



TRADE DYNAMICS IN LANDLOCKED CENTRAL ASIA: INSIGHTS FROM UZBEKISTAN'S PERSPECTIVE

Umarova Saodat

University of World Economy and Diplomacy

ORCID: 0009-0007-9188-8840

saodat.umarova1993@gmail.com

Abstract. This paper examines the trade dynamics of landlocked Central Asia, with a particular focus on Uzbekistan. The geographical disadvantages of Uzbekistan, a double-landlocked country, significantly impede its trade competitiveness due to high transportation costs and prolonged transit times. Historically dependent on exports of commodities such as cotton, gold, and natural gas, Uzbekistan's economy remains vulnerable to global market fluctuations. To mitigate these challenges and enhance its trade potential, the study underscores the necessity of diversifying into value-added sectors and improving trade logistics infrastructure. By employing the gravity model of trade, the paper evaluates the impact of trade facilitation measures on bilateral trade volumes within the Central Asian region. The findings highlight the critical role of infrastructure development, customs modernization, and regional cooperation in bolstering Uzbekistan's trade efficiency. The analysis reveals that countries with advanced trade facilitation measures engage in higher trade volumes with Uzbekistan, suggesting that strategic investments in transport infrastructure and regulatory reforms are pivotal. These efforts are essential for integrating Uzbekistan more effectively into global markets and fostering economic growth within the region.

Keywords: trade, Central Asia, Uzbekistan, trade competitiveness, cross-border trade, economic diversification, trade facilitation, regional cooperation.

DENGIZGA CHIQUISH IMKONI BO'LMAGAN MARKAZIY OSIYODA SAVDO DINAMIKASI: O'ZBEKISTON QIZIQISHLARIDAN KELIB CHIQUIB

Umarova Saodat

Jahon iqtisodiyoti va diplomatiya universiteti

Annotatsiya. Ushbu maqola dengizga chiqish bo'lmagan Markaziy Osiyoning savdo dinamikasini o'rganadi, bunda O'zbekistonga alohida e'tibor beriladi. Ikki dengizga chiqish imkoniyati mavjud bo'lmagan O'zbekistonning geografik kamchiliklari yuqori transport xarajatlari va uzoq tranzit vaqtlari tufayli uning savdo raqobatbardoshligiga sezilarli darajada to'sqinlik qiladi. Tarixan paxta, oltin va tabiiy gaz kabi mahsulotlar eksportiga qaram bo'lgan O'zbekiston iqtisodiyoti jahon bozoridagi tebranishlarga nisbatan zaifligicha qolmoqda. Ushbu muammolarni yumshatish va uning savdo salohiyatini oshirish uchun tadqiqot qo'shimcha qiymat qo'shadigan sektorlarda diversifikatsiya qilish va savdo logistika infratuzilmasini yaxshilash zarurligini ta'kidlaydi. Savdoning tortishish modelidan foydalangan holda, maqola Markaziy Osiyo mintaqasidagi ikki tomonlama savdo hajmiga savdoni yengillashtirish choralari ta'sirini baholaydi. Natijalar O'zbekistonning savdo samaradorligini oshirishda infratuzilmani rivojlantirish, bojxona modernizatsiyasi va mintaqaviy hamkorlikning muhim rolini ta'kidlaydi.

Tahlil shuni ko'rsatadiki, savdoni yengillashtirish bo'yicha ilg'or chora-tadbirlarga ega bo'lgan mamlakatlar O'zbekiston bilan savdo hajmini oshirmoqda, bu esa transport infratuzilmasi va tartibga soluvchi islohotlarga strategik sarmoya kiritish muhim ahamiyatga ega ekanligini ko'rsatmoqda. Bu sa'y-harakatlar O'zbekistonning jahon bozorlariga yanada samarali integratsiyalashuvi va mintaqada iqtisodiy o'sishni rag'batlantirish uchun muhim ahamiyatga ega.

Kalit so'zlar: savdo, Markaziy Osiyo, O'zbekiston, savdo raqobatbardoshligi, transchegaraviy savdo, iqtisodiyotni diversifikatsiya qilish, savdoni osonlashtirish, mintaqaviy hamkorlik.

