

States as Financiers: International Lending in War and Peace

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April 28, 2026

Official international lending is under researched and not well understood. Until now, there has been no encompassing database.

There is a vast literature on private capital flows

- The post-1970 global trend in capital account liberalization revitalized the study of private cross-border lending.
- Private flows receive wide coverage in the financial press.
- Credit rating agencies' main focus is on private creditors, irrespective of whether the borrower is a government, a corporation, or a financial institution.
- There is granular data on private capital flows (net and gross flows, portfolio equity and bonds, commercial bank lending, FDI, interbank flows, etc.)

The literature on official international lending is scant and fragmented

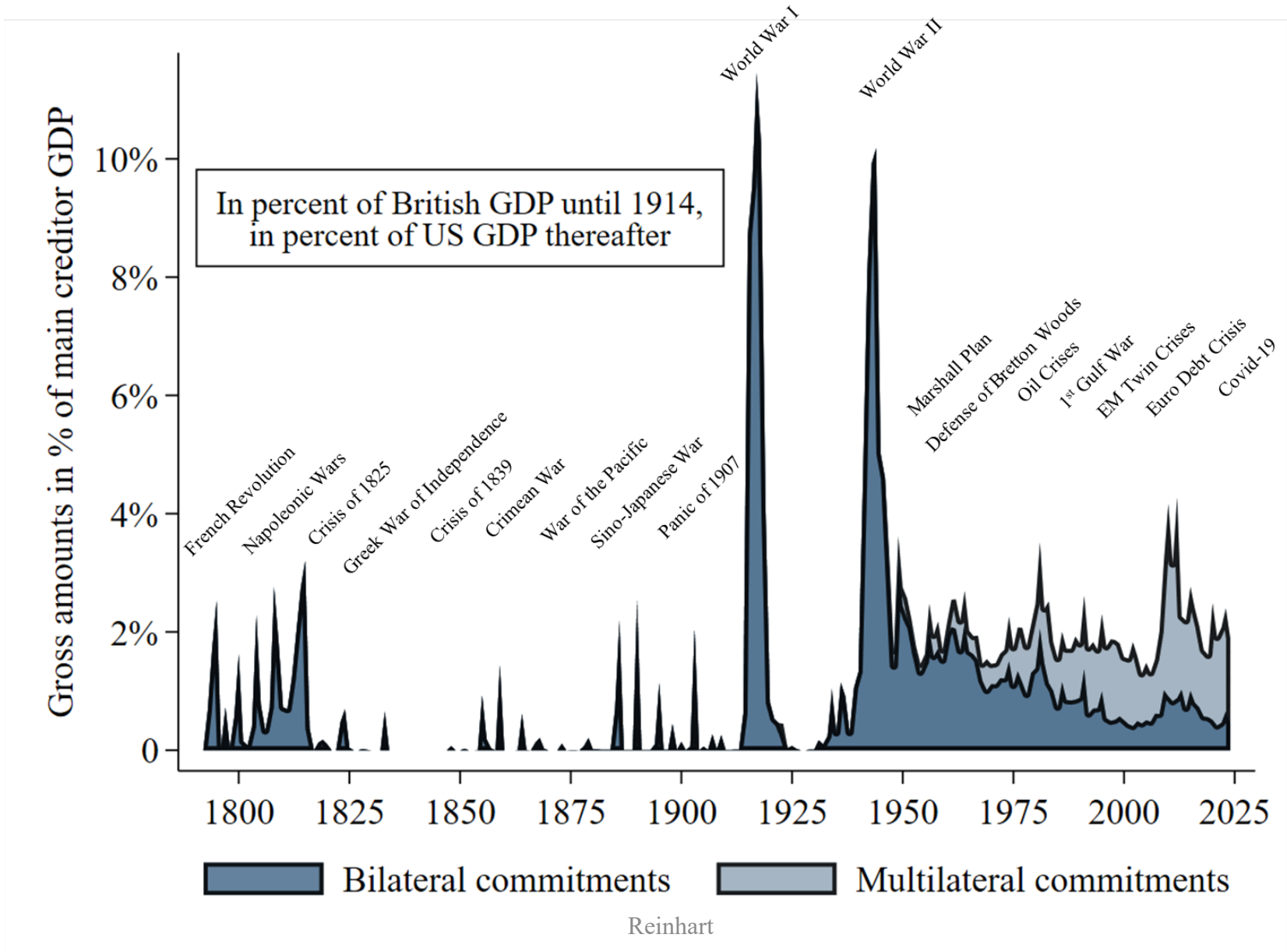
- Little research, little data (exceptions are Alfaro et al. 2014 and Arellano and Baretto, 2025).
- Governments often avoid the topic (not especially popular with taxpayers)
- Official debt is not securitized and not traded in secondary markets.
- The academic research tends to fall into “silos” such as IMF programs, ESM bailouts, Global Gateway, China's Belt and Road, central bank swap lines, more recently support to Ukraine.
- The big picture is missing.

How large is official lending?

Official international lending is much larger than commonly known. Since 1790, official lending has repeatedly matched or surpassed private cross-border flows, both at the country level and globally. At times it has been the dominant or even only form of cross-border finance. The most notable surges occurred during the major world wars, when private capital markets largely ceased to function. Official lending exceeded 10 percent of U.S. GDP during WW2.

Since World War 2, crisis lending has become more systematic and institutionalized with the rise of the IMF, the World Bank, and the regional development banks. Over time, these flows have morphed into large and persistent official debt stocks across (primarily) the developing world. Over the past century, official creditors account for 30 to 60 percent of total external public debt worldwide, depending on whether the averages are weighted by GDP or not. In the average developing country today, about 60 percent of external public debt is owed to bilateral and multilateral official creditors.

The Big Picture: States Were and Are Major International Financiers, Official International Bilateral and Multilateral Lending: 1790-2024



How do official and private capital flows compare?

Private and official capital flows differ sharply in **their cyclical behavior** and **pricing**. Private cross-border flows are pro-cyclical, contracting during “bad times” (economic crises, heightened geopolitical or economic uncertainty). Private flows may disappear altogether during wars, whether due to capital controls and sanctions, extreme risk, or a combination of these. Surges in private lending during economic booms are commonplace and add to the volatility of the economic cycle for the borrowing countries.

Official flows move in the opposite direction: they are stabilizing and counter-cyclical, rising in periods of crisis. At the global level, official flows are positively correlated with wars and the incidence of economic and financial crisis, offering a near mirror image of private flows.

The contrast between official and private creditors extends to the lending terms. Official loans carry interest rates well below market benchmarks and, unlike bond spreads, their pricing is largely insensitive to borrower credit risk. Maturities on official loans are also substantially longer, particularly for higher-risk sovereigns. Some of the United States loans to its allies during WW2 were only extinguished in 2006.

<https://www.theguardian.com/business/2006/dec/29/politics.secondworldwar>

Summary and Takeaways: Private versus Official lending

	Private creditors	Official creditors
<u>Share of external public debt owed to:</u>		
Unweighted mean (all countries and years)	40%	60%
GDP-weighted mean (all countries and years)	71%	29%
<u>Lending terms</u>		
Interest rate spread over risk-free rate	177 bps.	-305 bps.
Correlation of spread and sov. credit ratings	0.11***	-0.15***
<u>Global shocks and crises - corr. coeff.</u>		
Financial crisis tally (Reinhart & Rogoff)	-0.12*	0.31***
Macroeconomic disasters (Barro & Ursua)	-0.10	0.47***
Geopolitical risk (Caldera & Iacoviello)	-0.34***	0.81***
Incidence of war (Correlates of War)	-0.25***	0.46***

Other questions we address include:

What are the purposes (military, financial rescue, development assistance) of official lending and how has that evolved?

Has the role of central banks changed in official overseas lending?

Who are the large official lenders (by “type” of creditor and by country? And the corollary, who are the international lenders of last resort?

How has the incidence of official lending in war, economic crisis and tranquil times evolved over the past 235 years?

Have “bailouts” become bigger?

What are the drivers of official cross-border lending, economic ties, cultural links, geopolitical alliances, role of geography?

Outline

Selected key findings

Concepts

The creditors, debtors, and the instruments

Data: Three databases

Loans and grants (flows), 1790-2024

Public External debt owed to official and private creditors (stocks), 1910- 2024

Catalog of case studies: Sovereign debt crises, wars, and private capital flows

A panoramic view of official lending

Purposes of official lending

Central bank-to-central bank lending

The incidence of official lending during crises, wars, and tranquil times

Who lends?

Private versus official lending

The episodes: Wars

The episodes: Economic crises

Terms of lending

The gravity of official finance: The drivers of official lending in times of economic crisis and wars

The geography of bilateral lending

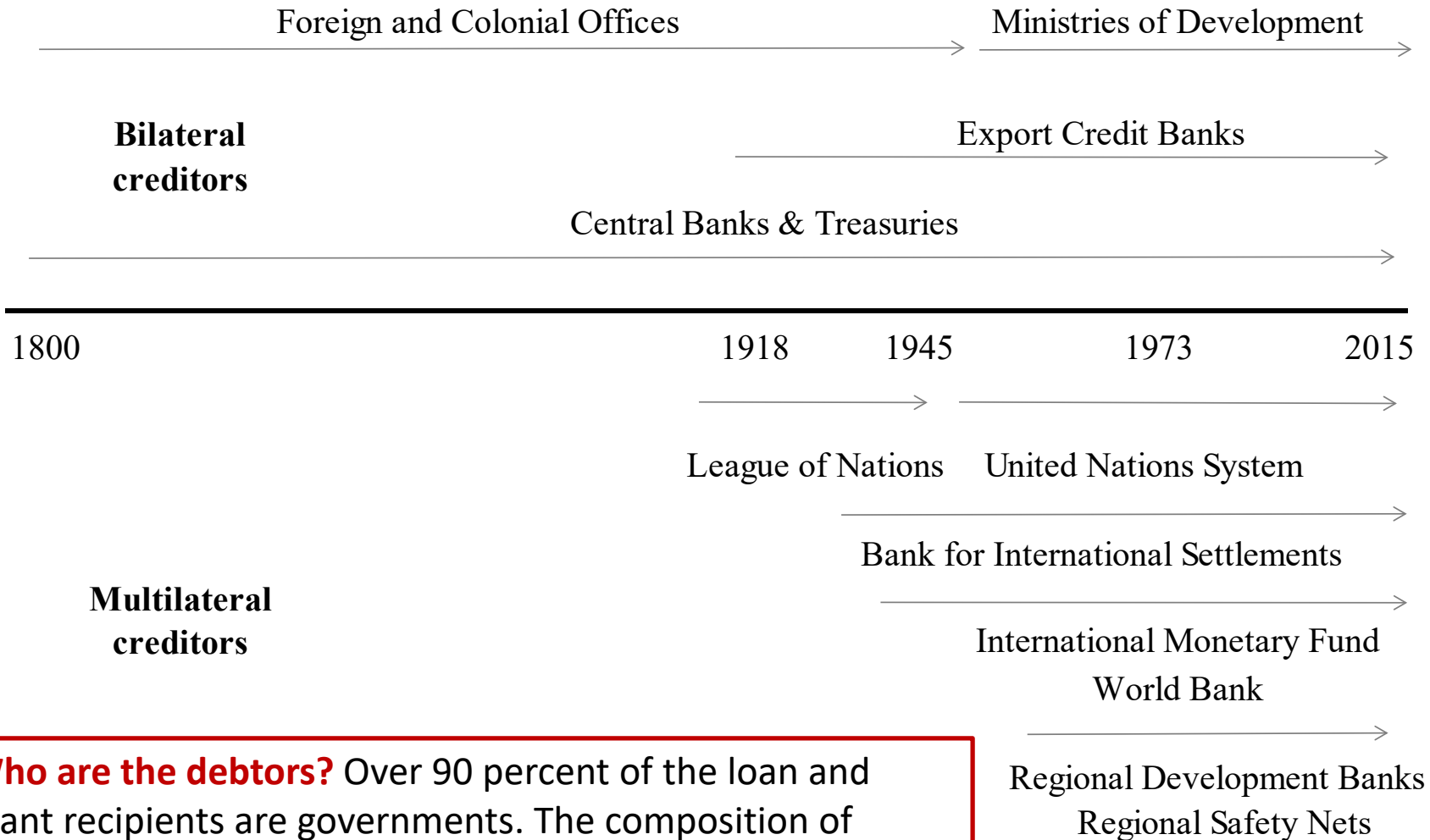
PPML gravity model of bilateral official lending

The drivers of official finance: 1830-2012

Results

Concluding remarks

Who are the official creditors?



Who are the debtors? Over 90 percent of the loan and grant recipients are governments. The composition of advanced and developing recipients has evolved over time.

Three databases:

i) International official lending (flows): 1790-2024

Cross-border loans, grants and guarantees by governments, multilateral institutions and central banks to (primarily) other governments or central banks. These data also include loans by public entities (e.g. Chinese state-owned banks) to foreign governments.

