positively correlated with economic growth (Bhagwati, 1978; Dollar, 1992; Sachs et al, 1995; Edward, 1998; Frankel & Romer, 1999; Rodriguez & Rodrik, 2001; Wang, Liu & Wei, 2004; Hosseinpour & Arman, 2014; Cole & Tenreyo, 2021).

Developing countries with open economies grow at a rate of 4.49 percent per year, while developed nations with open economies grow at a rate of 2.29 percent per year, closed developing and developed economies, on the other hand, have experienced annual growth rates of 0.69 percent and 0.74 percent, respectively (Sachs et al, 1995).

To control for the potential endogeneity of trade, Frankel and Romer (1999) used geographic variables focusing on two samples. The first is the full set of 150 countries covered by the Penn World Table, and the second is the 98-country sample considered by N Gregory Mankiw et al (1992) as an exogenous variable to measure the real GDP per person in 1985. There was a 20 percent increase in income per person when trade integration increased by 10 percent. According to Dollar

[12] Regional integration is positively correlated with comparative advantage. With the integration of economies and the removal of trade barriers, countries are able to take advantage of their comparative advantages and specialize in producing goods and services that are most efficient for them. In turn, this leads to an increase in trade and economic growth.

[13] After independence, and especially after oil, gas, gold, and other minerals prices soared in the early 2000s, Central Asia's comparative advantage in traditional resource exports did not adversely affect export earnings (Brikman et al, 2012; Romfret, 2021).

and Kraay (2003), who applied the Frankel and Romer measure of openness, doubled trade integration leads to an increase of 2.5 percent in GDP per person by the end of a decade.

A subsequent study by Sakyi et al (2009) examined the trade-growth nexus for 115 developing countries over the period 1970-2009. According to their findings, trade openness is both a causal and a concomitant factor in determining income levels over the long term, suggesting trade openness has both causal and concomitant effects.

Karras (2012) uses annual data collected between 1951 and 2007 from 62 developed and developing economies to demonstrate empirically that fiscal policy effectiveness is in fact reduced by a country's trade openness, and that the effects are quantitatively significant. The paper estimates that an increase in trade openness of 10 percent of GDP leads to a reduction of five to six percentage points in the magnitude of the long-run fiscal multiplier.

Trade openness favors countries with higher levels of inward FDI and gross fixed capital formation, as well as countries with higher levels of initial income per capita (Liargovas & Skandalis, 2012; Adhikary, 2011). Fetahi-Vehapi et al (2015) apply the generalized method of moments (GMM) to 16 years of panel data from ten Southeast European countries over the period 1996-2012. Based on the estimation results, it appears that trade openness positively impacts economic growth in the context of initial income per capita and other explanatory variables, otherwise, robust evidence does not exist between these two variables.

Using a GMM estimator, Huchet-Bourdon et al (2017) examined 169 countries between 1988 and 2014 and concluded that countries with a more outward-oriented orientation generally enjoy higher economic growth. Similarly, in his study of a panel of five emerging market economies covering the period 1993-2016, Raghutla (2020) suggests that there is a significant contribution of trade openness to economic growth.

However, the inappropriate use of technical issues in empirical research has been a topic of concern in the field of literature (Rodrik and Rodriguez, 2000). Rodrik and Rodriguez's doubts are rooted in concerns about these studies' inappropriate use of technical issues. As they point out, improper handling of technical issues can lead to biased or misleading results, which ultimately compromises the integrity of research. Various criticisms have been made of the measures of openness used by Dollar (1992), and Sachs[14] & Warner (1995). Likewise, they have cast doubt on Edwards' (1998) applied methodology, as well as Frankel and Romer's (1998) instrumentation strategy. In conclusion, either inappropriate econometric techniques were utilized in the earlier studies, or the measures of openness used in the earlier studies contributed to the positive relationship between trade openness and economic growth that was observed during 1990-2000. Later, however, Rodrik and Rodriguez's criticisms were dismissed by free trade advocates. According to Bhagwati and Srinivasan et al (2002) and Panagariya (2004), Sachs and Warner's criticism is inconclusive following the analysis of Rodrik and Rodriguez's position. Based on cross-country growth regressions, they concluded that the evidence for the effectiveness of outward-oriented policies is not as weak as originally thought.

[14] Sachs and Warner (1995) provide further evidence of the positive trade-growth nexus by emphasizing that open developing economies have grown at a rate of 4.49 percent per year while open developed economies have grown at a rate of 2.29 percent per year. As a result, closed developing economies have experienced growth of 0.69 percent on average and developed economies have experienced growth of 0.74 percent on average.

Yet despite this, some authors have argued that openness is not always a positive attribute (Winters, 2004; Babula & Aderson, 2008; Kim, 2011; Afzal & Hussain, 2014) as the result of the loss of domestic industries, increased income inequality and dependency on foreign market. It is possible that a country will face increased competition from cheaper imports because of opening its borders to foreign trade. If domestic industries are unable to compete with foreign firms, they may suffer a decline or even extinction. It is also possible that trade openness will increase income inequality since some individuals and groups will benefit more from globalization than others. The wages of skilled workers may increase as new technologies and work practices are adopted, while the wages of unskilled workers may decrease. In addition, the influx of cheap imports may result in lower prices for consumers, but it may also adversely affect domestic producers, which may result in job losses. A country's exports could become dependent on foreign markets if its trade openness results in the concentration of its exports on a few key industries.

An ambiguous effect of trade openness has been also found by Winters (2004), who concludes that trade openness increases economic growth at least over the medium term. While various issues exist, they are not insurmountable. A study by Chang et al (2005) found that increased openness is more likely to benefit economic growth if high levels of human capital investment, deeper markets, and infrastructure are available to support it. While Mendoza (2010) claims that trade openness and economic growth have a mixed track record, and the relationship between them is conditional. Later, Kim (2011) asserts that compared to countries with higher financial development, openness to trade has a negative effect on growth in countries with lower financial development. When a country experiences low inflation, trade openness promotes economic growth; whereas, when a country experiences high inflation, it has little effect on economic growth. In a subsequent study, Kim and Suen (2012) claim that trade promotes economic growth in countries with high incomes, low inflation, and non-agricultural societies, but has a negative impact in countries with the opposite characteristics. Additionally, Idris et al (2016) analyzed 87 OECD developing countries over the period 1977-2011 and concluded there is a causal relationship between trade openness and growth.

On a further note, geographic separation between countries or regions plays a significant role in determining the nature and volume of trade flows (Huang, 2007; Boisso & Ferrantino, 1997). Trade integration and economic growth can be enhanced by proximity to major markets. However, the vast distances separating Central Asia from major economic centers—such as Europe, China, Russia, and South Asia—pose challenges to regional integration. In addition to limiting the frequency and volume of trade flows, these distances also limit the countries of Central Asia from fully utilizing their comparative advantages and participating in global value chains.

Cross-border trade is evidently affected by distance, according to empirical studies (Berthelon & Freund, 2008; Hoffman, 2002; Frankel, 1997; Horrigan, 1993; Krugman, 1991). An increase in distance between trading partners tends to increase the cost of transportation in bilateral trade, thereby hindering the ability to gain beneficial results from bilateral trade (Horrigan, 1993; Krugman 1991).

According to Frankel et al (1997), a 10 percent increase in the distance would have led to a 7 percent decrease in trade in the 1990s and a 4 percent decrease in trade in the 1960s. Additionally, estimates of the elasticity of trade to distance from the early 20th century are similar to those found today, which led Frankel (1997) to note that there has been no evidence of a decline in the distance coefficient over time in gravity estimates for more than a century.

Later, in an investigation published by Blum and Goldfarb (2006), it was found that distance is a good proxy for taste and preference differences. According to the findings of the study, the perseverance effect in gravity regression can now be explained in a new way. Numerous products will still be

affected by the distance effect in gravity even if transportation costs, search costs, and other types of trade barrier associated with distance are eliminated.

Based on disaggregated bilateral trade data collected from 1985 to 2008, Berthelon and Freund (2008) found that for 776 SITC2 industries located in 100 countries, the elasticity of trade to distance has increased (in absolute terms) by about 10 percent from 1985 to 2008. Furthermore, they contend that the adjustment in the composition of trade had little effect, although distance became more important for 40 percent of industries, with nearly all the remaining industries not showing any significant changes.

Financial crises have a significant impact on trade, particularly for destinations that take longer to ship to (Berman et al, 2013) and, during this crisis, geographic distance also played a role in explaining the pattern of adjustments in bilateral portfolio investment positions (Galtsyan & Lane, 2013).

It is important to note, however, that distance has a negative correlation with trade, but it does not function as the sole determinant of trade. Other factors influence trade patterns, including market size, comparative advantage, political stability, trade policies, and technological advancements. A country with a larger economy, for example, may have a higher demand for goods and services, thereby compensating for the negative effects of distance on trade.

In addition to these studies, it is noteworthy that trade distance is not the only aspect of Central Asian trade growth to be considered. Connecting with international markets is a challenge for Central Asian landlocked countries[15] owing to their heavy reliance on road, rail, and air transportation. Limao and Venables (2001) claim that trade costs are exaggerated by landlockedness, which boosts trade costs by another 60 percent. Similarly, based on a limited sample of 46 countries, 18 of which were landlocked, Roballand (2003) found that landlockedness reduced trade by more than 80 percent during the period 1995-1999. The results of Grigoriou's (2007) analysis of 167 countries, including CARs, indicate a modest increase in exports (imports) of 2.4 percent (3.1 percent) for CARs if the infrastructure was improved. As a result of improved infrastructure, the Central Asian transit countries would be able to increase their exports by 49 percent. Later, Carrère and Grigoriou (2011) assert that a landlocked country is estimated to trade 28 percent less than a coastal nation based on a panel gravity model.

As reported by the Asian Development Bank (2006), high transport costs and long and unpredictable transit times for international shipments to and from Central Asia present significant obstacles to trade. The CARs are landlocked and remote, and their topography is indeed challenging, but there is also a lack of transport infrastructure high costs and the inferior quality of the region's transportation and logistics services. Additionally, according to the ADB (2006), actual transport costs from Istanbul, Turkey to the CARs are two to three times higher than those in an 'ideal world,' while actual transit times are 1.5 to two times longer. Similarly, a report released by the UN-OHRLLS[16] (2013) indicates that most post-Soviet states have transport costs that vary by up to 40 percent above those of a representative coastal economy.

[15] All five CARs do not have direct ocean access. Uzbekistan and Liechtenstein are the world's only two double-landlocked countries (World Atlas, 2023). Retrieved in July 2023. Available at: https://www.worldatlas.com

[16] United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States.

