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The impact of global geopolitical risk on Afghanistan's economic condition: Evidence from wavelet quantile regression

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ABSTRACT

This study explores the dynamic effects of global geopolitical risk (GPR) on Afghanistan's macroeconomic performance using data from 1990 to 2024. The results of Wavelet Quantile Regression (WQR) show that GPR shocks have immediate and negative impacts on GDP, the Exchange Rate (EXP), imports (IMP), exports (EXP), and inflation (INF) across all quantiles in the short, medium, and long terms. Notably, the response of GDP per capita to GPR is strong in the short term but diminents over time. Additionally, IMP and EXP are negatively affected by GPR dynamics owing to border closures, sanctions, and disruptions to trade routes in both the short and long terms. The most significant vulnerabilities are revealed in EXP and INF, where persistent depreciation and unstable prices harm household welfare in low-income, import-dependent economies. These findings provide new insights into one of the most fragile nations within the global system and demonstrate the role of the WQR in breaking down multi-scale dynamics often overlooked by linear models. This study underscores the urgent need for Afghanistan to develop adaptation policies that can mitigate short-term shocks, build external buffers, and enable structural reforms, ultimately making the country less vulnerable to long-term geopolitical shocks.

Keywords: Afghanistan, Geopolitical Risks, Macroeconomic Performance, Wavelet Quantile Regression

1. INTRODUCTION

The world economy today can be characterized by greater uncertainty, commonly referred to as polyhelicene, in which some shocks, which interact, redefine the global economic system and politics (Coetzer et al., 2023; Konovalova, 2023). These shocks are structural and have long-term effects on growth, stability, and international cooperation, as opposed to past cyclical contracts. Increased geopolitical pressures, fueled by the war between Russia and Ukraine, persistent violence in the Middle East, and rising power rivalries among the leading world powers, have been a real nuisance to global supply chains, triggering inflation and disrupting financial markets (Asafo-Adjei et al., 2023). At the same time, these vulnerabilities have given rise to the possibility of stagflation and economic depression due to the accumulation of vulnerabilities, including an increase in global debt, a decline in foreign direct investment, and fragile labor markets (Aydin et al., 2025; Korol et al., 2022).

Global Geopolitical Risk (GPR) is a crucial factor in contemporary economic studies, reflecting the threats posed by war, terrorism, interstate conflicts, and other incidents that disrupt international relations (Demirkale et al., 2025; Elsayed et al., 2021; Caldara et al., 2022). Constructed using a news-based index, the GPR provides a systematic method for quantifying uncertainty and spikes in the case of significant geopolitical occurrences, signaling both immediate threats and market expectations. GPR affects the economy in several ways: it lowers investor confidence, slows business decisions, disrupts international trade, raises inflation through commodity price shocks, and leads to exchange rate volatility (Tzitiridou-Chatzopoulou et al., 2024; Yang et al., 2021). This causes a continuous element of uncertainty, which increases the risk of investment and destabilizes finances.

A substantial body of empirical literature has reported the impact of hallmark geopolitical risk (GPR) on macroeconomic performance in various countries and across multiple periods. Geopolitical factors, such as wars, terrorism, political conflicts, and trade tensions, have been found to elevate uncertainty, disrupt investment choices, and slow the growth of economies, consumption, and employment (Aydin et al., 2025; Asafo-Adjei et al., 2023; Caldara et al., 2022). The Caldara-Iacoviello index and Geopolitical Risk Dashboard are standardized GPR measures that exhibit spikes when key historical events occur, providing sound signals to analyze their effects (Bilgili et al., 2021; Caldara et al., 2022). The literature identifies several transmission channels: increased GPR causes market volatility, reduces long-term investment, affects financial markets, disrupts supply chains, and affects commodity prices, exchange rates, and trade flows (Marangoz, 2025; Tzitiridou-Chatzopoulou et al., 2024; Atacan et al., 2023). Given the existing evidence from developed and emerging economies, it is possible to state that high geopolitical risk is associated with the weakening of exchange rates, reduced investment, fewer capital flows, and highly active macroeconomic fluctuations with significant influences on the interplay between inflation and trade balances (Althaqafi, 2025; Tuna et al., 2022; Hui, 2021; Yildirim, 2020). These results support the critical role of understanding the GPR-macroeconomy relationship in making effective policies, particularly in weak and small economies, where increased sensitivity to external shocks may further amplify the adverse outcomes of global geopolitical short-sightedness.

This study is motivated by the fact that Afghanistan is exceptionally vulnerable to global geopolitical threats, necessitating an informed economic policy. Afghanistan is a very sensitive geographical location in terms of geopolitics. It has been a victim of long-running internal strife, periodic international sanctions, and over-dependence on foreign aid in a landlocked, import-dependent economy. These structural weaknesses predispose the country to external shocks, including variations in trade, investment, and capital flows. Recent events, including changes in political relations, escalating tensions in the Middle East, the withdrawal of foreign forces, and heightened geopolitical insecurity, have increased the country's susceptibility to adverse macroeconomic impacts. Under these circumstances, the effects of Global Geopolitical Risk (GPR) on the Afghan economy are crucial to understanding how vulnerable, war-torn, and externally susceptible economies respond to global shocks, thereby informing the formulation of policies that can counteract risks and stabilize the economic system.

This study makes several meaningful contributions to the study of geopolitical risk and economic outcomes. First, this innovative work employs a highly sophisticated econometric technique to discuss the

impact of Global Geopolitical Risk (GPR) on the Afghan economy at a particular level, offering rich insights into many aspects of economic activity and potentially capturing effects that could otherwise be missed with less sophisticated techniques. Second, this study presents unique empirical evidence from a weak, less-explored economy, filling a significant gap in the existing knowledge that research primarily focuses on developed or emerging economies. Finally, the findings will provide valuable information to Afghan policymakers and foreign agencies, helping establish measures aimed at reducing the adverse effects of exogenous shocks, strengthening the economy, and promoting sustainable economic growth in a highly vulnerable environment. The strategy of focusing on a country with a strategically sensitive location and long-term internal unrest enhances the theoretical comprehension and practical application of political policies within the scope of geopolitical risk economics.