We collect, whenever available, transaction-level data on (i) the lending amounts, (ii) the year of the agreement, (iii) the creditor and debtor country as well as (iv) the financial terms including the interest rate, the grace period, and the time to maturity.

The database covers 1.25 million loan and grant transactions by 134 governments and 69 multilateral creditor institutions to 217 debtor countries.

The total sum of commitments from 235 years of official international lending amounts to more than 20 trillion US dollars (in 2020 terms)

Not included in our data:

Portfolio flows, which would include securities held by central banks and sovereign wealth funds (which also hold equities), TARGET2 central bank transfers, and reparation payments.

Main sources*

Loans by European monarchies

Main source: International Treaty Series, e.g., Bevans - Treaties and Inter. Agreements of the USA, De Mertens, British and Foreign State Papers, Samwer, Stoerk, De Clercq. Statistical compendia: Fortune, Fenn, Kimber, Hyde (1878)

War loans (WWI&2)

UK Parliamentary Papers, US Department of State - Reports on Lend-Lease Operations, Fisk (1924), Moulton & Pasvolsky (1932)

US Marshall Plan / EXIM

US AID, US Department of State, US Treasury, US Reports to Congress US Greenbook, US Dept. of State

Development assistance / aid

IADB & UN debt reports, OECD Creditor Reporting System, AidData, Tierney et al. (2011), WB WDI, GDF, IDS

Sino-Soviet loans

CIA reports, Bartke (1975, 1976), Copper (2016), Lin (1993), Bach (2003)

China's Belt and Road

Horn et al. (2021, 2022), see also Dreher et al. (2021, 2022)

Central Bank loans (classic gold standard)

Archives of BoE and BdF, Eichengreen (1992), Flandreau (1997), Kindleberger (1984), Wirtz (1857),

CB loans (interwar)

Clarke (1967), Meyer (1970), Flandreau (1997), archives of BoE, BdF and BIS

CB swap networks

US Fed, European CBs, China PBOC: Bordo & Schwartz (2001), Bordo et al (2015), Obstfeld et al. (2009), Bahaj and Reis (2022), Horn et al. (2023), Fuchs et al. (2024)

Final database

- 700+ different sources
- 1.2 million transactions (loans, grants)
- 140 creditor & 217 debtor countries
- 235 years

League of Nations

Myers (1945), Zendejas & Decorzant (2006), Moody's, End et al. (2019)

IMF & World Bank

World Bank Annual Reports, WBG Finances One, IMF Annual Reports, IMF Mona

Regional financial institutions

Annual Reports of: Latin American Reserve Fund Annual, Arab Monetary Fund, European Monetary Fund, Eurasian Fund for Stabilization and Development, EU BoP Facility, EFSF, ESM, Stracca & Scheubel (2016)

1790

1914

1945

1970

2024

Examples of sources

Historical budget accounts

RETURN to an Order of the Honourable House of Commons,
of the 28th Day of May last, for

“ AN ACCOUNT of the several Sums of MONEY advanced by way
“ of LOAN or SUBSIDY, to different States, from the Com-
“ mencement of the present War; together with an Account of the
“ INTEREST received on such Sums as have been advanced by way
“ of Loan.”

	£.	s.	d.
There was issued for the Service of Prussia, in the Year 1794 -	1,223,891	10	6
D° - - - - of Sardinia, in 1793, 4, 5, & 6	* 500,000	—	—
D° - - - - of the Emperor, in 1795 & 6	† 6,220,000	—	—
D° - - - - - D° - - in 1797 - -	700,000	—	—
D° - - - - of Portugal - in 1797 - -	247,205	—	—
D° - - - - - D° - - in 1798 - -	120,013	13	—
D° - - - - of Russia - - in 1799 - -	825,000	—	—
D° - - - - of the Emperor, Elector of Bavaria, &c. - - - -	500,000	—	—
D° - - - - of the Emperor - - - -	‡ 1,066,666	13	4
D° - - - - of Russia - - - -	545,494	—	—
D° - - - - of Bavaria - - - -	§ 501,017	6	—
D° - - - - of the Emperor. to ena-			

CIA reports on Sino-Soviet loans

ECONOMIC INTELLIGENCE REPORT

SOVIET ECONOMIC ASSISTANCE TO THE SINO-SOVIET BLOC 1956-57



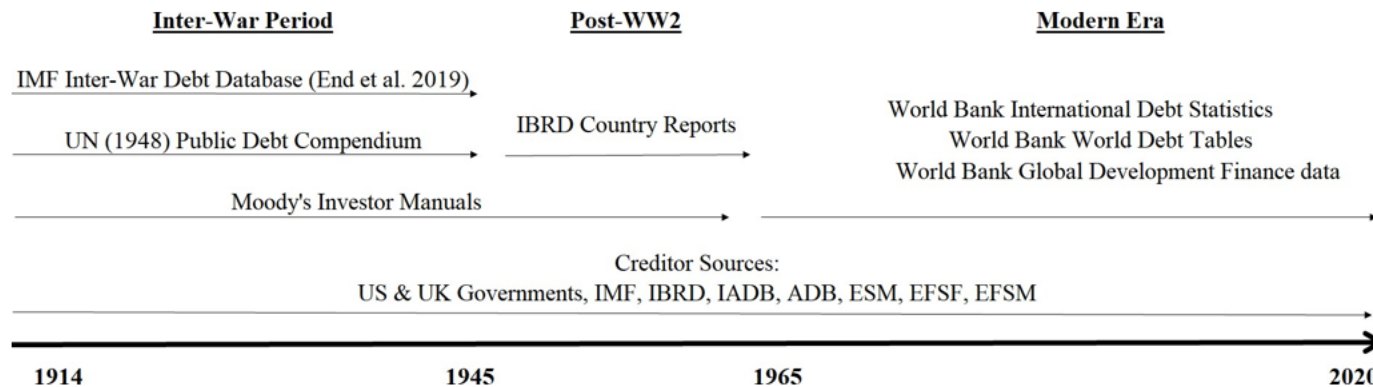
CIA/RR 146
8 September 1958

Three databases:

ii) Public official debt owed to private creditors (stocks), 1910-2024

This database offers a decomposition of sovereign external debt stocks by creditor type (private versus official) for a broad country sample, 1910-2024. Such a breakdown by creditor is unique in scope and not available in previous long-run datasets on public debt ratios and stocks (e.g. Reinhart and Rogoff (2009), who focus on total public debt and its domestic and external components).

Sources used to compute the debt stocks



Note: This figure provides a stylized overview of the different primary and secondary sources that we use to quantify external public debt owed to official and private creditors.

Three databases:

iii) Catalog of case studies: Sovereign debt crises, wars, private and official lending, 1790-2024

Global sovereign debt crises: We focus our analysis on global or systemic sovereign debt crisis as defined by Reinhart and Rogoff (2009). These events are considered among the most synchronous and costly crisis events. Global debt crises are distinguished from idiosyncratic and less virulent crises (from a global standpoint) by four criteria:

At least one global financial center is mired in a systemic crisis (need not be a sovereign debt crisis).

The crisis involves two or more distinct regions.

The number of countries in crisis in each region is three or greater.

The composite GDP-weighted crisis index developed by Reinhart and Rogoff (2009) is at least one standard deviation above normal.

By this definition, global debt crisis include the Crisis of 1825, the Financial Crisis of 1931 and the onset of the Great Depression, the Developing Countries' Debt Crisis of the 1980s, the Asian Crisis of 1997-1998 and the Global Contraction of 2008 with the subsequent Eurozone Debt Crisis.

Great Powers and their wars, 1790-2024

Great Powers

- Austria / Austria-Hungary (1790-1918)
- China (1950-2024)
- France (1790-2024)
- Prussia / Germany (1790-2024)
- Japan (1905-2024)
- Russia / Soviet Union (1790 - 2024)
- United Kingdom (1790 - 2024)
- United States (1898 - 2024)

Great Power Wars: All inter-state wars with direct warfare between two or more Great Powers.

Since 1790, there have been nine cases of Great Power War:

- French Revolutionary Wars (1792-1802)
- Napoleonic Wars (1803-1815),
- Crimean War (1850-1856)
- War of Italian Unification (1859),
- Austro-Prussian War (1866)
- Franco-Prussian War (1870-1871)
- First World War (1914-1918)
- Second World War (1939-1945)
- Korean War (1950-1953).

A panoramic view of international official lending

Purpose of official loans

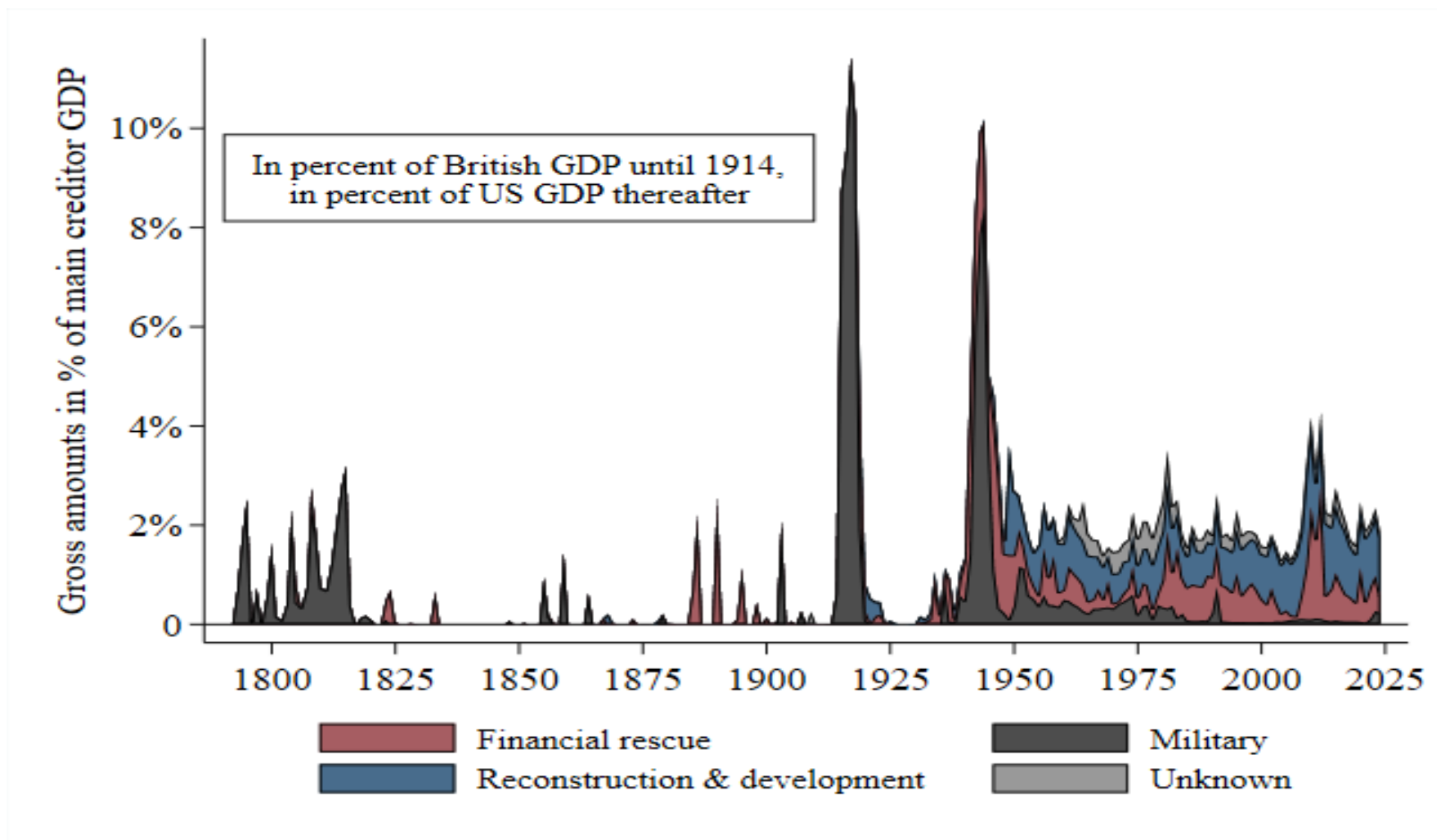
Central bank-to-central bank lending

The incidence of official lending during crises, wars, and tranquil times

Who lends?