Traditional growth theories consider several factors in determining intraregional and extraregional trade. Based on the Heckscher-Ohlin model (Leamer 1995), the pattern of trade between two countries or regions may be explained by endowments of natural resources, factors of production, and skills. In this scenario, trade occurs without regard to geography or distance, in a world that is competitive and free of resistance. Even so, traditional theories are unable to fully explain the diverse characteristics of cross-border exports, particularly in light of recent globalization processes and political instability in Russia.

To summarize, there is a strong correlation between trade and economic growth. In support of the idea that trade promotes economic growth by facilitating specialization, promoting innovation, expanding markets, and fostering competition, theoretical frameworks, historical evidence, and empirical studies all concur. As well as contributing to economic growth, trade also contributes to the reduction of poverty, the creation of jobs, and the improvement of living standards in general.

Geographic distance, economic distance, and landlocked status all play a role in influencing trade growth. Geographic distance increases transportation costs and time, while economic distance can facilitate or hinder trade depending on the complementarity of economic structures. Landlocked countries face additional challenges because they lack direct access to international markets and must rely more heavily on transit routes. It is common for landlocked countries to seek partnerships and agreements with neighboring countries to improve transit routes and trade facilitation. A customs union or free trade agreement can also enhance the trade connectivity of a landlocked country and reduce the costs associated with trade.

In summary, globalization is leading to the integration of countries and regional cooperation groups are actively working to establish regional integration platforms around the world. However, it is concerning that CARs do not appear to be willing to move in this direction and even wish to maintain a degree of relative isolation from their immediate neighbors (Rahimov, 2018; Tadjbakhsh, 2012). Despite many similarities in economics, politics, history, culture, and other aspects, the CARs have chosen to integrate their economies into the global market at the expense of intraregional integration. Exports from Central Asia are dominated by China, Russia, and the EU.[17] Owing to closer interactions with external markets and the lack of proactive intraregional integration initiatives, and such patterns of trade and economic relations between regional partners, regional cooperation remains largely untapped even though such an approach violates economic laws.

Although intraregional trade between CARs is very slow, there is a wide range of involvement. Following the end of the resource boom, Central Asian governments have recognized the need to diversify their economies. The development of new export-oriented activities is enabled by improved infrastructure, including overland trade across Eurasia. The ease of doing business and facilitation of cross-border trade will be essential for Central Asian countries looking to expand non-traditional exports through better connectivity.

The region does not seem to be concerned about whether or when it will integrate and develop regionally. Besides being a transit hub, Central Asia possesses a considerable amount of exploitable natural and human resources. It is crucial for Central Asian infrastructure development to have Russian and Chinese capital, which serves both their own interests and those of the Central Asian

[17] CARs trade with each others' accounts for just 10 percent of their total trade, while most of their trade goes to China, the European Union, and Russia. These three partners account for two thirds of CAR imports and 57 percent of their exports (International Trade Centre, 2023).

nations. CAREC and international financial organizations play a crucial role in promoting economic development and cooperation in Central Asia and improving the quality of life for millions of people.

3. General state of CAR's trade and partnerships

Owing to its geographic location and natural resource endowments, Central Asia is a diverse region with a mixture of upper-, middle- and low-income countries (World Bank, 2022). However, CARs have more in common than geography; they share a similar heritage, as well as a similar vision of the future. The evidence of this can be found in a range of aspects, including history, culture, language, religion, and economic cooperation.

Following the dissolution of the Soviet Union in 1991, CARs celebrated 30 years of independence in 2021. Compared to other regions, CARs are the most remote republics of the Soviet Union; they receive less attention from the outside world than the rest. Furthermore, the fact that Central Asia is a landlocked region, as well as the history of the region—which includes seven decades of communist rule—and the central planning that dominated the region, make it an interesting area for scholars to study.

In the decades following independence, all CARs have developed a multivector extraregional policy that involves maintaining a balance between their relations with their major external partners, namely Russia, China, and Western countries.

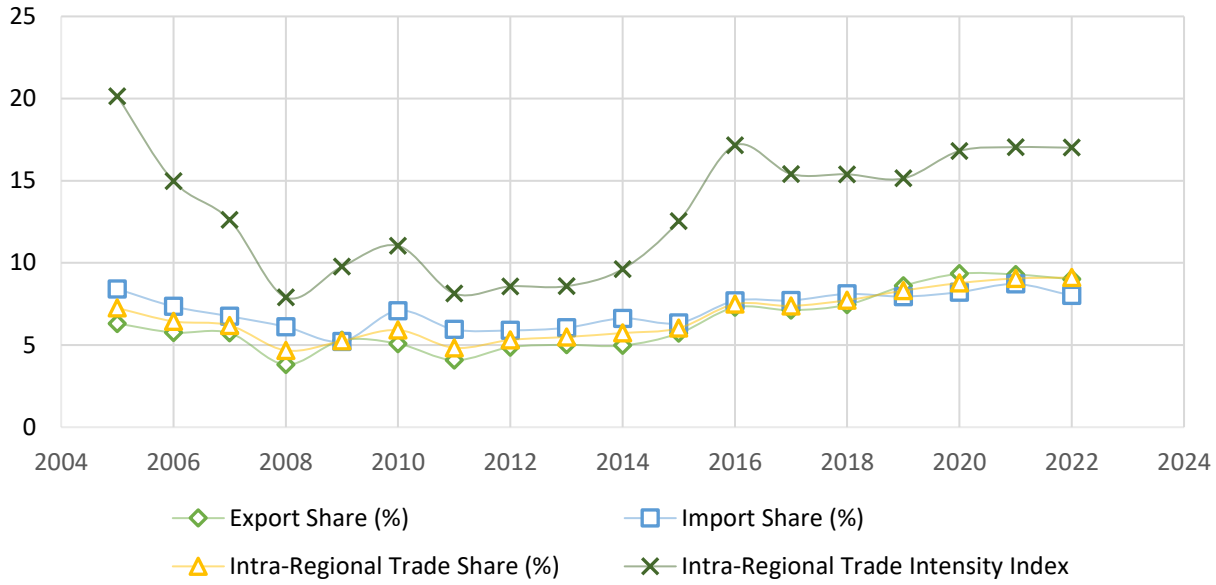
In Central Asia, market integration does not promote regional cooperation because of low levels of regional economic interdependence. There is a similarity in the export of CARs, and they are closely related to each other; the regions compete rather than complement one another (Wang, 2014). According to the UNCTAD (2021), 68 percent of all European exports were to trading partners on the same continent, while Eurostat (2022) reports that exports of goods to partners in the EU were more than 200 billion euros in 2020, accounting for 73 percent of the total value of intra-EU exports of goods. According to the World Bank (2022), the ASEAN[18] region has a rate of 25 percent, whereas the rate for CARs is 9 percent (IMF, 2022; ADB, 2022) (see Figure 1).

A higher share indicates a greater degree of integration between partner countries/regions and a bigger number of SMEs can trade across borders (ADB, 2022). A survey of the CARs in Figure 1 indicates that intraregional trade shares range from 4.6 percent to 9.1 percent. Intraregional trade shares have increased from 5.4 percent to 9.1 percent over the past few decades. The export and import share do not exceed 10 percent. The level of trade intensity decreased from 20.1 percent in 2005 to 8.1 percent in 2010 and slightly increased during recent years to reach 17.3 percent.

The trade share of CARs varies between 10 percent and 27 percent (see Figure 2). Figure 2 indicates that Tajikistan and the Kyrgyz Republic trade primarily with Kazakhstan and slightly with Uzbekistan among CARs. Tajikistan's trade share with Kazakhstan is 20.28 percent and its trade share with Uzbekistan is 7.80 percent, while the Kyrgyz Republic's trade share with Kazakhstan is 14.65 percent and its trade share with Uzbekistan is 6.78 percent. During the same period, Uzbekistan's trade share with Kazakhstan was 9.83 percent, while its trade share with the remaining CARs was 1.13 percent to 2.45 percent, respectively.

[18] Association of Southeast Asian Nations.

Figure 1. CARs intraregional trade share, export share, import share, and intraregional trade intensity index in percentage, during 2005-2021

