

China as an International Lender of Last Resort

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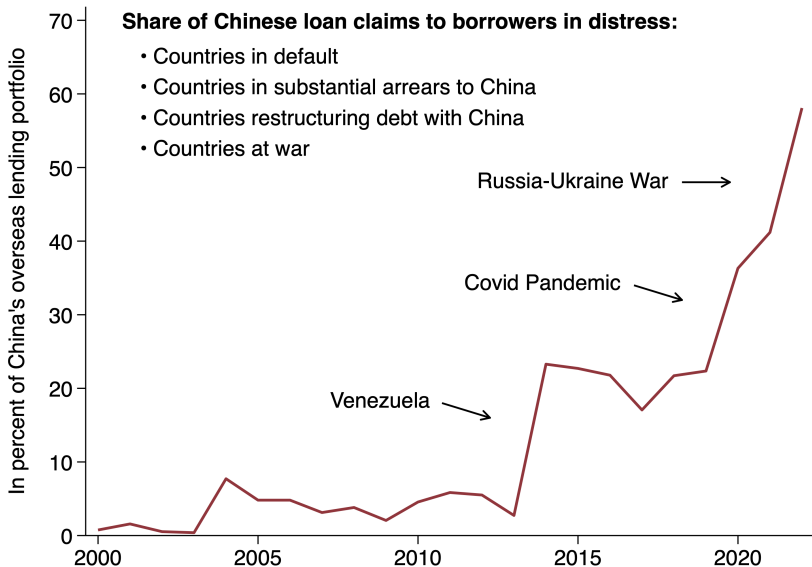
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China in the International Financial System

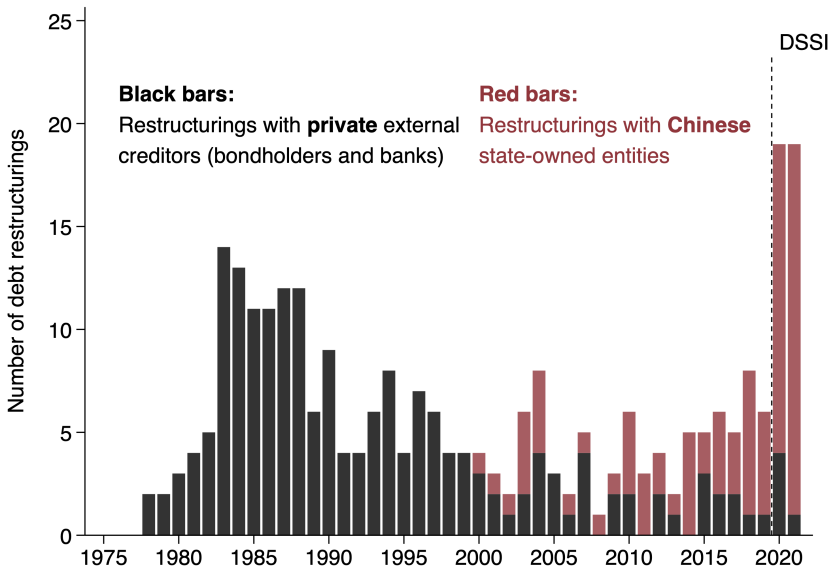
CEPR Workshop 2023

All views are personal

Debt distress on the Belt and Road is on the rise...



...and there has been a record number of credit events



China as an International Lender of Last Resort

In this paper, we show that China has created a new system for cross-border rescue lending, with 240 billion USD in financial assistance extended to more than 20 distressed sovereigns in the past 15 years.

- The PBOC swap network is increasingly used as a financial rescue mechanism
- Chinese state banks and enterprises have provided substantial balance of payments support through a variety of financial instruments
- In line with economic theory and historic precedents, rescue lending is targeted at BRI countries, to which Chinese banks are highly exposed (Tirole 2015, Gourinchas et al. 2020)
- Many parallels to Eurozone and past US bailouts (Horn et al. 2020)

A new dataset of Chinese overseas rescue lending

Varieties of Chinese rescue lending

Definition: All official Chinese lending to foreign sovereigns that can be used to pay existing debts, finance general budgetary expenditures and/or shore up foreign exchange reserves.

1. PBOC liquidity support through RMB swap line network

- The PBOC has extended 40 bilateral swap agreements with foreign central banks (McDowell 2019, Perks et al. 2021, Bahaj and Reis 2022)
- **Our contribution:** We quantify for the first time which central banks made drawings, in what amounts and when

2. Liquidity support by Chinese state-owned banks and enterprises

- General purpose loans by Chinese state banks
- Term deposits at foreign central banks
- Commodity prepayment facilities by state-owned energy companies