ДИНАМИКА ТОРГОВЛИ В ЦЕНТРАЛЬНОЙ АЗИИ, НЕ ИМЕЮЩЕЙ ВЫХОДА К МОРЮ: ВЗГЛЯД С ТОЧКИ ЗРЕНИЯ УЗБЕКИСТАНА

Умарова Саодат

Университет мировой экономики и дипломатии

Аннотация. В данной статье рассматривается динамика торговли в Центральной Азии, не имеющей выхода к морю, с особым акцентом на Узбекистан. Географические недостатки Узбекистана, страны, не имеющей выхода к морю, значительно затрудняют его торговую конкурентоспособность из-за высоких транспортных расходов и длительного времени транзита. Исторически зависящая от экспорта таких товаров, как хлопок, золото и природный газ, экономика Узбекистана остается уязвимой к колебаниям мирового рынка. Для смягчения этих проблем и повышения торгового потенциала в исследовании подчеркивается необходимость диверсификации в секторах с добавленной стоимостью и улучшения инфраструктуры торговой логистики. Используя гравитационную модель торговли, в статье оценивается влияние мер по упрощению процедур торговли на объемы двусторонней торговли в регионе Центральной Азии. Результаты подчеркивают важную роль развития инфраструктуры, модернизации таможни и регионального сотрудничества в повышении эффективности торговли Узбекистана. Анализ показывает, что страны с передовыми мерами по упрощению процедур торговли осуществляют более высокие объемы торговли с Узбекистаном, что свидетельствует о том, что стратегические инвестиции в транспортную инфраструктуру и реформы регулирования имеют решающее значение. Эти усилия имеют важное значение для более эффективной интеграции Узбекистана в мировые рынки и содействия экономическому росту в регионе.

Ключевые слова: торговля, Центральная Азия, Узбекистан, конкурентоспособность торговли, трансграничная торговля, экономическая диверсификация, упрощение процедур торговли, региональное сотрудничество.

Introduction.

Uzbekistan, positioned as a landlocked Central Asian nation, faces formidable trade competitiveness challenges influenced by its geographical location and economic history. Chief among these hurdles are the considerable cost and time associated with cross-border trade, exacerbated by its double-landlocked status, which typically results in prolonged transit times and heightened transportation expenses, diminishing its competitiveness in global markets. Furthermore, Uzbekistan's trade portfolio, historically reliant on exports of cotton, gold, and natural gas, renders its economy susceptible to fluctuations in prices and global market dynamics.

To fortify its trade competitiveness, Uzbekistan must diversify into value-added sectors and enhance trade logistics infrastructure. Addressing these challenges requires the implementation of strategic policy measures and fostering international cooperation to unlock

Uzbekistan's full potential in global trade. Central Asia, a region comprising Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan, is strategically significant due to its geographical location and abundant natural resources. Despite being landlocked, these countries have actively engaged in international trade, leveraging their strategic position along historical trade routes such as the Silk Road. This paper explores the foreign trade dynamics of Central Asia with a specific focus on Uzbekistan, examining overall trade data, key trends, and prospects.

Literature Review.

Trade facilitation measures, comprising a range of policy initiatives and infrastructural enhancements, play a pivotal role in promoting international trade and economic growth (Anderson & van Wincoop, 2004). Grainger (2011) divides trade facilitation into four interconnected components: (1) the simplification and alignment of relevant regulations and processes, (2) the advancement of trade compliance systems, (3) the supervision and coordination of trade and customs procedures, and (4) the establishment of institutional frameworks to ensure the successful adoption of trade facilitation principles and sustained dedication to reform.

Portugal-Perez and Wilson (2012) state that trade facilitation measures can be divided into two aspects: a tangible aspect involving physical infrastructure such as roads and ports, and an intangible aspect involving issues like transparency, customs management, and the business environment. The Bali Agreement emphasized the importance of measures related to the intangible aspect. Investing in the intangible aspect can improve trade facilitation outcomes quicker for countries with extensive customs controls and bureaucratic processes, including landlocked countries (Grainger, 2014).

