



**FREE  
NETWORK**

Forum for Research  
on Eastern Europe and  
Emerging Economies



STOCKHOLM INSTITUTE OF  
TRANSITION ECONOMICS

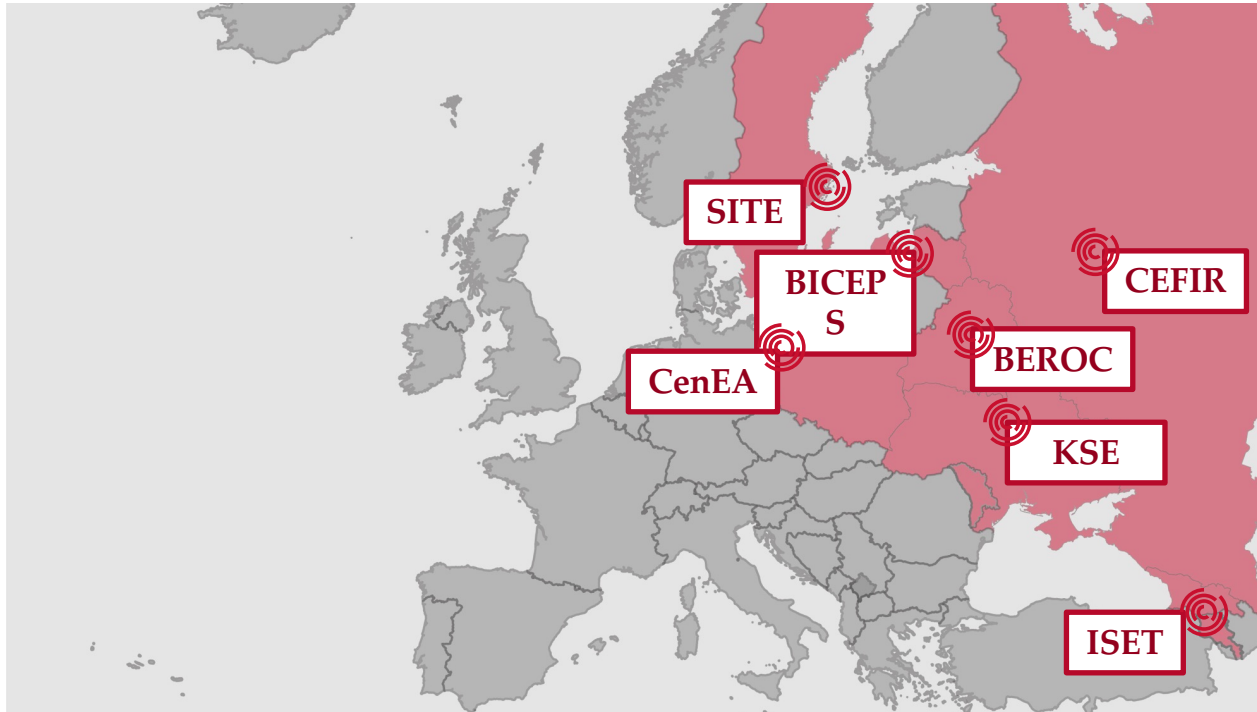
## The Macroeconomic Effects of Sanctions on Russia (How) Can They Be Assessed?

Torbjörn Becker  
Director SITE

[torbjorn.becker@hhs.se](mailto:torbjorn.becker@hhs.se)