Construction of the dataset

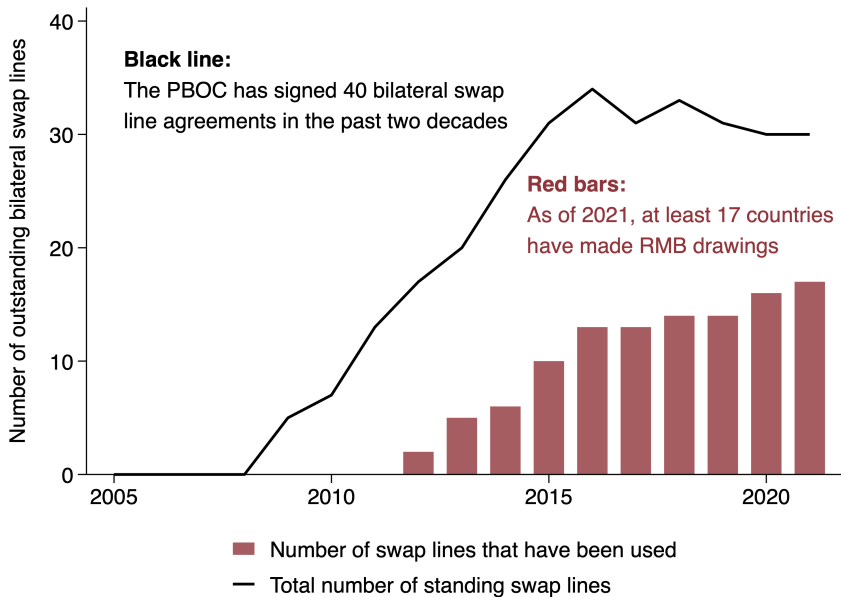
Data collection approach:

1. We systematically search relevant lending transactions in official and non-official sources (identification and triangulation follows Custer et al. 2021)
2. We validate our data collection from micro sources by comparing it to recipient country balance of payments and debt statistics [► Details](#)

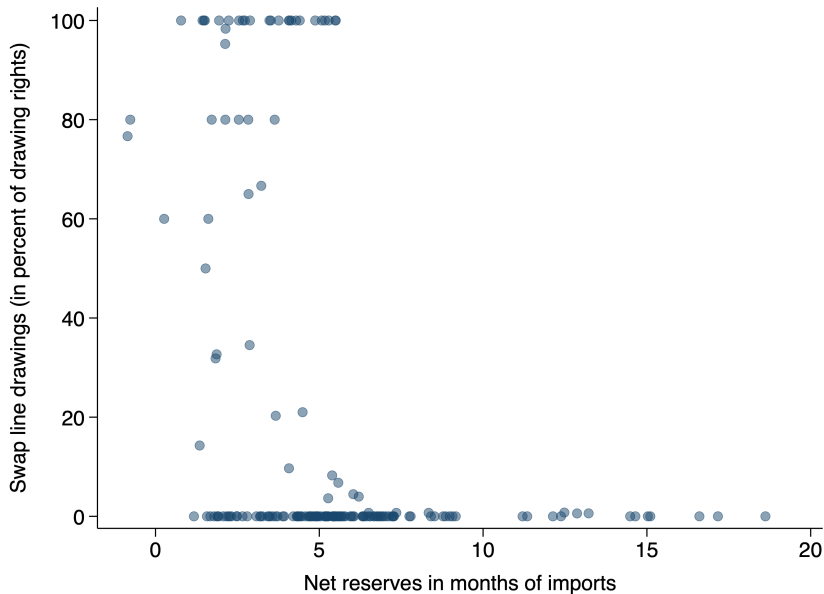
Scope of the dataset:

- 128 separate rescue operations to 22 borrowing countries, 2000-2021
- We collect stocks, flows, terms of lending (interest rates, maturities, collateral) whenever available

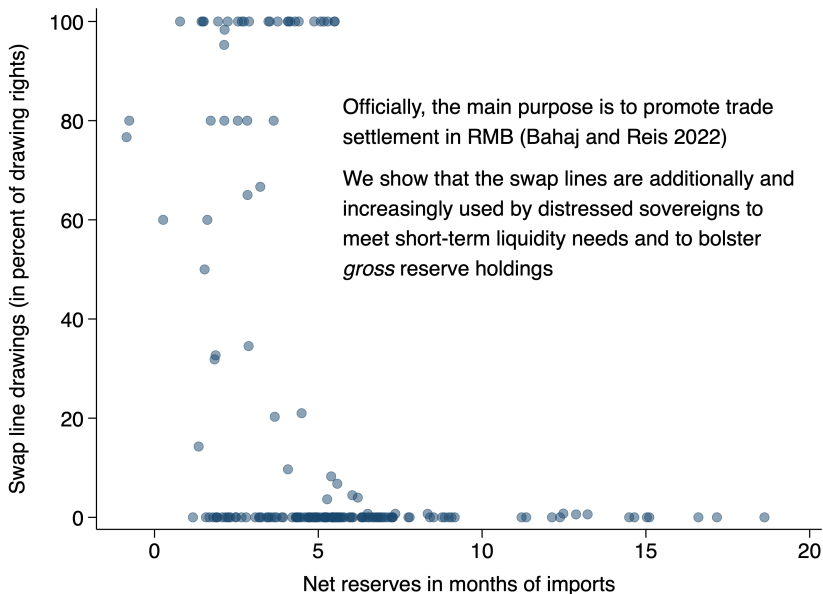
The PBOC swap line network is gaining traction...



