

**Discussion of Arce and Villa:  
“Sovereign Risk with Endogenous Debt Limits”**

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April 2026

## This paper

- Eaton-Gersovitz (EG) model with long-term debt
- Problem: Debt dilution
- Solution: Fiscal rules in form of debt limits with externally enforced penalty
  - Who is enforcing the penalty?
  - Constitutional courts, politicians' career concerns, reputational forces
- If no shocks and cost is large enough, then can implement best outcome
- Quantitative version and welfare gains

## My discussion

- Is debt dilution a problem?
- How to think about self-imposed fiscal rules? Announcements?
- What more can we learn from the paper?

## Is debt dilution a problem?

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- Consider SOE without commitment
- Efficient allocation  $\{c(s^t)\}$  solves

$$\max \sum_{t \geq 0} \sum_{s^t} \beta^t \Pr(s^t | s_0) u(c(s^t))$$

subject to

$$\sum_{t \geq 0} \sum_{s^t} Q(s^t) [y(s^t) - c(s^t)] \geq B_0$$

and sustainability constraints

$$\max \sum_{k \geq 0} \sum_{s^{t+k}} \beta^k \Pr(s^{t+k} | s^t) u(c(s^{t+k})) \geq \underline{V}(s_t)$$

## Is debt dilution a problem?

Dovis (2019): Not necessarily

- Consider SOE without commitment
- Efficient allocation is best SPE outcome of sovereign debt game
  - Same assets as in EG
- Why? Prices are history dependent
  - If gov't in  $t + k$  tries to dilute too much relative to what gov't in  $t$  wants  
→ faces low price for new debt

## Are prices history dependent in data?

- $q(h^{t-1}, s_t, b_t)$  vs.  $q(s_t, b_t)$
- Do prices change when gov't doesn't meet market expectations about budget?
- Let  $\Delta$  be primary surplus:  $q(s_t, b_t, \Delta_t - \Delta^e(s_t)) \neq q(s_t, b_t)$ ?

- In linearized form

$$q_t = \beta_0 s_t + \beta_b b_t + \beta_h (\Delta_t - \Delta_t^e)$$

- If history dependent  $\rightarrow \beta_h \neq 0$
- Issues:
  - High frequency information about  $\Delta_t^e$ ?
  - Off path only?
- Always wanted to do this ...

## Do announcements matter?

- In theory: No.
  - *Set* of SPE is unchanged
- Can announcements help to “select” good equilibrium?
  - Maybe they make the deviation more salient
  - Help lenders to coordinate on low price after deviation?
- Data: 3 levels of effect on bond prices
  - Markets alone
  - Self-imposed fiscal rules
  - Externally imposed, e.g. IMF programs

## How to give announcements a role?

- DAVIS-KIRPALANI (2020, 2021), KOSTADINOV-ROLDAN (2025), ELKINA (2026)
  - Possibility of a commitment type that must follow announcement
  - Strategic type also wants reputation for being commitment type

Can apply this logic to fiscal rule context

- No shocks and planner chooses rule:
    - Tightest cap (closer to Ramsey) such that strategic type follows rule
  - If governments choose rule:
    - Commitment type tries to separate
    - Strategic type mimics announcement but likely not follow the rule ex-post
  - How much discretion should announcement allow?
    - Elkina (2026): trade-off between reputation building and discretion
- This paper: announcements have role because of externally enforced punishment technology
    - What are these costs if on-path? Prices vs. other observables

## What more can we learn from the paper?

- Similar to Bocola-Chaumont-Dovis-Kirpalani
  - Also broad interpretation of deviation costs
  - Understand how equilibrium outcomes are shaped by cost
  - Use these relations to infer cost from the data
- Can you do something like this here?
- Role of announcements and varying institutional setting to account for spreads and debt dynamics?
  - Equilibrium outcomes continuously nest EG outcomes and best SPE
  - Can find restrictions on outcomes to learn if deviation cost went up?