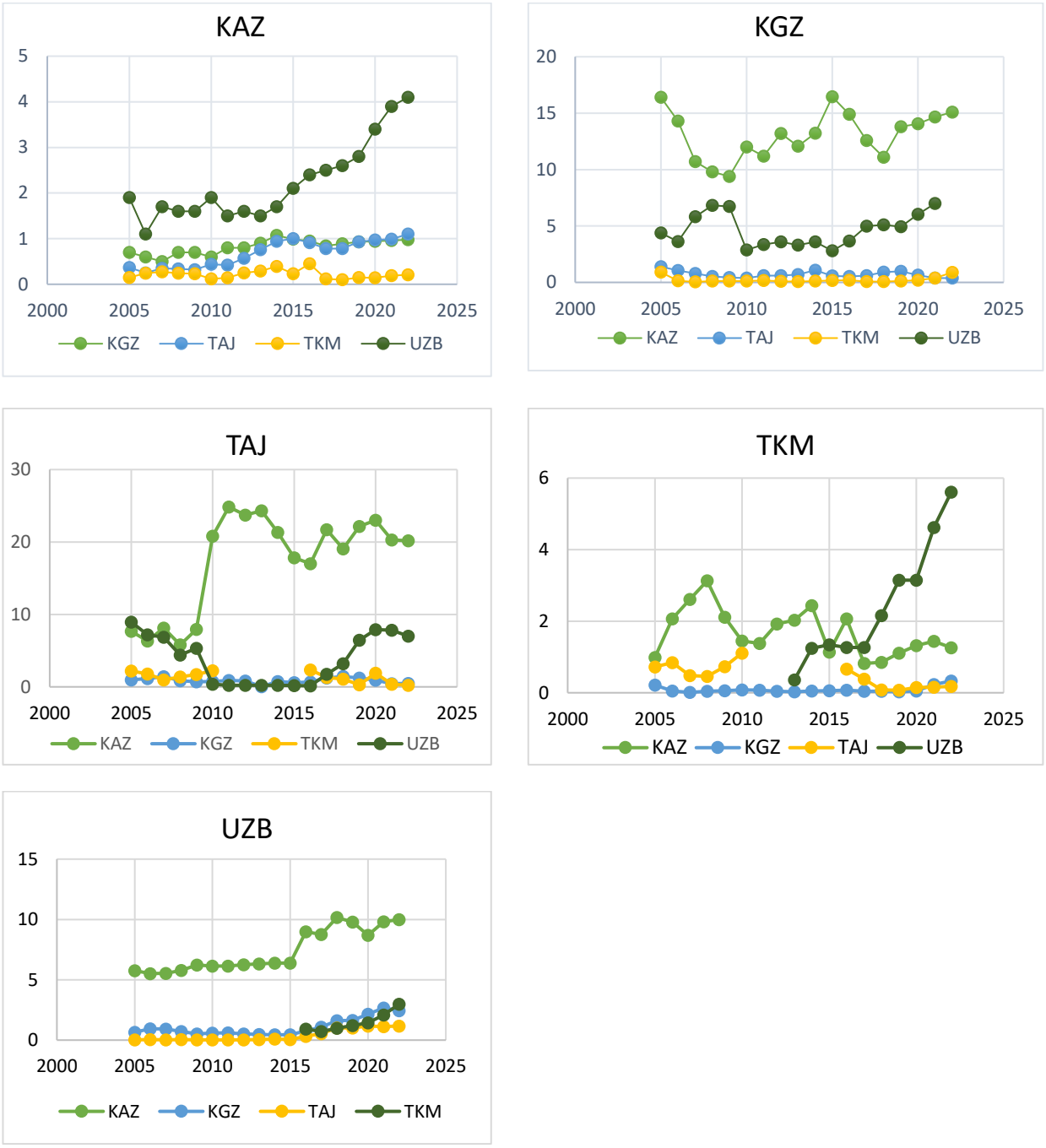


Source: Author calculation using IMF Direction of Trade Statistics, 2022; ADB, 2022.

Turkmenistan also has a relatively small share of trade with the CARs, ranging from 0.27 percent to 9.61 percent, of which Uzbekistan owns a majority of Turkmenistan's trade share. In contrast, Kazakhstan's trade share with CARs varies from 0.37 percent to 4.21 percent, respectively.

Between 2005 and 2022, the total trade turnover among CARs reached USD20.16 billion (ADB, 2022), an increase of 2.2 times or 228.06 percent.

Figure 2. Intraregional trade share of CARs in percentage, 2005-2022



Source: Author calculation using IMF Direction of Trade Statistics, 2022; ADB, 2022.
Note: KAZ-Kazakhstan, KGZ-Kyrgyz Republic, TAJ-Tajikistan, TKM-Turkmenistan, UZB-Uzbekistan

The low share of intraregional trade in the Central Asian region can be attributed to various factors such as limited transportation infrastructure, political tensions, and a heavy reliance on natural resources. The CAREC program, however, is crucial to addressing these challenges by strengthening intraregional trade and contributing to the economic development of Central Asian economies through investments in infrastructure and trade facilitation efforts. To measure the strength of economic cooperation among member countries, the CAREC Institute developed the CAREC Regional Integration Index (CRII). Based on the CRII, regional integration is measured across the six integration components: trade; investment; financial; transportation and communications; energy; and human

development. According to the CRII,[19] regional integration averaged 0.344 for the period 2006-2019, a marginal increase from 0.337 for the period 2006-2016 (CAREC Regional Index, 2021). For all CAREC countries, Kazakhstan achieved a CRII score of 0.444, the Kyrgyz Republic (0.408), Tajikistan (0.369), Turkmenistan (0.400), and Uzbekistan (0.3661). Ahmed and Javid (2022) argue that Kazakhstan, the Kyrgyz Republic, Tajikistan, Uzbekistan, and Pakistan are relatively more integrated than the rest of the CAREC region.

Furthermore CRII (2021) reports that the average score in 'trade and investment' in the CAREC region increased slightly over the period 2006-2019. There is generally a lower integration score when China is included in the 'trade and investment' component. This is because China's participation in trade and investment with other CAREC countries is substantial and growing; however, China's trade and investment relations with other regions of the world, which are larger and more economically advanced, are still more important.

A number of CAREC countries have experienced an increase in 'regional value chains' owing to improved trade complementarity. As a result of high complementarity, exporters can meet the import profile of their partner countries with ease. The CRII measure of trade complementarity measures imports and exports as a percentage, with 0 indicating no overlap and 100 indicating an exact match (see Table 1).

Table 1. CARs bilateral trade complementarity indices

	KAZ	KRG	TAJ	TKM	UZB
KAZ		0.35	0.11	0.09	0.12
KGZ	0.15		0.10	0.09	0.11
TAJ	0.19	0.31		0.11	0.15
TKM	0.11	0.29	0.08		0.08
UZB	0.19	0.29	0.12	0.09	
Average	0.16	0.31	0.10	0.09	0.11

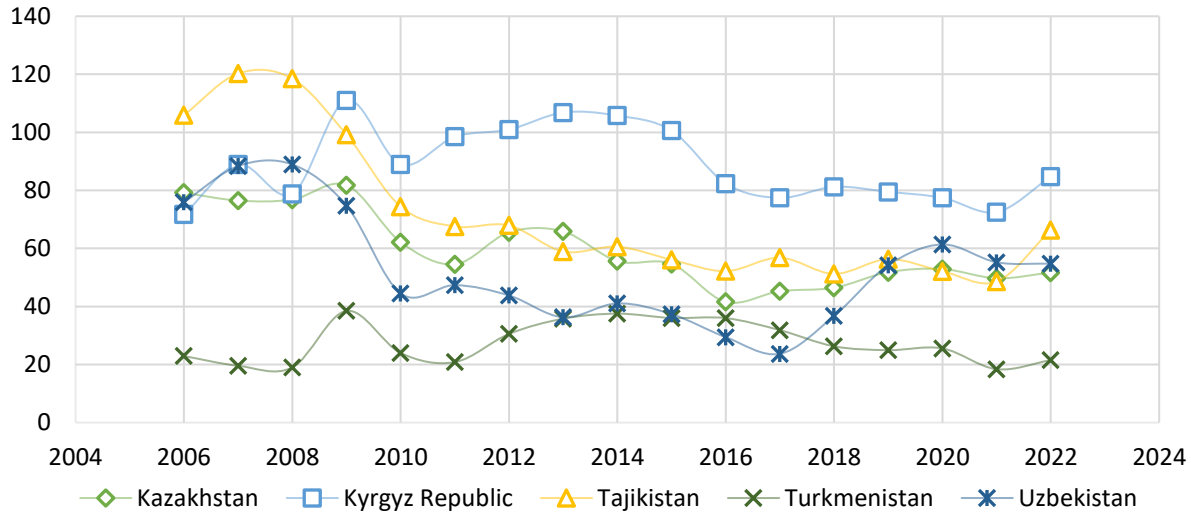
Source: Regional Trade Dynamics and Selected Indicators in the CAREC region (CAREC, 2019); Ahmed & Javed, 2022.
Note: KAZ-Kazakhstan, KRG-Kyrgyz Republic, TAJ-Tajikistan, TKM-Turkmenistan, UZB-Uzbekistan

Table 1 indicates that the Kyrgyz Republic has the highest trade complementarity with the CARs and Turkmenistan has the lowest.

Likewise, the CARs engage in a diverse range of foreign trade. Through comparative advantage, openness encourages a more efficient allocation of resources. In 2022, the average trade openness (exports + imports over GDP) among the CARs was 56.3 percent (see Figure 3). The Kyrgyz Republic has the highest average trade openness at 88.9, followed by Tajikistan at 71.35, Kazakhstan at 59.54, Uzbekistan at 52.57, and Turkmenistan at 27.60.

[19] The CRII ranges from 0 to 1, with 0 representing the lowest integration and 1 the highest.

Figure 3. CARs, trade openness (total trade as a percentage of GDP), 2005-2021



Source: Author calculations using International Monetary Fund (IMF)—World Economic Outlook (WEO) October 2022 Database and IMF Direction of Trade Statistics (DOTS) December 2022 Database

The World Bank (2016b) reports that some CARs are 'more open,' while some are relatively low. Mazhikeyev et al (2015) divided CARs into 'more open' (Kazakhstan, the Kyrgyz Republic) and 'more isolationist' (Tajikistan, Turkmenistan, and Uzbekistan) depending on their trade-to-GDP ratio; however, data provided by IMF indicate that the Kyrgyz Republic and Tajikistan have a more open economy, a more open trade policy, more open investment regulations, and a more open business environment than Kazakhstan, Uzbekistan, and Turkmenistan. As such, it is important to keep in mind that each country faces unique challenges and circumstances that have an impact on its degree of openness.

It is also consistent with the ranking found in the 2020 World Bank's Ease of Doing Business report. The highest-ranking CAR is Kazakhstan (25th out of 190 countries), followed by Uzbekistan (69), the Kyrgyz Republic (80), and Tajikistan[20] (106). Turkmenistan is unranked. It may be that this demonstrates the close relationship between trade openness and overall economic and political reforms.

CARs are increasingly transforming their foreign economic policies into 'open door' policies as they transform their economies. There is a growing trend among foreign investors to invest in the countries of the region. Considering the abundance of natural resources in CARs, as well as the presence of large populations, several studies have been conducted (Kenisarin & Andrews-Speed, 2008; Paswan, 2013; Metaxas & Kechagia, 2016). According to economists, foreign direct investment

[20] The World Bank's Doing Business report (2020) identifies the ten economies that have improved the most in their level of ease of doing business as a result of regulatory reforms. Doing Business 2020 identifies Saudi Arabia, Jordan, Togo, Bahrain, Tajikistan, Pakistan, Kuwait, China, India, and Nigeria as the ten leading countries that have improved their business climate. The 59 regulatory reforms implemented by these economies accounted for one-fifth of all global reforms in 2018/19. In addition to starting a business and obtaining construction permits, they also focused on cross-border trade.

