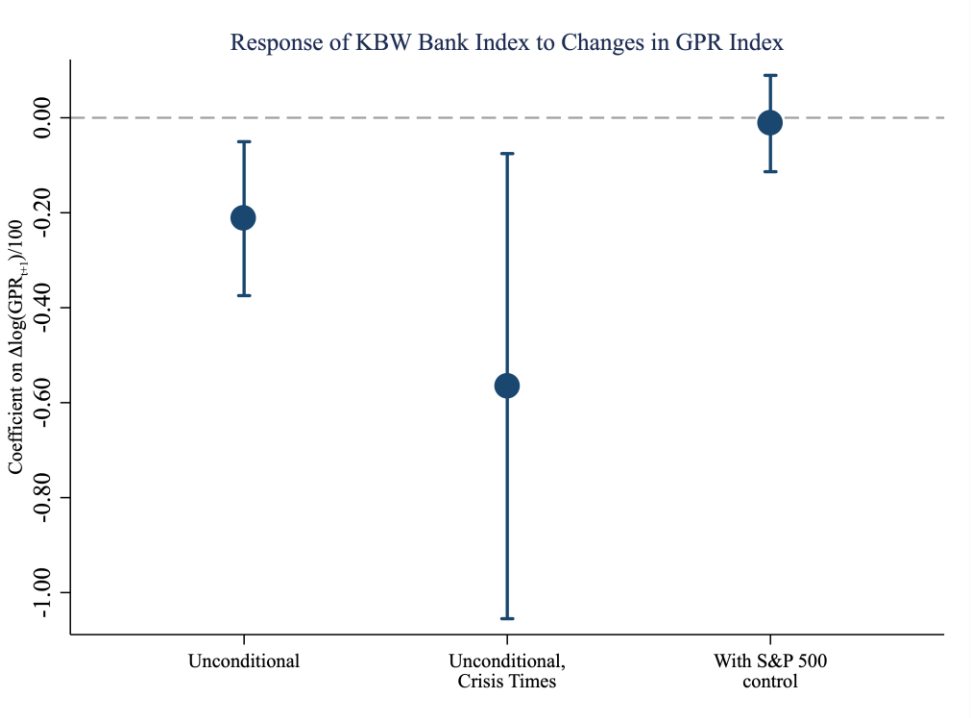
Appendix
Current Policy Perspectives 26-4
How U.S. Bank Stock Prices Respond to Geopolitical Risk
Friederike Niepmann, Leslie Sheng Shen, and Joshua Walker
June 2, 2026

Figure A1 and Table A1 present results from regressions of daily log changes in the KBW index on the one-day-ahead daily log change in the Caldara and Iacoviello (2022) GPR index (divided by 100 for readability), both unconditionally and controlling for the S&P 500 return. We allow stock returns to respond to next-day changes in the GPR index because the index is constructed from newspaper coverage, which tends to reflect geopolitical developments with a short delay relative to financial markets. This approach follows Caldara and Iacoviello (2022).

Figure A1: The Response of the KBW Bank Index to Geopolitical Risk



Notes: This figure plots the estimated coefficients from a regression of the log change in the KBW Bank Index (BKX) on the log changes of the global GPR index unconditionally (columns 1 and 2) and conditioned on the return of the S&P 500 index.

Sources: Bloomberg, Caldara and Iacoviello (2022), and authors' calculations.

Table A1: The Response of the KBW Bank Index to Changes in the GPR Index

$\Delta log(KBW_t)$	(1)	(2)	(3)	(4)
$\Delta\ log(GPR_{t+1})$	-0.217**	-0.0811	-0.0121	0.0120
	(0.0827)	(0.0637)	(0.0517)	(0.0470)
1(crisis)		-0.00205**		-0.000769
		(0.00101)		(0.000591)
1(crisis) x $\Delta\ log(GPR_{t+1})$		-0.501*		-0.0900
		(0.259)		(0.150)
$\Delta\ log(S\&P500_{t+1})$			1.440***	1.439***
			(0.0387)	(0.0386)
Observations	4,689	4,689	4,689	4,689
R-squared	0.002	0.005	0.619	0.619

