Geopolitical Risk, Monetary Policy, and Financial Stability

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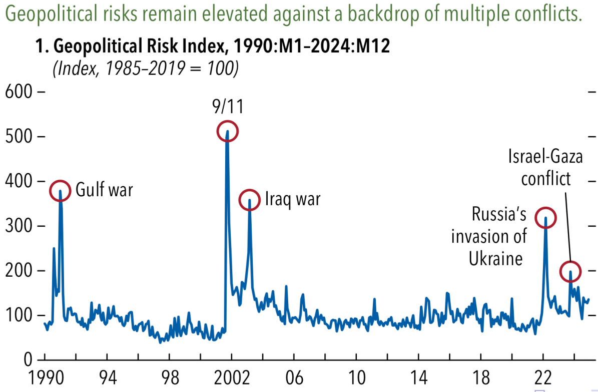
Motivation

- **Rising Geopolitical Tensions:** Geopolitical risks – including wars, conflicts, and international tensions – have increased notably in recent years (IMF, 2025). A news-based geopolitical risk index (GPR) constructed by Caldara and Iacoviello (2022) spiked during events like the Gulf War, 9/11, the 2003 Iraq invasion, and more recently the 2022 Russia–Ukraine war and other conflicts. Such events heighten uncertainty and pose threats to the global economy.



Motivation

- **Macro-Financial Stability Risks**

  - Geopolitical risk events can create downside tail-risks for the financial system (BIS, 2025).

  - They often trigger rapid shifts in market sentiment and flight-to-safety moves, which can exacerbate vulnerabilities in financial markets and institutions.

  - Sudden geopolitical escalations can lead to sharp increases in uncertainty, liquidity stress, higher funding costs, and falling asset values.

  Ensuring financial stability amid such turbulence is a key motivation for this study.

Motivation

- **Balancing Act for Policy**

  - These risks pose a dilemma for policymakers, especially central bankers.

  - They must cushion the economy in the face of adverse geopolitical shocks (to prevent recessions or deflation) while guarding against longer-term inflationary pressures or financial imbalances that may arise.

  - Recent experience suggests that providing short-term monetary easing in a geopolitical crisis might be necessary to support growth, but extended loose policy could sow the seeds of future financial instability.

  This trade-off motivates our research into how geopolitical risk, monetary policy, and financial stability interact.

Research Question

- How do geopolitical risk shocks impact financial stability in major economies?
- Do financial conditions tighten or loosen following a surge in geopolitical risk?
- Is there a time-varying response – for instance, an immediate vs. delayed effect – of geopolitical risk on financial stability indicators?
- What role does monetary policy play in this dynamic? Do central banks respond to geopolitical shocks in ways that mitigate or amplify the impact on financial conditions?

Literature

- **Measuring Geopolitical Risk (GPR)**
  News-based GPR (Caldara and Iacoviello, 2022) captures threats and acts of conflict; spikes predict weaker investment/employment and higher downside macro risks.
- **GPR $\rightarrow$ Financial System**
  Higher GPR raises risk premia and volatility; tightens credit; weakens bank stability (e.g., Phan, Tran and Iyke, 2022). Global and domestic banks retrench lending when GPR is elevated (Niepmann and Shen, 2025).
- **Financial Conditions Indices (FCIs)**
  Equal-weighted FCIs effectively summarize financial stress/tail risks (Arrigoni, Bobasu and Venditti, 2022).
  FCI $\uparrow$ = tighter conditions/greater stress; FCI $\downarrow$ = easing.
- **Monetary Policy's Two-Stage Reaction**
  After GPR shocks, policy rates tend to ease in the short run and tighten in the medium run (Ginn and Saadaoui, 2025), reflecting the deflation/inflation trade-off.

Literature

- **What's Missing (Gap)**
  Limited evidence on:
  (i) the dynamic (short vs. medium run) impact of GPR on FCIs
  (ii) the effectiveness of monetary policy as a buffer
  (iii) heterogeneity across AEs vs. EMEs and exposure (energy/trade).

- **Our Contribution**
  - Local Projection-based, multi-country evidence linking GPR $\rightarrow$ FCIs with explicit policy interaction.
  - Documents short-run easing but medium-run tightening in financial conditions.

