

Discussion of:
Reaching for Duration and Leverage in the Treasury Market
Daniel Barth, R. Jay Kahn, Phillip Monin, and Oleg Sokolinskiy

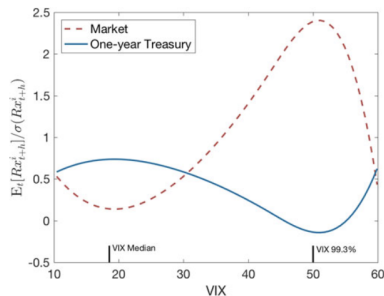
Discussed by Pingle Wang (UTD)

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2024 Financial Stability Conference

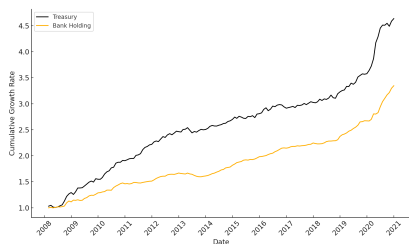
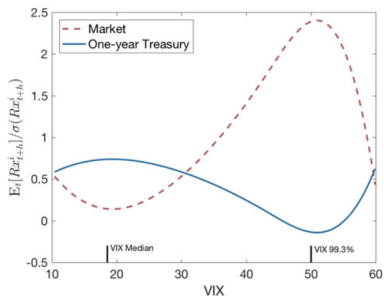
US Treasury Market

- US Treasuries are often considered as safe assets: $\rho(r^{\text{bond}}, r^{\text{equity}}) < 0$ during crisis (Adrian et al. 2019).



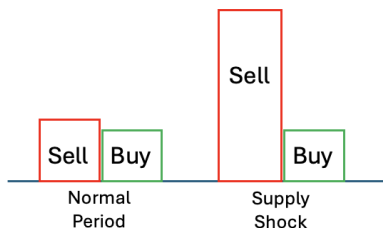
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- US Treasuries are often considered as safe assets: $\rho(r^{\text{bond}}, r^{\text{equity}}) < 0$ during crisis (Adrian et al. 2019).
- New capital requirements and other regulations force bank to hold large quantities of Treasuries on their balance sheets, which cannot keep up with the growing stock of marketable Treasuries.



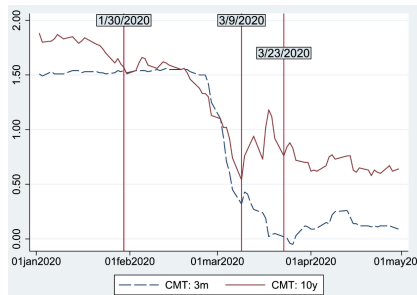
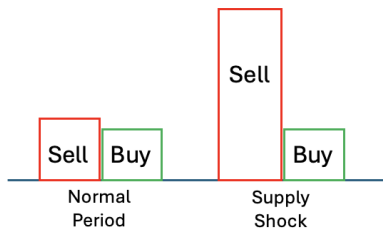
Supply Shock in Treasury Market

- In normal period, dealers can facilitate order imbalances through their inventories.
- When there is a supply shock, dealers lend cash and sell Treasuries to levered investors through repo financing.



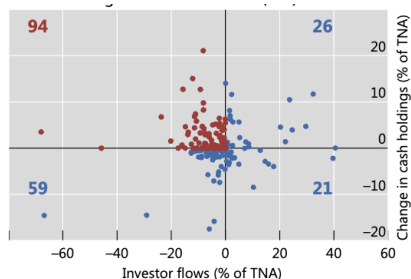
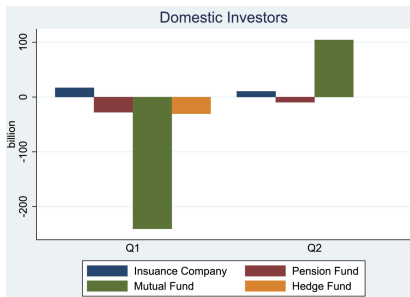
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 - Mutual funds are a big seller of Treasuries during the Covid episode. (He et al. 2022, Schimpf et al. 2021)



How do mutual funds trade Treasury futures?

