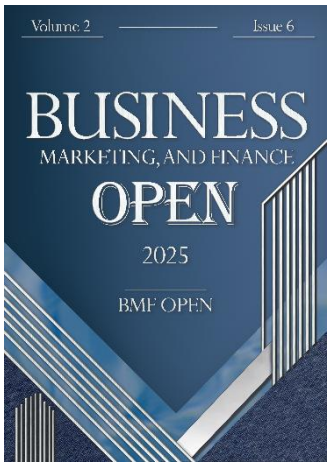
Analysis of the Effect of Geopolitical Risks on Economic Resilience in Iran

Roa'a Mohammed kadhim[1], Sara Ghobadi [2,*], Hussein Shnawa Majeed Al-Zerkani[3] and Hossein Sharifi Renani [4]



Citation: Mohammed Kadhim, R., Ghobadi, S., Shnawa Majeed Al-Zerkani, H., & Sharifi Renani, H. (2025). Analysis of the Effect of Geopolitical Risks on Economic Resilience in Iran. *Business, Marketing, and Finance Open*, 2(6), 1-10.

Received: 09 March 2025
Revised: 14 July 2025
Accepted: 22 July 2025
Published: 01 November 2025

[1] PhD Student, Department of Economics, Isf.C., Islamic Azad University, Isfahan, Iran;
[2] Associate Professor, Department of Economics, Isf.C., Islamic Azad University, Isfahan, Iran;
[3] Associate Professor of Economies, Alkut University, waset, Iraq;
[4] Associate Professor, Department of Economics, Isf.C., Islamic Azad University, Isfahan, Iran;

* Correspondence: sghobadi@iau.ac.ir

Abstract: Economic resilience, defined as the capacity to withstand existing economic and political adversities and crises, affects the lives and choices of individuals in society. Geopolitical risks, arising from war, terrorist attacks, and international disputes, which lead to disruptions in the normal course of international and regional policies, also influence the resilience of the population. The present article aimed to analyze the effect of geopolitical risks on economic resilience in Iran during the period from 2002 to 2023. To this end, the nonlinear ARDL approach was employed, with a focus on decomposing geopolitical risk shocks. The results indicated that, in the short term, positive shocks to geopolitical risks had no effect on economic resilience, while negative shocks exerted a negative effect. In contrast, in the long term, positive shocks to geopolitical risks had a positive effect, and negative shocks had a negative effect on the aforementioned index. The results of the Wald test indicated the asymmetry of geopolitical risks across all time periods. Moreover, long-term oil demand had a positive effect on economic resilience. On the other hand, the findings showed that inflation had no impact on economic resilience in the short term, but had a negative effect in the long term.

Keywords: Economic resilience, geopolitical risks, nonlinear ARDL methods

1. Introduction

Economic resilience has become an increasingly critical concept in contemporary policy debates, given the growing frequency of systemic shocks and the interdependence of economies in a globalized world. It generally refers to the ability of an economy to absorb, adapt to, and recover from adverse events, whether triggered by financial crises, natural disasters, or geopolitical disruptions [1, 2]. In the context of Iran, which faces a unique combination of internal vulnerabilities and external pressures, resilience is not merely an aspirational policy goal but a necessity for sustaining development and social stability [3, 4]. The interplay between geopolitical risk and economic performance is particularly relevant for countries exposed to international sanctions, regional conflicts, and volatile commodity markets, as these risks have both direct and indirect implications for macroeconomic stability, fiscal sustainability, and household welfare [5, 6].

Geopolitical risk, broadly defined, encompasses the likelihood of adverse economic outcomes resulting from political instability, armed conflict, terrorism, or tensions between states [7, 8]. The measurement and categorization of such risks have evolved over time, with indices now capturing both acts (realized events) and threats (potential events) [8, 9]. Empirical research has shown that geopolitical risk affects not only global energy markets [6, 10] but also capital flows, investment decisions, and the resilience of domestic economies [11, 12]. For oil-exporting economies such as Iran, geopolitical tensions often translate into price volatility in global oil markets, which can create windfall gains in the short term but also exacerbate macroeconomic instability when shocks are negative [13, 14].

The Iranian economy's dependence on oil revenues amplifies its exposure to geopolitical fluctuations. Historical data show that positive oil price shocks, often linked to geopolitical tensions in the Middle East, can temporarily boost fiscal revenues and foreign reserves [11, 15]. However, such gains are typically offset by inflationary pressures, exchange rate volatility, and distortions in resource allocation [16, 17]. Moreover, negative geopolitical shocks—such as sanctions or regional conflicts—can directly reduce export earnings, constrain access to international finance, and weaken domestic production capacity [18, 19]. This duality underscores the importance of examining both the symmetric and asymmetric effects of geopolitical risks on economic resilience [6, 9].

