

Geopolitical Risk Perceptions

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Introduction

Costs of war are high (much higher than costs of financial crisis, e.g.)

- Russo-Ukrainian war underlines, once more, the economic, but also human, social, and political impact of adverse geopolitical events

⇒ Important to track geopolitical risk

But, geopolitical risk (GPR) may differ across countries

- Ukraine war, for instance:

GPR in Russia different to GPR in United States

⇒ Important to track **local** GPR

Introduction

This paper: Study importance of *local* GPR,

How? Extend seminal work by Caldara and Iacoviello (2022)

1. Develop novel GPR indicators using *country-specific sources* for *Russia, Ukraine, and Germany*

Then, take Russian perspective (local view):

2. Analyse local Russian GPR and contrast to non-local GPR indicators, e.g. anglosphere GPR (sources from United States, United Kingdom, and Canada)

Measurement

Construct geopolitical risk indicators, following Caldara and Iacoviello (2022)

- Count newspaper articles containing list of key words
- Normalization: divide by total # of articles within given time period
- Database: Dow Jones Factiva

But, extract country-specific view

- Translate original search query into different languages
- Use country-specific sources

Search query

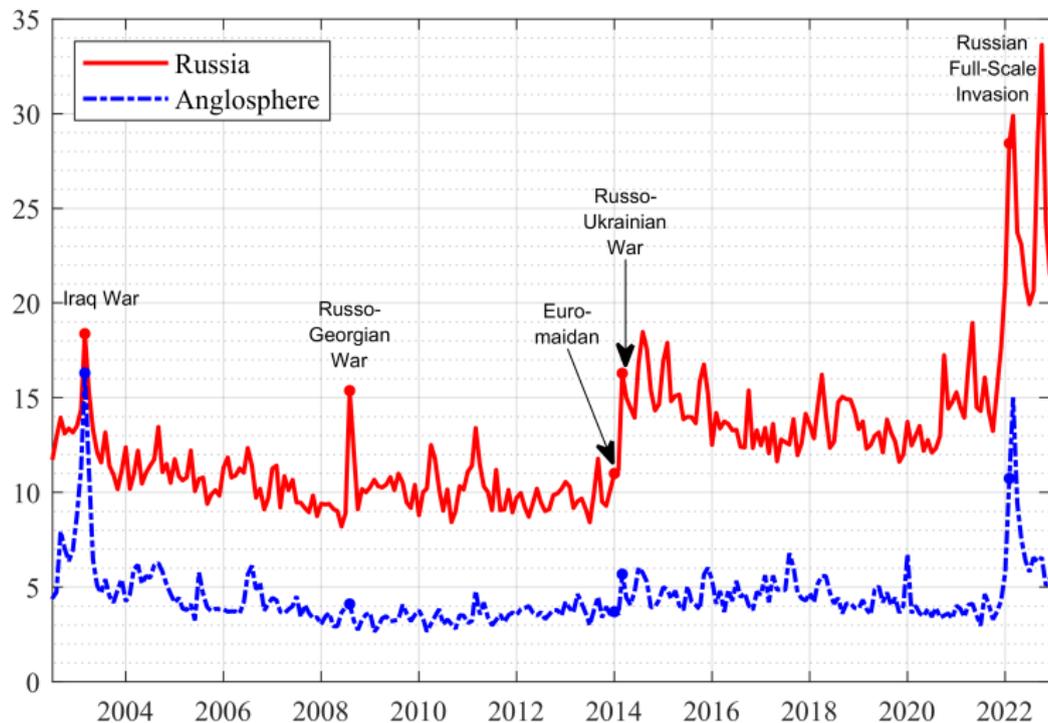
((war OR conflict OR hostilities OR revolution* OR insurrection OR uprising OR revolt OR coup OR geopolitical) near2 (risk* OR warn* OR fear* OR danger* OR threat* OR doubt* OR crisis OR troubl* OR disput* OR concern* OR tension* OR imminen* OR inevitable OR foot-ing OR menace* OR brink OR scare OR peril*)) OR ...

