Discussion of

Safe asset shortage and collateral re-use

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Federal Reserve Board[1]

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Motivation

▶ Securities circulate throughout the financial system through their use and re-use as collateral for secured funding transactions (SFTs)

  repo, securities lending, short positions, etc.

▶ Activity enhances underlying market liquidity....

▶ ...however, policymakers are concerned over financial stability implications

▶ Research question:

  How is does collateral re-use respond to (safe) asset scarcity?

▶ Empirical strategy:

  Study how German banks' sovereign bond re-use changes with the Eurosystem's public sector purchase program (PSPP)

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Methodology & Main Results

► Using micro data on German bank holdings, construct various measures of sovereign bond re-use at the *security level*

► Estimate panel regressions to test the sensitivity of re-use to PSPP

► Analyze how re-use affects changes in repo rates and their volatility

► Results:
  1. Increase in PSPP purchases $\implies$ increase in re-use
  2. High levels of re-use $\implies$ higher sensitivity of repo rates to PSPP
  3. High levels of re-use $\implies$ higher repo rate volatility

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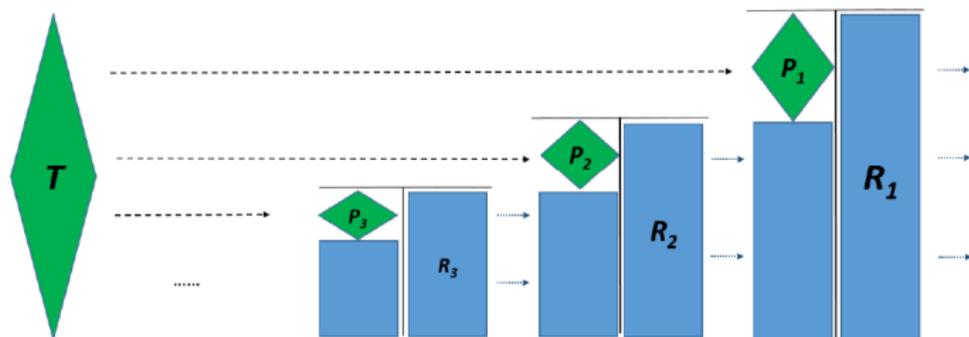 3. High levels of re-use $\implies$ higher repo rate volatility

Overview

▶ Very interesting and well written paper

▶ Provides valuable insights into the impact of PSPP on market functioning

▶ Discussion:

  – Provide conceptual framework to understand re-use

  – Comments: what contracts should we consider and how are collateral types related?

    – Sovereign bond supply and shorts?

    – Aggregate substitution effects between sovereign bonds?

    – Other types of SFTs?

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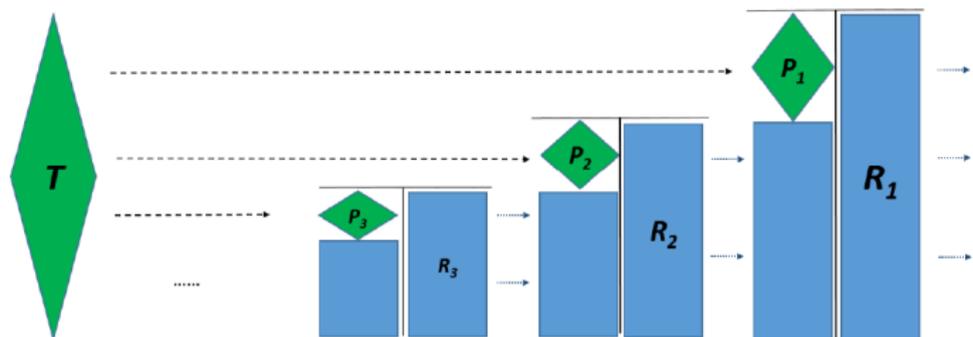
Conceptual Framework—Illustration

Source: Infante & Saravay (2020)

- Collateral multiplier: $m_i = R_i / P_i \implies \sum_{i=1}^{\infty} R_i = m \times T$
- In this stylized setting, m corresponds to average length of the collateral chain:

$$\sum_{i=1}^{\infty} i \times P_i = m \times T$$
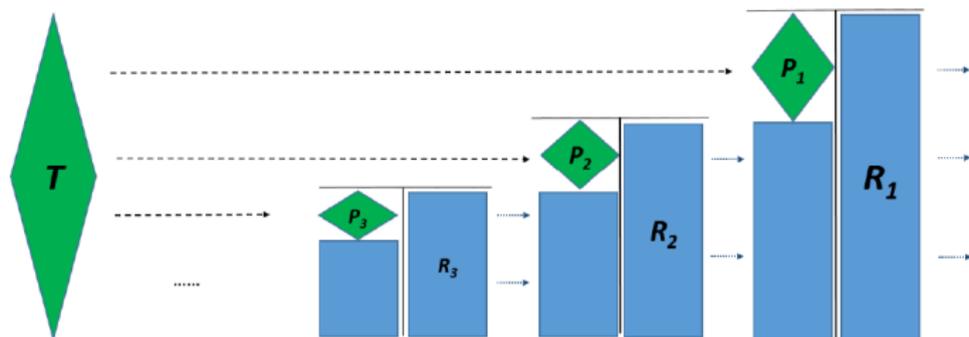
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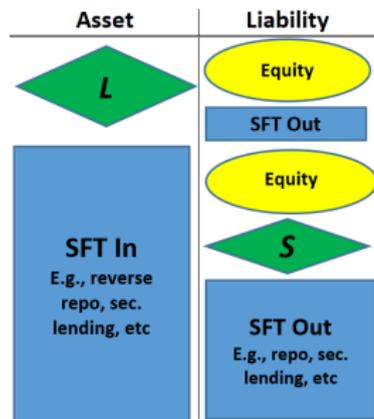
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Conceptual Framework—Balance Sheets, Contracts, and Re-use

