

A Journey in the History of Sovereign Defaults on Domestic Law Public Debt¹

Aitor Erce (UPNA), Enrico Mallucci (FED), Mattia Picarelli
(ESM)

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¹Disclaimer: These are the authors' views and not those of the Federal Reserve Board or the European Stability Mechanism.

Introduction

- ▶ Sparse evidence on sovereign restructuring of domestic debt
- ▶ What does "domestic" mean?
- ▶ Sovereign debt restructuring & governing law
 - ▶ Domestic law advantage: debt may be more easily amended
 - ▶ Domestic law disadvantage: debt as backbone of domestic financial systems

Our Contribution

1. Introduce a novel database on domestic sovereign defaults involving instruments governed by domestic law
 2. Present stylized facts that can inform both academic work and policy-making
- ▶ In a companion paper we present a collection of "sovereign histories" that provide the fine details about each default episode, including the references where we obtained our information

Domestic law defaults database: the structure

- ▶ Bottom up approach
 - ▶ 134 default events on government bonds, bank loans, deposits
 - ▶ Aggregation of subsequent events in 76 default episodes
- ▶ 52 countries
- ▶ Time span 1980-2018
- ▶ Data on:
 - ▶ timing
 - ▶ instruments involved
 - ▶ volumes involved
 - ▶ restructuring terms and methods used
 - ▶ net-present-value losses for creditors (limited coverage)

Domestic law defaults database: data sources

- ▶ Multiple sources:
 - ▶ Reinhart and Rogoff (2008); Beers and de Leon-Manlagnit (2019), Asonuma and Trebesch (2016)
 - ▶ Reports from rating agencies
 - ▶ Local and international press (Factiva)
 - ▶ IMF program documents and Article IV reports
 - ▶ Reports from Development Banks
 - ▶ Accounts from Ministries and Central Banks
 - ▶ Parliamentary resolutions
 - ▶ Books and academic articles

Comparison with existing databases: RR (2008)

- ▶ First paper collecting domestic law sovereign defaults
- ▶ Key differences:
 - ▶ Covers a much longer period: 1750-2008
 - ▶ Contains 68 default episodes
 - ▶ For the period 1980-2008, 27 default episodes
 - ▶ Annual frequency
 - ▶ Episode selection
 - ▶ Hyper-inflationary episodes
 - ▶ Defaults by Central Banks
 - ▶ Payment arrears on resident non-financial creditors
 - ▶ Less detail regarding processes and actors

Comparison with existing databases: IMF (2021)

- ▶ Recent IMF paper on domestic debt restructuring (Dec. 2021)
- ▶ Covers the period 1980-2020
- ▶ Extends RR (2008)
 - ▶ 63 default episodes
- ▶ Key differences similar to RR (2008)

Geography

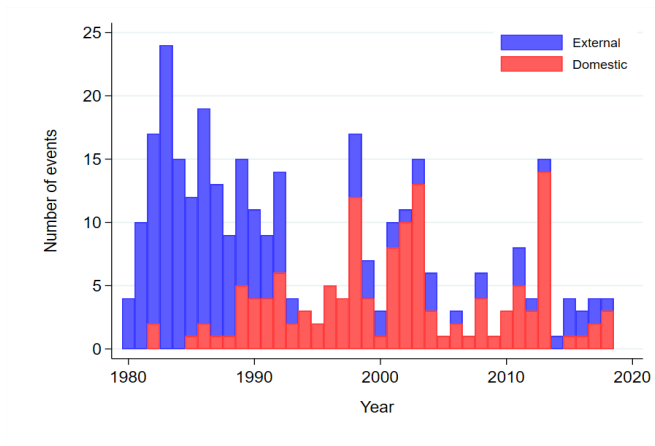
- ▶ Domestic defaults are a global phenomenon
- ▶ They are more frequent in EMEs and LDCs but they also happen in AEs

Table: Number of defaults by continent

	Total	Africa	America	Asia	Europe	Oceania
N. of events	134	31	76	10	16	1
N. of episodes	76	25	33	5	12	1