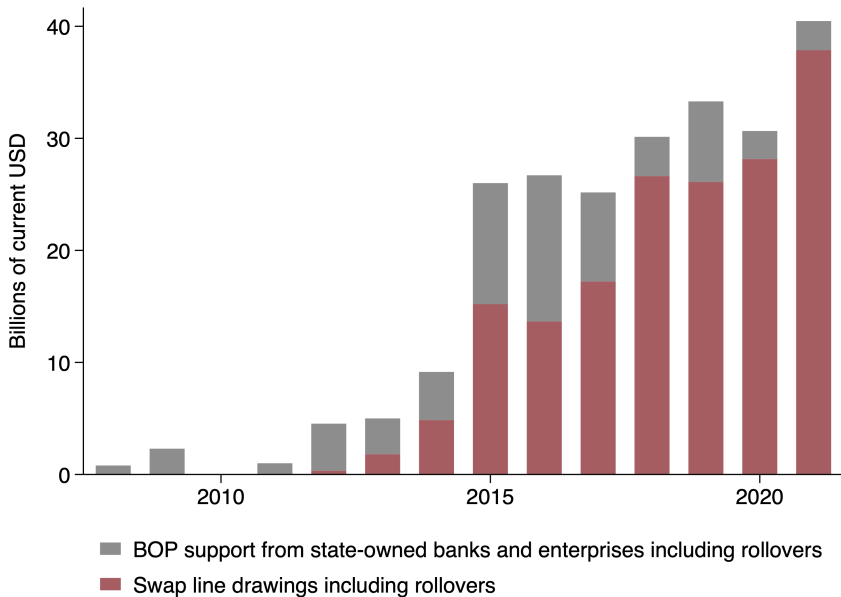
...and is mainly activated by countries in distress



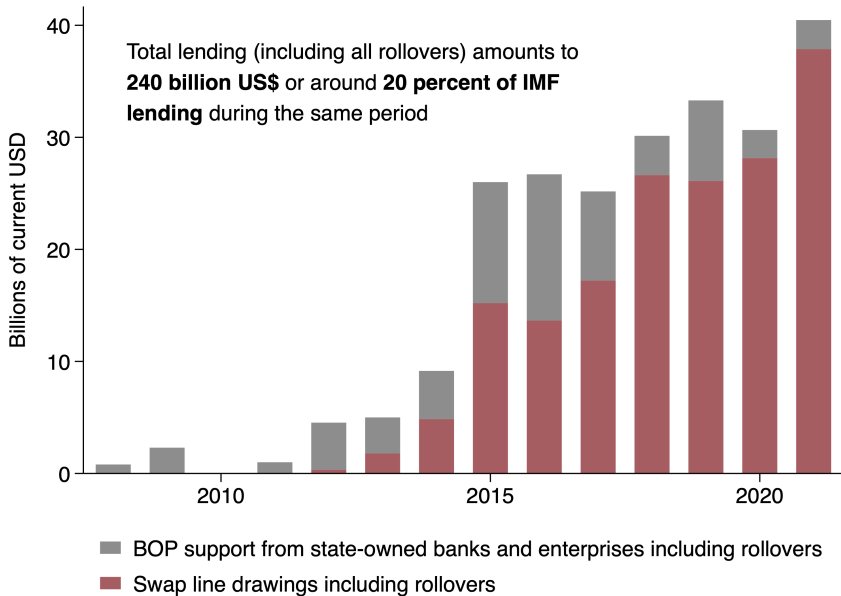
...and is mainly activated by countries in distress



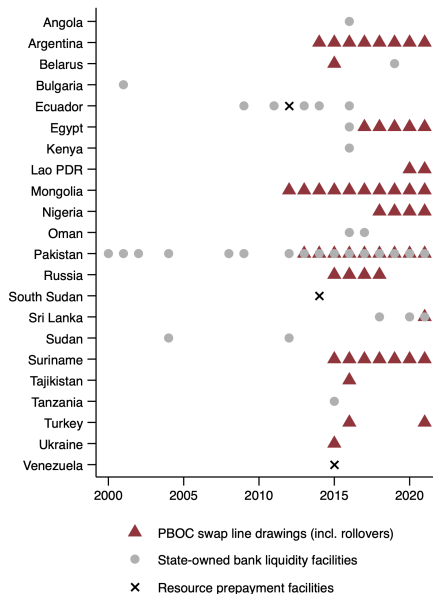
China's bilateral rescue lending



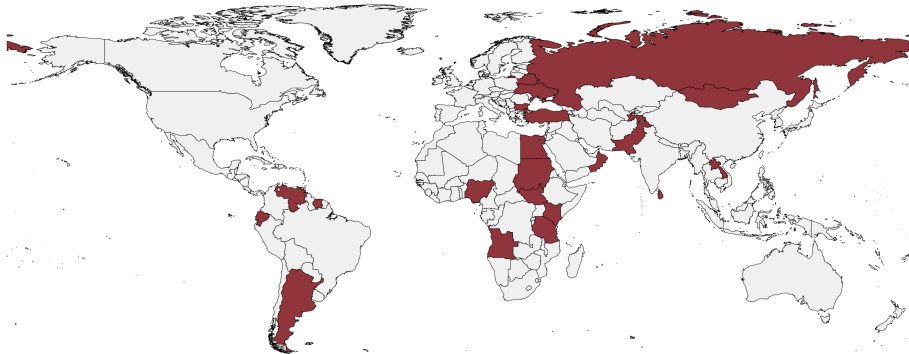
China's bilateral rescue lending



China's bilateral rescue lending



The geography of Chinese bilateral rescue lending



Note: Countries marked in red have received bilateral rescue lending from China.

What drives rescue lending?

What drives bilateral Chinese rescue lending?

Key hypothesis:

Rescue lending is targeted at countries to which Chinese banks are highly exposed (in line with Tirole 2015, Gourinchas et al. 2020, Azzimonti & Quadrini 2023).