From a broader perspective, geopolitical risks have been linked to disruptions in trade, investment, and labor markets. Research demonstrates that elevated geopolitical tensions can lead to increased borrowing costs [12], reduced access to foreign direct investment [14], and changes in household consumption patterns [19, 20]. In labor markets, these shocks can influence employment decisions and wage dynamics, particularly in sectors dependent on international trade or foreign capital [21, 22]. The persistence of such effects is noteworthy: unemployment triggered by geopolitical crises may increase the risk of long-term social exclusion, thereby eroding human capital and weakening overall economic resilience [22, 23].

In the context of Iran, geopolitical risks are compounded by structural challenges, including a high degree of dependence on commodity exports, fiscal rigidities, and institutional constraints [3, 16]. Institutional capacity plays a crucial role in determining how effectively an economy can respond to external shocks [5, 24]. Countries with robust governance systems, transparent fiscal policies, and efficient financial markets are generally better equipped to mitigate the adverse effects of geopolitical uncertainty [2, 17]. In contrast, weak institutional frameworks can exacerbate vulnerability by slowing policy responses and undermining investor confidence [25, 26].

Another important dimension is the linkage between geopolitical risk and sustainable development. Geopolitical instability can disrupt long-term investment in infrastructure, education, and health systems, undermining the foundations of sustainable growth [1, 2]. For instance, rural households facing climate change impacts—a challenge often intensified by geopolitical tensions—may experience reduced development resilience, limiting their ability to invest in productive activities [1, 27]. Moreover, in fragile states, heightened geopolitical risk can divert resources from social services toward military spending, further constraining development outcomes [28, 29].

Oil price volatility is one of the most direct transmission channels through which geopolitical risks affect the Iranian economy. The literature distinguishes between geopolitical acts, such as armed conflicts, and geopolitical threats, such as rising tensions or threats of sanctions, with both influencing oil markets differently [8, 10]. While positive oil price shocks can enhance government revenues and stimulate short-term growth [11, 15], they may also encourage procyclical fiscal policies, over-reliance on hydrocarbon rents, and neglect of economic diversification [4, 30]. Conversely, negative oil price shocks often force abrupt fiscal adjustments, leading to cuts in public investment and social spending, which in turn weaken the social safety net and reduce economic resilience [16, 31].

The asymmetric nature of these effects has gained increasing attention in empirical research. Studies applying nonlinear modeling techniques, such as the Nonlinear Autoregressive Distributed Lag (NARDL) approach, have shown that positive and negative shocks may have different magnitudes and durations of impact on macroeconomic indicators [6, 11]. In Iran's case, the positive geopolitical shocks that raise oil prices might provide temporary fiscal breathing space, but the negative shocks—such as sanctions or regional conflicts—tend to have deeper and more persistent effects on economic activity and household welfare [15, 18]. This asymmetry highlights the importance of not treating geopolitical risk as a single, uniform variable.

Economic resilience is not solely determined by macroeconomic aggregates; it is also shaped by micro-level dynamics. Household-level responses to shocks, such as adjustments in consumption, savings, and labor supply, can influence the speed and quality of recovery [19, 23]. For example, increased uncertainty may lead households to adopt precautionary savings behavior, thereby reducing aggregate demand and slowing economic recovery [20, 32]. Similarly, businesses may delay investment decisions during periods of heightened geopolitical risk, leading to underutilization of resources and a decline in productivity [14, 17]. These behavioral responses can interact with institutional and policy environments to either amplify or dampen the overall economic impact.

Furthermore, geopolitical risks can influence sectoral performance differently. Resource-dependent sectors, such as oil and gas, may experience direct gains from positive price shocks, whereas manufacturing and service sectors reliant on imported inputs or foreign markets may face cost increases and demand contractions [11, 12]. In agriculture, geopolitical tensions can disrupt supply chains for essential inputs, leading to price spikes and reduced productivity, with downstream effects on food security and poverty [23, 28]. These sectoral disparities are critical for policymakers seeking to design targeted resilience strategies that account for the heterogeneity of impacts across the economy.