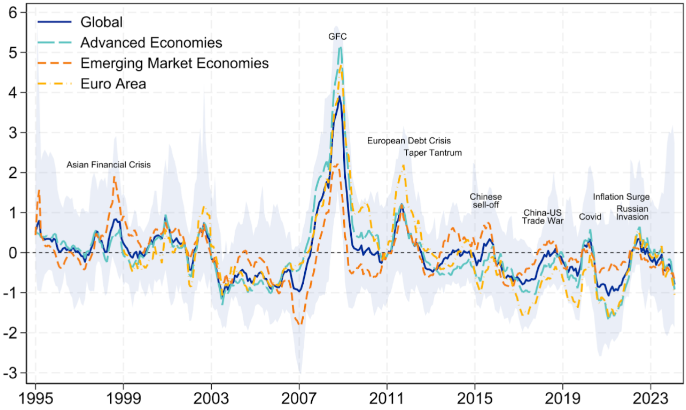
- **Countries and Period**
  We conduct an empirical analysis on a panel of 17 major economies: Australia, Brazil, Canada, China, France, Germany, India, Italy, Japan, Mexico, Norway, Russia, South Korea, Sweden, Turkey, the United Kingdom, and the United States. These countries span advanced and emerging markets, providing broad coverage (nearly 70% of global GDP, as in Arrigoni et al. 2022) and include those often at the center of geopolitical events or global financial markets. Sample starts from January 1995 to February 2024

- **Geopolitical Risk Measure**
  For geopolitical risk shocks, we use the country-specific Geopolitical Risk Index from Caldara and Iacoviello (2022). This indices are derived from newspaper article counts and reflects the threat and realization of adverse geopolitical events (e.g., conflicts, wars, terrorist attacks). A spike in the GPR index represents a surge in geopolitical tensions.

- **Monetary Policy**
  We use BIS policy rates of countries as the proxy variables of monetary policy.

Data

- **Financial Stability Measure**
  As an indicator of financial stability, we adopt the Financial Conditions Index (FCI) from Arrigoni, Bobasu, and Venditti (2022) for each country. These FCIs are monthly composite indices that summarize conditions in money markets, bond and equity markets, and the banking sector.



Methodology

- **Local Projections**
  - We employ a Local Projection (LP) approach (Jordà, 2005) to estimate the dynamic impact of a GPR shock on financial conditions. - This involves running regressions for each horizon (12 months ahead) of the FCI on the initial GPR shock, controlling for relevant factors.

- **Identification**
  - The GPR shock is treated as an exogenous shock to each economy's financial system – plausibly exogenous since geopolitical events are not caused by domestic financial conditions.
  - We ensure that the shock is measured at time t and assess FCI movements in subsequent periods $t + h$. This strategy allows us to observe short-run vs. medium-run effects of the shock.

Local Projections - Baseline Model

The baseline model is estimated separately for advanced economies, emerging economies, and European Union economies.

$$\Delta FCI^i_{t+h} = \alpha_h + \delta^i_h + \beta_h \times GPR^i_t + \theta_h \times \mathbf{Z}_{t-1} + \varepsilon^i_{t,h}$$

- Horizons: $h = 0, 1, \ldots, 12$ months.
- FCI^i is the Financial Condition Index of country i.
- Z: vector of key controls that includes domestic monetary policy ($Rate^i_t$) and global financial cycle proxy variable (VIX_t)
- δ^i_h are country fixed effects for country i
- β_h gives the response of financial condition index at time $t + h$ to a geopolitical shock at time t.

Local Projections - Interacted with MP

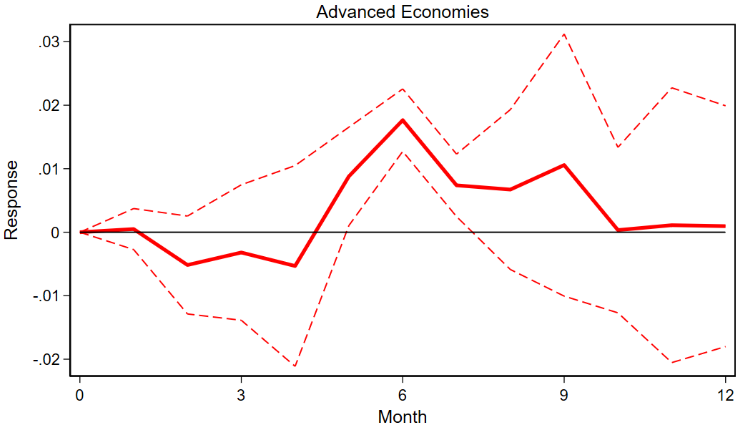
In order to investigate the role of monetary policy, we modify the baseline model into:

