American Investment in Chinese Renminbi

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Abstract

This paper uses microdata on U.S. mutual fund and ETF portfolios from SEC Form N-PORT to study American investment in Chinese Renminbi (RMB)–denominated bonds. We show that, even as total foreign holdings of Chinese bonds rebounded in 2024, U.S. holdings of RMB bonds fell sharply and that most of this decline reflects funds exiting RMB positions entirely. These patterns point to a shift in the composition of China's foreign investor base away from U.S. institutional investors and illustrate how publicly available microdata can inform work on the geopolitics of international currency use.

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In this time of increasing geopolitical tension, attention has focused on the fragmentation of the trade relationship between the United States and China. Much less is known about how their bilateral financial relationship has evolved. In this paper, we show how to use microdata on the positions of U.S. investment funds from SEC Form N-PORT from Cavani, Maggiori and Schreger (2025) to explore the changing nature of U.S. portfolio investment in China. We focus on U.S. investment in Chinese Renminbi (RMB) denominated bonds. One area of competition between the U.S. and China concerns the international role of their currencies, with the U.S. as a dominant incumbent and China a possible new entrant (Prasad, 2017; Clayton et al., 2025, 2024). Understanding the nature of foreign investment in RMB is therefore crucial to assessing the changing nature of the international monetary system. The goal of this short paper is to showcase how one can do so at high frequency with publicly available microdata.

We begin by reviewing our previous work in Cavani, Maggiori and Schreger (2025), which shows that N-PORT provides comprehensive quarterly coverage of U.S. mutual fund and ETF portfolio holdings and therefore closely reproduces the mutual-fund sector's foreign securities positions reported in the Annual Treasury International Capital (TIC) data. Critically, we show that N-PORT replicates not only the aggregate level of U.S. foreign bond holdings but also the cross-sectional currency composition observed in TIC. Having established the reliability of N-PORT for analyzing U.S. investment in foreign bonds, we turn specifically to Chinese RMB-denominated securities. The fund-level data reveals that U.S. mutual fund holdings of RMB bonds declined by approximately 50% between their peak in 2021Q3 and 2024Q4, falling from approximately $20 billion to $10 billion. We then leverage the granular nature of N-PORT to decompose this aggregate decline. The microdata indicates that an important component of this pullback was driven by funds exiting RMB positions entirely rather than by continuing investors reducing their allocations. The share of U.S. bond funds holding any Chinese RMB bonds fell from 5.3% in 2021Q3 to 2.1% by 2024Q4, with complete exits accounting for approximately 65% of the total $10 billion decline in holdings.

1 A Brief Recent History of Foreign Investment in RMB

Until recently, China's bond market was largely closed to foreign investors. With China's rigid system of capital controls, foreigners were largely unable to purchase onshore RMB bonds. As discussed in Clayton et al. (2025), the past decade has witnessed a partial liberalization of China's bond market. Rather than suddenly opening its bond market to global investors, China has undertaken a staggered liberalization process. China has regulated

both the types of eligible investors and their investment volumes through a system of quotas and regulatory hurdles. In the early 2010s, a major liberalization of the bond market allowed foreign investors into the China Interbank Bond Market (CIBM). However, to minimize the risk of capital flight, China targeted the participation of stable official investors such as central banks and sovereign wealth funds. In 2017, China significantly liberalized access to the domestic bond market with the introduction of Bond Connect. Unlike previous access programs, this allowed a range of foreign investors to purchase onshore bonds via Hong Kong using established global trading and settlement infrastructure (e.g., through widely used dealer/trading workflows and terminals). This staggered liberalization process led major bond indices such as JP Morgan and Bloomberg to include Chinese Renminbi-denominated bonds in their flagship indices, sparking a significant inflow of foreign capital into RMB-denominated bonds. While the process of liberalization began with a dominant share of foreign investment in RMB-denominated bonds done by central banks and other government investors, after the Bond Connect reform, inflows had been more tilted toward the private sector, including U.S. private investors.