Theoretical perspectives on economic resilience emphasize the role of diversification, flexibility, and adaptability in withstanding shocks [1, 2]. For oil-exporting economies like Iran, diversification away from hydrocarbons is often cited as a key strategy for reducing vulnerability to geopolitical and commodity price shocks [3, 4]. However, achieving such diversification requires substantial investment in human capital, infrastructure, and innovation, alongside reforms to improve the business environment and strengthen institutional capacity [5, 26]. International experience suggests that countries with resilient fiscal frameworks, countercyclical policies, and effective social protection systems are better able to cope with geopolitical uncertainty [24, 31].

In summary, the relationship between geopolitical risk and economic resilience is multifaceted, involving interactions between global markets, domestic institutions, and micro-level behavioral responses. For Iran, understanding these dynamics is particularly important given its exposure to recurrent geopolitical shocks, dependence on oil revenues, and structural economic constraints. The objective of the present article is to examine the relationship between geopolitical risks and economic resilience in Iran during the period from 2002 to 2023.

2. Methodology

To achieve the research objective, four main factors—namely, ease of obtaining loans, civic care, productivity, and institutional capacity—are initially considered as the components constituting economic resilience. The numerical value of the index is calculated by taking the average of these factors. Then, in order to investigate the effect of geopolitical risks on economic resilience in Iran, and in line with the study by Kilian et al. (2024), a model is specified in which the economic resilience index is the dependent variable and the independent variables include

geopolitical risks, oil demand, and inflation. To examine the asymmetric effects of geopolitical risks on economic resilience in Iran, the nonlinear ARDL approach is employed. Accordingly, the model is specified as Equation (1):

$$HRP_t = \beta_0 + \beta_1 (GOP_t)^+ + \beta_2 (GOP_t)^- + \beta_3 WOD_t + \beta_4 INF_t + \vartheta_t \quad (1)$$

In Equation (1), HRP_t denotes the economic resilience index, with data for its constituent variables extracted from the World Bank for Iran during the years 2002–2023. GOP_t represents geopolitical risks, with data obtained from the University of Colorado Denver website, (GOP_t)^- denotes the negative shock of geopolitical risks, and (GOP_t)^+ denotes the positive shock of geopolitical risks. WOD_t is oil demand, with data extracted from the OPEC Statistical Yearbooks. INF_t denotes the inflation rate, with data sourced from the World Bank website. β_i are the coefficients, and ϑ_t is the error term.

3. Findings and Results

The descriptive statistics for the research variables are presented in Table (1).

Table 1. Descriptive Statistics of Research Variables for Iran during the Period 2002–2023

Variable	Symbol	Mean	Minimum	Maximum
Economic Resilience (score 0–1)	HRP_t	0.5806	0.2466	0.8624
Geopolitical Risks (score 0–100)	GOP_t	26.2921	11.6963	77.0649
Oil Demand (1000 barrels/day)	WOD_t	1716.258	1286.417	1858.824
Inflation (%)	INF_t	24.05	0.197	56.32

The information in Table (1) indicates that the economic resilience score during the study period averaged 0.58. Considering that this index is scored between zero and one, this score reflects a not particularly favorable condition of the Iranian people's resilience against risks. However, over time, this score has increased and reached its highest value of 0.86 in 2023. On the other hand, geopolitical risks during the study period had an average score of 26.29, with the lowest level recorded in 2018 and the highest in 2002.

Before estimating the model, and to avoid spurious regression, the research variables were subjected to stationarity testing. The results of the Augmented Dickey–Fuller (ADF) unit root test for the research variables are presented in Table (2).

Table 2. Results of the ADF Stationarity Test at the Variable Level

Variable Name	Variable	Test Statistic	p-value	Test Result
Economic Resilience Index	HRP_t	-1.25	0.632	Non-stationary
First Difference of Economic Resilience Index	ΔHRP_t	-3.99	0.007	Stationary
Geopolitical Risks	GOP_t	-4.07	0.005	Stationary
Positive Shock of Geopolitical Risks	(GOP_t)^+	0.33	0.974	Non-stationary
First Difference of Positive Shock of Geopolitical Risks	Δ(GOP_t)^+	-3.98	0.007	Stationary
Negative Shock of Geopolitical Risks	(GOP_t)^-	-4.31	0.004	Stationary
Oil Demand	WOD_t	-3.12	0.040	Stationary
Inflation	INF_t	-2.25	0.195	Non-stationary
First Difference of Inflation	ΔINF_t	-5.22	0.000	Stationary

Based on the results in Table (2), since the p-value of the ADF stationarity test for geopolitical risks, the negative shock of geopolitical risks, and oil demand is less than 0.05, the null hypothesis of non-stationarity for these variables is rejected, and these variables are stationary at level. However, for the variables of the economic resilience

index, the positive shock of geopolitical risks, and inflation, since the p-value is greater than 0.05, the null hypothesis cannot be rejected, and these variables are non-stationary at level. It is observed that the non-stationary variables become stationary after first differencing. Table (3) presents the results of the bounds cointegration test.

