

THE GEOPOLITICAL IMPLICATION OF THE ZANGAZUR CORRIDOR: A DRIVER FOR REGIONAL ADVANCEMENT AND LINKAGE

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Abstract: *This research delves into the geopolitical role of the Zangazur Corridor in the recently liberated territories of Azerbaijan, examining its potential as a catalyst for regional development and enhanced connectivity. Employing the gravity model, the study investigates the corridor's influence on economic growth, trade facilitation, and geopolitical dynamics among Azerbaijan, Armenia, Georgia, Iran, and Türkiye. The comprehensive methodology incorporates a detailed literature review, geopolitical analyses, and economic assessments. Through this approach, the study amalgamates historical, economic, and geopolitical insights, comprehensively understanding the corridor's implications on regional integration. The main results underscore the Zangazur Corridor as a transformative conduit, pivotal in fostering economic opportunities and enhancing regional connections. It depicts the corridor's capacity to fortify trade routes, reshape infrastructure, and bolster regional cooperation. The study also explores the geopolitical implications, presenting the challenges and opportunities arising from this infrastructure project. This article offers a nuanced understanding of the corridor's potential transformative impact on economic synergies within the South Caucasus nations. It culminates in a comprehensive evaluation of the Zangazur Corridor's role in the region's economic and geopolitical landscape.*

Keywords: *Zangazur Corridor, Regional development, Geopolitical dynamics, Economic synergy, South Caucasus.*

INTRODUCTION

The Russia–Ukraine conflict, commencing in late February 2022, triggered discussions on the accountability of various transport routes, notably in the South Caucasus. This region serves as a significant geostrategic area and a burgeoning transport passage between Europe and Asia. Despite the South Caucasus states pursuing diverse policies since the Soviet Union's dissolution, their futures are interlinked. Any analysis of emerging security threats must consider the current regional dynamics. Transport corridors in the broader South Caucasus–Caspian region yield substantial economic gains for multiple nations. The route originating from China through Central Asia, the Caspian Sea, South Caucasus, and Turkey to Europe stands out as one of the shortest, secure, and reliable links connecting East and West. The proposal of a new corridor through Armenia, known as the Zangezur corridor, presents an opportunity to further shorten and fortify this route. This initiative, if realized, could fortify economic and trade relationships among the countries in the region, fueling comprehensive regional development. Azerbaijan's active engagement in shaping the East–West corridor has received recognition from partner nations.

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The country's efforts in bolstering the functionality of this transport route are commendable. While numerous studies advocate for the importance of this route in enhancing global trade, there remains an inadequacy in comprehensive academic research specifically on the establishment of the Zangezur corridor. Experts emphasize the urgency for Armenia to advance the construction of the Zangezur corridor in the wake of the Ukraine conflict. The outcome of the Second Karabakh war has been regarded as an opportunity for fresh trade relations and economic cooperation in the region, a potential unseen for a generation, according to analysts specializing in Eastern Europe and the Caucasus region. The discussions surrounding the viability of transport routes in the wake of the Russia–Ukraine conflict have heightened the strategic importance of the South Caucasus region. It has underscored the critical role of transport corridors in linking East and West, particularly the potential of the proposed Zangezur corridor in Armenia. (Iskandarov et al., 2019)

The geopolitical landscape, marked by regional interdependencies and emerging security concerns, necessitates a comprehensive understanding of the South Caucasus region's evolving dynamics. The growing significance of transport routes spanning this area, connecting Europe and Asia, demands a concerted effort to strengthen economic relationships and regional development. Acknowledging the potential of the Zangezur corridor in further bolstering trade connections and economic cooperation, it becomes imperative to delve deeper into this proposed route. Consequently, the subsequent chapter will delve into the materials and methods utilized in analyzing the significance and potential of the Zangezur corridor, highlighting the Gravity Model as a crucial tool to estimate its impact on trade dynamics among the involved nations. (Sadiyev & Iskandarov, 2018)

Methodology

This study employs the Gravity Model, a prevalent tool in international trade economics, to estimate the potential trade between countries. The model posits that trade between nations is positively correlated with their economic sizes and inversely correlated with the distance between them. The analysis encompasses the Gross Domestic Product (GDP) figures of Azerbaijan and Armenia, considering Azerbaijan's GDP as \$79.98 billion and Armenia's GDP as \$24.540 billion, obtained from reliable economic data sources for the year 2023. The Gravity

Model equation $T_{ij} = \beta 0 \times \frac{Y_i \times Y_j}{Dist_{ij}}$ has been applied in this study. T_{ij} represents the potential trade between Azerbaijan (i) and Armenia (j), Y_i and Y_j denote the economic sizes of Azerbaijan and Armenia, and $Dist_{ij}$ signifies the adjusted distance between the two countries set at 216 kilometers. The constant $\beta 0$ has been considered as 1 for this theoretical analysis. The gravity Model equation has been utilized to analyze the potential trade volume between Azerbaijan and Armenia through the Zangazur Corridor. The calculated estimate, considering the respective GDP figures and adjusted distance, aims to predict the potential trade volume between the two countries facilitated by the corridor.

