

# Geopolitical Risk and Banking Activity: An Asset–Liability Perspective

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## Abstract

This paper studies how geopolitical risk affects banking activity in emerging economies by examining both loan growth and deposit growth. Using a panel of 1,281 banks across 21 emerging countries between 2011 and 2021, we find that increases in geopolitical risk significantly reduce both lending and deposits. The results suggest that geopolitical shocks affect banks not only through higher uncertainty and weaker economic conditions, but also through disruptions in funding stability. In this sense, geopolitical risk appears to operate through a mechanism like the traditional bank lending channel, where weaker deposit growth constrains banks' ability to extend credit. The findings also reveal important regional differences, with stronger effects in Sub-Saharan Africa, and show that the impact of geopolitical shocks persists over time. Overall, the paper highlights geopolitical risk as an increasingly important source of financial vulnerability in emerging banking systems.

**Keywords:** Geopolitical Risk; Bank Lending; Deposit Growth; Emerging Markets.

**JEL Classification:** F51; G21; G28.

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## 1. Introduction

Geopolitical tensions have become an increasingly important source of economic and financial uncertainty. Events such as the Russia–Ukraine war, tensions between the United States and China, trade disputes, sanctions, and regional conflicts have intensified concerns about the resilience of financial systems, particularly in emerging economies. In these countries, banks play a central role in financial intermediation and remain heavily dependent on domestic funding conditions. As a result, geopolitical shocks can have important consequences not only for economic activity more broadly, but also for the stability of banking systems and the availability of credit.

A growing body of literature examines how geopolitical risk affects financial markets and banking activity. Previous studies show that geopolitical tensions increase systemic risk, weaken bank stability, affect financial market performance, and reduce credit activity. More specifically, recent evidence suggests that geopolitical risk negatively affects bank lending behavior and increases financial stress within banking systems. Existing studies, however, focus mainly on the asset side of banks' balance sheets, particularly lending activity, risk-taking behavior, or market-based measures of financial vulnerability.

Much less attention has been devoted to understanding whether geopolitical shocks also affect banks' funding conditions. This question is important because banks, especially in emerging markets, rely heavily on customer deposits as their main source of funding. If geopolitical tensions weaken depositor confidence or reduce funding stability, banks may face constraints in their ability to sustain credit growth. In this sense, geopolitical shocks may operate through a mechanism like the traditional bank lending channel discussed in the monetary policy literature. Under the bank lending channel, reductions in deposits constrain banks' ability to extend loans, particularly for institutions that cannot easily replace lost funding through financial markets. A comparable mechanism may emerge during periods of geopolitical stress if deposit growth weakens and banks become more cautious in their lending decisions.

This paper studies how geopolitical risk affects both sides of banks' balance sheets in emerging economies. Using an unbalanced panel of 1,281 banks across 21 emerging countries between 2011 and 2021, we examine whether geopolitical shocks influence not only customer loan growth but also deposit growth. The analysis combines bank-level information from BankFocus with the country-specific geopolitical risk index developed by Caldara and Iacoviello (2022). Our empirical approach relies on two-way fixed-effects panel regressions that control for macroeconomic conditions, bank-specific characteristics, and ownership structure.

The results show that geopolitical risk has a negative and economically meaningful effect on both lending growth and deposit growth. Consistent with the existing literature, we find that increases in geopolitical risk

reduce bank lending activity. More importantly, we also find that geopolitical shocks significantly reduce deposit growth. This result is central to the contribution of the paper because it suggests that geopolitical shocks affect banking systems not only through higher uncertainty or weaker economic conditions, but also through disruptions in banks' funding capacity.

The simultaneous decline in deposits and lending provides evidence consistent with a balance-sheet transmission mechanism. In emerging economies, where banks depend strongly on deposit financing, weaker deposit growth can directly limit the supply of loans. Banks that are unable to quickly substitute lost deposits with wholesale or international funding may respond by reducing credit expansion, increasing liquidity buffers, or tightening lending standards. The results for foreign-owned banks support this interpretation. We find that foreign-owned institutions are less negatively affected by geopolitical shocks in their lending activity, suggesting that access to alternative funding sources or support from parent institutions may partially shield these banks from domestic funding pressures.

The paper also documents important differences across regions and over time. The negative impact of geopolitical risk on lending is stronger in Sub-Saharan Africa, while deposit growth in MENA economies appears relatively more resilient to geopolitical tensions. In addition, the dynamic analysis shows that the effects of geopolitical shocks persist over several years, indicating that these disturbances generate longer-lasting consequences for financial intermediation rather than temporary disruptions alone.

This paper contributes to the literature in several ways. First, it extends the literature on geopolitical risk and banking by jointly analyzing the asset and liability sides of banks' balance sheets. While previous studies mainly focus on lending, stability, or financial market indicators, this paper shows that geopolitical risk also affects deposit dynamics and funding conditions. Second, the paper introduces a bank lending channel interpretation into the geopolitical risk literature by showing that geopolitical shocks may constrain lending through their effect on deposit availability and funding stability. Third, by focusing on emerging economies, the paper provides evidence from banking systems that remain highly dependent on deposit funding and therefore potentially more vulnerable to geopolitical disturbances. Finally, the paper contributes new evidence on regional heterogeneity and the persistence of geopolitical shocks within banking systems.

The remainder of the paper is organized as follows. Section 2 presents a brief literature review. Section 3 the empirical methodology. Section 4 describes the data and variables used in the analysis. Section 5 discusses the empirical results, and the last section concludes.

## 2. Literature Review

Interest in the relationship between geopolitical risk and the banking sector has grown rapidly in recent years. Rising geopolitical tensions, armed conflicts, sanctions, trade disputes, and increasing political fragmentation have intensified concerns about how uncertainty affects financial systems and banking activity. Much of the existing literature shows that geopolitical shocks worsen financial conditions by increasing uncertainty, weakening investor confidence, and raising perceptions of risk within the banking system.

One important group of studies focuses on bank stability and systemic risk. Phan et al. (2022) show that higher geopolitical risk weakens bank stability, particularly in countries with lower institutional quality. Similar evidence is provided by Topcu and Can (2025), who find that political instability and geopolitical tensions increase banking fragility, especially in developing economies. Other studies emphasize the broader systemic consequences of geopolitical shocks. Gabbiadini et al. (2025) document that geopolitical tensions increase systemic risk in the European banking sector, while Wang et al. (2025) provide cross-country evidence showing that geopolitical risk raises systemic vulnerability even after accounting for differences in banking regulation. Using evidence from China, Yuan et al. (2026) also find that geopolitical tensions significantly increase systemic vulnerability in the banking sector.

Another part of the literature examines how geopolitical risk affects market-based measures of banking performance. Dieckelmann et al. (2025) show that geopolitical tensions increase euro-area bank CDS spreads and negatively affect bank stock prices. Bounou and Urom (2025) similarly find that geopolitical tensions deteriorate banks' stock market performance. At the sovereign level, Nagy and Neszveda (2025) show that the Russo-Ukrainian War significantly affected sovereign CDS spreads and perceptions of financial risk. Zhu et al. (2025) also document that global geopolitical risk negatively affects financial stability in China.

A related literature studies the effects of geopolitical uncertainty on lending activity and credit conditions. Demir and Danisman (2021) show that geopolitical risk reduces bank credit growth, suggesting that banks become more cautious during periods of uncertainty. Chiamonte et al. (2025) reach similar conclusions using European bank-level data, finding that geopolitical tensions weaken lending activity and affect banks' risk-taking behavior. Nguyen and Thuy (2023) further show that geopolitical risk increases the cost of bank loans, while Tang and Huang (2025) find that geopolitical risk exposure worsens credit conditions through disruptions in global supply chains.

Recent research has also started to examine the role of funding conditions during periods of geopolitical stress. Nguyen and Thuy (2024) show that geopolitical risk affects bank wholesale funding, suggesting that geopolitical uncertainty can disrupt banks' access to external financing. This issue is especially important in emerging econo-

mies, where banking systems often rely heavily on stable funding conditions and where disruptions in liquidity can quickly spill over into lending activity.

Other studies highlight how institutional characteristics influence banks' responses to geopolitical shocks. Shabir et al. (2023) show that CEO power and board strength shape the effect of geopolitical uncertainty on bank risk. Vashisht and Mundi (2025) similarly find that well-connected bank CEOs can partially reduce the negative impact of geopolitical risk on bank stability. Together, these studies suggest that differences in governance, ownership structure, and institutional quality may affect the resilience of banks during periods of geopolitical stress.

The literature also documents broader macro-financial effects of geopolitical uncertainty. Nguyenhuu and Örsal (2024) find that geopolitical risk increases financial stress in emerging economies, while Liu and Shen (2024) show that geopolitical risk originating from neighboring countries and trading partners contributes to financial instability in Europe. Zhou et al. (2026) further demonstrate that geopolitical tensions affect the cross-border allocation of bank capital, highlighting the international dimension of geopolitical shocks.

Although this literature has expanded considerably, most studies focus on the asset side of banks' balance sheets, particularly lending activity, bank stability, or financial market indicators. Much less attention has been paid to the liability side of banks' balance sheets, especially deposit dynamics. This is an important omission because deposits remain the main source of funding for banks in many emerging economies. If geopolitical shocks weaken depositor confidence or reduce funding stability, banks may face constraints in their ability to sustain credit growth.

This paper contributes to the literature by jointly examining the effects of geopolitical risk on both loan growth and deposit growth. By analyzing both sides of banks' balance sheets simultaneously, the paper provides evidence of a broader financial intermediation mechanism through which geopolitical shocks affect banking activity. The findings suggest that geopolitical risk not only reduces lending directly but also weakens deposit growth and funding availability. In this sense, the results point to a balance-sheet transmission mechanism like the traditional bank lending channel, where reductions in funding availability constrain banks' capacity to extend credit. The paper therefore extends the existing literature beyond the usual focus on lending and bank stability by showing that funding-side pressures are also an important part of how geopolitical shocks affect banking systems in emerging economies.