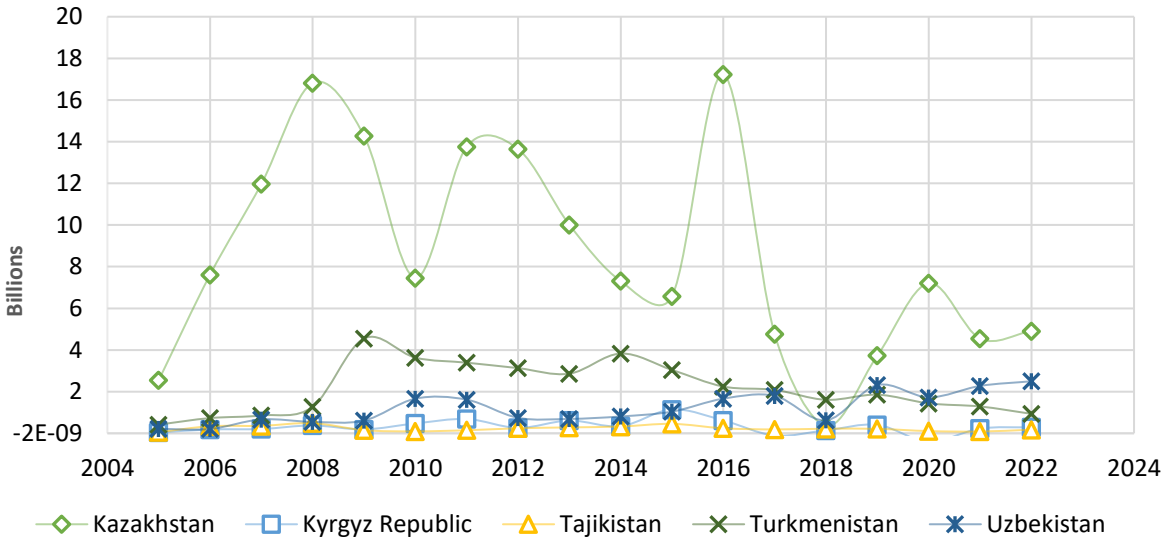
has a statistically significant impact on the progress and development of both developing and transition economies (Acaravci & Ozturk, 2012; Mehic et al, 2013).

Since the beginning of the new millennium, macroeconomic stability in the Central Asian region has been achieved and maintained, living standards have been raised, employment and education opportunities have improved, and economic growth has been enhanced (Roaf et al, 2014). A study conducted by Ashurov et al (2020) examined the determinants of FDI in CARs over the period 2000-2017 and found that FDI and economic growth in CARs are positively correlated. Furthermore, the authors suggest that Central Asia should improve its economic growth, labor force, trade openness, and tax regulations to attract more FDI.

Net FDI inflows into CARs totaled USD9.8 billion in 2020 and USD8.5 billion in 2021 (World Development Indicator, 2022). Owing to recent geopolitical tensions between neighboring countries (Russia), FDI in the region has decreased by 12.45 percent over the past two years. Kazakhstan has been identified as the main destination for FDI attraction[21] for 53 percent of the total net FDI inward to CARs, followed by Turkmenistan at 26 percent, Uzbekistan at 17 percent, Tajikistan at 3 percent, and the Kyrgyz Republic at 1 percent.

The main sources of FDI by region are Europe, Asia–Pacific—particularly China—and Russia. Europe also plays an important role as a major investor in Central Asia, along with China and Russia. An Enhanced Partnership and Cooperation Agreement (EPCA) was signed between Kazakhstan and the EU in March 2020, which has contributed to the growth of bilateral trade (*The Astana Times*, July 2022) and FDI inflow. It was Russia and Turkey that made the largest investments in 2019, although this changed after 2020 when Chinese investments became more prominent in the Central Asian region.

Figure 4: CAR's FDI, Net Inflows (Bop. Current US$), 2005-2022



Source: Author calculation based on the UNCTAD and IMF databases, Balance of Payment database (2022)

[21] The abundance of natural resources, the strategic location, the stable political environment, the favorable investment climate, and the government's proactive policies all contribute to Kazakhstan's attractiveness for foreign direct investment. Moreover, foreign investors are attracted to countries with significant oil and gas reserves, such as Kazakhstan and Turkmenistan.

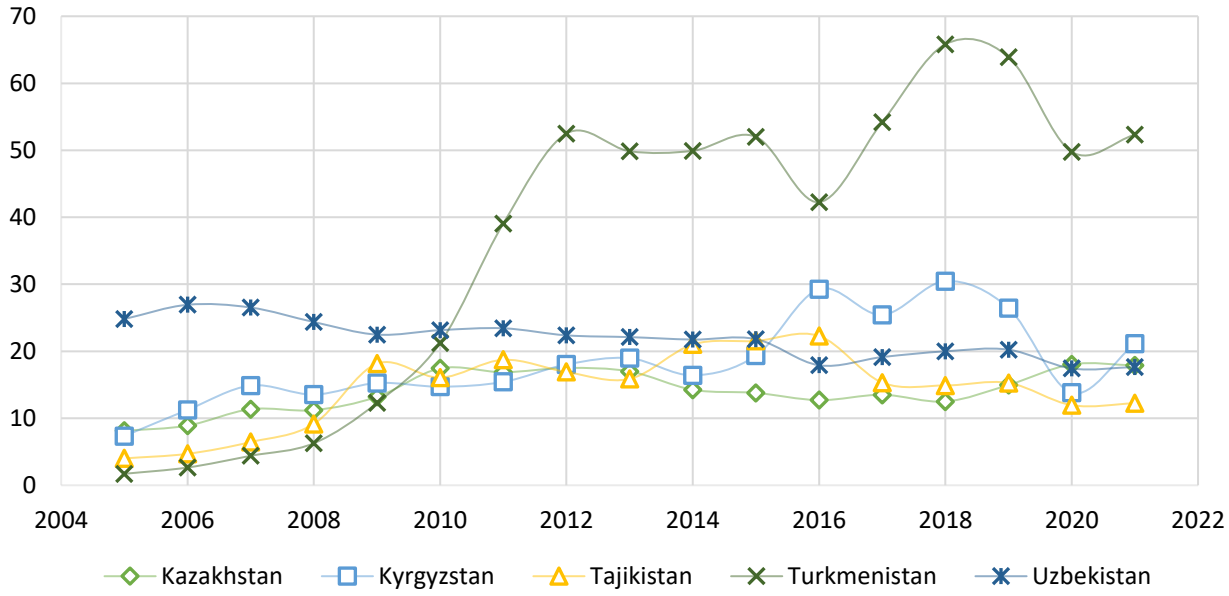
Chinese investors are becoming increasingly influential in the region. The Chinese government aimed to create a multimodal transportation network connecting China with Europe and other parts of Asia, reducing transportation costs, and increasing trade volumes. Essentially, China built its first links to the Central Asian economies decades ago and the Belt and Road Initiative (BRI) is a new, more advanced phase of the cooperation. Global trade within the BRI takes place primarily by sea, while rail is the second most important mode of international transport. CARs serve as a major corridor between China and Europe. Two of the six BRI corridors pass through the region, connecting China to Europe, Iran, and West Asia, respectively. According to the China Global Investment Tracker of the American Enterprise Institute (November 2021), the total volume of China to CARs from 2005 to 2020 amounted to USD50 billion, of which USD35.58 billion went to Kazakhstan, USD4.73 billion to the Kyrgyz Republic, USD2.15 billion to Tajikistan, and USD5.79 billion to Uzbekistan. In addition, the third of six BRI corridors[22] has been implemented in the Central Asian region, each with its own set of trade and investment opportunities. Silk Road Briefing (May 2023) reports that China's trade with the five CARs increased to USD70.2 billion in 2022 from USD0.46 billion in 1992 when China established diplomatic ties with the five CARs after the disintegration of the Soviet Union.

Among the sectors in which these investments are made are infrastructure, energy, mining, agriculture, manufacturing, and telecommunications. Chinese investment in CARs varies in terms of its extent and nature. Owing to their strategic location, natural resources, and favorable investment climate, some countries—such as Kazakhstan—have attracted more Chinese investment. The comparatively smaller economies of the Kyrgyz Republic and Tajikistan, however, have received a significant amount of Chinese investment in sectors such as infrastructure and energy.

There is a high dependence on trade with China for the five CARs, with approximately 14 percent to 36 percent of trade share, respectively (see Figure 5). Figure 5 indicates that Turkmenistan has the highest average trade share with China 36.4 percent, following Uzbekistan 21.8 percent, the Kyrgyz Republic 18.33 percent, Kazakhstan, and Tajikistan 14.1 percent and 14.3 percent, respectively. A 52.3 percent share of China's trade with Turkmenistan was recorded in 2021, 21.12 percent with the Kyrgyz Republic, 17.4 percent and 17.6 percent with Kazakhstan, and Uzbekistan, and 14.38 percent with Tajikistan.

[22] The China–Central Asia–West Asia Corridor. This route connects Western China to Turkey. This economic corridor improves connectivity between China, Kazakhstan, the Kyrgyz Republic, Uzbekistan, Tajikistan, Turkmenistan, Iran, and Turkey by connecting railway networks from China to the Mediterranean Sea. Furthermore, to invest in rail, China is building roads and other infrastructure projects that have the potential to transform the economies of Central Asia, which currently have limited trade relations.

Figure 5. CARs Trade Share (%) with China, 2005-2021



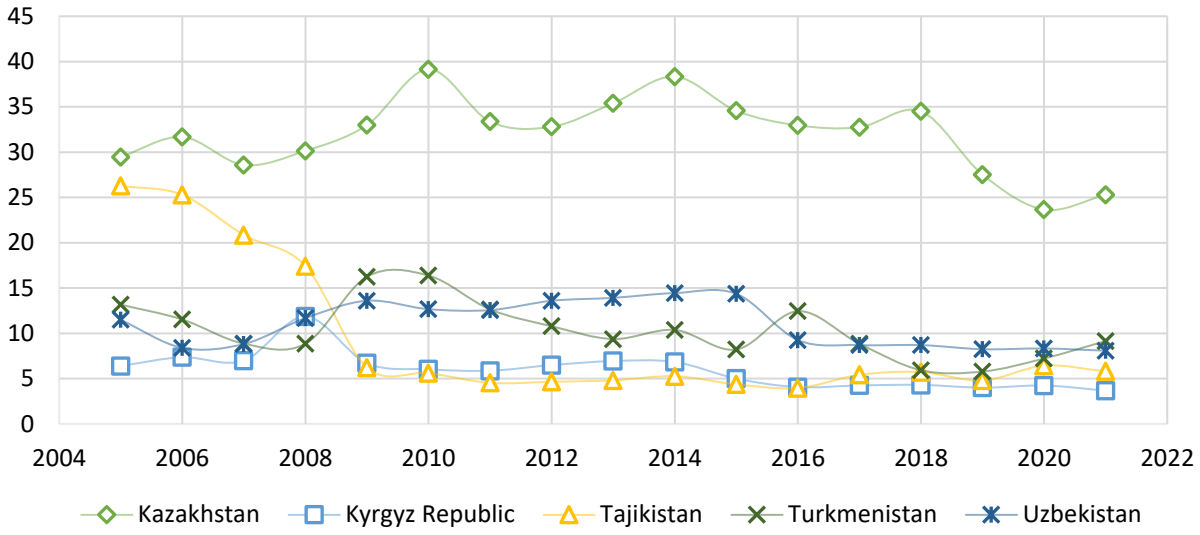
Sources: Author calculation based on the IMF Directions of Trade Statistics, 2022

Along with China, the CARs maintain strong bilateral relations with the EU, and the EU has significant stakes in Central Asia. A good understanding of the general patterns of international trade between CARs and the EU exists. Among Central Asian export destinations and import sources in 2000, the EU ranked second after Russia in terms of exports and third in terms of imports. The EU, however, holds the position as Central Asia's largest export market in part because products such as cotton or oil are traded on European exchanges or sold to companies in the EU, regardless of where they ultimately go (Pomfret, 2022). Owing primarily to the resource boom, Central Asian exports to the EU increased even further in 2010. Exports from the EU to Central Asia increased over the decade 2000-2010, but their share decreased, primarily owing to the rapid growth of Chinese exports and the ongoing tension between Russia and Ukraine. Mineral fuels constitute the majority of Central Asia's exports to the EU. Approximately 41 percent of mineral fuel exports were exported in 2001, and this percentage will increase to 90 percent by 2020. This resulted in a reduction in the diversity of the export structure, which puts the countries of Central Asia at higher risk owing to ongoing tension between Russia and the Ukraine. The major route for Kazakh oil to reach the EU is through Russian territory, primarily through the Caspian Pipeline Consortium.[23]

From 2000 to 2021, Kazakhstan's oil imports to the EU increased by nearly 900 percent. In recent years, Kazakhstan has emerged as the EU's third-largest oil supplier after Russia and Norway.

