

# Monthly Interest Rates Chartbook

## February 2026

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# Economic Summary

# US Forecasts

We expect near-term growth softening with a rebound in H2 26.

| (%)                        | 2025   |           | 2026 |      |      |      |
|----------------------------|--------|-----------|------|------|------|------|
|                            | Q3 Act | Q4F       | Q1F  | Q2F  | Q3F  | Q4F  |
| Real GDP QoQar             | 4.3    | 2.1 (f)   | 2.4  | 1.5  | 2.6  | 2.4  |
| Real GDP YoY               | 2.3    | 2.4 (f)   | 3.2  | 2.6  | 2.2  | 2.2  |
| Core PCE YoY               | 2.9    | 2.7 (f)   | 2.4  | 2.4  | 2.2  | 2.3  |
| Unemployment               | 4.3    | 4.4 (act) | 4.3  | 4.4  | 4.4  | 4.5  |
| Fed Funds Rate Upper Bound | 4.25   | 3.75      | 3.75 | 3.75 | 3.50 | 3.50 |
| 2 Year                     | 3.61   | 3.47      | 3.50 | 3.40 | 3.40 | 3.40 |
| 10 Year                    | 4.15   | 4.17      | 4.15 | 4.30 | 4.30 | 4.30 |

Source: BEA, BLS, Federal Reserve and SMBC Nikko

# Summary of views

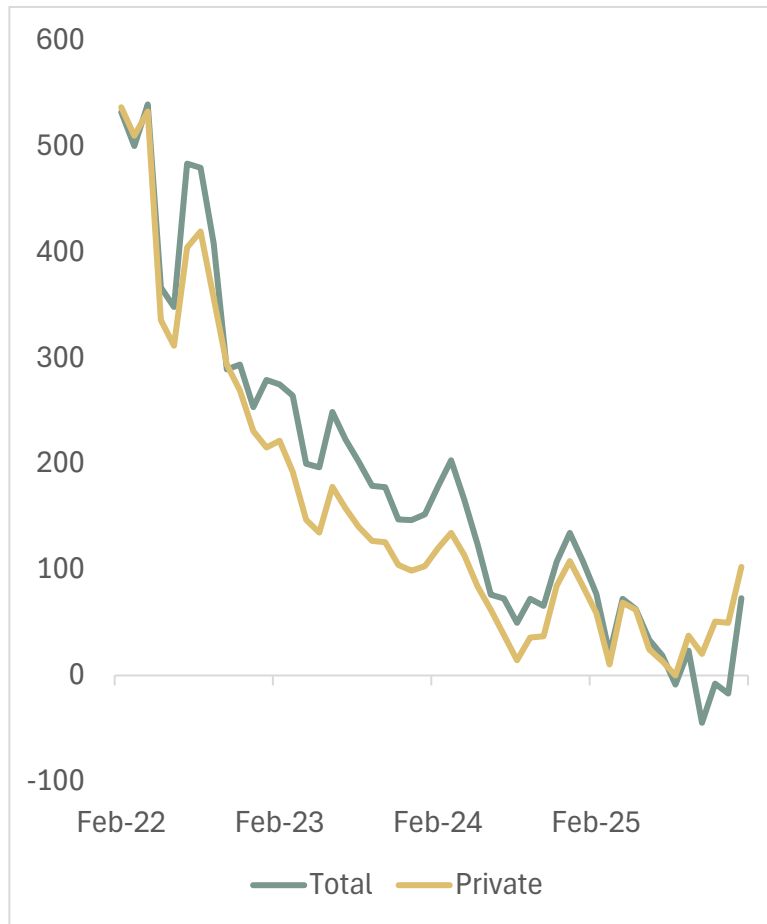
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- Growth:
  - We expect growth to cool into Q2 26 and then quickly recover this summer
    - Led by continued rapid investment in AI equipment
    - And effects from last year's tax cuts and changes to capital expensing
- Inflation:
  - We look for inflation to continue trending lower
    - As rent costs follow home prices lower
    - And tariff effects dissipate
    - Although the Administration is considering imposing replacement tariffs in case IEEPA is reversed
- Fed:
  - We look for one rate cut this year, at the July FOMC meeting
    - Subsequent cuts would be "inflation dependent" and depend on the balance between hawks and doves on the FOMC

*It is unclear how quickly Fed Chair Warsh can be seated or if Chair Powell will leave the Committee after his term as chair expires*

# Anemic hiring...

## Non-farm payrolls (chnng, 000)

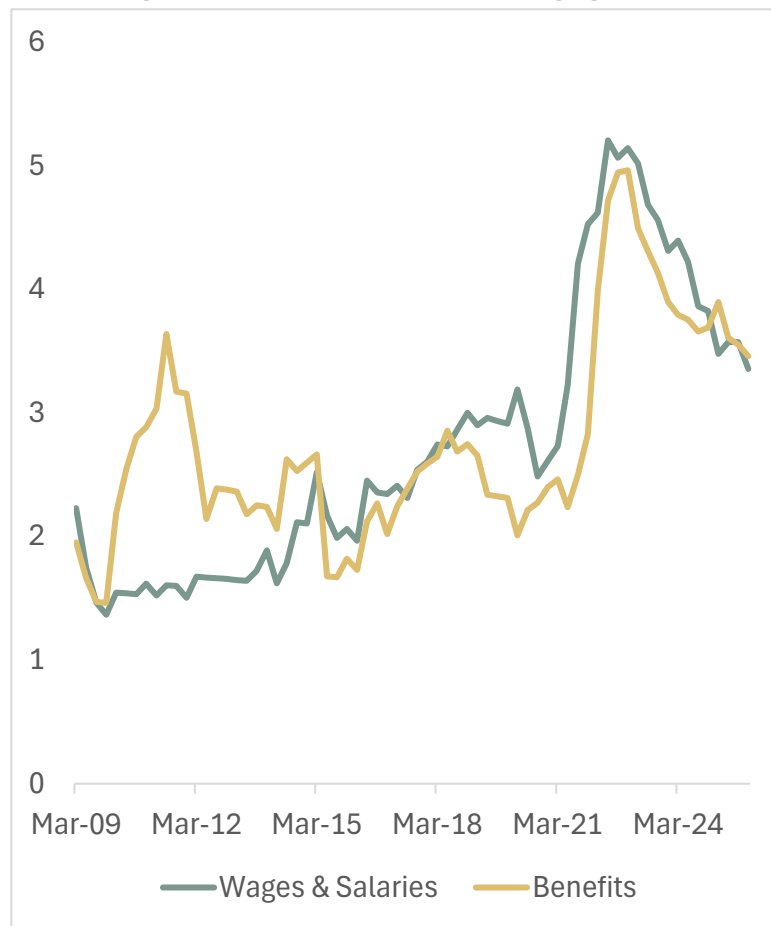


- Hiring was anemic in 2025 – averaging just 12,000/mo
  - While recent payrolls have bounced the industry gains are narrowly concentrated

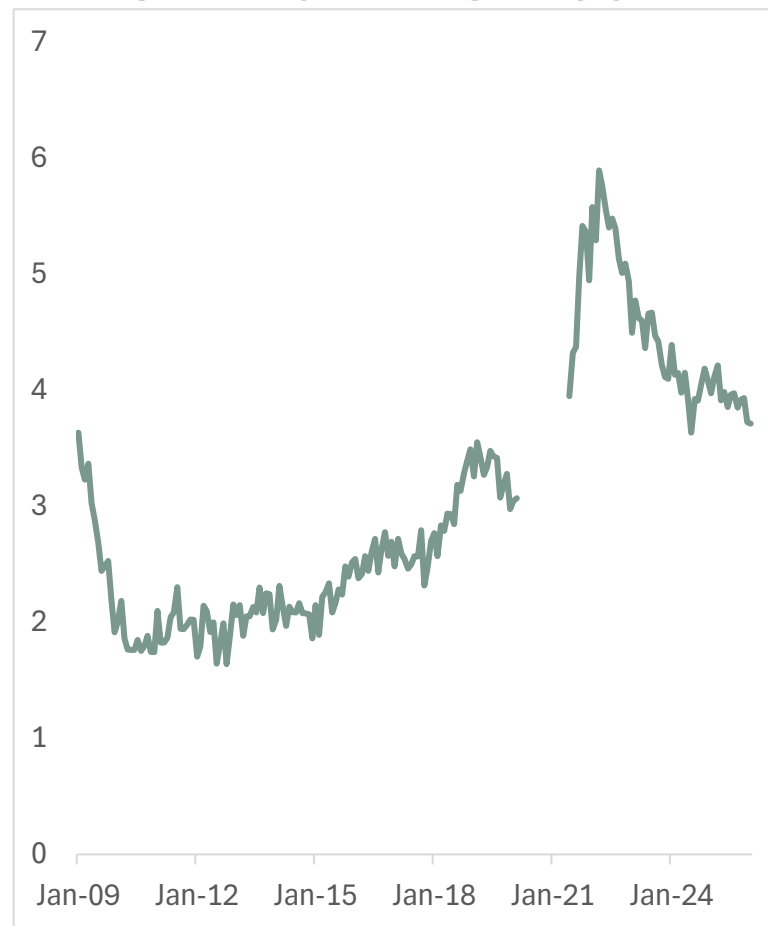
Note: 3m moving average change. Sources: BLS, SMBC Nikko