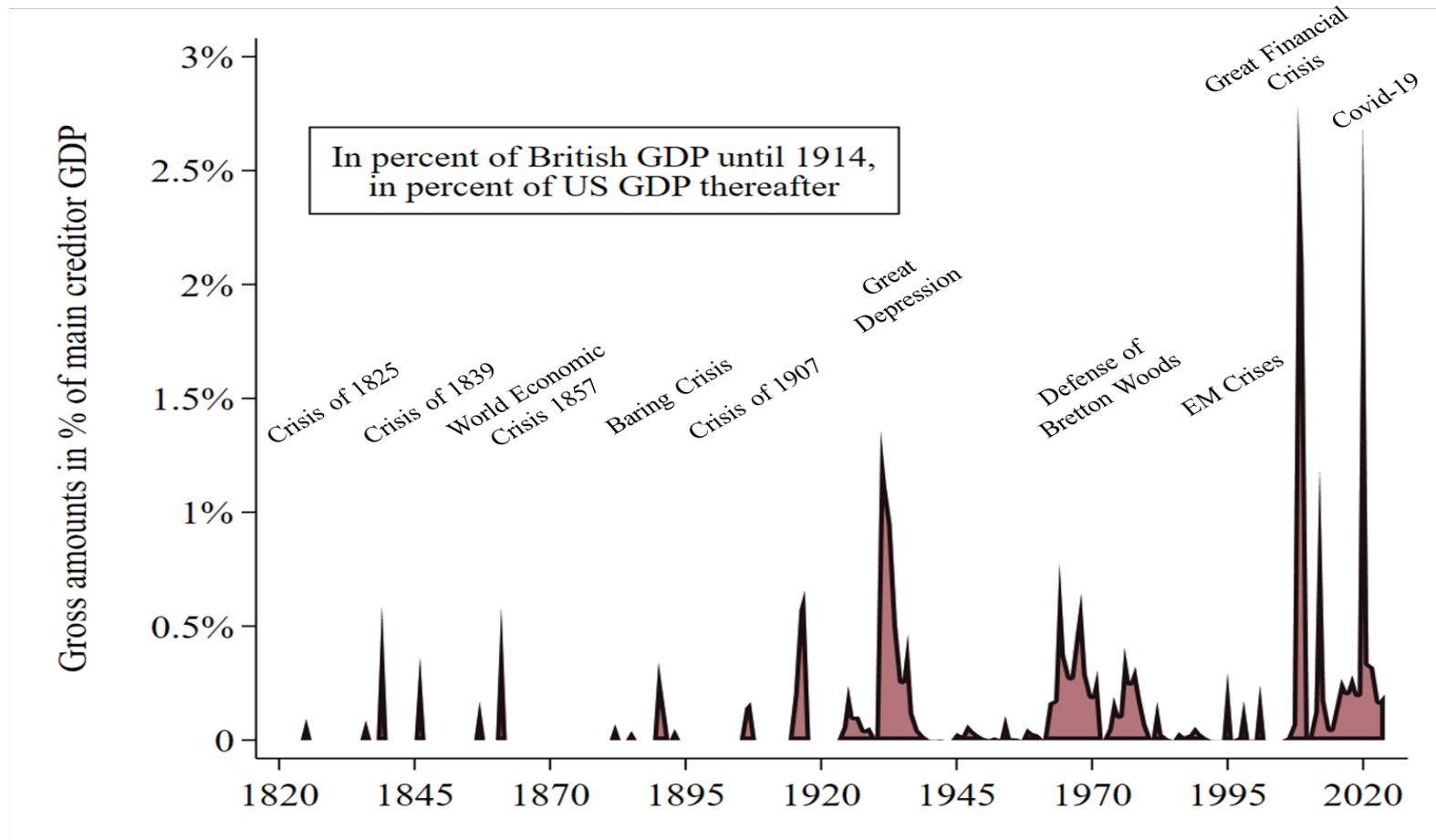
Purposes of Official International Lending: 1790 – 2024

The dominance of wartime lending through the early 1950s gives way to the rise in development lending and crisis support.



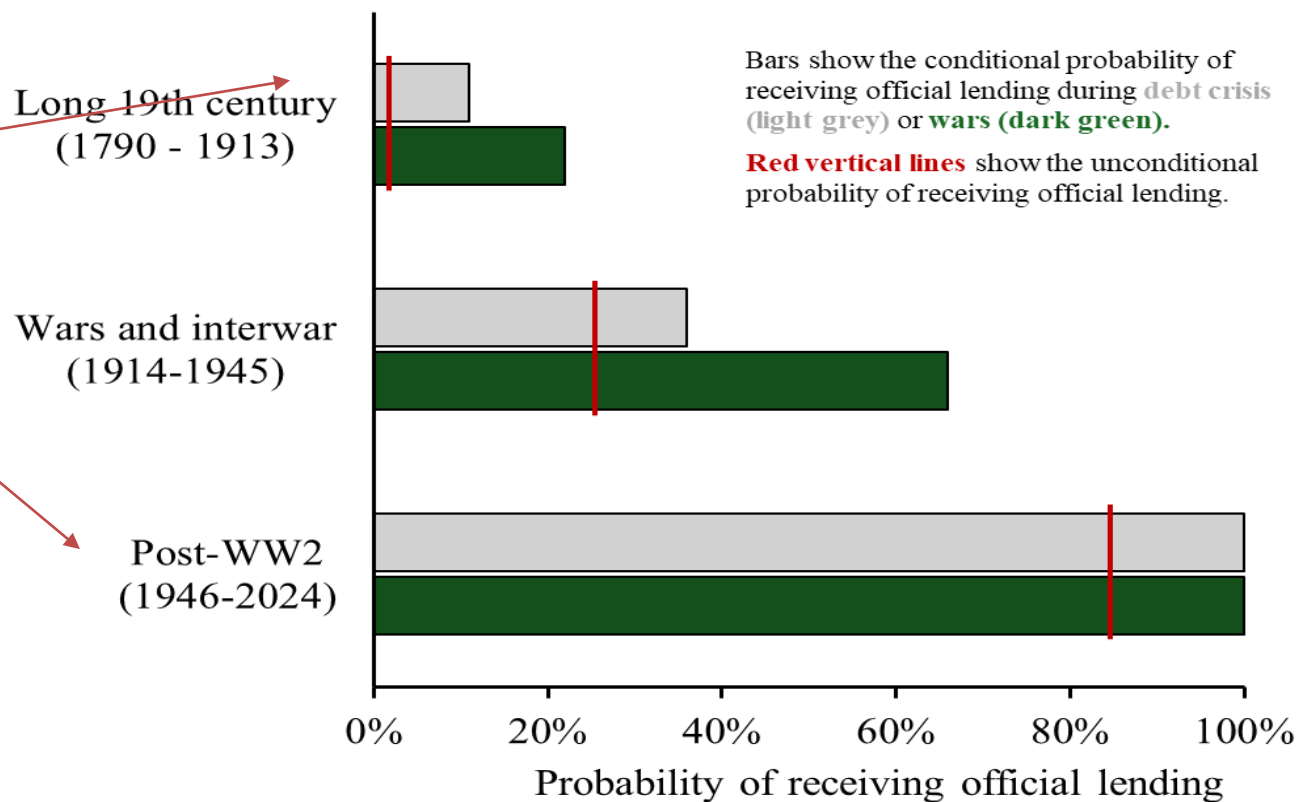
Financial and Economic Crises and Central Bank Lending Across Borders, 1820 – 2024

The Global Financial Crisis (GFC) and Covid-19 pandemic are to central bank lending what WW1 and WW2 are to wartime government lending, albeit on a much smaller scale.



The incidence of official lending during crises, wars, and tranquil times 1790-2024

Official international lending was comparatively rare in tranquil times in the 19th century, it is now the norm



The odds of a rescue loan during crisis have increased tenfold!

This figure shows the probability of receiving a foreign official loan conditional on an interstate war (dark bar) and conditional on a sovereign debt crisis (light bar). We consider official flows during the first three years after the onset of the war or the crisis. The red line shows the unconditional (annual) probability of receiving and official loan inflows for three eras.

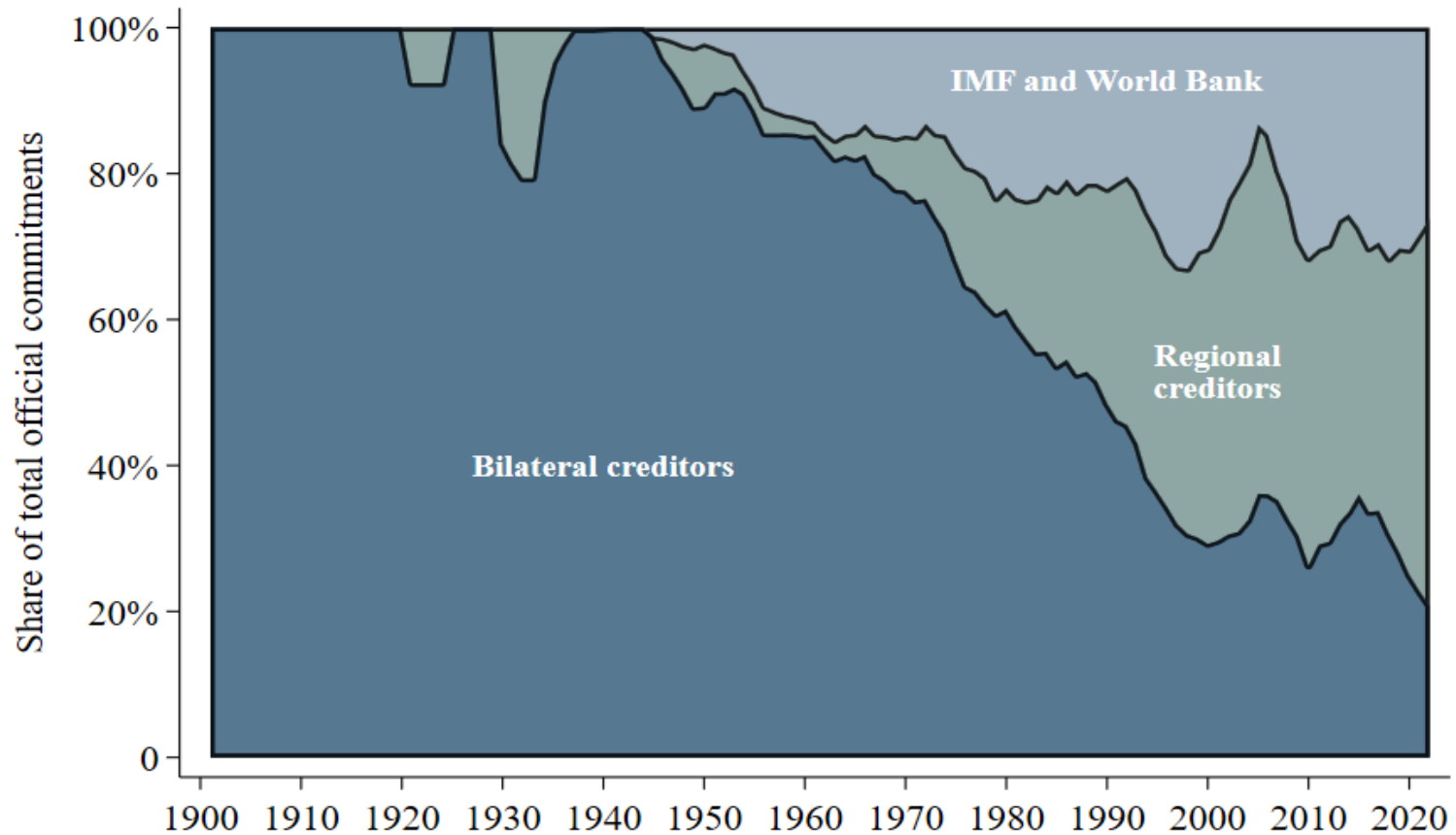
More on bailouts

While the previous figure speaks to the **incidence** of official lending during wars and debt crises viz “tranquil times,” it is silent on the scale of lending. We show (see below) that the **scale** of support has also grown, particularly for sovereign debt crises: the average bailout size nearly doubled - from 65% of imports in the 19th century to more than 100% in recent decades. For wars, the time trend is less pronounced, as the exceptional support during the World Wars remains unmatched (thankfully, the scales of those wars also remain unmatched). In summary, international official finance has become routine in international crisis response. Delving into the relative merits of this trend is beyond the scope of this paper.