# SITE and the FREE Network

---



# Research-based policy analysis

www.freepolicybriefs.org



PUBLICATIONS EVENTS VIDEOS EXPERTS ABOUT



POLICY BRIEF

**The Impact of Rising Gasoline Prices on Swedish Households – Is This Time Different?**

May 2, 2022



EVENT

**Economic and Social Context of Domestic Violence**

Sveavägen 65, Stockholm, Sweden

May 11, 2022



POLICY BRIEF

**Financial Aid to Ukrainian Reconstruction: Loans Versus Grants**

April 29, 2022



POLICY BRIEF

**The EU Import Bill and Russian Energy Sanctions**

April 28, 2022



POLICY BRIEF

**On the Necessity of Pension Reform in Belarus**

April 25, 2022



EVENT

**Support the Future of Ukraine**

Sveavägen 65, Stockholm, Sweden

April 19, 2022



SEE MORE

# Outline

---

- Sanctions how, where and for what purpose?
  - Do sanctions work in general
  - Shocks and drops, international macro
- Sanctions on Russia
  - Orders of magnitude
  - Data limitations
- Russian macro
  - Russian macro historical
  - Russian macro today
  - Russia macro going forward
- Sanctions—next steps
  - Yermak-McFaul international working group on sanctions
  - Oil price cap
  - full scale trade and financial sanctions or targeting specific goods and individuals, ...

# Do sanctions work?

---

- Not a simple, nor a well-defined question!
- Sanctions are many different things
- The effect of sanctions can be measured in many dimensions
- What would have happened without sanctions? Complicated to define proper counterfactual
- Sanctions can prevent undesirable actions => problem if we only study cases where countries have been subject to the implementation of sanctions (“selection bias”)
- Summary by Maria Perrotta Berlin at SITE  
<https://freepolicybriefs.org/2022/05/10/effects-economic-sanctions/>

# Cost of economic crises can guide sanctions

Becker and Mauro,  
"Output drops and  
the shocks that matter"  
IMF WP, 2006

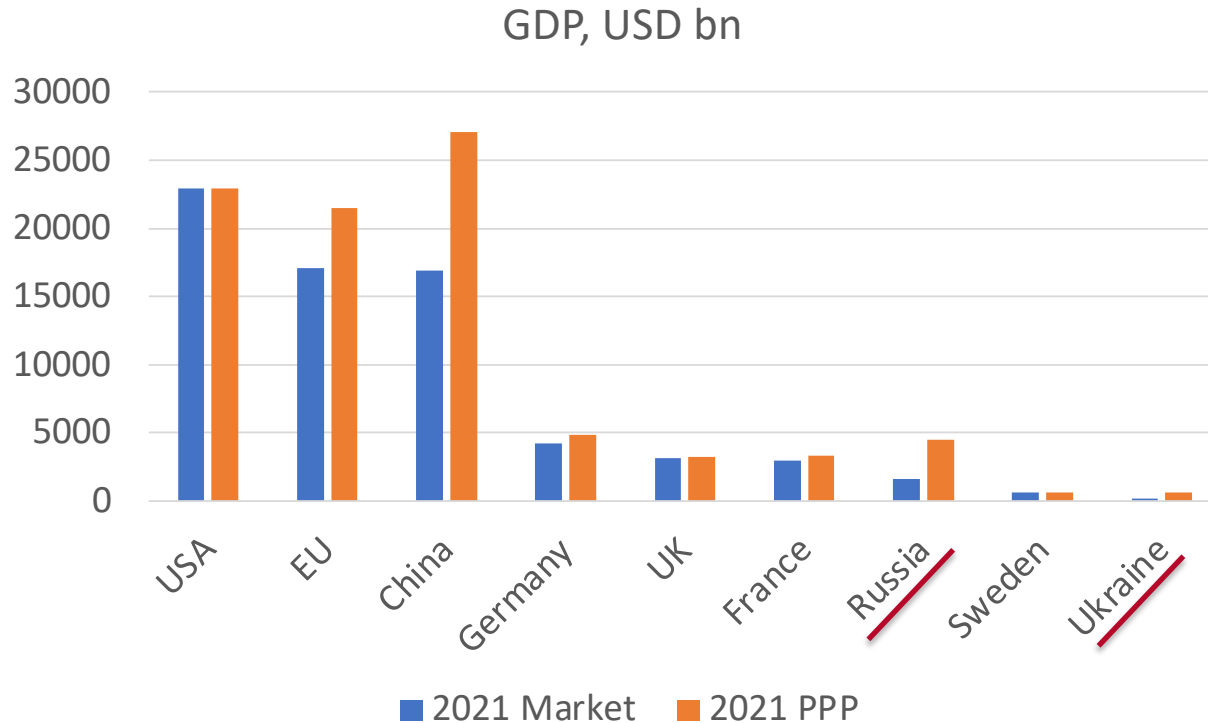
What shocks matter in  
terms of lost GDP?