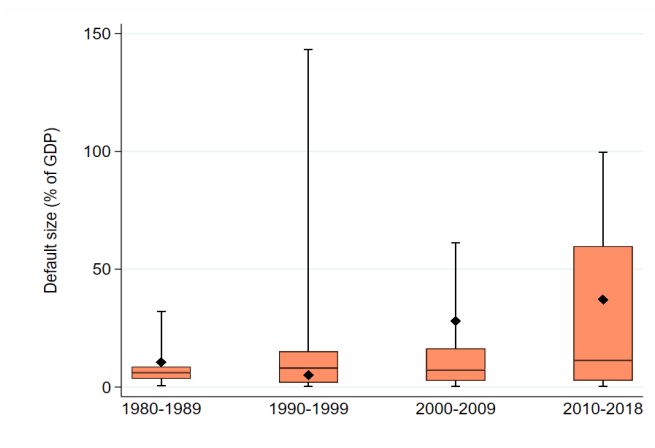
Frequency

- ▶ Domestic defaults are increasingly frequent events
- ▶ Governments operate selective defaults



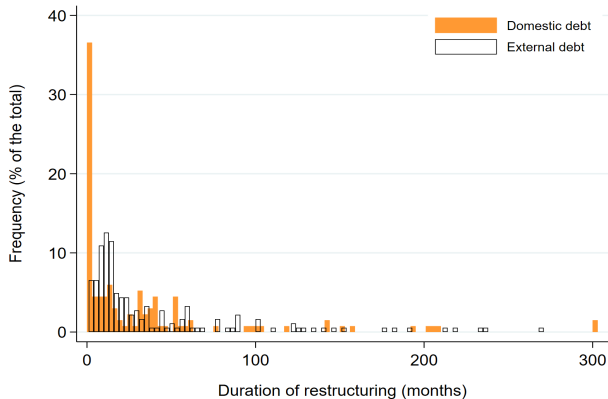
Amounts

- ▶ The median size of domestic defaults has increased over time...
- ▶ ...but it remains lower than the median size of external default episodes



Duration

- ▶ Domestic debt restructurings often proceed faster than external ones but they can also protract significantly



Instruments involved

- ▶ Bonds are the domestic law instrument most often defaulted upon
- ▶ They have become an increasingly large fraction of domestic debt in default

Table: Number of default events by instruments

	Full sample
Bonds	84
Bank loans	32
Deposits	18
Total	134

Restructuring by type of amendment

- ▶ Maturity extension is the most frequent form of restructuring
- ▶ It ranges from just a few months to 50 years

Table: Number of restructuring events by type of amendment

	Full sample
Maturity change	100
Coupon change	83
Face value reduction	24

Mechanics: pre- vs post-default restructuring

- ▶ Similar to Asonuma and Trebesch (2016)

Table: Pre- vs post-default restructuring- main features (averages)

	% (all events)	Size (% of GDP)	Duration (months)	NPV Losses
Pre-default	39%	10.4%	2.2	31.8%
Post-default	61%	10.7%	50.9	40.6%

Mechanics: restructuring procedure

- ▶ Similar to Enderlein et al. (2012) we check whether restructurings were either unilateral or negotiated

Table: Restructuring procedure by instrument

	Unilateral conversion	Negotiation
Bonds	38%	62%
Bank loans	29%	71%
Deposits	100%	0%
Pre-default	33%	67%
Post-default	63%	37%

NPV losses (28 episodes/48 instruments)

- ▶ Median NPV losses are 50% higher than those experienced during external defaults
- ▶ Losses tend to be larger when government defaults on bank loans

Table: NPV losses

	Median
External debt	0.33
Domestic debt	0.48
Bonds	0.47
Bank loans	0.54
Deposits	0.31

Triple coincidence

- ▶ Large overlap between law, currency and residence of investors

Table: Average shares of local currency debt and domestic residents involved in default events

	Share in local currency	Share of local resident	N. events
2010-2018	79%	75%	29

Policy implications & next steps

- ▶ Domestic debt is set to be a source of vulnerability
- ▶ Our data will allow a more granular analysis of domestic defaults:
 - ▶ improved assessment of debt-related fragilities to inform policy makers
 - ▶ help refine the calibration of theoretical models
- ▶ Work in progress on:
 - ▶ what macro implications of domestic defaults?
 - ▶ the interplay between domestic and external default
 - ▶ the interaction with financial stability
 - ▶ the interaction with political instability/inequality

Payment arrears

- ▶ We uncover 30 events of payment arrears with non-financial local creditors
- ▶ Not included in the database due to:
 - ▶ Incomplete coverage
 - ▶ Poor data quality / limited information available
- ▶ Features:
 - ▶ Large amounts involved (on average 19% of GDP)
 - ▶ Very long duration (on average 89 months)
 - ▶ Significant losses for investors (54% of NPV on average - 5 observations)