Comments on

"Optimal Sovereign Debt Default"
by Klaus Adam and Michael Grill

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- Very interesting paper

- Elegant and transparent analysis

- Fun to read!

I SUMMARY

II COMMENTS

Topic

- Sovereign defaulting on debt held by foreigners

    - Seminal work: Eaton and Gersovitz (1981) and Grossmann and Van Huyck (1988)

    - Starting point: Borrower does not commit to fully repay debt

    - Debt is either fully repaid or not repaid at all (default)

- Adam and Grill's (2011) paper

    - Default under perfect commitment $\rightarrow$ Purely normative analysis

    - Government decides on fractional repayment of debt

Adam and Grill's paper

- <u>Main effect of default</u>

  - Defaulting on non-state contingent (NSC) debt makes debt state contingent

  - Incomplete financial markets can become more complete with default

- <u>Main results</u>

  - Default can be welfare enhancing due to international risk sharing

  - Whether defaulting is optimal or not depends on

    1. Costs of default

    2. Magnitude of aggregate shocks

Recent literature on default

- <u>Default under discretion</u>

  - Arellano (2008): Positive analysis of sovereign default

  - Aguiar and Gopinath (2006): Endowment process with stochastic trend

  - Mendoza and Yue (2010): Default cost due to corporate borrowing

  - Yue (2009): Ex post debt renegotiation

- <u>Default under commitment</u>

  - Pouzo (2010): Sovereign default in a closed economy

The model

- <u>Small open economy</u>

  - Risk avers domestic households

  - Production with physical capital and stochastic productivity z

- <u>Foreign lenders/borrowers</u>

  - Risk neutral international investor

  - Trade in NSC internationally traded bonds and domestic government bonds

Government

- Government

  - Invests in NSC one-period bonds G^L

  - Borrows in NSC one-period bonds without commitment G^S

  - Decides on the repayment rate $\delta(z)$

    $$(1 - \lambda)\delta(z)G^S$$

    where λ are dead weight costs associated with default

Default decision

- Government maximizes household welfare under full commitment

  – Price of government bonds depends on expected repayment rate

- <u>Reformulation</u>: Considering state contingent debt $a(z)$ without default

  – Optimal allocation can also be implemented by defaulting on NSC debt

  – Equivalence: NSC debt can be made SC by defaulting

Results I/II

- Case without exogenous default costs

    - Optimal solution is characterized by constant consumption

    - Default occurs frequently and in almost all states

- Case with exogenous default costs

    - Fixed costs $\lambda > 0$ reduce payoff from state contingent claims $(1 - \lambda)a$

    - Analysis for two productivity states (high/low) under a natural borrowing limit

        1. Default is optimal for low λ levels and with high net foreign debt

        2. Less future default in low productivity states

Results II/II

- Adding extremely low productivity levels (disaster states)

  - Default is optimal in disaster states for wide range of net foreign debt

  - Welfare gains from defaulting: 1-2% of permanent consumption

- Similar effects

  - Government always defaults in disaster states and never in normal states

  - Repurchasing non-maturing long term bonds at devaluated market price

I SUMMARY

II COMMENTS

Default under commitment

- Is this a default analysis? Or, is this an analysis of different payoff structures?

  - Government perfectly commits to a state contingent payoff plan

  - Default is predictable and does not surprise the lender

- Motivation for λ "*Defending legal positions in foreign courts or disruptions in financial markets*"

  - doesn't fit to default costs when investors expect state contingent payoffs

  $\rightarrow$ Compare to default without commitment

Default costs

- Costs of default have typically been assumed to be (see e.g. Arellano, 2008)

    - financial autarky, i.e. losing access to international credit

    - direct resource costs

- Here, a sovereign faces dead weight costs when defaulting

    - Does it simplify the analysis?

    $\rightarrow$ Explain how resource costs affect the results/analysis

Natural borrowing limit

- NBL defined as the maximum debt level consistent with non-explosive debt

  – NBL binds marginally and debt levels are stationary

- Default when NBL is **not** satisfied

  – Defaults should be more likely with higher debt levels

  – Investors might stop lending once NBL is exceeded

  $\rightarrow$ Examine less restrictive borrowing constraints

Welfare gains from default

- Welfare losses of imperfect international risk sharing

    – Default gains due to international risk sharing

    – Government *defaults* even as a net lender (figure 2)

- Aren't there more obvious gains from default?