The remainder of this paper is structured as follows. Section 2 examines the associated literature that puts the economic issues in Afghanistan in the context of global geopolitical risk. Section 3 is methodological and focuses on how the wavelet quantile regression can capture the time-frequency properties of geopolitical shocks on Afghanistan's economy. Section 4 presents the results and commentary on the findings, which reveal the empirical patterns and structural weaknesses of Afghanistan's trade and financial systems within their regional and international contexts. Finally, Section 5 summarizes some significant findings, policy implications, and recommendations that could enhance Afghanistan's economic capacity to withstand growing geopolitical uncertainty.

2. LITERATURE REVIEW

The problem of geopolitical risk (GPR) has become a highly active topic in economic literature because it exemplifies the dangers to international relationships, including wars, terrorism, and political tensions (Guo, 2024; Caldara, 2022). In the aftermath of the global financial crisis in 2008, researchers highlighted the impact of uncertainty and international shocks on macroeconomic outcomes in a new manner, which had never been seen before (Bonaime et al., 2017). The news-based GPR indexes, including the Caldara-Iacoviello index, reflect significant crises, such as World Wars and September 11, and consistently indicate a high geopolitical risk associated with declining investment, employment, and output (Caldara, 2022; Goswami & Panthamit, 2020). Initial research has also shown that the GPR interferes with capital flows and undermines energy security and development strategies (Guo, 2024).

The negative relationship between GPR and economic growth has been statistically proven by empirical research conducted in different countries. The literature shows that the increment of GPR by as little as 10 points may cause a decrease in GDP by 0.2-0.4 percent, indicating how much of a drag on output heightened uncertainty is (Aydin et al., 2025). These dynamics have supply side disruption mechanisms, including the destruction of resources and disruption of production, and demand-side contraction mechanisms, including decreased investment, employment, and household expenditure (Asafo-Adjei et al., 2023). The dynamics of geopolitical shocks on industrial production and jobs, as demonstrated by Vector Autoregressive analyses, show that both advanced and developing economies experience suppressed production and job creation due to the impact of these shocks (Caldara, 2022). Firm-level studies also conclude that investments are delayed or discontinued during high-risk times, specifically in industries that are not diversified, leading to lower profitability and increasing susceptibility to industrial activity (Lu et al., 2020). The same is true for financial and credit markets, where banks restrain lending, financial investors move at the expense of more secure investments, and consumers reduce durable consumption (Alsagr & Almazor, 2020; Atacan & Acik, 2023). The overall effect of these is greater macroeconomic turbulence from geopolitical shocks.

One of the most direct ways in which geopolitical instability affects economies is through trade relations. It has been proven that the GPR causes disruption of global supply chains, slowdown of container throughput, and disruption of bilateral trade flows (Atacan & Acik, 2023; Goswami & Panthamit, 2020). Historical experiences, such as the oil crises of the 1970s and the 1990s, demonstrate how geopolitical tensions can precipitate sudden declines in global development by disrupting economic relationships (Lai et al., 2023). Recent crises, such as the U.S.-China trade war, negotiations between the

United Kingdom and the European Union, and the conflict in Russia and Ukraine, have led to significant disruptions in agricultural markets and energy security, as well as commodity prices (Fossung et al., 2021; Konovalova & Abuzov, 2023; Dai et al., 2024). In Afghanistan, where imports of food, fuel, and intermediate goods are the mainstay of the economy, the risks are incredibly high. The effects of border closure, sanctions, and disrupted transit routes are direct on trade volumes. In contrast, long-term uncertainty undermines foreign direct investment inflows and limits the possibility of growing exports and imports (Truong et al., 2024). Therefore, the above evidence shows that fragile economies that rely on imports are particularly vulnerable to geopolitical turbulence via the trade channel.

Another necessary transmission of GPR is currency volatility. Empirical research using a GARCH-type model concludes that geopolitical shocks are adverse, resulting in strong and asymmetric depreciation of emerging market currencies, especially in a setting with weak institutions and a significant inflow of foreign capital (Khaliq, 2022; Gainetdinova, 2023). The Russia and Venezuela case studies indicate that long-term geopolitical uncertainty enshrines long-term currency depreciation, increasing risk premiums, and compelling macroeconomic changes (Duan et al., 2021; Kyriazis et al., 2023). In Afghanistan, this exposure is compounded by dollarization, low reserves, and a lack of countercyclical financial institutions; consequently, exchange rate changes are one of the best indicators of external instability.

Geopolitical risk also significantly impacts inflation. On the supply side, broken trade routes and increased energy prices cause cost-push inflation, whereas on the demand side, a reduction in investment and consumption in uncertain conditions has the potential to result in disinflation (Bilgili et al., 2021; Asafo-Adjei et al., 2023). The experience of emerging markets indicates that inflation volatility increases to the greatest extent in situations associated with geopolitical shocks and monetary policy credibility (Adeosun et al., 2022; Hui, 2021). The Russo-Ukrainian War, in particular, led to sharp increases in food and fuel prices, which disproportionately affected low-income families (Marangoz, 2025). In less developed economies such as Afghanistan, where imports and weak institutional structures compound inflationary pass-through, households are directly influenced by the dilution of purchasing power and the escalation of prices of necessities.

Although these issues have been extensively covered in developed and developing economies, Afghanistan remains an omission in the literature. Being a landlocked, aid-dependent, and conflict-prone economy, it is full of structural weaknesses that enhance the effects of geopolitical turbulence. However, little has been done to methodically analyze the impact of the GPR on its GDP, trade, exchange rates, and inflation. It is essential to cover this gap as it not only adds valuable literature on fragile economies but also provides crucial insights into policy strategies to overcome external shocks.

3. METHOD

3.1 Data

This study examines the impact of Global Geopolitical Risk (GPR) on Afghanistan's macroeconomic indicators, covering data from 1990 to 2024. We employ global geopolitical risk (GPR) as the explanatory variable and macroeconomic indicators, including GDP per capita (GDP), Exchange Rate (EX), import (IMP), export (EXP), and inflation (INF), as the main response variables. Data on GDP, IMP, EXP, and INF were extracted from the World Development Indicators (WDI), and data related to EXR were obtained from the International Monetary Fund (IMF). The GPR data were based on the study by Caldara et al. (2022). Table 1 provides more information on the variables' acronyms, definitions, and sources.