### 3. Methodology

We test the hypothesis that, in emerging markets, geopolitical risk affects not only customer loan growth, as suggested by the literature, but also deposit growth. In other words, geopolitical risk influences both sides of banks' balance sheets. To examine this relationship, we employ panel regressions with two-way fixed effects at both the bank and year levels, while clustering standard errors at the country level, which corresponds to the unit of measurement of our geopolitical risk variable.

For both loans and deposits, we begin with a baseline specification that includes only fixed effects and the geopolitical risk variable developed by Caldara and Iacoviello (2022) (Model 1). We then augment this specification by adding macroeconomic control variables (Model 2). Next, we incorporate bank-level controls (Model 3). Finally, in Model 4, we examine the marginal addition of bank ownership. The following four equations correspond to our four models of loans and deposits growth:

$$\Delta y_{it} = \alpha_i + \alpha_t + \beta_{gpr} GPR_{it} + \varepsilon_{it}, \quad (1)$$

$$\Delta y_{it} = \alpha_i + \alpha_t + \beta_{gpr} GPR_{ct} + \beta'_c \mathbf{Country}_{ct} + \varepsilon_{it}, \quad (2)$$

$$\Delta y_{it} = \alpha_i + \alpha_t + \beta_{gpr} GPR_{ct} + \beta'_c \mathbf{Country}_{ct} + \beta'_b \mathbf{Bank}_{it} + \varepsilon_{it}, \quad (3)$$

$$\Delta y_{it} = \alpha_i + \alpha_t + \beta_{gpr} GPR_{ct} + \beta'_c \mathbf{Country}_{ct} + \beta'_b \mathbf{Bank}_{it} + \beta_{int} (FO_i \times GPR_{ct}) + \varepsilon_{it}, \quad (4)$$

where  $\Delta y_{it}$  can be either the annual growth rate of customer loans at the bank level or the growth of deposits at the bank level.  $\alpha_i$  and  $\alpha_t$  correspond to bank- and time- fixed effects;  $GPR_{ct}$  is our political risk variable, which varies at the country level and over the time;  $\mathbf{Country}_{ct}$  is a  $(3 \times 1)$  vector that consists of three control variables at the macro level, namely, inflation, GDP growth and unemployment.  $\mathbf{Bank}_{it}$  is also a vector of  $(5 \times 1)$  and  $FO_i$  is a time-invariant (in our sample) variable that measure whether a bank is ownership is foreign.

We also extend the baseline specification in Equation (4) with a lagged version of the geopolitical risk variable, as follows:

$$\Delta y_{it} = \alpha_i + \alpha_t + \beta_{gpr} GPR_{ct} + \beta_{gpr-\ell} \phi(\ell) GPR_{ct} + \beta'_c \mathbf{Country}_{ct} + \beta'_b \mathbf{Bank}_{it} + \beta_{int} (FO_i \times GPR_{ct}) + \varepsilon_{it} \quad (5)$$

where,  $\phi(\ell)$  is a polynomial of the lag operator. This lag is defined between 1 and 3 to capture the effects of geopolitical risks on loans and deposits up to the third year following a geopolitical shock.

Finally, we also explore the role of geography by adding an interaction term between the geopolitical risk variable and a dummy variable for either Latin America and the Caribbean, Eastern European economies, the MENA region, or Sub-Saharan African countries, as in Equation 6:

$$\Delta y_{it} = \alpha_i + \alpha_t + \beta_{gpr} GPR_{ct} + \beta'_c \mathbf{Country}_{ct} + \beta'_b \mathbf{Bank}_{it} + \beta_{int1} (FO_i \times GPR_{ct}) + \beta_{int2} (\mathbf{Region}_i \times GPR_{ct}) + \varepsilon_{it} \quad (6)$$

## 4. Data

The empirical analysis relies on an unbalanced panel dataset comprising 1,281 banks across 21 emerging economies over the period 2011–2021 (the number of banks per country is in parentheses): Russia (292), China (146), Vietnam (137), Brazil (102), Indonesia (95), Ukraine (64), the Philippines (62), Mexico (58), Argentina (52), India (47), Turkey (39), Malaysia (28), Egypt (24), Thailand (23), Venezuela (23), Colombia (21), Peru (20), Hungary (17), Tunisia (16), South Africa (12), and Chile (3). As illustrated in Figure A1, this timeframe was selected because it minimizes the number of missing observations, thereby ensuring a more robust empirical analysis in our panel models. To reduce the influence of extreme outliers, all continuous variables were win-sorized at the 1st and 99th percentiles.

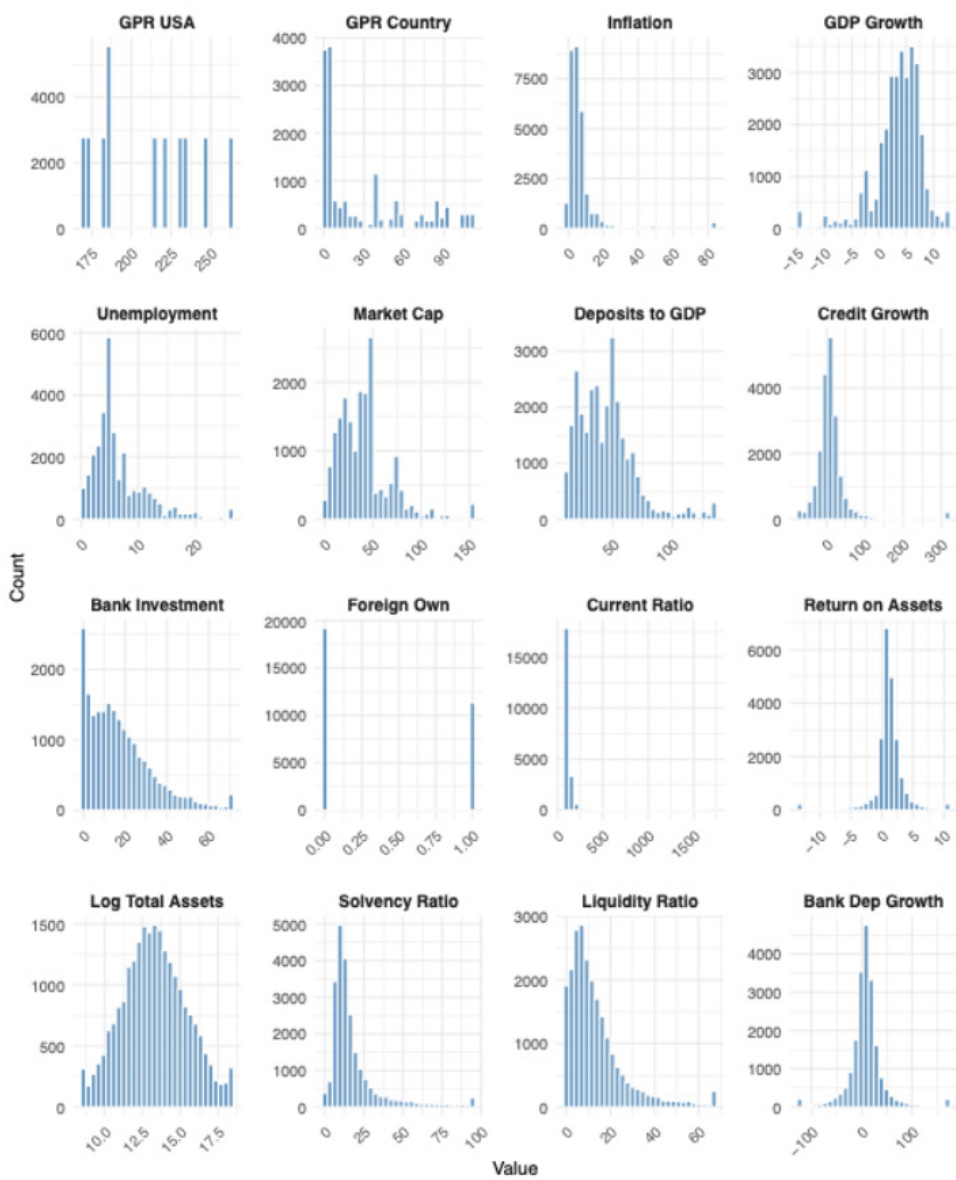
Our study focuses on how banks adjust their intermediation activities in response to geopolitical shocks. Accordingly, the dependent variables are Customer Loan Growth and Deposits Growth, both measured at the bank level and obtained from BankFocus. Customer Loan Growth captures the credit supply dimension, reflecting banks' willingness to lend during periods of uncertainty. Across the sample (see Table 1), average loan growth amounts to 11.59%, although the large standard deviation of 49.75% points to substantial heterogeneity in lending behavior across banks in different countries. While most observations are concentrated around relatively low growth rates, the distribution displays pronounced tails, indicating the presence of episodes of both exceptionally strong and sharply contracting credit activity (see Figure 1).