    – Government collects taxes and issues debt

   – Defaulting on public debt allows to lower distortionary taxes

Sovereign default and fiscal policy

- <u>Pouzo (2010)</u>: Optimal taxation and sovereign default in a closed economy

  - Commitment to the path of tax rates under full repayment

  - No commitment to fully repay debt

- <u>Juessen and Schabert (2011)</u>: Default under discretion in a closed economy

  - Default costs like in Arellano (2008)

  - Lowering income tax rates with default

  - Higher repayment rate (smaller haircut) increases debt and default probability
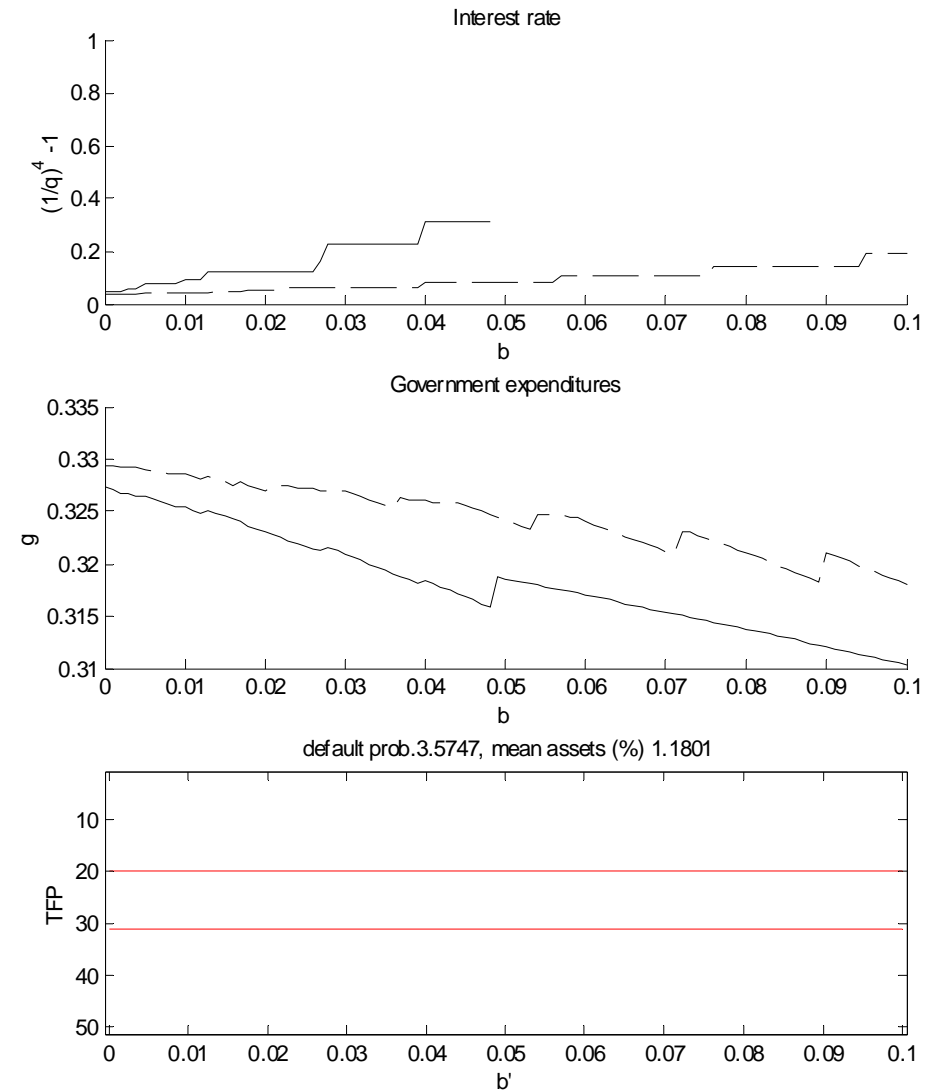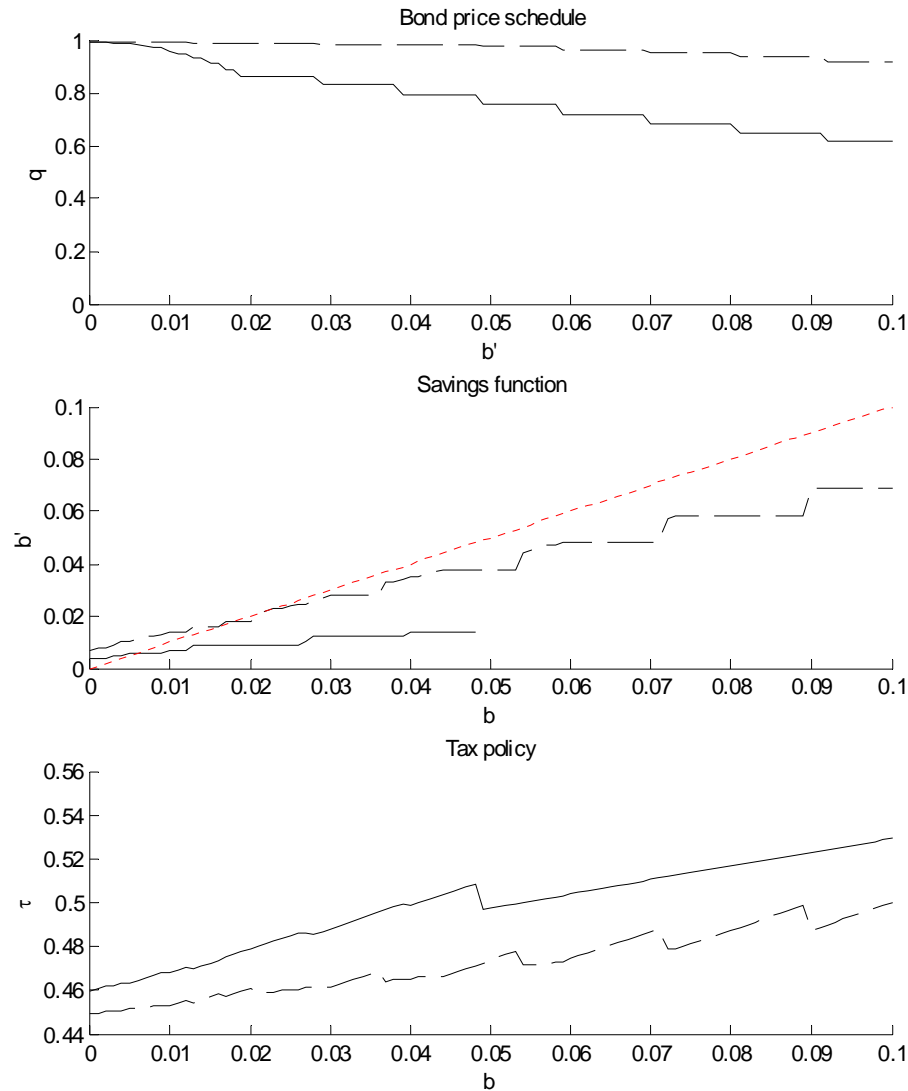
Fixed repayment rate under default $1 - \Delta = 0.5$
