Written Statement of Haoxiang Zhu
Before the House Financial Services Committee
Task Force on Monetary Policy, Treasury Market Resilience, and Economic Prosperity
"Examining Primary Dealers and Their Balance Sheet Constraints"
December 2, 2025

Dear Chairman Lucas, Ranking Member Vargas, and members of the Task Force,

Thank you for the opportunity to testify before you today on the critical topic of primary dealers and their balance sheet constraints in the U.S. Treasuries market. My name is Haoxiang Zhu, and I am an Associate Professor of Finance at the MIT Sloan School of Management. From 2021 to 2024, I had the honor of serving as Director of the Division of Trading and Markets at the U.S. Securities and Exchange Commission.

As many have observed, the growth in the outstanding amount of U.S. Treasuries securities has far outpaced the expansion of primary dealers' balance sheet. Consequently, increasing the intermediation capacity of primary dealers is essential for maintaining the liquidity of the U.S. Treasury market and preserving its status as the world's preeminent safe-haven asset.

Based on my analysis and experience, I believe the most powerful policy initiative for expanding intermediation capacity in the U.S. Treasury market is:

1. The full and timely implementation of Treasury clearing.

Additional measures that would also strengthen the U.S. Treasury market include:

2. Increasing post-trade transparency of Treasury securities;
3. Enhancing the oversight of trading platforms for Treasury securities and repo; and
4. Making more active use of floating rate debt for government financing.

1. Central Clearing of Treasury Cash and Repo Transactions

The central clearing of Treasury cash and repo transactions delivers three principal benefits.

First, it substantially reduces risk. Through multilateral netting, central clearing transforms large gross exposures into small net exposures. Moreover, the clearinghouse guarantees the performance of all market participants, which further mitigates default risk, limits contagion, and reduces systemic risk.

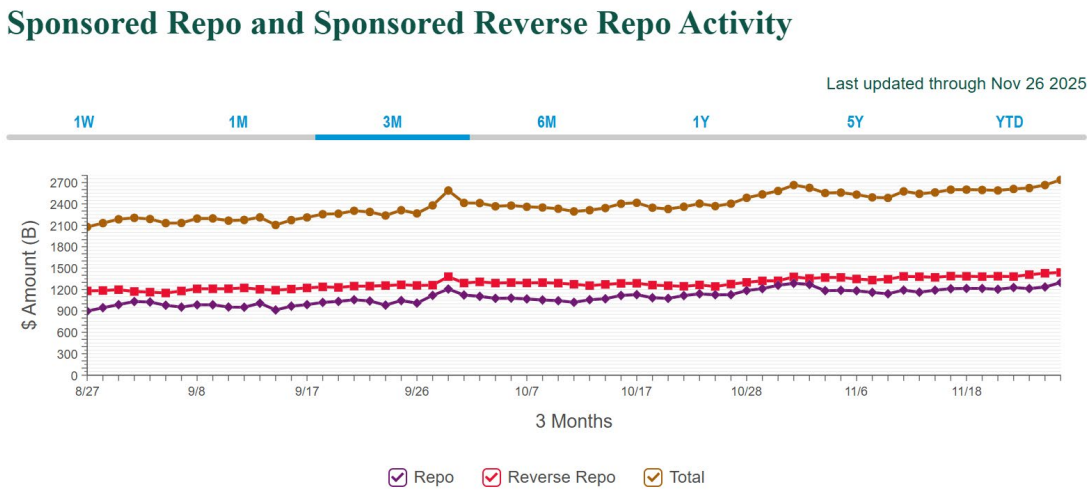
Second, central clearing provides standardized and transparent risk management. Any update to clearinghouse rules about Treasury securities must be filed with the SEC and is subject to public comment. This process ensures fairness and creates a level playing field across all types of market participants.

Third, and perhaps most relevant to today's hearing, central clearing of Treasury repo transactions frees up significant balance sheet capacity for primary dealers and other intermediaries. Drawing on the methodology developed in my work with Nellie Liang,[1] I estimate that sponsored clearing of Treasury repo and reverse repo at the Fixed Income Clearing Corporation (FICC) has already freed up approximately $1.2 trillion in balance sheet capacity as of October 2025. Furthermore, if all uncleared primary dealer repos and reverse repos were to transition to central clearing, I estimate that up to $1.3 trillion of additional balance sheet capacity could be created.