Table 1. Summary Statistics of the Variables in Our Sample

<i>Indicator</i>	<i>Source</i>	<i>Mean</i>	<i>Median</i>	<i>Std.Dev</i>	<i>Max.</i>	<i>Min.</i>
<i>Geopolitical Risk Index USA</i>	Caldara and Iacoviello (2022),	209.7	215.24	30.47	262.76	169.79
<i>Geopolitical Risk Index by Country</i>	Caldara and Iacoviello (2022),	28.65	6.87	34.18	111.27	0.89
<i>Inflation</i>	International Monetary Fund	7.38	4.1	11.64	83.4	-1.1
<i>GDP Growth</i>	International Monetary Fund	3.14	3.86	4.25	12.56	-14.55
<i>Unemployment Rate</i>	World Bank	6.02	5.15	3.75	26.15	0.4
<i>Current Ratio</i>	BankFocus	158.06	115.47	201.35	1724.89	99.84
<i>Return on Assets</i>	BankFocus	0.99	0.95	2.81	10.57	-13.25
<i>Log Total Assets</i>	BankFocus	13.6	13.63	2.44	18.36	8.59
<i>Solvency Ratio</i>	BankFocus	19.63	13.34	18.26	94.55	0.02
<i>Liquidity Ratio</i>	BankFocus	11.4	7.93	12.16	67	0
<i>Foreign Ownership</i>	BankFocus	0.3	0	0.46	1	0
<i>Customer Loan Growth</i>	BankFocus	11.59	6.1	49.75	316.35	-70.53
<i>Deposits Growth</i>	BankFocus	6.77	6.89	40.57	170.66	-123.34

**Note:** This table reports summary statistics (mean, median, standard deviation, maximum, and minimum) for the variables used in the empirical analysis, covering the period 2011–2021. Macroeconomic variables are sourced from the IMF and World Bank, the Geopolitical Risk (GPR) Index from Caldara and Iacoviello (2022), and bank-level data from BankFocus. To mitigate the influence of extreme outliers, all continuous variables have been winsorized at the 1st and 99th percentiles. Foreign Ownership is an indicator variable (taking a value of 0 or 1) and was therefore not winsorized.

Figure 1. Univariate Distributions of Key Macroeconomic and Bank-Specific Variables



**Note:** This figure presents the distributions of the primary variables utilized in the empirical analysis. Each panel displays the frequency count (y-axis) across the specific range of values (x-axis) for a given metric. The visualizations encompass country-level macroeconomic and geopolitical indicators, including GPR Country, GPR USA, Inflation, GDP Growth, and Unemployment. Bank-level financial ratios and growth metrics are also presented, such as Credit Growth, Bank Deposit Growth, Return on Assets, Solvency Ratio, and Liquidity Ratio. Winsorization at 1 and 99 percent.

On their side, Deposits Growth is included as a proxy for depositor confidence and funding stability. The variable averages 6.77% with a standard deviation of 40.57%, again suggesting considerable variation across banks and over time. Like loan growth, the distribution is centered around low positive values but exhibits substantial dispersion, reflecting periods characterized by both capital outflows and precautionary deposit accumulation.

The main independent variable is the country-level Geopolitical Risk (GPR) Index developed by Caldara and Iacoviello (2022). This index captures the threat, realization, and escalation of adverse geopolitical events and constitutes the core explanatory variable in our analysis. The GPR Index has a mean value of 28.65 and a markedly lower median of 6.87, revealing a strongly right-skewed distribution. This pattern reflects the nature of geopolitical risk itself, where relatively tranquil periods are occasionally interrupted by severe geopolitical events that generate extreme spikes in the index.

To isolate the effect of geopolitical shocks, the analysis further controls for macroeconomic conditions using country-level indicators sourced from the IMF and the World Bank. GDP Growth is included to account for fluctuations in aggregate demand and averages 3.14% across the sample. Although its distribution is approximately normal and centered slightly above zero, it also captures severe economic downturns, with a minimum value of -14.55%. Inflation and Unemployment, averaging 7.38% and 6.02% respectively, are incorporated to control for broader macroeconomic instability that may independently affect lending and deposit behavior. Both variables display right-skewed distributions, reflecting episodes of economic distress in several emerging economies included in the sample.

In addition, a range of bank-specific controls from BankFocus is employed to account for institutional characteristics that may shape banks' resilience to external shocks. Log Total Assets controls for bank size and exhibits a relatively normal distribution. Profitability is measured using Return on Assets (ROA), which averages 0.99% and is tightly concentrated around positive values. The Solvency Ratio and Liquidity Ratio, with mean values of 19.63% and 11.4% respectively, capture capital adequacy and liquid asset holdings. Both variables are positively skewed, indicating that some banks maintain substantially larger prudential buffers than others. Finally, Foreign Ownership is included as a binary indicator and averages 0.3 across the sample. This variable is particularly relevant for assessing whether foreign-owned institutions respond differently to domestic geopolitical stress.

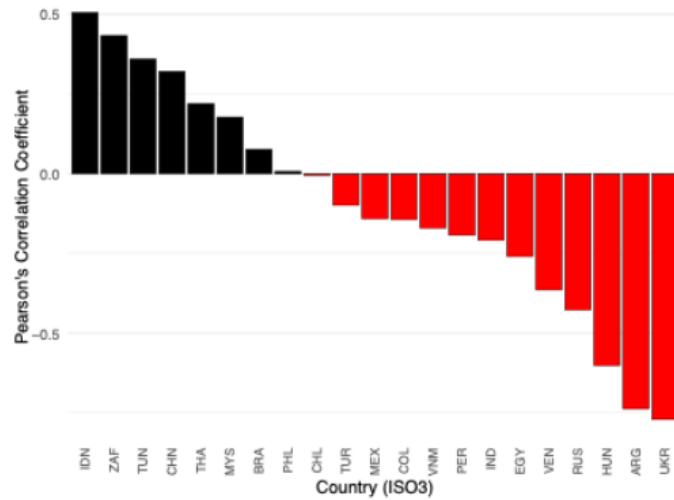
## 5. Results

Figures 2 and 3 provide an initial overview of the relationship between geopolitical risk and banking activity across the sample of emerging economies. A common pattern emerges from both figures: in most countries, increases in geopolitical risk are associated with weaker growth in both loans and deposits. Although a few countries, such as Indonesia and South Africa, display slightly positive correlations, the dominant relationship is clearly negative. The strongest negative associations appear in economies such as Argentina and Ukraine, where periods of geopolitical instability coincide with substantial contractions in banking activity.

The country-level time-series evidence in Figures 4 and 5 reinforces this interpretation. Across many economies, spikes in geopolitical risk tend to occur alongside sharp slowdowns in both lending and deposit accumulation. Importantly, the simultaneous deterioration in deposits and loans suggests that geopolitical shocks affect not only banks' willingness to lend, but also their funding conditions. This distinction is important because it points to a balance-sheet transmission mechanism like the traditional bank lending channel in the monetary policy literature.

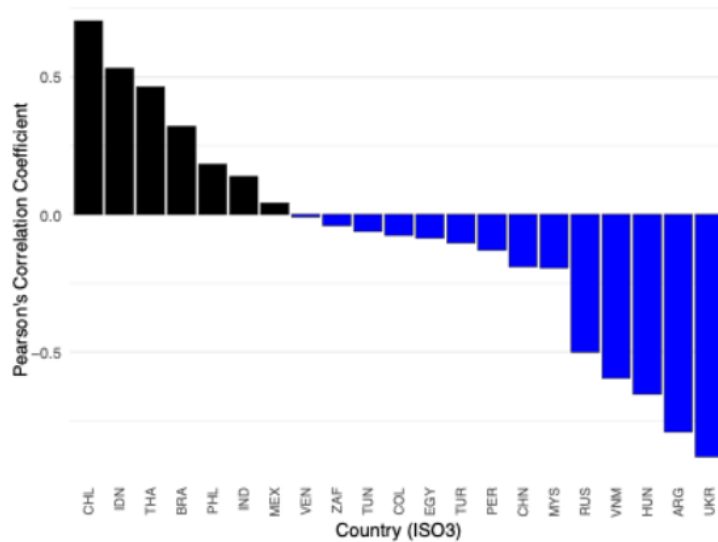
Under the standard bank lending channel framework, contractionary monetary policy reduces reservable deposits, limiting the amount of funds available for lending, especially for banks that cannot easily replace lost deposits through wholesale or market-based financing (Kishan and Opiela, 2000). In this setting, deposits are a key source of funding for credit creation. Our findings suggest that geopolitical shocks may operate through a comparable mechanism. Periods of heightened geopolitical risk appear to weaken deposit growth and funding stability, which in turn constrain banks' ability to expand credit. This mechanism is likely to be particularly relevant in emerging economies, where banks depend more heavily on deposit funding and where access to alternative sources of liquidity may become limited during periods of uncertainty.

Figure 2. Country Correlation Between Geopolitical Risk and Loan Growth 2011-2021