Table 1. Variable Names, Status, Description, and Sources

Variables	Status	Variables Descriptions	Source
GDP	Y	Gross Domestic Product (Constant 2015 US$)	WDI
EXP		Export of Goods and Services	WDI
EMP		Import of Goods and Services	WDI
EXR		Exchange Rate (AFN/USD average)	IMF
INF		Inflation (annual % change in Consumer Price Index, CPI)	WDI
GPR	X	Global Geopolitical Risk Index	Caldara et al. (2022)

Note: This table provides details on the variable names, status, variable descriptions, and sources of the dataset. Additionally, WDI stands for World Development Indicators, IMF for International Monetary Fund, and GPR for Geopolitical Risk, which is also included in this table.

3.2 Model Specification

The model's specification clarifies that this study employs wavelet quantile regression (WQR) to identify the heterogeneous and time-varying impact of global geopolitical risk (GPR) on Afghanistan's macroeconomic performance. WQR can unmix complex interactions between various quantiles and across time horizons, unlike traditional linear methods, and is therefore very appropriate in an economy characterized by structural fragility and constant shocks (Hasan & Li, 2024). The Afghan situation, characterized by prolonged instability, reliance on aid, and inadequate financial buffers, requires an approach that addresses both short-term and long-term structural weaknesses. As it has been applied in other markets (i.e., energy and financial markets), where it is used to identify non-linear spillovers and asymmetric effects (Jiang et al., 2025), our method focuses on the transmission of geopolitical shocks across major economic pathways, including growth, trade, exchange rates, and inflation.

The analysis, using this methodology, has offered new findings concerning the state-dependent transmission of geopolitical risk, which can allow policymakers to identify the conditions under which the Afghan economy is most susceptible. This is particularly relevant in the formulation of stabilization plans that deal with both immediate shocks and long-term risks in structural dependencies and weak trade paths. Equation: The empirical framework has a functional form expressed as follows:

$$LnAFMEI = f(GPR) \qquad \text{Equation 1}$$

Where Ln AFMEI is the Afghanistan Macroeconomic Indicator and GPR is the Global Geopolitical Risk.

3.3 Empirical Estimation Strategy

Wavelet Quantile Regression is a valuable technique that uses wavelet analysis and quantile regression (QR) to determine the dependence of data on multiple scales with high accuracy. Wavelet analysis breaks data into frequency-based information, and the WQR can identify moving averages at different levels or periods. The WQR provides an opportunity to study changes in the relationship between variables through quantiles and periods. Examples include long-, short-, and medium-term analyses when examining the relationship between variables. The proposed method is superior to the QR suggested by Sim and Zhou (2015). It can be observed that the correlation between two time-series changes over time is evident in both the works of Aguiar-Conraria and Soares (2014) and in the work by AlNemer et al. (2023). The WQR addresses this issue, as it does not encounter this problem owing to its use of quantiles and time scales, as expressed in Equations 2 and 3.

$$\alpha_1[i] = h_1[i] * s[i] = \sum_k h_1[i-k] * s[k] \qquad \text{Equation 2}$$

$$\mathrm{d}_1[i] = g_1[i] * s[i] = \sum_k g_1[i-k] * s[k] \qquad \text{Equation 3}$$

Additionally, a refinement approach was employed to enhance the process. $\alpha_1[i]$ by using modified filters $g_2[i]$ and $h_2[i]$, which are derived from the dyadic up-sampling $g_1[i]$ and $h_1[i]$. The recursive procedure is performed iteratively. The values of J, which range from 1 to J_0 - 1, where $J_0 \leq J$, were estimated using approximation coefficients and are shown below in Eqs. 4 and 5.

$$\alpha_{j+1}[i] = h_{j+1} * [i] * \alpha_j[i] = \sum_k h_{j+1}[i-k] * \alpha_j[i] \quad \text{Equation 4}$$

$$\mathrm{d}_{i+1}[i] = g_{j+1}[i] * \alpha_j[i] = \sum_k g_{j+1}[n-k] * \alpha_j[j] \quad \text{Equation 5}$$

The values of $g_{j+1}[i]$ and $h_{j+1} * [i] = \mathrm{U}(\mathrm{h}_j[i] = \mathrm{U}(\mathrm{g}_j[i]$, where U denotes the up-sampling process that inserts zero values between consecutive time points. The WQR result is obtained for each J level. The following methods are used to determine the WQR for the Y and X at a specific degree of decomposition (J) and for a given quantile (q), as shown in Eq. 6.

$$\emptyset_{(\varphi)}(d_j * [Y] * d_j[X]) = \mathrm{B}_{0(\varphi)} + \mathrm{B}_{1(\varphi)} * d_j[X] \quad \text{Equation 6}$$

3.4 Wavelet Quantile Regression (WQR)

Wavelet Quantile Regression (WQR) offers an econometric model that provides a sound approach to examining the impact of global geopolitical risk (GPR) on economic performance indicators in Afghanistan in a heterogeneous and time-varying manner. WQR can be used to separate short-, medium-, and long-term dynamics and affect different points of the conditional distribution, as high-frequency components are split off using wavelet decomposition and quantile regression. This dual nature makes the WQR particularly suitable for economies such as Afghanistan, where structural fragility and frequent shocks lead to nonlinear and asymmetric responses.

In contrast to the usual regression models, which do not vary with changes in time and distribution, the WQR reveals a varying relationship between the GPR and macroeconomic performance with respect to the horizon and the economic state. As an illustration, it suggests that geopolitical shocks are more detrimental during recessions (lower quantiles) than during expansions (upper quantiles) and are non-random or enduring in long-term frameworks. This goes beyond the usual Quantile-on-Quantile Regression (QQR) model proposed by Sim and Zhou (2015), where WQR combines the time-separation of wavelet filters with the distribution of quantile regression.