OR ((terroris* OR guerrilla* OR hostage*) near2 (act OR attack OR bomb* OR kill* OR strike* OR hijack*)) NOT (movie* OR film* OR museum* OR anniversar* OR obituar* OR memorial* OR arts OR book* OR memoir* OR "price war" OR game OR story OR history OR veteran* OR tribute* OR sport OR music OR racing OR cancer)

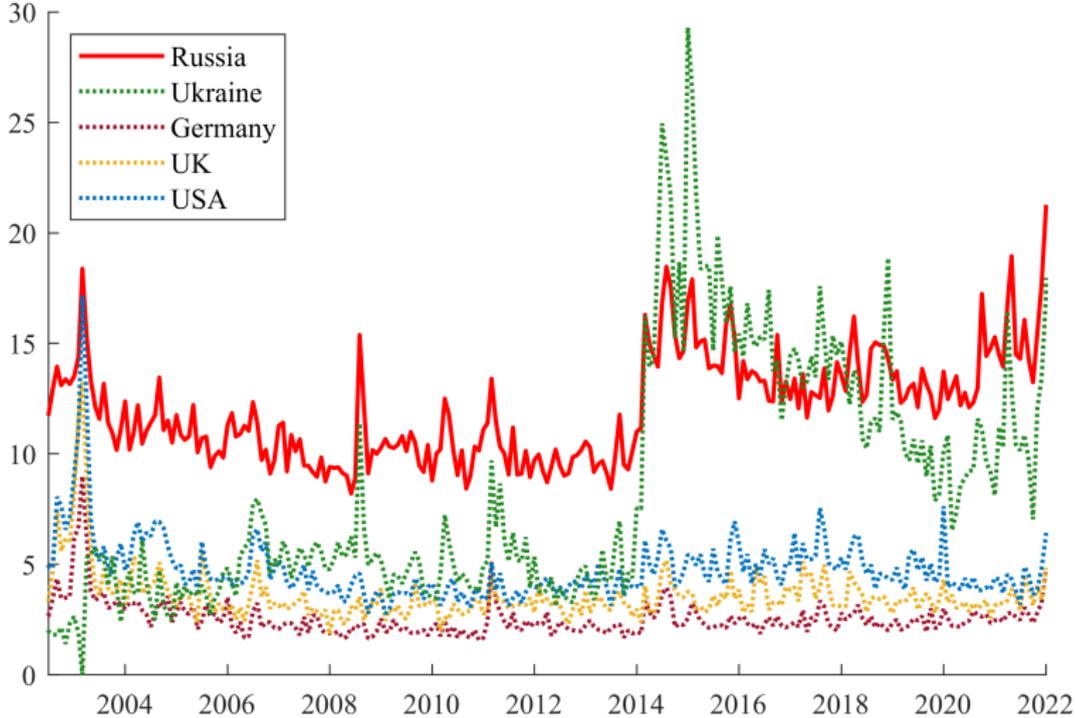
Total number of articles

"THE" AND "BE" AND "TO" AND "OF" AND "AND" AND "AT" AND "IN"