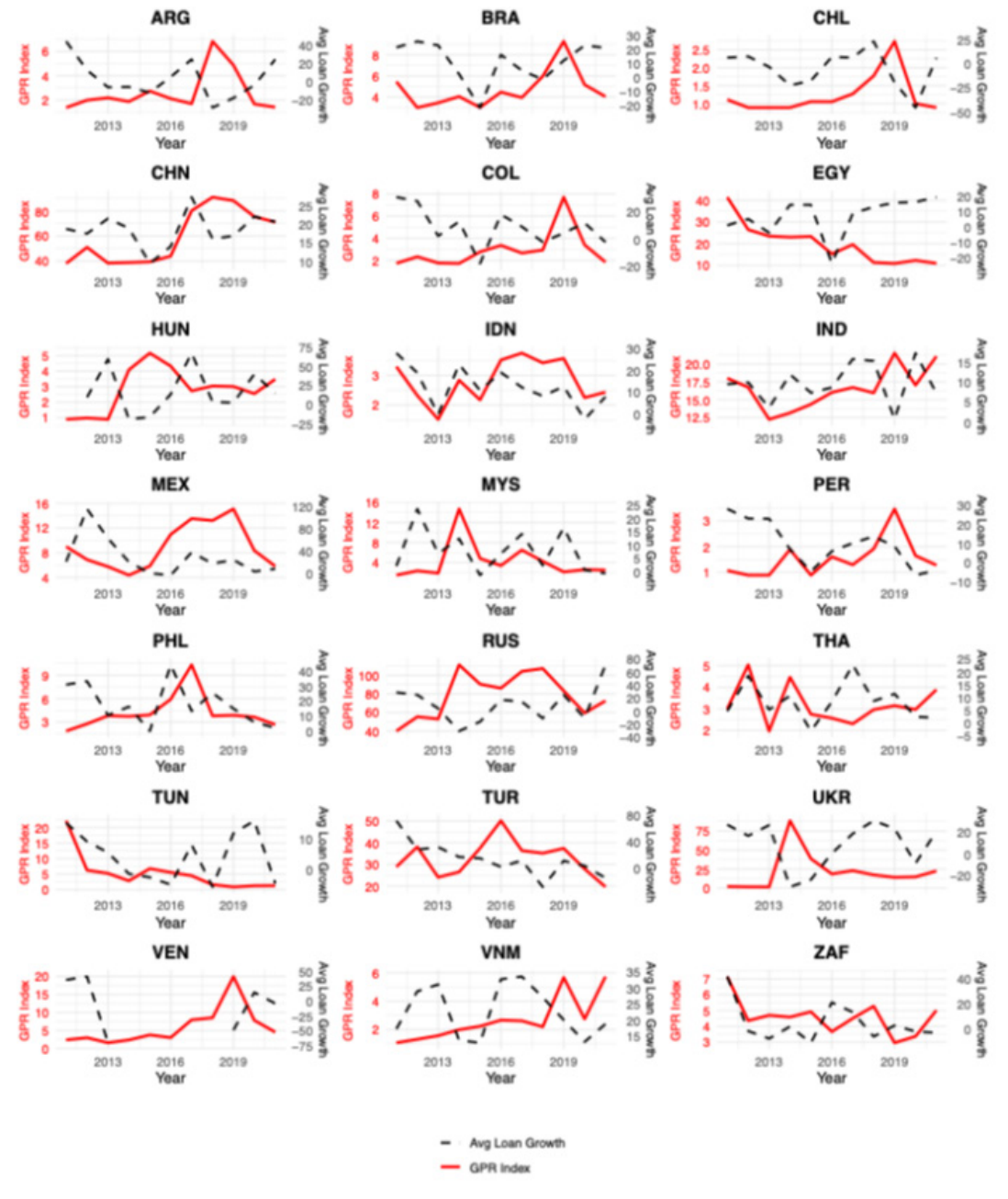
**Note:** This figure presents the correlation between country-level Geopolitical Risk and average bank loan growth across the sampled. The horizontal axis identifies each country, while the vertical axis represents the magnitude and direction of the correlation. The countries are ordered in descending fashion to highlight significant cross-sectional heterogeneity: while a small subset of nations (such as IDN, ZAF, and TUN) exhibits slightly positive correlations, majority of the sample demonstrates a pronounced negative relationship.

Figure 3. Country Correlation Between Geopolitical Risk and Deposit Growth



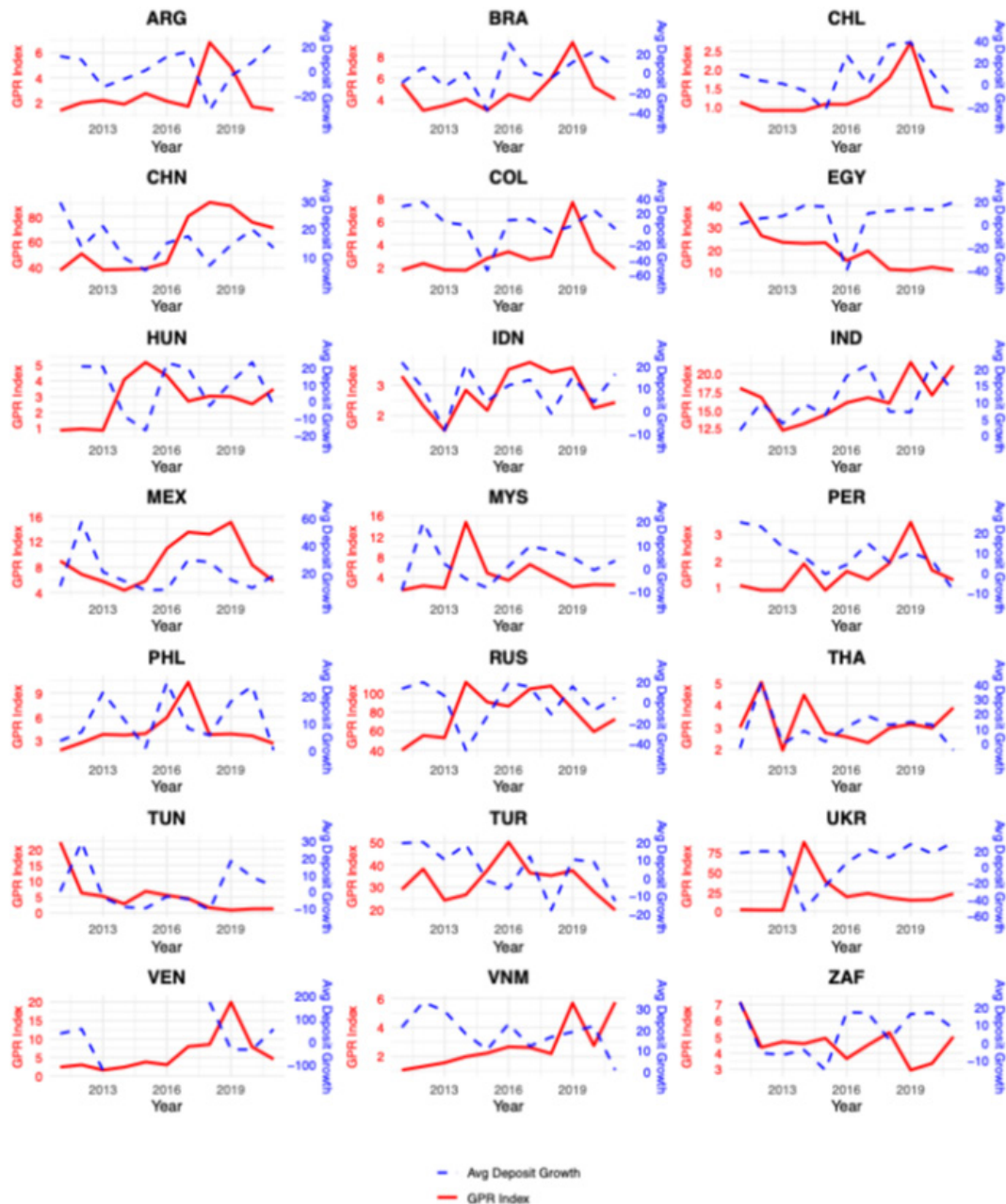
**Note:** This figure displays a bar chart representing the Pearson's correlation coefficient between country-level Geopolitical Risk and average bank deposit growth across the sampled economies. The horizontal axis identifies each country code, while the vertical axis represents the magnitude and direction of the correlation. Like the loan growth analysis, the countries are ordered in a descending fashion. A subset of nations (like CHL, IDN, and THA) exhibits positive correlations for the study sample, while the majority, notably ARG and UKR, show strong negative correlations.

Figure 4. Country-Level Dynamics: Geopolitical Risk vs. Average Bank Loan Growth



Note: This figure presents comprehensive time-series plots comparing the Geopolitical Risk (GPR) Index and Average Loan Growth for each individual country in the sample. Within each country-specific panel, the solid red line tracks the GPR Index, while the dashed blue line represents Average Loan Growth. The horizontal axis denotes the sample years, primarily spanning from 2011 to 2021. This visualization facilitates a granular inspection of how credit growth co-moves with geopolitical shocks over time within distinct domestic contexts, such as ARG, BRA, CHN, and COL.

Figure 5. Country-Level Dynamics: Geopolitical Risk vs. Average Bank Deposit Growth



**Note:** Mirroring the structure of the credit growth analysis, this figure presents a panel grid of dual-axis time-series plots comparing the Geopolitical Risk (GPR) Index and Average Deposit Growth for each country. In each individual plot, the solid red line corresponds to the GPR Index, and the dashed blue line represents Average Deposit Growth. The x-axis measures the timeframe, generally focusing on the years 2011 to 2021. This comparative visualization allows for a direct, country-by-country assessment of deposit base stability in the face of shifting geopolitical risk across nations like ARG, BRA, CHL, and CHN.

## 5.1. Geopolitical Risk and Credit Growth

Table 2 reports the baseline fixed-effects estimations for bank credit growth. Across all specifications, the coefficient on the geopolitical risk index is negative and statistically significant, indicating that geopolitical tensions reduce bank lending activity in emerging markets.