We show empirically:

1. Debt service payments to Chinese banks predict rescue lending
2. Net transfers between Chinese creditors and debtor countries are close to zero despite rescue lending ("evergreening")

Measurement:

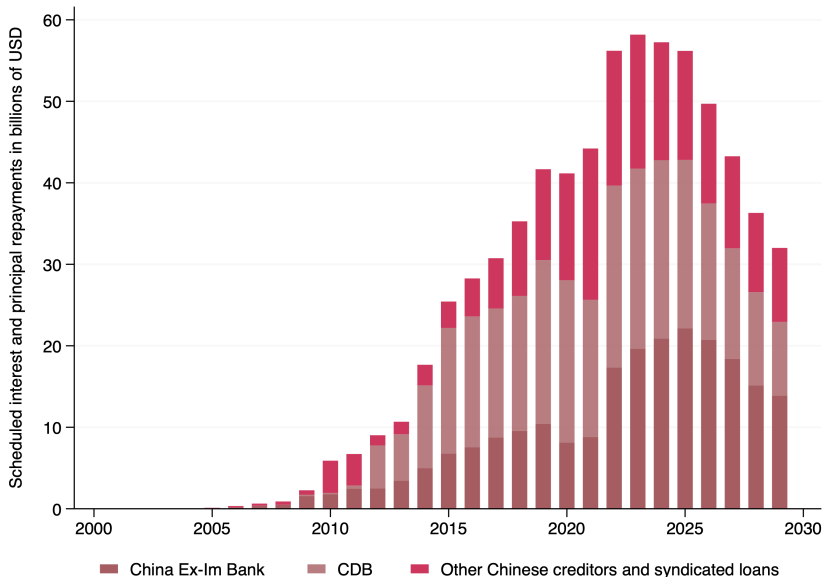
We build granular new datasets on debt service payments and net transfers between Chinese creditors and their developing country sovereign borrowers.

Estimating debt service to Chinese banks, 2000-2021

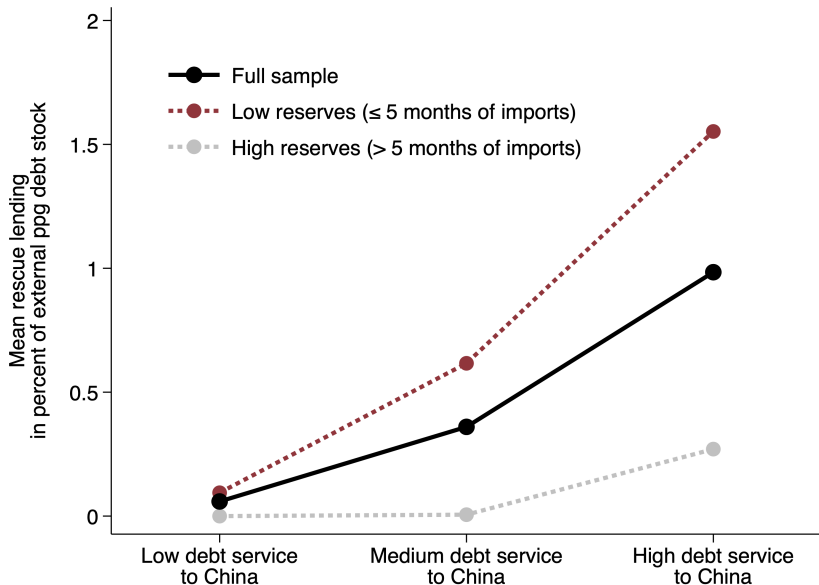
We create loan-level estimates of the principal and interest payments that 120+ developing countries are due to make to Chinese creditor banks:

- **Loan-level data** on commitment amounts, grace periods, maturity and interest rates for more than 3000 Chinese loans to developing countries (Custer et al. 2021) [▶ Details](#)
- **Disbursement schedules:** We use data on implementation timeline of more than 1000 BRI projects to calibrate disbursement speed (Custer et al. 2021) [▶ Details](#)
- **Repayment schedules:** We draw on lending contracts collected by Gelpern et al. (2021) to create a typology of Chinese loan instruments and their repayment and interest schedules [▶ Details](#)
- Estimates account for fluctuations in **reference rates**, **exchange rates** and implementation of **debt rescheduling** agreements (Horn et al. 2022) [▶ Details](#)

Debt service payments to Chinese creditors have been rising sharply...



...and predict rescue lending

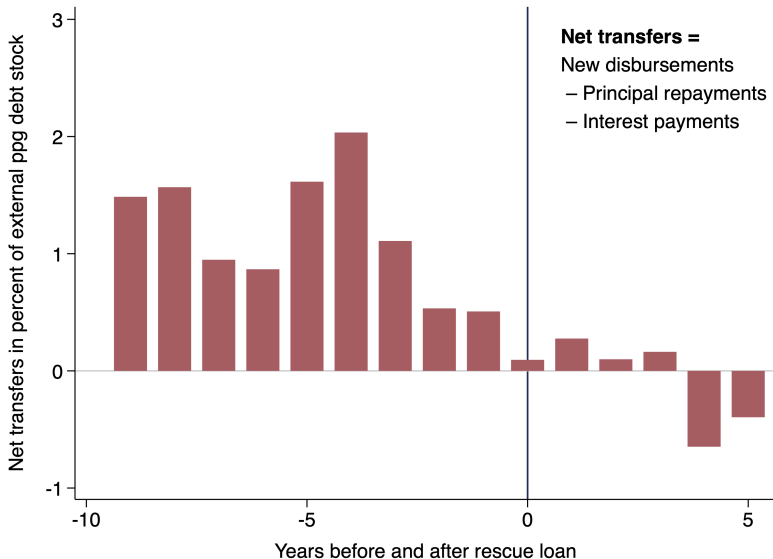


Debt service payments predict rescue loans

$$\text{Rescue lending}_{it} = \beta_1 \text{Debt service}_{it} + \beta_2 \text{Debt service}_{it} \times \text{Net reserves}_{it} + \gamma \text{Controls} + \epsilon_{it}$$