$$\Delta FCI^{i}_{t+h} = \alpha_h + \delta^{i}_{h} + \beta_h \times GPR^{i}_{t} + \gamma_h \times GPR^{i}_{t} \times Rate^{i}_{i} + \theta_h \times \mathbf{Z}_{t-1} + \varepsilon^{i}_{t,h}$$

- Horizons: $h = 0, 1, \ldots, 12$ months.
- FCI^{i} is the Financial Condition Index of country i.
- Z: vector of key controls that includes domestic monetary policy ($Rate^{i}_{t}$) and global financial cycle proxy variable (VIX_t)
- δ^{i}_{h} are country fixed effects for country i
- β_h gives the response of financial condition index at time $t + h$ to a geopolitical shock at time t.
- γ_h gives the dynamic interaction effects of monetary policy with GPR to FCI.

Local Projection Results

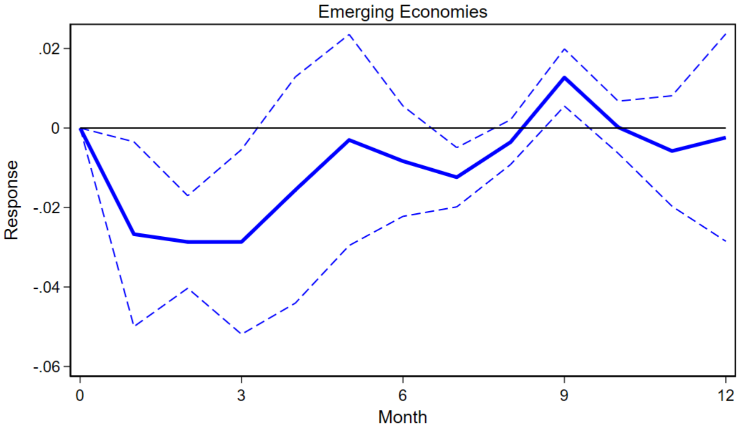
Linear Projections - FCI response to GPR shock



- For advanced economies, increases in GPR will lead FCI to decrease first and increse then.

Local Projection Results

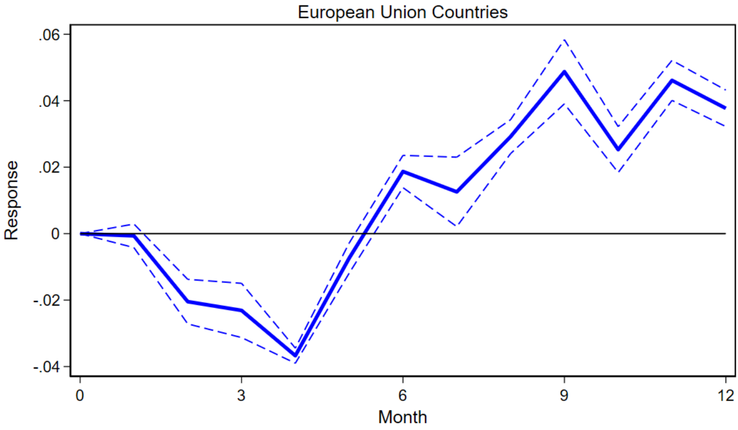
Linear Projections - FCI response to GPR shock



- For emerging economies, increases in GPR will lead FCI to decrease first and increase then as well.