**Table 2.** The Impact of Geopolitical Risk on Bank Credit Growth

<i>Dependent Var.:</i>	<b>Model 1 Credit Growth</b>	<b>Model 2 Credit Growth</b>	<b>Model 3 Credit Growth</b>	<b>Model 4 Credit Growth</b>
<i>GPR Country</i>	-0.3684*** (0.0671)	-0.2709** (0.0709)	-0.2713*** (0.0628)	-0.2905*** (0.0612)
<i>Inflation</i>		-0.2490 (0.1413)	-0.1835 (0.1730)	-0.1852 (0.1711)
<i>GDP Growth</i>		1.457** (0.3895)	1.465** (0.4247)	1.477** (0.4227)
<i>Unemployment</i>		-1.859 (1.378)	-1.895 (1.616)	-1.917 (1.617)
<i>Current Ratio</i>			-0.0003 (0.0156)	-0.0005 (0.0156)
<i>Return on Assets</i>			-0.4681 (0.7127)	-0.4707 (0.7086)
<i>Log Total Assets</i>			5.055 (3.366)	5.050 (3.346)
<i>Solvency Ratio</i>			-0.0263 (0.2539)	-0.0242 (0.2529)
<i>Liquidity Ratio</i>			-0.8283*** (0.0664)	-0.8300*** (0.0687)
<i>GPR Country x FO</i>				0.0928* (0.0335)
<i>Foreign Own x GPR USA</i>				0.0017 (0.0477)
<b>Fixed-Effects:</b>				
<i>Bank</i>	Yes	Yes	Yes	Yes
<i>Year</i>	Yes	Yes	Yes	Yes
<b>S.E.: Clustered</b>	<b>by: Country</b>	<b>by: Country</b>	<b>by: Country</b>	<b>by: Country</b>
<i>Observations</i>	10,648	10,493	9,803	9,803
<i>G</i>	21	21	20	20
<i>R2</i>	0.21941	0.22805	0.25061	0.25075
<i>Adj. R2</i>	0.11614	0.12402	0.14834	0.14830
<i>F-test</i>	0.51107	0.42204	0.33442	0.30279

**Note:** This table presents panel fixed-effects regression results examining the impact of geopolitical risk on bank credit growth over the 2011–2021 period. The dependent variable is Credit Growth. Models 1 through 4 progressively introduce macroeconomic controls, bank-specific controls, and interaction terms (Foreign Ownership interacted with both Country GPR and USA GPR). All specifications include bank and year fixed effects to control for unobserved heterogeneity. Standard errors, clustered at the country level, are reported in parentheses below the coefficient estimates. Significance levels are denoted as follows: \*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ ,  $p < 0.1$ .

In Model 1, which includes only bank and year fixed effects, the coefficient on geopolitical risk equals -0.3684 and is statistically significant at the 1% level. The result remains stable after progressively adding macroeconomic controls in Model 2 and bank-specific controls in Model 3. In the fully specified model, the coefficient remains negative at -0.2905 and highly significant. The stability of the estimates across specifications suggests that the effect is not simply capturing deteriorating macroeconomic conditions or differences in bank characteristics.

Among the macroeconomic controls, GDP growth is positively associated with lending growth across all specifications, reflecting the procyclical nature of bank credit. Inflation enters with a weak negative sign in some regressions, although the effect loses significance once bank-level controls are introduced. Unemployment does not appear to exert a statistically significant influence on loan growth.

The bank-level variables provide additional evidence consistent with a balance-sheet transmission mechanism. The liquidity ratio is consistently negative and highly significant, indicating that banks holding larger liquidity buffers tend to expand lending less aggressively. This pattern is consistent with precautionary behavior during periods of uncertainty, where banks preserve liquid assets rather than increase credit exposure.

Model 4 introduces interaction terms related to foreign ownership. The interaction between foreign ownership and country-level geopolitical risk is positive and statistically significant, suggesting that foreign-owned banks are less negatively affected by domestic geopolitical shocks than locally owned institutions. One possible explanation is that foreign-owned banks may have better access to alternative funding sources through parent institutions or international financial markets. As a result, they may be less dependent on local deposits and therefore less vulnerable to the funding pressures generated by geopolitical instability. By contrast, the interaction between foreign ownership and U.S. geopolitical risk is not statistically significant.

## 5.2. Geopolitical Risk and Deposit Growth

Table 3 examines the impact of geopolitical risk on deposit growth. The results show that geopolitical shocks also have a significant effect on the liability side of banks' balance sheets. Across all specifications, increases in geopolitical risk are associated with lower deposit growth.

Table 3. The Impact of Geopolitical Risk on Bank Deposit Growth

<i>Dependent Var.:</i>	<b>Model 1</b> <i>Bank Dep Growth</i>	<b>Model 2</b> <i>Bank Dep Growth</i>	<b>Model 3</b> <i>Bank Dep Growth</i>	<b>Model 4</b> <i>Bank Dep Growth</i>
<i>GPR Country</i>	-0.3976*** (0.0842)	-0.3616*** (0.0805)	-0.3218*** (0.0703)	-0.3556*** (0.0737)
<i>Inflation</i>		0.0133 (0.1643)	0.2293 (0.1746)	0.2360 (0.1731)
<i>GDP Growth</i>		0.5692 (0.5772)	0.8541 (0.5702)	0.8687 (0.5573)
<i>Unemployment</i>		-0.3234 (0.9493)	-0.1260 (0.8024)	-0.1375 (0.8190)
<i>Current Ratio</i>			-0.0187 (0.0141)	-0.0191 (0.0142)
<i>Return on Assets</i>			0.4244 (0.3653)	0.4394 (0.3649)
<i>Log Total Assets</i>			9.086** (2.413)	9.107** (2.418)
<i>Solvency Ratio</i>			-0.4052* (0.1712)	-0.4022* (0.1702)
<i>Liquidity Ratio</i>			0.2422** (0.0682)	0.2356** (0.0675)
<i>GPR Country x FO</i>				0.0865 (0.1155)
<i>Foreign Own x GPR USA</i>				-0.0919 (0.0658)
<b>Fixed-Effects:</b>				
<i>Bank</i>	Yes	Yes	Yes	Yes
<i>Year</i>	Yes	Yes	Yes	Yes
<b>S.E.: Clustered</b>	<b>by: Country</b>	<b>by: Country</b>	<b>by: Country</b>	<b>by: Country</b>
<i>Observations</i>	10,400	10,248	9,676	9,676
<i>G</i>	21	21	20	20
<i>R2</i>	0.21510	0.22063	0.25709	0.25790
<i>Adj. R2</i>	0.11107	0.11540	0.15588	0.15661
<i>F-test</i>	0.49828	0.40441	0.34606	0.31443

**Note:** This table presents panel fixed-effects regression results examining the impact of geopolitical risk on bank deposit growth over the 2011–2021 period. The dependent variable is Bank Deposit Growth. Models 1 through 4 progressively introduce macroeconomic controls, bank-specific controls, and interaction terms (Foreign Ownership interacted with both Country GPR and USA GPR). All specifications include bank and year fixed effects to control for unobserved heterogeneity. Standard errors, clustered at the country level, are reported in parentheses below the coefficient estimates. Significance levels are denoted as follows: \*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ ,  $p < 0.1$ .

The estimated coefficients are consistently negative and statistically significant. In Model 1, the coefficient on geopolitical risk equals -0.3976, while in the fully specified model it remains negative at -0.3556. Interestingly, the magnitude of the deposit effect is slightly larger than the corresponding effect on lending, suggesting that geopolitical shocks may first materialize through funding pressures and depositor behavior before fully transmitting to credit activity.

These findings are consistent with the idea that geopolitical instability reduces depositor confidence and weakens funding stability within the banking system. In emerging markets, where banks rely heavily on customer deposits as a primary funding source, a slowdown in deposit growth can directly constrain lending capacity. Banks that cannot rapidly substitute deposit losses with wholesale or external financing may be forced to reduce loan supply, tighten credit standards, or increase precautionary liquidity holdings. In this sense, geopolitical shocks appear to operate through a mechanism closely related to the bank lending channel traditionally associated with monetary policy transmission.

The bank-level controls support this interpretation. Larger banks experience significantly stronger deposit growth, suggesting that depositors may perceive large institutions as relatively safer during periods of uncertainty. Similarly, the liquidity ratio is positive and statistically significant, implying that banks with stronger liquidity positions are better able to attract or retain deposits when geopolitical conditions deteriorate.

Unlike the lending regressions, the interaction terms involving foreign ownership are not statistically significant. This suggests that depositor responses to geopolitical shocks are broadly similar across domestic and foreign-owned institutions, even though foreign banks appear better able to smooth lending activity once funding pressures emerge.

Altogether, results from Tables 2 and 3 indicate that geopolitical risk affects both sides of banks' balance sheets. The results therefore point to a broader financial intermediation channel through which geopolitical shocks weaken deposit accumulation, reduce funding availability, and ultimately constrain bank lending.

## Regional Heterogeneity

Tables 4 and 5 examine whether the effects of geopolitical risk differ across regions. The results reveal substantial heterogeneity in the way geopolitical shocks affect banking activity across emerging economies.

Table 4. Regional Heterogeneity in the Effect of Geopolitical Risk on Credit Growth

<i>Dependent Var.:</i>	<i>Model 1 Credit Growth</i>	<i>Model 2 Credit Growth</i>	<i>Model 3 Credit Growth</i>	<i>Model 4 Credit Growth</i>
<i>Inflation</i>	-0.2478. (0.1396)	-0.2478. (0.1396)	-0.1624 (0.1619)	-0.1621 (0.1603)
<i>GDP Growth</i>	1.424** (0.4111)	1.424** (0.4111)	1.415** (0.4689)	1.428** (0.4661)
<i>Unemployment</i>	-1.950 (1.601)	-1.950 (1.601)	-1.999 (1.843)	-2.018 (1.843)
<i>GPR Country</i>	-0.3128*** (0.0585)	-0.3128*** (0.0585)	-0.2800*** (0.0701)	-0.2954*** (0.0688)
<i>GPR Country x lac</i>	-0.1135 (0.7056)	-0.1135 (0.7056)	-0.4992 (0.8376)	-0.5039 (0.8327)
<i>GPR Country x ssa</i>	-3.068* (1.117)	-3.068* (1.117)	-3.462** (1.068)	-3.477** (1.056)
<i>GPR Country x mena</i>	0.3595 (0.5617)	0.3595 (0.5617)	0.2711 (0.6287)	0.2515 (0.6299)
<i>GPR Country x asia</i>	0.1685. (0.0945)	0.1685. (0.0945)	-0.0041 (0.1254)	-0.0217 (0.1217)
<i>Current Ratio</i>			0.0001 (0.0160)	-3.7e-5 (0.0159)
<i>Return on Assets</i>			-0.4553 (0.7108)	-0.4580 (0.7068)
<i>Log Total Assets</i>			4.989 (3.280)	5.021 (3.255)
<i>Solvency Ratio</i>			-0.0310 (0.2552)	-0.0282 (0.2543)
<i>Liquidity Ratio</i>			-0.8280*** (0.0690)	-0.8309*** (0.0712)
<i>GPR Country x FO</i>				0.0941* (0.0342)
<i>Foreign Own x GPR USA</i>				0.0009 (0.0467)
<b>Fixed-Effects:</b>				
<i>Bank</i>	Yes	Yes	Yes	Yes
<i>Year</i>	Yes	Yes	Yes	Yes
<b>S.E.: Clustered</b>	<b>by: Country</b>	<b>by: Country</b>	<b>by: Country</b>	<b>by: Country</b>
<i>Observations</i>	10,493	10,493	9,803	9,803
<i>G</i>	21	21	20	20
<i>R2</i>	0.22843	0.22843	0.25079	0.25093
<i>Adj. R2</i>	0.12407	0.12407	0.14816	0.14811
<i>F-test</i>	0.32895	0.32895	0.27652	0.25459