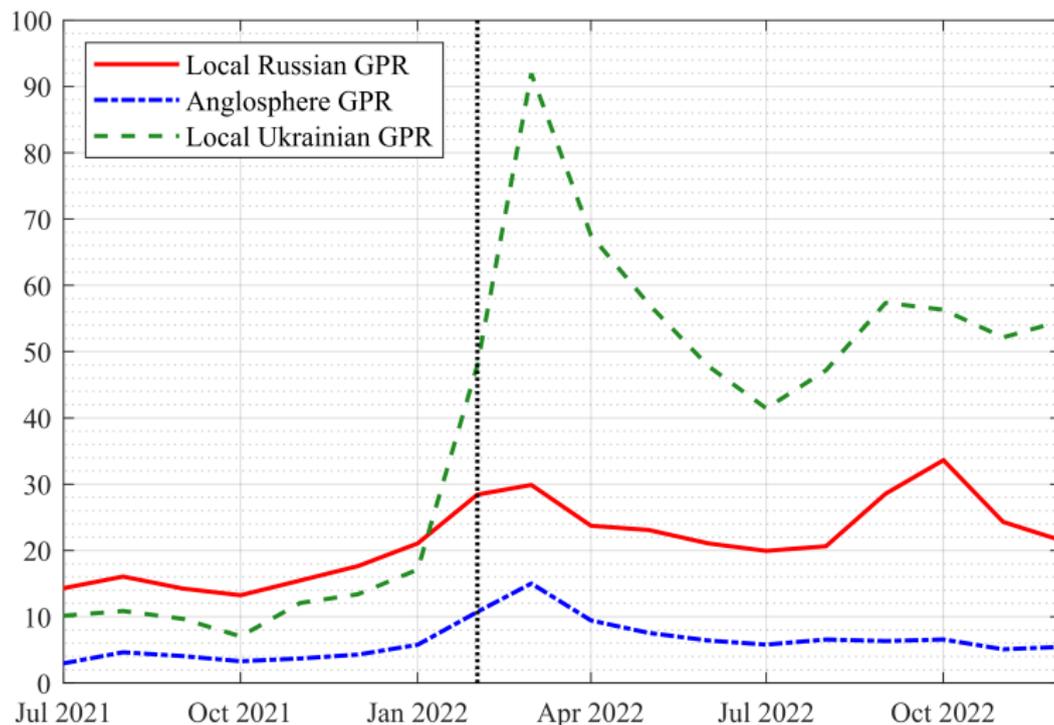
Local Russian GPR vs. anglosphere GPR



Geopolitical risk: Russian vs. anglosphere perception



Geopolitical risk perception around the Russian full-scale invasion of Ukraine



Role of media in Russia

Most media in Russia not independent (low freedom of speech)

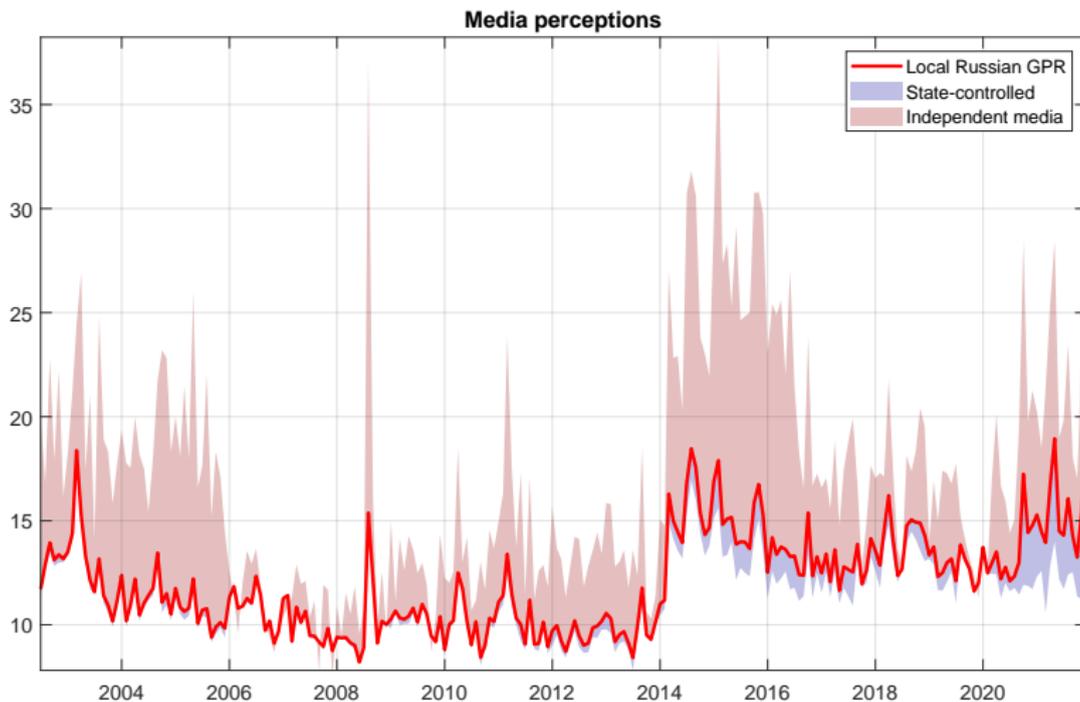
**Does *perception* of GPR differ
between state-controlled and independent media?**

- State-controlled media: Kremlin's perception of GPR?
- Independent media: Extreme anti-state perception of GPR?

Construct two further GPR indices:

- State-controlled media GPR and independent media GPR
(most independent media banned since 2022)

State-controlled vs. independent Russian news media



[Details on Spikes in GPR](#)

The impact of GPR shock

- **BSVAR analysis** of GPR in Russia between 2002-2021

The BSVAR model can be written as:

$$y'_t \mathcal{A}_0 = C + \sum_{l=1}^p y'_{t-l} \mathcal{A}_l + \varepsilon'_t. \quad (1)$$