Trade facilitation refers to the simplification, modernization, and harmonization of export and import processes. The United Nations Conference on Trade and Development (UNCTAD) emphasizes that efficient trade facilitation can significantly reduce trade costs, enhance economic competitiveness, and foster economic growth (UNCTAD, 2022). In the context of Uzbekistan, improving trade facilitation involves enhancing customs procedures, investing in transport infrastructure, and fostering regional cooperation to streamline transit processes.

3. Overview of Foreign Trade

3.1 Central Asia

Central Asia's trade landscape is influenced by its natural resources, particularly hydrocarbons and minerals. Kazakhstan, the largest economy in the region, is a major exporter of oil and gas. Turkmenistan, similarly, relies heavily on natural gas exports. Uzbekistan, Kyrgyzstan, and Tajikistan have more diversified economies but still depend significantly on extractive industries.

The region's trade partners include neighboring countries like China and Russia and more distant markets in the European Union (EU) and the United States. The Belt and Road Initiative (BRI) has further integrated Central Asian countries into global trade networks, enhancing infrastructure and reducing transportation costs. Three of five countries in Central Asia are members of the WTO: Tajikistan (2013), Kyrgyzstan (1998), and Kazakhstan (2015). Uzbekistan has expressed renewed commitment to join the WTO soon, and Turkmenistan currently holds WTO observer status, with its accession process just beginning. Additionally, Uzbekistan has joined the European Union's Generalised Scheme of Preferences Plus (GSP+), providing preferential tariffs for products imported from Uzbekistan since April 10, 2021.

Central Asia's strategic location has made it a crucial nexus for several major trade corridors, facilitating regional and international trade. The most significant of these corridors include the Central Asia Regional Economic Cooperation (CAREC) corridors, which comprise six major routes designed to enhance connectivity and trade across the region. The CAREC corridors link the landlocked countries of Central Asia with global markets, stretching from the

Caspian Sea in the west to China in the east. These corridors are pivotal in reducing transportation costs, improving logistics efficiency, and fostering economic integration.

According to the Asian Development Bank (ADB), trade along the CAREC corridors amounted to over \$8 billion in 2022, underscoring their importance in regional trade dynamics. The Belt and Road Initiative (BRI) further complements these corridors, with significant investments in infrastructure projects such as railways, highways, and border facilities to boost trade capacity and reduce transit times. For instance, the Khorgos Gateway on the Kazakhstan-China border is one of the key BRI projects, serving as a major logistics hub that handled over 200,000 TEUs (twenty-foot equivalent units) of cargo in 2022, according to China’s Ministry of Transport. These corridors enhance trade within Central Asia and connect the region to Europe, the Middle East, and South Asia, positioning it as a vital link in global supply chains. Recently, Chairman of the Board of Uzbekiston Temir Yillari JSC Zufar Nazrullayev, CEO of Kyrgyz Temir Zholu State Enterprise Azamat Sakiyev, and CEO of China Railway Corporation Zhou Xing signed a Road Map for constructing the China–Kyrgyzstan–Uzbekistan railway.

According to the World Bank, Central Asia’s total merchandise exports were approximately \$86 billion in 2022. Kazakhstan accounted for over 60% of this total, with Uzbekistan contributing around 15%. The region’s imports were valued at approximately \$70 billion, indicating a trade surplus primarily driven by Kazakhstan and Turkmenistan.