**Note:** This table presents panel fixed-effects regression results exploring the regional dynamics of geopolitical risk on bank credit growth over the 2011–2021 period. The dependent variable is Credit Growth. In addition to standard macroeconomic and bank-specific controls, the models introduce interaction terms between Country GPR and regional dummy variables: lac (Latin America and the Caribbean), ssa (Sub-Saharan Africa), mena (Middle East and North Africa), and asia. All models incorporate bank and year fixed effects. Standard errors, clustered at the country level, are reported in parentheses. Significance levels are denoted as follows: \*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ ,  $p < 0.1$ .

For credit growth (Table 4), the direct effect of geopolitical risk remains negative and statistically significant in all specifications. However, the interaction terms indicate that the effect is considerably stronger in Sub-Saharan Africa. The interaction between geopolitical risk and the Sub-Saharan Africa dummy is negative and statistically significant across specifications, implying that geopolitical tensions generate substantially larger contractions in lending activity in these economies. This result may reflect weaker institutional environments, greater macroeconomic fragility, and more limited access to alternative funding channels within the banking systems of the region.

The interaction terms for Latin America, MENA, and Asia are generally not statistically significant. Although the Asia interaction is weakly positive in the simpler models, the effect disappears after including bank-level controls. Overall, the evidence suggests that while geopolitical risk negatively affects lending across most emerging economies, the magnitude of the effect is particularly severe in Sub-Saharan Africa.

The regional deposit regressions in Table 5 reveal a somewhat different pattern. Although the direct effect of geopolitical risk remains negative and significant, the interaction term for MENA economies becomes positive and statistically significant in the richer specifications. This suggests that deposit growth in MENA banking systems is relatively less sensitive to geopolitical shocks compared to other regions. One possible explanation is that banks and depositors in these economies are more accustomed to operating in environments characterized by persistent geopolitical tensions, making funding conditions somewhat more resilient to geopolitical events.

**Table 5.** Regional Heterogeneity in the Effect of Geopolitical Risk on Deposit Growth

<i>Dependent Var.:</i>	<b>Model 1</b> <i>Bank Dep Growth</i>	<b>Model 2</b> <i>Bank Dep Growth</i>	<b>Model 3</b> <i>Bank Dep Growth</i>	<b>Model 4</b> <i>Bank Dep Growth</i>
<i>Inflation</i>	0.0619 (0.1946)	0.0619 (0.1946)	0.2937 (0.1955)	0.3000 (0.1959)
<i>GDP Growth</i>	0.4194 (0.6227)	0.4194 (0.6227)	0.6469 (0.6703)	0.6586 (0.6544)
<i>Unemployment</i>	-0.4863 (1.222)	-0.4863 (1.222)	-0.4061 (1.081)	-0.4146 (1.096)
<i>GPR Country</i>	-0.4070*** (0.0938)	-0.4070*** (0.0938)	-0.3543** (0.0913)	-0.3886*** (0.0891)
<i>GPR Country x lac</i>	-1.282 (1.012)	-1.282 (1.012)	-1.837 (1.329)	-1.845 (1.335)
<i>GPR Country x ssa</i>	-2.042 (1.265)	-2.042 (1.265)	-0.5581 (1.364)	-0.6572 (1.316)
<i>GPR Country x mena</i>	0.5167 (0.3071)	0.5167 (0.3071)	0.7200* (0.3257)	0.7204* (0.3266)
<i>GPR Country x asia</i>	0.1262 (0.1244)	0.1262 (0.1244)	0.0142 (0.1153)	0.0211 (0.1187)
<i>Current Ratio</i>			-0.0172 (0.0145)	-0.0176 (0.0146)
<i>Return on Assets</i>			0.4767 (0.3422)	0.4926 (0.3425)
<i>Log Total Assets</i>			8.758** (2.465)	8.763** (2.461)
<i>Solvency Ratio</i>			-0.4208* (0.1709)	-0.4182* (0.1698)
<i>Liquidity Ratio</i>			0.2413*** (0.0613)	0.2351** (0.0611)
<i>GPR Country x FO</i>				0.0801 (0.1248)
<i>Foreign Own x GPR USA</i>				-0.0936 (0.0640)
<b>Fixed-Effects:</b>				
<i>Bank</i>	Yes	Yes	Yes	Yes
<i>Year</i>	Yes	Yes	Yes	Yes
<b>S.E.: Clustered</b>	<b>by: Country</b>	<b>by: Country</b>	<b>by: Country</b>	<b>by: Country</b>
<i>Observations</i>	10,248	10,248	9,676	9,676
<i>G</i>	21	21	20	20
<i>R2</i>	0.22218	0.22218	0.25965	0.26048
<i>Adj. R2</i>	0.11677	0.11677	0.15839	0.15915
<i>F-test</i>	0.31739	0.31739	0.28971	0.26770

**Note:** This table presents panel fixed-effects regression results exploring the regional dynamics of geopolitical risk on bank deposit growth over the 2011–2021 period. The dependent variable is Bank Deposit Growth. In addition to standard macroeconomic and bank-specific controls, the models introduce interaction terms between Country GPR and regional dummy variables: lac (Latin America and the Caribbean), ssa (Sub-Saharan Africa), mena (Middle East and North Africa), and asia. All models incorporate bank and year fixed effects. Standard errors, clustered at the country level, are reported in parentheses. Significance levels are denoted as follows: \*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ ,  $p < 0.1$ .

### 5.3. Dynamic Effects of Geopolitical Risk

Tables 6 and 7 explore whether the effects of geopolitical risk persist over time by incorporating lagged values of the geopolitical risk index. The results indicate that geopolitical shocks generate both immediate and persistent effects on banking activity.

**Table 6.** Lagged Effects of Geopolitical Risk on Bank Credit Growth

<i>Dependent Var.:</i>	<b>Model 1</b> <i>Credit Growth</i>	<b>Model 2</b> <i>Credit Growth</i>	<b>Model 3</b> <i>Credit Growth</i>	<b>Model 4</b> <i>Credit Growth</i>
<i>Inflation</i>	-0.1852 (0.1711)	-0.2167 (0.1531)	-0.0743 (0.2010)	0.0678 (0.2797)
<i>GDP Growth</i>	1.477** (0.4227)	1.389** (0.4530)	1.199* (0.5198)	0.9587 (0.5722)
<i>Unemployment</i>	-1.917 (1.617)	-1.779 (1.637)	-1.349 (1.625)	-0.0720 (1.413)
<i>Current Ratio</i>	-0.0005 (0.0156)	0.0023 (0.0209)	0.0047 (0.0215)	0.0117 (0.0269)
<i>Return on Assets</i>	-0.4707 (0.7086)	-0.5729 (0.6964)	-0.4686 (0.6774)	-0.6032 (0.8445)
<i>Log Total Assets</i>	5.050 (3.346)	6.271 (3.786)	10.44* (4.499)	13.55** (4.692)
<i>Solvency Ratio</i>	-0.0242 (0.2529)	0.0615 (0.2984)	0.1268 (0.3181)	0.1938 (0.3205)
<i>Liquidity Ratio</i>	-0.8300*** (0.0687)	-0.9204*** (0.0893)	-1.021*** (0.1139)	-1.114*** (0.1549)
<i>GPR Country</i>	-0.2905*** (0.0612)	-0.4010*** (0.0731)	-0.3984*** (0.0558)	-0.4625*** (0.0773)
<i>FO x GPR Country</i>	0.0928* (0.0335)	0.1702* (0.0687)	0.1410* (0.0497)	0.1459 (0.0874)
<i>FO x GPR USA</i>	0.0017 (0.0477)	0.0006 (0.0540)	-0.0006 (0.0661)	0.0214 (0.0707)
<i>Lag 1 of GPR Country</i>		0.1295** (0.0423)	-0.0059 (0.0961)	0.0029 (0.1005)
<i>Lag 2 of GPR Country</i>			0.1882 (0.1356)	-0.0366 (0.0868)
<i>Lag 3 of GPR Country</i>				0.3242* (0.1138)
<b>Fixed-Effects:</b>				
<i>Bank</i>	Yes	Yes	Yes	Yes
<i>Year</i>	Yes	Yes	Yes	Yes
<b>S.E.: Clustered</b>	<b>by: Country</b>	<b>by: Country</b>	<b>by: Country</b>	<b>by: Country</b>
<i>Observations</i>	9,803	9,231	8,570	7,909
<i>G</i>	20	20	20	20
<i>R2</i>	0.25075	0.26040	0.27279	0.29481
<i>Adj. R2</i>	0.14830	0.15251	0.15746	0.17248
<i>F-test</i>	0.30279	0.31855	0.33940	0.37824

**Note:** This table presents panel fixed-effects regression results exploring the regional dynamics of geopolitical risk on bank deposit growth over the 2011–2021 period. The dependent variable is Bank Deposit Growth. In addition to standard macroeconomic and bank-specific controls, the models introduce interaction terms between Country GPR and regional dummy variables: lac (Latin America and the Caribbean), ssa (Sub-Saharan Africa), mena (Middle East and North Africa), and asia. All models incorporate bank and year fixed effects. Standard errors, clustered at the country level, are reported in parentheses. Significance levels are denoted as follows: \*\*\* p < 0.001, \*\* p < 0.01, \* p < 0.05, p < 0.1.