Figure 1 below displays the daily volume of sponsored repo and reverse repo at FICC over the past three months, as reported on FICC's website.[2] As of October 29, 2025, $1212 billion of FICC members' repo transactions (borrowing cash) involved sponsored clients, while $1321 billion of FICC members' reverse repo transactions (lending cash) involved sponsored clients. In other words, FICC members have collectively borrowed approximately $1.2 trillion from sponsored clients and lent $1.3 trillion to sponsored clients, with both sets of transactions centrally cleared. The lower of these two figures—$1.2 trillion—represents the amount that is potentially nettable on FICC members' balance sheets.

An important caveat is that to qualify for balance sheet netting, repo and reverse repo transactions must have matching maturities.[3] While I do not have detailed maturity information for these transactions, clearinghouse members have strong economic incentives to structure transactions with matching maturities to qualify for balance sheet netting. Therefore, my estimates below are based on this "best-case" scenario.

Figure 1: FICC sponsored repo and reverse repo. Source: FICC.



[1] See https://www.brookings.edu/articles/clearing-the-path-for-treasury-market-resilience/.
[2] See https://www.dtcc.com/charts/membership.
[3] See https://www.federalreserve.gov/econres/feds/balance-sheet-netting-in-us-treasury-markets-and-central-clearing.htm.

Figure 2 below illustrates primary dealers' repo and reverse repo positions as of October 29, 2025, across various repo market segments. These data are obtained from the Federal Reserve Bank of New York's FR 2004C report.[4] In this chart, primary dealers' cash borrowed (i.e., repo) is represented as positive values, while cash lent (i.e., reverse repo) is represented as negative values. The three middle segments reflect centrally cleared transactions: bilateral cleared, triparty GCF, and triparty cleared. The two outer segments represent uncleared transactions: bilateral uncleared and triparty uncleared. Notably, primary dealers are net cash borrowers in the triparty market and net cash lenders in the bilateral market.

Figure 2: Primary Dealer Treasury repo and reverse repo (excluding TIPS), as of Oct 29, 2025. Source: Federal Reserve Bank of New York