Idea was to think about  
ways to protect countries

Also a road map to  
effect of sanctions...

	Cumulative Output Loss Conditional on Shocks		
	Advanced economies	Emerging markets	Developing countries
	(in percent of pre-event GDP per capita)		
Financial and macroeconomic shocks			
Currency crisis	6	68	23
Banking crisis	...	35	119
Debt crisis	...	101	1132
Sudden stop in capital flows	7	64	298
Country specific external shocks			
Terms of trade shock	27	24	152
Disaster	...	18	11
Sociopolitical			
War	...	10	259
Political shock	12	235	75
Global shocks			
Global interest rate hike	6	36	111
Oil price hike	...	27	38
The end of booms			
End of lending boom	...	13	26
End of growth boom	12	...	232

# Why sanctions against Russia can work



# What matters to russia?

## Russian economy: basic orders of magnitude

RUB/USD end-2021

74

	Year	RUB bn	USD bn	% GDP*
Russia nominal GDP	2021est	128000	1730	100,0
US GDP in USD	2021est		22993	1329,3
EU GDP in USD			17078	987,3
Value of total goods export	2021		490	28,3
Value of oil and oil products export	2021		179	10,3
Value of gas and LNG export	2021		62	3,6
Value of imports	2021		304	17,6
Trade balance	2021		186	10,8
Current account	2021		120	7,0
Assets of the banking system	2020	88100	1191	82,3
Retail loans	2020	20000	270	18,7
Corp loans	2020	44800	605	41,9
Other	2020	23300	315	21,8
Assets of Sberbank	Nov-21	38778	524	30,3
Assets of VTB	Nov-21	19896	269	15,5
Assets of Gazprombank	Nov-21	8267	112	6,5
Households' cash and deposits	Sep-21	56035	757	43,8
Ruble	Sep-21	40245	544	31,4
FX	Sep-21	15791	213	12,3
Government debt**	Jul-21	30703	415	24,0
debt in ruble	Dec-21	17158	232	13,4
eurobonds	Sep-21		39	2,3
other	Jul-21	12600	170	9,8
International reserves	end-2021		630	36,4

- Oil and gas exports
- Imports
- Financial system
- International reserves



# Russia's data warfare

---

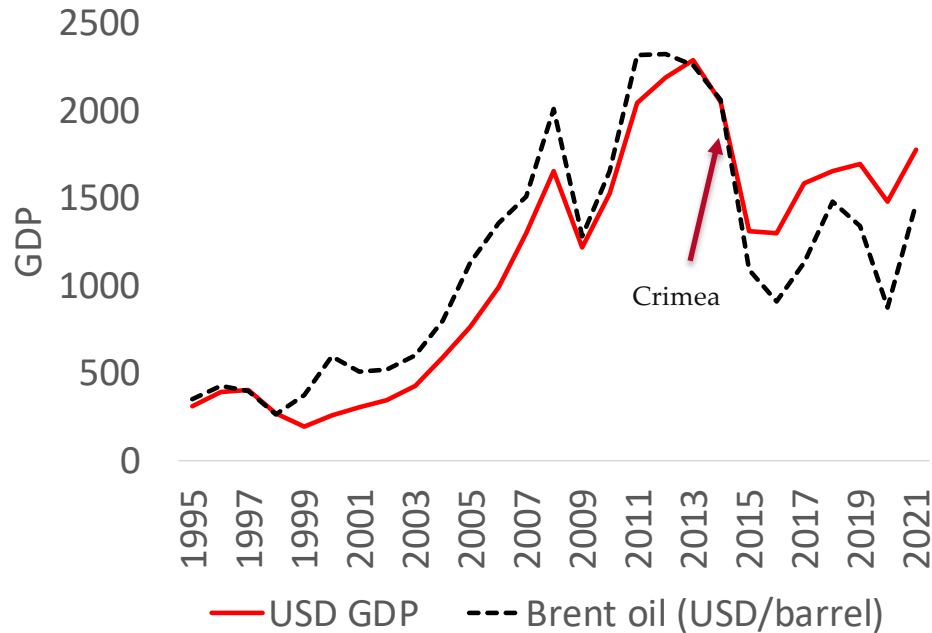
- FREE policy brief Anna Anisimova and Cecilia Smitt Meyer at SITE <https://freepolicybriefs.org/2023/04/18/russia-data-warfare/>
  - Data from the several agencies have been hidden
    - Central Bank of the Russian Federation (CBR),
    - Ministry of Finance of the Russian Federation
    - Federal State Statistics Service (Rosstat)
    - Federal Customs Service of Russia
  - **Part of the war effort**
  - In breach of international agreements
- => Alternative data and methods needed to assess impact of sanctions**