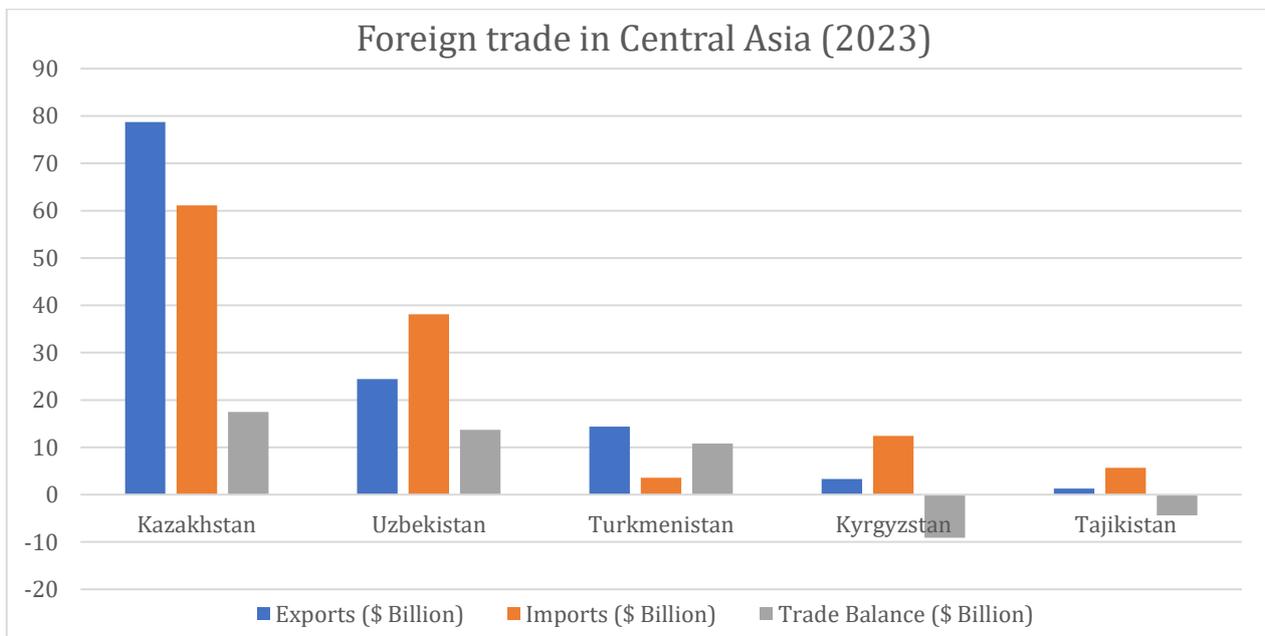


Diagram 1: Central Asia Trade Statistics (2022)

Source: World Bank.

Key trends in Central Asia’s trade include increasing diversification of export products, greater engagement with China under the BRI, and ongoing efforts to improve trade facilitation and logistics. These trends are pivotal in understanding Uzbekistan’s evolving trade dynamics.

3.2 Uzbekistan’s Foreign Trade

Uzbekistan, with a population of approximately 37 million, is the most populous country in Central Asia. Its economy is relatively diversified, with significant contributions from agriculture, manufacturing, and services. The country has undertaken substantial economic reforms since 2016, aimed at liberalizing trade, attracting foreign investment, and modernizing infrastructure.