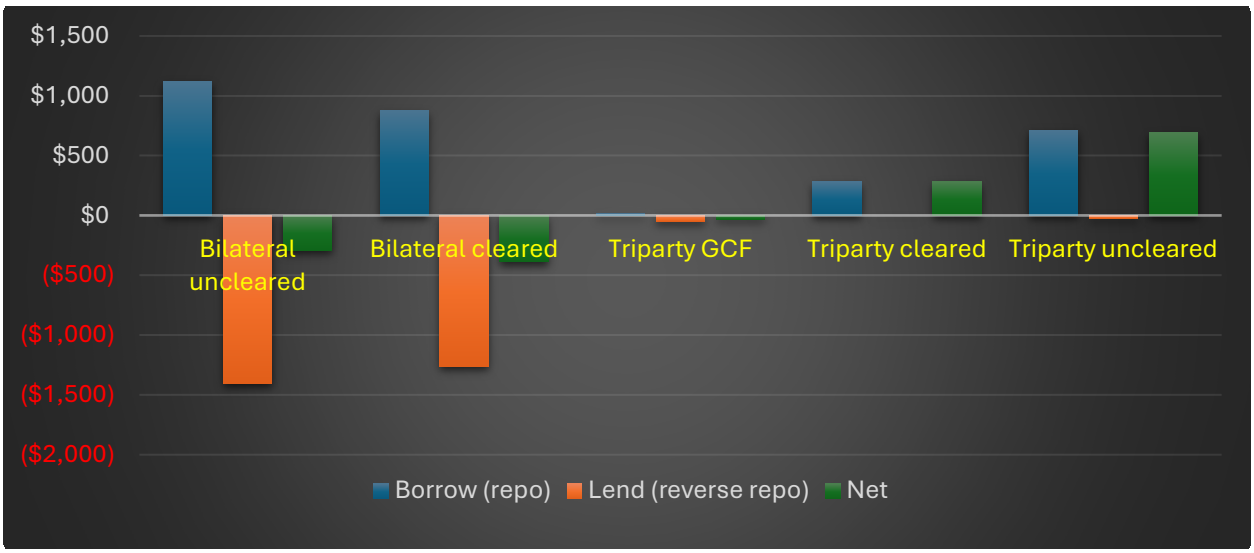


Table 1 below estimates the potential increase in balance sheet netting if all repo and reverse repo transactions of primary dealers were to move into central clearing, as of October 29, 2025. On that day, primary dealers borrowed $1170 billion and lent $1308 billion in client cleared transactions; see Column (1). These figures are very close to, but slightly smaller than, the FICC sponsored volume ($1212 billion and $1321 billion) because not all FICC members are primary dealers. Considering all repo and reverse repo transactions, primary dealers borrowed $2997 billion in repo and lent $2735 billion in reverse repo from the rest of the market; see Column (2). The nettable amount of all repo and reverse repo, namely $2735 billion, minus the nettable amount that is already cleared, namely $1170 billion, yields a potential increase in balance sheet netting of $1565 billion if all primary dealers' repo and reverse repo transactions were to move into central clearing.

[4] See https://www.newyorkfed.org/markets/counterparties/primary-dealers-statistics.

According to Federal Reserve rules, interaffiliate transactions are nettable on the balance sheets of bank holding companies regardless of whether they are centrally cleared. Therefore, the final adjustment requires deducting netted interaffiliate transactions. Federal Reserve research estimates that in early 2025, five U.S. Global Systemically Important Banks (GSIBs) borrowed approximately $370 billion from affiliates and lent approximately $250 billion to affiliates, implying a $250 billion nettable amount.[5] After deducting this amount from $1565 billion, I estimate that moving all remaining repo and reverse repo transactions by primary dealers into central clearing would create up to $1.3 trillion in additional balance sheet capacity.

Table 1: Estimated impact of Treasury clearing on balance sheet netting of Primary Dealers. Source: Federal Reserve Bank of New York and author's calculation. Data are as of Oct 29, 2025.

	(1) **Cleared** (Cleared bilateral + Cleared triparty + GCF)	(2) **All** (Cleared and uncleared)	(3) **Effect of clearing uncleared repo and reverse repo**
Primary Dealer borrow	$1170 bn	$2997 bn	
Primary Dealer lend	$1308 bn	$2735 bn	
Nettable = min (borrow, lend)	$1170 bn	$2735 bn	$1565 bn = ($2735– $1170) bn
After deducting netted interaffiliate trades (about $250 bn*)			$1315 bn =($1565 – $250) bn

*Estimated netted interaffiliate trades are as of March 2025

Once again, the $1.3 trillion estimate likely represents an upper bound of the additional balance sheet capacity created by central clearing, since repo maturities must match to qualify for balance sheet netting. That said, given primary dealers' strong economic incentives to structure transactions with matching maturities in order to take advantage of balance sheet netting, the actual incremental balance sheet capacity created by central clearing is likely to be of the same order of magnitude.[6]

[5] See https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5287025, Figure A.1. The latest month in their sample is March 2025.

[6] Money market mutual fund statistics published by the Office of Financial Research (OFR) corroborate this assessment. According to the OFR, as of October 31, 2025, $772 billion in reverse repo transactions (lending cash) by money market mutual funds remained uncleared. See https://www.financialresearch.gov/money-market-funds/us-mmfs-investments-in-the-repo-market/. Assuming that the vast majority of these transactions are matched with offsetting cash borrowing by hedge funds, the incremental balance sheet relief for intermediaries resulting from clearing money market fund transactions would exceed $700 billion.