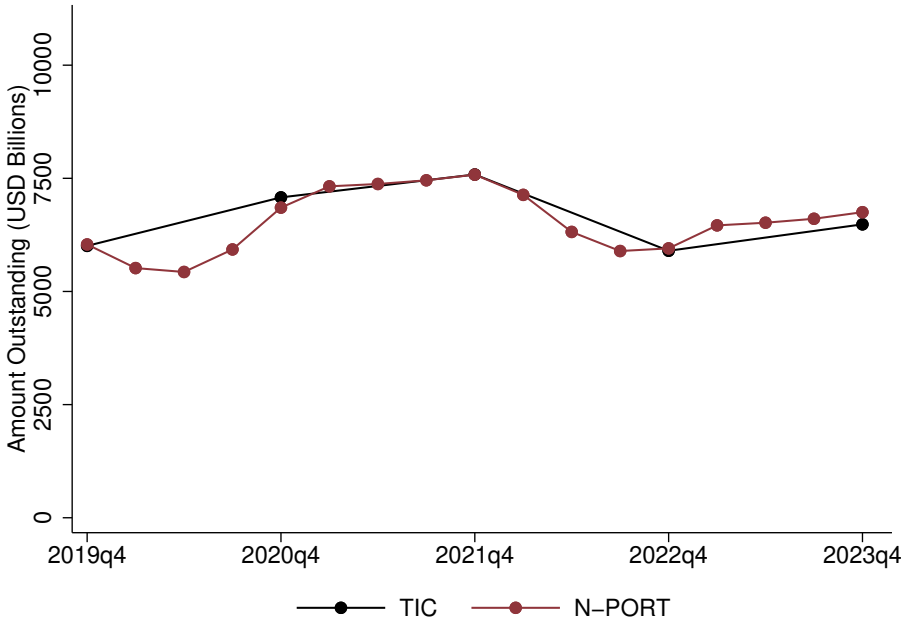
2 The GCAP Public Security-Level Data on U.S. Fund Holdings

For our analysis, we rely on the Global Capital Allocation Project (GCAP) Public Security-Level Data on U.S. Fund Holdings introduced in Cavani, Maggiori and Schreger (2025). Since 2019, all U.S.-registered mutual funds and ETFs have been required to file detailed monthly portfolio holdings on Form N-PORT through the SEC's EDGAR system, with the third month of each quarter made publicly available. This disclosure requirement provides rich microdata on fund characteristics and the full universe of securities held by each fund, including detailed security-level information such as security and issuer identifiers (CUSIP, ISIN, LEI), issuer country, currency denomination, maturity, coupon, and market value in U.S. dollars, along with the corresponding exchange rate for non-USD-denominated securities. Cavani, Maggiori and Schreger (2025) show how to build the raw N-PORT filings into a research-ready security-fund-quarter panel, producing a fully public and reproducible quarterly census of U.S. mutual fund holdings.[1]

To ensure the reliability of this data source, Cavani, Maggiori and Schreger (2025) validates N-PORT against official benchmarks – the Federal Reserve Financial Accounts (previously known as the Flow of Funds) and TIC data. This validation demonstrates that the

[1]The cleaned panel data are available at GCAP Data Hub. All code to download, process, and clean SEC Form N-PORT raw files is available at GCAP Lab GitHub repository.