	Wars		Sovereign debt <u>crises</u>	
	Probability of external rescue lending <i>(in percent)</i>	Average size of external rescue lending <i>(in % of imports)</i>	Probability of external rescue lending <i>(in percent)</i>	Average size of external rescue lending <i>(in % of imports)</i>
Long 19 th century (1790 - 1913)	22%	69%	11%	65%
Inter-War (1914 - 1945)	66%	542%	36%	77%
Post-WW2 (1946 - 2020)	100%	180%	100%	102%

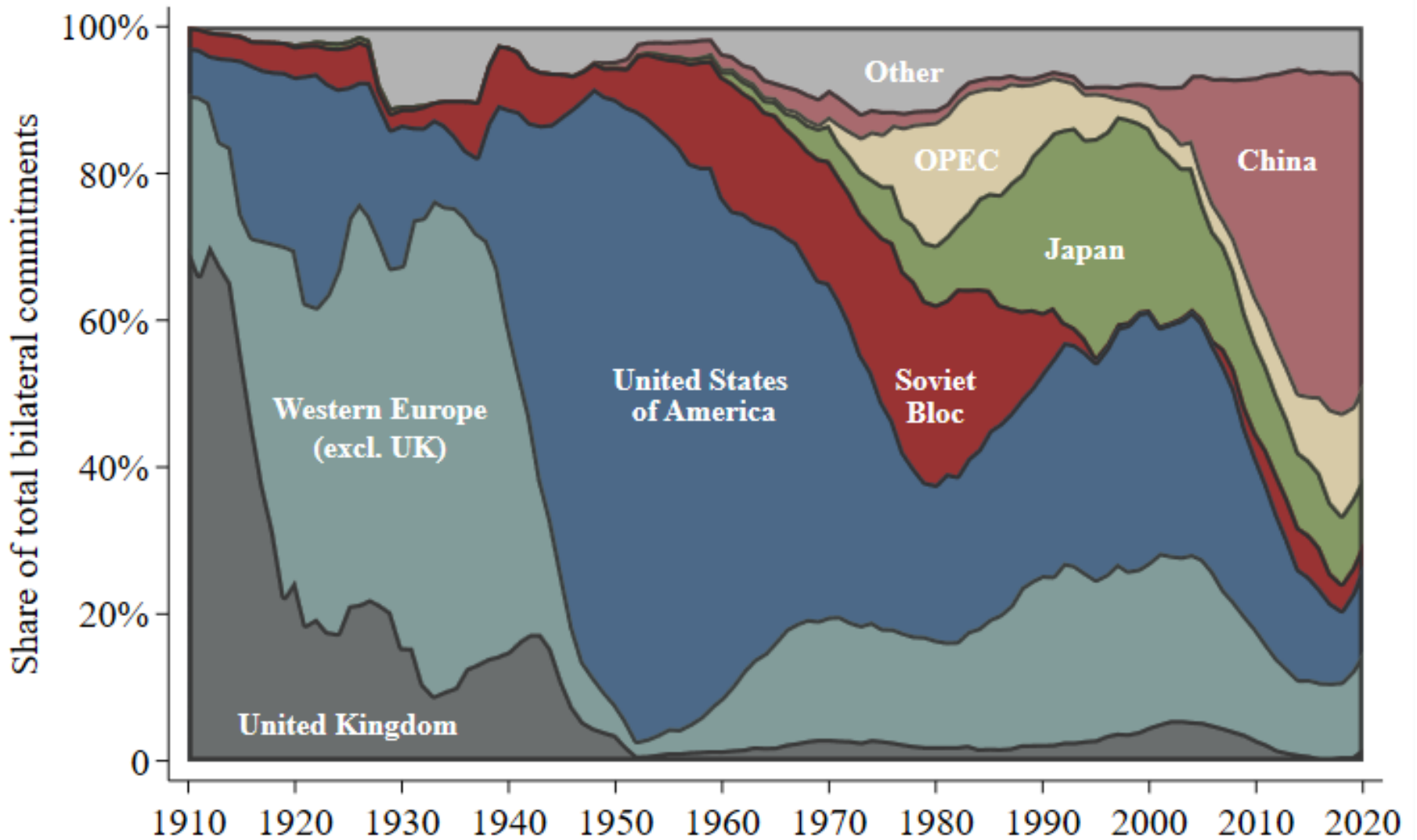
Who lends? Bilateral Creditors, the IMF and World Bank, and Regional multilaterals, 1900-2024

Despite China's surge in its overseas lending in the past two decades (next chart), the share of bilateral lending continues its secular decline.



Who lends? 1910-2020

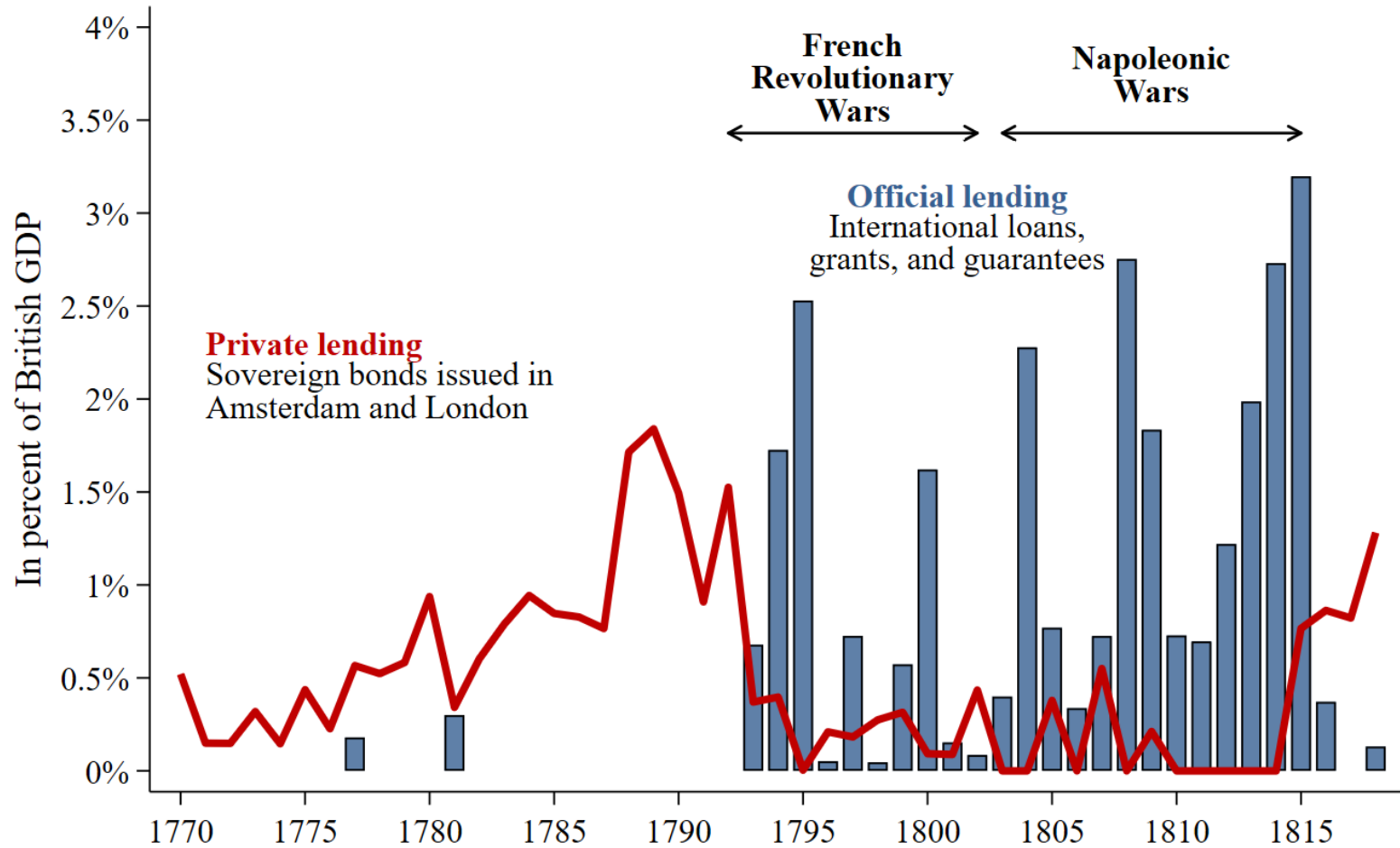
The Great Powers of the time are the big official lenders.



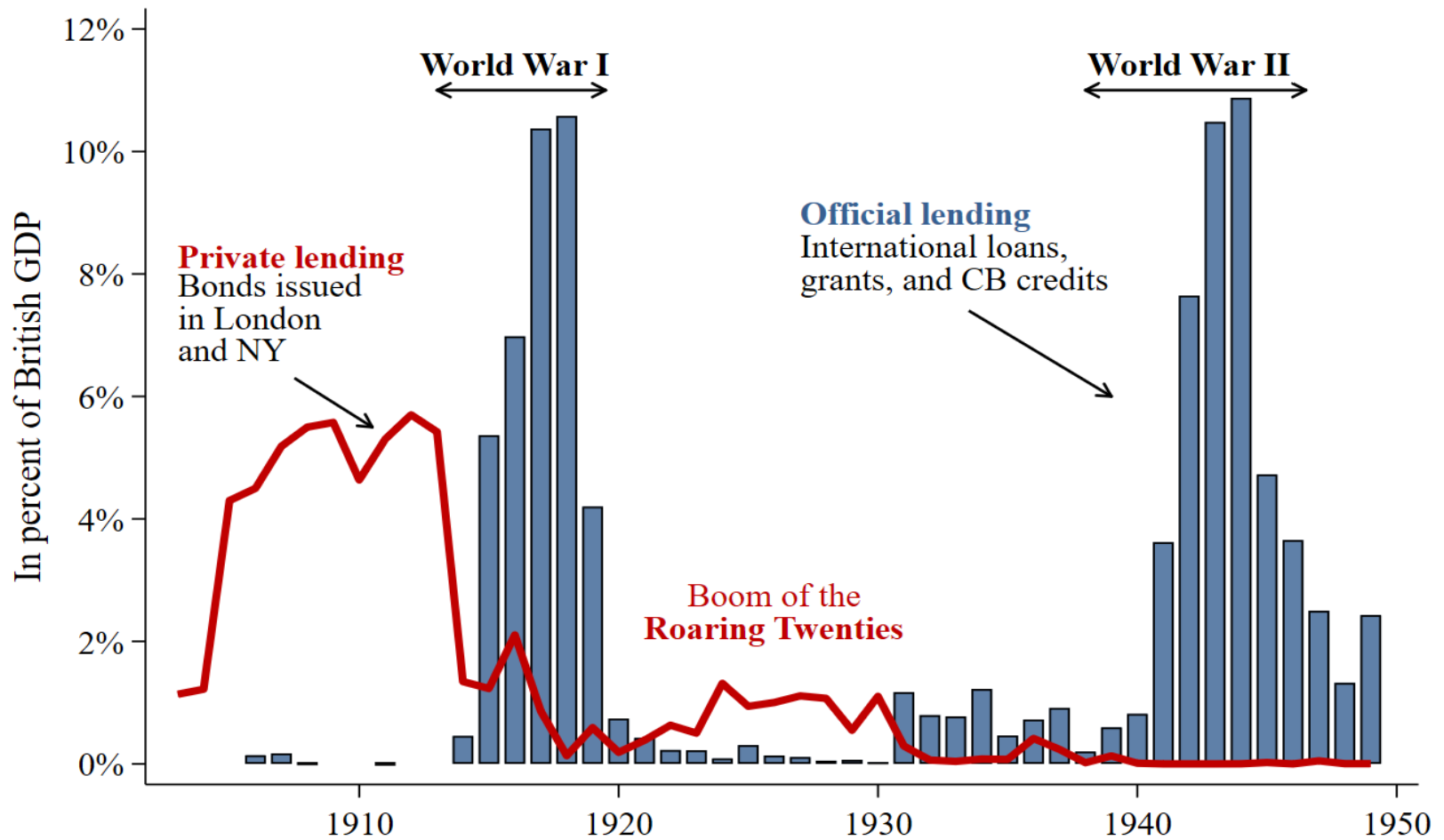
Private versus official lending

- The episodes: Wars
- The episodes: Debt and financial crises
- Terms of lending