# Effects of sanctions on russia in models

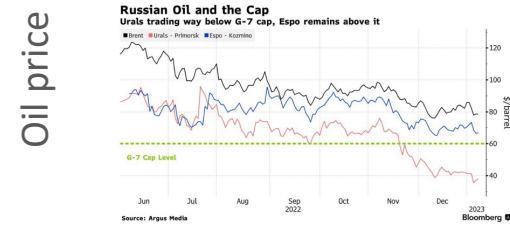
---

- CEPR/Economic Policy/Riksbank conference
- Several papers on estimating effects of sanctions
  - Trade sanctions by Imbs and Pauwels
  - Bans of exports to Russia by Hausman, Schetter and Yildirim
  - Value of coalitions in sanctions by Chowdhry, Hinz, Kamin, and Wanner
- Estimated effects in models relatively small, but Russia suffers much more than sanctioning countries
- Effects on Russia can increase if the “right” goods are sanctioned
- Effects in sanctioning countries very different (compensation mechanisms?)
- Value chains can be important
- Good to do sanctions in coalitions

# Russia's macro model



**2022:**  
Oil price +37%  
GDP -2 or -3 %(?)  
**Sanctions work**

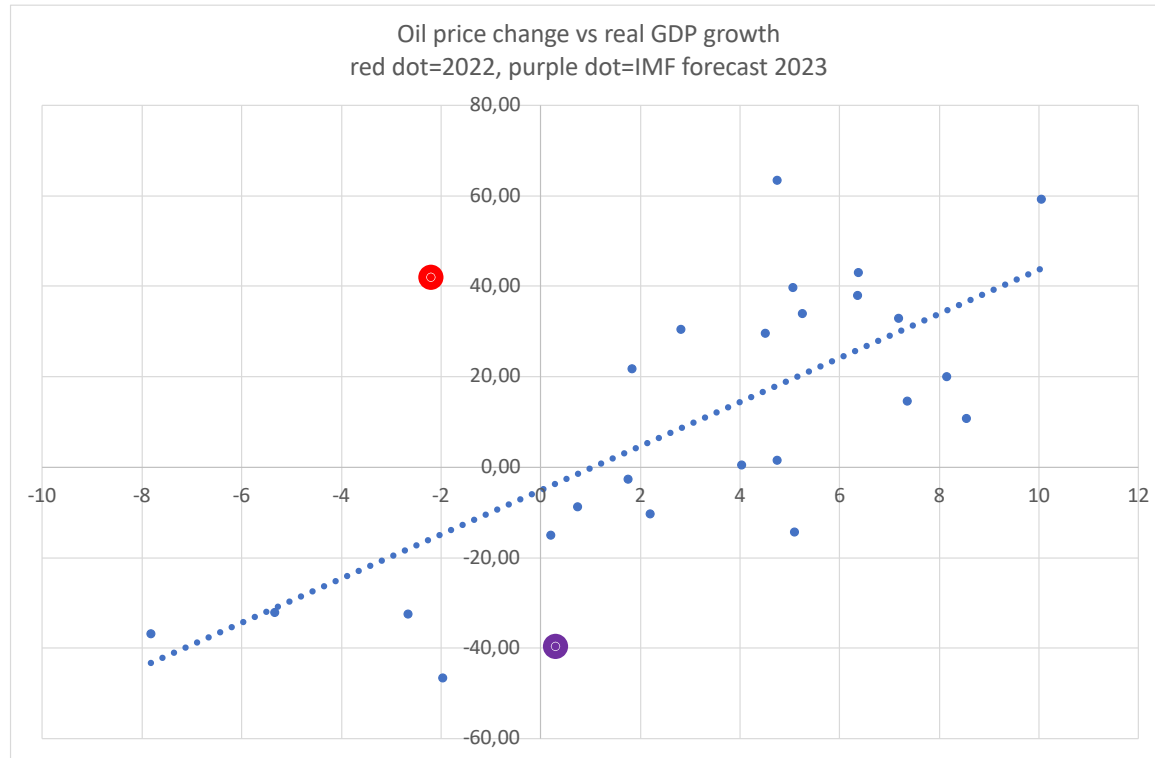


**2023:**  
Oil price -50%?  
GDP -5 to -10%???

# Oil price (Brent)



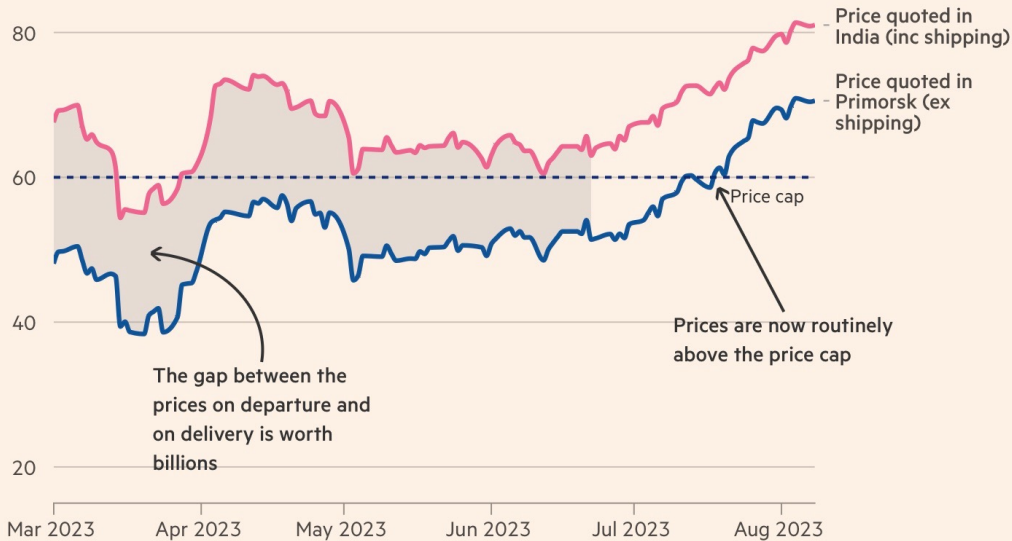
# Russian GDP 2022 and 2023(?)



# What is sanctioned russian oil worth?

The shipping loophole is potentially worth billions of dollars

Price per barrel estimated in the Baltic port of Primorsk and in west India (\$)



FINANCIAL TIMES

Source: Argus

# Less oil money, weaker RUB



# Long-run growth determinants

---

$$\frac{\Delta Y}{Y} = \frac{\Delta A}{A} + \alpha_K \frac{\Delta K}{K} + \alpha_L \frac{\Delta L}{L}$$