Export and Import Structure

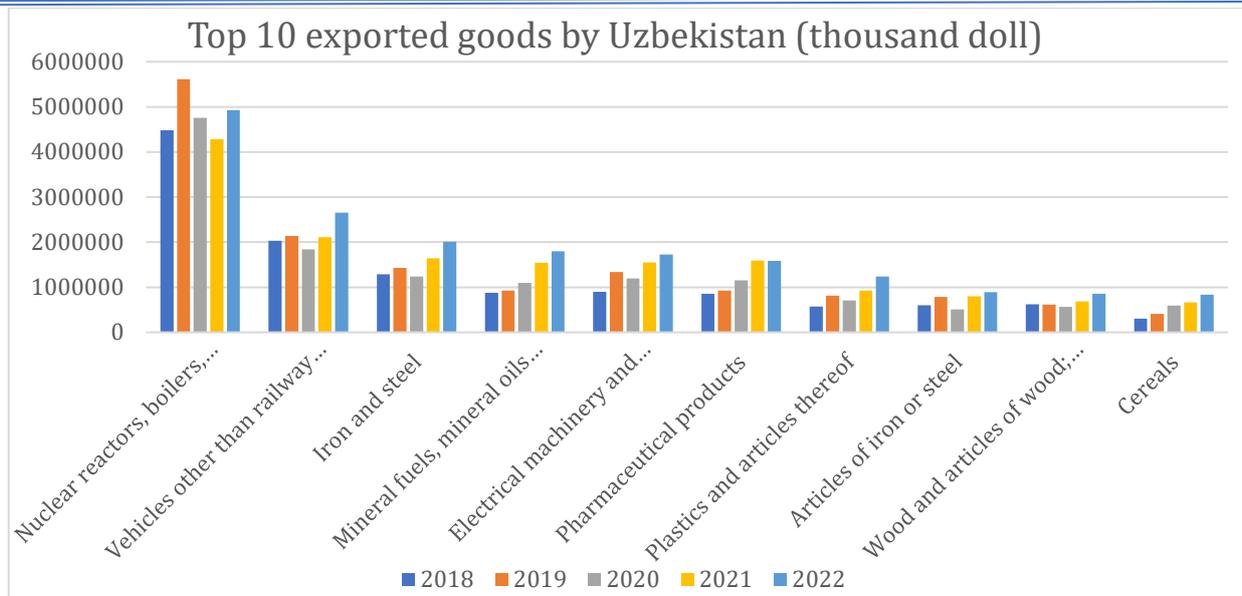


Diagram 2: Uzbekistan’s Major Exports (2018-2022)

Source: stat.uz

Uzbekistan’s export structure is dominated by natural gas, gold, and cotton, reflecting its resource-based economy. However, there has been a gradual shift towards exporting textiles and machinery, indicating efforts to diversify the export base. On the import side, vehicles, machinery, and mineral fuels are the top categories, driven by the country’s need to modernize its infrastructure and industrial base.

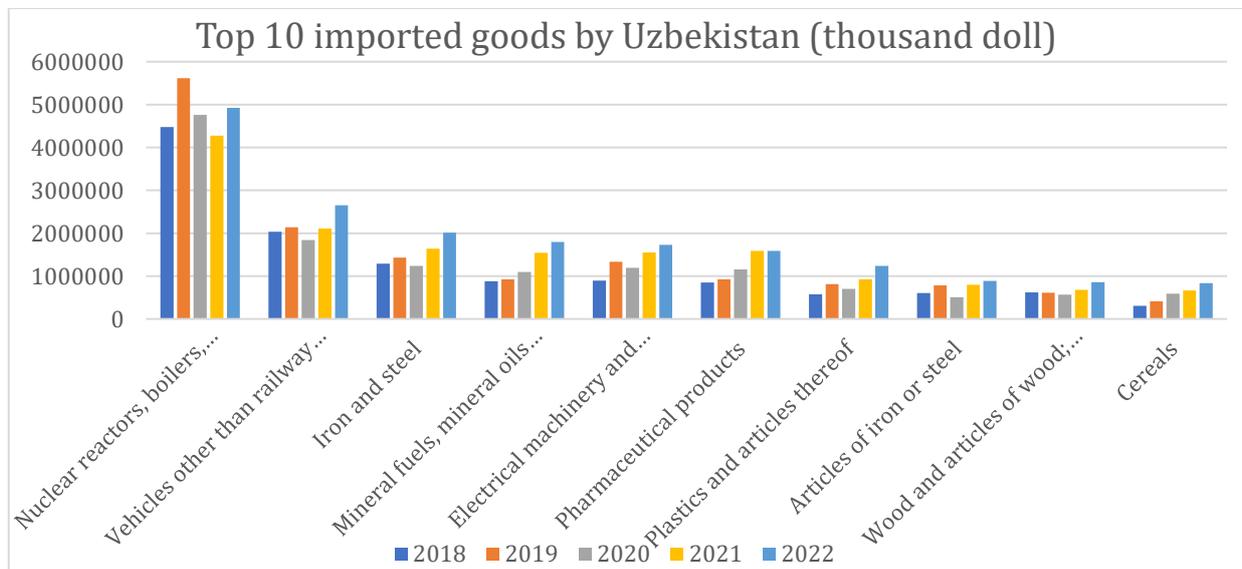


Diagram 3: Uzbekistan’s Major Imports (2018-2022)

Source: stat.uz

Trade Partners

The trade dynamics are also influenced by regional and global economic partnerships. Uzbekistan’s main trading partners include the Russian Federation, China, Türkiye, Kazakhstan, South Korea, and Kyrgyzstan, with Russia and China being the top exporters to Uzbekistan. This regional cooperation, facilitated by initiatives like the Belt and Road Initiative (BRI) and the Central Asia Regional Economic Cooperation (CAREC) program, has been pivotal in boosting cross-border trade and economic integration. China is the largest trading partner, accounting for approximately 20% of Uzbekistan’s total trade in 2022. Russia and Kazakhstan are also significant partners due to historical ties and geographic proximity.

