

Expenditure Consolidation and Sovereign Debt Restructurings: Front- or Back-loaded

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Disclaimer

- The views expressed herein are those of the authors and should not be attributed to the IMF, its Executive Board, or its management

Motivation

- Theory – Existing literature
 - Fiscal austerity literature in AMs
 - Front-loaded consolidation & no restructuring
 - Sovereign debt literature
 - Back-loaded consolidation & default/restructuring
- Data – Three strategies
 - Front-loaded consolidation & no restructuring
 - Front-loaded consolidation & preemptive restructuring
 - Back-loaded consolidation & post-default restructuring
- Question – How can we fill a gap between theory and data?

What We Do in This Paper

- Empirics
 - Data on strategies of expenditure consolidation and restructurings
 - before restructuring, i.e. "front loaded"
 - after restructuring, i.e. "back loaded"
 - New stylized facts
 - preemptive restructurings → front loaded
 - post-default restructurings → back loaded
- Theory
 - Sovereign debt model with preemptive and post-default restructurings and public capital
 - (i) front-loaded & preemptive, (ii) front-loaded & no restructuring
 - Choice between front- and back-loaded expenditure consolidation
- Quantitative analysis
 - Replication of the five stylized facts

Data: Expenditure Consolidation

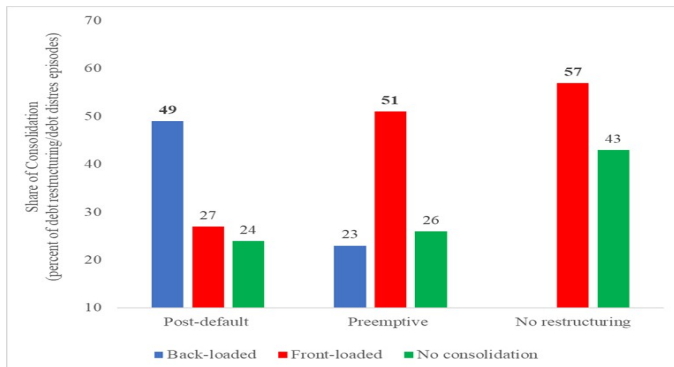
- Definition 1
 - sudden fall in cyclically adjusted expenditure-to-GDP
- Definition 2
 - sudden fall in expenditure-to-potential GDP ratio
- Types of consolidations
 - front-loaded: before start of restructuring
 - back-loaded: after start of restructuring

Data: Strategies of Consolidation and Restructurings

- 8 strategies of expenditure consolidation and debt restructuring
 - Post-default + back-loaded consolidation
 - Post-default + front-loaded consolidation
 - Post-default + no consolidation
 - Preemptive + back-loaded consolidation
 - Preemptive + front-loaded consolidation
 - Preemptive + no consolidation
 - Debt distress/no restructuring + front-loaded consolidation
 - Debt distress/no restructuring + no consolidation
- 3 dominant strategies

Stylized Facts on Expenditure Consolidation

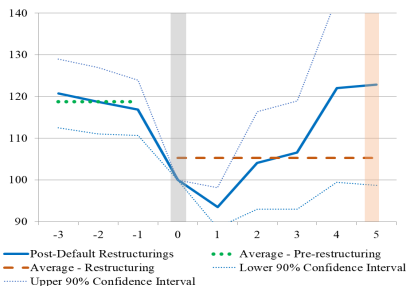
- **Stylized Fact 1:** Three strategies of expenditure consolidation and debt restructuring are dominant



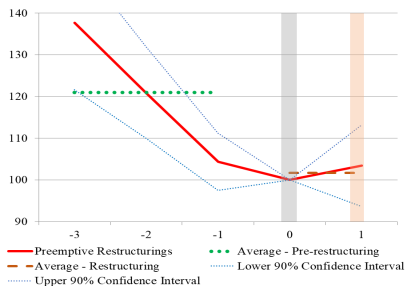
Stylized Facts on Expenditure Consolidation

- **Stylized Fact 2:** Public investment declines sharply ex ante in preemptive cases, while ex post in post-default cases
- **Stylized Fact 3:** Debt settlement takes place before recoveries in public investment in preemptive cases, while after in post-default cases

(a) Post-default Restructurings



(b) Preemptive Restructurings



Model

- Sovereign debt in a dynamic small open economy model
- Public investment

$$y_t = a_t (l_t)^{\alpha_l} (k_t^g)^{\alpha_k} (\bar{k}^p)^{1-\alpha_l-\alpha_k}$$

