27th Annual DNB Research Conference

The Macroeconomic Effects of Geopolitical Uncertainty

DeNederlandscheBank

EUROSYSTEEM

Discussion of: 'Do Geopolitical Risks Raise or Lower Inflation' by D. Caldara, S. Conlisk, M. Iacoviello and M. Penn

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The views expressed here are the discussant's and do not necessarily reflect those of Deutsche Bundesbank.

Paper summary

Paper estimates effect on inflation of geopolitical risk (GPR) shocks

- with panel VAR for 44 countries on yearly data 1900-2022
- with monthly VAR estimated on global data since 1974
- using quantile regressions

Key result: geopolitical risk shocks are inflationary and reduce output $\Rightarrow$ overall, supply-side factors dominate in transmission process transmission channels

Assessment

- **Timely** contribution: geopolitical tensions are on the rise
- **Policy** makers need advice in dealing with GPR
- Paper provides some clues on how we might **model** GPR

Overview of comments

(1) Importance of local (language) reporting for GPR measurement

- English-language vs. locally measured GPR indexes reflect different risk perceptions
- Newspapers attach different weights to same geopolitical events
- Anglo GPR index might underestimate (local) conflicts that matter economically

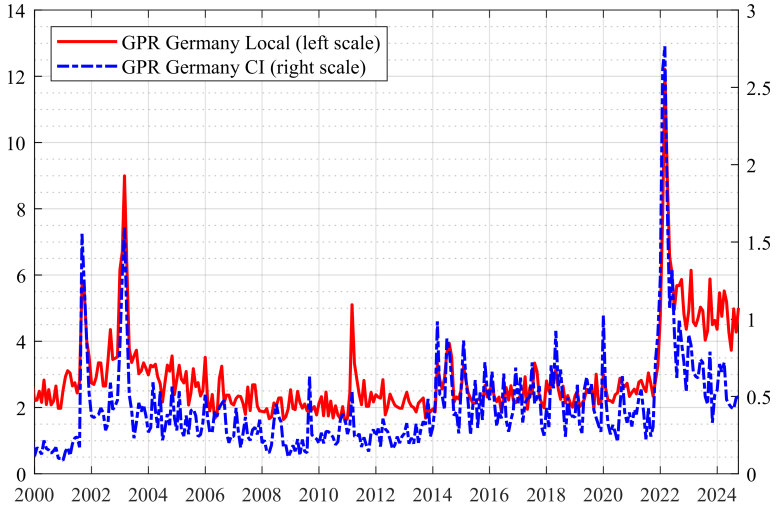
(2) Geopolitical events can trigger sanctions

- GPR shocks that trigger sanctions can have additional adverse supply side effects
- Distinction between sender and target countries could be helpful

(3) Further questions on the paper

- Role of GPR in post-pandemic inflation surge?
- Are geopolitical risk shocks risk shocks?

(1) German GPR index: English-language vs. German newspapers



(1) German GPR index: English-language vs. German newspapers

Figure shows two GPR indexes for Germany

- Blue: GPR index based on English-language newspapers (Caldara and Iacoviello, 2022)
- Red: GPR index based on German newspapers (Bondarenko et al., 2024)

Some geopolitical events register more prominently in local GPR index

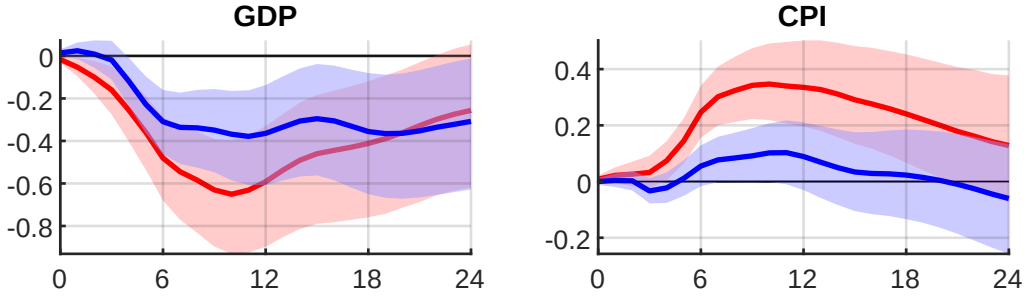
- After Russian attack on Ukraine in 2022, English-language based GPR index returns to pre-war level, while local GPR index remains elevated