Based on the results of Aguiar-Conraria and Soares (2014) and recent research such as AlNemer et al. (2023), the WQR is applied in this case to determine the change in the relationship between GPR on one hand and the GDP, inflation, exchange rate, exports, and imports of Afghanistan, based on the scale and economic state. Such a methodological improvement will ensure that the empirical findings are not limited to average effects but provide a comprehensive picture of how geopolitical risk affects various macroeconomic channels in different economic environments.

4. RESULT AND DISCUSSION

The dynamic interaction between global geopolitical risk and Afghanistan's macroeconomic trajectory is essential to understand, as the country has long been exposed to political instability, security issues, and an economy that is heavily reliant on external forces. Geopolitical shocks cause not only temporary disruptive effects but also structural effects that have a bearing on investment flows, trade routes, currency stability, and household welfare. Remittances and access to regional trade can amplify the spread of geopolitical risk in both downward and upward cycles in fragile economies, such as Afghanistan, where development depends on aid flows. Geopolitical risks spread rapidly and unevenly, constraining the duration of recovery. To study these dynamic complexities, Wavelet Quantile Regression (WQR) provides a valuable perspective, as it enables us to examine the impact of risk across different time periods and economic climates.

4.1 Wavelet Quantile Regression (WAR)

These dynamics can be understood in more detail in Figure 1, which represents a wave-like pattern of interaction between geopolitical risk and major macroeconomic indicators over time and quantiles. Figure 1a, representing the first pane,lfocuses onn the correlationbetweene the GPR and GDP, indicating an apparent state-dependent trend. Geopolitical shocks have a powerful effect on both the lower and upper quantiles of GDP: they increase declines in the economy that is already weak and restrain expansion during periods of prosperity. This underscores the incisive structural weaknesses in Afghanistan, with security and external relations problems rapidly deteriorating in the country. Conversely, at long- and medium-term horizons, the correlation becomes much weaker, and most quantiles are only weakly significant. It is important to note that the effect is more substantial in the higher quantiles, which implies that GPR is a considerable drag on growth in the short run. However, long-run economic dynamics are becoming more structural due to factors such as trade reconfigurations, external financing terms, and institutional resilience. In general, these results highlight the fact that the dynamics of growth in Afghanistan are vulnerable to the instability of the geopolitical situation in the short term, and the long-term developmental dynamics are more dependent on systemic reforms and interactions with the outside world than on changes in the risk of the immediate geopolitical situation.

Figure 1bshowsr that geopolitical risk (GP influences exportperformances. The findings indicate a high sensitivity in the short run, particularly at the lower quantiles, where stronger geopolitical tensions drastically reduce export flows. This is in line with the ongoing border closures, sanctions, and destabilization of transit routes in Afghanistan, which have significantly impacted regional trade, leading to the instantaneous destruction of trade volumes due to the fragile economy. The effects are more minor at median quantiles, indicating that in less volatile economic circumstances, exports are not as sensitive to geopolitical impacts. Nonetheless, the fact that these associations remain relevant in the upper quantiles over time indicates that geopolitical risk also constrains the ultimate potential of export growth in the favorable cases of external demand and prices. This skewed trend highlights the instability of Afghanistan's commodity exports and underlines that regional political stability and international relations are of paramount importance in determining the country's access to global markets. Figure 1 shows the Wavelet Quantile plots depicting the relationship between GPR and GDP, EXP, IMP, EXR, and INF.

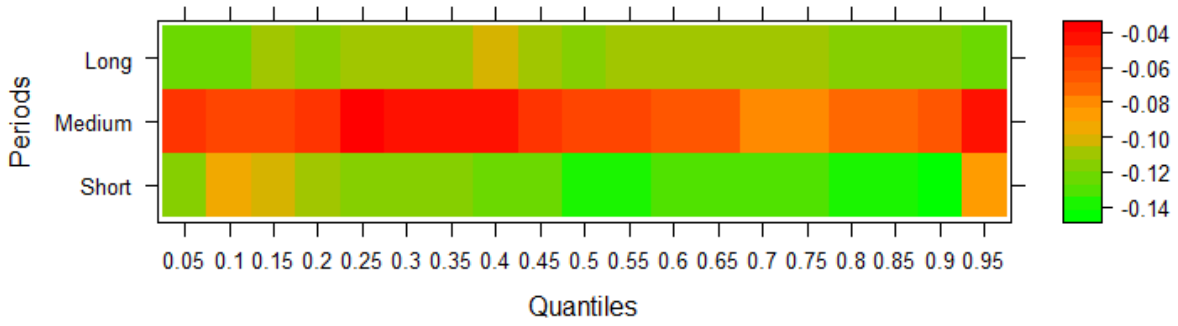

Figure 1a. WQR between the GPR and GDP.

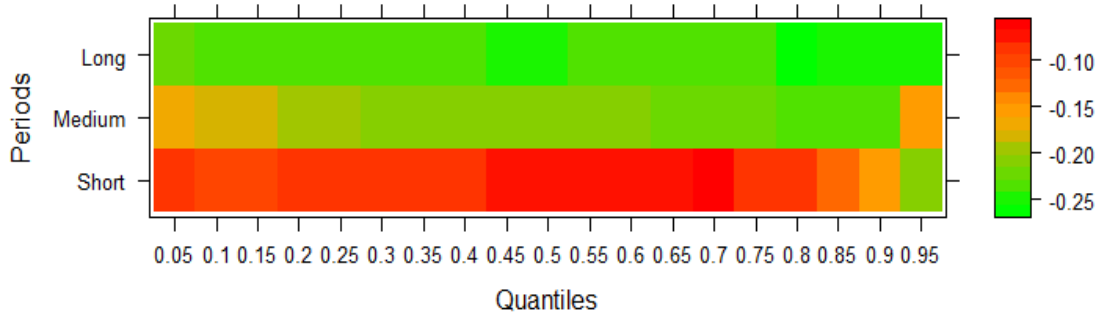

Figure 1b. WQR between the GPR and EXP.