Table 3. Results of the Bounds Cointegration Test

Model	Estimation Method	F-statistic	Significance Level	Lower Bound	Upper Bound
(2)	NARDL	6.52	10%	2.45	3.52
			5%	2.86	4.01
			1%	3.25	4.49

As shown in Table (3), the probability of the F-statistic is greater than the upper bound at the 95% confidence level. Therefore, the null hypothesis of no cointegration among the model variables is rejected at the 95% confidence level, and the existence of cointegration is accepted. Accordingly, the nonlinear ARDL (NARDL) method can be used to estimate the research model.

To estimate the model using the NARDL method, the optimal lag length was determined based on the Schwarz criterion. For the nonlinear model, 1 lag for the dependent variable (economic resilience index), 2 lags for the negative shock of geopolitical risks, and 0 lags for the other variables were obtained. Table (4) presents the results of estimating model (2) using the NARDL method for both the short term and the long term.

Table 4. Estimation Results of the Model Using NARDL (1, 2, 0, 0, 0)

Period	Variable Name	Variable	Coefficient	t-statistic	p-value
Long term	Positive shock of geopolitical risks	(GOP_t)^+	1.57	6.60	0.000
	Negative shock of geopolitical risks	(GOP_t)^-	-0.91	-2.13	0.056
	Oil demand	WOD_t	0.32	8.55	0.000
	Inflation	INF_t	-0.85	-6.83	0.000
	Constant	C	-1.02	-2.28	0.043
Short term	Difference of negative shock of geopolitical risks	Δ(GOP_t)^-	-1.06	-3.83	0.003
	First lag difference of negative shock of geopolitical risks	Δ(GOP_(t-1))^-	-1.36	-4.71	0.000
	Constant	C	-0.36	-5.95	0.000
	Error correction term	ECM	-0.35	-6.67	0.000
R^2		=			0.76

Adjusted R^2 = 0.71

Table 5. Diagnostic Tests

Test Type	Null Hypothesis	Statistic	p-value
Jarque–Bera normality	Residuals are normally distributed	0.58	0.745
Breusch–Godfrey autocorrelation	No autocorrelation in residuals	0.89	0.442
White heteroskedasticity	No heteroskedasticity	0.80	0.606
Ramsey RESET stability	Estimated parameters are stable	1.44	0.173

Based on the results in Tables (4) and (5), the null hypotheses of the normality, heteroskedasticity, and autocorrelation tests for the residuals are not rejected; thus, the classical assumptions in the estimated model are satisfied. Moreover, the null hypothesis of parameter stability cannot be rejected, indicating that the estimated parameters are stable. In addition, based on the coefficient of determination and the adjusted coefficient of determination, which are 0.76 and 0.71, respectively, the model exhibits a good fit. The results of the CUSUM and CUSUMSQ structural break tests are shown in Figure (1).

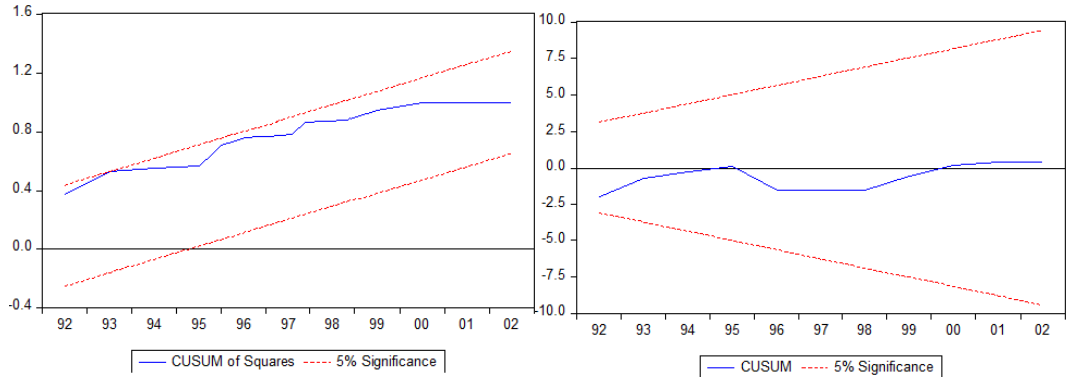


Figure 1. CUSUM and CUSUMSQ Structural Break Tests in the Nonlinear Method

Figure (1) also shows that the plots of the cumulative sum of recursive residuals (CUSUM) and the cumulative sum of squared recursive residuals (CUSUMSQ) do not cross the dotted lines, indicating that no structural break exists.