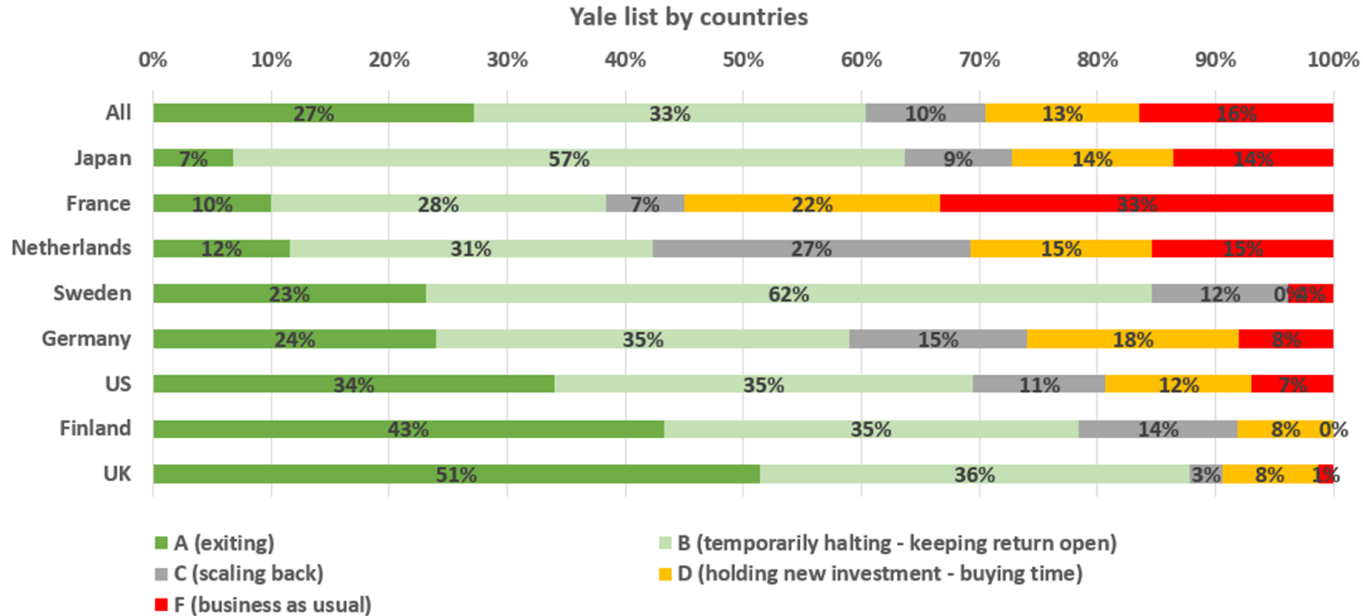
Growth from Productivity, Capital and Labor

Russia today: Companies, capital, people leave...