## ...and softening wages

### Employment cost index (%/y)



### Average hourly earnings (%/y)

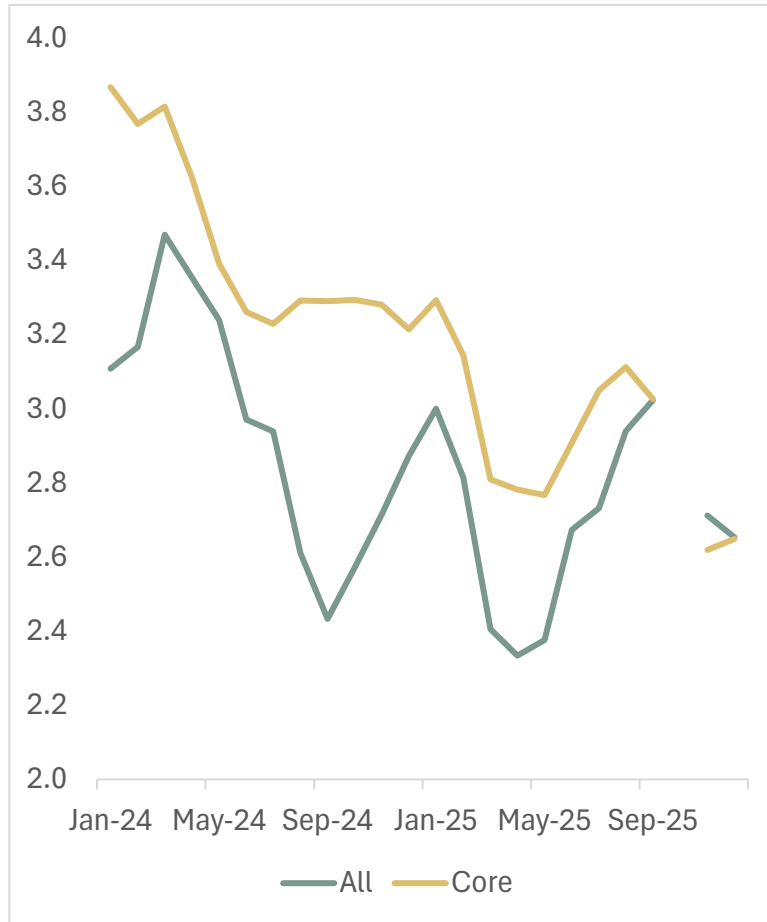


Note: Civilian workers. Sources: BLS, SMBC Nikko

Note: We remove the COVID period for clarity. Sources: BLS, SMBC Nikko

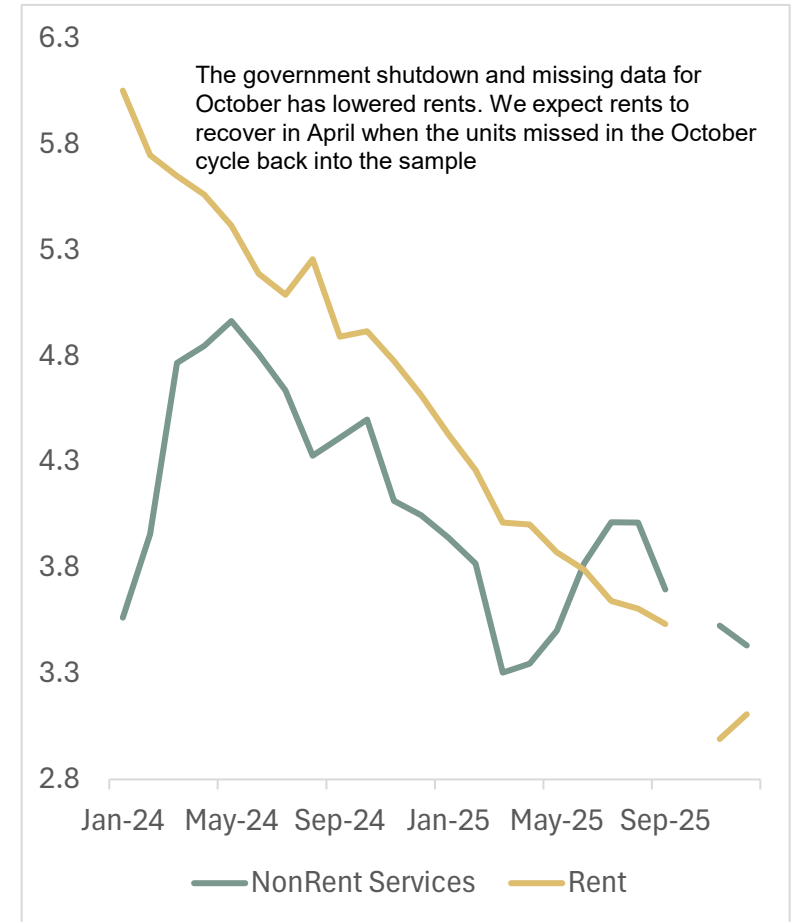
# Inflation is subsiding

## Total and core (%y/y)



Sources: BLS, SMBC Nikko

## Services (%y/y)

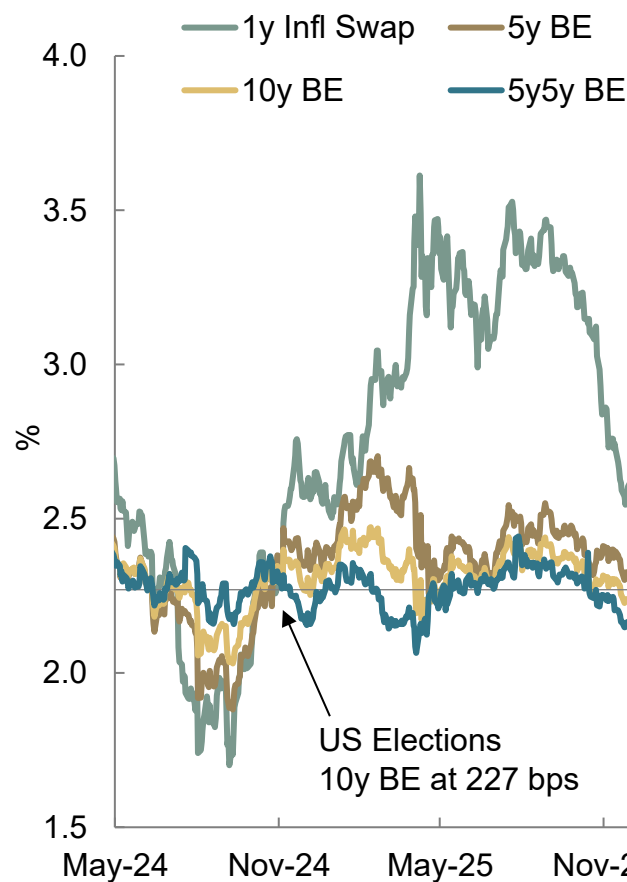


Sources: BLS, SMBC Nikko

# Muted term inflation expectations

- 1y inflation swaps have fallen from their April high of 3.5% to 2.50% with the legal challenge to tariffs and lower oil prices
- 10y TIPS breakevens are a few bps higher than their election day levels

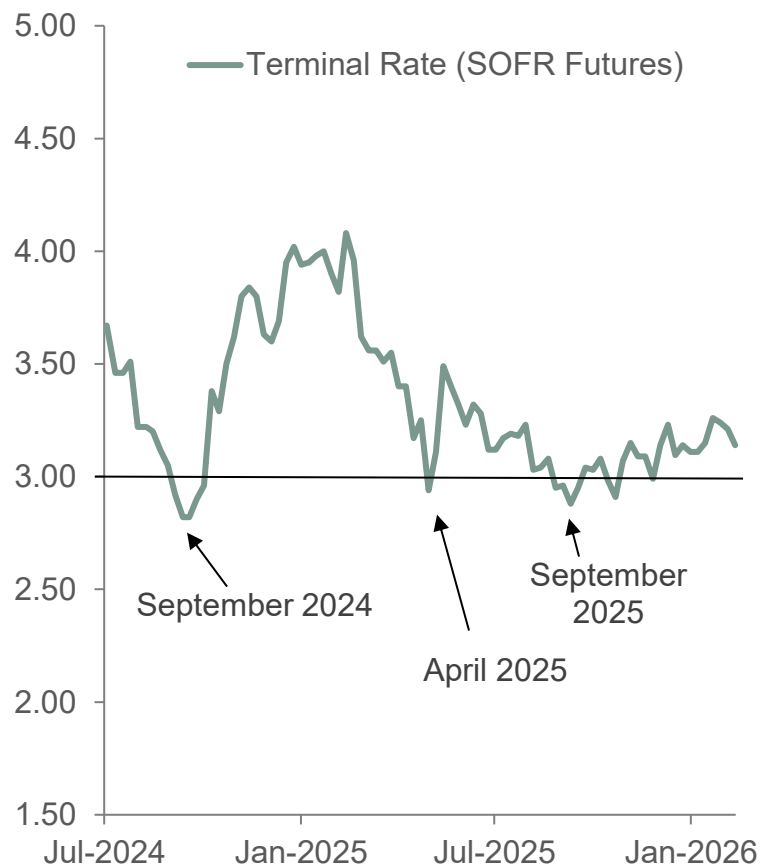
## Inflation breakevens (%)



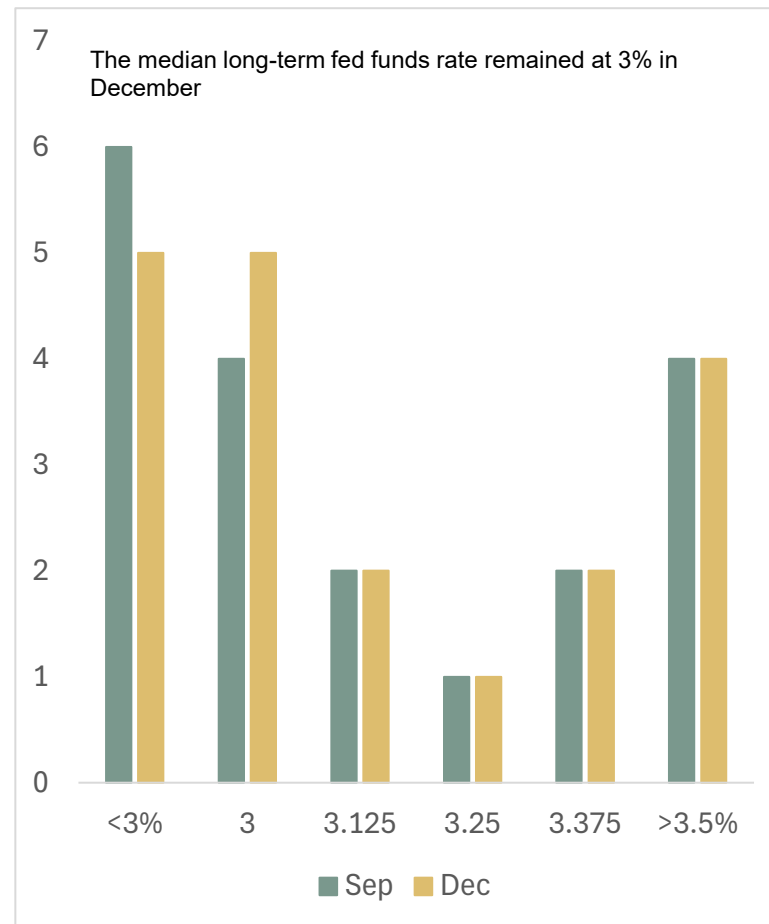
Sources: US Treasury, Bloomberg, SMBC Nikko

# Fed policy expectations

## Terminal rate pricing (%)



## Longer run FOMC fed funds rate distribution



Note: Using SOFR futures. Sources: Bloomberg, SMBC Nikko

Sources: Federal Reserve, September and December 2025 FOMC Surveys of Economic Projections, SMBC Nikko

# Tax refunds

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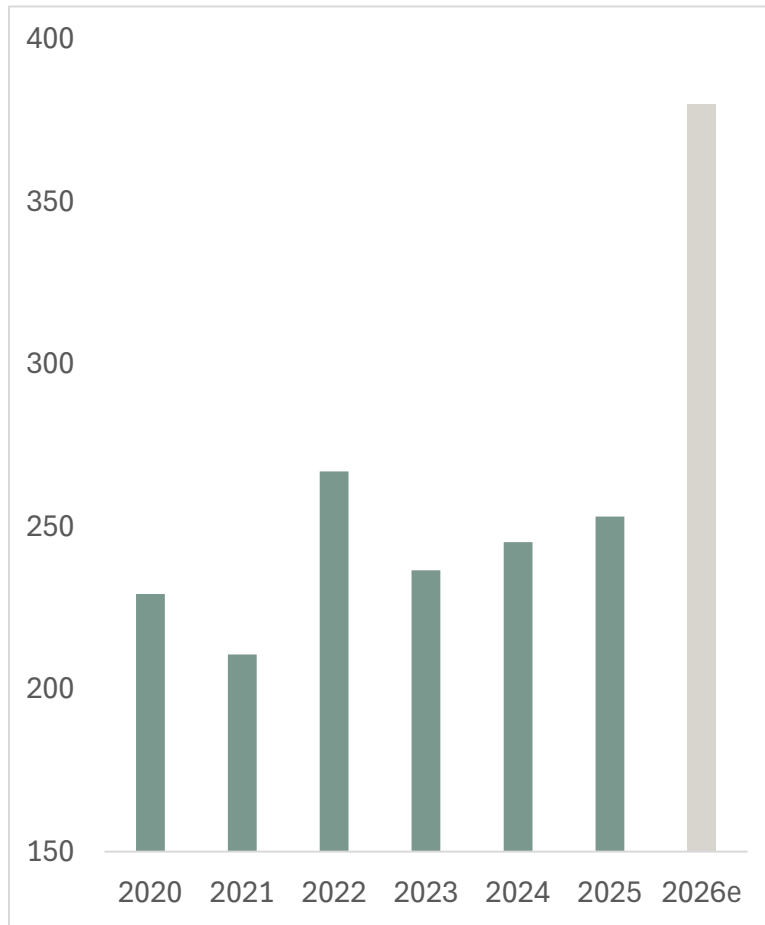
- Last July's OBBB is expect to boost tax refunds this year as the IRS did not adjust withholding tables to reflect the tax law changes enacted
- The biggest tax reductions will come from:
  - The standard deduction was increased by \$750 for single filers (and \$1,500 for joint filers)
  - A special \$6,000 deduction was created for seniors
  - And the SALT deduction (state and local tax exemption) was increased from \$10,000 to \$40,000
- Tax refunds are expected to increase about \$100bn this year – up 36% from last year's \$275bn<sup>1/</sup>
  - Since the average refund last year was \$3,000, a 36% increase might boost the average refund by \$1,000
  - *Last year, about 1/3 of tax refunds were issued by the third week of February and more than half were sent out before mid-March*

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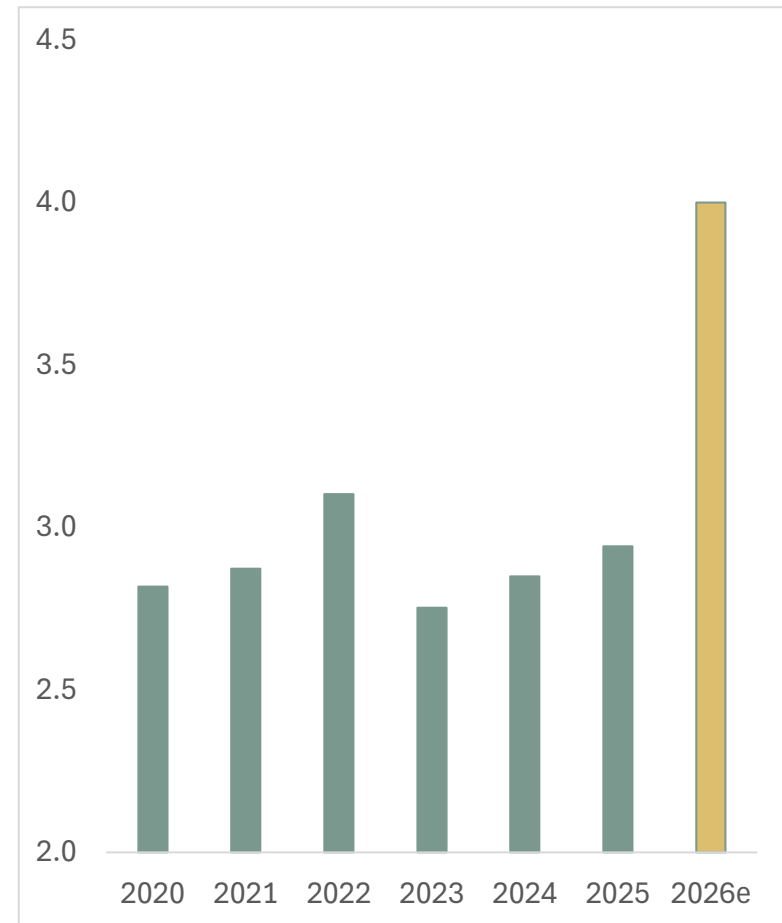
1/ See, "Tax Refunds and the One Big Beautiful Bill Act", E. York and G. Watson, Tax Foundation, January 15, 2026.