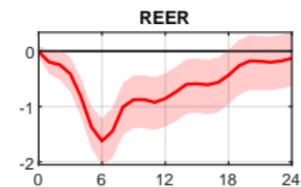
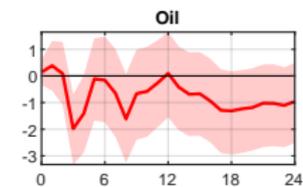
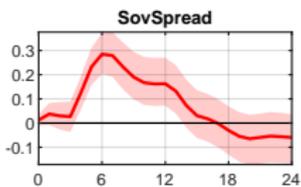
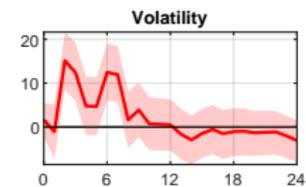
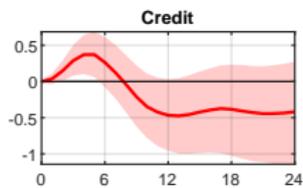
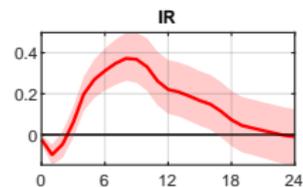
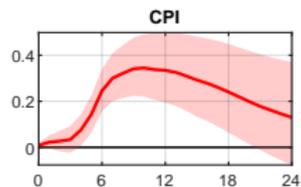
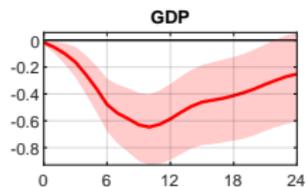
- Structural innovations are normally distributed with $E(\varepsilon_t | y_1, \dots, y_{t-1}) = 0$ and $E(\varepsilon_t \varepsilon'_t | y_1, \dots, y_{t-1}) = I_n$, where I_n denotes the identity matrix of size $n \times n$.
- Data y_t focuses on measures of geopolitical risk and Russian economy
 1. Local Russian GPR, or anglosphere GPR
 2. Real and policy variables (GDP, consumer price index, policy rate)
 3. Financial variables (equity and house prices, total credit volume, volatility)
 4. International variables (exchange rate, sovereign spreads, Ural oil prices)
- Estimated with Bayesian techniques (Minnesota prior) and 12 lags
- Identification of geopolitical risk shock with a Cholesky decomposition

Impact of local Russian GPR shock on Russian economy

Local Russian GPR shock has large adverse effect

- Reaction of the Russian economy resembles a negative supply shock
 - ▶ Fall in output, rising prices and central bank increases policy rate
- Important also for internationally integrated Russian economy
 - ▶ fall in real effective exchange rate, fall in real oil prices, spread on gov. bonds rises

Impact of Russian GPR shock on Russian economy

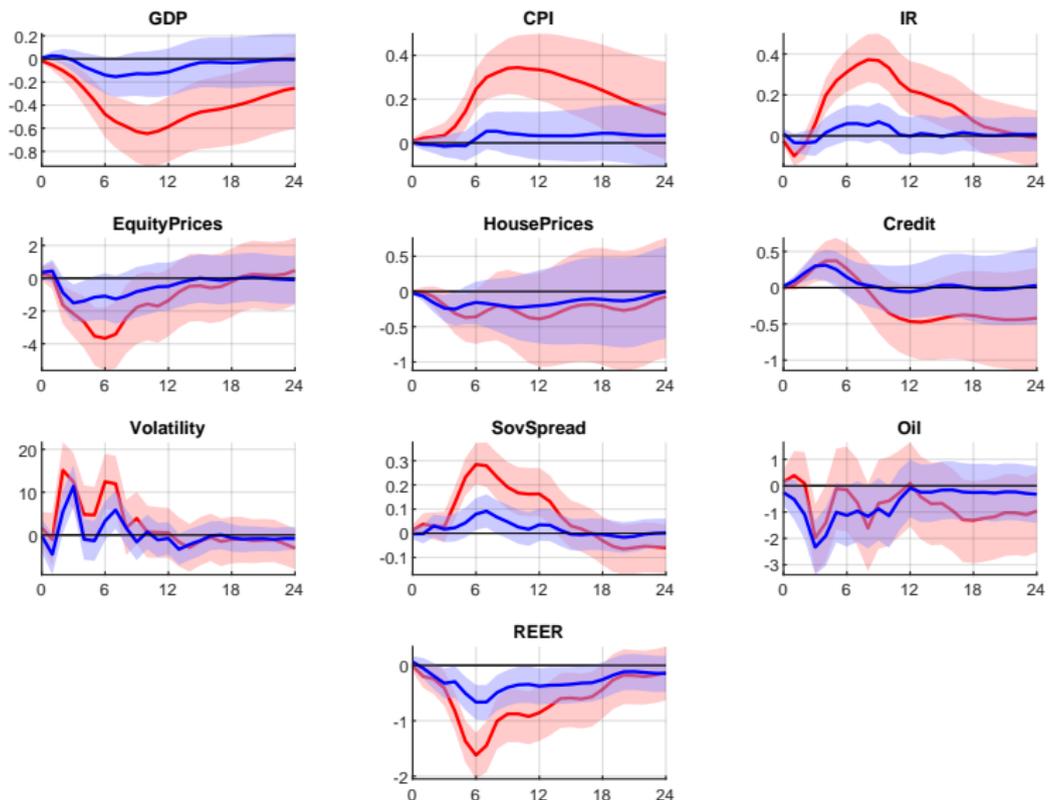


Impact of anglosphere GPR shock

Anglosphere GPR shock no or only weak direct impact

- No impact on output, prices, or policy rate
- Some impact on international/integrated variables, *but* weaker than local shock