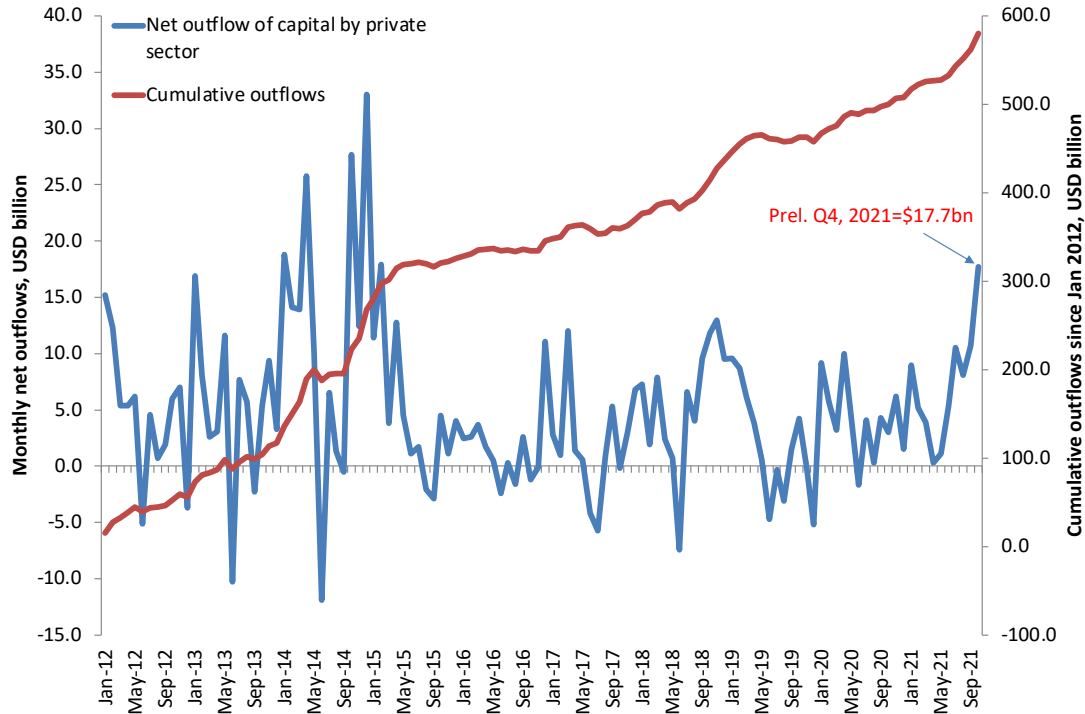


# Foreign companies leaving Russia



[Yale list](#)

# Private money has left Russia for many years



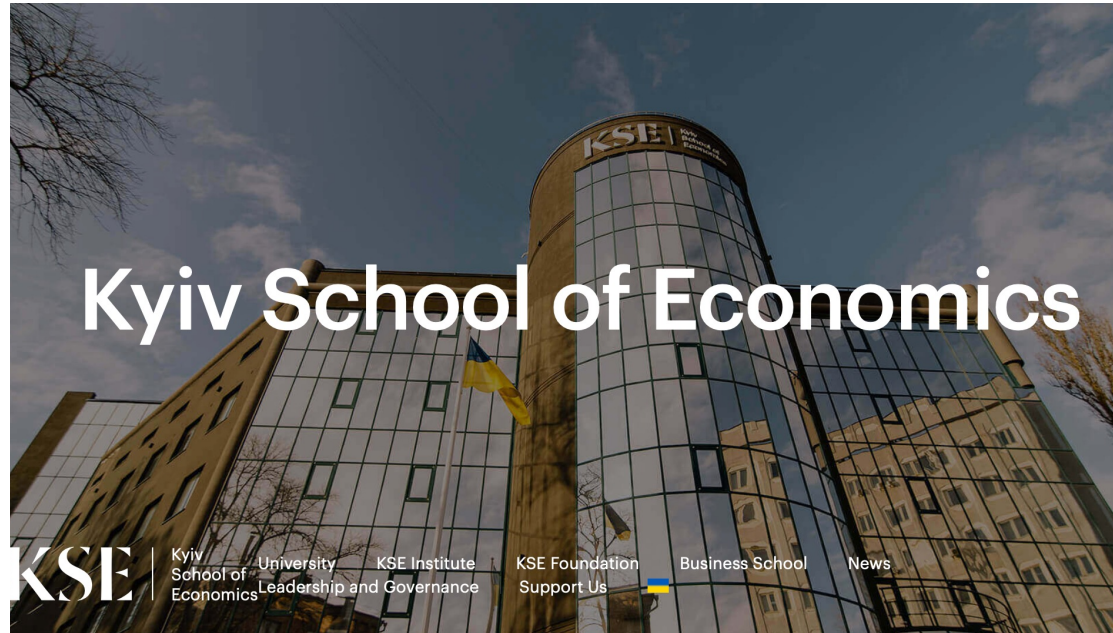
# Sanctions never 0-1...

---

- If we are afraid of sanctioning "all of Russia", what does it mean
- Plenty of more sanctions possible on trade, finance, individuals etc
- Burden sharing in sanctions coalition
- What are the alternatives....
- More analysis can be found at
  - <https://fsi.stanford.edu/working-group-sanctions>
  - <https://kse.ua/kse-institute-during-the-war/>

Friends of KSE  
[www.friendsofkse.org](http://www.friendsofkse.org)

---



<https://kse.ua>



# FREE NETWORK

Forum for Research  
on Eastern Europe and  
Emerging Economies



STOCKHOLM INSTITUTE OF  
TRANSITION ECONOMICS

Thanks!