	(1)	(2)	(3)	(4)
Debt service payments to China	0.25** (0.11)	0.26** (0.11)	0.32** (0.12)	0.26** (0.12)
Net reserves	-0.08*** (0.02)	-0.08*** (0.02)	-0.09*** (0.02)	-0.13** (0.05)
Debt service payments to China * Net reserves	-0.17** (0.07)	-0.16** (0.07)	-0.21** (0.08)	-0.16** (0.07)
China's trade exposure to country		-0.01 (0.02)	-0.11*** (0.04)	-0.18** (0.07)
Further controls	No	No	Yes	Yes
Country FE	No	No	No	Yes
Observations	1,426	1,416	1,395	1,395
R ²	0.03	0.03	0.04	0.48

Evergreening: Net transfers are close to zero

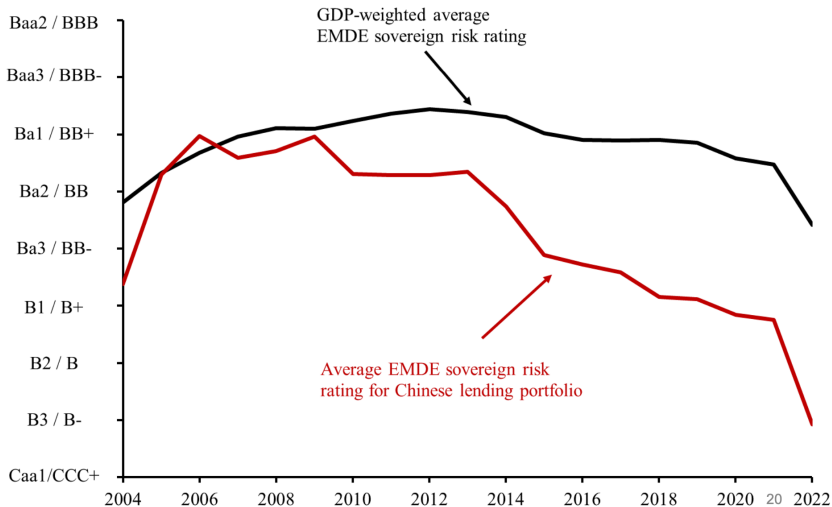


Conclusion

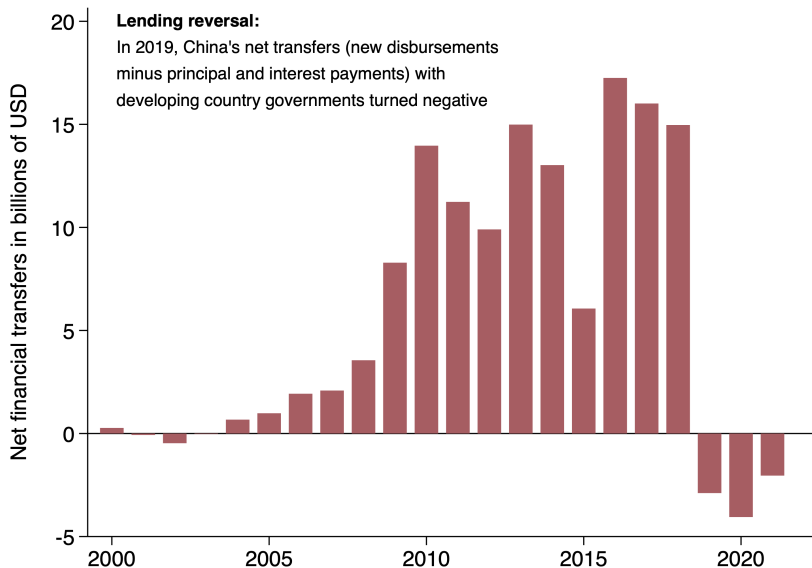
- China's overseas lending is increasingly shifting from project financing to rescue lending
- China's role as an international crisis manager has grown considerably in recent years, but is still far from rivaling the central positions of the US Fed and the IMF
- In line with predictions of economic theory and historic precedents, Chinese rescue lending is targeted at countries that are highly indebted to Chinese banks ('evergreening'). Strong parallels to Eurozone and past US bailouts.
- Not just China, but also other rising creditor powers: Deeper shift to a more opaque, fragmented and multipolar international financial architecture.

