The Development of Domestic Bond Markets

Amanda dos Santos

Discussant: Jay Kahn
Board of Governors of the Federal Reserve System

ITAM, 2026

Disclaimer: The views expressed in this presentation are those of the speaker and do not necessarily represent the views of the Board of Governors of the Federal Reserve System.

Q: Are government debt and corporate debt complements or substitutes?

Old question! Barro (1974), Friedman (1978).

This paper: Does having more government debt at given maturity increase corporate issuance at that maturity?

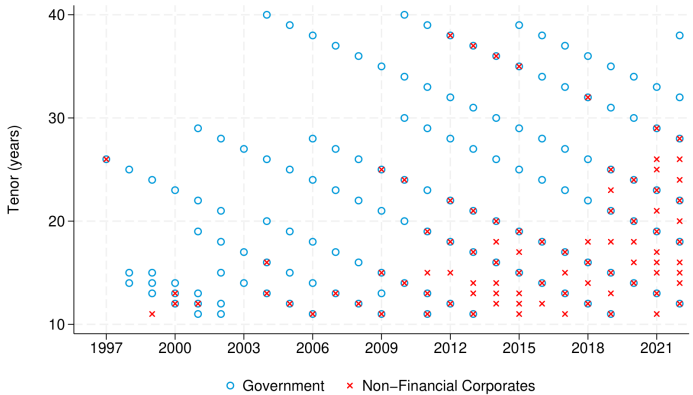
- **Setting:** Micro-level data from Brazil (mostly!).

Main finding: More government borrowing in a maturity does spur greater corporate issuance.

- *Prob issuance at maturity goes from 10% to 40% conditional on government debt in same maturity.*
- **But the key is going to be the identification which eliminates many alternative stories!**

Today: The identification is strong. What is the mechanism, and what can it tell us?

Key result: Corporates track the government issuance with remarkable precision



Challenge for the paper is to convince us about causality.

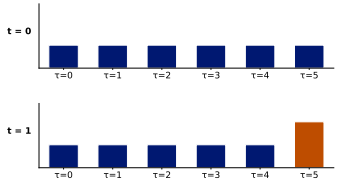
The key innovation to this paper is its identification

Start simple: regress corporate issuance on government outstanding.

- *Controlling for time and maturity fixed effects.*

Problem:

- Confounded by common beliefs at t about $t + \tau$.



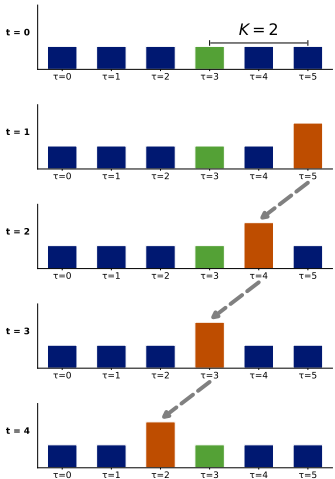
The key innovation to this paper is its identification

What can we do about contemporaneous beliefs?

K-Vintage issuance:

Issuance at $t = 1$ "ages in" to maturity 2 by $t = 3$.

- No longer represents projections at t=3!
- So can instrument for government debt outstanding at t=3.
- *Provided vintage has aged enough.*



Choice of “aging”, K, makes the tradeoff between exclusion and relevance transparent:

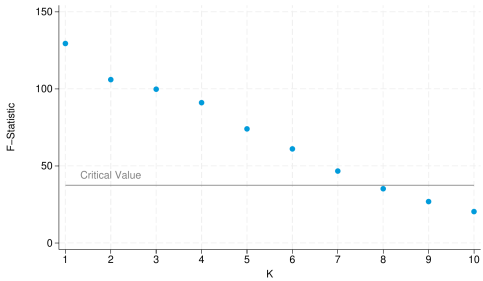
Higher K: Better exclusion.

- Less correlated with current beliefs.

Lower K: Better relevance.

- More bonds still outstanding.

Where you want to be depends on persistance / speed of corporate response to beliefs.



The key innovation to this paper is its identification

But we can go even farther!

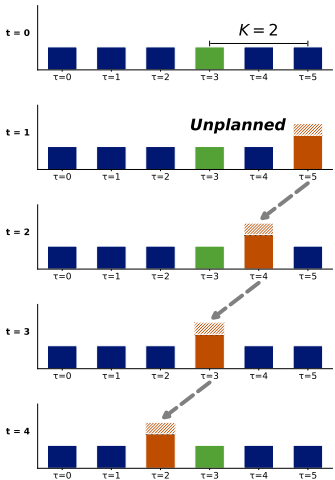
Instrument with *planned* issuance (from National Financing Plans).

What potential endogenous variation is left?

- *Beliefs at $t - K - n$ about $t + \tau$ that still matter at t.*
- **Hard to think of!**

Baseline effect:

- ***1% increase in government debt $\Rightarrow$ 0.027% increase in corporate issuance.***
- IV estimates *close* to OLS.
- Extensive margin of issuance drives results.



Identification is weaker for the extensions, but that may be OK

Two extensions build on the baseline:

1. **How to reconclie with Greenwood et al. (2015) 'gap filling' theory?**
   - **Solution:** add a quadratic term!
   - Intuitive, complementarity only occurs at low levels of debt.
   - But how much do we believe the functional form?