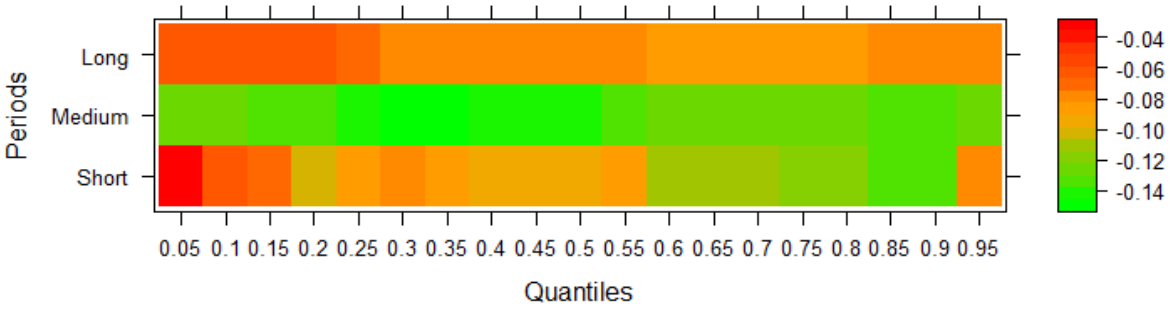

Figure 1c. WQR between the GPR and EMP.

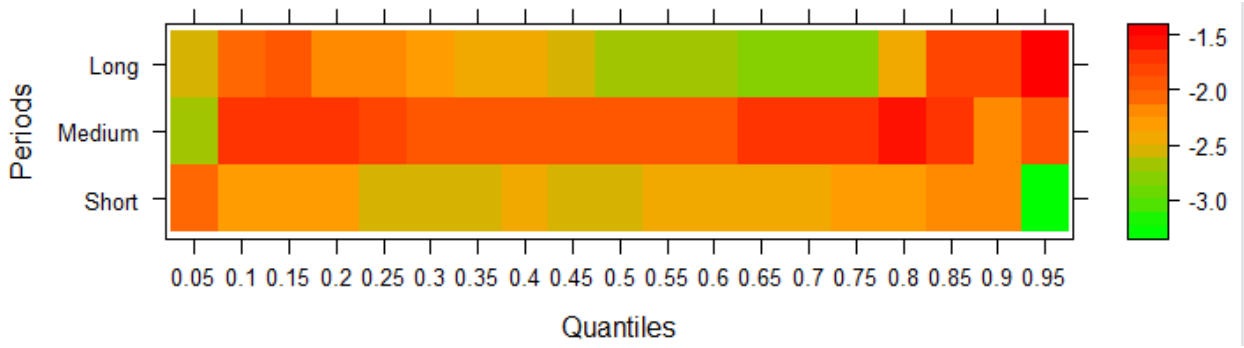

Figure 1d. WQR between the GPR and EXR.

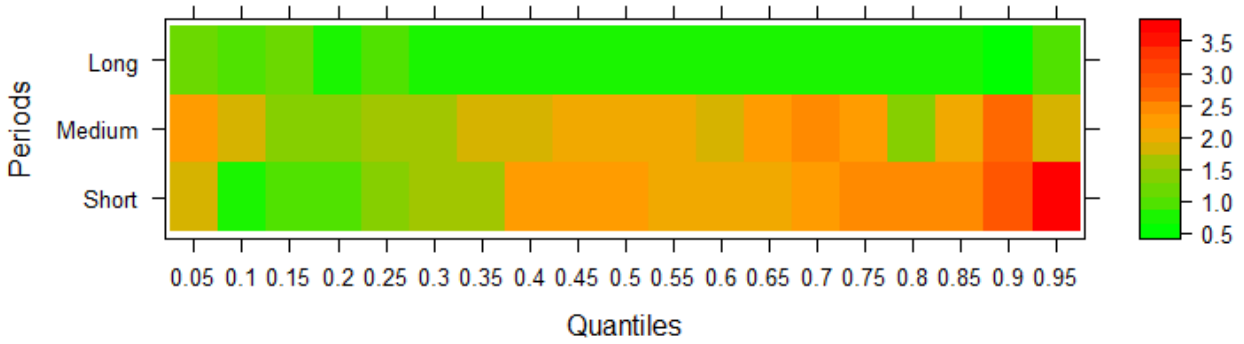

Figure 1e. WQR between the GPR and INF.

1a. WQR between the GPR and GDP.
1b. WQR between the GPR and EXP.
1c. WQR between GPR and IMP.
1d. WQR between GPR and EXR.
1e. WQR between the GPR and INF.

Figure 1c illustrates the correlation between geopolitical risk (GPR) and imports across different periods and quantiles. The WQR findings suggest that short-term shocks in GPR substantially decrease the volume of imports at lower quantiles, where Afghanistan's economy is particularly susceptible to shocks owing to its heavy reliance on imported food, fuel, and intermediate goods. This proves that the vulnerabilities of the supply chain and funding problems are the most noticeable in periods of political instability or sanctions and compound the effect on already weak trade flows. The relationship at median levels is less intense, which means that under more stable conditions, the rebound of imports can occur to some degree. Nevertheless, the long-term tendencies indicate that strong correlations are recapitulated in both lower and upper quantiles, as shown in darker colors, suggesting that long-term geopolitical

uncertainty not only limits the ability to import during stressful times but also hinders growth in cases of growing demands. This response to both the short and long term verifies that imports are one of the most geopolitically sensitive economic indicators in Afghanistan, where transaction costs, currency variation, and trade finance barriers strongly determine long-term trends.

Figure 1d demonstrates the association between geopolitical risk (GPR) and the exchange rate at various time horizons and quantiles. This correlation is strong in the short run, particularly at lower quantiles, during periods of increased geopolitical tension that lead to the rapid depreciation of the Afghani. The result of this is dollarization surges, the removal of correspondent banking facilities, and the loss of investor confidence in turbulent times. With the time span extended to the medium term, the correlation decreases slightly. However, it persists in several quantiles, indicating that the impact of GPR on exchange rate movements is not entirely short-term. The connection is again found to be strong in the higher quantiles in the long run, with the color gradient being more pronounced. It is clear that the continued or repeated effect of geopolitical stress is entrenched in the structure of the exchange rate and not fleeting. This trend highlights the significant impact of geopolitical factors on Afghanistan's exchange rate trend, particularly given the absence of robust monetary systems and foreign exchange reserves, which could otherwise mitigate the currency's vulnerability to such recurring shocks.