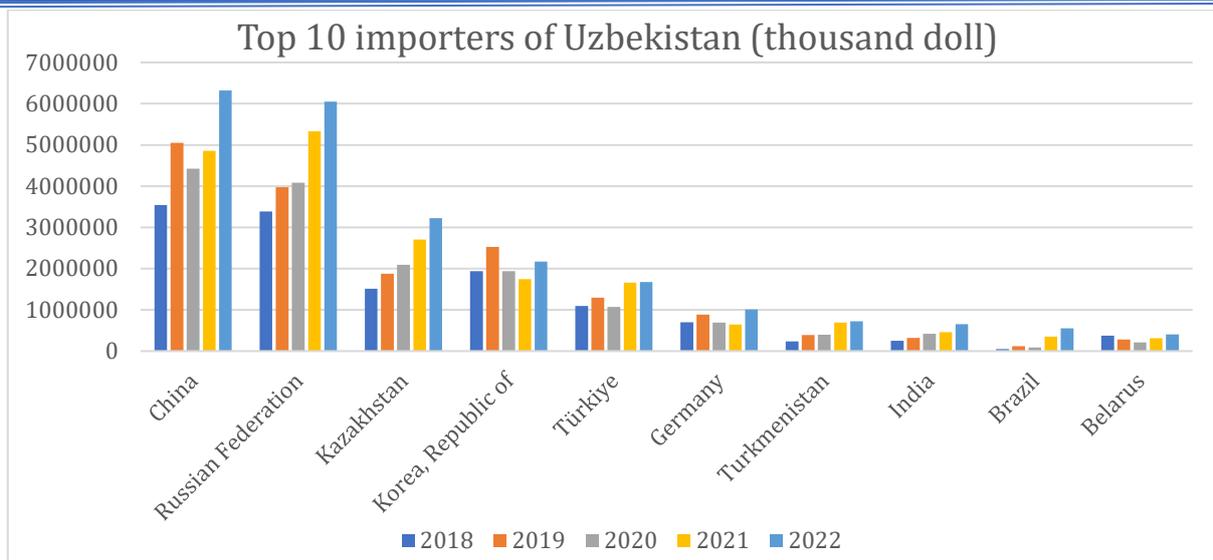


Diagram 4: Uzbekistan’s major Importers (2018-2022)

Trade Agreements and Initiatives

Uzbekistan is actively pursuing regional and international trade agreements to enhance its trade prospects. Key initiatives include joining the WTO, participating in the Eurasian Economic Union (EAEU) as an observer, and engaging with the EU under the GSP+ program. Additionally, Uzbekistan is investing in transport infrastructure, such as the construction of the China-Kyrgyzstan-Uzbekistan railway, to improve connectivity and reduce trade costs.