  $\Rightarrow$ Russo-Ukrainian war more present in German media, possibly due to war-related policy changes in Germany: rise in defence spending, measures to reduce energy dependence on Russia, integration of Ukrainian refugees

$\Rightarrow$ On the whole, high correlation between the two series. Best to exercise caution when considering country-specific responses to a particular geopolitical event

(1) Effects of GPR shocks on output and prices in Russia

Anglosphere GPR



Blue: Russian GPR index based on English-language newspapers (Caldara and Iacoviello, 2022)
Red: Russian GPR index based on Russian newspapers (Bondarenko et al., 2024)

Notes: Figure shows the impulse responses of the Russian economy to a positive GPR shock up to two years after a shock. Colored areas reflect the 68% highest density regions.

(2) Geopolitical risk shocks and sanctions

GPR shocks can trigger sanctions

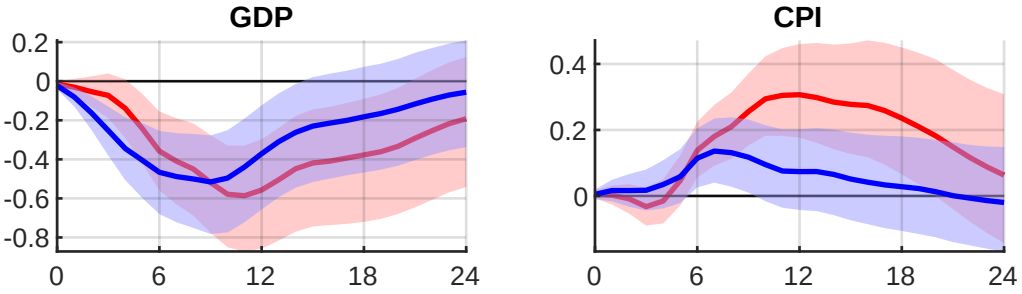
- Geopolitical acts and threats instigated by Russia have led to rise in number of sanctions imposed on that country
- Russian GPR index and Russian sanctions intensity index co-move

GPR shocks that trigger sanctions can have additional adverse supply-side effects

- Bondarenko et al. (2024) isolate 'sanctions channel' of GPR shocks for Russian case
- Result: sanctions mainly worsen inflationary impact of GPR shocks
- Drop in output largely driven by GPR shock itself rather than by sanctions

$\Rightarrow$ Could be helpful to distinguish between sanctions sender and target countries

(2) The sanctions channel of GPR shocks (Bondarenko et al., 2024)



Blue: Impact of Russian GPR shock with sanctions channel non-active
Red: Impact of Russian GPR shock with sanctions channel active

Notes: Figure shows the impulse responses of the Russian economy to a positive GPR shock up to two years after a shock. Colored areas reflect the 68% highest density regions.

Further questions on the paper

Role of GPR in post-pandemic inflation surge?

- Giannone and Primiceri (2024) argue that inflation surge mainly due to demand factors
  $\Rightarrow$ Indicates reduced importance of supply channel of GPR as driving force
- Can we disentangle - empirically - direct supply-side effect of GPR?
  $\Rightarrow$ Need structural economic model $\rightarrow$ how to capture GPR in business cycle models?

Are geopolitical risk shocks risk shocks?

- Risk shocks modelled as rise in s.d. of shocks (macro) or as widening of distribution e.g. of firm profits (micro) $\rightarrow$ higher uncertainty should reduce demand $\rightarrow$ lower inflation
- 'Uncertainty shocks are aggregate demand shocks' according to Leduc and Liu (2016)
- How are GPR shocks different from uncertainty shocks?

References I

Bondarenko, Y., Lewis, V., Rottner, M., and Schüler, Y. (2024). Geopolitical Risk Perceptions. *Journal of International Economics*, page 104005.