Notes: This table reports regression coefficients from estimating the relationship between daily log changes in the KBW Bank Index and one-day-ahead daily log changes in the Caldara and Iacoviello (2022) GPR index. $\Delta log(GPR_{t+1})$ has been divided by 100 for readability. Crisis is a dummy that takes the value of one during the Global Financial Crisis (8/9/2007–3/9/2009), the European Sovereign Debt crisis (1/14/2010–7/26/2012) and the COVID-19 pandemic (2/24/2020–12/31/2020). Columns (1) and (2) show the unconditional relationship. Columns (3) and (4) control for contemporaneous S&P 500 returns. The sample period extends from January 2007 to January 2026. Robust standard errors are in parentheses. *** p<0.01, ** p<0.05, * *p<0.1.*

Sources: Caldara and Iacoviello (2022), Bloomberg, and authors' calculations.

We construct BGPR as a weighted average of country-level geopolitical risk indexes, where each country's weight corresponds to the share of the bank's total assets represented by its claims on that country (measured with a lag). For countries without an available country-specific GPR index, we use the global GPR index.[1]

Because claims data from FFIEC 009 reports are available at quarterly frequency while country-specific GPR data from Caldara and Iacoviello (2022) are available monthly, BGPR is a monthly measure of bank-specific geopolitical risk. We construct other explanatory variables using balance sheet data from regulatory filings (FFIEC031 or FR Y-9C reports), which we merge with stock price and GPR data.

We explore the explanatory power of the proposed variables using two complementary approaches. First, we relate the estimated bank betas to each bank's average characteristics over the sample period (Figure 3 in the main text). Second, we estimate panel regressions that relate individual banks' daily excess stock returns to changes in the GPR index while allowing this relationship to vary with bank characteristics (Figure 4 in the main text).

Specifically, we examine in a regression framework how the response of bank excess stock returns to changes in the global GPR index depends on lagged bank characteristics measured at the quarterly or monthly frequency. This approach allows the sensitivity of stock returns to

[1] We use a version of the global GRP index that is expressed in shares of articles mentioning words related to geopolitical risk to combine it with the country-level GPR indexes, which are also expressed in shares of articles mentioning words related to geopolitical risk in association with the respective country.

geopolitical risk to differ systematically across banks with different balance sheet features, while controlling for each bank stock's typical co-movement with the broader stock market.

We obtain excess returns ($ExR_{b,t}$) by regressing, bank-by-bank, daily stock returns on daily S&P 500 returns and calculating the residuals from these regressions. We run rolling-window regressions with a window length of 120 business days. We also include time fixed effects to absorb common shocks affecting all banks at a given point in time, and the regression pools observations across all banks rather than estimating separate regressions for each institution.

Formally, the regression specification is $ExR_{b,t} = \alpha_t + \beta_1 \, \Delta \log(GPR_{t+1}) + \beta_2 \, \Delta \log(GPR_{t+1}) \times Z_{b,q-1} + \epsilon_{b,t}$, where $Z_{b,q-1}$ represents the bank-level characteristics at quarterly or monthly frequency of bank b. As before, $R_{b,t}$ is the daily stock return of bank b on day t, and $\Delta \log(GPR_{t+1})$ is the daily log change in the Caldara and Iacoviello (2022) global GPR index on the following day, divided by 100. α_t are time-fixed effects. Table A2 reports the results.