The Napoleonic Wars: WW0

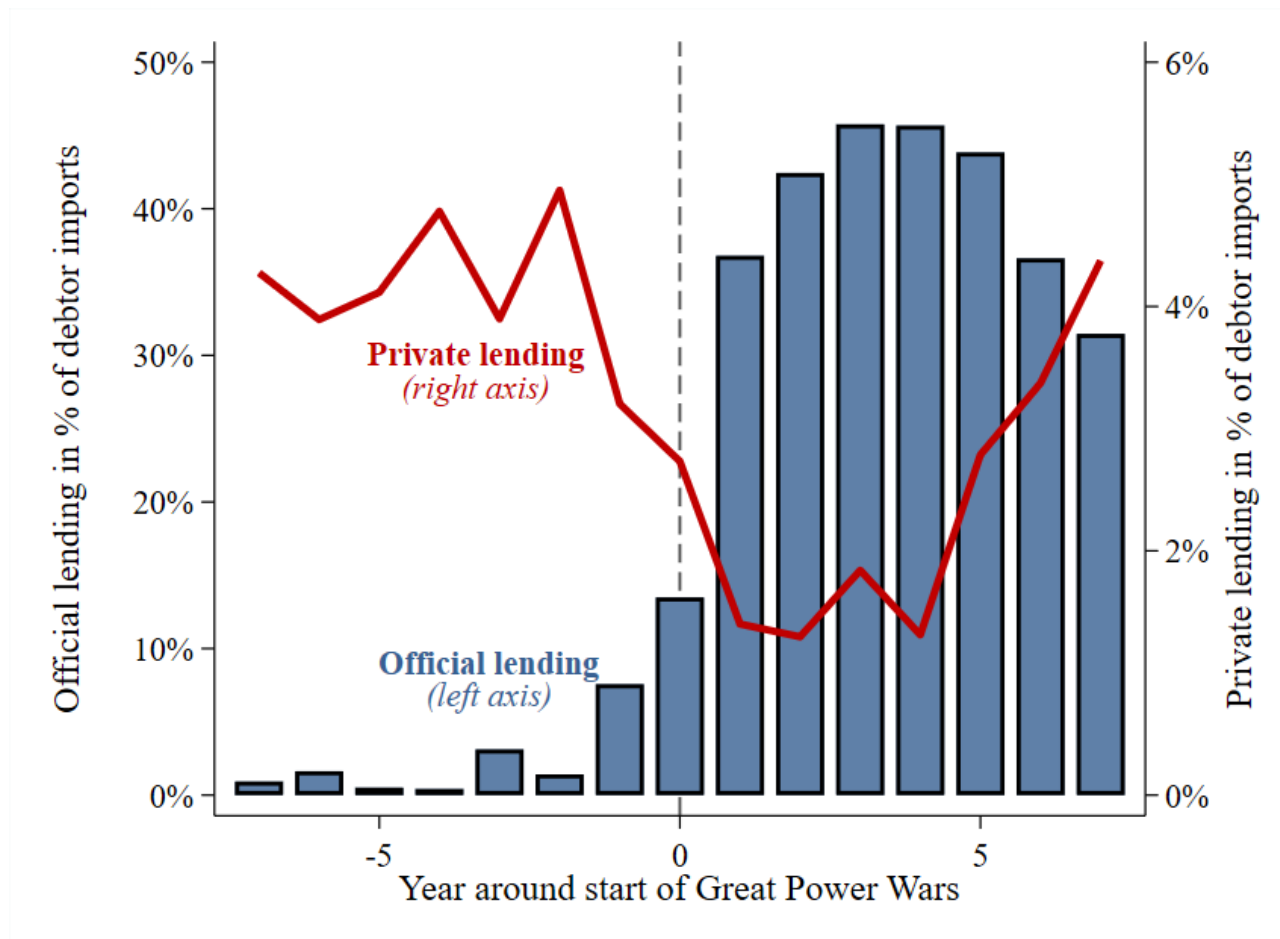


WW1 and WW2: The unchallenged all-time twin peaks in official lending



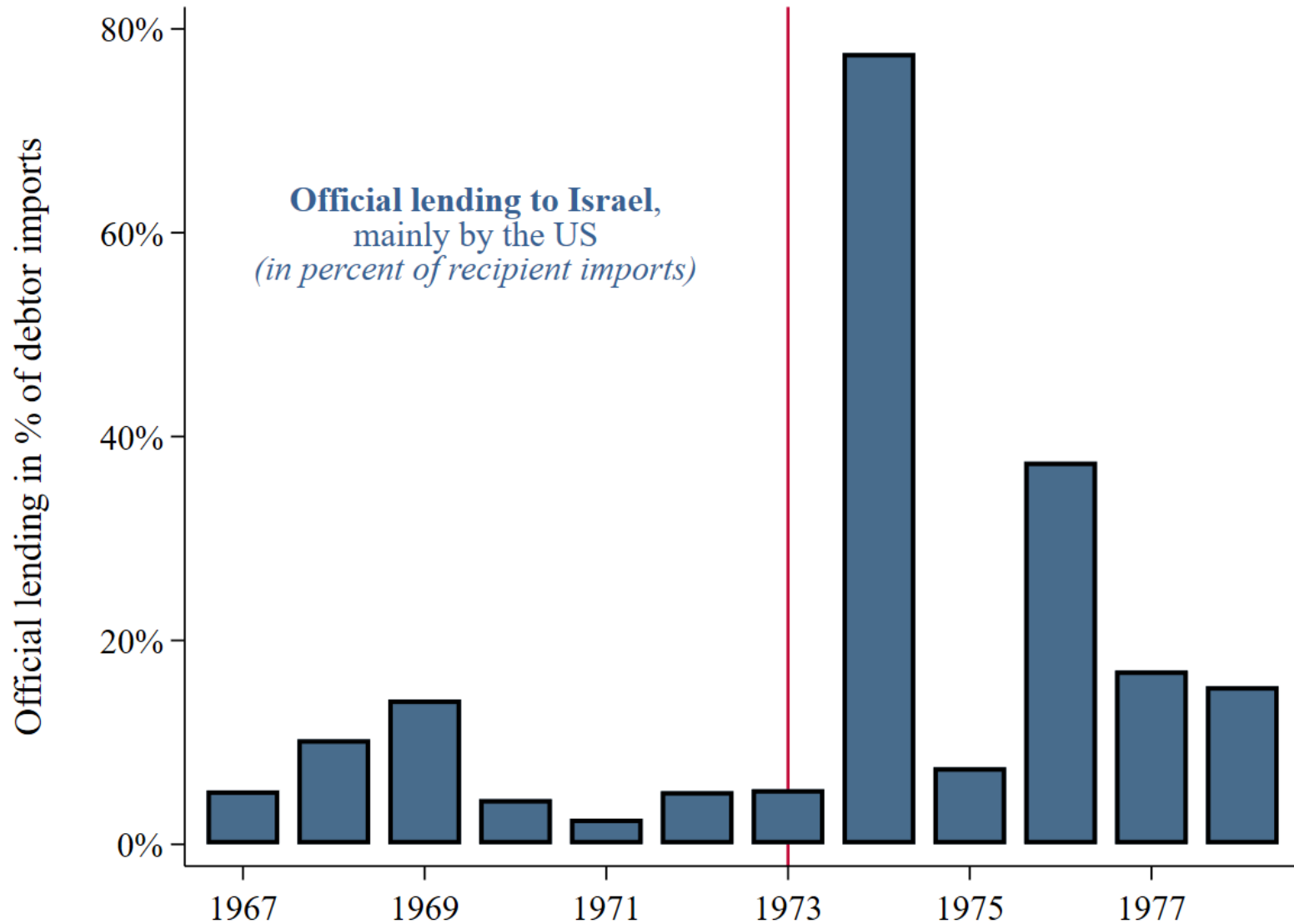
Notes: The New-York-driven boom of the Roaring 1920s turned out to be more of a boomlet, as it was cut short by a decline in global commodity prices in 1926 and the crash in the Florida real estate bubble.

Great Power Wars: 1790-2024

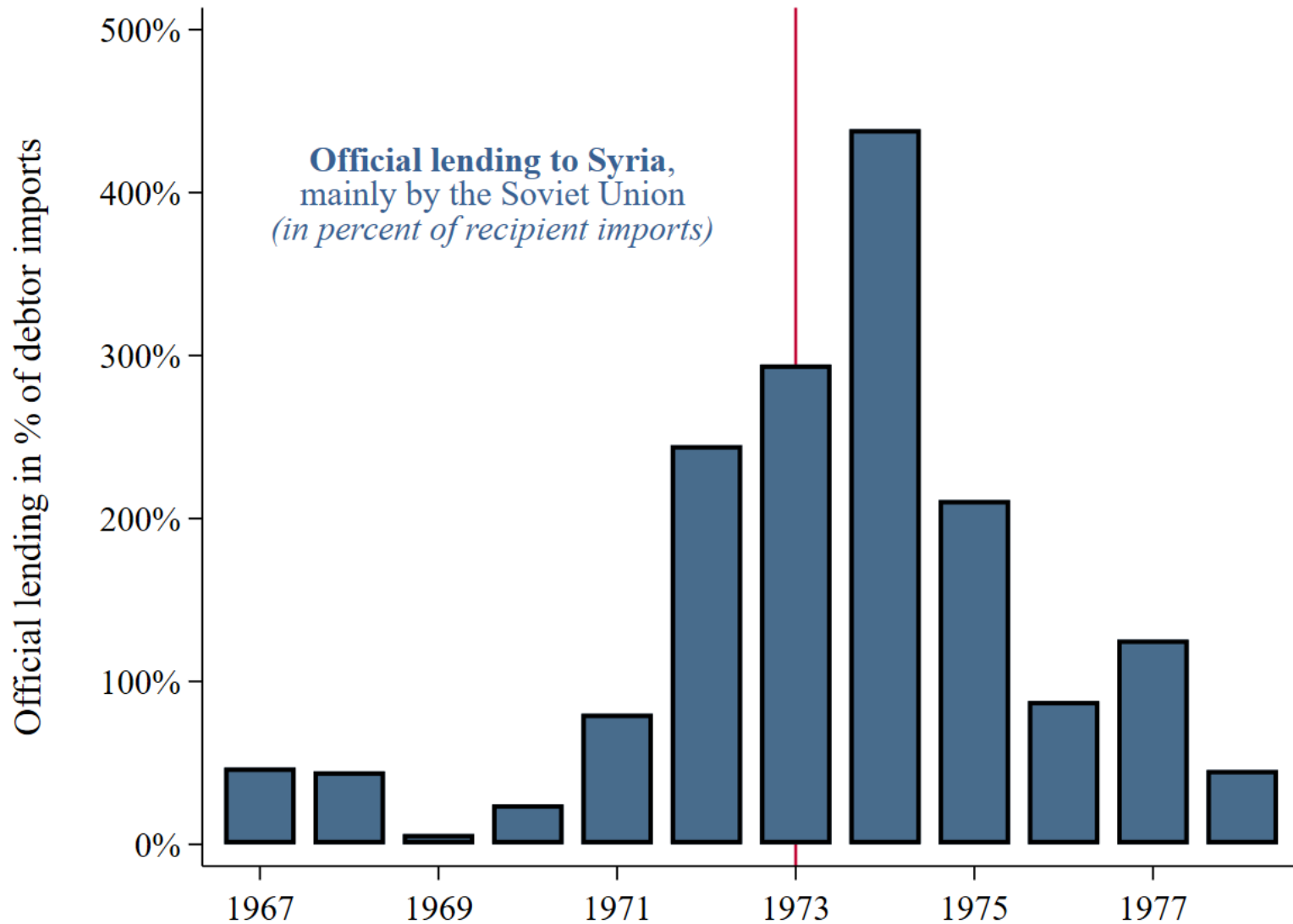


Notes: Great Power Wars can be defined as all inter-state wars with direct warfare between two or more Great Powers. Since 1790, there have been nine cases of Great Power War: The French Revolutionary Wars (1792-1802), the Napoleonic Wars (1803-1815), the Crimean War (1850-1856), the War of Italian Unification (1859), the Austro-Prussian War (1866), the Franco-Prussian War (1870-1871), the First World War (1914-1918), the Second World War (1939-1945) and the Korean War (1950-1953).

Case study: Yom Kippur War, Israel 1973



Case Study: Yom Kippur War, Syria 1973



Case study: Yom Kippur War, Sino-Soviet assistance to Syria

Secret

Table 6

Million US \$

Communist Military Agreements Concluded With LDCs, 1955-84 (Continued)

Recipient and Month and Year Signed	Communist Signatory	Total Value of Agreements(a)	Cash Payments(b)	Amount of Aid					
				Total	Credit	Grant (c)	Barter	Unknown	
SYRIA									
1972	NOVEMBER	CZECHOSLOVAKIA	15.0	2.0	13.0	13.0	..	..	..
	2ND HALF	HUNGARY	1.0	..	1.0	1.0	..	..	..
1973		HUNGARY	1.0	..	1.0	1.0	..	..	..
	MAY	EAST GERMANY	3.0	..	3.0	3.0	..	..	..
	1ST HALF	CZECHOSLOVAKIA	2.0	2.0	..	..	..	..	..
	OCTOBER	CZECHOSLOVAKIA	15.0	..	15.0	14.0	1.0	..	..
		EAST GERMANY	9.0	..	9.0	9.0	..	..	..
		POLAND	24.0	..	24.0	24.0	..	..	..
		USSR	1,100.0	150.0	950.0	950.0	..	..	..
1974	NOVEMBER	USSR	5.0	1.0	4.0	4.0	..	..	..
		BULGARIA	2.0	..	2.0	2.0	..	..	..
		EAST GERMANY	Negl	..	Negl	Negl	..	..	..
		HUNGARY	1.0	..	1.0	1.0	..	..	..
			60.0	..	60.0	60.0	..	..	..
	FEBRUARY	CZECHOSLOVAKIA	10.0	..	10.0	10.0	..	..	..
	JUNE	CZECHOSLOVAKIA	2.0	..	2.0	2.0	..	..	..
	2ND QUARTER	USSR	1,300.0	600.0	700.0	700.0	..	..	..
	SEPTEMBER	USSR	2.0	..	2.0	2.0	..	..	..
	OCTOBER	USSR	10.0	..	10.0	10.0	..	..	..
	NOVEMBER	USSR	9.0	..	9.0	9.0	..	..	..
	2ND HALF	USSR	2.0	..	2.0	2.0	..	..	..
1975		BULGARIA	3.0	..	3.0	3.0	..	..	..
	JUNE	CZECHOSLOVAKIA	21.0	..	21.0	21.0	..	..	..
	1ST HALF	CZECHOSLOVAKIA	2.0	..	2.0	2.0	..	..	..
		POLAND	12.0	..	12.0	12.0	..	..	..
	AUGUST	USSR	3.0	..	3.0	3.0	..	..	..
	SEPTEMBER	CZECHOSLOVAKIA	68.0	..	68.0	68.0	..	..	..
	OCTOBER	USSR	1,000.0	200.0	800.0	800.0	..	..	..
	2ND HALF	USSR	27.0	..	27.0	27.0	..	..	..
1976		CZECHOSLOVAKIA	150.0	..	150.0	150.0	..	..	..
		ROMANIA	Negl	..	Negl	Negl	..	..	..
		USSR	1.0	..	1.0	1.0	..	..	..
			8.0	..	8.0	8.0	..	..	..
	APRIL	HUNGARY	3.0	Negl	3.0	3.0	..	..	..
	JUNE	CZECHOSLOVAKIA	15.0	..	15.0	15.0
	SEPTEMBER	POLAND	1.0	1.0
1977	JUNE	USSR	1,000.0	1,000.0
			27.0	27.0

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Case study: Yom Kippur War, US assistance to Israel



RICHARD NIXON

37th President of the United States: 1969 - 1974

Special Message to the Congress Requesting Emergency Security Assistance Funding for Israel and Cambodia

October 19, 1973

To the Congress of the United States:

I am today requesting that the Congress authorize emergency security assistance of \$2.2 billion for Israel and \$200 million for Cambodia. This request is necessary to permit the United States to follow a responsible course of action in two areas where stability is vital if we are to build a global structure of peace.

