

Discussion of “The Austerity Threshold”

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What This Paper Asks

- ▶ Theoretically, what is the maximum debt-to-GDP ratio feasible before a fiscal consolidation is mandatory (*the austerity threshold*)?
 - ▶ Before this point, fiscal authority unconcerned with/responsive to debt's evolution → novel inaction region
 - ▶ New Keynesian model with safety premium and convenience yield on government debt
- ▶ Ambitious paper using state-of-the-art techniques
 - ▶ Key innovation: global solution characterizing full distribution of debt

What This Paper Finds

- ▶ Spending-based austerity leads to higher fiscal capacity than tax-based austerity
 - ▶ Tax-based limit: 189% of GDP vs. spending-based limit: 200% of GDP
 - ▶ Rankings depend on model parametrization (e.g., lower risk aversion reverses them)
- ▶ Uncertainty about future fiscal adjustment sharply lowers fiscal capacity
 - ▶ 50-50 chance of tax- or spending-based austerity lowers limit to 127%

Discussion Road Map

- ▶ Very thought-provoking paper!
- ▶ Discussion in two parts:
 1. Within-model assumptions and mechanisms
 2. Broader questions about the U.S. fiscal policy path

Designing an Austerity Threshold

Creating a **robust threshold**:

- ▶ Conservative policymaker: *State-independent, debt-to-GDP ratio that is safe in all states of the world*

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Start with illustration from a simple model:

- ▶ **Characterize the upper limit to debt** as the fixed point of the debt law of motion **under worst-case shocks**

$$\bar{B} = \frac{1}{1 - \bar{q}} Z_{\min} \left(\frac{\alpha}{\omega_0} \frac{1 - f(\bar{B})}{1 - \gamma_h} \right)^{\frac{\alpha}{1 + \omega_1}} (\alpha f(\bar{B}) - \gamma_h)$$

- ▶ Tax-austerity threshold is the highest value for which the debt bound exists

$$\tau_t = f(B_t) = \begin{cases} \bar{\tau}(B_t/B^P)^{\tau_P} & B_t < B^P \\ \bar{\tau} & B^P \leq B_t \leq B^A \\ \bar{\tau}(B_t/B^A)^{\tau_A} & B_t > B^A \end{cases}$$

Designing an Austerity Threshold: Issues

- ▶ Worst-case approach pins the threshold to a single extreme node
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- ▶ Numerical exercise based on the simple model shows sensitivity (author's computation):

Austerity Threshold & Debt Upper Bound

Tauchen discretization ($m = 3$, truncates shocks at $\pm 3\sigma$)

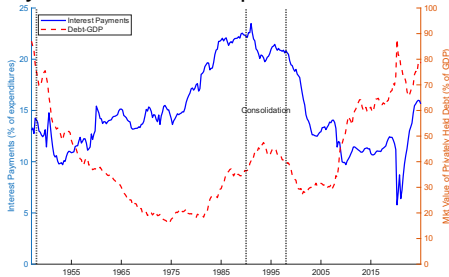
# of grid points	Std. dev. of Z		
	0.03	0.05	0.07
5	1.57, 3.29	1.14, 2.38	0.86, 1.81
9	1.55, 3.26	1.12, 2.34	0.85, 1.77
13	1.55, 3.25	1.11, 2.33	0.84, 1.76

Designing an Austerity Threshold: Simulation-Based Approach

- ▶ For the quantitative model, paper replaces worst-case analysis with simulation-based solution
- ▶ Threshold depends on the distribution of shocks
 - ▶ Particularly the probability mass in the lower tail
- ▶ Move from grid sensitivity to tail modeling sensitivity—still a hard problem
 - ▶ Fat tails, rare disasters, stochastic volatility
 - ▶ Is a COVID-scale shock within simulations?

Designing an Austerity Threshold

- ▶ Historically, policymakers have not procrastinated until this threshold:



- ▶ Still useful to know going forward how long one could procrastinate

Designing an Austerity Threshold

- ▶ But then, instead of the ex-ante (ergodic) austerity threshold, it would be useful to know the threshold *given the current state today*
- ▶ Related to fiscal capacity literature: can support higher debt levels farther from worst-case states
 - ▶ e.g., Bi (2012); Davig, Leeper & Walker (2011); Ghosh et al. (2013); Ostry et al. (2011)
 - ▶ Bi, Campbell, & Leeper (2013) provide modeling framework for fiscal consolidations with uncertain timing & implementation

Treasury Demand is Endogenous...