- Aggregate level:
 - Mutual funds account for 53% of all asset manager long Treasury futures.
 - Futures use exhibit a strong procyclical pattern.
- Fund level:
 - Roughly over 50% of fixed-income funds hold long futures; rich variations in the extent of holdings; highly persistent.
 - Long futures act as a substitute of cash treasuries, and allow funds to reach for yield: \uparrow futures, \downarrow treasuries, \uparrow MBS and equities.
 - Also better able to match the benchmark duration.

Overall Assessment

- Simple and Really Nice
 - Lots of descriptive information on treasury futures; I learned a lot.
 - Compelling evidence of reaching for duration/yield using treasury futures.
- My discussion
 - the role of futures users during the crisis
 - heterogeneity in strategies
 - and some more suggestions

What is the role of futures users during the crisis? Part 1

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 - For every \$100 redemption, funds invested in liquid US Government securities sell an additional \$1.60 worth of bonds.
 - Illiquid funds sell an additional \$12.70 worth of bonds.
 - What do futures users do?
 - Do they close their futures positions?
 - Do they sell cash treasuries and open new futures positions?
 - What's their sensitivity to flow shock?

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- Get an estimate from the change in quarterly futures holdings
- From N-PORT, one can even back out the (exact) timing of trades based on realized and change in unrealized PnL of futures positions.

Asset category.	<input type="text" value="Interest Rate Contracts"/>	Instrument type.	<input type="text" value="Future"/>
Monthly net realized gain(loss) – Month 1	<input type="text" value="-40129.59000000"/>	Monthly net realized gain(loss) – Month 1	<input type="text" value="-40129.59000000"/>
Monthly net change in unrealized appreciation (or depreciation) – Month 1	<input type="text" value="-57351.92000000"/>	Monthly net change in unrealized appreciation (or depreciation) – Month 1	<input type="text" value="-57351.92000000"/>
Monthly net realized gain(loss) – Month 2	<input type="text" value="-4385.17000000"/>	Monthly net realized gain(loss) – Month 2	<input type="text" value="-4385.17000000"/>
Monthly net change in unrealized appreciation (or depreciation) – Month 2	<input type="text" value="-39671.46000000"/>	Monthly net change in unrealized appreciation (or depreciation) – Month 2	<input type="text" value="-39671.46000000"/>
Monthly net realized gain(loss) – Month 3	<input type="text" value="-75663.10000000"/>	Monthly net realized gain(loss) – Month 3	<input type="text" value="-75663.10000000"/>
Monthly net change in unrealized appreciation (or depreciation) – Month 3	<input type="text" value="97184.34000000"/>	Monthly net change in unrealized appreciation (or depreciation) – Month 3	<input type="text" value="97184.34000000"/>

- Then estimate the price impacts of those trades.

Key mechanism

- In order to tilt towards high yield assets (MBS, equity, etc.), funds need to sell cash treasuries to raise cash;
- High yield assets typically have a lower duration than cash treasuries;
- To cover the duration deficit, funds buy treasuries futures.
 - Do flows respond to duration deficit?
 - What's the benefit if futures users do not outperform?
- How does the use of treasury futures compare with interest rate swaps or other derivatives?

Minor comments

- The paper has 23 TABLES.
 - Panel A of Table 6 and Table 9 are identical.
- Maybe consider splitting it into two papers: one focuses on aggregate market, and another one at fund level.
- Should consider fund returns over longer horizon instead of quarterly returns in flow-performance regressions; also consider adding lagged fund flows.
- Many funds also hold short treasury futures; what are the motives?

Conclusion

- Very nice paper and important contribution to the literature;
- Look forward to the next version