[23] Approximately 1 percent of the world's oil supply is transported through the Caspian Pipeline Consortium pipeline, and 80 percent of Kazakhstan's oil exports are handled by this pipeline (and Ron, 2022).

Figure 6. CARs Trade Share (%) with EU, 2005-2021



Sources: Author calculation based on the IMF Directions of Trade Statistics, 2022

In addition to gathering crude oil from large fields located in West Kazakhstan, the Caspian Pipeline Consortium system also transports crude oil from Russian producers to the port of Novorossiysk for offshore processing. As a result of this system, Kazakhstani oil is exported primarily through this route. There was a decrease of 3.3 percent in the amount of oil transported by the CPC in 2022 as compared to 2021, with 58.7 million tons (Kursiv Media Kazakhstan, 2023).

Figure 6 indicates that Kazakhstan has the highest average trade share with the EU, which is 31.9 percent, following Uzbekistan at 10.9 percent, Turkmenistan at 10.2 percent, Tajikistan at 9.2 percent, and the Kyrgyz Republic at 5.9 percent. However, the volume of trade between the CARs for which the EU is the primary partner has decreased by 26.8 percent since 2019 owing to the Western sanctions against Russia (see Figure 6). Sanctions imposed on Russia may pressure the EU to change its behavior, but these may have unintended consequences for the EU's trade with Central Asia, which may prevent them from engaging with and supporting the economic development and stability of the region. These consequences include trade disruptions, energy dependence, geopolitical shifts, transportation route disruptions, economic interdependence, and political considerations.

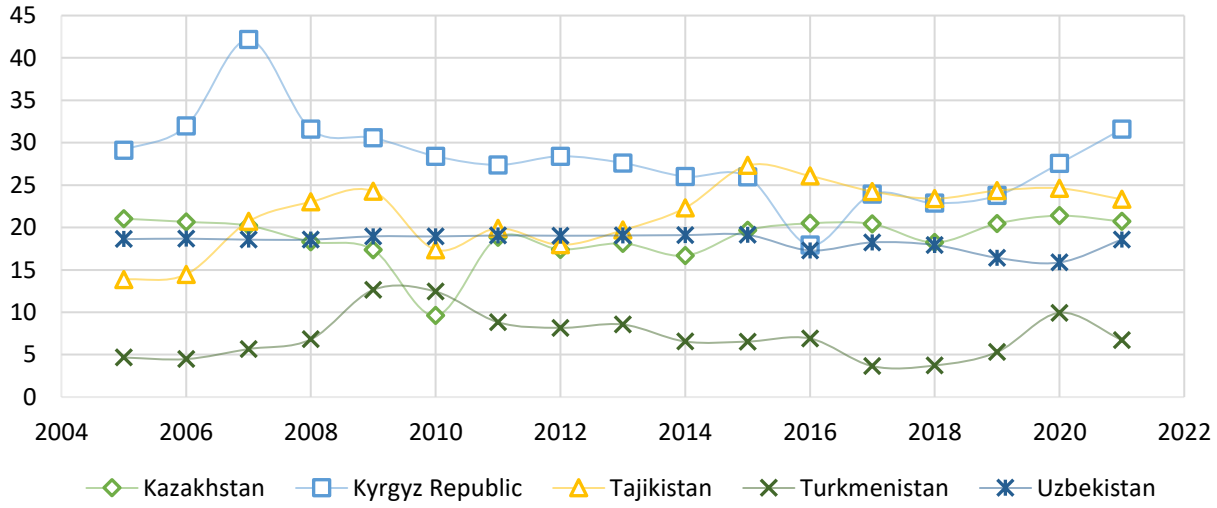
Energy imports from Russia, particularly natural gas, are a major component of the economies of many CARs. As a result of sanctions imposed on Russia, CARs could suffer significant economic consequences owing to disruptions in their energy supply. Over 40 percent of the EU's gas consumption, 27 percent of its oil consumption, and 46 percent of its coal consumption were imported from Russia in 2021 (European Commission, 20 April 2022). In addition, Russia is the EU's largest trading partner in terms of energy products, with the EU being a major destination for Russian exports. Overall, a number of factors have contributed to the destabilization of Central Asian economies as a result of the Western sanctions imposed on Russia. This economic challenge has been caused by a number of factors, including disruptions in trade flows, a decline in investment, and complications in the cooperation in the energy sector. Furthermore, the sanctions have restricted Russia's access to Western technology and financing, which has indirectly affected Russian investments and expertise in Central Asian energy projects. It also should be noted that a significant portion of Central Asian exports to Europe is transported through Russia. As a result of sanctions

against Russia, Central Asian exporters may experience delays and increased costs because of disruptions to these transportation routes. The result is a possible decrease in the competitiveness of their products in the EU market.

Considering the medium-term effects of sanctions against Russia, the global cost-of-living crisis, and China's economic slowdown, Central Asia is likely to suffer major economic consequences. Consumer spending will be reduced, and economic growth will be slowed owing to the rising costs of food, energy, and other essential goods. This will pose a particular challenge to countries such as the Kyrgyz Republic, Tajikistan, and Uzbekistan, which rely heavily on remittances from migrant workers to maintain their economic stability. It is important to note that, despite the robust trade channel so far across the region, Central Asia's close ties with Russia make it vulnerable to political and supply risks. The rise in uncertainty may lead to a reduction in investment attractiveness and remittance inflow, while the development of the financial markets may adversely affect public finance sustainability.

It is worthy to note that, as a result of their economic dependence, CARs can be categorized into two main categories: firstly, countries that export both oil and gas (Kazakhstan and Turkmenistan) and, secondly, countries that are heavily dependent on migrant remittances, FDI and official development assistance (Kyrgyz Republic, Tajikistan, Uzbekistan).[24] CARs, however, are highly dependent on the performance of the Russian economy through trade relations and remittance channels. A trade balance was previously associated with Russian trade with the region. As a result of increased exports from the Kyrgyz Republic, Turkmenistan, and Uzbekistan, the surplus in Russia's trade with these countries declined in 2019 compared with 2015 (see Figure 7).

Figure 7. CARs Trade Share (%) with Russia, 2005-2021



Sources: Author calculation based on the IMF Directions of Trade Statistics, 2022

Figure 7 indicates that, in 2021, Kazakhstan and Russia's trade share increased by 23 percent. Mami and Kenzheali (2022) assert that, despite the war between Russia and Ukraine, a total of USD65.8 billion in exports from Kazakhstan were recorded between January and September 2022, an increase of 47.5 percent over the same period in 2021. Rather than a significant increase in export volume, this was largely explained by an increase in commodity prices. Over the first nine months of 2022,

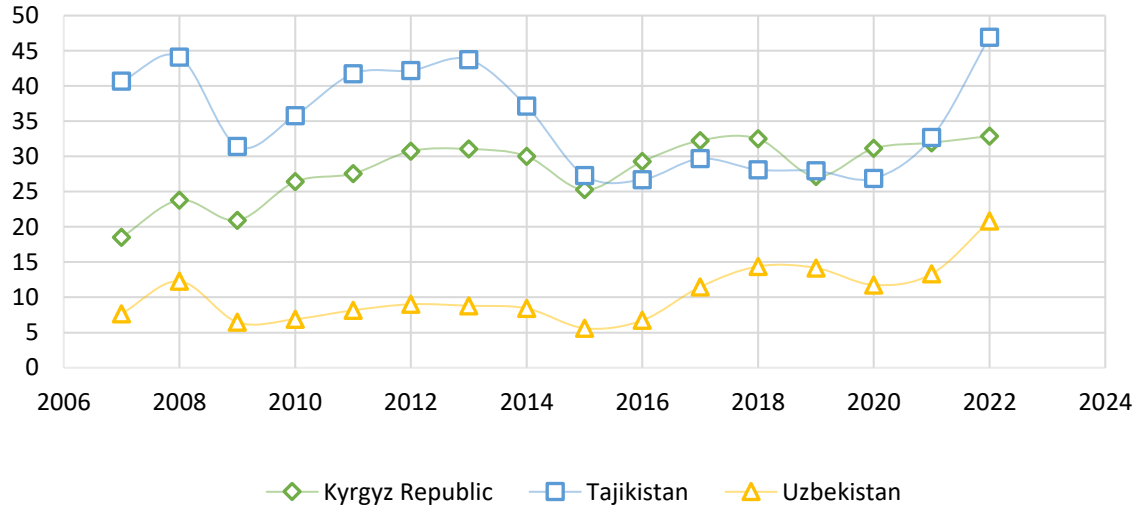
[24] See Abduvaliev & Bustillo (2020).

Kazakhstan's exports to Russia increased by 16 percent, reaching USD5.9 billion, while imports increased only marginally to USD12.4 billion.

There was a significant increase in the Kyrgyz Republic's bilateral trade with Russia by 32.5 percent. Exports from the Kyrgyz Republic increased by 2.4 times. In the past five years, Uzbekistan and Russia's bilateral trade has grown by 18.5 percent, with exports to Russia rising by 39 percent. Tajikistan's trade share with Russia remained at 23.3 percent while Turkmenistan[25] and Russia held a 6 percent share.

