The Geoeconomics of International Political Relations and Sovereign Defaults

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The viability of sovereign debt received attention

1. Debt crises are very costly
2. Sovereign debt levels have increased tremendously
   - Over 90% of GDP, on average (IMF)
3. Worsening world economic outlook

The viability of sovereign debt received attention

More than half of low-income and about a fifth of emerging economies remain at high risk of debt distress.

—Kristalina Georgieva, IMF Managing Director (October 2023)

The global economy is undergoing a fundamental transformation

- Growing political tensions...
  - Middle East
  - United States and China
  - Russia's invasion of Ukraine
- Pose challenges to international relations
- Economic and financial landscape increasingly influenced by political and strategic decisions
  - We observe fragmentation after decades of globalization

- Geoeconomics: existing financial and trade relations + geography + politics $\rightarrow$ economic outcomes

Geopolitics affect macro-finance outcomes

Geopolitical tensions are highly elevated and pose important risks to global economic activity

— Federal Reserve Chair Jerome Powell (October 2023)

Would a country's international political stance alter its external sovereign debt default risk?

In this paper, we ...

- Revisit determinants of sovereign defaults, with focus on international politics
- Construct an international political relations (*IPR*) index for 152 countries, spanning since 1880s
    - A country has a high *IPR* score $\leftrightarrow$ few political conflicts, many military alliances, and politically well-integrated
- Then investigate
    - Whether and why *IPR* affects the probability of sovereign debt crises
    - Whether *IPR* mitigates the adverse consequences of a sovereign default episode

Summary of findings

1. High *IPR* $\rightarrow$ lower probability of a sovereign default
  - One-unit $\uparrow$ in *IPR* $\rightarrow$ 5pp $\downarrow$ in debt crisis probability
  - Both in-sample and out-of sample predictive ability

2. Because countries with high *IPR* benefit from larger capital inflows

3. Conditional on defaulting, they
  - Rebound easier with a milder credit crunch
  - Utilize less steep increases in sovereign bond yields

4. The results hold when we (attempt to) address endogeneity

Literature

Contribution I

- A vast literature on the **drivers of sovereign defaults**
    - e.g., Reinhart et al., 2003b; Tomz and Wright, 2013; Catao and Milesi-Ferretti, 2014; Trebesch, 2019
- But, either **silent on the effects of politics** on default or focus solely on domestic politics
    - exception: Ambrocio and Hasan (2021); Barro and Lee (2005): how does a country's similarity in political preferences with the US affects its borrowing conditions?

$\longrightarrow$ This paper,
    - adds a broad historical and cross-sectional perspective on the drivers of sovereign defaults
    - focuses on the geoeconomics of international politics

Contribution II

- An emerging but very limited literature on geoeconomics
  - **Geopolitics affect trade:**
    Alfaro and Chor (2023); Korovkin and Makarin (2023);
    Crosignani et al. (2024); Alfaro and Chor (2023);
    Konrad (2023)
  - **Geopolitics affect bank lending**
    Correa et al. (2023); Niepmann and Shen (2024)
  - **Geopolitics affect commodity markets**
    Alvarez et al. (2023); Bolhuis et al. (2023)

  $\longrightarrow$ This paper
  - provides (the first ?) evidence that a nation's
    international political stance alters sovereign default risk

Contribution III

- An literature on the **recovery** of countries from a default episode
  - e.g., Borensztein and Panizza (2009); Arellano (2008); Gennaioli et al. (2014)

  $\longrightarrow$ This paper
  - shows that stronger international political ties $\rightarrow$ easier rebound lower economic costs

Empirical Analysis

Would a country's international political relations alter its sovereign debt probability?