Figure 1: U.S. Mutual Fund Holdings of Foreign Securities

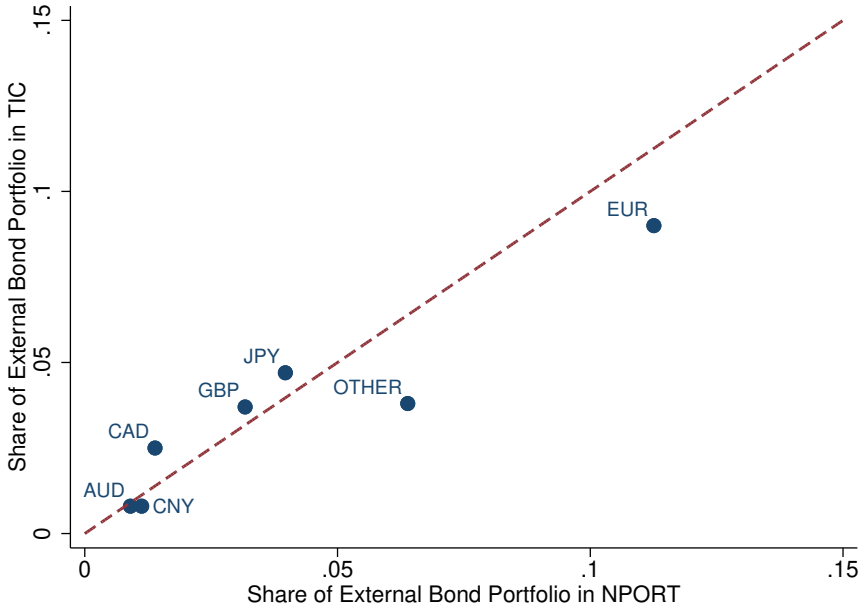


Notes: The figure compares aggregate U.S. mutual fund holdings of foreign securities on TIC and N-PORT. Values are in USD billions.

dataset accurately captures both aggregate positions and portfolio composition by currency and issuer country. Critically for our analysis, N-PORT replicates the currency composition of U.S. foreign holdings reported in the TIC system, enabling granular analysis of U.S. investment in Chinese Renminbi. We illustrate these validation results below to establish the foundation for our analysis.

In Figure 1, we sum the total value of security-level holdings in N-PORT and compare it to the publicly available total mutual fund holdings in TIC. The most important takeaway is that they nearly perfectly align. In Figure 2, for the end of 2022, we scatter the currency composition of the external portfolio in TIC against that calculated in N-PORT. Importantly, in TIC disaggregated currency composition data is only available for the aggregate U.S. position and not for the fund sector alone. Therefore, for TIC we use the aggregate U.S. position. The close alignment between currency decomposition in TIC and N-PORT data reflects the fact that mutual funds account for a large share of U.S. foreign portfolio investment and that fund holdings are largely representative of the other sectors, even if non-trivial heterogeneity is present. At the end of 2024, the RMB accounted for 0.4% of the U.S. external bond portfolio in TIC and 0.7% in N-PORT.

Figure 2: U.S. Holdings of Foreign Debt by Currency



Notes: The figure plots the currency composition of U.S. mutual fund holdings of foreign debt securities in N-PORT and compares it to the currency composition of the aggregate U.S. external bond portfolio reported in TIC, as of end-2022.