For credit growth (see Table 6), the contemporaneous effect of geopolitical risk remains negative and highly significant across all lag structures. Moreover, the magnitude of the coefficient increases as additional lags are introduced, reaching -0.4625 in the specification with three lags. This pattern suggests that geopolitical shocks produce persistent disruptions in lending activity rather than short-lived adjustments.

**Table 7.** Lagged Effects of Geopolitical Risk on Bank Deposit Growth

<i>Dependent Var.:</i>	<b>0 Lags</b> <i>Bank Dep Growth</i>	<b>1 Lag</b> <i>Bank Dep Growth</i>	<b>2 Lags</b> <i>Bank Dep Growth</i>	<b>3 Lags</b> <i>Bank Dep Growth</i>
<i>Inflation</i>	0.2360 (0.1731)	0.0529 (0.2759)	-0.1749 (0.3813)	-0.1717 (0.3922)
<i>GDP Growth</i>	0.8687 (0.5573)	0.7920 (0.6241)	0.8250 (0.6673)	0.7488 (0.6990)
<i>Unemployment</i>	-0.1375 (0.8190)	0.2672 (0.7813)	0.6934 (0.7002)	0.8930 (0.9537)
<i>Current Ratio</i>	-0.0191 (0.0142)	-0.0212 (0.0160)	-0.0191 (0.0167)	-0.0242 (0.0169)
<i>Return on Assets</i>	0.4394 (0.3649)	0.4020 (0.3904)	0.4629 (0.3731)	0.4629 (0.3724)
<i>Log Total Assets</i>	9.107** (2.418)	10.74** (3.212)	15.60** (4.063)	18.41*** (4.720)
<i>Solvency Ratio</i>	-0.4022* (0.1702)	-0.3640 (0.2109)	-0.3801 (0.2458)	-0.3815 (0.2802)
<i>Liquidity Ratio</i>	0.2356** (0.0675)	0.1611* (0.0649)	0.1712* (0.0684)	0.1325. (0.0712)
<i>GPR Country</i>	-0.3556*** (0.0737)	-0.5517*** (0.0865)	-0.5590*** (0.0769)	-0.5472*** (0.0887)
<i>FO x GPR Country</i>	0.0865 (0.1155)	0.1210 (0.1162)	0.1373 (0.1224)	0.1147 (0.1240)
<i>FO x GPR USA</i>	-0.0919 (0.0658)	-0.0848 (0.0615)	-0.0761 (0.0606)	-0.0846 (0.0630)
<i>Lag 1 of GPR Country</i>		0.3043*** (0.0712)	0.3274*** (0.0698)	0.3394*** (0.0719)
<i>Lag 2 of GPR Country</i>			0.0569 (0.1018)	-0.0240 (0.1255)
<i>Lag 3 of GPR Country</i>				0.1563. (0.0783)
<b>Fixed-Effects:</b>				
<i>Bank</i>	Yes	Yes	Yes	Yes
<i>Year</i>	Yes	Yes	Yes	Yes
<b>S.E.: Clustered</b>	<b>by: Country</b>	<b>by: Country</b>	<b>by: Country</b>	<b>by: Country</b>
<i>Observations</i>	9,676	9,107	8,449	7,794
<i>G</i>	20	20	20	20
<i>R2</i>	0.25790	0.27710	0.28729	0.30034
<i>Adj. R2</i>	0.15661	0.17167	0.17419	0.17885
<i>F-test</i>	0.31443	0.34681	0.36470	0.38838

**Note:** This table presents panel fixed-effects regression results analyzing the delayed effects of geopolitical shocks on bank deposit growth over the 2011–2021 period. The dependent variable is Bank Deposit Growth. The columns represent different temporal specifications, progressively incorporating up to three lags of the Country GPR variable (1 Lag, 2 Lags, 3 Lags) to capture post-shock effects over time. All specifications control for unobserved heterogeneity using bank and year fixed effects. Standard errors, clustered at the country level, are reported in parentheses. Significance levels are denoted as follows: \*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ ,  $p < 0.1$ .

The lagged coefficients provide evidence of gradual balance-sheet adjustment. The first lag of geopolitical risk is positive and statistically significant in the one-lag specification, while the third lag becomes positive and significant in the longest specification. This pattern suggests that banks partially recover from the initial shock over time, although the overall effect on lending remains negative.

The deposit growth regressions in Table 7 show a similar but even stronger dynamic response. The contemporaneous effect of geopolitical risk becomes substantially larger once lagged terms are introduced, with coefficients above -0.54 in the richer specifications. At the same time, the first lag of geopolitical risk is consistently positive and highly significant across all models. These findings suggest that geopolitical shocks initially generate strong funding pressures and deposit slowdowns, followed by partial normalization over subsequent periods.

Importantly, the persistence of the lending effects following the initial deposit shock is consistent with the operation of a bank lending channel mechanism. A deterioration in deposit growth weakens banks' funding capacity, limiting their ability to sustain credit expansion over time. This mechanism appears particularly relevant in emerging markets, where dependence on deposit financing remains high and access to external funding may become constrained during periods of geopolitical stress.

## 6. Conclusions

This paper examines how geopolitical risk affects banking activity in emerging economies by looking at both sides of banks' balance sheets. Using a panel of 1,281 banks across 21 emerging countries between 2011 and 2021, the analysis shows that higher geopolitical risk significantly reduces both loan growth and deposit growth. The results therefore suggest that geopolitical shocks affect banks not only through weaker lending activity, but also through deteriorating funding conditions.

Most of the existing literature focuses on how geopolitical uncertainty influences lending behavior, bank stability, or financial markets. Our findings confirm that geopolitical risk weakens bank lending, but they also show that geopolitical shocks reduce deposit growth and funding stability. This is an important result because it points to a broader transmission mechanism affecting financial intermediation.

The evidence suggests that geopolitical shocks operate in a way that resembles the traditional bank lending channel. In many emerging economies, banks depend heavily on customer deposits to finance lending ac-

tivity. When geopolitical tensions increase uncertainty and weaken depositor confidence, banks experience slower deposit growth and tighter funding conditions. Banks that cannot easily replace lost deposits through wholesale or international funding markets may respond by reducing loan supply, tightening lending standards, or increasing liquidity buffers. In this sense, geopolitical shocks affect both the funding capacity of banks and their willingness to lend.

The results for foreign-owned banks are consistent with this interpretation. Foreign institutions appear less negatively affected in terms of lending activity, likely because they have access to alternative funding sources or support from parent institutions. This suggests that funding flexibility plays an important role in determining how banks respond to geopolitical stress.

We also find substantial heterogeneity across regions. The negative effect of geopolitical risk on lending is particularly strong in Sub-Saharan Africa, while deposit growth in MENA economies appears relatively less sensitive to geopolitical tensions. In addition, the dynamic analysis shows that the effects of geopolitical shocks persist over time. Both lending and deposit growth remain affected several years after the initial increase in geopolitical risk, indicating that these shocks generate lasting disruptions to banking activity rather than temporary adjustments.

These findings carry several policy implications. First, they highlight the importance of treating geopolitical risk as a source of financial vulnerability, especially in emerging economies where banking systems rely strongly on deposit funding. Policymakers and regulators should recognize that geopolitical shocks can simultaneously weaken bank funding and reduce credit supply, amplifying the impact on economic activity.

Second, the results underline the importance of strong liquidity positions and stable funding structures within the banking sector. Regulatory frameworks that encourage prudent liquidity management and reduce excessive dependence on unstable funding sources may help banks absorb periods of geopolitical stress more effectively.

Third, the findings suggest that developing deeper and more diversified financial markets could strengthen the resilience of emerging banking systems. Banks with better access to alternative funding channels may be more capable of maintaining lending activity when deposit growth weakens during geopolitical crises.

More broadly, the results suggest that geopolitical tensions should no longer be viewed only as external political events with indirect economic consequences. They also represent an important source of financial instability that can affect the core functioning of banking systems. As geopolitical uncertainty becomes a

more persistent feature of the global economy, understanding its effects on bank funding and credit activity will remain increasingly important for both policymakers and researchers.

Future research could further examine how geopolitical shocks influence depositor behavior, funding substitution, and risk-taking decisions across different types of banks and institutional settings. Additional work could also explore how monetary policy and macroprudential regulation interact with geopolitical shocks in shaping banking-sector resilience.