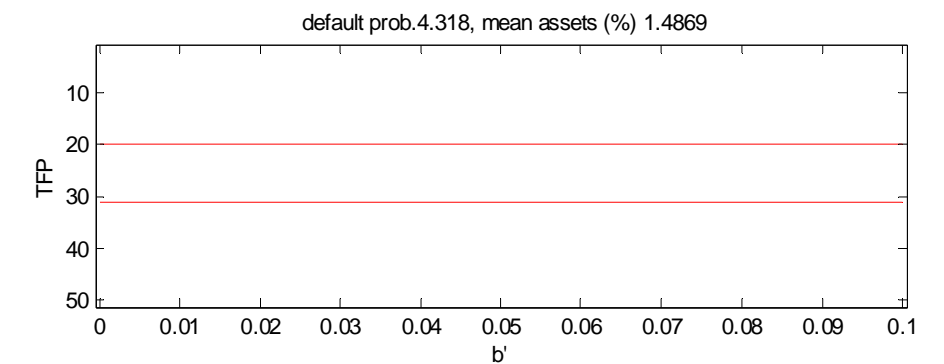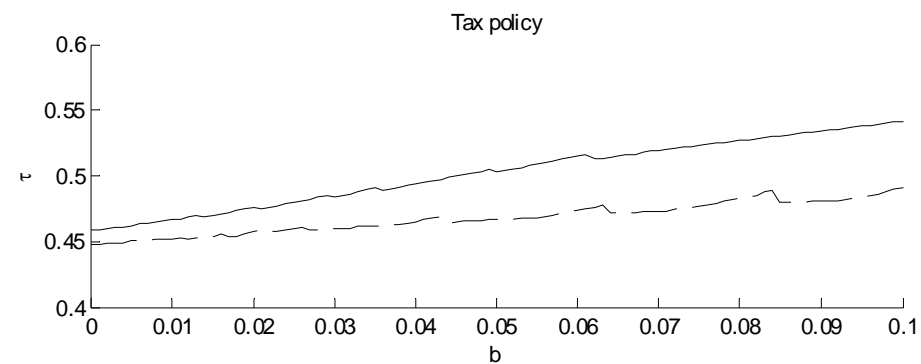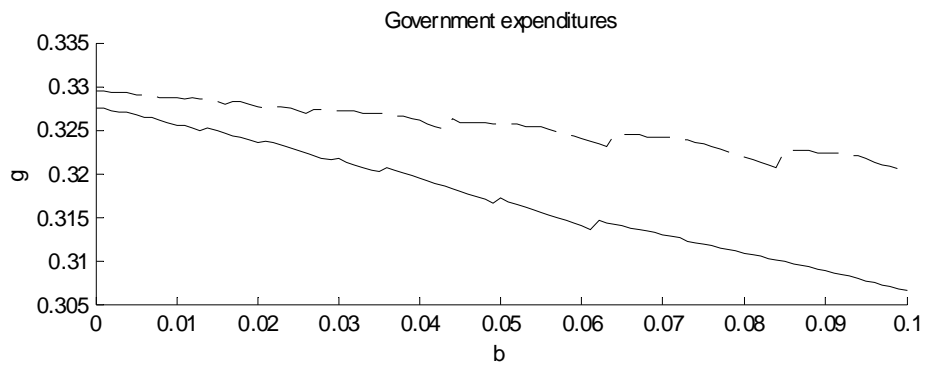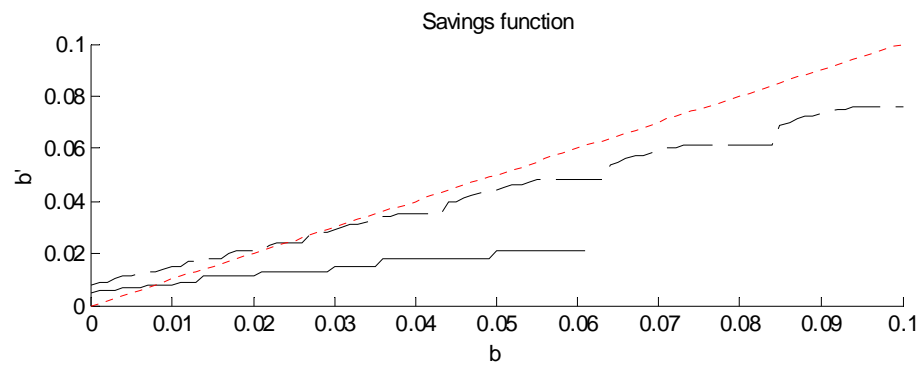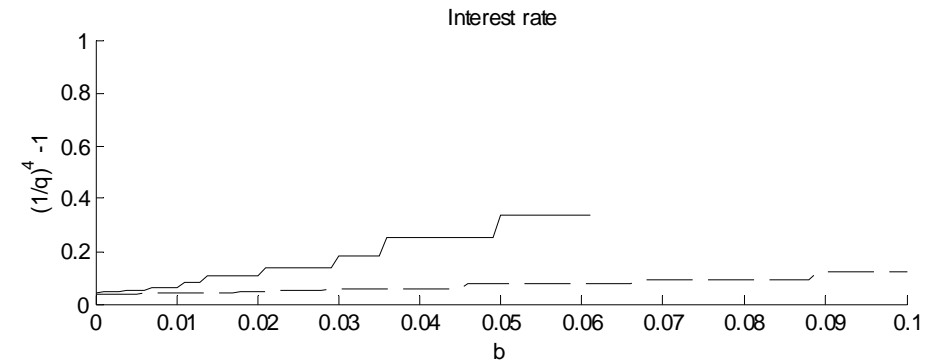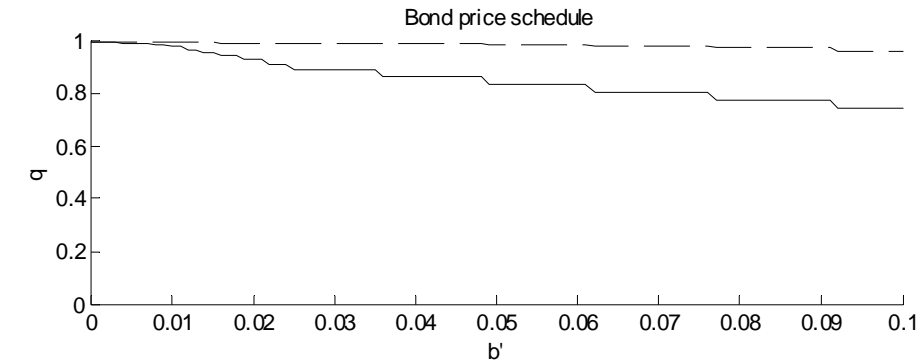
Fixed repayment rate under default $1 - \Delta = 0.6$

Very nice paper on a hot topic

I am looking forward to see the next version.