Discussion of:

Debt Sustainability in a Low Interest Rate World

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Debt sustainability

Dynamics of debt-to-GDP ratio:

$$\dot{b}_t = \underbrace{(r - g - n)\, b_t}_{\text{Cost of servicing debt}} + \frac{G_t - T_t}{N_t y_t}$$

Empirically, across 17 countries:

- $r < g + n$ about 50% of the time.
- Conditional on $r < g + n$, there is 30% probability of reverting to $r > g + n$ in five years.

Debt sustainability

General equilibrium of pure exchange economy with:

- Endowment shocks;
- Fiscal policy shocks.

What is the stationary distribution of debt-to-GDP?

- Fiscal policy tries to stabilize debt-to-GDP $\Rightarrow$ Lognormal distribution.
- Fiscal policy is passive, but primary deficit not too large $\Rightarrow$ Pareto distribution.

No-Ponzi condition

What is the limit to government indebtedness?

Government's no-Ponzi condition:

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Is the limit to government indebtedness determined by the government's no-Ponzi condition?

- No! This limit is given by households' willingness to lend to the government.

Rational Ponzi schemes

Under the standard neoclassical model:

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- Ponzi schemes can be sustainable if and only if $r \leq g + n$ (Michau, Ono, Schlegl 2019).

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Growth rate of Ponzi scheme $= r - g - n$.

- Ponzi scheme is not explosive if and only if $r \leq g + n$.

Debt sustainability

A stationary debt-to-GDP distribution is sustainable:

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Government can borrow by issuing money rather bonds.

- If households do not want to hold (unbacked) money, they have to spend it!

Secular stagnation

Demand-driven secular stagnation can be obtained:

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Can debt sustainability be a concern under secular stagnation?

No!

- Ponzi schemes can be sustainable (and stimulative through the Pigou effect);
- Unsustainable Ponzi schemes are inflationary.