- Main re-use measure of firm i for bond j (depends on size):

$$Re\text{-}use_{ij} := \frac{SFT\ In_{ij}}{SFT\ In_{ij} + (L_{ij} - S_{ij})} \times SFT\ Out_{ij}$$

- Alternative measure of firm i for bond j :

$$Re\text{-}use\ rate_{ij} := \frac{SFT\ Out_{ij}}{SFT\ In_{ij} + (L_{ij} - S_{ij})}$$

- If $S_{ij} = 0$, $Re\text{-}use\ rate_{ij}$ similar to collateral multiplier

- However, $Re\text{-}use_{ij}$ and $Re\text{-}use\ rate_{ij}$ use *net position* and *omit shorts* in numerator

Accounting for Shorts and Government Supply

- ▶ Shorting is the quintessential re-use contract!

- ▶ In this paper:
  - 1) Shorting is not accounted for in either measure ⟶ Lower bound on re-use activity
  - 2) Empirical strategy filters out negative positions

- ▶ Point 2) may drive reduced impact of government supply!

	Dependent variable: $\Delta\log \text{Reuse}_t$				
Asset purchases$_t$ (%)	0.16**	0.15**	0.16**	0.17**	0.21**
	(2.34)	(2.24)	(2.13)	(2.27)	(2.40)
Δ Amount outstanding$_t$	0.01	0.01	0.02	0.02	0.02*
	(1.25)	(1.14)	(1.51)	(1.53)	(1.96)
Dummy: On the run$_t$	0.45	0.46	0.67	0.68	0.66
	(1.16)	(1.12)	(1.43)	(1.48)	(1.40)
Dummy: Cheapest-to-deliver$_t$	0.16	0.09	0.15	0.11	0.06
	(0.46)	(0.26)	(0.38)	(0.28)	(0.14)
Constant	-0.12	-0.11	-0.14*	-0.15*	-0.18**
	(-1.64)	(-1.51)	(-1.68)	(-1.78)	(-2.11)

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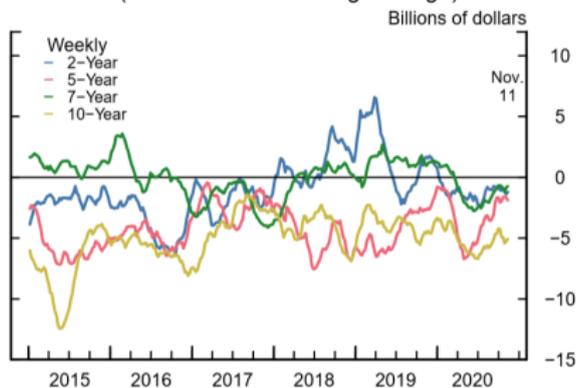|	Dependent variable: $\Delta \log \text{Reuse}_t$				
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Accounting for Shorts and Government Supply (con't)

Primary Dealers' Net Position in On–the–run Treasury Securities (Thirteen–week Moving Average)
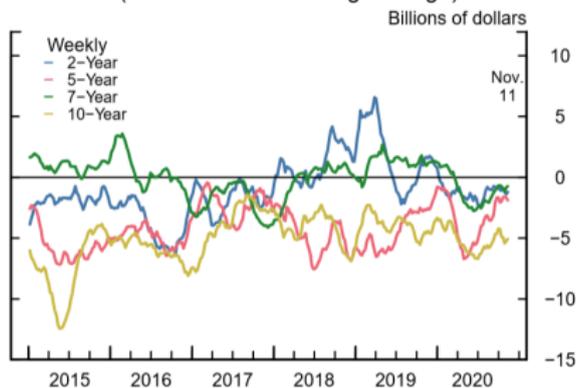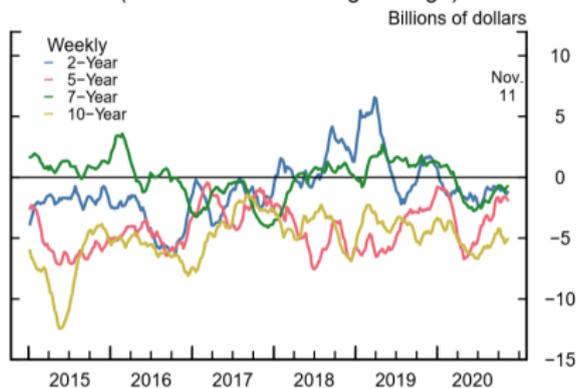
Source: FR2004 SI

- ▶ U.S. primary dealers are often short in on-the-run Treasury securities
- ▶ Inclusion of observations may increase effect of issuance...
- ▶ ...and provide more insight on the PSPP
- ▶ Suggestion: separate analysis completely between on- and off-the-run Shed light on importance of on-the-run vs other safe assets

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# Substitution between Sovereign Bonds?