Appendix

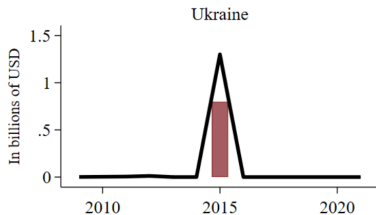
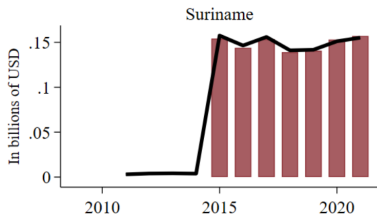
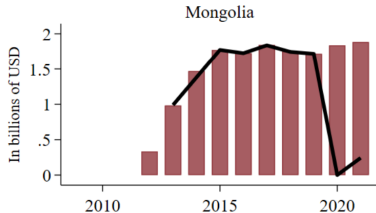
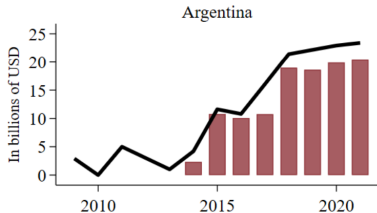
China's lending portfolio has suffered from sizable rating downgrades



New project lending has decreased sharply

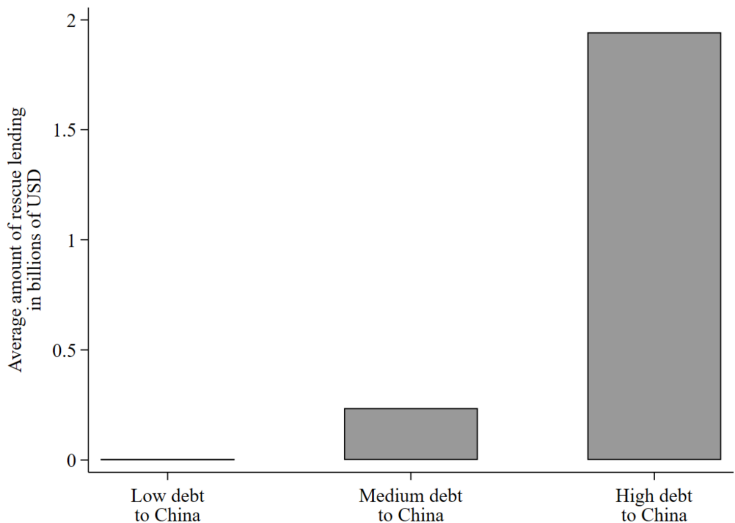


Data validation

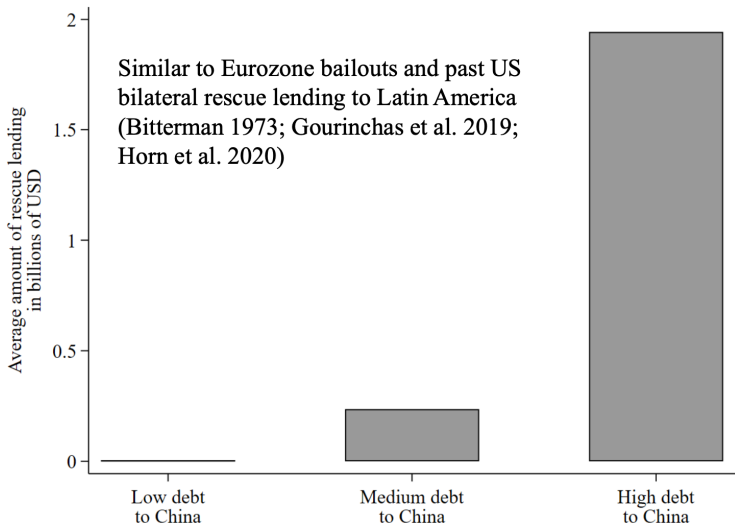


- External short-term debt of Central Bank (BOP aggregates)
- Outstanding swap debt to PBOC (our data from micro sources)

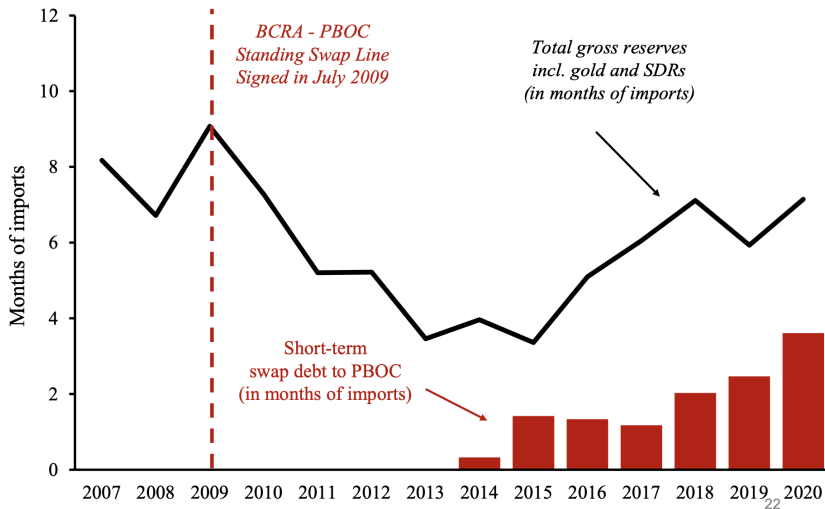
Rescue lending is targeted at countries with high debt to Chinese banks and enterprises