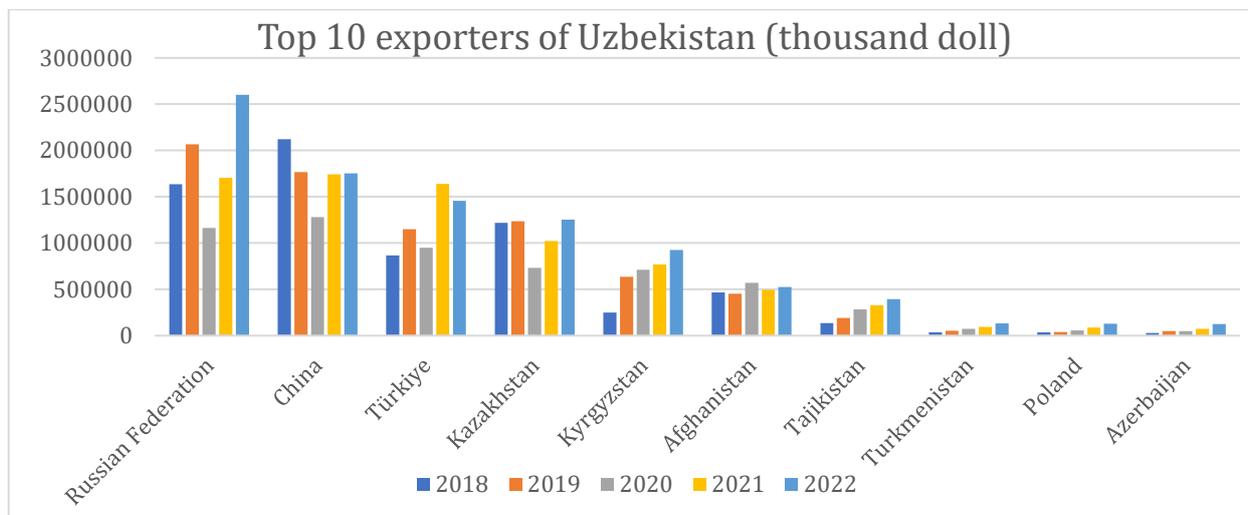


Diagram 5: Uzbekistan’s major Exporters (2018-2022)

Uzbekistan faces several challenges and opportunities in its trade dynamics. Firstly, the lack of modern transport and logistics infrastructure significantly hampers trade efficiency. Additionally, complex customs procedures and regulatory barriers increase trade costs and delay transactions. Moreover, heavy reliance on commodity exports exposes the economy to global price fluctuations. Furthermore, regional instability and geopolitical tensions can disrupt trade routes and affect trade flows. On the other hand, expanding into value-added sectors such as textiles, machinery, and pharmaceuticals offers opportunities to reduce economic vulnerability. Strengthening ties with neighboring countries and participating in regional trade initiatives can enhance trade prospects. Moreover, upgrading transport and logistics infrastructure can significantly reduce trade costs and improve efficiency. Lastly, simplifying customs procedures and regulatory frameworks can streamline trade processes and attract foreign investment.

Methodology.

This section employs the gravity trade model to analyze trade facilitation measures' impact on Uzbekistan's trade volumes. The gravity model posits that bilateral trade flows are positively related to the economic size of the trading partners and negatively related to the distance between them. By incorporating trade facilitation indicators, the model evaluates how improvements in infrastructure, customs procedures, and regulatory environments influence trade volumes.

Model Specification

The gravity model used in this analysis is specified as follows:

$$Trade_{ij} = G \frac{M_i M_j}{D_{ij}}$$

$Trade_{ij}$ is the trade flow between country i and country j

M_i and M_j are the economic masses (GDP) of countries i and j

D_{ij} is the distance between the two countries.

G is constant

To incorporate trade facilitation measures, the model is extended as follows:

$$Trade_{ij} = \alpha + \beta_1 GDP_i + \beta_2 GDP_j + \beta_3 D_{ij} + \beta_4 Infrastructure\ Quality_{ij} + \beta_5 Customs\ Efficiency_{ij} + \beta_6 Regulatory\ Environment_{ij} + \varepsilon_{ij}$$

Estimation and Results.

The model is estimated using panel data for Uzbekistan and its major trading partners over the period 2018-2022. The results indicate that trade facilitation measures significantly impact trade volumes. Improvements in transport infrastructure, customs procedures, and regulatory environments are associated with higher trade volumes.

Table 5

Gravity Model Estimation Results

Variable	Coefficient	Standard Error	t-Statistic	P-Value
GDP (i)	0.85	0.12	7.08	0.000
GDP (j)	0.78	0.11	6.91	0.000
Distance	-0.56	0.09	-6.22	0.000
Infrastructure Quality	0.34	0.08	4.25	0.000
Customs Efficiency	0.29	0.07	4.14	0.000
Regulation Environment	0.27	0.06	4.50	0.000

Source: Author's Calculations

The positive coefficients for infrastructure, customs, and regulation variables suggest that investments in these areas can enhance trade volumes. Specifically, a 1% improvement in transport infrastructure is associated with a 0.34% increase in trade volume. Similarly, improvements in customs procedures and regulatory environments are associated with 0.29% and 0.27% increases in trade volume, respectively.