Russia's economic influence on the Kyrgyz Republic, Tajikistan, and Uzbekistan is largely attributed to large flows of labor migrants into the country. Remittances, for example, were equivalent to or even greater than the countries' exports of goods and services in the Kyrgyz Republic and Tajikistan in 2020; in 2022, remittances in the Kyrgyz Republic, Tajikistan, and Uzbekistan represented respectively 46 percent, 31 percent, and 10 percent of their GDP in 2022 (World Bank, 2022). Ratha and Kim (2022) assert that a decline in economic activity in Russia, coupled with a weakening of the ruble against the dollar, will lead to sharp declines in remittance flows to Tajikistan, Uzbekistan, and the Kyrgyz Republic in 2022. However, despite the weak economic activity of Russia and the ongoing war between Russia and Ukraine, the real scenario contradicted Ratha and Kim's prediction as the volume of inward remittances in the Kyrgyz Republic remained at 31 percent. Tajikistan, on the other hand, experienced an increase of 46 percent in remittances inflows, while Uzbekistan experienced a drastic increase of 53 percent (see Figure 8).

Figure 8. CARs personal remittances, received (% of GDP), 2007-2022



Source: Author calculation based on the data of the World Development Indicator, 2023
Note: Personal remittances comprise personal transfers and compensation of employees and include all current transfers between resident and nonresident individuals.

[25] According to Mikhail Mishustin, the Russian Prime Minister, Turkmenistan and Russia increased mutual deliveries by 32.7 percent. In general, these statistics indicate that trade with Russia has increased with a rebound in COVID-19 but also the substitution of European suppliers on the Russian market owing to buoyant trade growth (Silk Road Briefing, 2023).

Even though Uzbekistan's remittances to GDP are lower than those of Tajikistan and the Kyrgyz Republic, Uzbekistan's remittances inflows in current dollars are 4.4 times higher than those of the Kyrgyz Republic and 2.1 times higher than those of Tajikistan. A total of USD3.05 billion of remittances was received by the Kyrgyz Republic in 2022, followed by USD5.3 billion by Tajikistan, and USD16.7 billion by Uzbekistan. However, in this paper, we do not intend to test Ratha and Kim's findings, but rather to examine the extent to which Russian economic performance has a significant impact on the economies of neighboring CARs along with China and the EU.

Considering that CARs have adopted a multivector external trade policy, they should maintain a balance between Russia, the EU, and China, since these partners have significant stakes in Central Asia. Chinese and Russian policymakers are placing a greater emphasis on cooperation in Central Asia rather than competition for mutual benefit. These two main CARs partners have split their responsibilities in the region, with Russia focusing on security, trade, and migration, while China is mostly responsible for economic development, particularly through infrastructure investment and trade relations. The economic future of Central Asia lies primarily within its own neighborhood, and Sino-Russian cooperation is in the interests of these republics.

Cooperation with the EU is one of the most important strategic directions for CARs in the years to come. As a result of intensifying their trade relations with EU countries, it will be possible to increase trade with them and attract investments. There are a variety of factors that contribute to the importance of the EU, including the size of the market, the level of income, the standards, the level of competition, and the rules of trade. As a result of the CAR's decreased diversification of its exports, it remains a major source of fossil fuels, however, despite its diminished export diversification. Developing a mature economy and researching the EU market are two crucial steps for the region to identify prospects for its producers. Additionally, there is also the possibility that CARs can intensify and diversify their trade through the implementation of institutional reforms. The successful implementation of economic and institutional reforms is necessary to penetrate the European market.

While China, Russia, and the EU are highly important trading partners for Central Asia, intraregional trade between CARs has remained relatively low. To conclude, Central Asian trade relations with China, Russia, and the European Union have evolved over time. The BRI and China's energy requirements have driven China's engagement in the region. Historically, Russia has been an important trading partner because of its geographic proximity and historical ties. The EU's commitment to economic development and stability has resulted in an increase in trade cooperation. All three partners play an important role in shaping Central Asia's trade landscape, despite their unique dynamics.

4. Model specification

This study utilized panel data covering 26 countries (Appendix 1) between 2005 and 2022.[26] A summary of the definition and sources of variables can be found in Table 2.

The gravity model of trade depends on the balance of the forces between the trading economies. Its stochastic specification is mentioned as follows:

[26] 16 years is considered a long period of time by Sachs and Warner (1995), Edwards (1998), and Rodrik and Rodriquez (2001).

$$lnExport_{ijt} = \beta_0 + \beta_1 \ln(GDP_{it}) + \beta_2 \ln(GDP_{jt}) + \beta_3 \ln(Openness_{it}) + \beta_4 \ln(Openness_{jt}) + \beta_5 \ln(FDI_{it}) + \beta_6 \ln(Dis_{ijt}) + \beta_7 \ln(Land_{it}) + \varepsilon_{ijt} \quad (1)$$

where $Export_{it}$ indicates the total exports between CARs (country *i*) and China, Russia, and EU (country *j*) (in million USD), a trade surplus contributes to economic growth in a country.

GDP_{it} and GDP_{jt} denote GDP in level of CARs (country *i*) and China, Russia, and EU (country *j*).[27]

Trade openness. Trade openness ($\beta_{3\ and\ 4}$) might increase productivity, improve competitiveness internationally, and increase export revenues primarily through the facilitation of technological spillovers (Edward, 1998). Trade openness is associated with faster economic growth in countries with a higher level of openness. This is because trade openness allows for the exchange of ideas, technologies, and resources, as well as attracting FDI, which can lead to increased innovation, productivity, and competitiveness. However, several authors have argued that the openness effect on growth is theoretically ambiguous (Winters, 2004) and even negative in low-income countries (Vlastou, 2010).[28]

Our result can be digested by policymakers and researchers to simulate the effects of policy changes on trade volumes by manipulating variables, such as tariffs or non-tariff barriers. Making an informed decision regarding trade openness or protectionism can be done by evaluating the potential benefits and costs associated with different policy scenarios.

Foreign direct investment (FDI). Although there is substantial support for the positive impact of FDI (β_5) on the economic growth of many countries, little is discussed concerning the role that FDI plays in determining growth disparities between countries. FDI facilitates technology transfer and stimulates domestic investment as well as the development of human capital and institutions in the host country (Frankel & Romer, 1999). Even though FDI and trade have a positive impact on economic growth—depending on the level of institutional quality and trade openness in the host country—the size of that impact may vary (Makki & Somwaru, 2004).

A larger economy attracts FDI owing to its larger consumer market and potential for investment returns. Furthermore, proximity plays a significant role since investors prefer to invest in countries that are close to their locations to reduce transportation costs, monitor operations more effectively, and share similar cultural values. It is important for policymakers to understand these dynamics so that they can create favorable investment climates and identify targeted markets for FDI. Numerous studies have been conducted by the World Bank (2006) that utilize the gravity model framework to analyze international trade and FDI. They provide valuable insights into the importance of gravity models in understanding the growth of international trade and FDI. Moreover, a number of research papers and reports have been published by the International Monetary Fund (2011) that analyze

[27] Trade flows are also influenced by the economic size of the countries involved. Exports tend to be more plentiful in larger economies, whereas imports are more prevalent in smaller economies. As a measure of the economic size of a country, the gravity model utilizes the GDP of the country. This factor can provide policymakers and researchers with a better understanding of how economic growth is affected by changes in economic size.

[28] Geographically located and endowed with natural resources, the CARs are a mix of middle- and low-income countries (World Bank, 2022).

global economic trends, including trade and FDI. As part of their explanation of international economic interactions, they often use the gravity model.

Distance. It has been identified in the literature that hysteresis in former Soviet Union trade can be attributed to distance β_6 (Fidrmuc & Fidrmuc 2003) and remoteness (landlocking) β_7 (Djankov & Freund 2002). The cost of transportation increases because of remoteness, which has a negative impact on trade growth. It is more expensive to transport goods between two trading partners whose locations are far apart. Specialized transportation methods are required for bulky or perishable goods. Transport costs can act as a barrier to trade, making international trade less profitable for businesses, and international trade patterns and dynamics are influenced substantially by distance, which influences the volume, composition, and direction of trade flows between countries. Several aspects will be examined in this comprehensive answer, including the theoretical frameworks, empirical evidence, and mechanisms that contribute to distance and trade growth. Using the gravity model, the inverse relationship between distance and trade captures this relationship. Identifying potential trade barriers and formulating trade policies requires an understanding of how distance affects trade growth.

Landlockedness. The number of border crossings, which entail a transportation cost burden, may account for a significant portion of the additional costs associated with overland transportation (Roballand, 2003; McKellar, 2011). Thus, we have taken into account the geographic disadvantage that CARs face because of their landlocked status. Owing to these limitations, CARs often experience lower levels of trade than their coastal counterparts. Incorporating variables such as distance to ports and the quality of transportation infrastructure into the gravity model helps quantify the negative effects of landlockedness on trade. Policymakers and researchers can identify potential solutions such as improving transportation networks or establishing preferential trade agreements with nearby coastal countries to mitigate these disadvantages.

Export. The model's endogenous variables were selected to capture the impact of the domestic economy on international trade, and the choice to use exports rather than imports was because exports directly depend on domestic economic conditions, whereas imports do not. It is important to note that the level of imports is determined by a variety of factors, including international demand, supply shocks, and exchange rates, which are not directly influenced by the domestic economy. In this respect, including imports as an endogenous variable in the model would be useless and would serve only to add noise to the analysis. With exports controlled, other factors affecting international trade, such as changes in global supply or demand, can be isolated from their effects.

Selection of model

Panel data models have gained increasing attention for a variety of reasons. Comparatively to time series or cross-sectional data sets, they capture both intercountry and intertemporal variations, allowing us to detect dynamics and information that would otherwise be difficult to detect.

As a result of a fixed effect (FE) model, omitted variable bias can be addressed by adjusting for unobserved heterogeneity, within-group variation can be identified, and endogeneity concerns can be addressed. As a result, it becomes easier to estimate the relationship between trade variables with greater accuracy and reliability (Imai & Kim, 2019). As a result of this approach, researchers can capture variations within entities over time, control for unobserved heterogeneity, and mitigate endogeneity concerns in their trade analysis.

Further, trade analysis can be enhanced by using random effect (RE) models. Using these techniques, unobserved heterogeneity can be estimated, time-invariant variables can be captured,

panel data can be handled efficiently, and diagnostic tools can be used for the evaluation of models (Bell et al, 2019). Thus, these features make RE and FE models valuable tools for understanding and analyzing trade patterns.