Challenge: Political relations are endogenous

- Instead of *IPR* leading to default, a country's default may alter its political stance

- Omitted variable may alter expectations on economic fundamentals, affecting both default risk and politics

→ One solution, estimate *gravity-IPR* as an IV for *IPR*

- Analogous to gravity model of Frankel and Romer (1999)

- Identification assumption: *pre-determined* country characteristics (e.g., common language, colonial roots)
  - affect bilateral political relations
  - and do not directly affect default risk

→ We need historical bilateral international political relations data

We aggregated widely used sources in the political science literature

1. Militarized interstate disputes of Palmer et al. (2022)
   - 1 war, 2 use of force, ..., 6 no dispute among two states
2. Military alliances data from COW
   - 0 no alliances, ..., 3 defense pact among two states
3. Number of joint memberships in intergovernmental organizations, data from Pevehouse et al. (2020)
4. Diplomatic exchanges among states, COW data
   - 1 presence, 2 charge d'affaires, 3 minister, 4 ambassador

$\rightarrow$ Tighter political relations, higher *IPR*

$\rightarrow$ Bilateral *IPR* is the average of the standardized 4 series for a given country, spanning 152 countries, since 1880s

IPR produces meaningful rankings
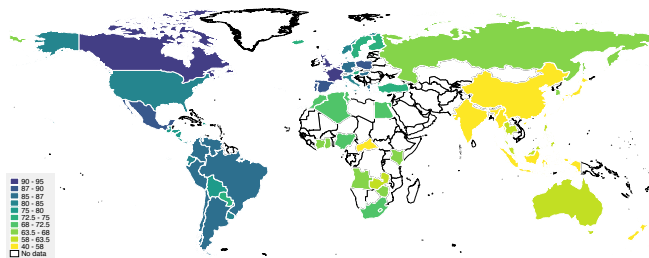
- North American and European countries have higher stability than Asian and African ones
- Canada has had the highest *IPR* score in recent decades, followed by several European countries including Belgium and the Netherlands

Methodology

2SLS IV probit regressions:

$$D_{i,t} = \alpha + \beta IPR_{i,t-1} + \lambda AD_{i,t-1 \text{ to } t-20} + \gamma X_{i,t-1} + \nu_d + \delta_c + \epsilon_{i,t},$$

- $D_{i,t} = 1$ if country i defaults in year t
- $\beta < 0 \implies IPR \uparrow \rightarrow$ probability of sovereign default $\downarrow$

- $AD_{i,t-1 \text{ to } t-20}$: total number of country i's defaults over the last 20 years
- $X_{i,t-1}$: lagged– government debt-to-GDP ratio, domestic political stability, inflation, (log) GDP per capita, GDP growth rate, and trade openness

Methodology

Estimate the IV for *IPR* by running the following regressions for each year t separately:

$$\log IPR_{i,j,t} = \alpha + \beta_1 \log dist_{i,j} + \beta_2 comlang_{i,j} + \beta_3 border_{i,j}$$
$$+ \beta_4 colony_{i,j} + \varepsilon_{i,j,t},$$

$$gravity\text{-}IPR_{i,t} = \sum_j \widehat{IPR}_{i,j,t} \times GDP_{j,t} / \sum_k GDP_{k,t}$$

Results

IPR decreases the sovereign debt crises probability

Dep. Var. $D_{i,t}$	Panel probit	2SLS IV	2SLS IV	2SLS IV
$IPR_{i,t-1}$	-0.021*** (0.011)	-0.048*** (0.022)		
$IPR_{Developed,i,t-1}$			-0.051*** (0.024)	
$IPR_{Emerging,i,t-1}$			-0.059*** (0.024)	
$IPR_{Pre1946,i,t-1}$				-0.048** (0.027)
$IPR_{Post1946,i,t-1}$				-0.051*** (0.026)
Controls	Yes	Yes	Yes	Yes
FEs	Yes	Yes	Yes	Yes
Obs.	4006	3443	3443	3443
Pseudo R2	0.47			

1sd $\uparrow$ in *IPR* $\rightarrow\downarrow$ the probability of a debt crisis by 5 pp in the next year

IPR decreases the sovereign debt crises probability

Dep. Var. $D_{i,t}$	Panel probit	2SLS IV	2SLS IV	2SLS IV
$IPR_{i,t-1}$	-0.021***	-0.048***		
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Pseudo R2	0.47			

Similar effects for both developed and emerging, pre and post WWII

Why do international political relations lead to defaults?