3 The Recent Rise and Fall of U.S. Investment in RMB Bonds

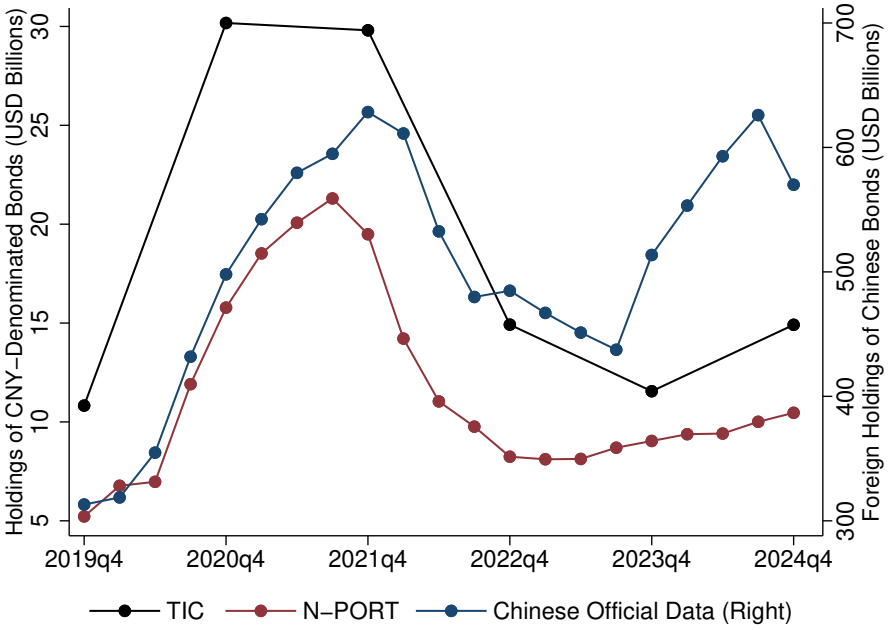
We next turn to examining the time series of American investment in Chinese RMB (Figure 3a). In black, we report end-of-year U.S. holdings of RMB bonds in TIC, which peaked between 2020 and 2021 at around $30 billion, before declining to just above $10 billion at the end of 2023. In red, we plot the corresponding time series for U.S. mutual fund holdings from N-PORT data, with holdings peaking at just over $20 billion at the end of 2021Q3 before declining through the start of 2022 and slightly rebounding. On the right axis in blue, we plot the total foreign holdings of RMB-denominated bonds reported by Chinese authorities.[2] A few findings emerge from comparing U.S. holdings to the total reported by Chinese authorities.

First, we find that total foreign holdings rebounded substantially in 2024, going from $437 billion to a peak of $625 billion. This represents a significant rebound from the decline in foreign holdings during the Zero-Covid policy period and mirrors the recovery in foreign investment following the 2015 financial turmoil discussed in Clayton et al. (2025). However,

[2]We collect this data from Bond Connect (CCDC and SHCH monthly statistics). The data captures total foreign holdings of RMB-denominated bonds across all access channels, not only those purchased through Bond Connect.

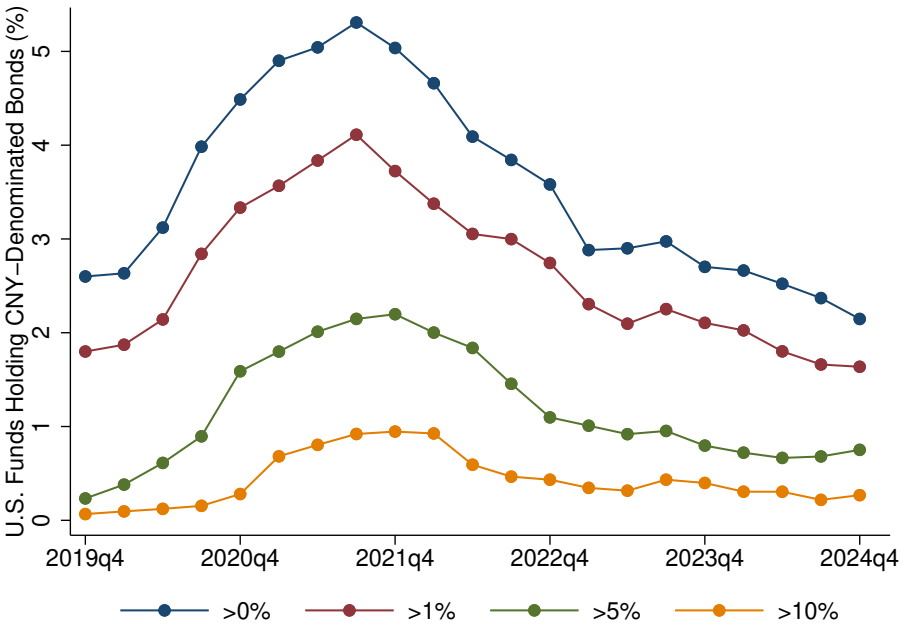
Figure 3: U.S. Ownership of Renminbi and Foreign Holdings of Chinese Debt

(a) U.S. Holdings and Foreign Holdings of Chinese Bonds



Notes: The figure compares U.S. holdings of Chinese RMB-denominated bonds (left axis) with total foreign holdings of Chinese debt (right axis) from 2019Q4 to 2024Q4. The black line shows U.S. aggregate holdings from TIC data, the red line shows U.S. mutual fund holdings from N-PORT data, and the blue line shows total foreign holdings from Chinese official sources (CCDC and SHCH monthly statistics collected from Bond Connect).