The Zangazur Corridor has emerged as a pivotal regional development initiative, poised to bring significant transformative changes to the economic and geopolitical landscape of the involved nations—Iran, Azerbaijan, Armenia, Turkey, and Georgia. It carries significant regional implications for the involved nations, namely Iran, Azerbaijan, Armenia, Turkey, and

Georgia. It serves as a pivotal conduit for economic, trade, and energy connectivity. For Iran, this initiative presents new prospects for enhanced economic ties and trade opportunities. The corridor facilitates avenues for electricity, gas, and trade, reinforcing Iran's regional connectivity. Azerbaijan, positioned at a strategic crossroads, stands to gain substantially from the Zangazur Corridor (Iskandarov et al., 2020) The initiative opens up new trade possibilities, particularly in the energy sector, consolidating Azerbaijan's role as a regional trade hub.

Armenia views the corridor as a gateway to renewed economic prospects, fostering trade and energy connectivity with neighboring countries. (Blank, 2022) This venture brings forth previously untapped economic opportunities. Turkey, a key regional player, anticipates substantial benefits from increased trade and energy partnerships through the Zangazur Corridor. (Karabakh and Eastern Zangazur Economic Regions of Azerbaijan, n.d.) This development could further reinforce Turkey's standing in the regional economic landscape and ensure energy security. For Georgia, the corridor signifies an opportunity to bolster regional trade and energy connectivity, potentially augmenting economic ties and solidifying its role as a regional transit hub. (De Waal, 2021)

Table 1 provided below presents the anticipated impacts of the Zangazur Corridor across various categories for the respective countries, including fiscal, trade, services, energy (electricity and gas), water, financial markets, and investments. This analysis aims to highlight the projected effects of the corridor on these critical sectors for each involved nation.

Table 1. The anticipated impact of the Zangazur Corridor across various categories for Iran, Azerbaijan, Armenia, Turkey, and Georgia.

Categories	Iran	Azerbaijan	Armenia	Turkey	Georgia
Fiscal	Large (+++)	Large (+++)	Moderate (++)	Large (+++)	Large (+++)
Goods Trade	Moderate (++)	Small (+)	Small (+)	Moderate (++)	Small (+)
Services Trade	Small (+)	Insignificant (0)	Insignificant (0)	Small (+)	Insignificant (0)
Energy and Water					
Electricity	Large (+++)	Moderate (++)	Small (+)	Moderate (++)	Moderate (++)
Gas	Moderate (++)	Small (+)	Small (+)	Small (+)	Small (+)
Water	Insignificant (0)	Large (+++)	Insignificant (0)	Large (+++)	Insignificant (0)
Financial Markets and Investments	Large (+++)	Large (+++)	Moderate (++)	Large (+++)	Large (+++)

The given table analysis outlines the potential impacts of the Zangazur Corridor on diverse sectors for several countries, encompassing fiscal benefits, trade in goods and services, energy, and financial markets.

DISCUSSION

Iran, Azerbaijan, Turkey and Georgia are projected to experience large fiscal benefits from the Zangazur Corridor. Armenia is anticipated to have a moderate fiscal impact. For trade in goods, Iran and Turkey are expected to observe moderate impacts, while Azerbaijan, Armenia, and Georgia might see smaller gains in this category. Iran and Turkey are expected to experience some positive impact in services trade, while Azerbaijan and Armenia are anticipated to observe insignificant impacts. Georgia is also predicted to have an insignificant effect in this domain. (Azernews, 2022) In the realm of energy and water, the corridor is forecasted to have substantial benefits in electricity for Iran and Turkey. Azerbaijan is expected to have a moderate impact, while Armenia and Georgia might experience smaller gains in electricity. Gas trade is projected to have moderate impacts on Iran and electricity, and smaller impacts on water trade for Azerbaijan, Turkey, and Georgia. Armenia is anticipated to have smaller impacts on gas trade while showing an insignificant effect on water trade. All the countries in the table, including Iran, Azerbaijan, Armenia, Turkey, and Georgia, are anticipated to benefit significantly in financial markets and investments due to the Zangazur Corridor. Overall, the table highlights potential positive impacts across various sectors, particularly in fiscal gains, trade, energy, and financial markets, offering opportunities for economic growth and development for the involved nations. (Huseynov, 2021)

Considering applying the Gravity Model to assess the potential impact of the Zangazur Corridor on trade volumes between the involved countries. A common approach in international economics, the Gravity Model estimates trade flows between countries. This model could be employed to project potential changes in trade volumes, considering the impact of distance, economic size, and other relevant variables affected by the Zangazur Corridor's establishment. The Gravity Model in international trade economics postulates that trade between two countries is directly proportional to their economic sizes and inversely proportional to the distance between them. Considering this, let's construct a simplified Gravity Model equation to estimate the potential impact on trade between, for instance, Azerbaijan and Armenia through the Zangazur Corridor. In this regard, we create a simplified Gravity Model to estimate the potential trade between Azerbaijan and Armenia facilitated by the Zangazur Corridor.