Local Projection Results

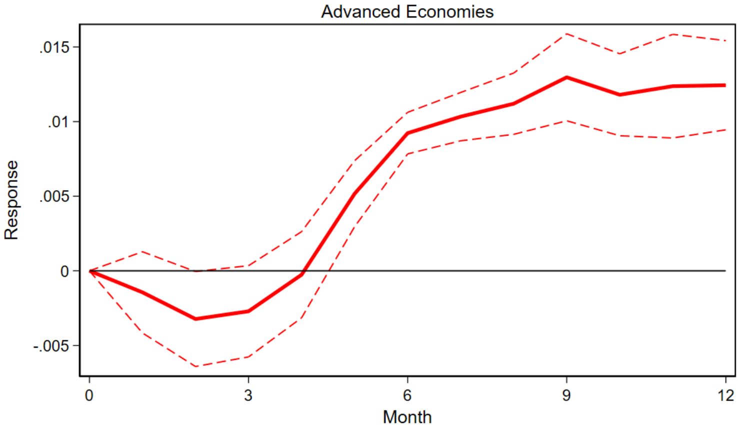
Linear Projections - FCI response to GPR shock



- For EU economies, increases in GPR will lead FCI to decrease first and increase then more significantly.

Local Projection Results

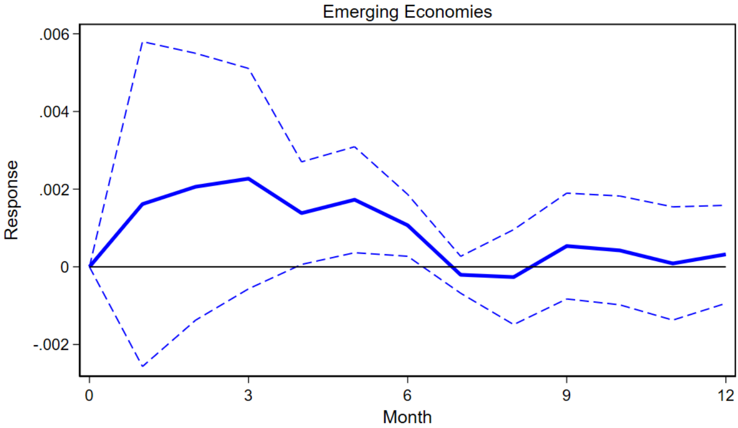
The interaction effect of MP



- For AE economies, monetary policy help to reduce the GPR shock to FCI first, but amplify the shock later on.

Local Projection Results

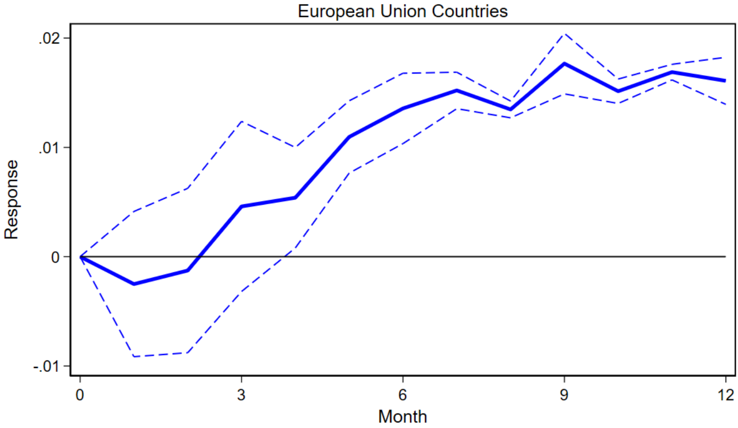
The interaction effect of MP



- For EM economies, the interaction effect of MP is not that significant compared with AE.

Local Projection Results

The interaction effect of MP



- For EU economies, MP generally amplify the positive FCI response to the GPR shock.

Conclusion

- Geopolitical risk shocks present a dynamic challenge to financial stability. In our analysis of 17 countries, a surge in geopolitical risk initially leads to looser financial conditions (short-term easing of financial stress), but eventually results in significantly tighter conditions (medium-term rise in financial stress and risk).

  This pattern is consistent with central banks first providing accommodation and later tightening in response to the shock. Ultimately, geopolitical tensions raise systemic financial risks in the medium to long run, even if there is a short-lived period of stability immediately after the shock.

Implications for Central Banks

- Policymakers should be aware of the time-varying impact of geopolitical shocks.
- The short-term easing effect suggests that decisive early action (such as emergency rate cuts, liquidity support, or other stabilizing tools) can indeed buffer markets and prevent an immediate financial meltdown.
- However, our findings also warn that conditions later tighten because of monetary policy normalization or reaction to the inflation pressure caused by the geopolitical risk.
- Central banks must therefore calibrate their response carefully.