Figure 1e shows how the geopolitical risk (GPR) and inflation interact in various quantiles. The WQR analysis reveals that the short-term impacts of the GPR are more pronounced at higher quantiles, where periods of higher uncertainty have led to a steep price upsurge. The causes of these spikes are primarily due to derailed import flows, delays at border crossings, and high pass-through of exchange rates that bring about an immediate increase in consumer prices. The fact that these effects are still being felt in the medium and long run, particularly at the extreme ends of the distribution, suggests that geopolitical instability continues to make inflation structurally high and leads to stable price volatility. However, the weaker relationships of the lower quantiles suggest that geopolitical risk has a minimal impact on causing episodes of disinflation in the short term.

In Afghanistan, where poverty, reliance on imported goods, and weak financial institutions prevail, such inflationary strains are not merely statistical; they have a direct, negative impact on the welfare of households. During the geopolitical crisis, families are the biggest losers, as food, fuel, and basic commodity prices skyrocket, leaving many of them in a more vulnerable position. The Afghan economy lacks insulation mechanisms against external shocks, such as fiscal transfers or monetary policy, which affect households entirely due to the inflationary impact of geopolitical risk, unlike advanced economies. Therefore, the WQR outcomes extend beyond macroeconomic instability, reflecting the practical implications of geopolitical shocks on everyday Afghans and the effects of insecurity, sanctions, and other regional disruptions, which adversely impact real incomes and access to necessities.

5. CONCLUSION AND RECOMMENDATION

The results of this study confirm that the Afghan economy is mainly vulnerable to international geopolitical threats and short-term shocks, characterized by a significant decline in GDP, reduced trade, and currency exchange. Meanwhile, long-term uncertainty keeps inflationary pressures high and limits the ability to resist shocks. Unlike advanced economies with fiscal buffers and well-established institutions, Afghanistan's dependence on imports, aid, and weak financial systems worsens the effects of geopolitical instability on its economy.

5.1 Recommendation

A comprehensive approach must be adopted to address these weaknesses. Improving trade corridors and regional integration is crucial to making them less vulnerable to border closures and political conflicts. Building foreign exchange reserves and strengthening monetary policy frameworks would provide the stability needed to counteract currency shocks. Managing inflation should be a top priority by securing essential imports, such as food, fuel, and medicine, through strategic reserves and bilateral

agreements, as households in low-income economies are most vulnerable to price increases. Simultaneously, long-term resilience involves implementing institutional and structural reforms, such as improving governance, reinforcing financial institutions, and reducing reliance on external aid to transform growth into sustainable inward productivity. Ultimately, establishing effective coordination with international partners and multilateral organizations to develop joint mechanisms is vital for reducing Afghanistan's exposure to global instability. Overall, these recommendations highlight that while Afghanistan cannot avoid all geopolitical risks, a blend of short-term stabilization measures and long-term structural reforms will significantly improve its ability to withstand shocks and promote macroeconomic stability.

Ethical Approval
Not Applicable

Informed Consent Statement
Not Applicable

Disclosure Statement
The Authors declare that they have no conflict of interest

Data Availability Statement
The data used in this study are accessible from the international database mentioned in the Data and Methodology section. Additional details or access to supplementary data can be provided by the corresponding author upon reasonable requests.

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Notes on Contributors

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Abdul Ahmad Pooya is a third-year Applied Economics student at Hunan University in China and a collaborating member of the Department of Finance and Banking at Badghis University in Afghanistan. His research interests include international economics, development economics, macroeconomics, and the digital economy. He is primarily focused on studying economic vulnerabilities, trade patterns, and policy effects in developing countries. Pooya actively participates in empirical research and data-driven analysis to examine how global economic trends interact with local markets, to contribute to evidence-based policies and sustainable economic growth.

REFERENCES

Adeosun, O. A., Tabash, M. I., Vo, X. V., & Anagreh, S. (2022). Uncertainty measures and inflation dynamics in selected global players: a wavelet approach. Quality & Quantity, 56(1). https://doi.org/10.1007/s11135-022-01513-7.

Aguiar-Conraria, L., & Soares, M. J. (2013). THE CONTINUOUS WAVELET TRANSFORM: MOVING BEYOND UNI- AND BIVARIATE ANALYSIS. Journal of Economic Surveys, 28(2), 344–375. https://doi.org/10.1111/joes.12012.

AlNemer, H. A., Hkiri, B., & Tissaoui, K. (2023). Dynamic impact of renewable and non-renewable energy consumption on CO2 emission and economic growth in Saudi Arabia: Fresh evidence from wavelet coherence analysis. Renewable Energy, 209(209c). https://doi.org/10.1016/j.renene.2023.03.084.

Alsagr, N., & Almazor, S. F. V. H. (2020). OIL RENT, GEOPOLITICAL RISK AND BANKING SECTOR PERFORMANCE. International Journal of Energy Economics and Policy, 10(5), 305–314. https://doi.org/10.32479/ijeep.9668.

Althaqafi, T. (2025). Assessing the Evolving Role of Geopolitical Risks in Supply Chain Logistics: An Empirical Analysis of Risk Management Strategies. International Journal of Computing and Digital Systems, 17(1), 1–14. https://doi.org/10.12785/ijcds/1571007558.

Asafo-Adjei, E., Qabhobho, T., & Adam, A. M. (2023). Conditional effects of local and global risk factors on the co-movements between economic growth and inflation: Insights into G8 economies. Heliyon, 9(9, 2023), e19570. https://doi.org/10.1016/j.heliyon.2023.e19570.

Atacan, C., & Açık, A. (2023). Impact of Geopolitical Risk on International Trade: Evidence from Container Throughputs. Transactions on Maritime Science, 12(02). https://doi.org/10.7225/toms.v12.n02.019.

Aydin, H. İ., Aniela Bălăcescu, & Genu Alexandru Căruntu. (2025). The Effects of Geopolitical Uncertainties on Growth: Econometric Analysis on Selected Turkic Republican Countries and Neighboring States. Economies, 13(3), 83–83. https://doi.org/10.3390/economies13030083.