Tight political relations → capital inflows ↑

- With fewer political conflicts and stronger political connections with their peers → reduced perceived risk
- Encourages investors to increase capital inflows (Danielsson, Valenzuela, and Zer, 2022)
- ↑ capital inflows → consumption-smoothing, improve macro-finance outlook → default ↓ (Gennaioli et al., 2014)

- Also distinguish long-term and short-term fluctuations in capital inflows

Dep. Var.:			
	Log(Inflows/GDP)	Trend	Cycle
	(1)	(2)	(3)
$IPR_{i,t-1}$	0.044**	0.030**	0.020
	(0.020)	(0.012)	(0.019)
Controls	Yes	Yes	Yes
FEs	Yes	Yes	Yes
Observations	1,024	1,024	1,024

- Countries with higher *IPR* scores enjoy larger capital inflows (slow-moving trend)

- one-unit $\uparrow$ in *IPR* $\implies$ 4.4% $\uparrow$ in capital inflows.

Other results I

1. *IPR* is a reliable debt crisis predictor
   - Horse race between *IPR*, debt-to-GDP ratio, domestic political stability, and inflation
   - Using 1) the % of correctly predicted crises; 2) AUROC (signal-to-noise-ratio); 3) out-of-sample pseudo $R2$

   $\rightarrow$ We find that *IPR* is the best for 1); similar performance for 2); superior than domestic political stability and inflation for 3)

Other results II

2. International political relations mitigate the default cost

- Post-default, can a country with high *IPR* recover easier?

$$
\begin{aligned}
Y_{i,t} &= \alpha + \beta D_{i,t-1} + \gamma D_{i,t-1} \times IPR_{i,t-1} + \theta IPR_{i,t-1} \\
&+ \phi X_{i,t-1} + \nu_i + \delta_t + \varepsilon_{i,t},
\end{aligned}
$$

- $Y_{i,t}$ is either 1) the (log) credit; 2) GDP growth; 3) sovereign bond yield spreads

- We find $\beta < 0$ and $\gamma > 0$
- $\rightarrow$ High *IPR* country face smaller credit crunch, less decline in GDP, less-elevated spreads than its peers

Other results III

3. Results are robust to:

- Other controls: IMF support, financial integration, risk perceptions,...
- Model specification (2-year, 5-year, and other decade definitions - fixed effects and continent-year and country-decade clustering)
- Alternative definitions for domestic political stability and accumulated default measures

Panel A

	Correctly predicted crisis (%)	N Obs.
Model 1: *IPR*	68	3,523
Model 2: Debt/GDP	67	3,523
Model 3: POLCOMP	67	3,523
Model 4: INF	64	3,523
Model 5: All	74	3,523

Panel B

	AUROC	Std. Err.	Confidence Interval		N Obs.
Model 1: *IPR*	0.844	0.010	0.826	0.863	4,098
Model 2: Debt/GDP	0.848	0.010	0.828	0.868	4,098
Model 3: POLCOMP	0.854	0.010	0.835	0.872	4,098
Model 4: INF	0.859	0.009	0.842	0.876	4,098
Model 5: All	0.885	0.008	0.869	0.900	4,098

Panel C

	Out-of-sample pseudo R^2 (%)			
Ttrain	IPR	Debt/GDP	POLCOMP	INF
2000	26	27	17	15
1990	26	29	13	15
1980	18	29	7	10
1970	16	27	5	8

IPR is correlated with other proxies

	NObs.	Pearson corr	p-value
KOFPoGI	6279	0.772	0.023
KOFFiGI	6234	0.645	0.047
OPEN	9973	0.671	0.011
KAOPEN	5697	0.422	0.094
POLCOMP	10378	0.293	0.077
GPR	115	-0.312	0.001

(1) political, financial, and economic integration; (2) domestic political stability; and (3) global geopolitical risk.

IPR follows major political trends across time
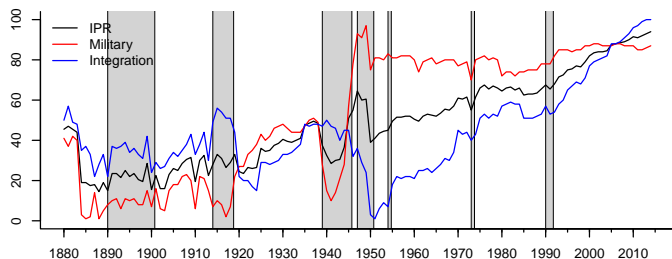
- An increasing trend in *IPR* ↔ consistent with fewer conflicts and higher integration among states
- A jump in *IPR* for developed countries post-1945 ↔ post-WW II, UN and NATO founded
- *IPR* higher for developed than emerging, except for WWII