Impact of anglosphere GPR shock (blue) and Russian GPR shock (red)



Impact of state-controlled vs independent media GPR shock

State-controlled GPR shock resembles loc.Russian GPR shock

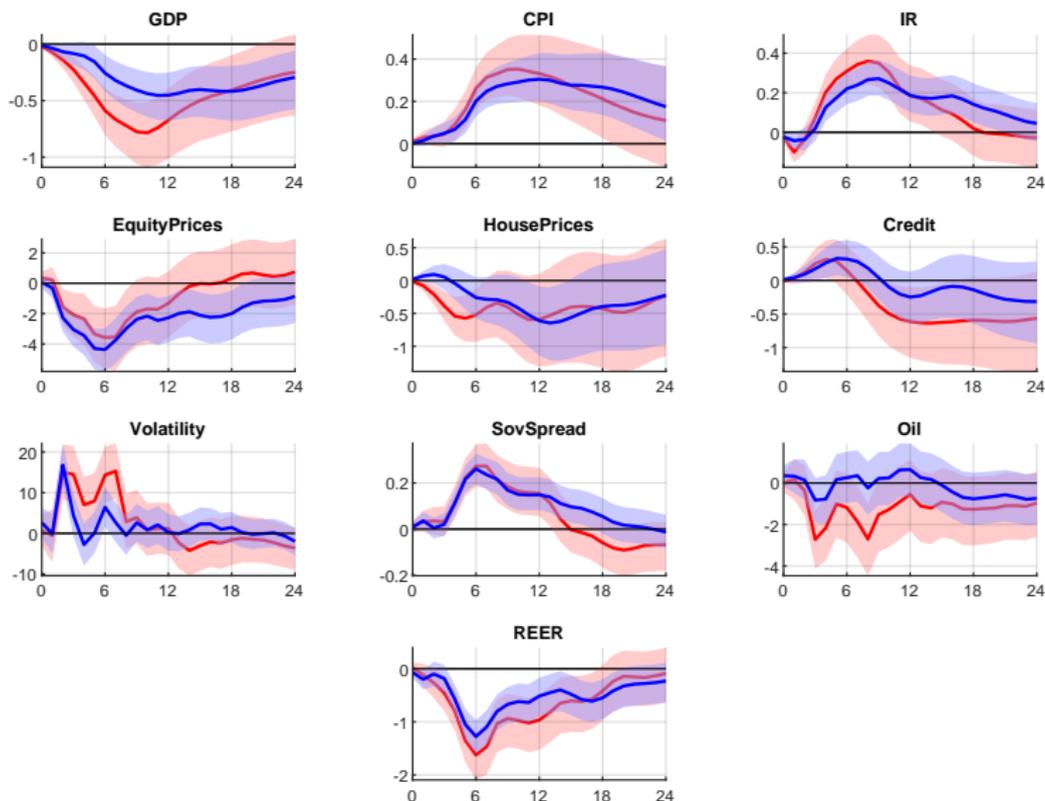
Independent GPR shock weaker, but more persistent

- GDP falls and prices rise persistently; interest rates rise for longer
- equity prices are affected more strongly

Why state-controlled stronger?

- state-controlled media report only geopolitical events that are important to the state's own narrative
- independent media focuses more on anti-government movement
- state-controlled media have a greater reach

Impact of Russian state-controlled (red) and Russian independent (blue) media GPR shock



Importance of GPR shocks for economic fluctuations in Russia

GPR index :	Russia	-State	-Indep.	Anglos.	Ukraine	Germany
GDP	12	17	6	1	3	1
CPI	10	11	9	0	4	3
IR	17	16	11	1	15	2
EquityPrices	6	5	11	1	3	2
HousePrices	1	3	1	1	0	4
Credit	2	3	1	1	0	3
Volatility	10	12	6	3	2	3
SovSpread	14	13	14	1	12	5
Oil	2	5	0	3	3	1
REER	18	18	12	4	10	5

Notes: Forecast error variance decomposition over first two years after shock, in %. "Local" refers to the Russia GPR index, "-State" to the Russia GPR index using state-controlled media, "-Indep." to the Russia GPR index using independent media, and "Anglos." to the anglosphere GPR.

