Discussion: "Self-Fulfilling Debt Crises, Revisited: The Art of the Desperate Deal"

By: Aguiar, Chatterjee, Cole, Stangebye.

International Economics and Finance Conference. Discussant: Juan Passadore

June 2019

Intro

- Important Question: what is the quantitative role of coordination failures in sovereign crises?
  - Positive: spreads (means, volatilities), default frequencies.
  - Normative: debt management, interventions (ECB).
- Main Contribution: quantitative framework for expectations driven and fundamental sovereign debt crisis.
- Results:
  - construct equilibria in which the govt borrows at high spreads, not tied to fundamentals, slow moving debt crises
  - match high volatility of spreads for cases in which fundamentals have "low volatility"
- Overall...important contribution, nice to read, many results!
- Discussion: sources of multiplicity, maturity management, costly portfolio re-balancing, multiplicity.

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  - Lit: Large positive and normative literature. Framework, builds on Aguiar Gopinath (2006) and Arellano (2008)....a large body of work!
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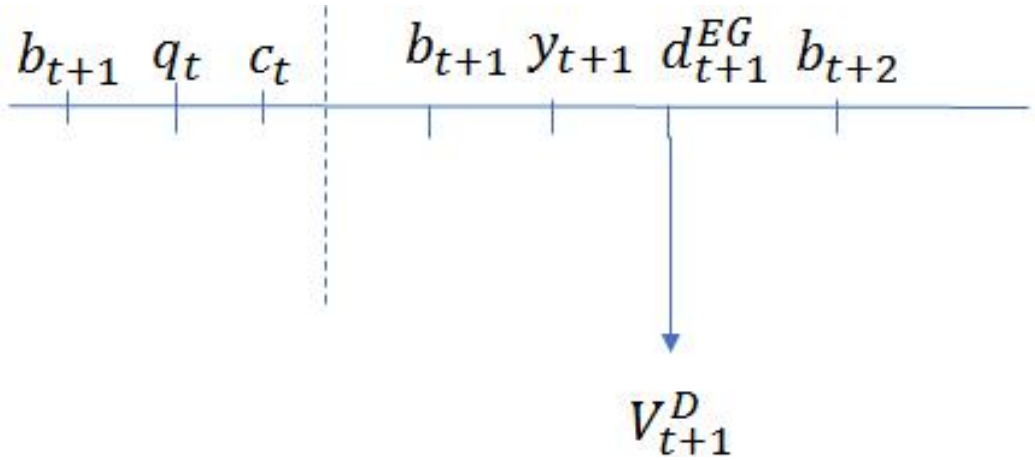
Static vs Dynamic Multiplicity

Timeline



Static vs Dynamic Multiplicity

Motivation: Multiplicity in Eaton Gersovitz?

- Prices. EG timing:

$$q_t = \frac{\mathbb{E}_t(1 - d_{t+1})}{1 + r}$$

- Multiplicity? Dynamic (inter-period): in t about d_{t+1}. Step 1. No savings, or savings are not valued $\underline{q} = 0$. Idea:

$$u(y_t) + \frac{\beta}{1-\beta}\mathbb{E}(y_{t+1}) \geq u(y_t - b_t) + \frac{\beta}{1-\beta}\mathbb{E}(y_{t+1}).$$

Step 2. Sufficient conditions $\overline{q} > 0$. Example: no savings, $\{y_H, y_L\}$, $\lambda_{HL} = \lambda_{LH} = 1$, no output costs of def.

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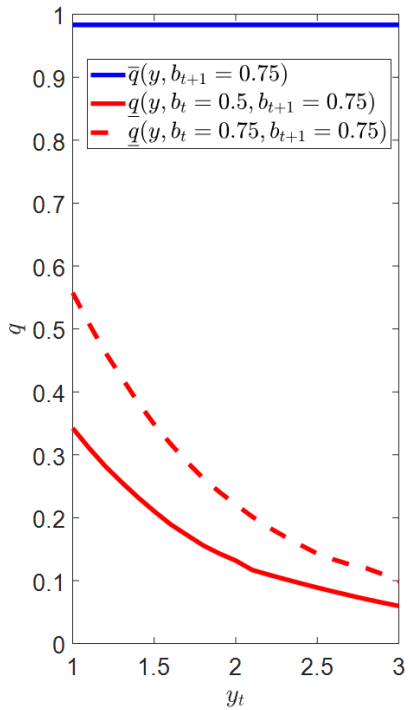

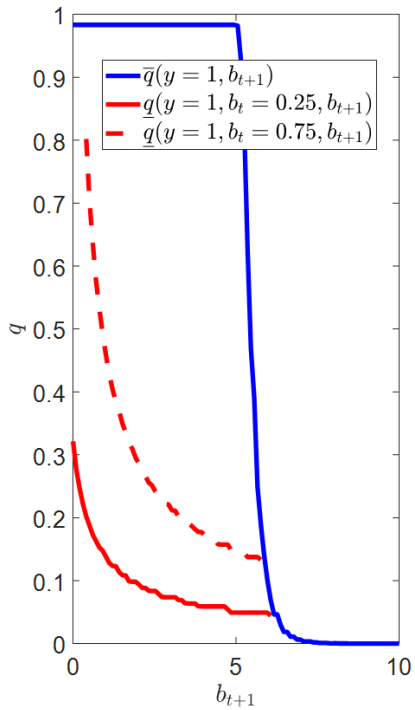

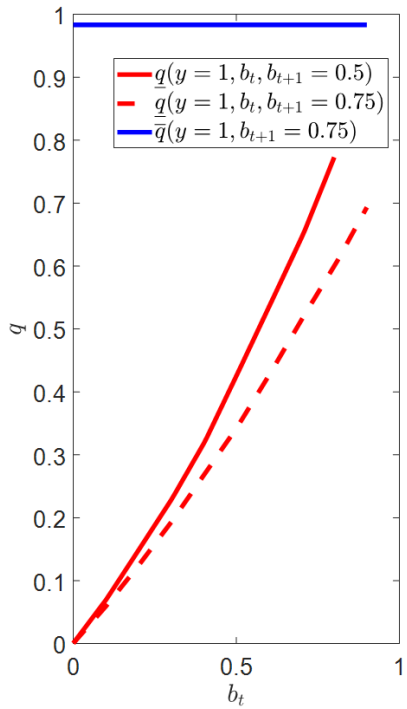

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Eaton Gersovitz as a model of Self-fulfilling crises? Challenges...