2. Increasing Post-Trade Transparency of Treasury Securities

Somewhat surprisingly, the U.S. Treasury market has been one of the last major markets to implement post-trade transparency. In July 2017, FINRA began collecting Treasury securities transactions from its members.[7] Depository institutions began reporting their Treasury securities transactions in September 2022.[8] In March 2024, FINRA commenced daily dissemination of transactions for on-the-run Treasury coupon securities.[9]

The evidence regarding post-trade transparency in U.S. fixed income markets has been overwhelmingly positive. Study after study has documented improved price discovery and lower transaction costs for investors following the implementation of post-trade transparency across multiple markets, including corporate bonds, agency debt, mortgage-backed securities, asset-backed securities, 144A securities, and municipal securities.[10] These transparency regimes were thoughtfully designed with safeguards to mitigate information leakage, such as capping disseminated transaction sizes.

I believe the Department of the Treasury, the SEC, and FINRA can further enhance the liquidity of U.S. Treasury markets by continuing to strengthen post-trade transparency. A natural next step would be to disseminate, on a daily basis, transactions in first off-the-run Treasury securities. Daily dissemination of deeply off-the-run securities could follow. Subsequently, near real-time dissemination of on-the-run securities could be introduced. This will likely require a multi-year effort with incremental progress, but collectively, we must continue moving forward.

3. Enhanced Oversight of Trading Platforms for Treasury Securities and Repo

Currently, trading platforms that meet the definition of an "exchange" under the Securities Exchange Act of 1934, but exclusively trade government securities, are exempt from Regulation ATS. As such, these platforms are not required to register with the SEC or be subject to regulatory oversight. In 2019, SEC Commissioner Elad Roisman articulated a compelling case for expanding Regulation ATS to cover government securities trading platforms.[11] This policy initiative was formally proposed in 2020 by the SEC under Chairman Jay Clayton.[12] In 2022, the SEC under Chair Gary Gensler reproposed this rule

[7] See https://www.finra.org/filing-reporting/trace/trace-trade-reporting-treasury-securities.
[8] See https://www.finra.org/rules-guidance/rulebooks/trace-depository-institution-reporting.
[9] See https://www.finra.org/media-center/newsreleases/2024/finra-enhances-post-trade-transparency-us-treasury-securities-market.
[10] Post-trade transparency for all fixed-income securities mentioned here, except municipal securities, was implemented by FINRA through its TRACE system. Municipal securities transparency was implemented by the MSRB. For discussions of studies on post-trade transparency, see https://www.sec.gov/spotlight/fixed-income-advisory-committee/survey-of-microstructure-of-fixed-income-market.pdf.
[11] See https://www.sec.gov/newsroom/speeches-statements/roisman-2019-09-23.
[12] See https://www.sec.gov/newsroom/press-releases/2020-227.

along with other amendments to Regulation ATS.[13] Earlier this year, Acting Chairman Mark Uyeda signaled that the SEC would reengage in efforts to enhance regulatory oversight of trading platforms for Treasury securities and repo.[14]

The policy objective of removing the exemption for government securities trading platforms from Regulation ATS has received broad bipartisan support over the past six years, spanning three administrations. I believe completing this initiative would represent a significant positive step forward in supporting the growth and integrity of U.S. Treasury markets.

4. More Active Issuance of Floating Rate Debt

The final item concerns the design of Treasury securities themselves. The outstanding amount of Treasury securities held by the public reached approximately $30.6 trillion in October 2025, roughly 6.5 times the level in 2005 ($4.7 trillion).[15] As stark as this comparison is, it actually underestimates the growth of the Treasury market in another critical metric: interest rate risk. The average maturity of Treasury securities today is approximately 70 months, compared to 54 months in 2005.[16] Applying a duration of 5 years, a 0.25% increase in the U.S. interest rate curve would lead to a mark-to-market loss of approximately $380 billion for investors holding U.S. Treasury debt. In 2005, the same interest rate increase would have implied a mark-to-market loss of only about $47 billion, with a duration of 4 years. Put simply, investors and intermediaries in Treasury securities today bear interest rate risk that is approximately 8 times as large as it was 20 years ago. Investors and intermediaries demand a risk premium for bearing interest rate risk, which, in turn, translates into higher borrowing costs for taxpayers.