Geopolitical risk and sanctions

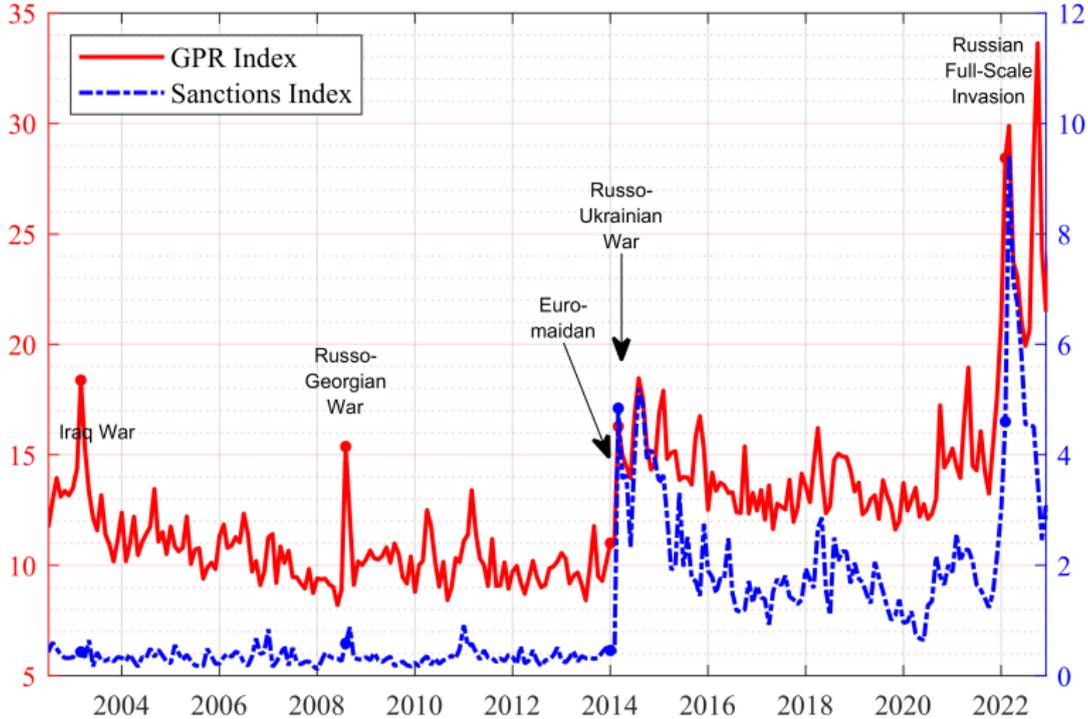
Russia occupies a leading position in terms of the number of sanctions, well ahead of Iran, Syria and South Korea

- Focus on the role of sanctions for the transmission of geopolitical risk
- Evaluation and quantification the sanctions channel in order to better understand the transmission of geopolitical risk

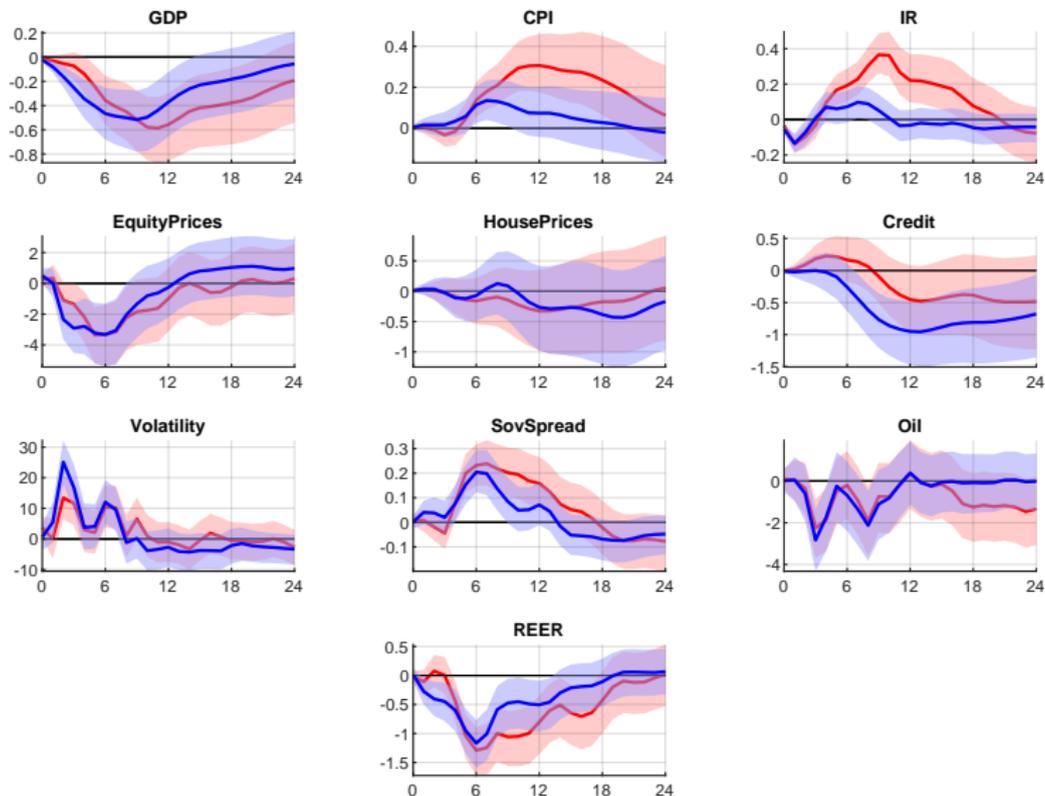
Construct novel monthly sanctions intensity index for Russia:

- our approach builds on Laudati and Pesaran (2023), who construct a news-based sanctions intensity index for Iran.
- sanctions intensity index measures the share of articles containing one or more words associated with sanctions against Russia
- search query in Russian Sanctions index query

Geopolitical risk indicator and sanctions intensity indicator



Impact of Russian GPR shock with sanctions channel: Active (red) vs. non-active (blue)



The role of sanctions for the transmission of geopolitical risk shocks

A shock to geopolitical risk significantly increases the sanctions index by approximately 10%.

- Geopolitical risk brings about sanctions, which in turn prolong geopolitical risk for Russia
- Geopolitical risk shock still contracts the economy even in the absence of the sanctions channel, although its peak is somewhat lower and the contraction is less prolonged

The sanctions channel is important for the transmission of geopolitical risk shocks in Russia. Local geopolitical risk shocks are important beyond the sanctions channel.

Conclusion

GPR is a major source of economic risk

Local perspective is important

- GPRs based on country-specific sources differ to anglosphere GPR
- For Russia, we show that
 - ▶ local risk shocks have much stronger impact on Russian economy
 - ▶ economic impact of GPR shock also depends on type of media sources (state-controlled vs. independent)
 - ▶ the recessionary effects of GPR shocks operate beyond the sanctions channels
 - ▶ sanctions in response to geopolitical events amplify the inflation response to GPR shocks

References

- Caldara, D. and Iacoviello, M. (2022). Measuring geopolitical risk. *American Economic Review*, 112:1194–1225.
- Laudati, D. and Pesaran, M. H. (2023). Identifying the effects of sanctions on the Iranian economy using newspaper coverage. *Journal of Applied Econometrics*, 38(3):271–294.

Search query

((війн* OR воен* OR бойов* OR сутичк* OR протистоян* OR конфронтаці* OR конфлікт OR революці* OR переворот OR повстан* OR заворушен* OR геополіт* OR ато) near2 (ризик OR ймовірн* OR імовірн* OR можлив* OR загроз* OR небезпек* OR попередж* OR погро* OR криз* OR загостр* OR тривога* OR напруж*)) OR ...

OR ((терор* OR заручник*) near2 (дії OR атак* OR напад* OR бомб* OR вбив* OR ліквід* OR бастув* OR забастовка OR «викрадення літака»)) NOT (кіно OR фільм* OR музей OR річниця OR ювілей OR некролог OR меморіал OR пам'ятник OR мистецтво OR книг* OR мемуар* OR біограф* OR гра OR історі* OR розпов* OR ветеран* OR данина OR спорт OR музика)

Total number of articles

("и" AND "в" AND "не" AND "на") OR ("і" AND "в" AND "не" AND "на").

Search query

((войн* OR воен* OR боев* OR столкновени* OR противостояни* OR конфронтаци* OR конфликт OR революци* OR переворот OR восстани* OR геополитическ*) near2 (риск OR вероятность OR возможность OR угроза OR предупрежден* OR кризис OR тревог* OR напряжени* OR паника OR опасность)) OR ...