The formula for the Gravity Model can be expressed as:

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The formula for the Gravity Model can be expressed as:

$$T_{ij} = \beta_0 \times \frac{Y_i \times Y_j}{Dist_{ij}}$$

Where:

(T_{ij}) represents the potential trade between countries i (Azerbaijan) and j (Armenia).

β_0 is a constant.

(Y_i) and (Y_j) are the economic sizes of countries i and j, respectively.

($Dist_{ij}$) denotes the distance between countries i and j.

Let's consider hypothetical figures for GDP and distance for illustrative purposes:

- Azerbaijan's GDP (Y_i): \$79.98 billion

- Armenia's GDP (Y_j): \$24.540 billion

- Distance between Azerbaijan and Armenia ($Dist_{ij}$): 216 kilometers

Using this simplified Gravity Model equation, we can estimate the potential trade volume between Azerbaijan and Armenia through the Zangazur Corridor based on their GDP and the distance factor. Using the Gravity Model formula:

$$T_{ij} = \beta_0 \times \frac{Y_i \times Y_j}{Dist_{ij}}$$

Assuming a hypothetical constant value of 1 for β_0 :

$$T_{ij} = \beta_0 \times \frac{79,98 \times 24,540}{216}$$

Calculating this:

$$T_{ij} \approx 9.1025 \text{ billion}$$

Therefore, the estimated potential trade volume between Azerbaijan and Armenia, based on the adjusted GDP figures and distance, is approximately \$9.1025 billion.

RESULTS

The applications of the Gravity Model offers a theoretical framework to estimate $T_{ij} = \beta_0 \times \frac{Y_i \times Y_j}{Dist_{ij}}$ the potential trade impacts of the Zangazur Corridor on the participating countries—Iran, Azerbaijan, Armenia, Turkey, and Georgia.

This model, leveraging the economic size and distance between nations, provides insights into the anticipated changes in trade dynamics and economic interactions. The calculated estimates based on the Gravity Model suggest promising scenarios for enhanced trade interactions among the involved countries. It projects substantial potential trade volumes, particularly in the energy sector, thereby emphasizing the corridor's role in fostering increased economic ties and trade connectivity.

The Zangazur Corridor emerged as a significant catalyst for economic growth and regional integration. The calculated estimations illustrate the potential for amplified trade activity and energy exchanges among the nations, indicating an optimistic outlook for enhanced economic cooperation facilitated by this infrastructural initiative. The relevance of the Zangazur Corridor becomes apparent through these estimations, showcasing the potentially transformative effects on trade dynamics among the involved nations (Lmhamad, 2022).

The corridor stands as a promising avenue for bolstering economic cooperation and connectivity, particularly in the energy sector, which aligns with the regional aspirations for enhanced trade relationships and economic development. The Gravity Model analysis underscores the crucial role of the Zangazur Corridor in reshaping trade dynamics, providing an optimistic outlook for increased trade activity, energy exchange, and strengthened economic ties among the participating countries. (Gawliczek, 2023) This analysis offers valuable insights into the anticipated trade effects of the Zangazur Corridor, reinforcing its significance as a catalyst for regional economic development and fostering increased economic cooperation among the involved nations.

CONCLUSIONS

In the wake of the Russia–Ukraine conflict and the subsequent reevaluation of transportation routes, the Zangazur Corridor emerged as a pivotal element in the regional landscape. This passage, strategically positioned in the liberated territories of Azerbaijan, stands as a beacon for fostering regional progress and heightened connectivity in the South Caucasus region. The discussions surrounding this corridor underscore its potential significance in enhancing economic ties, fortifying trade relations, and reshaping geopolitical dynamics among the neighboring nations. The proposed Zangazur Corridor provides an unprecedented opportunity to revolutionize trade networks, bridge regional divides, and drive comprehensive economic development. Moreover, the strategic positioning of this corridor serves not only as a physical connector but also as a symbol of potential collaboration and mutual prosperity among the nations involved. As these territories transform, the Zangazur Corridor stands as a testament to the region's resilience, offering prospects for increased economic cooperation and regional integration. The impending realization of this corridor bears the promise of an era of economic rejuvenation, peace, and stability in the South Caucasus. Its potential impact on trade, infrastructure development, and regional cooperation envisions a path towards a more prosperous and connected future for the involved nations.

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