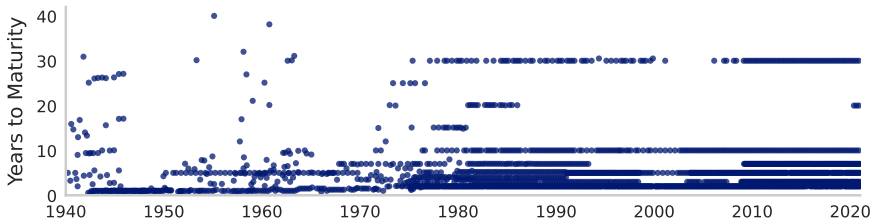
2. **What are the real effects?**
   - **Different identification:** high vs. low asset-duration firms.
   - Similar flavor to Rajan & Zingales (1998).
   - Harder to eliminate alternative stories.

Baseline identification does the heavy lifting. Rest follows naturally.

- If we believe government bonds expand firms' ability to borrow...
- ...then this at least *won't decrease* investment ...
- ...and there is probably a turning point.

What this paper can tell us: Why does Treasury pursue “regular and predictable” issuance?

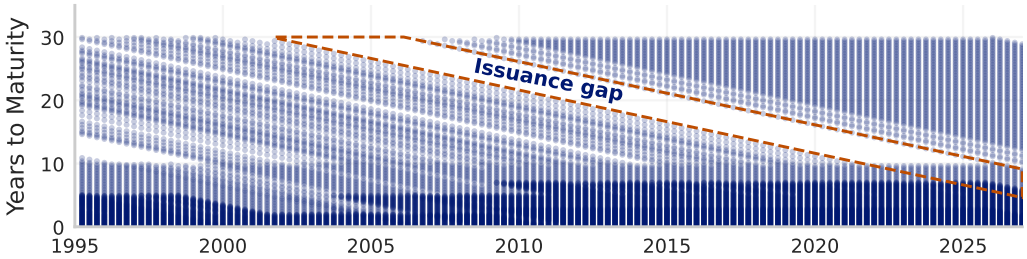
- **A puzzle:** standard debt management says tilt toward maturities with highest demand.
- **Instead, since 80’s Treasury issues constant amounts at regular intervals across curve.**



- **This paper gives an answer:** regular and predictable populates the curve at every maturity.
- Gives firms flexibility to issue in line with their asset duration!

This fits with out-of-sample evidence provided from U.S. 30-year discontinuation

- **Natural experiment:** 30-year bond discontinued 2001, reintroduced 2006.

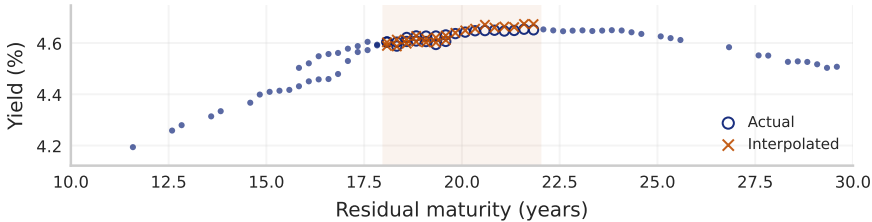


- Maturities between 2031 and 2036 lose their government benchmark.
- **Result:** corporate issuance *falls* about $2 billion when gov't bonds disappear.
  - (Corporate bond issuance in U.S. ∼$1-2 trillion a year.)
- **Complementarity in the world's deepest bond market!**

Why might complementarity persist even in developed markets?

Model section of the paper considers **price discovery** as driver.

- But does removing a few years of bonds make it hard to figure out prices?



- Exclude all Treasuries within ± 2 years of 20-year maturity and price using B-spline.
  - Median interpolation error: **0.5 bps**. Maximum: **1.8 bps**.
- **Markets can price the 20-year point decently without a 20-year bond.**

Hedging might provide an alternative/complementary channel

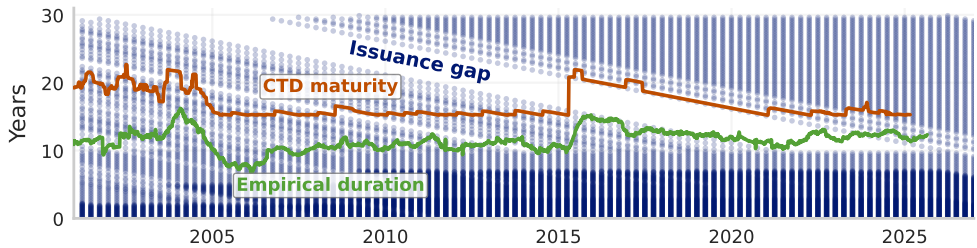
Specialists with info on corporation may need to isolate credit risk.

- e.g., underwriting long-term bonds is harder if you can't hedge rate risk.

Availability of hedges depends on presence of underlying bonds.

- e.g., futures depends on basis traders using underlying CTD bond (Barth & Kahn, 2025).

We can see this reliance in the 2001-2005 gap:



- Hedging benefit is *market completeness*, not just information.
- **Note:** I think neither theory fully explains extensive margin.

Conclusion

This is an exceptional paper:

- Causal evidence that gov't bond issuance catalyzes corporate bond markets.
- Instrument is clever, transparent, and well-executed.
- Strong policy pitch for developing bond markets.
- **Policy pitch for developmed markets:** paper speaks to why **regular and predictable** issuance matters so much.
- Would love to see future empirical and theoretical work that digs more into the channels.