

“A Theory of Public Debt as a Macro-Financial Stability Tool”

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Summary of the paper

- Idea: Fiscal policy can prevent ZLB episodes (“macro stability”) and asset bubbles (“financial stability”) by raising the long-run average public debt-to-GDP ratio.
- An OLG model with a nominal rigidity where bubbles can be leveraged (held by banks) or unleveraged (held by households).
- The real interest rate is increasing in the quantity of public debt.
- A kind of ordering in steady state: As public debt increases, first the ZLB becomes non-binding, then leveraged bubbles disappear, and finally unleveraged bubbles become unsustainable.

Macro stability

- Steady state: If the natural real interest rate is negative, then the ZLB is binding (assuming a zero inflation target); this has real consequences in the model.
- A sufficient quantity of public debt makes the natural real rate positive; then the ZLB is non-binding in steady state; this is a fiscal “free lunch.”
- But in the stochastic economy, the ZLB will still bind in some states of the world, which will have real consequences.
- One can consider raising steady-state debt further, to minimize the probability of the ZLB binding in the stochastic economy; this will no longer be a fiscal “free lunch.”
- Alternatively, fiscal policy can act in states in which the ZLB may (has) become binding, without raising the long-run average debt-to-GDP ratio.

Financial stability

- In an OLG model, a deterministic bubble can exist if the real rate is negative; a stochastic bubble can exist even if the real rate is positive.
- The paper gives conditions for fiscal policy to ensure that stochastic bubbles can't exist in steady state; since a positive real rate is necessary, there is no fiscal "free lunch."
- We don't get a normative analysis of fiscal policy that would deliver a steady-state positive real rate.
- Neither do we get an argument for why eliminating all bubbles is socially optimal (a bubble on public debt, a bubble that relaxes private borrowing constraints thereby raising production).

An alternative view of asset bubbles

- A bubble in the standard OLG model: Everyone knows that there is a bubble.
- An imperfect-information view: People form expectations of future cashflows based on noisy signals; some noise can be correlated across individuals; the average expectation of future cashflows can deviate from what the expectation would be given perfect information.
- With margin and short-selling constraints, this can lead to protracted “bubbles.”
- Unclear if a high public debt-to-GDP ratio makes such episodes less or more likely.

The “maximum safe debt”

- In the paper, the “maximum safe debt” is the quantity that satiates the demand for safe, liquid assets; the convenience yield falls to zero.
- Another view is that safe debt is debt with negligible default risk; so safe public debt is public debt that has sufficient backing with primary surpluses.
- One can imagine a near-zero convenience yield with a lot of remaining fiscal space (i.e., additional debt would be safe).
- One can also imagine non-trivial default risk with the demand for safe, liquid assets far from being satiated (i.e., additional debt would not be safe).