(b) Share of U.S. Mutual Funds and ETFs Holding Chinese Bonds



Notes: The figure shows the share of U.S. bond funds (defined as funds with at least 75% of assets under management invested in bonds) that hold Chinese RMB-denominated bonds at different portfolio allocation thresholds from 2019Q4 to 2024Q4. The four lines represent the share of U.S. funds with any positive holding (>0%), at least 1%, at least 5%, and at least 10% of their portfolio allocated to RMB bonds.

despite the sharp rebound in foreign holdings observed in the official Chinese data, U.S. holdings increased much more modestly. Consequently, U.S. investors now account for a significantly smaller share of foreign holdings than just a few years earlier. In fact, the share of U.S. investors in total foreign ownership of RMB-denominated debt peaked at 6.1% in 2020 and has fallen to 2.6% in 2024. This shift in composition raises the question of which investors account for the recent growth in foreign holdings. In Clayton et al. (2025), we found that through 2021, central bank reserve holdings accounted for the majority of foreign holdings of Chinese Renminbi, but more recently private investors have become increasingly important. Among private foreign investors, Europeans held a larger share than Americans, but as shown in Beck et al. (2024), European investment in Chinese bonds also declined in recent years.

To understand the drivers of the decline in aggregate American holdings of RMB-denominated bonds, we examine fund-level investment patterns. Figure 3b presents the share of U.S. bond funds that hold Chinese RMB-denominated securities at various participation thresholds.[3] We report the share of bond funds with any positive holding, as well as those with at least 1%, 5%, and 10% of their portfolio allocated to RMB bonds. The fund-level data reveals a substantial contraction in participation across all thresholds, but is particularly pronounced for funds exiting RMB positions completely. The fraction of bond funds holding any RMB bonds declined from 5.3% in 2021Q3 to 2.1% by 2024Q4. To quantify the contribution of these complete exits, we calculate that for the approximately $10 billion drop in aggregate N-PORT holdings between 2021Q3 and 2024Q4, roughly $6.5 billion stems from funds that held RMB bonds in 2021Q3 but exited their positions entirely by 2024Q4. This extensive margin adjustment suggests a significant shift in institutional appetite for Chinese RMB-denominated assets among U.S. fund managers, potentially reflecting changing risk assessments or regulatory considerations regarding China exposure during this period of elevated geoeconomic tension.

4 Conclusion

The U.S.-China bilateral financial relationship is at the core of the international financial system. In this short paper, we document the declining position of U.S. investors in Chinese RMB-denominated bonds using microdata on U.S. investment funds from SEC Form N-PORT filings. We show that U.S. holdings of RMB-denominated bonds have roughly halved since their 2021 peak, driven significantly by a contraction along the extensive margin: the

[3]We define U.S. bond funds as U.S. mutual funds and ETFs with at least 75% of assets under management invested in bonds.

share of U.S. bond funds holding any RMB bonds fell from approximately 5% in 2021 to about 2% in 2024. This retreat occurred even as total foreign holdings of Chinese bonds rebounded sharply in 2024, suggesting a compositional shift in China's foreign investor base away from U.S. institutional investors. Understanding the implications of this compositional shift in China's foreign investor base remains an important question for future research into the evolving structure of the international monetary system. Given the availability of high-frequency microdata on U.S. holdings, a promising area of future research is to explore how U.S. holdings shift between different types of Chinese borrowers, such as the central government, policy banks, firms, and other borrowers, during this time of geopolitical tension.

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