- But...value savings, $\overline{q} = \underline{q} \neq 0$. Auclert Rognlie (2016): Unique equilibrium. Aguiar Amador (2019).
- Problem 1: Empirically plausible case, uniqueness.
  - Output process closer to iid. Previous example: $\rho_y = 0.0945$.
  - Costs of default needed for debt capacity mess up:

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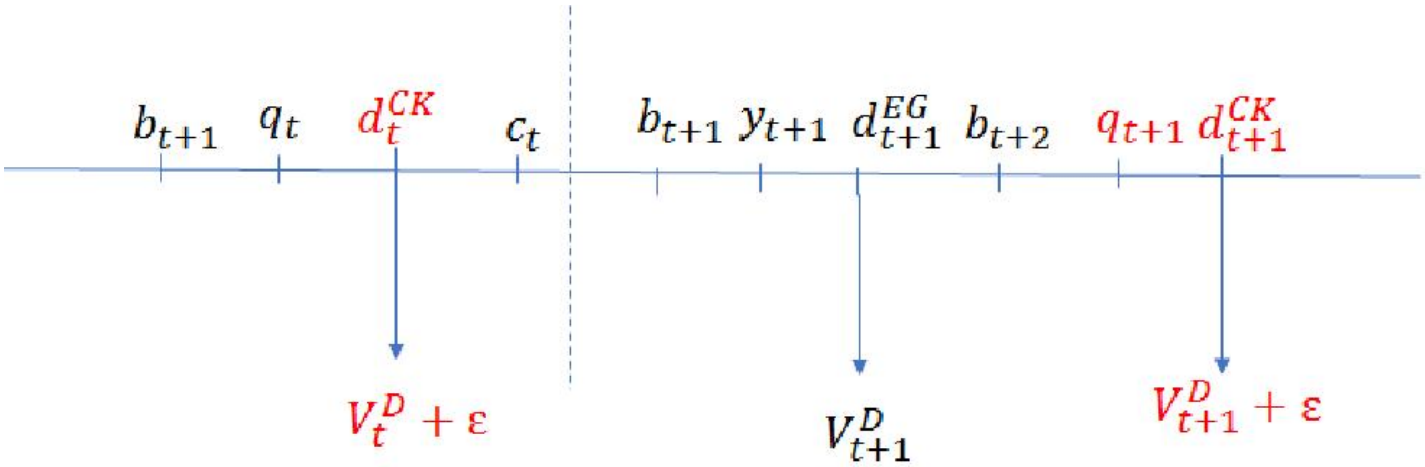
General Timeline



Static vs Dynamic Multiplicity

Multiplicity in CK (2000), ACCS (2019)? A general model.

- Prices. General timing (add d_t^{CK}). Debt prices for b_{t+1}:

$$q_t = \frac{\mathbb{E}_t(1-d_t^{CK})(1-d_{t+1}^{EG})(1-d_{t+1}^{CK})}{1+r} = \frac{\mathbb{E}_t(1-d_t^{CK})(1-d_{t+1}^{CK})}{1+r}$$

- Comment. Def. at redemption + zero cost $\Longrightarrow$ both EG, CK.
- Multiplicity? Static (intra-period). $\epsilon = 0$.

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  - Desperate deals $V^R(b, y, b'; q^{DD}) = V^D$. EC / FI.
  - Harsanyi: $V^R(b, y, b'; q)$ vs $V^D + \epsilon$

- Comment. Reasonable: what is the cost of default? is it common knowledge? Brexit. Trump. Shocks to continuation values.

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Framework II: Costly Portfolio Re-balancing

- CPR 1. Trading frictions:
  - Theory. Alternative stories: risk aversion, adverse selection, order processing costs, OTC.
  - Empirics. Large body of evidence. Stocks (Amihud, Pastor Stambaugh), Corporate bonds (He Milbradt, EHP). Sov Debt: Sizable component of spreads is liquidity. Calibrated sov debt models: 10 to 40 percent.
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- Implication. Price Impact. Hard to de-activate a crisis.

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Framework III: Robustness

- Full Characterization. How many equilibria (given V^D)? Best? Worst? All? Harsanyi, different distributions pins some.
- Positive. Current calibration, match historical default frequency.
- Normative. Equilibria with different properties, $q(y, b')$ vs $q(b, y, b')$. Reputation. Multiplicity and normative analysis....still an open issue.

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Closing Remarks

- Great paper to read. Important topic.
- Framework to quantitatively study self fulfilling debt crises. Very much needed.
- Moving the agenda forward, many interesting avenues:
  - Currency Management
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Argentina: Law 24.156

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podrá realizar operaciones de crédito público para reestructurar la deuda pública y los avales otorgados en los términos de los artículos 62 y 64 mediante su consolidación, conversión o renegociación, en la medida que ello implique un mejoramiento de los montos, plazos y/o intereses de las operaciones originales."

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