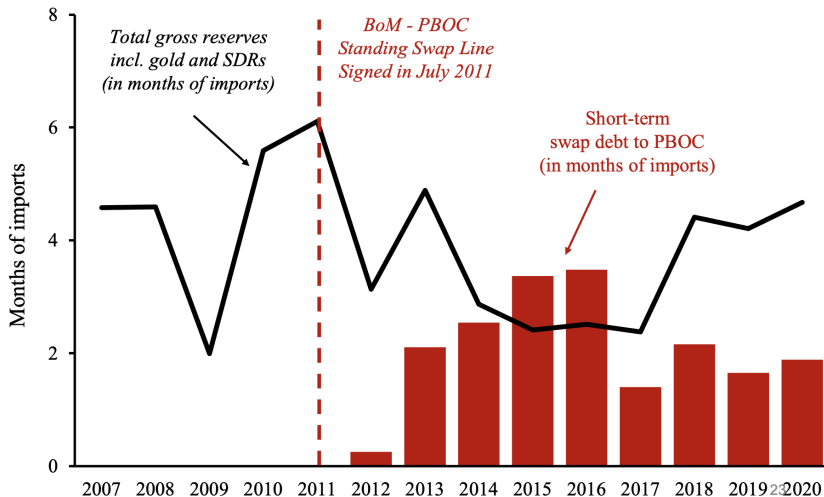
Rescues targeted at countries with high debt to China



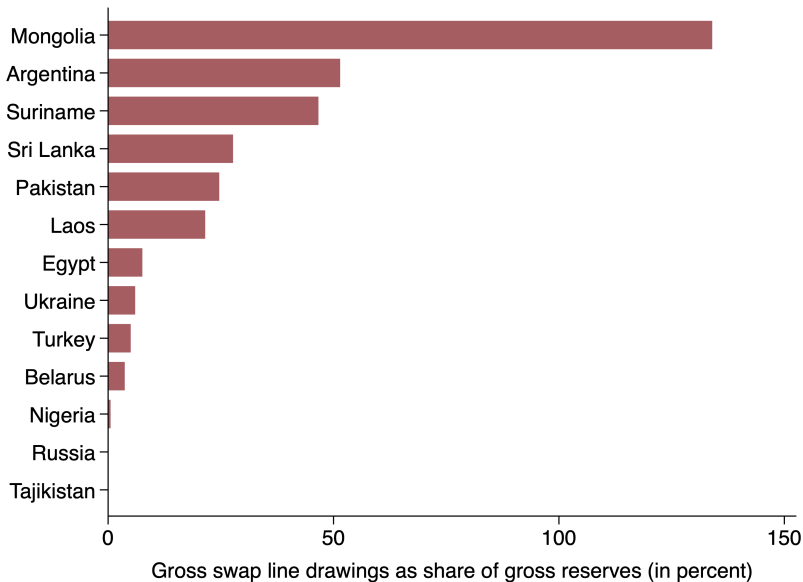
Gross vs. net reserves: The case of Argentina



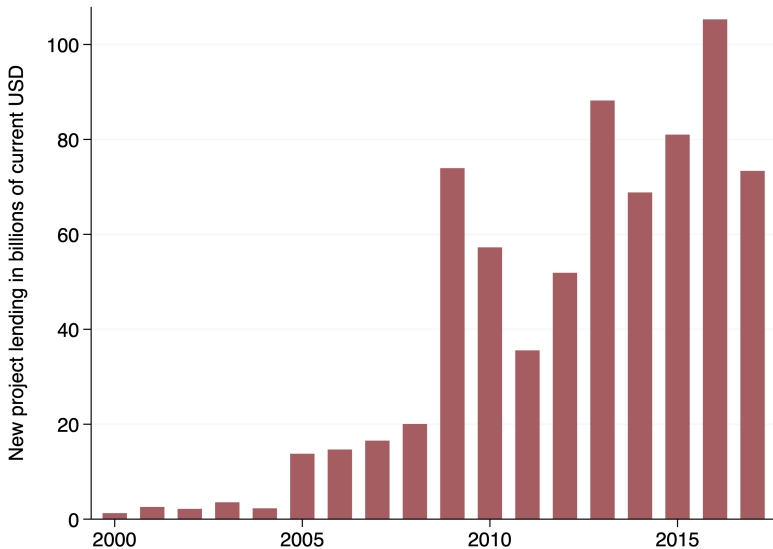
Gross vs. net reserves: The case of Mongolia



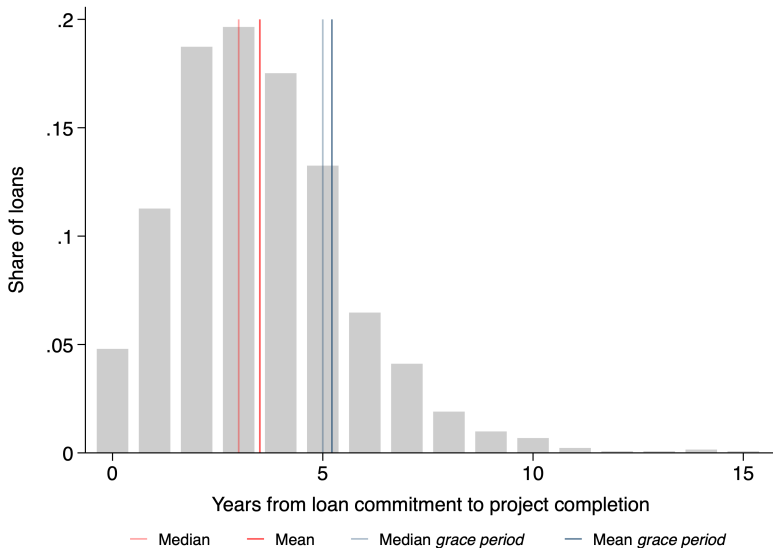
Drawings are large relative to gross reserves



