The Economics of Sovereign Debt and Default: An Analysis of Debt Dilution

By Mark Aguiar (with Manuel Amador)

Comments by Sergio L. Schmukler

MTI GP Event May 5, 2022



Introduction

- Super interesting work by two leading economists
- Provides simple, unified, canonical framework about sovereign debt
- Book
 - Frictions in debt markets
 - Commitment/enforcement
 - Self-fulfilling debt crises
 - Government choices about debt and default
 - Long-term bonds
 - Different equilibrium outcomes
 - How model behaves under different scenarios
- Must read for how sovereign debt and defaults work
- Plenty food for thought for one talk and one discussion

Comments/observations about some areas for further discussion

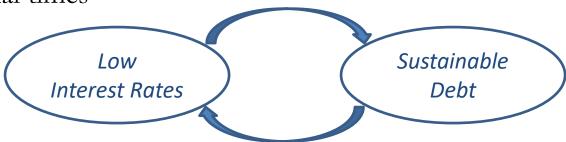
- 1. Sovereign debt vs. private debt (benchmark)
- 2. Multiple equilibria and choice of instruments
- 3. Defaults
- 4. Political economy and role of institutions
- 5. Role of the IFIs and heterogenous debtors
- 6. Other questions

Sovereign debt vs. private debt

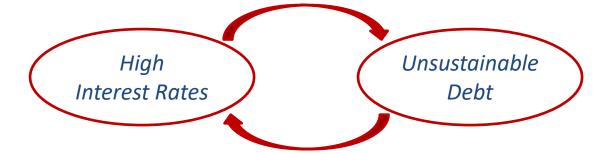
| | Private debt | Sovereign debt |
|------------|--|---|
| Contracts | Enforceable contracts | Non-enforceable contracts, limited commitment |
| Resolution | Bankruptcy and liquidation | Lack of liquidation capacity, countries continue to exist |
| Principals | Shareholders at risk from default | Voters (households): balance cost of default with incentives to renege |
| Agent | Manager: short-term monitoring, long-term view | Government: short-term incentives, political cycle |
| Lenders | At risk of losing everything | Risky given default incentives, but better loss-given-default, recovery value > 0 |

Multiple equilibria and instrument choice

Normal times



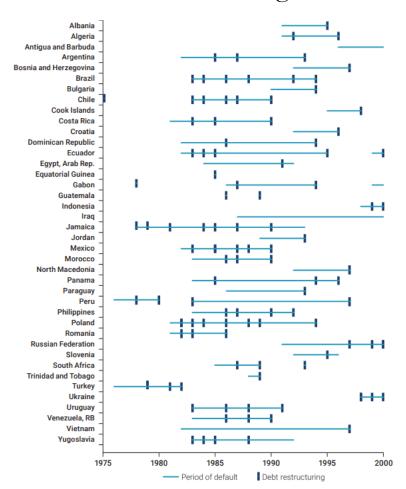
Crisis times



- Short-term debt necessary, risk toward debtors but low cost to borrow
- Long-term debt transfers risk to creditors, but comes at ex ante cost
- LT debt can avoid self-fulfilling crises, but not fundamental ones
- Short-term debt somewhat similar to foreign currency debt

Defaults are costly, deadweight loss

Average default spell = 8 years, 2 restructurings

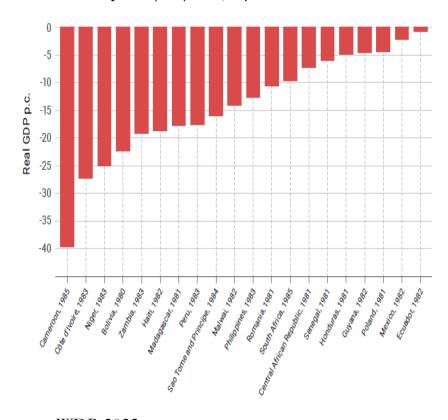


Source: WDR 2022 team, based on Cruces and Trebesch (2013); Farah-Yacoub, Graf von Luckner, and Reinhart (2021); Meyer, Reinhart, and Trebesch (2019); Reinhart and Rogoff (2009).

Note: The figure shows a timeline of sovereign defaults and debt restructuring from 1975 to 2000. The figure excludes countries covered by the International Development Association (IDA) and the Heavily Indebted Poor Countries (HIPC) Initiative.

Lost decade

b. Cumulative change in real per capita GDP, ten years after default



WDR 2022

Defaults

- High default costs makes debt financing possible
 - Given lack of enforcement, defaults would occur often otherwise
 - High costs prompt borrowers to repay
- Given cost of defaults, efforts to speed up resolution
 - E.g., collective action clauses (CACs)
 - Are these efforts worthless?
- To what extent are difficulties in resolution intrinsically high?
 - Does high cost come from penalty needed on bad debtors?
 - Is there an intermediate solution, where defaults can be resolved at lower costs and debt remains viable?
 - Or are defaults hard to resolve because of other inefficiencies (market microstructure, courts)?