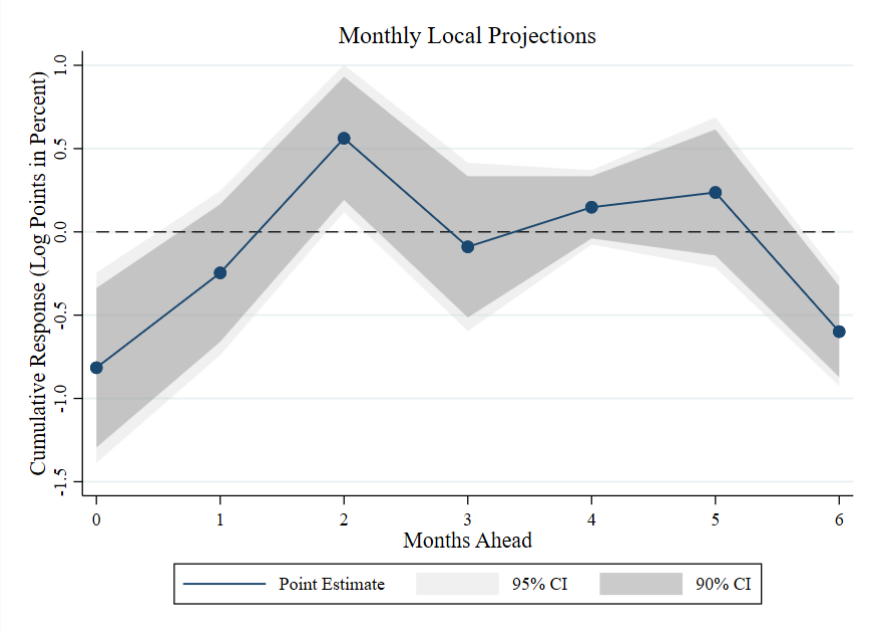
Table A2: Explaining Heterogeneity across Banks in their Stock Price Sensitivities

$\Delta \log(price_{b,t})$	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$\Delta \log(GPR_{t+1})$	-0.0623							
	(0.0423)							
Capital ratio $_{b,q-1}$		-2.38e-06						
		(3.23e-06)						
Capital ratio $_{b,q-1}$ x $\Delta \log(GPR_{t+1})$		-0.000174						
		(0.00261)						
ROAA $_{b,q-1}$			-0.000160					
			(0.000118)					
ROAA $_{b,q-1}$ x $\Delta \log(GPR_{t+1})$			0.0852**					
			(0.0318)					
Liquid asset ratio $_{b,q-1}$				0.000185				
				(0.000125)				
Liquid asset ratio $_{b,q-1}$ x $\Delta \log(GPR_{t+1})$				0.292**				
				(0.0963)				
NPL ratio $_{b,q-1}$					1.46e-05			
					(2.37e-05)			
NPL ratio $_{b,q-1}$ x $\Delta \log(GPR_{t+1})$					-0.00202			
					(0.0159)			
Trading asset ratio $_{b,q-1}$						-0.000405**		
						(0.000185)		
Trading asset ratio $_{b,q-1}$ x $\Delta \log(GPR_{t+1})$						-0.226**		
						(0.0868)		
Foreign claims share $_{b,q-1}$							-0.000200**	
							(8.75e-05)	
Foreign claims share $_{b,q-1}$ x $\Delta \log(GPR_{t+1})$							-0.133*	
							(0.0727)	
BGPR $_{b,m-1}$								0.000217***
								(5.92e-05)
BGPR $_{b,m-1}$ x $\Delta \log(GPR_{t+1})$								-0.170**
								(0.0614)
Time FE	no	yes	yes	yes	yes	yes	yes	yes
Observations	58,892	58,892	30,152	58,892	56,161	58,892	58,892	58,892
R-squared	0.000	0.529	0.590	0.529	0.529	0.529	0.529	0.529

*Notes: Capital ratio is Tier 1 capital divided by risk-weighted assets. ROAA is return on average assets. Liquid-asset ratio is cash plus securities divided by total assets. NPL ratio is non-performing loans divided by total loans. Trading-assets ratio is trading assets divided by total assets. Foreign claims share is foreign claims divided by total assets. BGPR is the bank-specific geopolitical risk index following the methodology in Niepmann and Shen (2025). Standard errors clustered by time in column (1) and by bank in the remaining columns are in parentheses. *** p<0.01, ** p<0.05, * p<0.1.*

Sources: FR Y-9C, FFIEC031, and FFIEC009 regulatory filings; Caldara and Iacoviello (2022); CRSP; and authors' calculations.

Figure A2: Local Projections of Monthly Bank Stock Prices on BGPR



Notes: The figure shows the cumulative response over six months of U.S. bank stock prices to a shock to BGPR. The local projections include one lag and are estimated over a six-month horizon. The regression equation includes bank-fixed effects and four bank-level controls: a bank's Tier1 capital ratio, its non-performing loan ration, its return on average assets, and its liquid-asset ratio. Standard errors are clustered at the bank level. The sample includes 30 banks.

Sources: FR Y-9C regulatory filings, Caldara and Iacoviello (2022), CRSP, and authors' calculations.