Policy Implications

The findings underscore the importance of trade facilitation measures in enhancing Uzbekistan's trade competitiveness. Policymakers should prioritize investments in transport infrastructure, streamline customs procedures, and improve the regulatory environment to foster a more conducive trade environment. Regional cooperation and integration efforts should be intensified to leverage the collective strengths of Central Asian countries and enhance their global trade prospects.

Addressing the trade challenges faced by Uzbekistan requires a multi-faceted approach, and key policy recommendations include enhancing infrastructure, customs modernization, regional cooperation, and diversification of the export portfolio. Specifically, investing in transport infrastructure, such as roads, railways, and logistics hubs, can reduce transit times and costs; for instance, projects like the Tashkent-Andijan railway and the expansion of the Navoi Free Economic Zone are critical steps in this direction (Asian Development Bank, 2022). Additionally, simplifying and modernizing customs procedures to reduce bureaucratic delays and improve transparency, through the implementation of electronic customs systems and one-stop border posts, can significantly streamline trade processes (World Bank, 2021). Moreover, strengthening regional cooperation through frameworks like the Central Asia Regional Economic Cooperation (CAREC) program can enhance cross-border trade efficiency, with collaborative efforts to harmonize regulations and improve border management being essential (CAREC, 2023). Finally, reducing dependency on a few commodities by developing value-added industries such as manufacturing and services is crucial, as this diversification can mitigate the impact of global price volatility on the economy (International Monetary Fund, 2021).

Future Prospects for Uzbekistan's Foreign Trade

Uzbekistan's future trade prospects are promising, driven by ongoing reforms, strategic infrastructure projects, and enhanced regional cooperation, with key factors influencing future trade dynamics including economic reforms, infrastructure development, regional integration, and diversification of export markets. Specifically, continued liberalization and structural reforms are expected to enhance Uzbekistan's trade competitiveness, with policies aimed at improving the business environment, reducing trade barriers, and promoting foreign direct investment (FDI) being crucial. Moreover, major infrastructure projects, such as the development of transport corridors and logistics hubs, will facilitate trade, with the Tashkent-Andijan railway and the expansion of the Navoi Free Economic Zone being notable examples. Additionally, strengthening ties with neighboring countries will boost trade, while enhanced cooperation under the Belt and Road Initiative (BRI), Global Gateway (EU) and the Central Asia Regional Economic Cooperation (CAREC) program will also play a significant role. Furthermore, efforts to diversify export markets beyond traditional partners like China and Russia will mitigate risks and enhance trade resilience, with expanding trade relations with the EU, the Middle East, and South Asia being key priorities.

Uzbekistan, like its Central Asian neighbors, faces the dual challenge and opportunity of being a landlocked country with a strategic geographical position, making its ongoing economic reforms, infrastructure investments, and regional cooperation efforts crucial for future trade growth. By diversifying its export markets and improving trade facilitation, Uzbekistan can enhance its role in the global trade network, thereby contributing to the economic prosperity of the entire Central Asian region. Although Uzbekistan's trade competitiveness is affected by its landlocked status and reliance on a limited range of export commodities, prioritizing trade facilitation and infrastructure development can help it overcome these challenges and improve its integration into global markets. This study underscores the critical importance of efficient trade logistics and regional cooperation in driving bilateral trade within Central Asia, offering empirical evidence of the significant benefits of trade facilitation. Therefore, addressing these barriers is essential for advancing economic development and promoting regional economic integration in Central Asia.

Conclusion.

Uzbekistan's trade dynamics are shaped by its geographic and economic context, characterized by significant challenges and opportunities. While infrastructure deficiencies, bureaucratic hurdles, and dependence on commodities present formidable challenges, opportunities for diversification, regional cooperation, and trade facilitation offer pathways to

enhanced trade competitiveness. The gravity model analysis highlights the critical role of trade facilitation measures in boosting trade volumes, emphasizing the need for strategic investments in infrastructure, customs, and regulatory frameworks. By addressing these areas, Uzbekistan can improve its trade efficiency, integrate more effectively into global markets, and achieve sustainable economic growth.

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