OR ((терроризм OR заложник) near2 (действ* OR атак* OR напад* OR бомб* OR убив* OR убийств* OR ликвидир* OR бастов* OR забастовка OR налет* OR «угон самолета»)) NOT (кино OR фильм* OR музей OR годовщина OR юбилей OR некролог OR мемориал OR памятник OR искусство OR книг* OR мемуар* OR биографи* OR игр* OR истори* OR рассказ* OR ветеран* OR дань OR спорт OR музыка)

Total number of articles

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N°	Date	Explanation of main spikes
1	November 1997	19.11 US-Ukrainian military exercises. 15.11 Ukrainian-Russian consortium "Kosmotras" (modernization of intercontinental ballistic missiles)
2	March 1999	NATO military operations in Yugoslavia. War in Kosovo. 12.03 Poland, the Czech Republic and Hungary joined NATO
3	September 1999	10.09 Baltic-Black Sea summit. The countries of the Baltics and southeastern Europe have declared their desire to join NATO. 21.09 Ukrainian-Polish-British military exercises
4	March 2000	02.03 partnership for Peace (SOFA), Ukraine-NATO. 27.03 Russia violates the Ukrainian-Russian agreement on air communication and cooperation in the field of air transport
5	September 2001	terrorist attack in the United States. 07.10 the counter-terrorist operation "Unbending Freedom" began in Afghanistan
6	June 2002	20.06 The National Security Committee of Ukraine protests against the signing of Russian-Ukrainian inter-state agreements on the completion of the Rivne and Khmelnytsky nuclear power plants
7	December 2002	Summit of NATO member countries on the accession to the alliance of Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia and Slovenia
8	January 2004	Political crisis in Ukraine
9	September 2004	20.09 Ukraine-EU Action Plan. 21.09 meeting of the NATO military committee in the Ukraine-NATO format
10	August 2008	Russian-Georgian war. Ukraine supplies weapons to Georgia
11	March 2011	Civil war in Libya. Emergency at the nuclear power plant in Fukushima
12	January 2014	Euromaidan. Change of power in Ukraine and the course of Ukraine in the field of geopolitics
13	March 2014	Russian annexation of Crimea. Pro-Russian protests on the territory of Donbass (Ukraine), the beginning of active hostilities
14	January 2015	Violation of the Minsk agreements. Intensification of hostilities on the territory of Donbass (Ukraine)
15	November 2021	Violation of the Minsk agreements. Military exercises Ukraine-NATO. Intensification of hostilities on the territory of Donbass (Ukraine)
16	February 2022	24.02 Russia launched a full-scale invasion of Ukraine without declaring war
17	March 2022	Active hostilities on the territory of Ukraine

Geopolitical events Russia: types of sources [Back](#)

Data	Event description	Type of press		
		2 SD	1 SD	1/2 SD
September 2002	War fears US / Iraq	A	A, RI	R, A, RI
March 2003	Iraq war	R, A, RS	R, A, RS	R, A, RS
August 2003	Aggravation of hostilities in Iraq and Afghanistan	RI	RI	All
July 2005	London bombings 7/7	A	A	A
August 2008	War in Georgia	R, RI, RS	R, RI, RS	R, RI, RS
March 2011	Georgia-EU visa facilitation. Earthquake in Japan. Civil war in Syria	A	All	All
March 2014	Military actions on the territory of Donbas (Ukraine). Annexation of Crimea. Anti-war protests in Russia	All	All	All
November 2015	Paris terrorist attacks	A	A	A, RS
January 2020	US / Iran tensions escalate	A	R, A, RS	All
October 2020	Second Karabakh War	R	R, RI	R, RI
August 2021	Terrorist attack at Kabul airport, Afghanistan. US completes 20-year mission in Afghanistan	A	A	R, A, RI
February 2022	Full-scale invasion in Ukraine	R, A, RS	All	All
March 2022	War in Ukraine. Moldova and Georgia apply for EU membership. The Council of Europe officially expels Russia from the organization	RS	A, RS	A, RS
September 2022	Partial mobilization in Russia. Nord Stream and Nord Stream 2 accidents. Annexation of the occupied territories of Ukraine	R, RI, RS	R, RI, RS	R, RI, RS

Notes. AS - Anglosphere sources; IS - Independent sources; SCS - State-controlled sources.

Search query in Russian for sanctions index

эконом * AND санкции * AND (против OR в отношении) AND Росси*
NOT (Сири* OR Иран* OR (Северн* near1 Коре*) OR Венесуэлл*)

Search query in English for sanctions index (simple translation)

economic* AND sanction* AND (against OR concerning to) AND Russia
NOT (Syria OR Iran OR (North near1 Korea) OR Venezuela)