Case study: Yom Kippur War, US assistance to Israel

Public Law 93-199

December 26, 1973
[H. R. 11088]

AN ACT

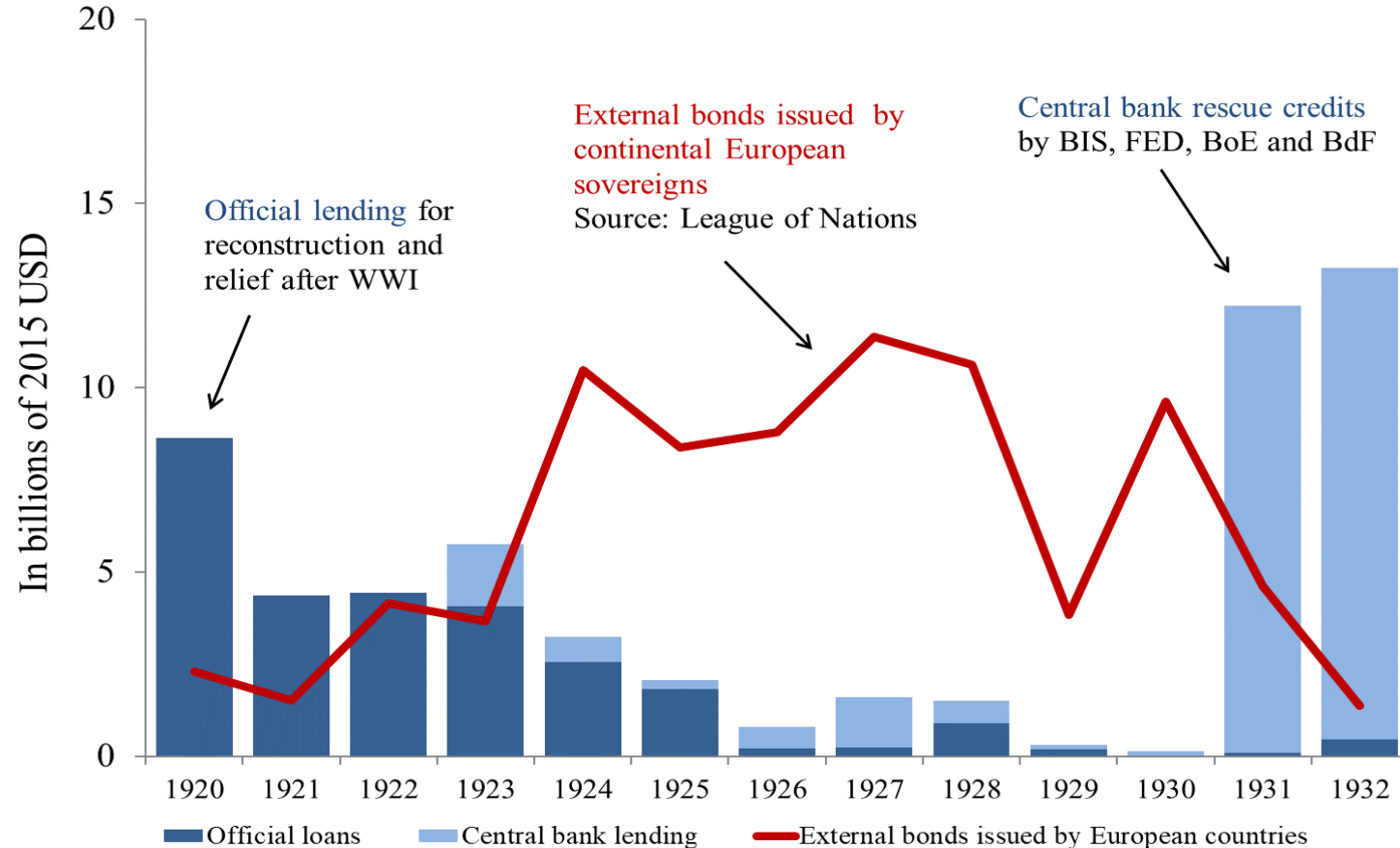
To provide emergency security assistance authorizations for Israel and Cambodia.

Emergency
Security Assistance Act of 1973.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the “Emergency Security Assistance Act of 1973”.

SEC. 2. In addition to such amounts as may be otherwise authorized to be appropriated to the President for security assistance for the fiscal year 1974, there are hereby authorized to be appropriated to the President not to exceed \$2,200,000,000 for emergency military assistance or foreign military sales credits, or for both as the President may determine, for Israel, of which sum amounts in excess of \$1,500,000,000 may be used pursuant to this section or section 4 of this Act only if the President (1) determines it to be important to our national interest that Israel receive assistance hereunder exceeding \$1,500,000,000, and (2) reports to Congress each such determination (if more than one) at least twenty days prior to date on which funds are obligated or expended under this Act in excess of such \$1,500,000,000 limitation. The twenty-day requirement contained in the preceding sentence shall not apply if hostilities are renewed in the Middle East. The President shall include in his report the amount of

Europe, the Banking Crisis of 1931, and the Great Depression (creditor countries are excluded)

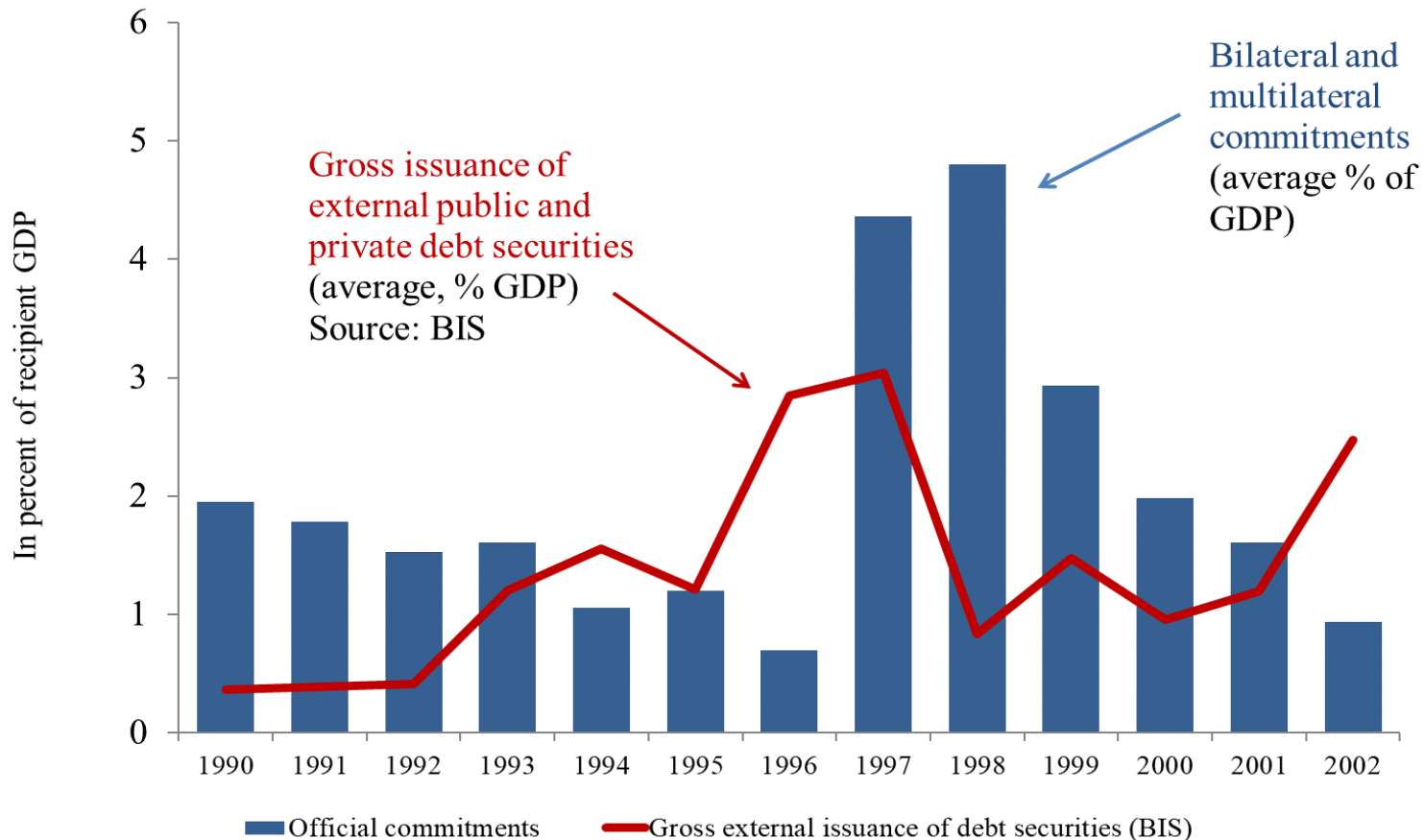


Notes: Sample includes Austria*, Bulgaria*, Czechoslovakia, Denmark, Estonia, Finland, Germany*, Greece*, Hungary*, Italy, Latvia, Lithuania*, Norway, Poland, Portugal, Romania*, Spain, Yugoslavia.* Asterisks mark the countries that defaulted on their external debt within a three-year window of 1931.

Creditor countries at this time are: France, the Netherlands, Switzerland, the UK, and the US.