Caldara, D. and Iacoviello, M. (2022). Measuring geopolitical risk. *American Economic Review*, 112:1194–1225.

Giannone, D. and Primiceri, G. (2024). The drivers of post-pandemic inflation. Working Paper 32859, National Bureau of Economic Research.

Leduc, S. and Liu, Z. (2016). Uncertainty shocks are aggregate demand shocks. *Journal of Monetary Economics*, 82:20–35.

Syropoulos, C., Felbermayr, G., Kirilakha, A., Yalcin, E., and Yotov, Y. V. (2024). The global sanctions data base – Release 3: COVID-19, Russia, and multilateral sanctions. *Review of International Economics*, 32:12–48.

Geopolitical risk shocks: macroeconomic transmission channels

back

Supply-side transmission channels: Y ↓, P ↑

- Loss of human life and destruction of physical capital raises factor prices
- Disruption of supply chains and diversion of international trade increases production and transportation costs (intermediate input prices, commodity prices, energy prices)
- Safe-haven financial flows lead to appreciation of US dollar

Demand-side transmission channels: Y ↓, P ↓

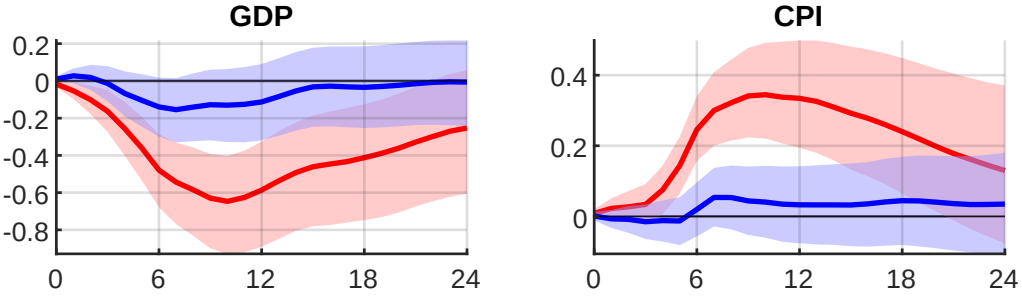
- Greater uncertainty reduces investment and (durables) consumption
- Lower aggregate demand raises default probability of firms, households, banks

Demand-side transmission channels: Y ↑, P ↑

- Increase in military spending boosts aggregate demand and inflation

(1) Effects of GPR shocks on output and prices in Russia

back



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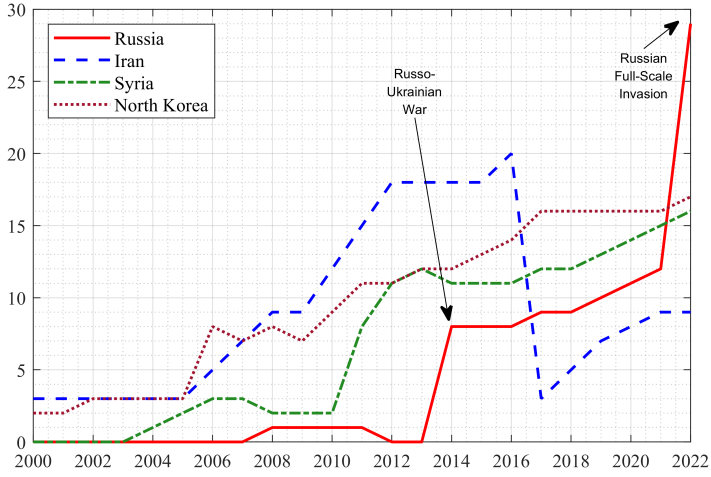
Notes: Figure shows the impulse responses of the Russian economy to a positive GPR shock up to two years after a shock. Colored areas reflect the 68% highest density regions.

(2) Russia's rise as a sanctions target back



Notes: Number of sanction cases for selected target countries since the year 2000. Source: Syropoulos et al. (2024).

(2) GPR and sanctions indicator (based on Russian newspapers)

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