A Journey in the History of Sovereign Defaults on Domestic Law Public Debt\textsuperscript{1}

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\textsuperscript{1}Disclaimer: 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)

|                | %  | Size       | Duration | NPV   |
|----------------|----|------------|----------|-------|
|                | (all events) | (% of GDP) | (months) | 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)