We should note that the generalized motion method (GMM) is a better method for analyzing our model than other methods; however, the RE has the advantage of accounting for unobserved heterogeneity and time-invariant effects of the individual. This model provides more accurate estimates of relationships between variables and can handle complicated panel data structures owing to the incorporation of RE. GMM, on the other hand, is a more general estimation technique that can be applied to a variety of econometric problems, including measurement errors and serial correlation, and it relies on moment conditions to estimate the parameters of interest. Although GMM offers several advantages, including flexibility in handling different types of data and model specifications, it may not always be as effective as an FE or RE model. It must be noted that the choice between these two approaches is influenced by the specific research question, the characteristics of the data, and the underlying assumptions.

Table 2. Definition and source of variables

Variables	Measure	Source
$\ln(Export_{ijt})$	Natural logarithm of total exports between CARs (country i) and China, Russia, and EU (country j) (in million USD),	World Development Indicators United Nations Conference on Trade and Development International Monetary Fund
$\ln(GDP_{ijt})$	Natural logarithm of GDP in level of CARs (country i) and China, Russia, and EU (country j)	World Development Indicators
$\ln(Openn_{it})$	Ratio of the sum of imports and exports to the GDP that provides the measure of openness of economy	World Development Indicators
$ln(FDI_{jt})$	FDI, net inflows (% of GDP)	World Development Indicators United Nations Conference on Trade and Development International Monetary Fund
$ln(Dis_{ijt})$	Distance between capital of each CAR and China, Russia, and EU	CEPII
$ln(Land_{it})$	Dummy for landlocked 1 if country *i* and j are landlocked and 0 otherwise	United Nations Conference on Trade and Development

Table 3. Summary statistics, using observations 2005-2022 (after the log transformation)

	Mean	Median	SD	Min	Max
L_Export_CARs_China	2.854	2.871	0.6548	0.5362	4.187
L_Export_CARs_Rus	2.368	2.181	0.6942	1.300	3.667
L_Export_CARs_EU	2.821	2.946	0.5315	1.294	3.741
L_GDP in level_CARs	0.7018	0.7770	0.6635	-1.043	1.787
L_GDP in level_China	2.006	1.965	0.4147	0.6909	2.613
L_GDP in level_RUS	0.9261	1.440	1.690	-4.581	2.162
L_GDP in level_EUs	1.536	2.081	2.720	-5.599	5.974
L_FDI_China_CARs	7.264	7.240	1.241	4.524	9.215
L_FDI_RUS_CARs	4.431	4.585	2.301	-1.855	7.368
L_FDI_EU_CARs	5.988	6.055	2.084	-1.561	8.586
L_Open_CARs	3.989	4.018	0.4799	2.912	4.790
L_Open_China	3.815	3.811	0.2031	3.548	4.166
L_Open_Rus	3.901	3.896	0.05964	3.779	4.038
L_Open_EU	4.414	0.07593	4.431	4.240	4.632
L_Dist_CARs_China	1.167	1.201	0.1411	0.9605	1.365
L_Dist_CARs_Rus	1.203	1.230	0.1192	1.037	1.380
L_Dist_CARs_EU	1.378	1.412	1.201	2.122	1.509

5. Results and discussion

Table 4 shows the results when Equation (3) is estimated using model 1 (FE model) and model 2 (RE model). The log transformation of all the variables allows us to interpret the coefficients as elasticities. The results reveal that the relationship between the export growth and the explanatory variables, representing the sources of growth, show the expected signs.

The coefficient of GDP for the CARs takes the value of 0.07 percent to 0.15 percent, indicating that if the GDP goes up by 1 percent, the number of exports will increase by 0.07 percent to 0.15 percent. According to our research, an increase of 1 percent in bilateral exports would result in a 0.07 percent to 0.15 percent increase in CARs GDP. In addition, the GDP of China, Russia, and the EU also have significant positive elasticity values of about 0.05 percent to 0.72 percent, suggesting that exports will increase by 0.05 percent to 0.72 percent if the economic size of China, Russia, and the EU increases by 1 percent. Nevertheless, CARs exports could be significantly boosted if China, Russia, and the EU were to sustain high economic growth. The export elasticity of CARs GDP is higher than the export elasticity of China, Russia, and the EU's GDP. This means that stronger home market effects exist and, moreover, it is because the CARs economies are heavily reliant on exports, particularly in sectors such as energy, minerals, and agriculture. As a result, any fluctuations in export volumes can have a significant impact on their overall economic performance. A CARs export elasticity can be affected by the strength of its home market.

Table 4. Dependent variable $Export_{ijt}$

Variable	China	China	Russia	Russia	EU	EU
	MODEL 1	**MODEL 2**	**MODEL 1**	**MODEL 2**	**MODEL 1**	**MODEL 2**
Constant	−8.91557 (0.0526*)	5.87138 (0.75738**)	1.01787 (0.08911)	3.17176 (0.7394)	4.757950 (0.08991*)	4.91879 (0.0058**)
GDP_i	0.07087 (0.00519**)	0.05124 (0.1204)	0.127489 (0.02588*)	0.0154832 (0.9199)	0.154534 (0.054534**)	0.0145235 (0.90403)
GDP_j	0.332139 (0.0079***)	0.729835 (0.077506*)	0.0504935 (0.07488*)	0.0358657 (0.8660)	0.269986 (0.09063*)	0.314405 (0.8108
$Open_i$	0.0819510 (0.2144)	0.489715 (0.0232**)	0.922379 (0.025714**)	0.0108720 (0.052306*)	0.717042 (0.8391)	0.174384 (0.174384)
$Open_j$	0.601653 (0.1468)	−0.807851 (0.089914)	0.874600 (0.5075)	0.355906 (0.7923)	1.05957 (0.154534)	0.2069121 (0.02147)
FDI_j	0.286494 (0.05010**)	0.0026138 (0.022301*)	0.0092439 (0.0193*)	0.093406 (0.078711*)	0.246788 (0.017605**)	0.232284 (0.075903**)
$Dist_j$	−0.222793 (0.03006*)	−0.293241 (0.8481)	−0.107400 (0.0147*)	−0.111921 (0.10390)	−0.238801 (0.01432*)	−0.128901 (0.06781*)
R^2 value	0.72	0.66	0.69	0.62	0.67	0.59
N	74	75	74	74	69	75

Source: Author calculations

Note: P-value of t-statistics are in parentheses *Significant at 1% level; **Significant at 2% level; ***Significant at 5% level

Owing to collinearities encountered, the variable of 'landlockedness' is constant and omitted since all CARs are landlocked which means zero.

Coefficients in FE and RE models are different because they serve different purposes and are estimated using different methods. RE models are more flexible and can handle complex data structures, while FE models are simpler and more commonly used when the data is identically distributed.

Economic growth and development are supported by a strong domestic market. By stimulating domestic demand for goods and services produced domestically, CARs can reduce their dependence on exports as the sole source of economic growth. There are several factors that contribute to the relatively higher export elasticity of the CARs. In the first place, these CARs have smaller domestic markets than larger economies such as China, Russia, and the EU. As a result, they rely more heavily on exports to generate income and stimulate economic growth. In addition, CARs are often highly dependent on international trade for specific industries or sectors. In Kazakhstan, for example, oil and gas are the most important industries, while Uzbekistan exports cotton and textiles. Consequently, these countries are more vulnerable to fluctuations in global demand and prices owing to the concentration of these industries.

Furthermore, the results suggest that distance between two countries or regions is still an important determinant of international trade. The coefficient of distance is negative and significant, arguing that a 1 percent increase in the distance between CARs and their main external partner—that is, China, Russia, or the EU—will reduce exports by 0.11 percent to 0.29 percent, respectively. This is consistent with Filippini and Molini (2003) and Loungani et al (2002); unsurprisingly, the coefficient

of FDI is positive and statistically significant, they argue that 1 percent of FDI inward to CARs from China, Russia and the EU will increase CARs export by 0.5 percent to 0.7 percent. Additionally, trade openness has a positive but insignificant effect on exports.

6. Conclusion

Global economic growth and development are largely dependent upon international trade. The researchers have paid considerable attention to exploring the determinants of exports between two countries or regions. East Asia is connected to Europe and the Middle East by a network of trade routes that run through Central Asia, a region located in the center of Eurasia.

The bilateral trade flows of the CARs with China, Russia, and the EU are positively correlated with their economic performance and are therefore statistically significant, according to our findings. Our findings suggest that the coefficient of GDP for CARs takes a significant positive elasticity value of about 0.005 percent to 0.05 percent. Indicating that if GDP rises by 1 percent, the amount of exports will go 0.005 percent to 0.05 percent, respectively. The GDP of China, Russia, and the EU also takes a significant positive elasticity value of about 0.007 percent to 0.09 percent, respectively; suggesting that exports will increase by 0.007 percent to 0.09 percent if their economic size increases by 1 percent.

Based on the results, it is estimated that a 1 percent increase in FDI from China, Russia, and the EU will increase CARs' exports by 0.5 percent to 0.7 percent, respectively. This relationship can be attributed to various factors such as technology transfer, access to international markets, development of backward linkages, and knowledge spillovers.

As a distance, the distance between CARs and their partners—both geographically and economically—determines their potential determinants. Accessibility of infrastructure networks, connectivity, and trade costs are influenced by geography. Institutional reforms, technology transfer, and market access are influenced by economic distance. For Central Asian economies to develop sustainably, it is imperative to overcome these distances through regional integration efforts.

Furthermore, the study also explores that trade openness is the significant potential determinant of CARs' China, Russia, and EU exports during the period of study. There are numerous benefits to be gained from increased trade openness, including increased efficiency, economic growth, and diversification. However, there are also challenges that must be addressed through the appropriate policies and strategies. CARs can achieve sustainable economic growth through the effective management of trade openness.

In fact, several CARs (Kazakhstan, Kyrgyz Republic, Tajikistan) share borders with China, which facilitates trade geographically. Trade is made possible by reducing transportation costs and facilitating the cross-border movement of goods; this proximity reduces the cost of transportation and enhances trade growth between these countries. China is one of the most important export destinations for CARs. As a network of trade routes connecting China with Central Asia and beyond, the Silk Road provided an important platform for facilitating economic and cultural exchange between the two regions. China's economic engagement with CARs has largely been driven by FDI in the Central Asian region. As a result of China's strategic interests in the region's energy resources, infrastructure development, and geopolitical concerns, Chinese FDI in Central Asia has grown substantially over the past two decades. Trade relations between China and Central Asia are expected to continue to strengthen in the future as China expands its economic influence through initiatives such as the BRI and CAREC.