Bonaime, A. A., Gulen, H., & Ion, M. (2016). Does Policy Uncertainty Affect Mergers and Acquisitions? SSRN Electronic Journal. https://doi.org/10.2139/ssrn.2813466

Caldara, D., & Iacoviello, M. (2022). Measuring Geopolitical Risk. American Economic Review, 112(4), 1194–1225. https://doi.org/10.1257/aer.20191823.

Dai, Y., Dai, P., & Zhou, W. (2024). The impact of geopolitical risk on the international agricultural market: Empirical analysis based on the GJR-GARCH-MIDAS model. Semantic Scholar. https://www.semanticscholar.org/paper/The-impact-of-geopolitical-risk-on-the-agricultural-Dai-Dai/0ac6baf41ccf1e5838652d17038480ab06326187.

Duan, W., Khurshid, A., Rauf, A., Khan, K., & Calin, A. C. (2021). How geopolitical risk drives exchange rate and oil prices? A wavelet-based analysis. Energy Sources, Part B: Economics, Planning, and Policy, 16(9), 861–877. https://doi.org/10.1080/15567249.2021.1965262.

Elsayed, A. H., & Helmi, M. H. (2021). Volatility transmission and spillover dynamics across financial markets: the role of geopolitical risk. Annals of Operations Research, 27(2). https://doi.org/10.1007/s10479-021-04081-5.

Emrah DOĞAN, & Başak ÖZARSLAN DOĞAN. (2021). The effect of geopolitical risk on economic growth: Empirical evidence from the Fragile Five Countries. Ömer Halisdemir Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 14(3), 978–990. https://doi.org/10.25287/ohuiibf.804425.

Ezer Ayadi, & Noura Ben Mbarek. (2025). The Dynamic Effects of Economic Uncertainties and Geopolitical Risks on Saudi Stock Market Returns: Evidence from Local Projections. Journal of Risk and Financial Management, 18(5), 264–264. https://doi.org/10.3390/jrfm18050264.

Faik Bilgili, Fatma Ünlü, Pelin Gençoğlu, & Sevda Kuşkaya. (2021). Modeling the exchange rate pass-through in Turkey with uncertainty and geopolitical risk: a Markov regime-switching approach. Applied Economic Analysis, 30(88), 52–70. https://doi.org/10.1108/aea-08-2020-0105.

Fossung, G. A., Vovas, V. C., & Quoreshi, A. M. M. S. (2021). Impact of Geopolitical Risk on the Information Technology, Communication Services and Consumer Staples Sectors of the S&P 500 Index. Journal of Risk and Financial Management, 14(11), 552. https://doi.org/10.3390/jrfm14110552.

Gainetdinova, A. A. (2023). Asymmetric Impact of Geopolitical Risk and Economic Policy Uncertainty on Russian Ruble Exchange Rate. Journal of Applied Economic Research, 22(2), 270–293. https://doi.org/10.15826/vestnik.2023.22.2.012.

Goswami, G. G., & Panthamit, N. (2020). Does political risk lower bilateral trade flow? A gravity panel framework for Thailand vis-à-vis her trading partners. International Journal of Emerging Markets, ahead-of-print(ahead-of-print). https://doi.org/10.1108/ijoem-07-2020-0755.

Guo, J. (2024). How geopolitical risk affect firms' internationalization performance: Evidence from China. Heliyon, 10(9), e30152. https://doi.org/10.1016/j.heliyon.2024.e30152

Hasan, M. M., & Li, L. (2024). Do supply chain and digitalization Foster China's advancement in green development? An evidence from wavelet quantile regression and wavelet quantile correlation analysis. Energy Economics, 142, 108099–108099. https://doi.org/10.1016/j.eneco.2024.108099.

Hui, H. C. (2021). The long-run effects of geopolitical risk on foreign exchange markets: evidence from some ASEAN countries. International Journal of Emerging Markets, ahead-of-print(ahead-of-print). https://doi.org/10.1108/ijoem-08-2020-1001.

Jiang, Z., Dong, X., & Yoon, S.-M. (2025). Impact of oil prices on key energy mineral prices: Fresh evidence from quantile and wavelet approaches. Energy Economics, 145(145C), 108461. https://doi.org/10.1016/j.eneco.2025.108461.

Johnson Kennedy, P. S. (2023). DAMPAK PERANG RUSIA-UKRAINA TERHADAP PEREKONOMIAN GLOBAL. Fundamental Management Journal, 8(2p), 1–12. https://doi.org/10.33541/fjm.v8i2p.5265.

Jon-Hans Coetzer, Rajmil, D., & Morales, L. (2023). The New Normal: Multifaceted and Multidimensional Crises and the Interplay of Geoeconomics and Geopolitics. Peace Review, 35(4), 555–561. https://doi.org/10.1080/10402659.2023.2287212.

Khaliq, A. (2022). Global and Country-Specific Geopolitical Risks and Exchange Rate Volatility: New Empirical Evidence from Indonesia. Jurnal Ekonomi Kuantitatif Terapan, 15(2), 225. https://doi.org/10.24843/jekt.2022.v15.i02.p05.

Konovalova, M., & Abuzov, A. (2023). Geopolitical crises, the energy sector, and the financial capital market. E3S Web of Conferences, 381(2023), 01042. https://doi.org/10.1051/e3sconf/202338101042.

Konovalova, Y. A. (2023). "New normal" and the Chinese model of "dual circulation": To the question of the "present stage" of the global economy' development. RUDN Journal of Economics, 31(1), 7–29. https://doi.org/10.22363/2313-2329-2023-31-1-7-29.

Korol, S. Y., Nykyforuk, O. I., Pelekh, U. V., Barabash, N. S., & Romashko, O. M. (2022). Transfer Pricing Documentation: Globalization and Regional Optimization. Universal Journal of Accounting and Finance, 10(1), 219–230. https://doi.org/10.13189/ujaf.2022.100123.

Kyriazis, N., Economou, L., & Stergıou, A. (2023). Connectedness Among Geopolitical Risk, Inflation, Currency Values, and Exports by TVP-VAR Analysis: A Worldwide Perspective. Peace Economics, Peace Science and Public Policy, 29(4), 301–338. https://doi.org/10.1515/peps-2023-0026.