# Refunds are expected to be strong

Total refunds issued (\$bn)



Average tax refund (\$000)



Note: Annual totals through mid-April. Sources: US Treasury, SMBC Nikko

Note: Average through mid-April. Sources: US Treasury, SMBC Nikko

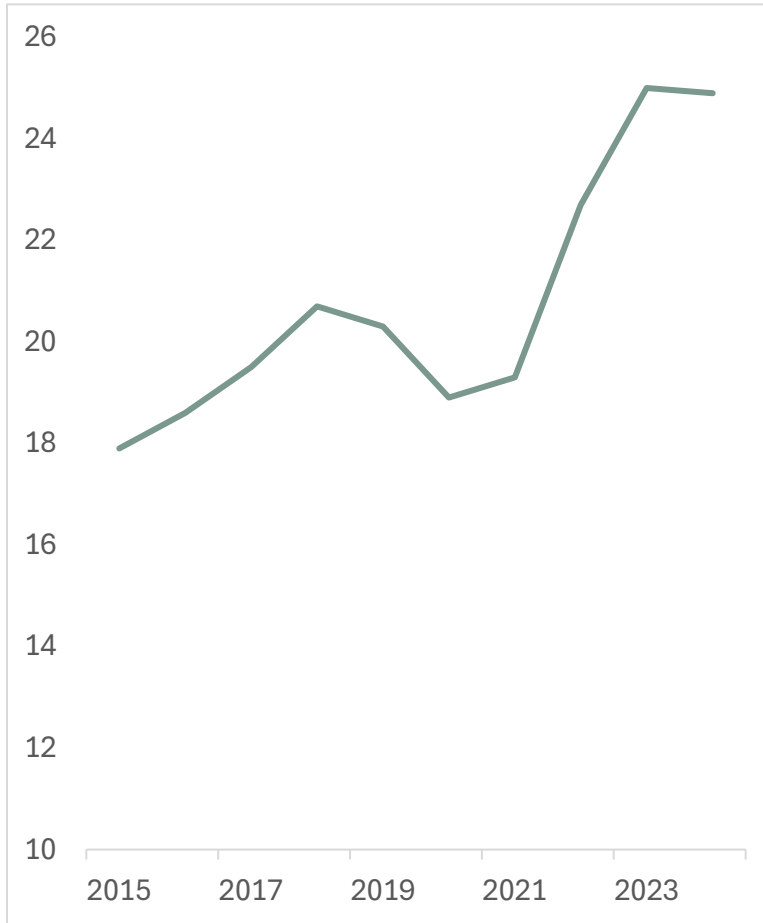
# Capping credit rates

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- The President has proposed implementing a 10% cap on credit card interest rates
  - The cap would be temporary – lasting only a year
- Although no details are available yet, the idea is similar to legislation pending in Congress (S.381/HR 1944)
  - The legislation was proposed in February 2025 and has Democratic and Republican sponsors
    - Although it has not moved forward
  - The legislation does not include a temporary cap
    - And includes credit card fees within the 10% cap
  - Violations would be subject to Section 130a of the Truth in Lending Act which could subject the issuers to statutory damages and class action status
- Banks are opposed to the cap
  - The cap would reduce their lending – particularly to subprime borrowers
  - And could force borrowers toward less regulated lender alternatives

# Average credit card APR

## Average credit card APR (%)

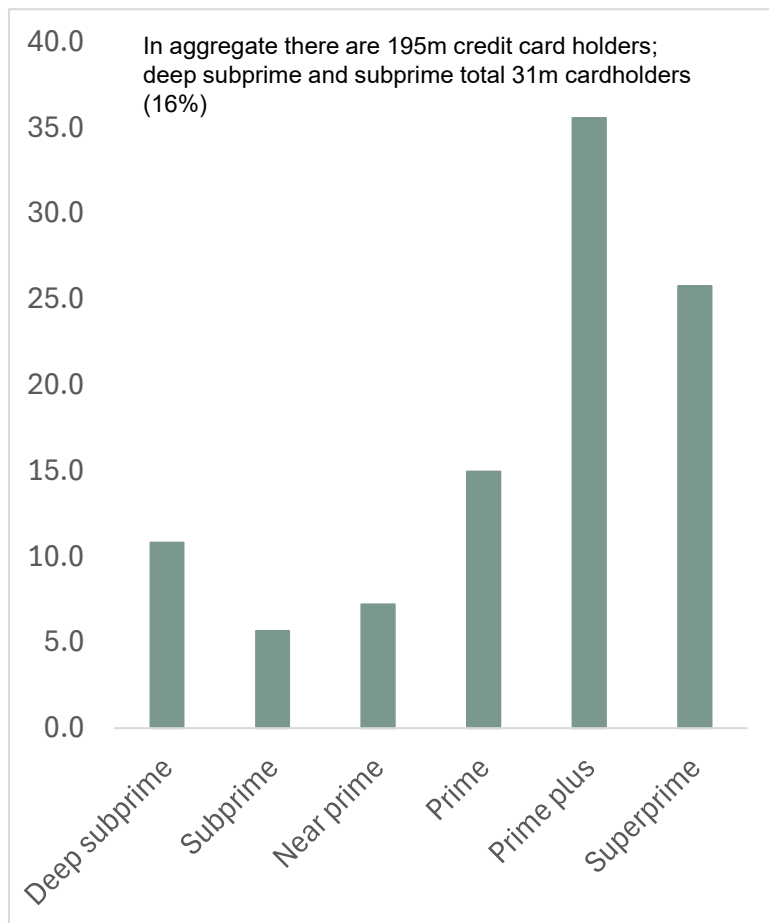


- The 10% cap would apply to the APR
- APRs are typically tied to the prime rate
  - And as the Fed has tightened, rates on credit cards have risen
- But the APR may not reflect the borrower's actual interest expense
  - Which can be affected by (temporary) promotional rates
- And the average APR varies by borrower type

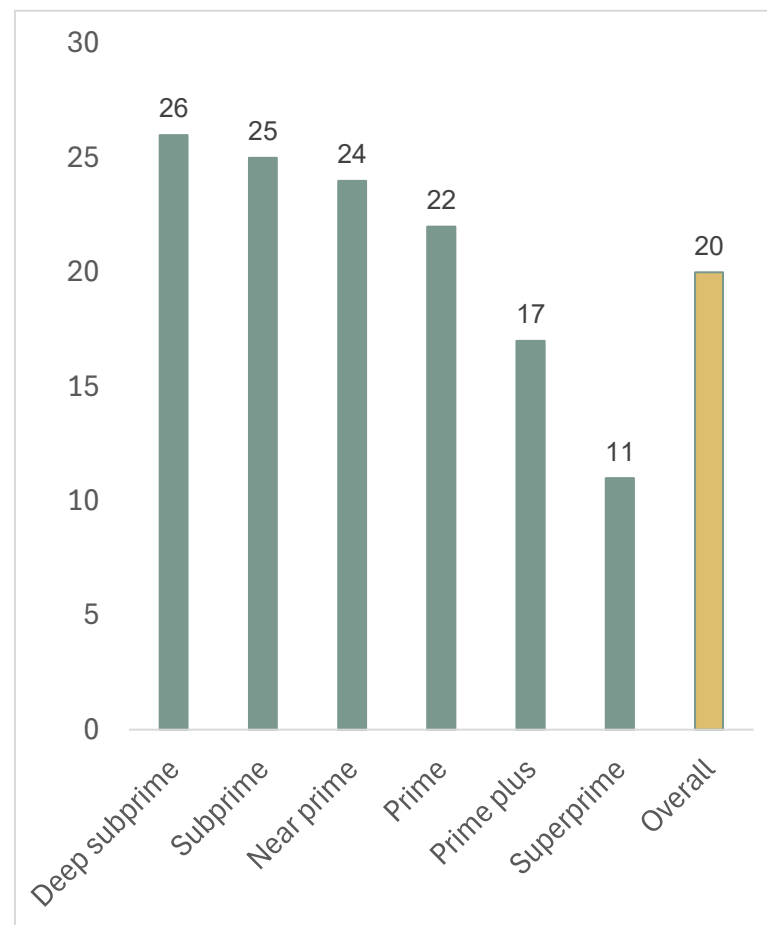
Sources: CPFB, SMBC Nikko

# Borrowers and annual interest costs

## Borrower distribution (% total)



## Effective interest rate (%)



Sources: CPFB, SMBC Nikko

Sources: CPFB, SMBC Nikko

# Credit card promotions

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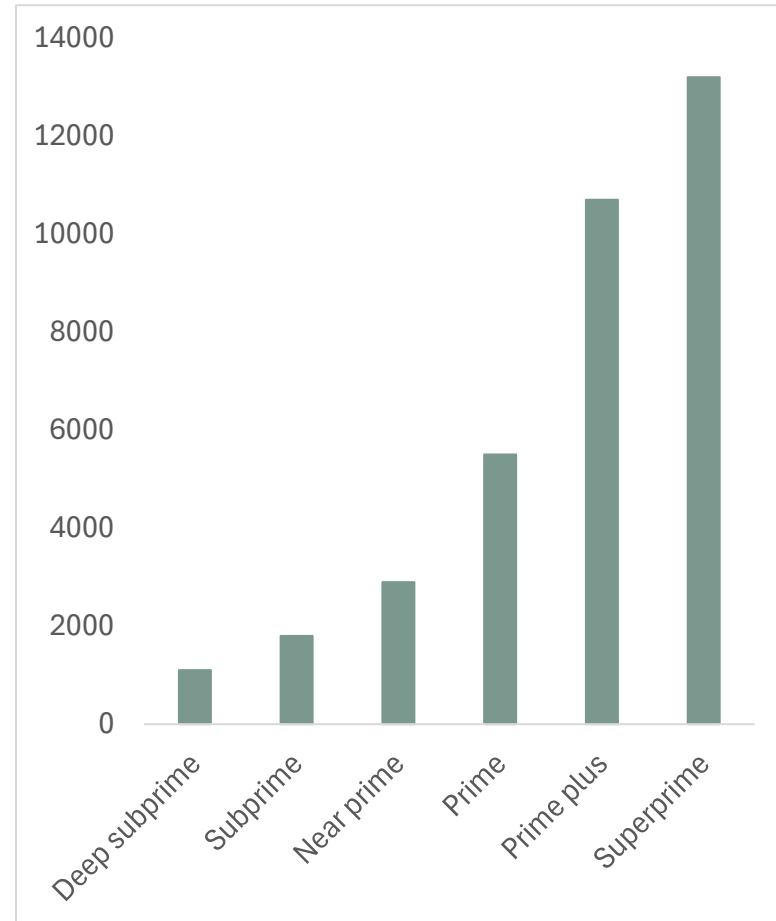
- Temporary promotional rates on credit cards are common
  - 52.8% of the balances on credit cards were in some introductory period with a lower rate as of December 2024<sup>1/</sup>
    - About 1/3 of yearly purchases in 2024 (~\$900bn) were made on cards with promotional interest rates
  - Nearly all the promotions offered in 2023-24 had 0% introductory APRs with periods ranging from 6 to 21m
- More than 80% of cardholders do not cancel their cards after the promotional period ends
  - And more than half (52%) add to their balances after the promotion ends

<sup>1/</sup> See, "The Consumer Credit Card Market: Report to Congress", Consumer Financial Protection Bureau, December 2025

## Annual purchases are topcoded

- Prime and above higher credit borrowers spend more annually on their cards than lower tier borrowers

### Annual purchases (\$)



Note: Purchases by account. Sources: CPFB, SMBC Nikko

# Macroeconomic considerations

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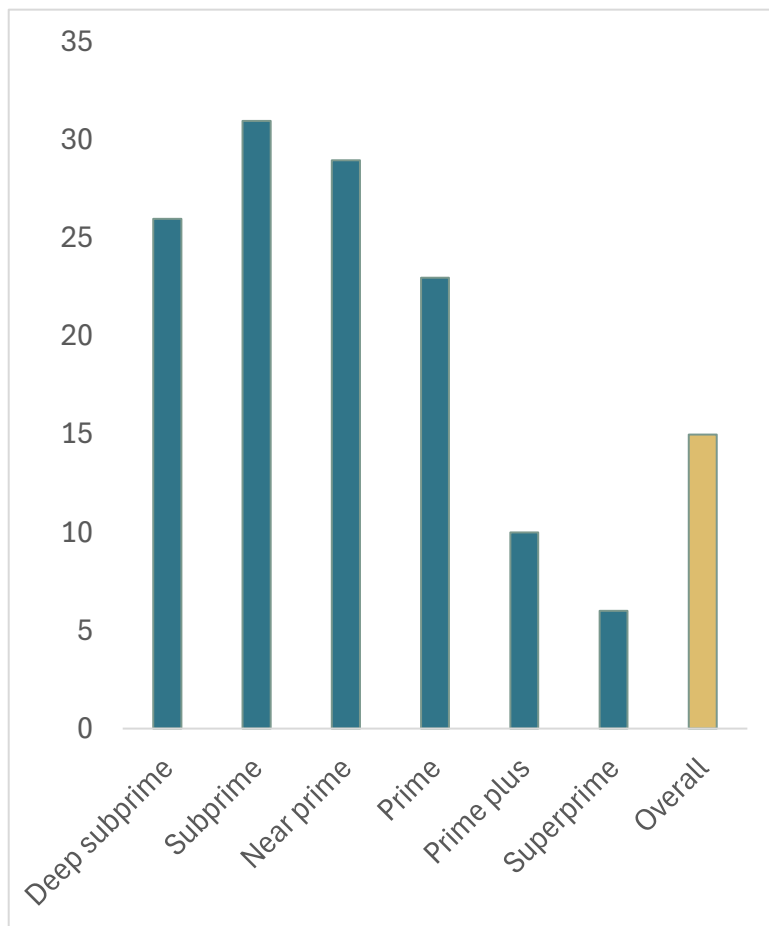
- Capping APRs on credit cards could push banks to reduce the extension of credit particularly to lower tier borrowers
  - Higher minimum required payments<sup>1/</sup>
  - Lower credit limits
  - Fewer promotional rates and program rewards
- *But, it is not clear how these effects might feed into consumer spending*
  - Lower tier borrowers spending on credit cards is lower
- And the cap is temporary
  - Do banks and households adjust their behavior because of a temporary change?
    - Households may use the savings to paydown debt rather than accumulate higher balances<sup>2/</sup>
    - The credit card industry is highly competitive – do banks risk losing market share for a temporary change in APRs?

