

Partial Default

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Some facts about Sovereign Default

- Sovereign default is most often partial.
- A default episode lasts long and bad things happen during (output is low, debt and spread is increasing).
- Debt is not forgiven (fully).

Standard Eaton-Gersovitz model cannot explain this set of facts because of full default and full forgiveness.

- This paper provides a theory that can rationalize partial default such a way that can match some key facts.

Mechanism

- When a country needs to increase consumption due to adverse shocks, he can do it two ways.
 - Borrowing.
 - Partially defaulting on debt service.
- Their benefits are similar: $u'(c)$.
- They both increase future debt level.
 - Borrowing: directly.
 - Partial default: Creating debt arrears.
- Hence, they both decrease the price of debt as they increase future default probability.
- Partial default has also an asymmetric output cost.
- A portfolio choice problem for the sovereign.
- The key trade-offs depend on the details of the specification.

Partial Default vs. Debt Restructuring

- In this paper, ‘partial default’ implies that
 - ① d_t proportion of the debt service due is not paid back (Default).
 - ② $\kappa d_t a_t$ is capitalized and increase the debt service next period (Restructuring).
- $\kappa = (1 + r - \delta)/(1 - \delta) \Rightarrow$ Nominally, pure restructuring.
- $\kappa = 0 \Rightarrow$ Pure partial default.
- $\kappa = 1 \Rightarrow$ Interest rate is forgiven only.
- Calibration: $\kappa = 0.94 \Rightarrow$ Only a small proportion of debt is forgiven, most is restructured.
- No surprise that debt is increasing during a default episode \Rightarrow most of ‘defaulted’ debt shows up as next period debt.

Recovery Rate

- The recovery rate κ is a key variable of this model.
- It is **exogenous** and constant.
- Countries decide on d (the proportion of defaulted debt) given κ .
- Where is κ coming from? Is it a legal constraint?
- What identifies κ in the data/calibration?
- It seems that debt renegotiations are all about κ (the ‘haircuts’ or the ‘bail-out’).
- They do not seem to be constant either and depend on the country’s economic conditions.
- Do we miss some important margin?

Who has the monopoly power?

- This paper assumes that sovereign faces a competitive market of international lenders even during the default period but it is the ‘monopolist’ seller on the market for its sovereign debt.
- There is another literature on partial default and debt restructuring that takes the opposite view:
 - Sovereign Debt Overhang: Kovrijnykh and Szentes (2007, JPE).
 - Consumer Debt Delinquency: Athreya et. al. (2016), Benjamin and Xavier (2014).
 - Zombie lending: Aragon (2019).
 - Optimal lending contracts: Ábrahám et. al. (2019)
- During a default episode the lenders become monopolists and offer a take-it-or leave-it-deal taking the outside option of the borrower (default) into account to minimize losses.

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- During a default episode the lenders become monopolists and offer a take-it-or-leave-it-deal taking the outside option of the borrower (default) into account to minimize losses.
- This implies some debt forgiveness and some restructuring as in this model.
- See Greek debt restructuring (bail-outs) and ask Varufakis whether it was a strategic decision of the Greek government how much they default on or it was forced upon them by the lenders represented by the Troyka.
- This is the IMF’s role in many other default episodes.
- You need to argue why your approach is more plausible.

The cost of default

- When debt is bigger, we see more partial default than borrowing in the data.
- The model replicates this observation using a particular assumption on the output costs of default.
- Next period output is reduced as a function of d_t and not as a function of $d_t a_t$.
- Hence the consumption gain (and the associated increase in debt) is higher when a higher debt is defaulted but the the output costs are the same.
- What is the rational of this assumption?
- What is the rational of the whole output penalty (it is only operational above the mean of output)?

Alternative Stories

- Partial Default decentralizing the second-best allocation: Kehoe and Perri (2002, JET). \Rightarrow May be not plausible empirically, given the apparent welfare losses during default episodes.
- Selective default (e.g. domestic vs. foreign debt like Paczos and Shakhnov, 2018). \Rightarrow Unlikely to explain the whole story.

Welfare

- The paper introduces two policy counterfactuals.
 - No borrowing during default.
 - More debt forgiveness (lower κ).
- Some aggregate effects are studied but no welfare consequences are shown.
- However, it is known that in models of defaultable debt welfare can be often improved by making default more costly.
- It increases borrowing capacity but reducing state-contingency.
- Is that the case with partial default as well?

Conclusions

Important paper making a large step forward towards understanding sovereign default better.