Lai, F., Li, S., Lv, L., & Zhu, S. (2023). Do global geopolitical risks affect connectedness of global stock market contagion network? Evidence from quantile-on-quantile regression. Frontiers in Physics, 11(2023). https://doi.org/10.3389/fphy.2023.1124092.

Liu, J., Chen, Z., Zhu, Y., Chen, Y., & Huang, Y. (2024). The time-varying effects of geopolitical risk on mutual fund risk taking. PLoS ONE, 19(6), e0303766–e0303766. https://doi.org/10.1371/journal.pone.0303766.

Liu, L., Adebayo, T. S., Hu, J., Irfan, M., & Abbas, S. (2024). Exploring resource blessing hypothesis within the coffin of technological innovation and economic risk: Evidence from wavelet quantile regression. Energy Economics, 137, 107802. https://doi.org/10.1016/j.eneco.2024.107802.

Lu, Z., Gozgor, G., Huang, M., & Keung Lau, M. C. (2020). The Impact of Geopolitical Risks on Financial Development: Evidence from Emerging Markets. Journal of Competitiveness, 12(1), 93–107. https://doi.org/10.7441/joc.2020.01.06.

Marangoz, C. (2025a). Geopolitical turmoil and energy dynamics: Analyzing the impact on inflation in selected European economies. Heliyon, 11(3), e42302. https://doi.org/10.1016/j.heliyon.2025.e42302.

Marangoz, C. (2025b). Inflation Spillovers and Geopolitical Risks: Evidence from Euro Area Countries Using TVP-VAR and Quantile Models. Ekonomi Politika ve Finans Arastirmalari Dergisi, 10(1), 140–159. https://doi.org/10.30784/epfad.1599945.

Nasouri, A. (2025). The Impact of Geopolitical Risks on Equity Markets and Financial Stress: A Comparative Analysis of Emerging and Advanced Economies. International Journal of Economics and Business Administration, XIII(Issue 1), 30–41. https://doi.org/10.35808/ijeba/873.

NguyenHuu, T., & Örsal, D. K. (2023). Geopolitical risks and financial stress in emerging economies. The World Economy, 47(1). https://doi.org/10.1111/twec.13529

Ozcelebi, O., El Khoury, R., & Yoon, S.-M. (2024). Interplay between renewable energy and fossil fuel markets: Fresh evidence from quantile-on-quantile and wavelet quantile approaches. Energy Economics, 140(138c), 108012. https://doi.org/10.1016/j.eneco.2024.108012.

Özge Demirkale, & Mortaza Ojaghlou. (2025). Is there a relationship between financial development and geopolitical risk indices and sustainable development goals? A study on E3 countries. Panoeconomicus, 72(00), 2–2. https://doi.org/10.2298/pan240802002d.

Papadopoulos, G. D., Magafas, L., Demertzis, K., & Antoniou, I. (2023). Analyzing Global Geopolitical Stability in Terms of World Trade Network Analysis. Information, 14(8), 442. https://doi.org/10.3390/info14080442.

Pornchai Kladwong, & Pranom Chantaranothai. (2024). Notes on Strobilanthes (Acanthaceae) with capitate inflorescences in Thailand. PhytoKeys, 244(1), 89–126. https://doi.org/10.3897/phytokeys.244.124260.

Rogneda Vasilyeva, Ekaterina Rozhina, & Voytenkov, V. (2023). The Impact of Geopolitical Tensions on Economic Activity in Russia. Регионалистика, 10(5), 24–45. https://doi.org/10.14530/reg.2023.5.24.

Sengupta, S., Chakraborty, T., & Singh, S. K. (2024). Forecasting CPI inflation under economic policy and geopolitical uncertainties. International Journal of Forecasting, 40(4). https://doi.org/10.1016/j.ijforecast.2024.08.005.

Shaik, M., Jamil, S. A., Hawaldar, I. T., Sahabuddin, M., Rabbani, M. R., & Atif, M. (2023). Impact of geopolitical risk on stocks, oil, and gold returns during GFC, COVID-19, and Russian – Ukraine War. Cogent Economics & Finance, 11(1). https://doi.org/10.1080/23322039.2023.2190213.

Sharma, S. S., Hayat, A., Affandi, Y., & Rishanty, A. (2025). A Note on How Asia-Pacific Giants Australia, China and Japan Manage The Geopolitical Risk for Prices. Emerging Markets Finance and Trade, 61(4), 1–9. https://doi.org/10.1080/1540496x.2025.2460656

Sim, N., & Zhou, H. (2015). Oil prices, US stock return, and the dependence between their quantiles. Journal of Banking & Finance, 55(2), 1–8. https://doi.org/10.1016/j.jbankfin.2015.01.013.

Truong, L. D., Friday, H. S., & Pham, T. D. (2024). The Effects of Geopolitical Risk on Foreign Direct Investment in a Transition Economy: Evidence from Vietnam. Journal of Risk and Financial Management, 17(3), 101. https://doi.org/10.3390/jrfm17030101.

TUNA, F., & ÇALIŞKAN, H. (2022). The Impact of Geopolitics Risks on Macroeconomic Indicators: Evidence from Turkey. Gaziantep University Journal of Social Sciences, 21(4), 1989–2003. https://doi.org/10.21547/jss.1151714.

Tzitiridou-Chatzopoulou, M., Zournatzidou, G., Tsakiridis, I., & Tsakalidis, C. (2024). Exploring the Nexus Between Fertility Rates and Geopolitical Risk with Intelligence Methods: A Multifaceted Analysis. Healthcare, 12(22), 2205. https://doi.org/10.3390/healthcare12222205.

Yang, M., Zhang, Q., Yi, A., & Peng, P. (2021). Geopolitical Risk and Stock Market Volatility in Emerging Economies: Evidence from GARCH-MIDAS Model. Discrete Dynamics in Nature and Society, 2021(1), 1–17. https://doi.org/10.1155/2021/1159358.

Yıldırım, Z. (2020). Dış ve İç Şoklar, Döviz Kuru, Ülke Risk Primi ve Türkiye'de Makroekonomik Koşullar. Istanbul Journal of Economics / İstanbul İktisat Dergisi, 70(1). https://doi.org/10.26650/istjecon2020-0002.