1/ See next slide

2/ As they did during COVID

# Minimum payments

## Minimum payment (% tot by borrower)

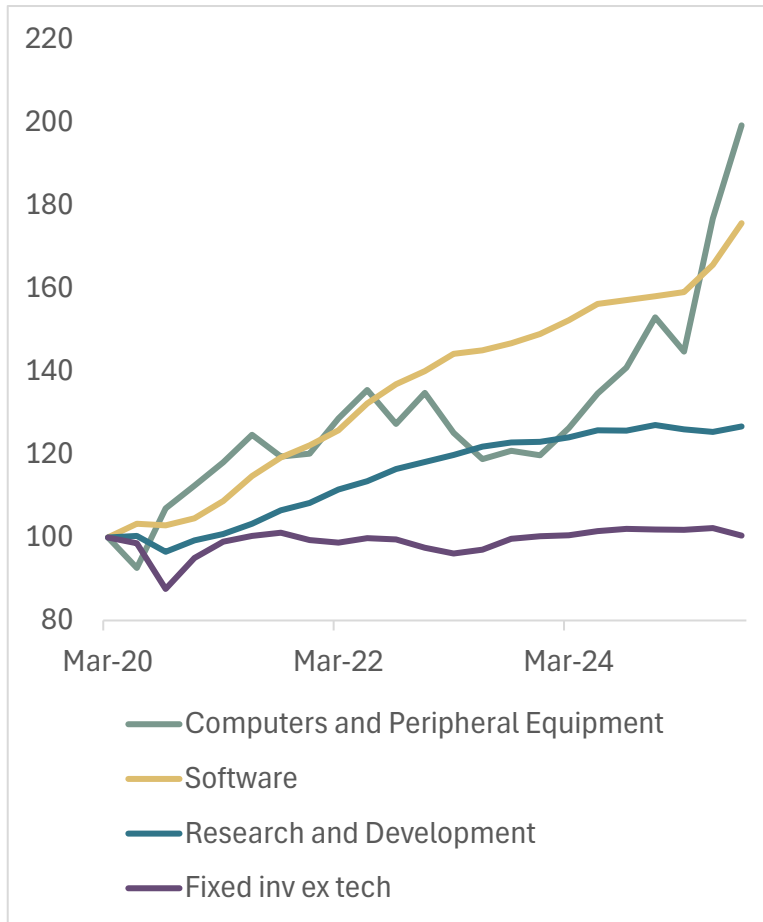


- 15% of credit card holders on average made only their minimum monthly payment in 2024
  - But this share is sharply higher for borrowers below prime

Sources: CPFEB, SMBC Nikko

# AI capital deepening

## Real fixed investment (Q4 19=100)

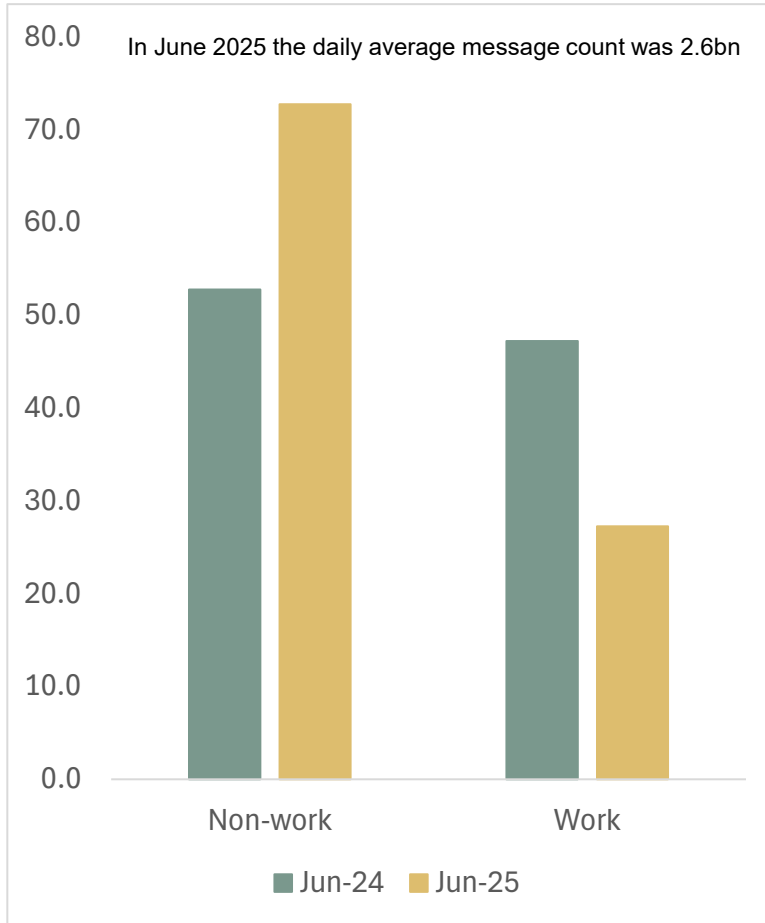


- Since 2020, there has been rapid growth in investment in computers and software
  - As AI-driven demand for computing power has surged
- Outside of the sector, real fixed investment has been sluggish

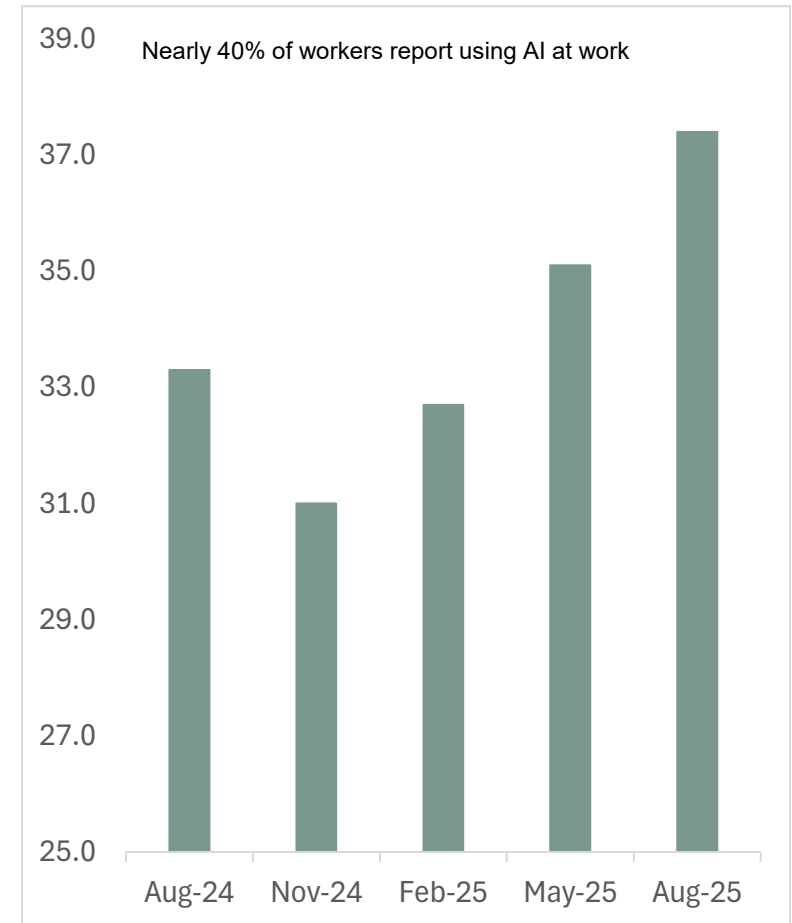
Sources: BEA, SMBC Nikko

# AI use

## ChatGPT messages (% total)



## AI use at work (% employees)

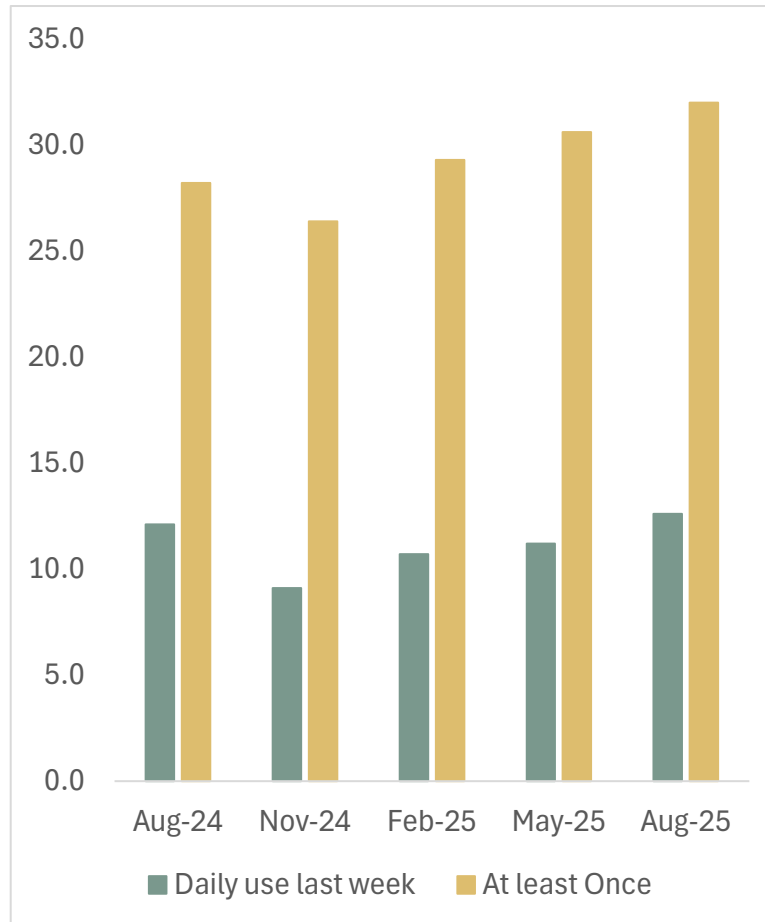


Sources: Chatterji et al., SMBC Nikko

Sources: Bick et al., SMBC Nikko

# Frequency of work use

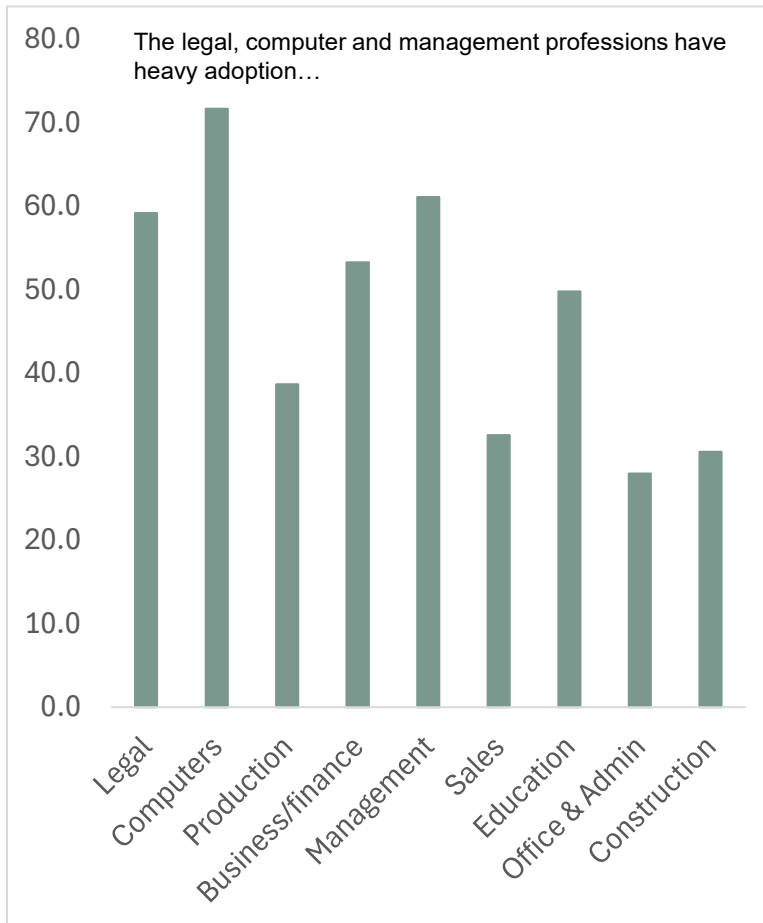
## Frequency of use (% workers)



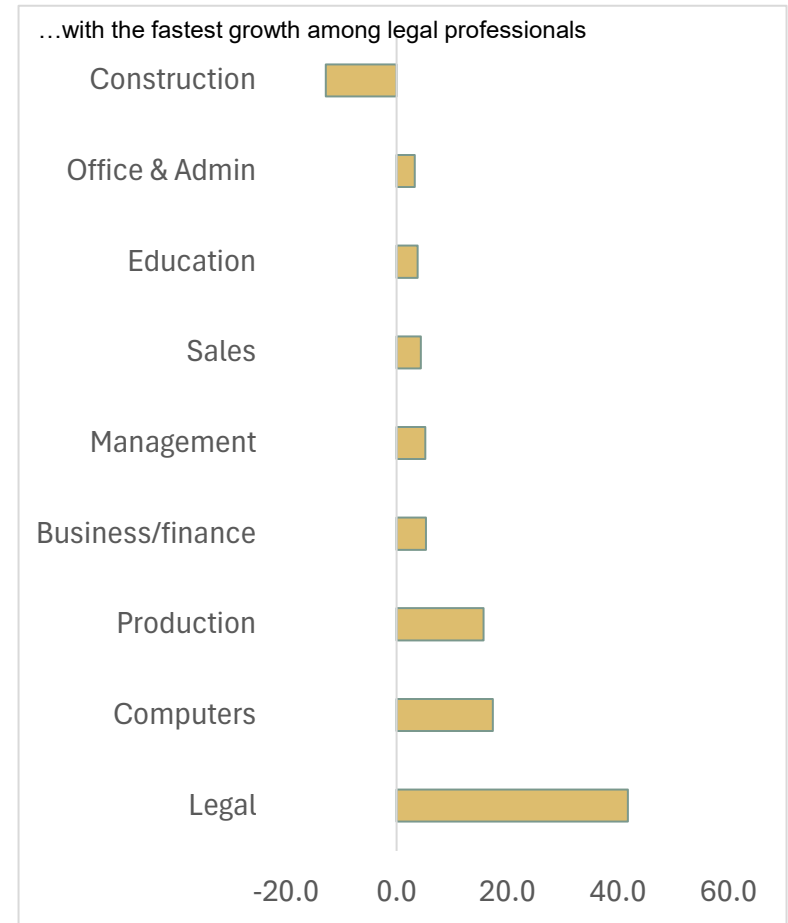
- Alongside the increase in adoption, workers are using the technology more frequently
  - The average worker reports using AI for about 2h/week<sup>1/</sup>
    - Up 40m from a year-earlier