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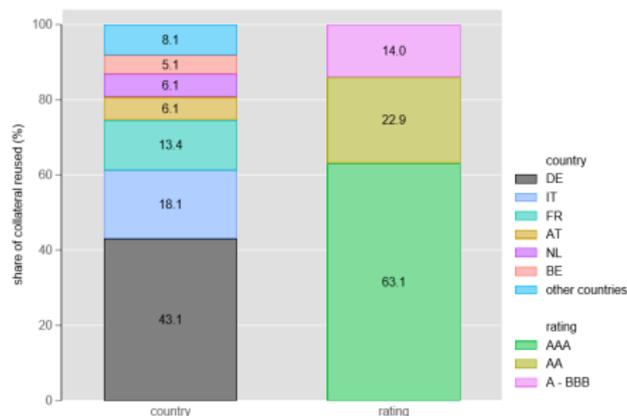
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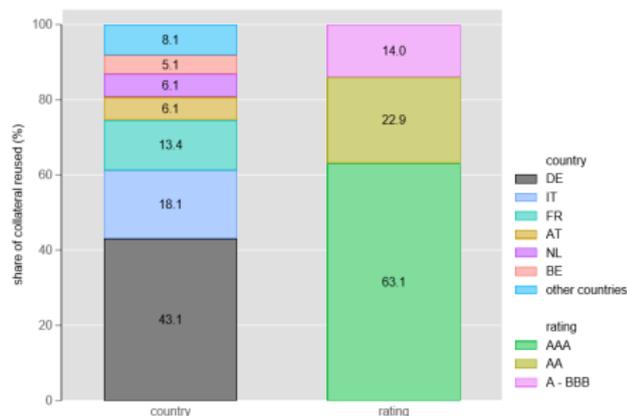

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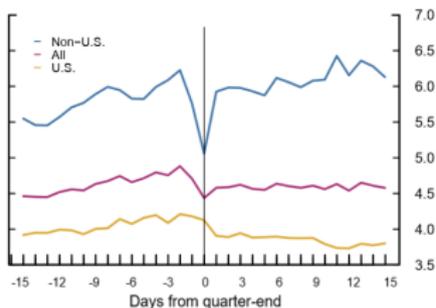
Are There Other SFTs to Consider?

- Paper concentrates on repo and securities lending SFTs

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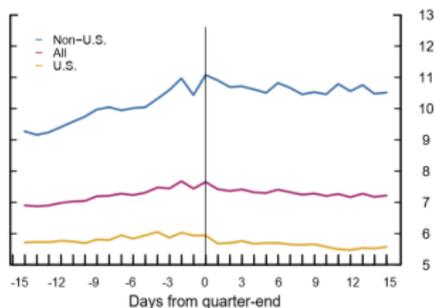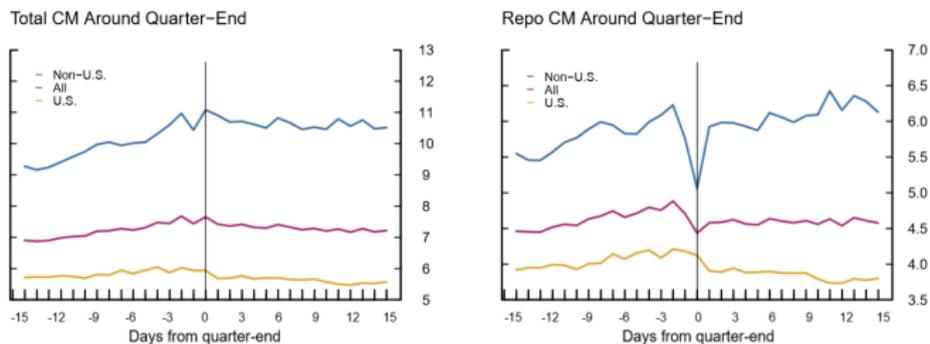

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Summary

- ▶ Great paper!

- ▶ Interesting and important insights $\longrightarrow$ Impact of PSPP on market functioning

- ▶ First steps to ask what is the optimal level of re-use that balances smooth market functioning and financial fragility

- ▶ Comments:
  - Incorporate short activity (both how affects re-use and sample selection)

  - Study substitution between safe assets

  - Investigate/report use of other contracts