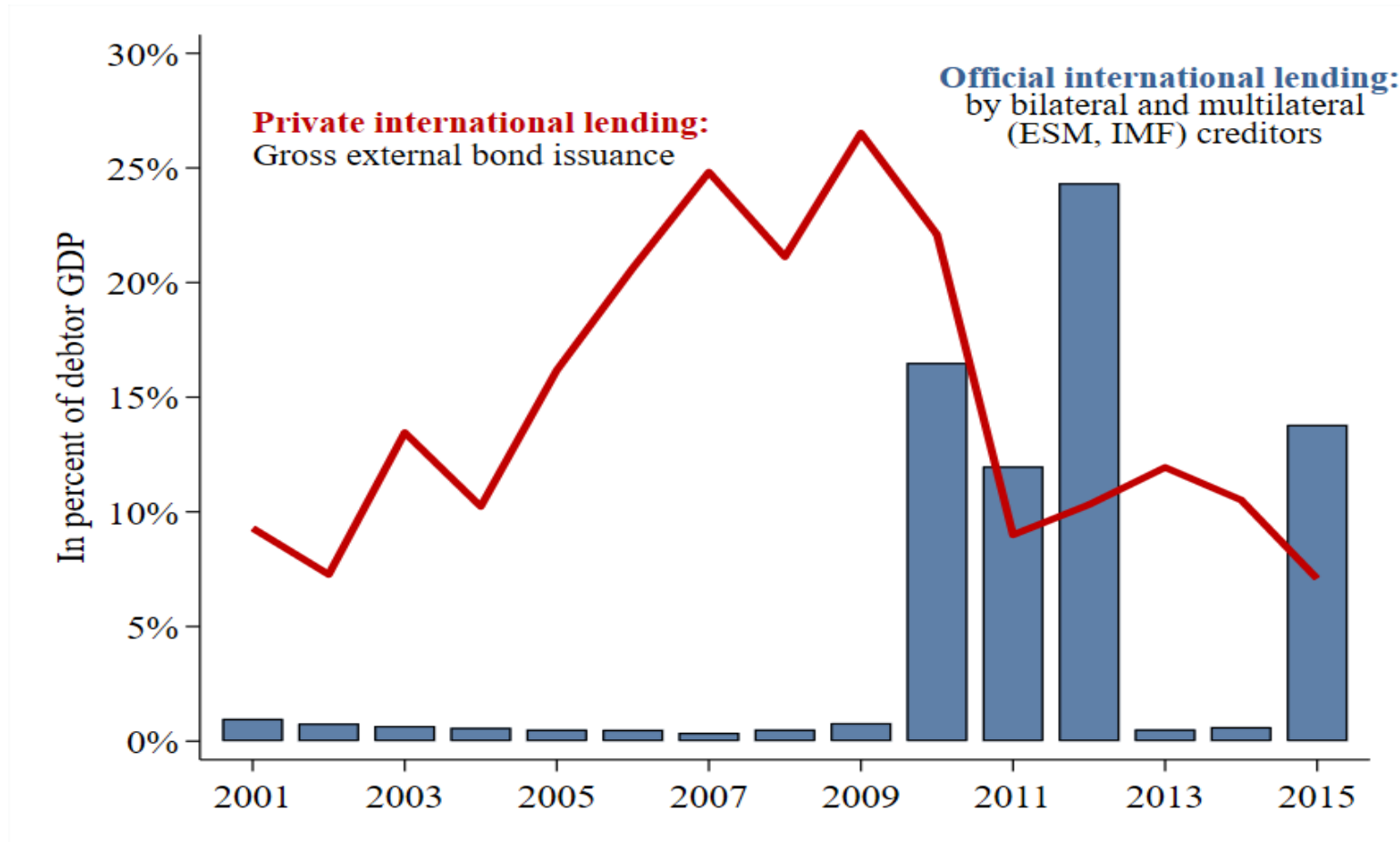
Asian Crisis: 1997-1998

% of GDP of Indonesia, Korea, Malaysia, Thailand



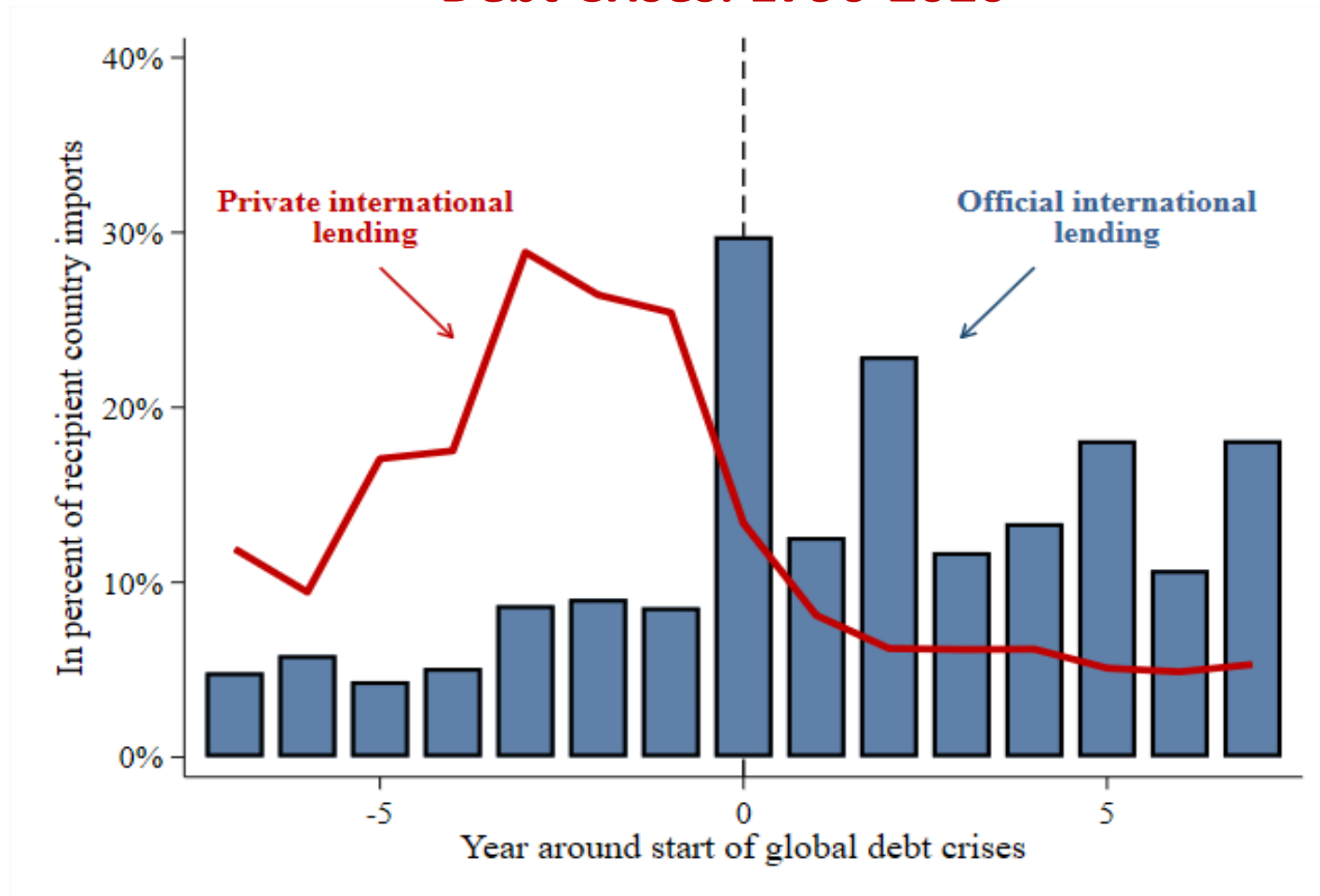
Notes: The crisis starts in Thailand and spreads to Korea, Malaysia, Indonesia (which ultimately defaults), and the Philippines (the latter is not included here, as it was much less affected). In August of 1998, Russia defaults as does Ukraine. Long-term Capital Management (LTCM) fails; the ensuing widespread capital market turmoil prompts the Federal Reserve to ease.

Eurozone Crisis: 2010-2012



Note: The sample includes the most affected countries (dubbed PIGS) Greece (which defaults), Ireland, Portugal and Spain. The US, UK, France, and Germany are still mired in the financial crisis that started around 2008. Numerous countries across the globe are also experiencing varying degrees of financial stress.

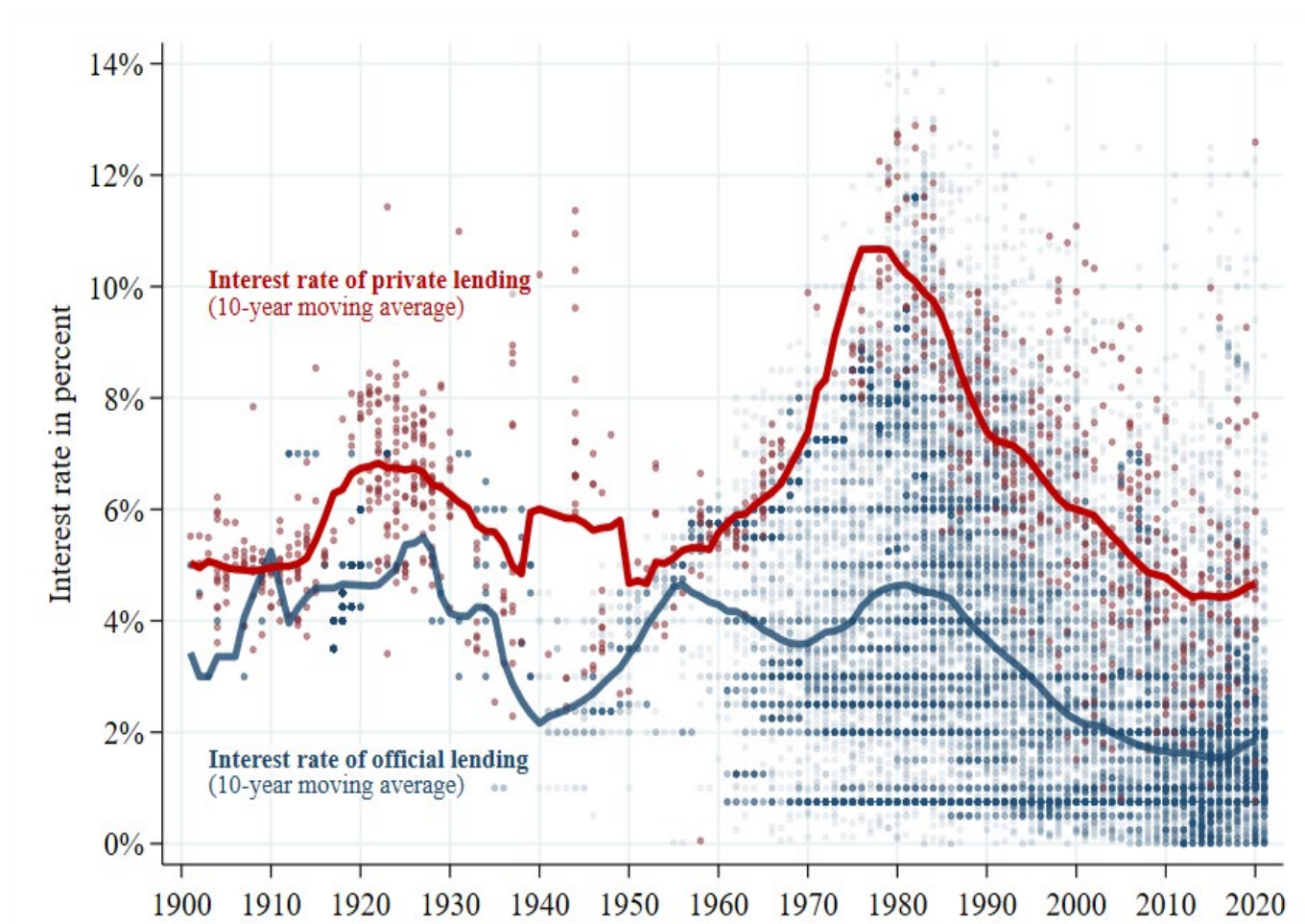
International Lending in Times of Global Sovereign Debt Crises: 1790-2020



Notes: The global debt crisis episodes include: the Crisis of 1825, 1931 and the onset of the Great Depression, the Debt Crisis of the 1980s, the Asian Crisis of 1997 and the Global Financial Crisis of 2008-2009 with the subsequent Eurozone Debt Crisis.

Interest Rates on Official and Private Loans: 1900-2020

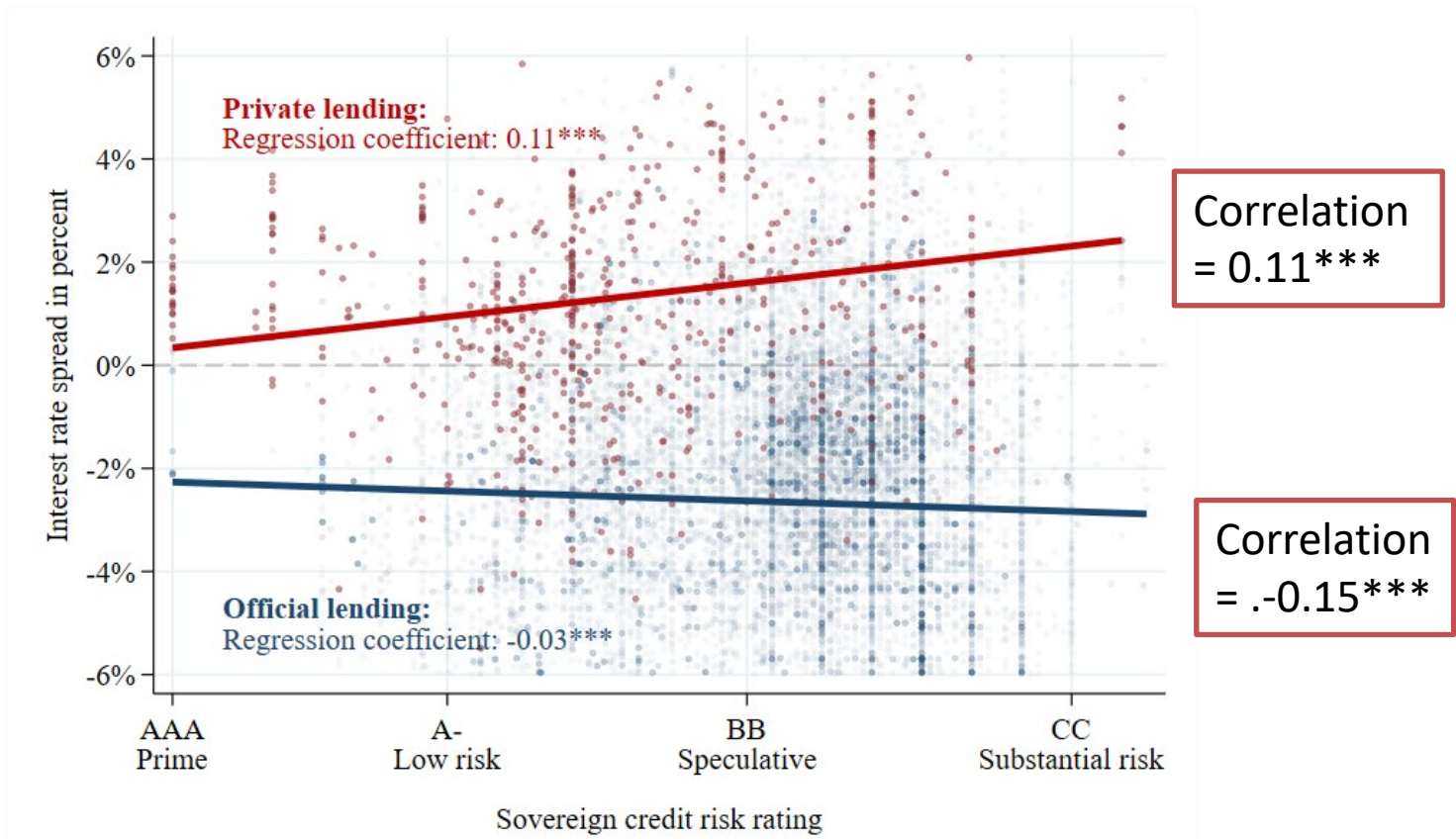
Official lending is highly concessional



Notes: The more favorable terms on official debt also extends to the maturity of the Loans, with official debt having much longer maturities.