# AI use by occupation

## AI use by occupation (% workers)



## Growth by occupation (% change)



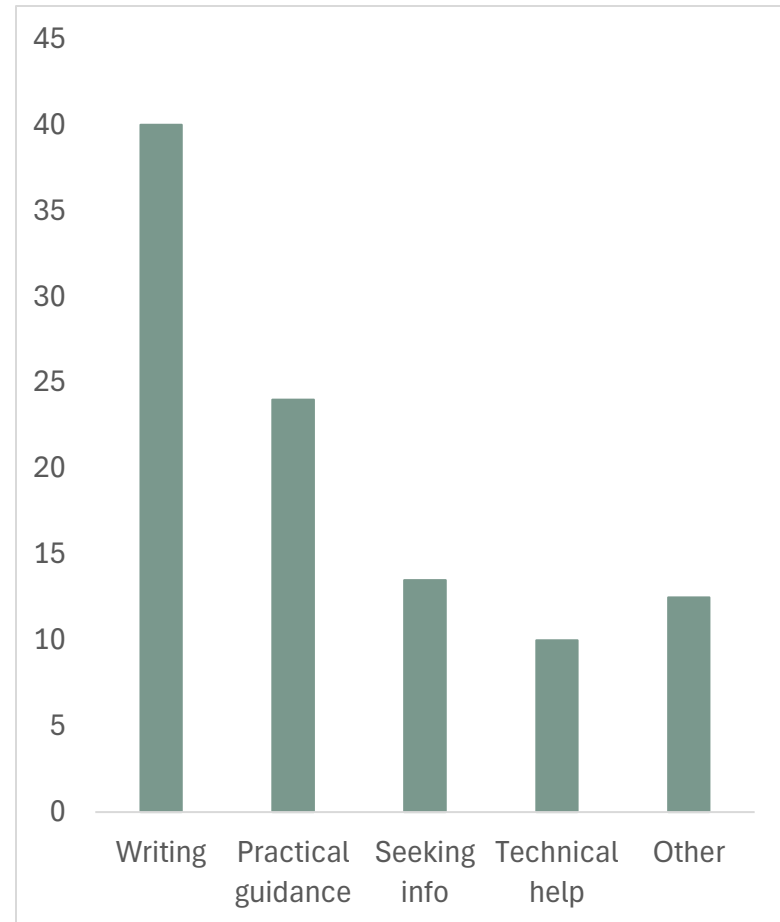
Sources: Bick et al, SMBC Nikko

Note: Change since August 2024. Sources: Bick et al, SMBC Nikko

# AI tasks

## AI tasks (%)

- Writing is the most common AI task
  - But most of this involves using existing text
    - Editing, translating or summarizing

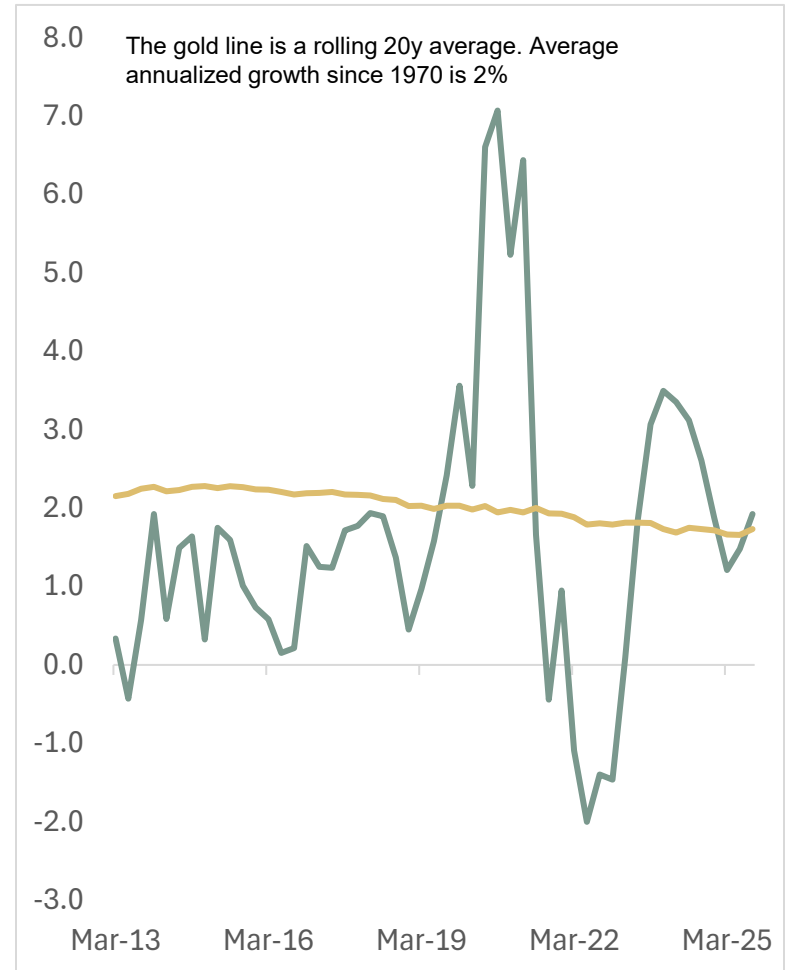


Sources: Chatterji et al. SMBC Nikko

# Where is AI productivity?

- To paraphrase Robert Solow, it seems that AI “is everywhere but the productivity statistics”

## Non-farm productivity (%y/y)



Sources: Federal Reserve Bank of New York, SMBC Nikko

# Task studies

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- Task studies involving AI use at work point to significant time savings. Yet measured non-farm productivity is growing close to its long-term average and only modestly faster than its pre-COVID pace
- AI significantly shortens the time needed to complete many work tasks.
  - Hartley et al report average time savings of 71% across 34 common work jobs<sup>1/</sup>
  - This matches time savings estimated from Claude conversations<sup>2/</sup>
  - And Peng notes programmer using AI for coding were 56% faster than non-users<sup>3/</sup>

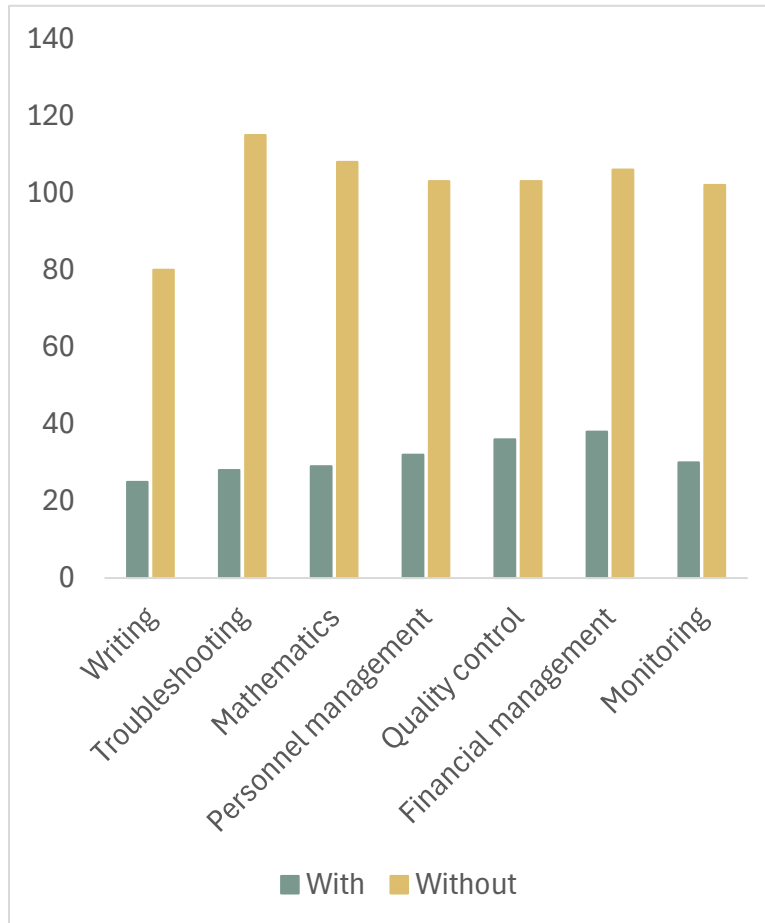
1/ See, "The Labor Market Effects of Generative Artificial Intelligence", J. Hartley, F. Jolevski, V. Melo, and B. Moore, Stanford University, World Bank, Clemson, and Stanford, October 2025

2/ See, "Estimating AI productivity Gains from Claude Conversations", A. Tamkin, and P. McCrory, Claude.ai, November 5, 2025

3/ See, "The Impact of AI on Developer Productivity: Evidence from GitHub Copilot", S. Peng, E. Kalliamvakou, P. Cihon, and M. Demirer, Microsoft Research, GitHub, and MIT, arXiv:2302.06590v1, February 13, 2023

# AI time savings by task

## Minutes saved with AI (min)



- Workers estimate that without AI their regular work task would take significantly longer
  - By an average of 81m across the tasks examined in Hartley et al<sup>1/</sup>

Note: As of August 2025. Source: Hartely et al., SMBC Nikko

1/ We plot 7 of the 34 identified. See “The Labor Market Effects of Generative Artificial Intelligence”, J. Hartley, F. Jolevski, V. Melo, and B. Moore, Stanford University, WorldBank, Clemson University, and Stanford, respectively, October 2025

# Estimating productivity gains

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- *Task study results when extrapolated economywide suggest productivity gains on the order of 1 to 1.8% over 10y*
  - The higher estimates would imply a doubling of the current pace of productivity
- But there are measurement and behavioral issues that suggest the gains could be smaller:
  - AI use is only in the experimental or pilot stage at most employers
  - AI is likely to replace low value and easy-to-automate tasks first where the productivity gains are highest<sup>1/</sup>
    - Productivity gains may be harder to achieve for more complex tasks – especially, those for which there are no clearly defined outcome or for which there is no database of results
  - Reported AI use at work may be affected by social desirability bias<sup>2/</sup>
    - Workers may report using AI and sharp gains in productivity because their management values the efficiency gains
  - Separately, while the task studies suggest significant time savings, it is not clear what workers do with the time released

1/ See, “The Simple Macroeconomics of AI”, D. Acemoglu, MIT, April 5, 2024.

2/ Social desirability works in the opposite direction for college students. See, “Underreporting of AI Use: The Role of Social Desirability Bias”, A. Imas and Y. Ling, University of Chicago, May 2025.

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# Interest Rates Strategy

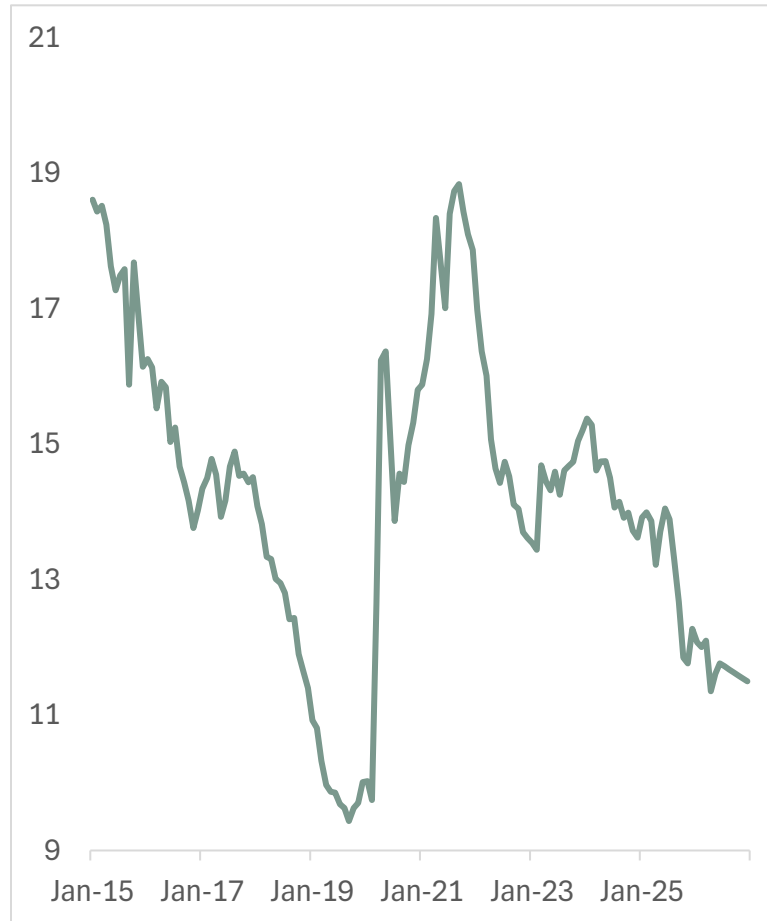
## Interest rates summary

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- Fed officials appear content to hold off on additional rate cuts until the economic data provides more clarity. We are tentatively looking for one rate cut this year
  - Markets are expecting a dovish policy tilt from the new Fed Chair.
- But, Fed Chair Warsh is also looking to reduce the size of the Fed's balance sheet
  - We are doubtful this can be accomplished without creating funding market pressure
  - Initially, Fed/Treasury coordination may involve increased bill issuance with the Fed absorbing more than half of the new supply through its reserve management purchases (RMPs)
  - RMPs, however, are expected to slow after the mid-April tax date
- We expect the Treasury to keep coupon auction sizes steady this year with bill supply increasing \$600bn and the bill/debt ratio rising to 22.3%
- We think the 10y term premium is consolidating after rising 100 bps since September 2024 and is likely to resume its climb higher in 2026 once the worries about the labor market subside. The 10y should range trade in the near term (2w-1m).
- 5y cheapening versus wings (2y and 10y) has played out in line with past easing cycles. Our analysis shows that the easy part of the trade is done.
- Implied vol is at multi-month lows driven by range trading and subdued realized volatility.

