

Discussion of:

# **Sovereign default and the decline in interest rates**

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## In a nutshell

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### The Puzzling Fact(s):

- Real “risk-free” interest rate has trended down over the past 30 years, but also:
  - Return on private capital (it seems) has remained stable
  - Market valuation ratios have increased only moderately
  - Investment rates have been unimpressive

### Exiting (unsatisfactory) explanations:

- More savings (ageing/foreign): but should have pushed stock market and I/K  $\uparrow$
- $\uparrow$  Prob. of disasters (higher demand for safe asset): but should have showed up in options and risk premia

### This paper's explanation:

- $\downarrow$  default/inflation risk – and measured “risk-fee” ain't such:
  - no effect on capital risk premia (no real inflation costs in the model)
  - since real rate did *not* decline, no change in valuation ratios.
  - with storage/cash also: get a ZLB; and I/K crowded out.

⇒ elegant and clever

## My prior and posterior

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### Prior:

- inflation risk, in the last 30 years, must have gone down: the monetary policy “revolution”; Sims and Zha (2006) “lucky” regime.

⇒ qualitatively, and ex-ante, I’m on board with the authors

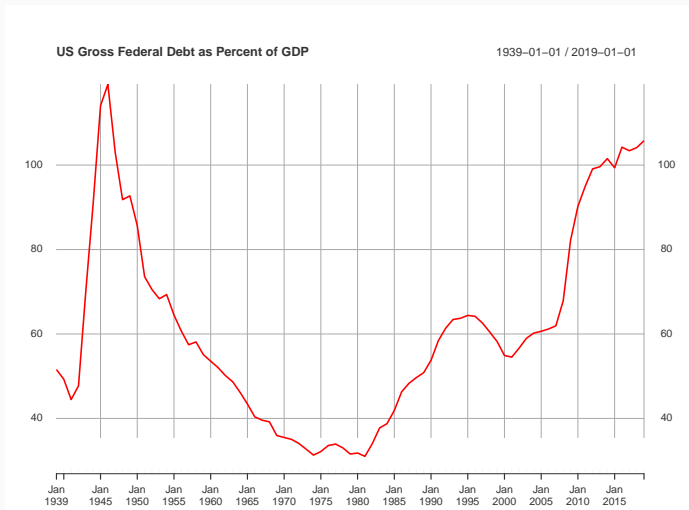
### Posterior:

- The Fiscal Theory of the Price Level, and (univariate) inflation data, don’t support my prior.
- As common in the Rare Disasters literature, matching quantities requires calibrations that are *not* in the convex hull of history.

**Did Default & Inflation Risk Go Down?**

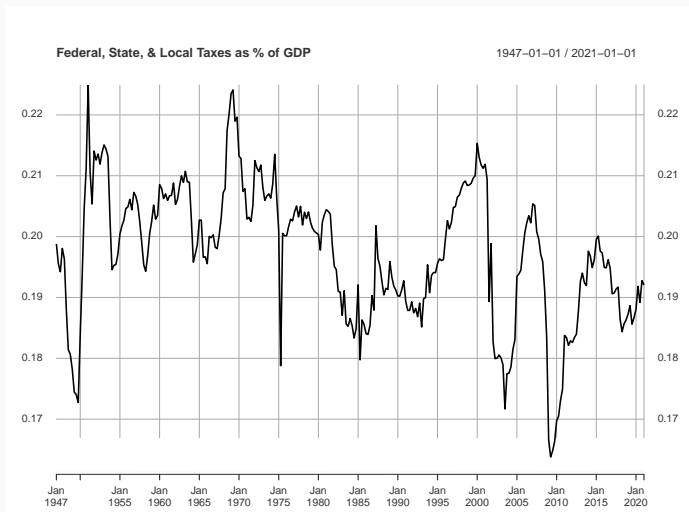
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## The Grumpy Economist's take



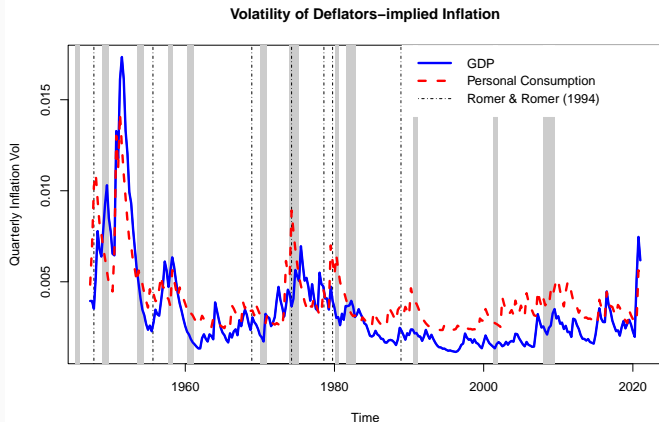
IBC/Fiscal-theory-of-price-level  $\Rightarrow$  inflate/default away ... or increase net tax revenues...

## Spare Fiscal Capacity?



Mean reduced by  $\approx 2\%$  (and about 14% lower than OECD average)

## Reduced non-Fiscal Inflation Risk?



Hard to argue that it decreased in 2001-2016 compared to 1984-2000...  
 ... 50s volatility equally driven by deflationary shocks ( $\bar{\pi} \approx 1.9\%$ ) ...  
 ... mean expectations evidence unconvincing (weak leverage-effect/arch-in-mean)

## **Rare Disasters – Do Calibrations Need to Be Realistic?**

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## A Brief History of Rare Disasters Calibrations

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- Rietz (1988): very large rare disasters (RD) can rationalise the Equity Premium Puzzle  
⇒ size of disasters dismissed as unrealistic at the time
- Barro (2006) show that in (Maddison (2003)) data there are very large multi-year contractions (average length = 4 years)  
⇒ Barro (and many others) calibrate one-year disasters = multi-year ones: without this “oddity,” Risk Premium  $\approx 2.2\%$
- Calibration approach debunked by formal estimation (Ghosh and Julliard (2012), Backus, Chernov, and Martin (2012))
- RD literature adopts the LRR bazooka: calibrations can become more realistic (e.g. Farhi and Gurio (2018)) but need much larger RRA.
- Problem: faster recoveries after disasters, as Ramsey/Solow growth models would predict (c.f. Nakamura, Steinsson, Barro, Ursua (2013) and post WWII “break”)

## Calibration in This Paper: Back to Barro-type

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- One year consumption disaster of 30% every 29 years.

⇒ No such disaster in the history of recorded data.

**Note:** during most extreme disasters (invasions, nuclear/fire-bombings, civil wars), stocks *outperform* bonds (4.51% on average).

- No faster recovery after disasters

⇒ Takes 10-13 years to go back to pre-disaster level

- **Baseline:** economy in a disaster induced slump about 38-48% of the time!

⇒ needs changing, or be transparent about calibration being at odds with world data – maybe call RD a behavioural bias?

## Conclusion & Final Suggestions

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An insightful and clever paper: a small twist goes a very long way. I admire that!

### Qualitatively:

- I have the same prior as the authors (CB independence, optimal monetary policy literature, regime shifts etc.)

### Quantitatively:

- Needs to provide concrete evidence about the reduction in inflation/default risk
- ⇒ re-run Sims and Zha (2006), and show that we are in a “really lucky” regime, or maybe change your turning point to 1980s and show that we are still in the “lucky” regime.
- Needs a much less unrealistic RD calibration ... or call RD a behavioural bias?

**Note:** no real inflation/default costs in the model ⇒ could reduce the need of unrealistic disasters.