According to the results in Table (5), in the long term, a positive shock to geopolitical risks has a positive effect on economic resilience, while a negative shock has a negative effect on economic resilience. Oil demand and inflation have positive and negative effects, respectively, on economic resilience in the long term.

The short-term results indicate that a negative shock to geopolitical risks has a negative effect on economic resilience. The error correction coefficient is -0.35, indicating that in each period, 35% of the long-term disequilibrium is corrected and converges toward the long-term trend.

In the NARDL method, the presence of asymmetry in short-term and long-term shocks is identified using the Wald test. The null hypothesis of this test states that positive and negative shocks are symmetric, whereas the alternative hypothesis indicates that positive and negative shocks are asymmetric. The results of the Wald test for both the short term and the long term are presented in Table (6).

Table 6. Results of the Wald Test for Detecting Asymmetry of Shocks in the Short Term and Long Term

Time Period	Test Type	Test Statistic	p-value	Test Result
Short term	t-test	-4.99	0.000	Confirmation of asymmetry of shocks in the long term
	F-test	24.91	0.000	
	χ^2-test	24.91	0.000	
Long term	t-test	-4.73	0.000	Confirmation of asymmetry of shocks in the short term
	F-test	22.40	0.000	
	χ^2-test	22.40	0.000	

According to Table (6), the p-values of all computed test statistics (t, F, χ^2) for the long-term period are less than 0.05. Therefore, the hypothesis of symmetry of shocks in the long term is rejected at the 95% confidence level, indicating that positive and negative shocks of geopolitical risks are asymmetric. The p-values of all computed test statistics for the short-term period are also less than 0.05. Accordingly, the null hypothesis of symmetry in the short term is rejected, and positive and negative shocks of geopolitical risks are asymmetric in the short term as well.

4. Discussion and Conclusion

The results of the present study provide empirical evidence of the asymmetric effects of geopolitical risk shocks on Iran's economic resilience over the period 2002–2023. The nonlinear ARDL estimations reveal that in the long term, positive shocks to geopolitical risks—such as tensions that elevate oil prices—have a positive effect on the

economic resilience index, while negative shocks exert a negative effect. In addition, oil demand positively influences economic resilience in the long term, whereas inflation has a negative effect. In the short term, negative geopolitical shocks also negatively affect resilience, with the error correction term indicating that approximately 35% of disequilibrium is corrected each period toward the long-run equilibrium. The Wald test confirms the presence of asymmetry in both short- and long-term shocks, indicating that the Iranian economy responds differently to positive versus negative geopolitical disturbances.

These findings are consistent with the theoretical expectation that positive geopolitical shocks, when associated with oil price increases, can temporarily improve fiscal revenues and foreign reserves for oil-exporting countries such as Iran [6, 11]. The increase in revenues enables the government to finance public expenditures, service debts, and possibly expand social programs in the short run, thereby improving certain components of economic resilience [8, 15]. However, these positive effects tend to be temporary and are often accompanied by macroeconomic imbalances such as inflationary pressures and currency appreciation [16, 17]. The negative shocks, on the other hand, frequently involve sanctions, armed conflicts, or sudden declines in oil prices, which immediately constrain fiscal space, restrict foreign exchange inflows, and reduce the economy's capacity to absorb and recover from adverse conditions [12, 18].

The asymmetric nature of these effects aligns with the broader literature showing that the magnitude and persistence of negative shocks tend to be greater than those of positive shocks, especially in developing and resource-dependent economies [9, 14]. Negative geopolitical events can disrupt trade routes, limit access to international capital markets, and trigger capital flight, creating a compounding cycle of economic contraction and reduced resilience [3, 5]. In the Iranian context, sanctions-related shocks often generate structural impacts that extend beyond the immediate macroeconomic indicators, affecting productivity, technological capacity, and institutional performance [4, 26].