Along with China, CARs are geographically and historically connected to Russia, which has contributed to their economic development. Despite a perceived decline in Russia's trade turnover, remittance channels have recently maintained Russia's relevance in Central Asia. Remittances have helped many families improve their living standards. It is common for Central Asian migrants to send money back home to invest in education, healthcare, housing, and small businesses; this has resulted in a boost in the local economy and the creation of new jobs. However, Russian remittances have also been associated with several negative aspects. As a first point, many Central Asian households rely heavily on remittances for income. Because of this dependence, the economy may be vulnerable to external shocks such as changes in labor migration policies, economic downturns, and brain drain.

CARs have become increasingly dependent on the EU for a variety of reasons, including political, economic, and cultural cooperation. Throughout the years, the EU has developed a partnership with Central Asian nations to foster regional stability, promote sustainable development, and enhance connectivity.

There are, however, a number of factors that impede the development of economic CARs through international trade. CARs suffer from limited industrial diversification, which contributes to export uncertainty. Oil, gas, minerals, and agricultural products are the main export commodities of many countries in the region. This heavy dependence on a narrow range of products makes these countries vulnerable to fluctuations in global commodity prices and demand. Consequently, most CARs export similar products, which limits their intraregional exports. As a result of this lack of diversification, neighboring countries are not able to engage in complementary trade. In addition, the lack of industrial development and value-added production in the region hinders intraregional trade in manufactured goods. It is worth noting that the absence of regional trade agreements in the Central Asian region has hampered intraregional trade integration. In contrast to the EU and ASEAN, there has been no comprehensive regional trade agreement between CARs. Therefore, a fragmented trade policy and regulatory environment make it difficult for businesses to engage in cross-border trade within the region.

Furthermore, the poor institutional quality in CARs can contribute further to export uncertainty. Investor confidence can be undermined, FDI can be discouraged, and an environment conducive to export growth can be hindered by these issues. CARs policymakers are required to address these challenges to achieve sustainable economic growth. As a result of this study, the Central Asian government is provided with clear and comprehensive policies for promoting exports with their external partners to boost economic growth.

7. Policy recommendations

Strengthening trade agreements and enhancing regional cooperation. Strong trade agreements and regional cooperation are two of the most important ways in which CARs can deepen their economic integration. CARs often share similar economic interests and face similar challenges—such as poverty, unemployment, or inadequate infrastructure—owing to regional cooperation. It is possible to achieve this goal through bilateral or multilateral trade agreements, such as joining regional trade blocs. Regional cooperation can enhance connectivity, facilitate trade flows, and attract more foreign investment by harmonizing regulations, reducing trade barriers, and promoting cross-border infrastructure projects.

Whether Central Asia will be integrated and developed is no longer a question, but rather a matter of when it will happen. Besides its rich natural resources and strategic location, the Central Asian region also has a significant amount of human resources that can be utilized. The contribution of Russian and Chinese capital to Central Asian infrastructure development is essential as well as serving the

interests of those nations. CAREC and international financial institutions play a crucial role in promoting economic development and cooperation in Central Asia and improving quality of life for millions.

Central Asia's overall integration and development will be enhanced by cooperation with CAREC. Cooperation with the CAREC program should be a priority for CARs. To promote regional economic integration and sustainable development through the CAREC program, CARs should prioritize cooperation with it. CAREC's key objectives are to increase trade and investments, improve regional connectivity, strengthen economic institutions, enhance energy security, and promote sustainable development. By focusing on transport, CARs may promote economic growth and poverty reduction in the region. Furthermore, as part of the CAREC 2030 strategy, five operational clusters are prioritized, including traditional as well as new areas of cooperation, while providing a long-term strategic framework for the program. Some of the areas where CARs may fully benefit from this strategy are economic and financial stability, trade, tourism, economic corridors, infrastructure and connectivity, agriculture, and water. A Central Asian republic must, however, enhance institutional quality based on the Worldwide Governance Indicators (WGI) to fully benefit from such a strategy. Additionally, efforts must be made to improve connectivity, with particular emphasis on soft infrastructure and the development of transport corridors into economic corridors so that economies of scale and scope can be utilized.

Investment facilitation. Promoting trade openness and attracting foreign direct investment requires a favorable investment climate. By implementing policies that protect property rights, ensure transparency in regulations, simplify administrative procedures, and provide incentives for foreign investors, CARs can benefit from the growth of foreign investments. CARs can also attract more FDI by lowering bureaucratic hurdles and making the business environment more conducive to FDI, resulting in the transfer of technology, the creation of jobs, and increased exports. Furthermore, joint ventures, partnerships, and networking events can facilitate business cooperation between companies in the region. As a result of this collaboration, regional value chains can be developed, and intraregional trade expanded.

CARs are indeed endowed with a rich abundance of natural resources, which play a significant role in the country’s economy and serve as a key competitive advantage. For example, there is a great deal of mineral wealth in Kazakhstan, including oil, gas, coal, uranium, and a variety of metals. It enables the country to develop an energy and mining sector that attracts foreign investment and generates significant revenue. For example, there is a great deal of mineral wealth in Kazakhstan—including oil, gas, coal, uranium, and a variety of metals—which enables the country to develop an energy and mining sector that attracts foreign investment and generates significant revenue. Similarly, Turkmenistan is a major exporter of natural gas around the world as well as possessing substantial natural gas reserves. By leveraging its comparative advantage in this sector, the country has established long-term energy partnerships with its neighbors and beyond. The governments of Uzbekistan and Tajikistan could also leverage their cultural heritage and tourism potential to attract tourists and boost their economies, while the government of the Kyrgyz Republic would be able to take advantage of its geographic location to facilitate cross-border trade.

Infrastructure development. The region's landlocked geography poses a challenge when it comes to establishing trade connections with other regions. It is therefore essential to improve physical infrastructure in order to improve connectivity and facilitate trade flows. Roads, railways, ports, and airports are just some of the transportation networks CARs can upgrade or build. As a result, transportation costs will be reduced, logistics efficiency will be enhanced, and access to global

markets will be made easier. China–Central Asia–West Asia Economic Corridor[29] (CCAWEC) and the International North–South Transport Corridor[30] (INSTC) are new transportation corridors that could enhance connectivity between Central Asia and other regions. In addition, businesses can participate in global value chains by investing in digital infrastructure, such as broadband Internet connectivity. As a result of these infrastructure projects, goods can be transported efficiently and transit costs are reduced, thereby promoting cross-border trade. Furthermore, CARs enjoy a strategic location at the intersection of Europe and Asia, which makes them important transit hubs for trade and transportation. As a result of this geographic advantage, these nations will be able to develop robust logistics and transportation industries.

Customs and trade facilitation. It is essential for Central Asia's economic integration to streamline customs procedures and simplify cross-border trade procedures. As a result of the implementation of modern customs regulations—efficient and effective customs systems, electronic customs clearance systems, transparency, digital solutions, and the reduction of bureaucratic obstacles—goods can be moved more quickly. Simplification of customs processes will improve the business environment by facilitating trade and reducing corruption risks. Additionally, a single-window system, electronic customs declarations, and risk-based inspections are all examples of modern trade facilitation tools that CARs can implement.

Diversification of exports. Diversifying exports can help CARs increase their participation in global value chains, reduce their dependence on a single market, and enhance trade openness. Countries that are overly dependent upon a small number of commodities or markets may be vulnerable to external shocks. By providing targeted incentives, investing in research and development, fostering entrepreneurship, and facilitating access to financing, Central Asian governments can encourage the development of new export sectors. These countries may be able to encourage innovation, create employment, and develop new industries by expanding their export base. Although, given the ongoing political crisis in Russia, this will not only mitigate the negative effects of the crisis, but also allow the region to grow and stabilize economically.

Adopting a multidimensional approach facilitates regional cooperation and integration in the region. The CARs are geographically interconnected, and they face common challenges including being landlocked, having limited access to water routes, and lacking adequate infrastructure. These countries can collaborate with different actors who may be able to provide solutions to their shared challenges by diversifying their partnerships. Several activities can be considered part of this initiative, such as cooperation in the areas of transportation networks, energy infrastructure, and trade facilitation mechanisms. In addition to improving cross-border trade efficiency, enhanced regional integration can result in greater connectivity and overall economic growth.

The unique geographic position of CARs can also be leveraged as a link between Europe and Asia through a multivector approach. Located along the ancient Silk Road, this region offers trade and transit opportunities. The Belt and Road Initiative (BRI), for example, can greatly benefit CARs by

[29] China–Central Asia–West Asia Economic Corridor (CCAWEC) is an economic and transportation corridor of the BRI, a global economic connectivity program led by China. As part of the original vision for the BRI, this corridor was identified as one of six land corridors in 2015. A total of 35 corridors and projects have now been officially included in the Belt and Road Initiative since the 2nd Belt and Road Forum in 2019 (*The Times of India*, 2019).

[30] International North–South Transport Corridor (INSTC) is a multimodal transportation network connecting India, Iran, Azerbaijan, Russia, Central Asia, and Europe through ship, rail, and road routes (*The Economic Times*, 2018).

engaging with multiple stakeholders; their role in global trade can be enhanced if this attracts investment, promotes infrastructure development, and stimulates investment.

CARs may consider China to be their most strategic partner: It is possible for CARs to establish mutually beneficial partnerships with China by leveraging their historical ties and geographic proximity. Central Asia can gain numerous benefits from close cooperation with China. As part of the Belt and Road Initiative, infrastructure development projects can improve regional connectivity and boost economic growth. CARs can benefit from energy cooperation to meet the growing energy demand of China and security cooperation can also contribute to regional stability. It is anticipated that this collaboration will facilitate the diversification of both parties' economies, the creation of jobs, and the expansion of trade relations.

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Appendix 1

List of sample countries: (classified by World Databank)

Kazakhstan	France
Kyrgyz Republic	Germany
Tajikistan	Greece
Turkmenistan	Island
Uzbekistan	Italy
Russia	Latvia
China	Lithuania
Austria	Luxemburg
Belgium	Malta
Croatia	Netherland
Cyprus	Slovakia
Estonia	Slovenia
Finland	Spain

+86.991.8891151

km@carecinstitute.org | www.carecinstitute.org

21th Floor, Commercial Building Block 8, Vanke Metropolitan,
No. 66 Longteng Road, Shuimogou District,
Xinjiang Uygur Autonomous Region, the People's Republic of China