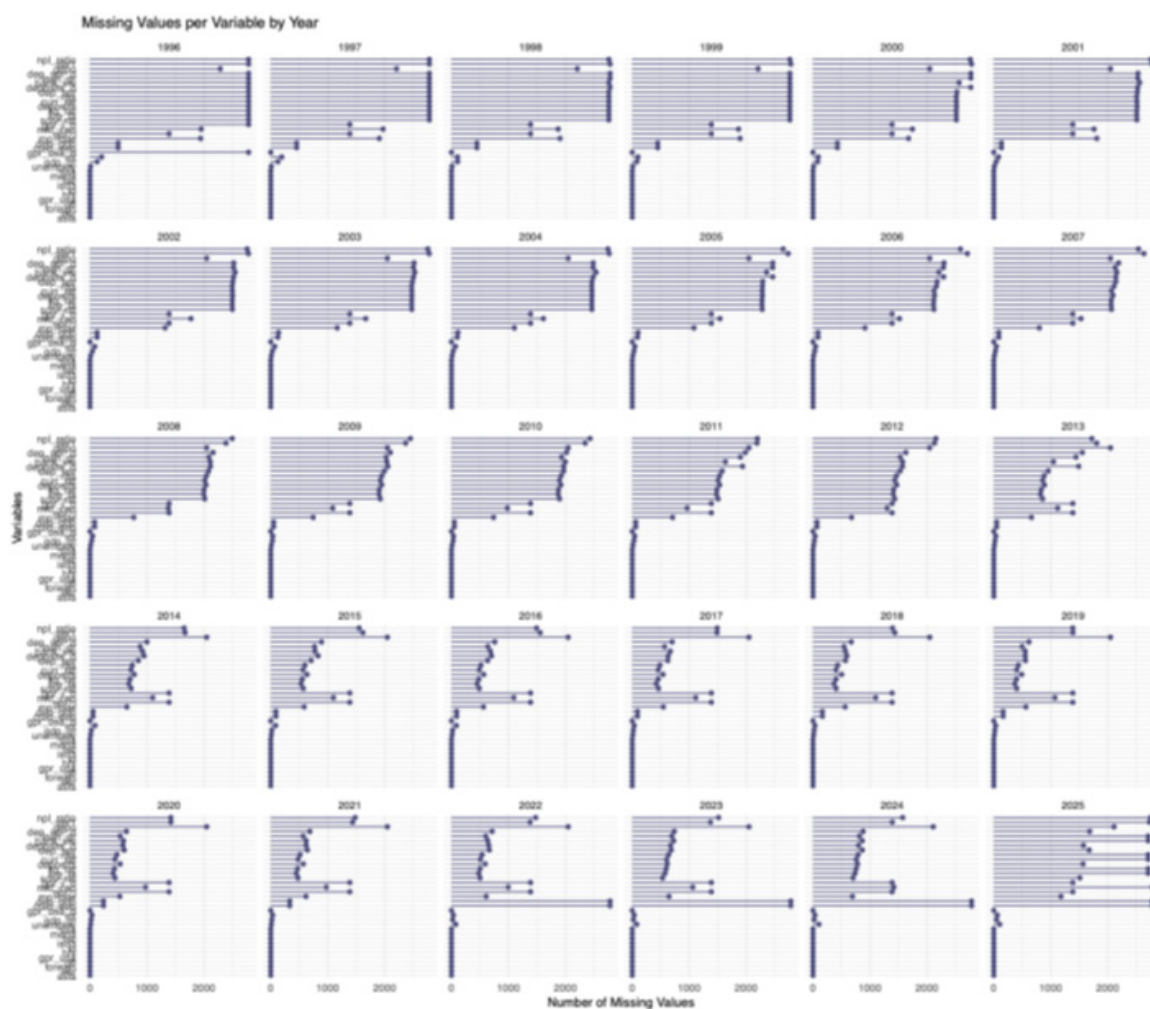
## References

- Behn, M., Lang, J. H., & Reghezza, A. (2025). 120 years of insight: Geopolitical risk and bank solvency. *Economics Letters*, 247, Article 112168. <https://doi.org/10.1016/j.econlet.2025.112168>
- Boungou, W., & Urom, C. (2025). Geopolitical tensions and banks' stock market performance. *Economics Letters*, 247, Article 112093. <https://doi.org/10.1016/j.econlet.2024.112093>
- Caldara, D., & Iacoviello, M. (2022). Measuring geopolitical risk. *American Economic Review*, 112(4), 1194–1225. <https://doi.org/10.1257/aer.20191823>
- Chadha, J. S., Macchiarelli, C., Goel, S., Hantzsche, A., & Mellina, S. (2026). Deciphering Delphic guidance: The Bank of England and geopolitical uncertainty. *Journal of International Money and Finance*, 162, Article 103530. <https://doi.org/10.1016/j.jimonfin.2026.103530>
- Chiaromonte, L., Mecchia, F., Paltrinieri, A., & Piserà, S. (2025). Does geopolitical risk affect bank lending behavior? Evidence from Europe. *European Journal of Finance*, 31(16), 2089–2113. <https://doi.org/10.1080/1351847X.2025.2585959>
- Demir, E., & Danisman, G. O. (2021). The impact of economic uncertainty and geopolitical risks on bank credit. *North American Journal of Economics and Finance*, 57, Article 101444. <https://doi.org/10.1016/j.najef.2021.101444>
- Dieckelmann, D., Larkou, C., Mcquade, P., Pancaro, C., & Rössler, D. (2025). Geopolitical risk and euro area bank CDS spreads and stock prices: Evidence from a new index. *Economics Letters*, 254, Article 112461. <https://doi.org/10.1016/j.econlet.2025.112461>
- Gabbiadini, M., Meoli, M., & Vismara, S. (2025). Geopolitical risk and systemic risk in the European banking system. *Finance Research Letters*, 86, Article 108796. <https://doi.org/10.1016/j.frl.2025.108796>
- Kishan, R. P., & Opiela, T. P. (2000). Bank size, bank capital, and the bank lending channel. *Journal of Money, Credit and Banking*, 121–141. <https://doi.org/10.2307/2601095>
- Liu, J., & Shen, W. (2024). Financial instability in Europe: Does geopolitical risk from proximate countries and trading partners matter? *Finance Research Letters*, 66, Article 105657. <https://doi.org/10.1016/j.frl.2024.105657>
- Nagy, O., & Neszveda, G. (2025). Assessing geopolitical risk: Sovereign CDS insights from the Russo-Ukrainian War. *Economic Analysis and Policy*, 85, 1995–2006. <https://doi.org/10.1016/j.eap.2025.02.027>
- Nguyen, T. C., & Thuy, T. H. (2023). Geopolitical risk and the cost of bank loans. *Finance Research Letters*, 54, Article 103812. <https://doi.org/10.1016/j.frl.2023.103812>
- Nguyen, T. C., & Thuy, T. H. (2024). Bank wholesale funding in an era of rising geopolitical risk. *World Economy*, 47(11), 4306–4330. <https://doi.org/10.1111/twec.13620>
- Nguyenhuu, T., & Örsal, D. K. (2024). Geopolitical risks and financial stress in emerging economies. *World Economy*, 47(1), 217–237. <https://doi.org/10.1111/twec.13529>

- Phan, D. H. B., Tran, V. T., & Lyke, B. N. (2022). Geopolitical risk and bank stability. *Finance Research Letters*, 46, Article 102453. <https://doi.org/10.1016/j.frl.2021.102453>
- Shabir, M., Jiang, P., Shahab, Y., & Wang, P. (2023). Geopolitical, economic uncertainty and bank risk: Do CEO power and board strength matter? *International Review of Financial Analysis*, 87, Article 102603. <https://doi.org/10.1016/j.irfa.2023.102603>
- Sheikh, U. A., Tabash, M. I., Roubaud, D., Galarotis, E., & Guesmi, K. (2026). Asymmetric Good and Bad Volatility Transmission Mechanism: Moderating Role of Global Uncertainties. *International Journal of Finance & Economics*, 31(1), 584–619. <https://doi.org/10.1002/ijfe.3158>
- Tang, N., & Huang, Y. (2025). Geopolitical risk exposure and credit terms: Evidence from Global supply chains. *Economics Letters*, 254, Article 112478. <https://doi.org/10.1016/j.econlet.2025.112478>
- Topcu, M., & Can, U. (2025). Political stability, geopolitical risks, and bank stability. *Finance Research Letters*, 86, Article 108889. <https://doi.org/10.1016/j.frl.2025.108889>
- Vashisht, S., & Mundi, H. S. (2025). Do well-connected bank CEOs mitigate the impact of geopolitical risk on bank stability? Evidence from an emerging market. *Finance Research Letters*, 84, Article 107777. <https://doi.org/10.1016/j.frl.2025.107777>
- Wang, Y., Song, G., & Lu, Y. (2025). Geopolitical risk, bank regulation, and systemic risk: A cross-country analysis. *Finance Research Letters*, 76, Article 106893. <https://doi.org/10.1016/j.frl.2025.106893>
- Yuan, C., Kang, R., & Liu, L. (2026). Geopolitical tensions and systemic vulnerability in the banking sector: Evidence from China. *Finance Research Letters*, 94, Article 109679. <https://doi.org/10.1016/j.frl.2026.109679>
- Zhou, Y., Zhang, W., & Ma, T. (2026). Geopolitical risks and cross-border allocation of bank capital. *Economics Letters*, 265, Article 113012. <https://doi.org/10.1016/j.econlet.2026.113012>
- Zhu, S., Xia, Y., Li, Q., & Chen, Y. (2025). Global geopolitical risk and financial stability: Evidence from China. *Finance Research Letters*, 72, Article 106501. <https://doi.org/10.1016/j.frl.2024.106501>

## Appendix

Figure A1. Missing Values per Variable by Year



**Note:** This figure provides a visual diagnostic of data completeness by illustrating the frequency of missing values for all variables included in the dataset, broken down annually from 1996 to 2025. Each panel represents a specific year, with horizontal lines indicating the total count of missing observations per variable. Variables tracked include macroeconomic indicators (e.g., gdp, unemployment, gpr\_usa) and bank-specific metrics (e.g., npl\_ratio, deposits, mkt\_cap). This tool is utilized to assess data availability over time and to identify an optimal temporal window for robust empirical analysis between 2011 and 2021.



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