Political economy and role of institutions

- Impatient politicians
 - Reap benefits of higher borrowing, at low cost now
 - Risky bets, including short-term debt and foreign currency debt
 - Kick can down the road, during good times and bad times
- Could any institution or framework help to solve the problem?
- Can a fiscal stability pact help?
 - Even if hard to enforce, impose some constraints
 - Is zero debt desirable, even debt is beneficial (smoothing, growth)?
- Other solutions?
 - Can limits on certain types of debt be imposed?
 - Distinguish transitory vs. more permanent shocks given impatience

Political economy and role of institutions

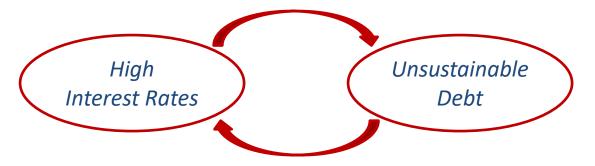
- What is a reasonable debt sustainability analysis (DSA) given political economy frictions?
- Focus on debt levels

$$D_{\tau} \approx \frac{(1+r) D_0}{(1+g) GDP_0} \le K$$

- But other indicators like maturity and seniority already considered
- How should those be modified in practice?
- How should political economy frictions be incorporated in the analysis?
 - Domestic level
 - International level

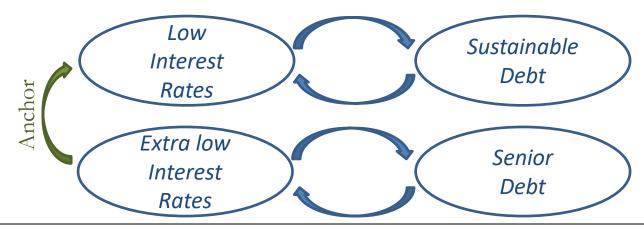
Role of the IFIs and heterogenous debtors

• IFIs and other institutions called in during crisis times

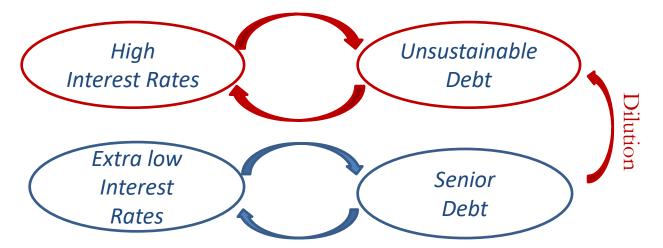


Role of the IFIs and heterogenous debtors

Successful IFI intervention



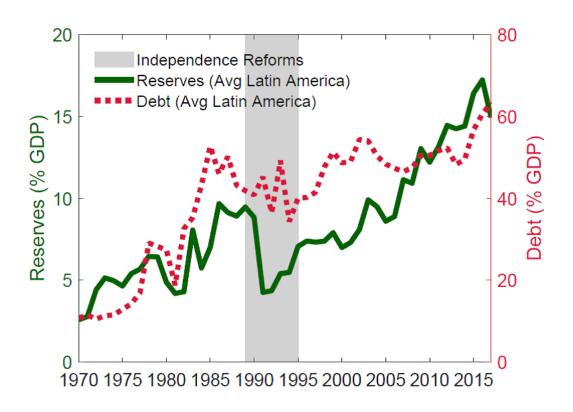
Unsuccessful IFI intervention



Other questions

- More on heterogenous investors, beyond representative agent
 - Secondary market trading between domestic and foreign investors
 - What is the role of bilateral lenders (China) in debt markets?
- Gross versus net debt
 - What is the role of reserve accumulation with debt accumulation?
- Heterogenous debt
 - Floating rate debt. Equity like? Similar to indexed debt?
 - What is their preponderance? Why little take up?
 - What are the incentives to default in domestic currency debt?
- Secondary markets
 - Framework fully accounts for infrequent, costly repurchases?
- Risk premia
 - Given importance, how difficult to incorporate in analysis?

Reserves and public debt



Source: Samano Penaloza (2022). Average level of international reserves and public debt for: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru, Uruguay, and Venezuela.

Other questions

- More on heterogenous investors, beyond representative agent
 - Secondary market trading between domestic and foreign investors
 - What is the role of bilateral lenders (China) in debt markets?
- Gross versus net debt
 - What is the role of reserve accumulation, with debt accumulation?
- Heterogenous debt
 - Floating rate debt. Equity like? Similar to indexed debt?
 - What is their preponderance? Why little take up?
 - What about domestic currency debt? Incentives to default?
- Secondary markets
 - Framework fully accounts for infrequent, costly repurchases?
- Risk premia
 - Given importance, how difficult is to incorporate into analysis?

Thank you!