China's overseas lending boom



Complete loan disbursement over the grace period

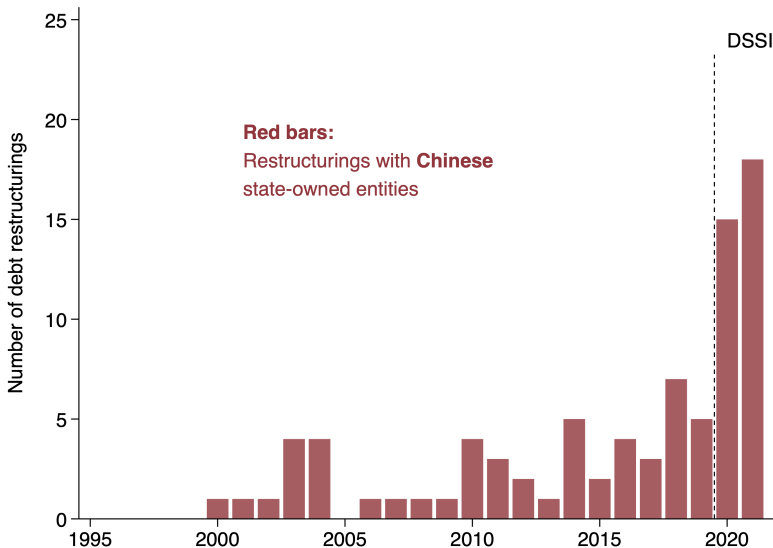


Chinese loan instruments and their repayment schedule

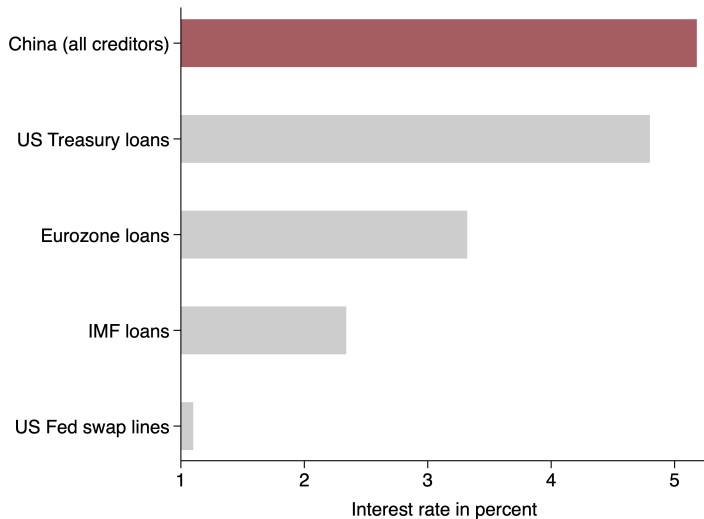
Creditor entity	Loan Instrument	Grace Period	Years to Maturity	Repayment schedule
Ministry of Commerce	Zero-Interest Loan	10	20	linear, semi-annual instalments
China Ex-Im Bank	Government Concessional Loan	5	20	linear, semi-annual instalments
	Preferential Buyer's Credit	6	20	linear, semi-annual instalments
	Buyer's Credit	4	15	linear, semi-annual instalments
China Development Bank	Multiple	3	13	linear, semi-annual instalments; bullet repayments
State-owned commercial banks	Multiple	3	13	linear, semi-annual instalments; bullet repayments

► Back to main slides

Increasing number of credit events with Chinese creditors

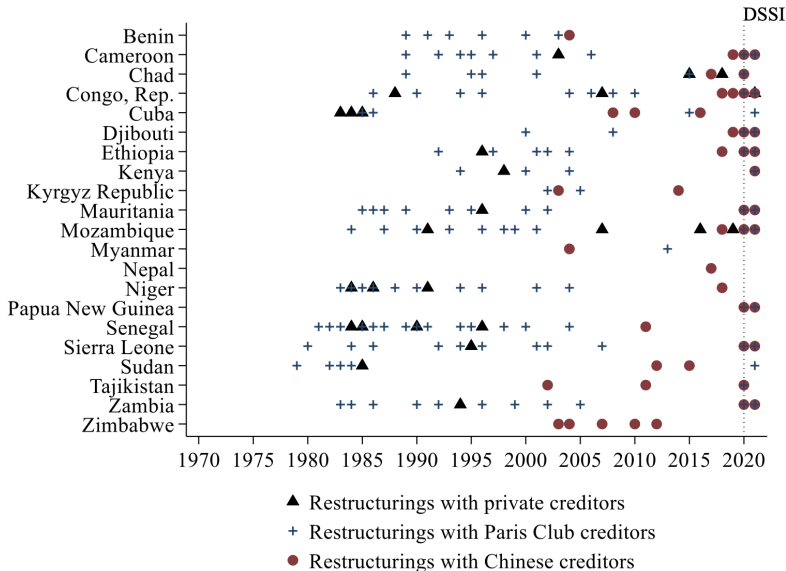


Chinese rescue lending is comparably expensive



Interest rates on rescue lending > Interest rates on existing debt

Serial restructurings: Private, Paris Club and Chinese creditors, 1970-2021



No face value debt relief: China's approach today resembles Western creditors in 1980s and 1990s