The positive long-run impact of oil demand on resilience underscores the importance of global market conditions in shaping domestic stability. Strong demand for oil not only supports government revenues but can also facilitate long-term investment in infrastructure and social programs [10, 11]. This finding is in line with studies showing that commodity-exporting countries experience higher growth rates and fiscal stability during periods of robust global demand [6, 8]. However, the negative effect of inflation on resilience highlights the vulnerability of the Iranian economy to domestic price instability, which can erode household purchasing power, reduce savings, and distort investment decisions [28, 31].

The short-term results, particularly the strong negative effect of negative geopolitical shocks, emphasize the immediate disruptive impact of adverse events on economic functioning. These effects may manifest through reduced investor confidence, higher transaction costs, and disrupted supply chains [12, 20]. Similar patterns have been observed in other emerging economies, where geopolitical instability leads to contractions in private sector activity and delays in capital formation [14, 21]. In Iran's case, the sensitivity to negative shocks is likely amplified by structural constraints, including a high dependence on oil revenues, limited diversification, and institutional weaknesses [5, 24].

The confirmation of asymmetry through the Wald test is particularly relevant for economic modeling and policy design. Treating geopolitical risk as a symmetric variable would obscure the reality that positive and negative shocks have qualitatively and quantitatively different effects. Previous studies have similarly emphasized the need to differentiate between the impacts of geopolitical acts and threats, as their market consequences and policy

implications can diverge significantly [8, 10]. For instance, while an act such as a military conflict may trigger immediate and severe disruptions, a threat may exert more gradual effects through heightened uncertainty [7, 9].

The present findings also resonate with research linking geopolitical risk to broader socio-economic outcomes. Elevated risk levels can affect employment patterns [15, 21], social cohesion [22, 23], and even sectoral investment strategies [12, 17]. The negative implications for resilience observed in this study reflect not only macroeconomic constraints but also micro-level behavioral changes, such as precautionary savings by households [20, 32] and risk-averse investment behavior by firms [5, 14].

Another dimension to consider is the interaction between geopolitical risk and climate-related vulnerabilities. Although the present study focuses on economic resilience in the context of geopolitical shocks, other research suggests that environmental challenges can compound the effects of political instability [1, 27]. In resource-dependent economies, such combined pressures may further weaken resilience by limiting the fiscal and institutional capacity to respond to multiple concurrent crises [28, 29].

Institutional quality emerges as a critical mediating factor in the literature. Countries with stronger institutions, transparent governance, and effective policy frameworks tend to manage geopolitical shocks more effectively [2, 5]. In Iran, structural reforms aimed at improving institutional capacity, fiscal discipline, and economic diversification could potentially enhance the ability to absorb both positive and negative shocks [3, 26]. Moreover, improving financial inclusion and access to credit can help households and firms adapt more quickly to disruptions [16, 30].

In sum, the findings confirm that geopolitical risks exert significant and asymmetric effects on economic resilience in Iran, with negative shocks producing deeper and more persistent adverse impacts than positive shocks. Oil demand remains a stabilizing factor, while inflation undermines resilience. These patterns are consistent with the broader evidence from other oil-exporting and developing economies, reinforcing the argument that managing geopolitical risk requires not only macroeconomic tools but also structural and institutional reforms.

This study is subject to several limitations that should be acknowledged. First, the geopolitical risk index used, while comprehensive, may not fully capture all dimensions of Iran's geopolitical environment, particularly informal or unreported events. Second, the analysis focuses on aggregate national-level data, which may obscure regional variations in resilience within the country. Third, while the NARDL model captures asymmetry in shocks, it does not directly address potential non-linear interactions between geopolitical risks and other macroeconomic variables, such as exchange rates or foreign direct investment. Finally, the reliance on historical data from 2002–2023 means that the findings are contingent on the specific geopolitical and economic context of that period, and may not be fully generalizable to future conditions.

Future studies could extend this analysis by incorporating sectoral or regional disaggregation, allowing for a more nuanced understanding of how geopolitical risks affect different parts of the economy. Integrating additional explanatory variables, such as exchange rate volatility, foreign direct investment flows, or institutional quality indices, could enrich the modeling framework. Moreover, combining geopolitical risk measures with climate risk indicators would allow researchers to explore the compounded effects of multiple systemic threats. Methodologically, applying alternative econometric approaches, such as time-varying parameter models or machine learning techniques, may help capture dynamic changes in the relationship between geopolitical risk and economic resilience over time.