Interest Rates on Official and Private Loans:

Official rates *decrease* in the riskiness of the borrower



Notes: The negative correlation observed for official could be interpreted as altruistic lending terms (the high-risk borrowers are among the poorest) or benign self-interest (an effort to stabilize global conditions, as these countries' low ratings also often reflect high geopolitical risk).

The gravity of official finance:

Exploring the drivers of official lending in times of economic crisis and war

The geography of bilateral lending

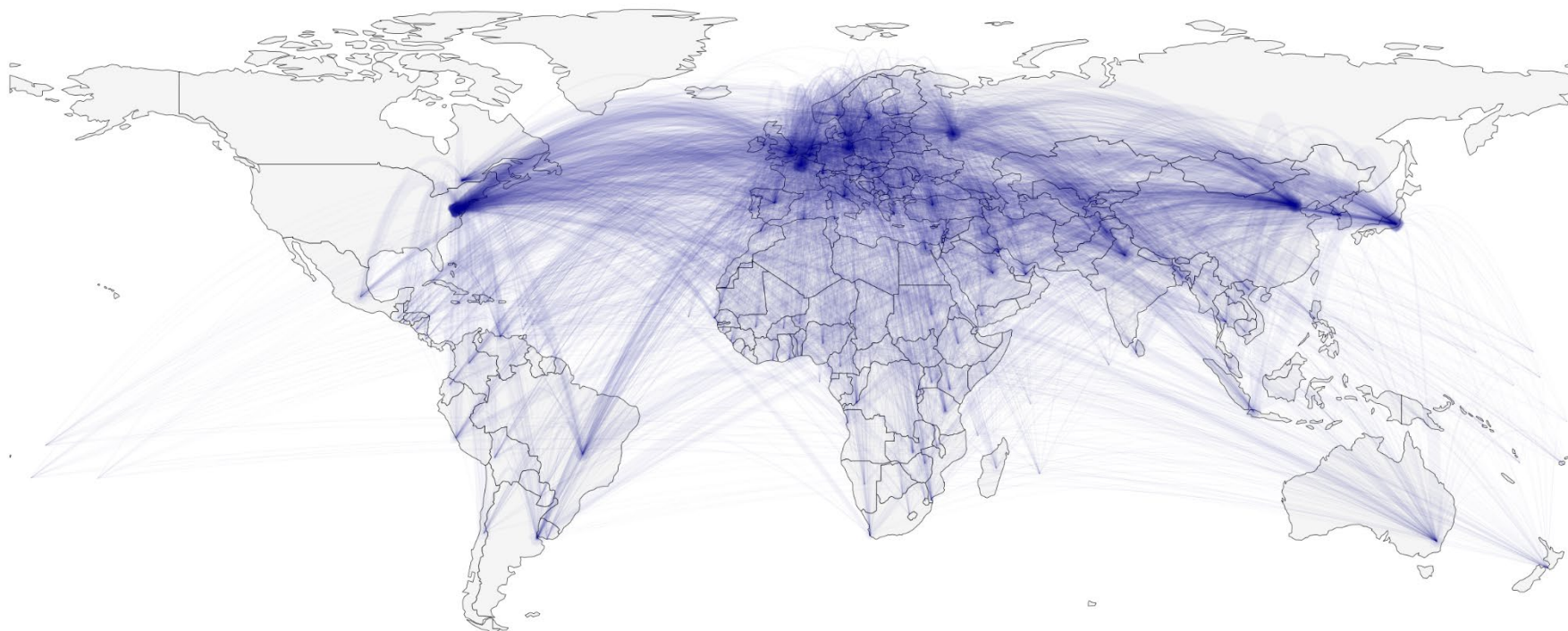
A PPML gravity model of bilateral official lending

The drivers of official finance: 1830-2012

Results

Bilateral official flows, 1790-2020

The width of the blue lines increases with the amount of bilateral lending through loans and grants .



Note: This data is the dependent variable of our augmented gravity model.

Two (self explanatory) hypotheses about the drivers of official lending in times of sovereign debt crises and wars

1.) In times of external sovereign debt crises, official assistance lending follows private exposure to the crisis country

Sovereigns rescue countries to which their private sector is exposed (be it through trade, finance, or both). The plausible interpretation is *benign self-interest* as in Tirole (2015), Gourinchas et al. (2019).

Measurement:

- Financial crises: External sovereign debt crises from Reinhart and Rogoff (2009) and Mitchener and Trebesch (2022)
- Economic exposure* between the creditor and the borrower in crisis: trade, financial sector holdings of sovereign debt, bank claims

2) In times of wars, official loans follow political/military alliances

Measurement:

- Wars: Inter-state wars from Correlates of War
- Bilateral links: defense pacts, ententes, joint warfare

* Economic exposure captures the relative weight of the crisis country in the total trade or international bank lending of the potential creditor country.

The gravity of official finance: Estimation strategy, 1830-2012

Approach: Poisson Pseudo-Maximum Likelihood (PPML) augmented gravity model of bilateral official lending

$$\begin{aligned} \ln \text{Loans}_{i,j,t} = & \beta \ln \text{Econ Exposure}_{i,j,t-1} + \gamma \text{Alliance}_{i,j,t-1} \\ & + \delta \ln \text{Distance}_{i,j} + \Delta \text{Controls}_{i,j,t-1} + \sigma_i + \theta_j \\ & + \epsilon_{i,j,t} \end{aligned}$$

Dependent variable: Loans (in constant 2015 USD) by creditor country j , to debtor country i , in year t ;

Regressors: Dyadic measures for economic exposure, political alliances, cultural links (common language is the proxy reported), and geographic distance;

Controls include: Creditor and debtor country fixed effects plus time-varying controls.

Notes: We focus on trade shares because bilateral trade data are available for nearly the full 200-year sample. To capture financial exposure, we construct a bilateral measure of private creditor claims from World Bank International Debt Statistics since 1970. We calculate the share of a creditor country's total foreign claims accounted for by a given debtor. This captures the relative exposure of the creditor's private financial sector to a particular debtor. We also use BIS bilateral banking data in robustness checks.

The drivers of official finance, 1830-2012

	Dep. variable: Bilateral official lending				
	(1) Baseline	(2) Pre-1945	(3) Post-1945	(4) War	(5) Debt crisis
Trade exposure	0.39*** (0.09)	0.39* (0.21)	0.36*** (0.06)	0.38*** (0.09)	0.38*** (0.09)
Distance	-0.01 (0.15)	0.08 (0.41)	-0.06 (0.13)	-0.01 (0.15)	0.01 (0.15)
Alliance	0.74*** (0.16)	1.11*** (0.40)	0.33 (0.21)	0.69*** (0.17)	0.72*** (0.16)
Common language	0.72*** (0.17)	0.98** (0.41)	0.71*** (0.19)	0.73*** (0.17)	0.72*** (0.17)
War	0.78*** (0.24)	0.79** (0.37)	0.10 (0.24)	1.79*** (0.62)	0.76*** (0.23)
Sovereign Debt Crisis	0.38*** (0.11)	-0.58 (0.36)	0.29** (0.13)	0.35*** (0.11)	1.00*** (0.34)
Trade exposure * War				0.28** (0.11)	
Alliance * War				1.01*** (0.36)	
Trade exposure * Debt Crisis					0.14** (0.06)
Alliance * Debt Crisis					0.26 (0.26)
Observations	166846	20065	143390	166846	166846
Sample	1820 - 2012	1820 - 1945	1946 - 2012	1820 - 2012	1820 - 2012
Controls	✓	✓	✓	✓	✓
Debtor FE	✓	✓	✓	✓	✓
Creditor FE	✓	✓	✓	✓	✓

Notes: PPML regression results using gross bilateral lending commitments as dependent variable (in real USD). All explanatory variables are lagged. The models include creditor and debtor fixed effects and additional time-varying controls. The regression sample ends in 2012 because the alliance measure is only available until this year. Robust standard errors, clustered at the creditor-debtor dyad, are shown in parentheses. ***, **, and * indicate statistical significance at the 1%, 5% and 10% level. See Appendix Section E.2 for additional details and robustness tests.

Estimation Results

As expected, bilateral economic exposure is associated with bilateral lending. The estimated elasticity in column 1 implies that a one percent increase in trade exposure is associated with roughly a 0.4 percent increase in official financial flows. This relationship is stable throughout the sample.

Military alliances are also positively and significantly correlated with official flows over the full sample, but this association is driven by the pre–WW2 period, and the coefficient becomes statistically insignificant after 1945. Military alignment played a larger role in shaping official finance in earlier periods, particularly in episodes of large-scale conflicts.

Turning to the crisis and war indicators, the estimated coefficients imply roughly a doubling of lending during inter-state wars and an increase of about 45 percent during sovereign debt crises (based on the coefficients of 0.78 and 0.38, respectively, in the PPML specification). Wars are associated with significantly higher official flows in the 19th and early 20th centuries, but less so in the post-WW2 era, which does not include a global war.

In contrast, the response to financial crises strengthens over time. The coefficient on sovereign debt crises is insignificant in the historical sample but becomes large and statistically significant post-WW2.

Estimation Results (concluded)

Columns 4 and 5 also include the interaction of war and debt crises with our main dyadic variables of interest, economic exposure and alliances.

During wars, official lending is strongly skewed toward military allies. The estimated interaction coefficient implies that official flows to allies at war are about 175 percent higher relative to the baseline. The interaction with bilateral trade exposure is also statistically significant, but much smaller.

In times of debt crises, this pattern reverses: economic linkages become the more important predictor of bilateral official flows. The elasticity of official lending with respect to trade exposure rises from about 0.38 in the baseline to roughly 0.5 in crisis years. In contrast, the interaction coefficient for military alliances is not statistically significant.

Overall, the results suggest that governments lend to other governments when their own interests are at stake, particularly in wars and financial crises when potential spillovers are largest.

Concluding remarks

We document that over the past 235 years official overseas lending has been a central pillar of global finance, especially during economic crises and wars. Our findings suggest that international lending has a dual, state-contingent structure. In tranquil times, private sector market-based allocation dominates. In adverse states of the world, notably wars and economic crises, governments step up their lending, often on a large scale, replacing dwindling private credit flows. Furthermore, in more than two dozen low-income high-risk countries, official loans and grants are the sole source of international funding.

This perspective challenges standard frameworks in international macroeconomics and finance, which seldom, if ever, consider the role of official creditors when studying international risk sharing, sovereign borrowing, or debt and financial crises. Given its global scale and importance, the role of official international finance remains grossly understudied.

Concluding remarks (concluded)

Our paper is a first step in a broader research agenda on the role of states as financiers. Here we focus on cross-border lending through loans, grants, and swap arrangements, which also underpins our work on China. Yet, direct lending captures only one dimension of the much larger footprint of state actors in international finance. An obvious next step is to study the global investments of sovereign wealth funds and central banks, which have become among the largest holders of bonds and equities worldwide, often in opaque ways. Because we exclude portfolio flows, our estimates of official lending stocks and flows should be interpreted as a lower bound on the total scale of global official finance.

Rising powers (China), and some creditors with deep pockets, (Saudi Arabia, and UAE, among others) lean heavily on state institutions to allocate capital abroad. These countries are founding new multilateral institutions, extending the global reach of their central banks, and nurturing sovereign wealth funds. Given the scale, strategic nature, and limited transparency of these activities, official international finance will be a consequential area of inquiry for years to come.

THANK YOU