# RMPs will increase bank reserves in Q1...

## Bank reserves (% bank assets)

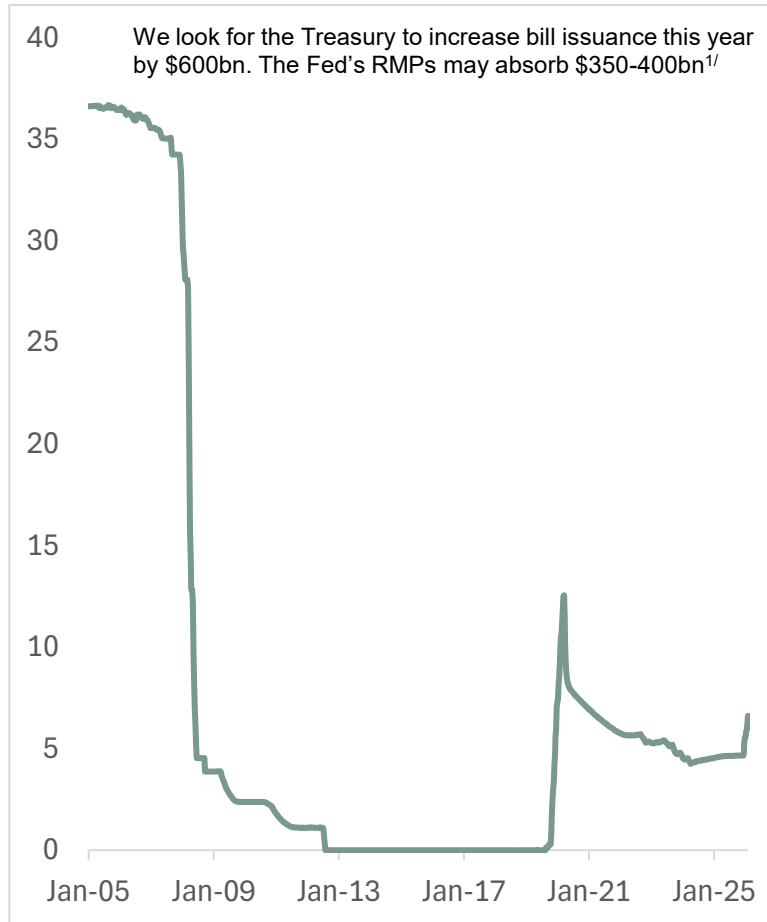


- The Fed's RMPs are expected to push bank reserves to just over \$3trn and 12.1% of bank assets by March 31
- We look for the monthly purchase pace to slow after April
  - With purchases matching the average monthly growth in currency
  - Or approximately \$5bn/m
- Bank reserves are expected to average 11.7% of bank assets this year

Sources: Federal Reserve, SMBC Nikko

## ...As the Fed's bill holdings increase...

### Bill holdings (% Treasury SOMA holdings)



- The Fed's RMPs are all in bills
  - Bill issuance and supply is large enough that the Fed will not need to shift these purchases into <3y coupons
- Assuming RMPs slow this year, the Fed's bill holdings may exceed 13% at year-end
- But its bill holdings would remain below the Fed's historical portfolio allocation
  - And below the market neutral level of 22%

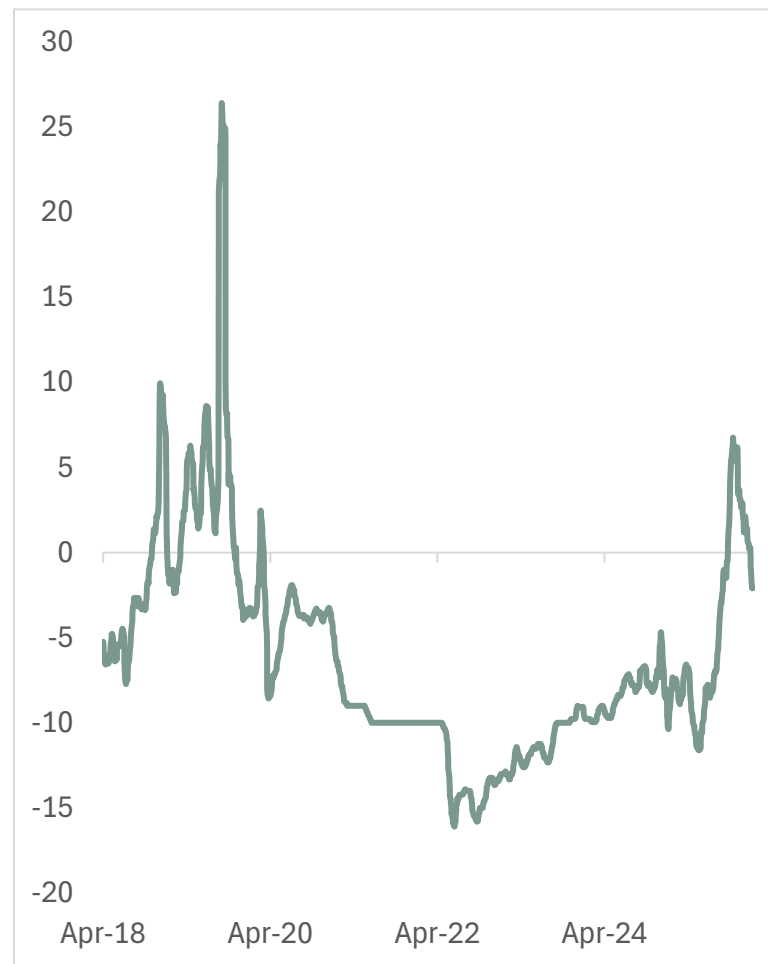
Sources: Federal Reserve, SMBC Nikko

<sup>1/</sup> The Fed's RMPs are all *secondary* market purchases.

## ...And reduce funding market pressure

- The expansion in reserves along with a reduction in bill supply has helped ease funding rate pressure<sup>1/</sup>

Tri-party less IORB (bp)



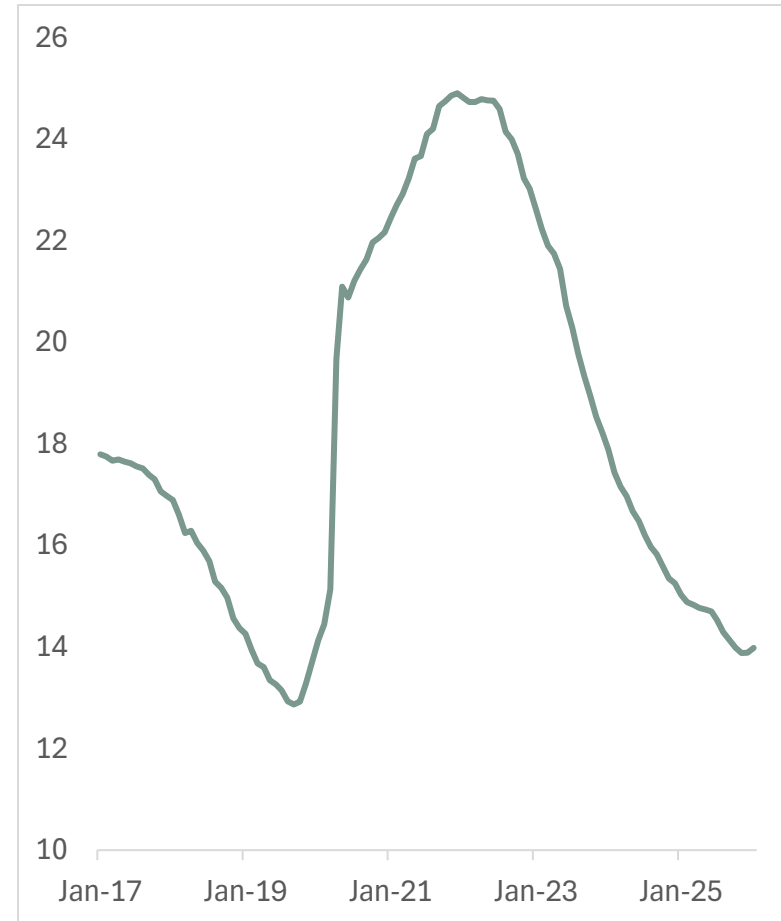
<sup>1/</sup> Between Thanksgiving and mid-January, bill supply fell by nearly \$225bn.

Note: 20d average. Sources: Federal Reserve, SMBC Nikko

# A smaller Federal Reserve balance sheet?

- Chair Warsh argues the Fed's balance sheet is too large
  - And that it distorts price signals in the Treasury market
- In turn, this may encourage more private sector risk taking
  - As there is a sense the Fed will step in to provide liquidity and market support<sup>1/</sup>

## SOMA Treasuries (% outstanding)

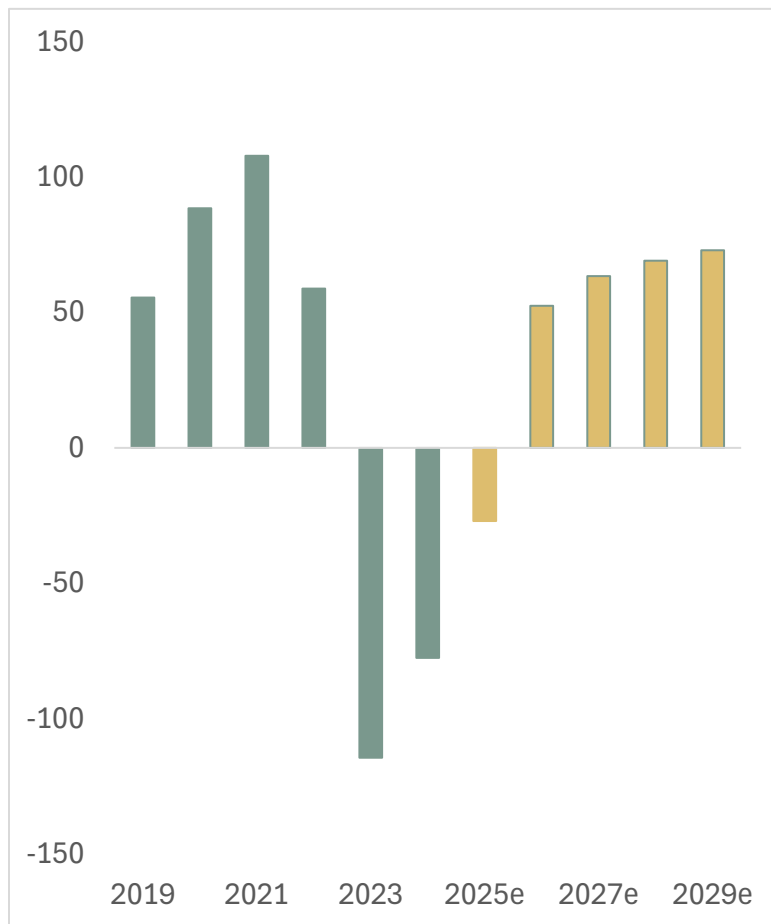


<sup>1/</sup> As in September 2019 and again in March 2020

Sources: Federal Reserve, US Treasury, SMBC Nikko

# Federal Reserve earnings

## Federal Reserve earnings (\$bn)



Sources: Federal Reserve, SMBC Nikko

- The Fed's portfolio has a maturity mismatch
  - QE pushed the maturity of its securities holdings longer
  - But its interest-bearing liabilities are primarily overnight<sup>1/</sup>
- As a result, it has had negative income since 2022
  - And may not be able to remit any surplus earnings to the US Treasury until it recovers the roughly \$200bn of negative income
    - We think that may not occur until 2029