Debt holdings in the model (67% long-term, 8yr maturity)

- ▶ *Financial intermediaries* hold short-term debt
 - ▶ liquidity/regulation \Rightarrow convenience yield
- ▶ *Households* hold long-term debt
 - ▶ precautionary demand \Rightarrow low long yields

Why this matters for fiscal capacity

- ▶ Captures a safe-asset premium environment through domestic balance sheets

Treasury Demand is Endogenous... but also Foreign

- ▶ In reality, Treasury demand (and thus the safety premium) has varied over time with **foreign demand**:
 - ▶ global savings imbalances (“savings glut”)
 - ▶ foreign reserve accumulation
 - ▶ geopolitical shifts and de-dollarization

Category	2002–13		2013–24	
	\$B	% of new debt	\$B	% of new debt
Inv. Funds	860	10.1	3534	25.6
Foreign	4502	52.7	2683	19.4
Households	536	6.3	2148	15.5
Federal Reserve	1611	18.8	1798	13.0
Banks	95	1.1	1353	9.8
State/Local	323	3.8	1022	7.4
Other	275	3.2	572	4.1
Pension	222	2.6	440	3.2
Insurance	133	1.6	286	2.1
Total	8550		13829	

Source: Leeper (2025), Table 10.4., calculated from Federal Reserve Board Z.1 Financial Accounts

Treasury Demand is Endogenous... but also Foreign

- ▶ Model captures cyclical variation in safe-asset demand through risk, but abstracts from structural shifts in demand observed in the data.

- ▶ If global demand weakens (as recent trends suggest),
 - ▶ safety premia fall
 - ▶ yields rise
 - ▶ model may overstate fiscal capacity in a de-globalizing world

What Is an Expansionary Fiscal Policy Here?

- ▶ In the model, “expansionary” fiscal shock (**higher transfers**) leads to **higher debt and lower output**
 - ▶ Double force pushing model towards austerity threshold
 - ▶ Short-run output loss mainly driven by segmented labor markets and HtM households working less. Does the model need segmented labor markets?
 - ▶ If output rises instead, there would be an offsetting force, supporting higher fiscal capacity

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- ▶ **Spending austerity leads to higher output** → would be interesting to see a multiplier from a spending shock in this model
 - ▶ Normally, $G \downarrow \rightarrow Y \downarrow$ and $\pi \downarrow$
 - ▶ *The rapid decline of inflation in spending austerity allows the central bank to lower interest rates (top middle panel), neutralizing the output consequences of the negative demand shock.*
 - ▶ Why do C and I movements *more than* offset G ?
 - ▶ What is the distribution of output paths? If spending austerity systematically raises output, austerity less costly

What Does 'Safe' Mean?

Model definition:

- ▶ Debt is “safe” if default and inflation are ruled out

What Does 'Safe' Mean?

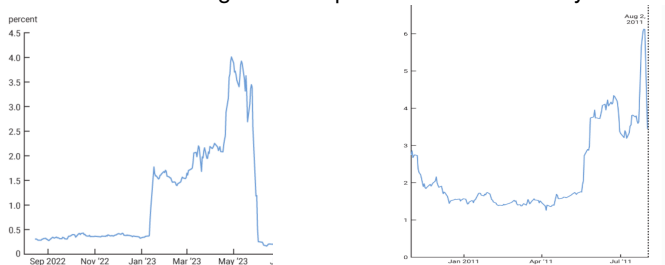
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But in practice,

- ▶ No major credit-rating agency gives U.S. debt top-tier AAA rating → some default risk priced
- ▶ Sovereign CDS spreads spike around debt ceiling episodes → default risk time-varying

U.S. Sovereign CDS Implied Default Probability



Source: Benzioni, et al (2023).

Safety via Inflation?

In the model:

- ▶ Inflation risk ruled out by policy commitment

But in practice:

- ▶ At times, bondholders historically have paid for U.S. debt [Hall & Sargent (2021, 2025); Gomez-Cram, Kung, Lustig (2024)]
- ▶ Covid episode suggests fiscal inflation, e.g. Barro & Bianchi (2025)
- ▶ Recent political pressure on the Fed → uncertainty about standard policy responses during austerity

→ Inflation is part of the adjustment margin.

Stepping Back: What Do We Know?

- ▶ In the model, uncertainty is about shocks and future regimes
- ▶ In practice, there is also uncertainty about the policy rule itself
 - ▶ Mapping from debt \rightarrow adjustment \rightarrow outcomes is not known
- ▶ This matters for pricing debt and for measured fiscal capacity
- ▶ Political uncertainty makes what adjusts in the future uncertain \rightarrow paper nicely shows this affects fiscal capacity
- ▶ But political uncertainty also makes the timing of adjustment uncertain
 - ▶ \rightarrow learning about the austerity threshold
 - ▶ \rightarrow political willingness to implement consolidation

Conclusion

- ▶ Paper addresses an important, timely, and difficult-to-answer question
 - ▶ Combines a New Keynesian framework with risk premia and convenience yields
 - ▶ Global solution provides a novel characterization of debt dynamics
- ▶ In reality, an austerity threshold is best viewed not as a number, but as a distribution shaped by beliefs, policy, and global demand
 - ▶ This paper provides an important step toward quantifying the threshold within a disciplined framework
- ▶ Pleasure to read and I encourage you to do so!