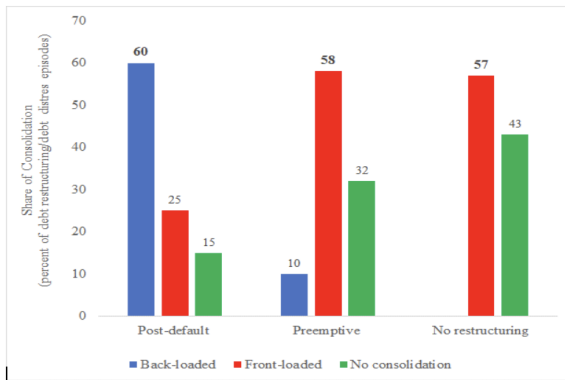
- return to public investment falls with a_t
- there are adjustment costs, so expected fall in future a_t reduces current public investment
- Two types of renegotiations
 - Post-default/defaults: cause large reduction in a_t
 - preemptive restructurings: cause small reduction in a_t

Model

- Preemptive restructurings take place when probability of future default is high
 - Creditors accept (small) debt relief because it increases expected repayment
 - move to the “good side (upward sloping) of the debt Laffer curve”
- Preemptive restructurings
 - are predictable, so public investment starts falling earlier on (front-loaded)
 - associated with smaller TFP losses, so public investment does not fall much
- Defaults/post-default restructurings take place when there is a large, unexpected negative TFP shock
 - why unexpected? because otherwise there would have been a preemptive restructuring before the shock
- Defaults/Post-default restructurings
 - are unpredictable, so public investment does not start falling earlier on (back-loaded)
 - associated with a larger TFP losses, so public investment falls a lot

Quantitative Analysis - Simulation

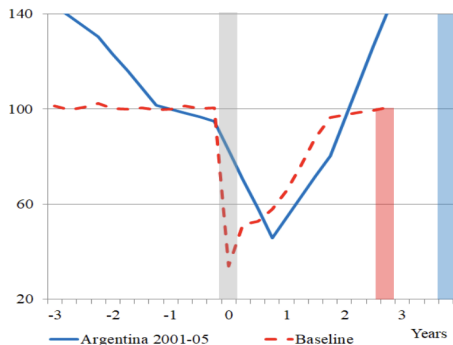
- Strategies of expenditure consolidation and debt restructuring



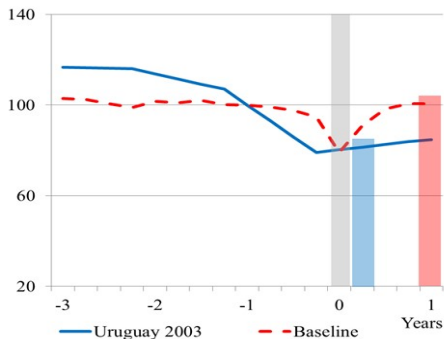
Quantitative Analysis - Simulation

- Public investment around debt restructuring and debt distress

(a) Post-default Restructuring (Argentina)



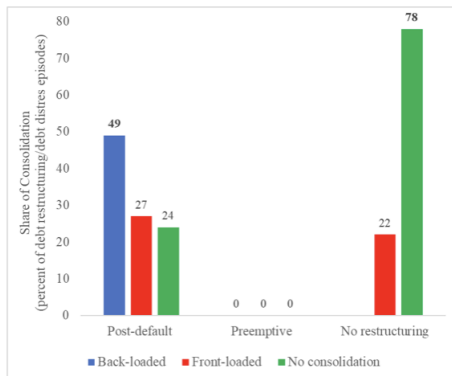
(b) Preemptive Restructuring (Uruguay)



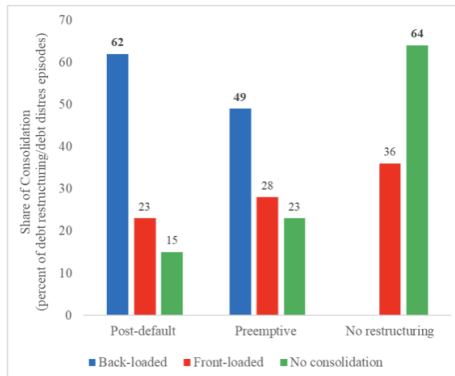
Two Key Determinants

- Role of preemptive restructuring choice and public capital

(i) No Preemptive Restructuring Choice



(ii) Fixed Public Capital



Conclusion

- New data and stylized facts on expenditure consolidation and debt restructurings
- New theoretical explanation on sovereign debt crises and resolution
 - Choice between front- and back-loaded consolidation
 - Role of two types of expenditure consolidation in sovereign debt crises and resolution
- Quantitative analysis of model rationalizes the stylized facts