1/ IORB and RRP balances

## The path to smaller

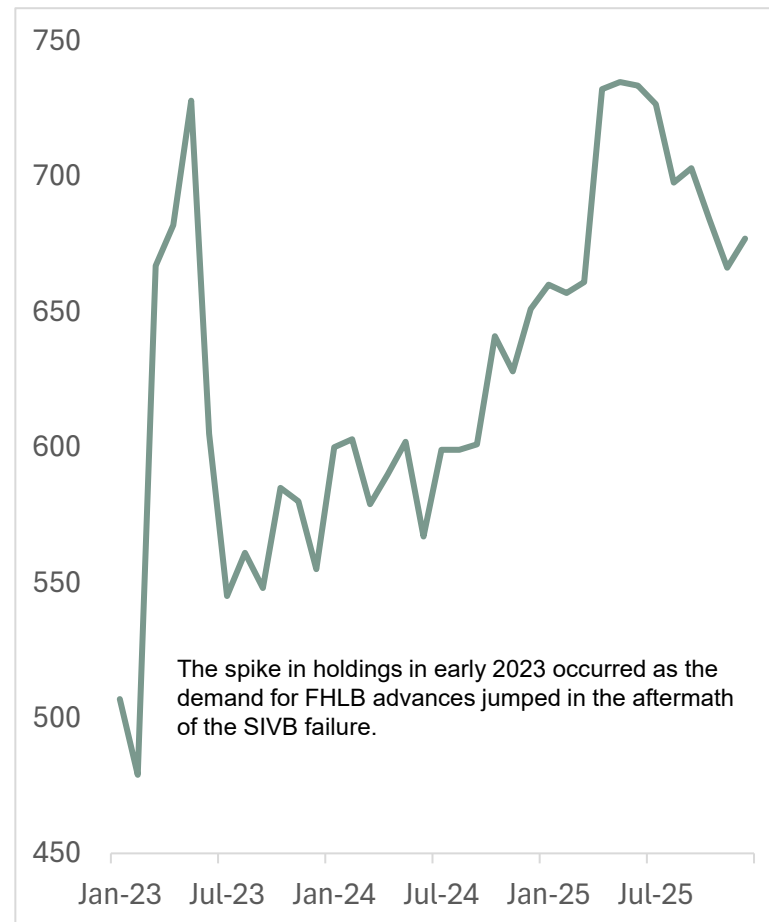
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- The Fed has reduced the size of its balance sheet twice – beginning in 2017 and again in 2022
  - QT in 2022 was larger and longer lasting because the balance sheet had grown substantially more during COVID
    - Each time, the Fed has allowed its Treasury (and MBS) holdings to mature without replacement
- The Fed could consider resuming QT and capping its maturing Treasury reinvestments
- It might consider selling some of its \$2trn in MBS holdings
  - To shrink its balance sheet and return to its stated objective of a Treasury-only portfolio more quickly
- Alternatively, it may consider steps to reduce banks' demand for reserves

# GSE MBS purchases

- The Administration is considering instructing FNMA and FHLMC to purchase \$200bn of (newly created) mortgages
- We think this might lower mortgage rates by 25bp or so
- Unlike QE, however, these purchases must be financed
  - Our sense is that the GSEs could issue discount notes to fund the purchase
    - As money funds have plenty of appetite for short-maturity GSE debt<sup>1/</sup>

## Money fund FHLB holdings



<sup>1/</sup> Most of the money funds' GSE holdings are FHLB discount notes.

Sources: Crane's Data, SMBC Nikko

# Reserve demand

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- The size of the Fed's balance sheet is determined by the demand for currency and bank reserves, as well as the Treasury's precautionary liquidity buffer
  - Demand for currency is relatively stable and outside of the debt ceiling the Treasury's cash balance is somewhat predictable
- *Instead, to significantly reduce its balance sheet, the Fed needs to reduce the demand for bank reserves*
  - But their demand is determined by regulation and their preference for precautionary liquidity buffers
    - As well as their preference for immediately available liquid assets
- While banks can meet their liquidity requirements with Treasuries these need to be monetized in a crisis
  - In the market or by pledging them to the Fed at either the Discount Window or the SFP
    - Banks are reluctant to use either facility given concerns about disclosure

## Reserve demand: What banks say

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- The Bank Policy Institute surveyed bank financial officers about their demand for bank reserves<sup>1/</sup>
- Bank officers cited three reasons for their demand:
  - Liquidity risk management – internally based assessment rather than the regulatory requirement
  - Aversion to discount window borrowing
    - Including incurring an intraday overdraft
  - Passing internal liquidity stress testing (Reg YY)<sup>2/</sup>
- According the Fed's Senior Financial Officer's survey 64% of banks maintain buffers of more than 10% above their lease comfortable level of reserves (LCLoR)
  - And 20% maintain buffers of more than 75% of their LCLoR

1/ See "What Determines Banks' Demand for Reserve Balances?", B. Nelson, L. Bristow, and B. Waxman, Bank Policy Institute, January 14, 2025

2/ Large banks are required to have sufficient liquidity to cover projected outflows at overnight, 30d, 90d, and one-year horizons.

## Reducing demand: Tiered IORB

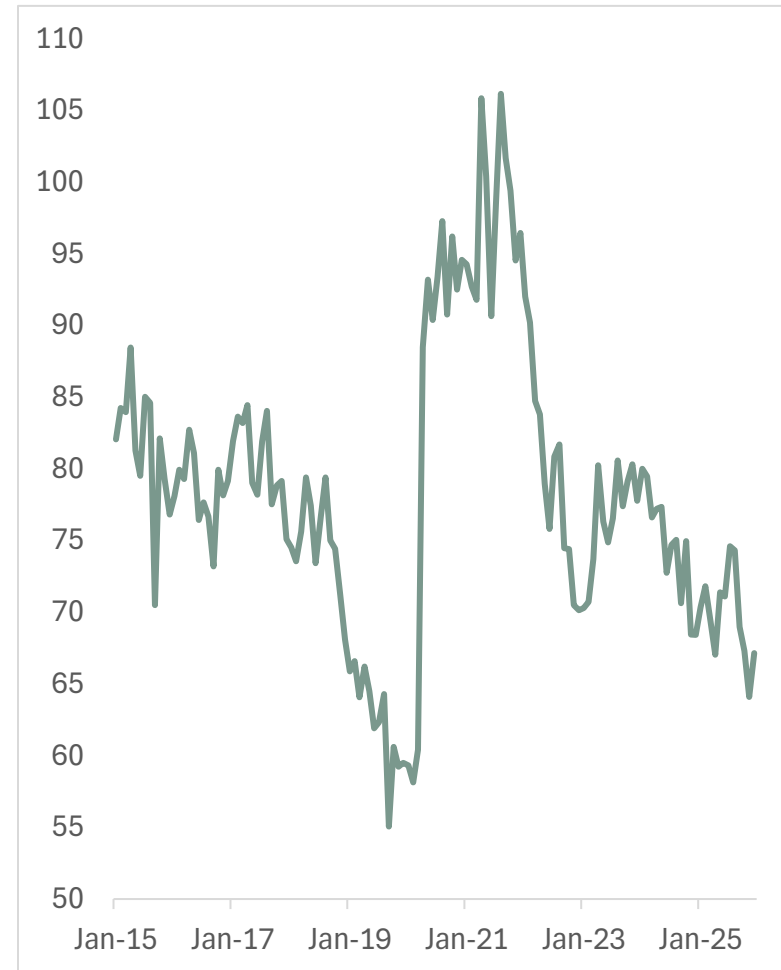
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- The Fed could reduce reserve demand by modifying the disclosure requirements on discount window and SFP use
  - But these were established under Dodd-Frank and would require Congressional action to reverse
- The Fed could reduce the relative price of reserves by tiering its payment of IORB
  - Balances below the threshold would receive the full IORB rate
    - *But balances above would receive a rate below IORB and, potentially, nothing*
  - In theory, this might encourage banks to keep their surplus reserves in Treasuries
    - We think banks might substitute bills for reserves given their liquidity in stress periods
- But gauging where to set the remuneration threshold (and rate) on a tiering system is likely to be challenging
  - Bank demand for reserves changes
  - And given their reluctance to use Fed liquidity facilities, banks may simply accept a lower return on their surplus (non-exempt) reserves

# Shrinking the balance sheet is challenging

- *We do not think the Fed can shrink its balance sheet much without triggering a spike in overnight interest rates*
  - Last fall, overnight rates moved higher
    - As reserves fell below \$2.9trn
- While some of the pressure was due to heavy bill issuance, we think much of the persistently high repo rates came from scarcer bank reserves<sup>1/</sup>
  - Reserves fell to 64% of daily Fedwire payments<sup>2/</sup>

## Reserves (% Fedwire payments)



1/ See slide 31

2/ See, "What Can Public Fedwire Payments Data Tell Us about Ample Reserves?", E. Ferris, A. Rose, and M. Tase, Federal Reserve Board, July 18, 2025

Sources: US Treasury, SMBC Nikko

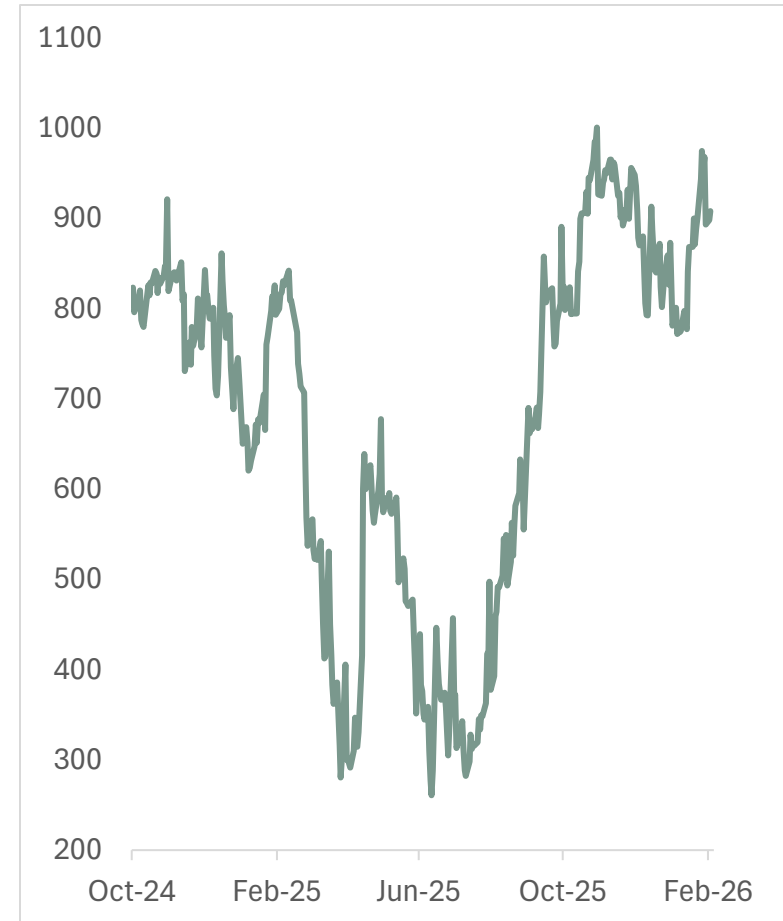
## Gradations of ampleness?

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- Even though tri-party repo traded 5bp above IORB between mid-October and the December FOMC meeting, FOMC participants still felt that reserves were in an “ample range”
  - Although several sought a more concrete definition
- The FOMC considers gradations of reserve ampleness
  - Its objective is to keep the supply of reserves in a roughly defined range so that they are sufficient to meet bank demand *on most days*
    - With banks using the SRP to temporarily “top up” their desired cushions on other days
      - And SRP borrowing is meant to temporarily push balances from less to more ample

## Tax refunds: Heavier bill issuance near-term

### Treasury cash balance (\$bn)

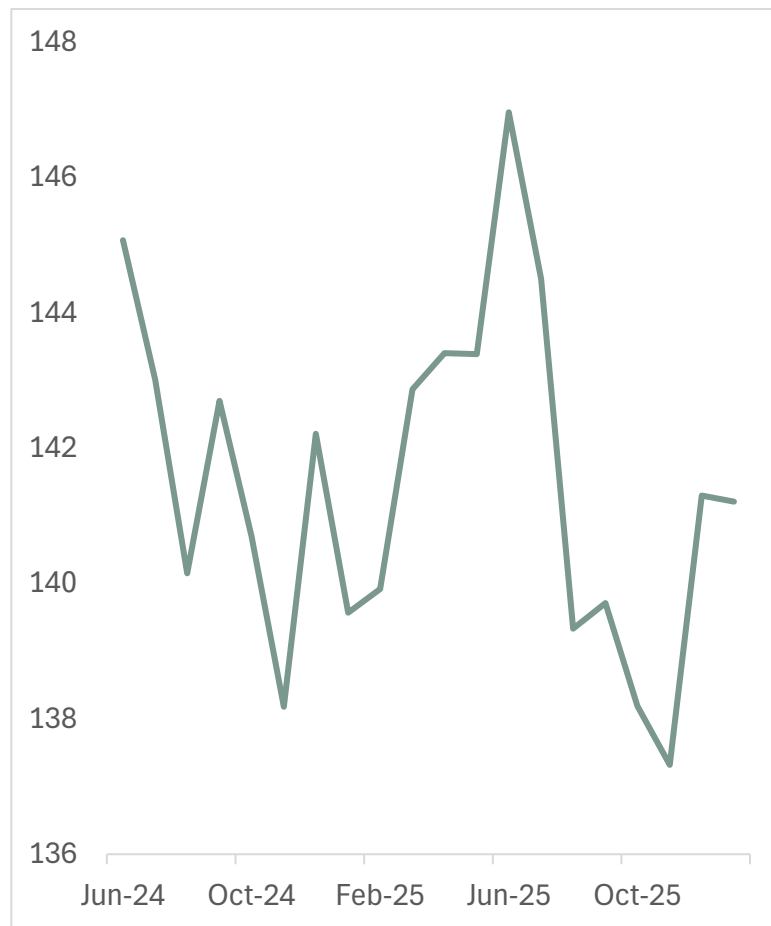


- As the Treasury gears up to issue record amounts of tax refunds this year, we expect it to maintain a large cash balance
  - Through increased bill issuance