From a policy perspective, the asymmetric effects identified in this study underscore the need for differentiated strategies to address positive and negative shocks. In periods of positive geopolitical shocks, policymakers should

prioritize saving windfall revenues in stabilization funds and investing in diversification initiatives, rather than expanding recurrent expenditures. During negative shocks, targeted fiscal support to vulnerable households and critical sectors can help maintain social stability and economic functionality. Additionally, strengthening institutional frameworks, improving inflation control mechanisms, and expanding financial inclusion can enhance resilience to future shocks. A comprehensive risk management strategy that integrates geopolitical risk assessment into fiscal, monetary, and development planning would be essential for long-term stability.

Authors' Contributions

Authors equally contributed to this article.

Ethical Considerations

All procedures performed in this study were under the ethical standards.

Acknowledgments

Authors thank all participants who participate in this study.

Conflict of Interest

The authors report no conflict of interest.

Funding/Financial Support

According to the authors, this article has no financial support.

References

[1] H. Li, M. Liu, and Q. Lu, "Impact of climate change on household development resilience: Evidence from rural China," *Journal of Cleaner Production,* vol. 434, p. 139689, 2024, doi: 10.1016/j.jclepro.2023.139689.

[2] Q. Wang, F. Ren, and R. Li, "Does geopolitical risk impact sustainable development? A perspective on linkage between geopolitical risk and sustainable development research," *Journal of Cleaner Production,* vol. 451, p. 141980, 2024, doi: 10.1016/j.jclepro.2024.141980.

[3] N. Aslani, "The impact of geopolitical risk and financial development on economic growth in Iran," Master's thesis, University of Kurdistan, 2024.

[4] N. Darini Vali Mohammad and E. Namdar Joimi, "Studying global geopolitical risks in the economic policies and management of the Islamic Republic of Iran," *Journal of Political Studies of the Islamic World,* vol. 8, no. 2, pp. 81-93, 2018.

[5] A. Afonso, J. Alves, and S. Monteiro, "The pressure is on: how geopolitical tensions impact institutional fiscal and external stability responses," *REM Working Paper,* p. 318, 2024.

[6] L. Kilian, M. D. Plante, and A. W. Richter, "Geopolitical Oil Price Risk and Economic Fluctuations," 2024, doi: 10.24149/wp2403.

[7] D. Caldara and M. Iacoviello, "Measuring geopolitical risk," *American Economic Review,* vol. 112, no. 4, pp. 1194-1225, 2022, doi: 10.1257/aer.20191823.

[8] J. Bouoiyour, R. Selmi, S. Hammoudeh, and M. E. Wohar, "What are the categories of geopolitical risks that could drive oil prices higher? Acts or threats?," *Energy Economics,* vol. 84, p. 104523, 2019, doi: 10.1016/j.eneco.2019.104523.

[9] Y. Qin, K. Hong, J. Chen, and Z. Zhang, "Asymmetric effects of geopolitical risks on energy returns and volatility under different market conditions," *Energy Economics,* vol. 90, p. 104851, 2020, doi: 10.1016/j.eneco.2020.104851.

[10] N. Khan, A. Saleem, and O. Ozkan, "Do geopolitical oil price risk influence stock market returns and volatility of Pakistan: Evidence from novel non-parametric quantile causality approach," *Resources Policy,* vol. 81, p. 103355, 2023, doi: 10.1016/j.resourpol.2023.103355.

