

# Default Risk and the Pricing of U.S. Sovereign Bonds

Robert Dittmar, Alex Hsu, Guillaume Roussellet, and Peter Simasek

Discussion by Savitar Sundaresan  
Imperial College

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## Big Picture

- **Anomaly:** Bond spreads don't capture inflation the same way as inflation swaps.
- **Innovation:** Could be asymmetric default risk on government bonds!
- **Findings:** CDS spreads can explain some of the observed difference.

## Assets In Question

- ILS: A fixed-for-floating swap that compensates the receiver for inflation.
- Treasury: A nominal government bond (return  $R$ )
- TIPS: A government bond that also compensates the holder for inflation (return  $R^*$ )

# Empirical Irregularity

- If the only difference in yields between Treasuries and TIPS is inflation-related, then:

$$ILS = R - R^* \equiv BEI$$

- But typically:

$$ILS > R - R^*$$

- $R^*$  too high?

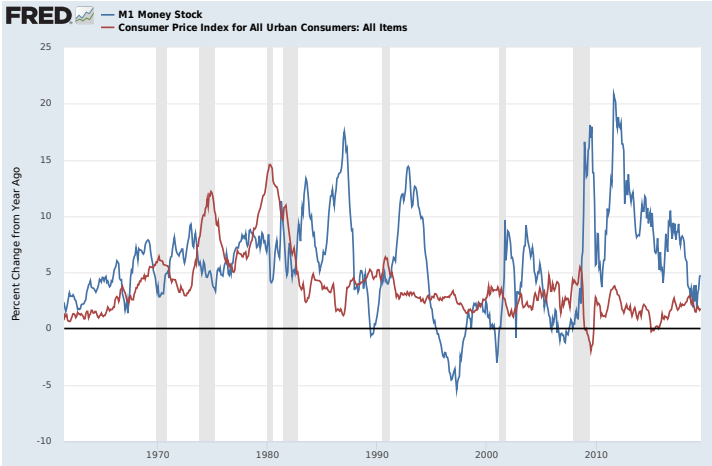
## A Priori Explanation

- Could be illiquidity that drives  $R^*$  up
- Could also be higher level of default risk.

## Inflating Away Debt

- Print your way out of trouble on nominal debt
- Can't do it (as easily) on TIPS
- More likely that US defaults on TIPS and not nominal than vice-versa.

# Comment 1: Macro Feasibility



Inflation lag makes inflating away even perfect passthrough possible.

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GLOBAL BUSINESS

# *Judge Orders Argentina to Pay Holdout Investors*

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By THE ASSOCIATED PRESS NOV. 22, 2012

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BUENOS AIRES (AP) — Argentina has finally run out of wiggle room in a billion-dollar showdown over foreign debts unpaid since the country's world-record default a decade ago.

Unclear whether you can selectively default on debt of equal seniority.



## Comment $\Omega$ : Peeking Into The Abyss And an Alternative

What happens when the US gov't defaults?

- What does 'fully collateralized' mean?
- What happens to non-sovereign credit risk?
- What happens to counterparty risk?
- What if  $R^*$  is fine, but  $ILS$  is high due to default risk?

This paper is treating default in 'partial equilibrium'.

# Conclusion

- Very interesting and unexpected finding!
- Could be interesting to expand on default implications.