I believe the time is now opportune for the Department of the Treasury to consider reducing the interest rate risk of newly issued debt. Specifically, the Treasury can more actively issue floating rate notes indexed to short-term interest rates such as the 13-week Treasury Bill rate or the Secured Overnight Financing Rate (SOFR). Because the coupons of floating rate notes move in tandem with short-term interest rates, these instruments carry significantly lower interest rate risk. For instance, the interest rate risk of a 10-year floating rate note is comparable to that of a 3-month or 6-month Treasury Bill. Floating rate securities should be especially attractive to investors—both domestic and foreign—whose objective is to protect the market value of their U.S. dollar-denominated assets and reserves. Additionally, floating rate debt can be structured to span a wide range of maturity dates, enabling effective management of the maturity distribution from the Treasury Department's perspective. Currently, the Treasury issues only 2-year floating rate notes indexed to the 13-

[13] See https://www.sec.gov/newsroom/press-releases/2022-10-sec-proposes-amendments-include-significant-treasury-markets-platforms-within-regulation-ats.
[14] See https://www.sec.gov/newsroom/speeches-statements/uyeda-remarks-institute-international-bankers-031025.
[15] See https://fiscaldata.treasury.gov/datasets/debt-to-the-penny/debt-to-the-penny.
[16] See https://home.treasury.gov/system/files/221/CombinedChargesforArchivesQ42025.pdf.

week Treasury Bill rate, and the issuance volume remains modest.[17] I believe floating rate debt deserves a more prominent role in Treasury issuance decisions, both for reducing the interest rate risk borne by investors and for maintaining flexible management of the desired maturity structure of Treasury debt.

Conclusion

In conclusion, the challenges posed by surging public debt must be met with thoughtful and decisive action from policymakers and market participants alike. The full and timely implementation of Treasury clearing will deliver significant benefits, as will complementary initiatives that enhance market transparency, strengthen the oversight of trading platforms, and more active issuance of Treasury securities that carry lower interest rate risks.

Thank you again for the opportunity to testify before you today. I welcome any questions you may have.

[17] See https://treasurydirect.gov/marketable-securities/floating-rate-notes/.

Biography

Haoxiang Zhu is Gordon Y Billard Associate Professor of Management and Finance at the MIT Sloan School of Management. His research focuses primarily on asset pricing, with particular emphasis on market structure and market design. He has published research papers in leading academic journals, including the Journal of Finance, Journal of Financial Economics, Journal of Economic Theory, Review of Economic Studies, and Review of Financial Studies. Zhu's scholarly contributions have garnered several prestigious awards, including the 2017 Amundi Smith Breeden Prize (First Prize) from the Journal of Finance, the 2016 AQR Insight Award (First Prize), the 2015 Kepos Capital Award for Best Paper on Investments from the Western Finance Association, and the 2013 Review of Financial Studies Young Researcher Prize. In 2016, he was named one of the 40 under 40 Best Business School Professors by Poets and Quants.

From December 2021 to December 2024, Haoxiang Zhu served as Director of the Division of Trading and Markets at the U.S. Securities and Exchange Commission. He led critical initiatives to modernize the regulation of U.S. securities markets. Key achievements include expanding central clearing for Treasury repurchase and cash transactions, shortening the securities settlement cycle to one day (T+1), and comprehensively revising rules governing the market-wide mechanics of stock trading and execution quality disclosure. During his tenure, the SEC also updated regulation for broker-dealers and adopted new rules that enhance the transparency and integrity of markets for securities lending, short selling, and security-based swaps. Beyond rulemaking, Haoxiang Zhu led the Division of Trading and Markets in its day-to-day oversight of exchanges, alternative trading systems, broker-dealers, FINRA, clearing agencies, and other market participants.

Haoxiang Zhu is currently a member of the Federal Reserve Bank of Chicago's Financial Stability Advisory Council and a Director of the Financial Intermediation Research Society. He previously served as a Finance Department Editor of Management Science, an Associate Editor of the Journal of Finance, an academic expert for the U.S. Commodity Futures Trading Commission (CFTC) and the Bank for International Settlements (BIS), and a member of the Federal Reserve Bank of Chicago's Working Group on Financial Markets. He holds a BA in Mathematics and Computer Science from the University of Oxford and a PhD in Finance from Stanford University Graduate School of Business.