[11] K. Abbass, A. Sharif, H. Song, M. T. Ali, F. Khan, and N. Amin, "Do geopolitical oil price risk, global macroeconomic fundamentals relate Islamic and conventional stock market? Empirical evidence from QARDL approach," *Resources Policy,* vol. 77, p. 102730, 2022, doi: 10.1016/j.resourpol.2022.102730.
[12] T. C. Nguyen and T. H. Thuy, "Geopolitical risk and the cost of bank loans," *Finance Research Letters,* vol. 54, p. 103812, 2023, doi: 10.1016/j.frl.2023.103812.
[13] W. Hemrit, "Does insurance demand react to economic policy uncertainty and geopolitical risk? Evidence from Saudi Arabia," *The Geneva Papers on Risk and Insurance: Issues and Practice,* vol. 47, no. 2, p. 460, 2021, doi: 10.1057/s41288-021-00229-3.
[14] Z. Lu, G. Gozgor, M. Huang, and C. K. M. Lau, "The Impact of Geopolitical Risks on Financial Development: Evidence from Emerging Markets," *Journal of Competitiveness,* vol. 12, no. 1, pp. 93-107, 2020, doi: 10.7441/joc.2020.01.06.
[15] M. Kefayat, M. Ebrahimi, and H. Zare, "The impact of shocks from terrorist activities on employment: A spatial econometrics approach with evidence from selected Middle East countries," *Economic Policy,* vol. 17, no. 33, pp. 359-397, 2025.
[16] A. Fardhariri, A. Tayebnia, and H. Tavakkolian, "Financial inclusion and monetary policy in Iran," *Planning and Budgeting,* vol. 27, no. 2, pp. 51-88, 2022, doi: 10.52547/jpbud.27.2.51.
[17] Z. Cao and W. Rees, "Do employee-friendly firms invest more efficiently? Evidence from labor investment efficiency," *Journal of Corporate Finance,* vol. 65, p. 101744, 2020, doi: 10.1016/j.jcorpfin.2020.101744.
[18] T. C. Nguyen, V. Castro, and J. Wood, "Political economy of financial crisis duration," *Public Choice,* vol. 192, no. 3, pp. 309-330, 2022, doi: 10.1007/s11127-022-00986-2.
[19] M. Molaei and A. Ali, "The effect of income shocks on household consumption in Iran," *Economic Research,* vol. 54, no. 1, pp. 233-250, 2019.
[20] M. J. Browne, V. Jäger, A. Richter, and P. Steinorth, "Family changes and the willingness to take risks," *Journal of Risk and Insurance,* vol. 89, no. 1, pp. 187-209, 2022, doi: 10.1111/jori.12341.
[21] J. Ji, Z. Cao, C. Y. Zhang, and X. Zheng, "Dissecting the Influence of Geopolitical Risks on Employment Decisions: The Role of Employment Protection Across Countries," 2023, doi: 10.2139/ssrn.4995635.
[22] L. Pohlan, "Unemployment's long shadow: the persistent impact on social exclusion," *Journal for Labour Market Research,* vol. 58, no. 1, p. 12, 2024, doi: 10.1186/s12651-024-00369-8.
[23] L. Sugiharti, R. Purwono, M. A. Esquivias, and H. Rohmawati, "The nexus between crime rates, poverty, and income inequality: A case study of Indonesia," *Economies,* vol. 11, no. 2, p. 62, 2023, doi: 10.3390/economies11020062.
[24] A. Issakhani and L. Barazandeh, "The impact of social support on employee well-being with the mediating role of workaholism and work engagement," *Human Resource Management Research,* vol. 8, no. 3, pp. 83-108, 2016.
[25] F. V. Arie and E. Kissiya, "Geopolitical Risk and Higher Education in Indonesia: A Systematic Literature Review," *Cross-Cultural Management Journal,* vol. 26, no. 2, p. 139, 2024, doi: 10.70147/c26139153.
[26] K. Bozorgmehri, M. Shojari, T. Sadeghloo, and F. Pasban, "Examining the effects of microcredit funds on the economic and welfare empowerment of rural women: A case study of the villages in Piveh Zhan district," *Regional Geography and Development,* 2022.
[27] P. Phonsuk, R. Suphanchaimat, W. Patcharanarumol, D. Campbell-Lendrum, and V. Tangcharoensathien, "Health impacts of climate change and geopolitics: A call for papers," *Bulletin of the World Health Organization,* vol. 98, no. 3, p. 152, 2020, doi: 10.2471/BLT.20.251934.
[28] F. Faharuddin, M. Yamin, A. Mulyana, and Y. Yunita, "Impact of food price increases on poverty in Indonesia: empirical evidence from cross-sectional data," *Journal of Asian Business and Economic Studies,* vol. 30, no. 2, pp. 126-142, 2022, doi: 10.1108/JABES-06-2021-0066.
[29] H. M. Devi, R. M. Putri, and Y. Rosdiana, "The role of family healthcare in the social development of vulnerable school-aged children groups," *Healthcare in Low-resource Settings,* vol. 11, no. 2, 2023, doi: 10.4081/hls.2023.11798.
[30] M. Pourafzal and A. Omani, "Analyzing the effectiveness of loans on household economy of members in rural livestock cooperatives of Ahvaz County," *Spatial Economy and Rural Development,* vol. 8, no. 3, pp. 109-128, 2017.
[31] Imf, "International Monetary Fund Annual Report 2017 Promoting Inclusive Growth," p. 32, 2017. [Online]. Available: https://www.imf.org/external/pubs/ft/ar/2017/eng/pdfs/IMF-AR17-English.pdf.
[32] T. Long and L. Feng, "Aging, low fertility and household debt risk," *International Review of Economics & Finance,* vol. 95, p. 103454, 2024, doi: 10.1016/j.iref.2024.103457.