

Discussion of “Sovereign Default: The Role of Expectations” by Navarro, Nicolini and Teles

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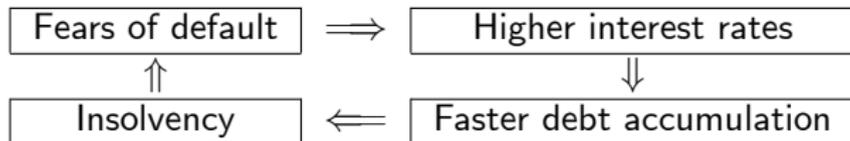
Emory University and Federal Reserve Bank of Atlanta

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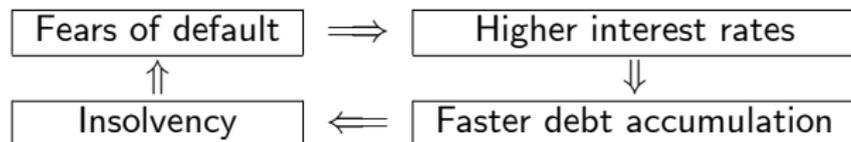
Motivation

- Sovereign debt is subject to self-fulfilling fears of default.
 - ▶ Doubt about debt sustainability



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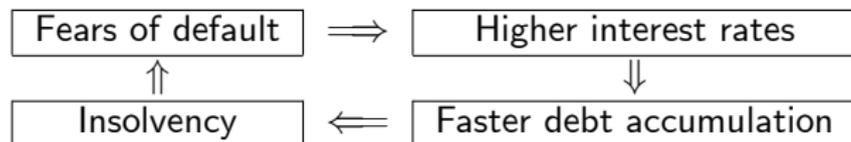
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- ▶ What circumstances or policies leave sovereign borrowers at the mercy of self-fulfilling crises?
- The recent debt and interest rate dynamics for Italy, Spain and Portugal
 - ▶ Dramatic increase in interest rates on sovereign bonds, yet not default
 - ▶ Justification for the OMT bond-purchasing program

This Paper's Contribution

- Explore multiple equilibria in a model with default driven by insolvency
- Study the role of fundamentals and expectations in driving debt crises
- Investigate what affect the possibility of a debt crisis

Self-fulfilling Crises

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 - ▶ A switch to pessimistic expectations triggers a run and leads immediate default
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 - ▶ Multiple equilibrium driven by expectations
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 - ▶ Multiple equilibrium driven by expectations
 - ▶ Corsetti and Dedola (2011), Corsetti and Dedola (2013) study the European crisis
- Lorenzoni and Werning (2014) analyze a dynamic version of Calvo's model with exogenous public deficits.
 - ▶ Existence of multiple equilibria is affected by the fiscal policy rule, the maturity of debt, and the level of debt
 - ▶ Provides a microfoundation for the timing assumption

Key Features of Model

- Timing and action assumptions:
 - ▶ The creditors move first and offer limited funds at some interest rate.
 - ▶ The borrower is price taker.
 - ▶ Size of the bond at maturity is endogenous to bond prices.
 - ▶ Most of the sovereign debt literature (E&G (1981), A&G (2006), Arellano (2008)) assume the borrower moves first and chooses the debt level at maturity.

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- Consider bimodal distributions of the endowment with good and bad times
 - ▶ Both low and high rate equilibria are robust equilibria
 - ▶ Dynamics of interest rates and debt evolve from low rate to high rate equilibrium

A Simple Two-Period Model

- Borrower chooses current debt b , given interest rate R
 - ▶ Default if $y - bR \leq 1$
 - ▶ Supply of debt given by

$$R^* = R [1 - F(1 + bR)]$$

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- Compare with Arellano (2008)
 - ▶ Default if $y - d \leq 1$ and supply of debt given by $R^* = R [1 - F(1 + d)]$

Main Results

- There are multiple intersections of the demand and supply curve
- A continuum of interest rate schedules in equilibria
- High rate equilibria are fragile to refinements under standard distribution of the endowment
- Multiple robust equilibria under bimodal distribution of the endowment

Comment 1: Timing Assumption

- Timing assumption
 - ▶ The investors first bid
 - ▶ The government decides how much to issue at the lowest bid. Pick the market value of debt
 - ▶ Different from Arellano: government decides the value of debt at maturity and adjusts its short run financing needs.

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- Microfoundation for the timing assumption (Lorenzoni and Werning 2014)
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 - ▶ Alternative: a game where the government can run multiple rounds of bond issuance
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- Pecuniary externality associated with decentralized borrowing: Jeske (2006), Wright (2006), Uribe (2006), Kim and Zhang (2012)
 - ▶ Individual agents fail to internalize the impacts of their individual borrowing on credit costs.

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- Design of the policy intervention
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$$R^{debt} = \min \{ R^P, R_1, R_2, \dots \}$$

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- ▶ Only effective and costless if $R^P > R_1$ and small enough.
- Multiplicity plays out in the early phase of a crisis
 - ▶ Needs for early policy intervention

Comment 3: Challenge to Quantify the Mechanism

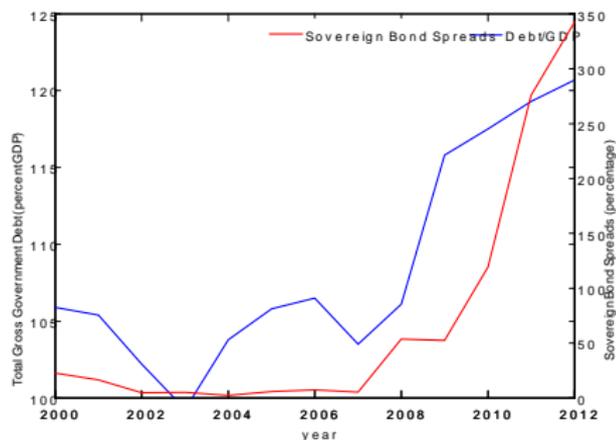
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 - ▶ The probability of expectation-driven crisis
- With a positive debt recovery, the equilibrium is unique for a low level of debt
 - ▶ Lorenzoni and Werning (2014) show that the long-term debt introduces a coordination problem for the present and future creditors.
 - ▶ Robust multiple equilibrium even with positive debt recovery

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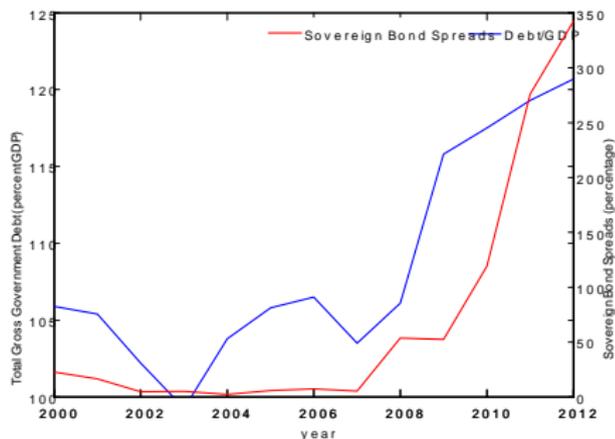
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- Difficult to explain the rich dynamics of debt and spread.
 - ▶ Equilibrium path either converges to the low-debt steady state or diverges to ever growing debt.
 - ▶ Challenge to map into the data when multiple equilibria possible

Conclusion

- A nice paper that clearly illustrates the role of expectations in sovereign default.
- An important topic that should be explored in multiple papers