Sources: US Treasury, SMBC Nikko

# Bill issuance is concentrated in shorter maturities

## Bill WAMs (d)



- The Treasury is ramping up short-maturity bill supply
- Concentrating the increases in 4w and 8w bills
  - As it did last Fall
- Heavier issuance in these maturities appears to be a substitute for a single, large cash management bill

Sources: US Treasury, SMBC Nikko

## April tax receipts and less bill supply

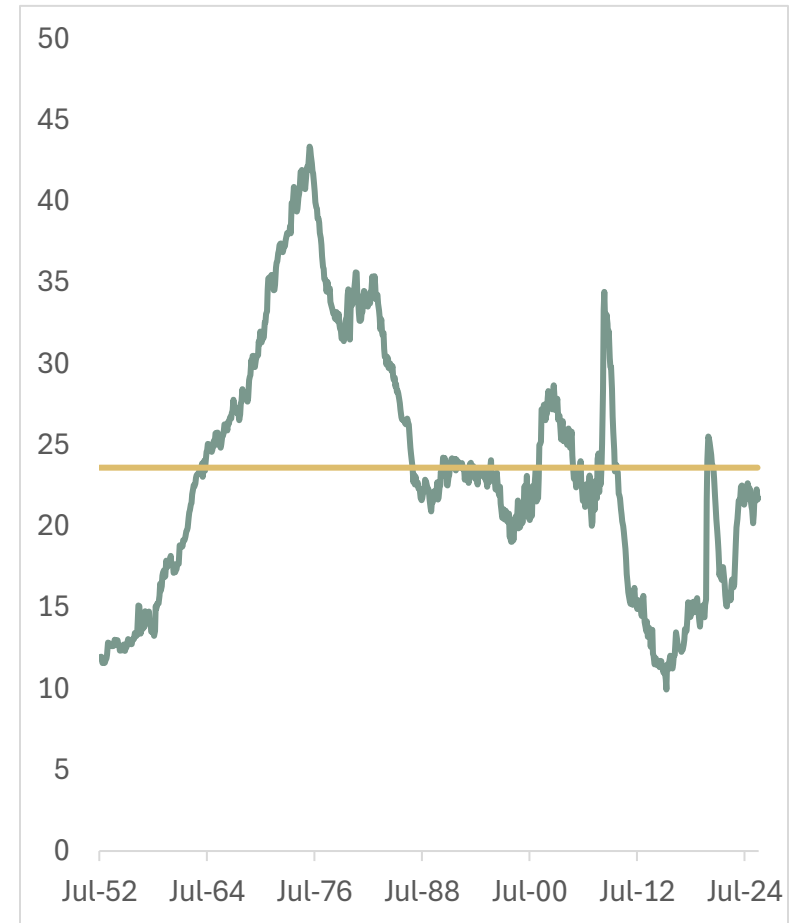
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- We look for strong non-withheld tax receipts this year given last year's market gains
  - But these payments are typically made around the mid-month due date
- The Treasury's cash balance is expected to swell to \$1.025trn at the end of April
- We look for the Treasury to trim bill supply by \$300bn through the end of May as it whittles down its cash cushion
  - In addition, the Treasury is expected to make \$38bn in buybacks (of off-the-run securities) and \$75bn in liquidity management buybacks

## More bill issuance in the long-run

### Bill (% Treasury debt outstanding)

- We expect the Treasury to increase bill issuance this year and next
- Pushing supply to 24% or so of outstanding debt<sup>1/</sup>

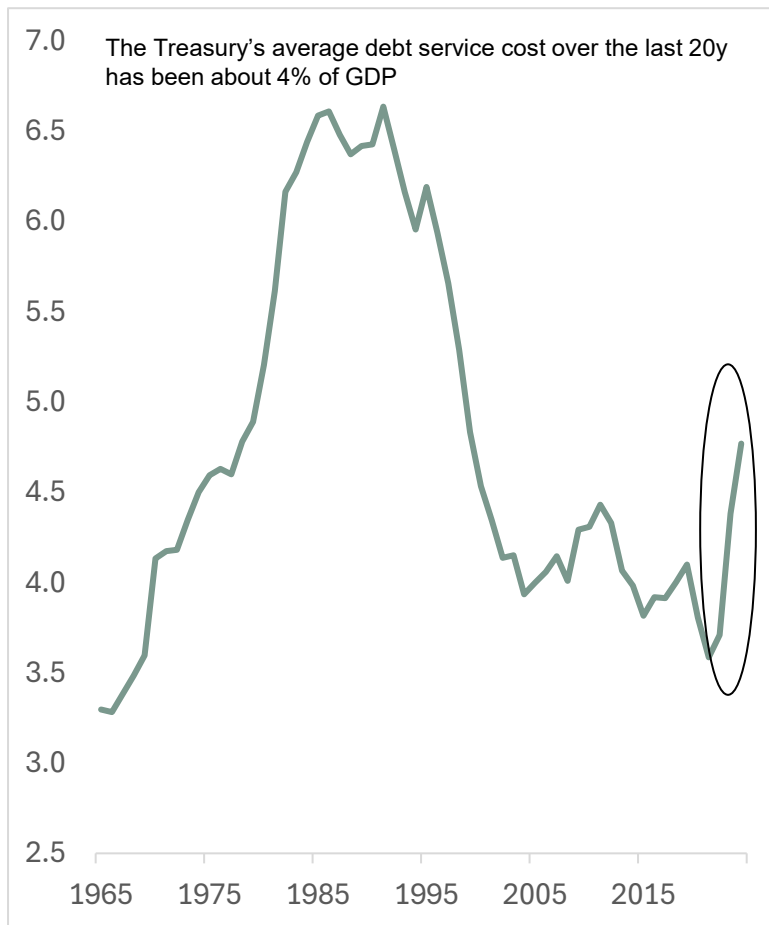


<sup>1/</sup> Since 1952 the bill/debt share has averaged 23.6%.

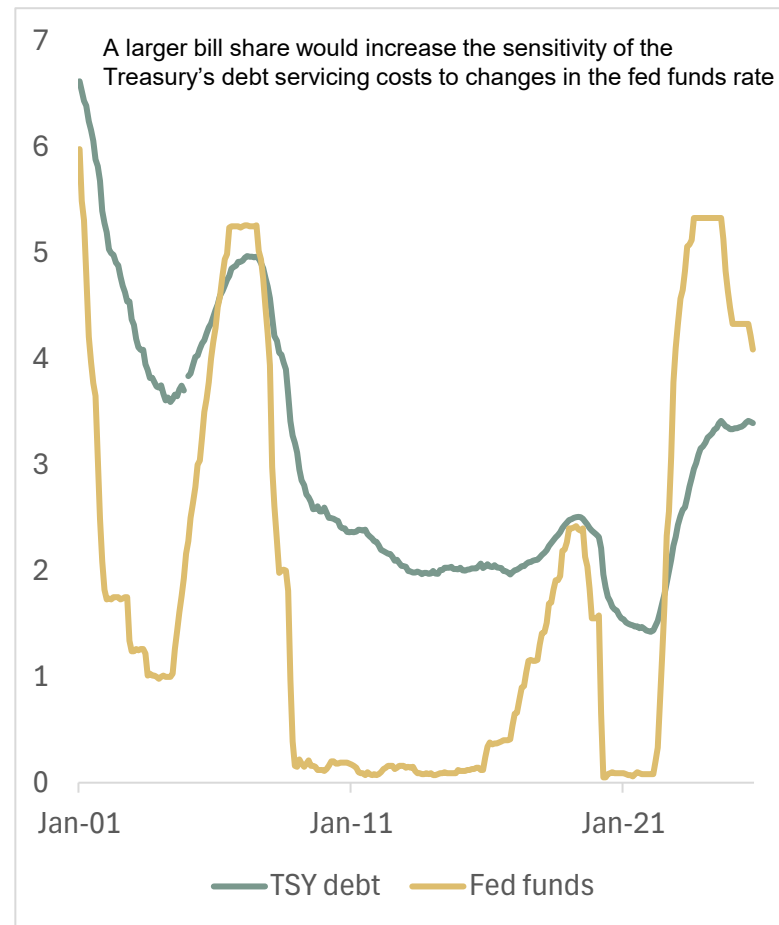
Sources: US Treasury, SMBC Nikko

# Debt servicing costs are rising

## Interest (% GDP)



## Marketable debt rate and fed funds (%)



Sources: BEA, SMBC Nikko

Sources: US Treasury, SMBC Nikko

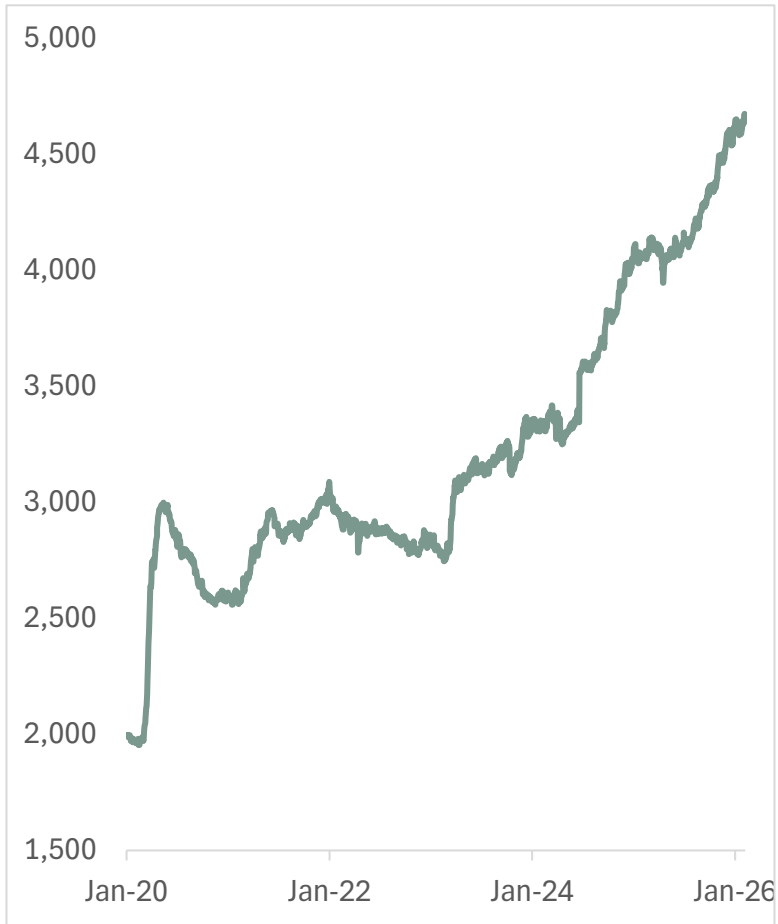
## (Re)visiting the SOFR-FRN

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- The Treasury is reconsidering issuing a SOFR-FRN
  - In addition to its current 2y bill floater
- It noted in the February refunding that primary dealers were generally supportive to the maturity
  - Citing potential demand from money funds, bank treasury portfolios, and foreign investors
  - Stablecoin issuers may be another source of potential demand
- The Treasury's renewed interest may be tied to a preference for issuing shorter maturity debt that could substitute for more costly term debt
  - Increasing money fund balances and bill portfolio allocations has helped the Treasury push bill supply to 22% of debt outstanding
- *The Treasury plans to study the idea further*

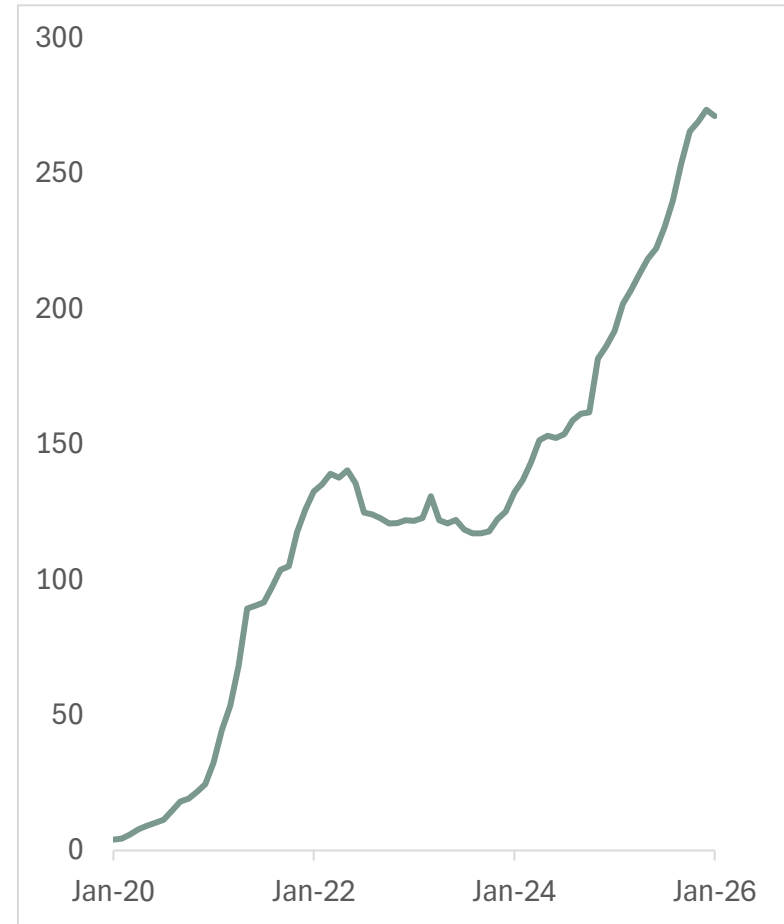
## Potential demand...

### Gov-only balances (\$bn)



Sources: Crane's Data, SMBC Nikko

### Stablecoins outstanding (\$bn)



Sources: Visaonchainanalytics

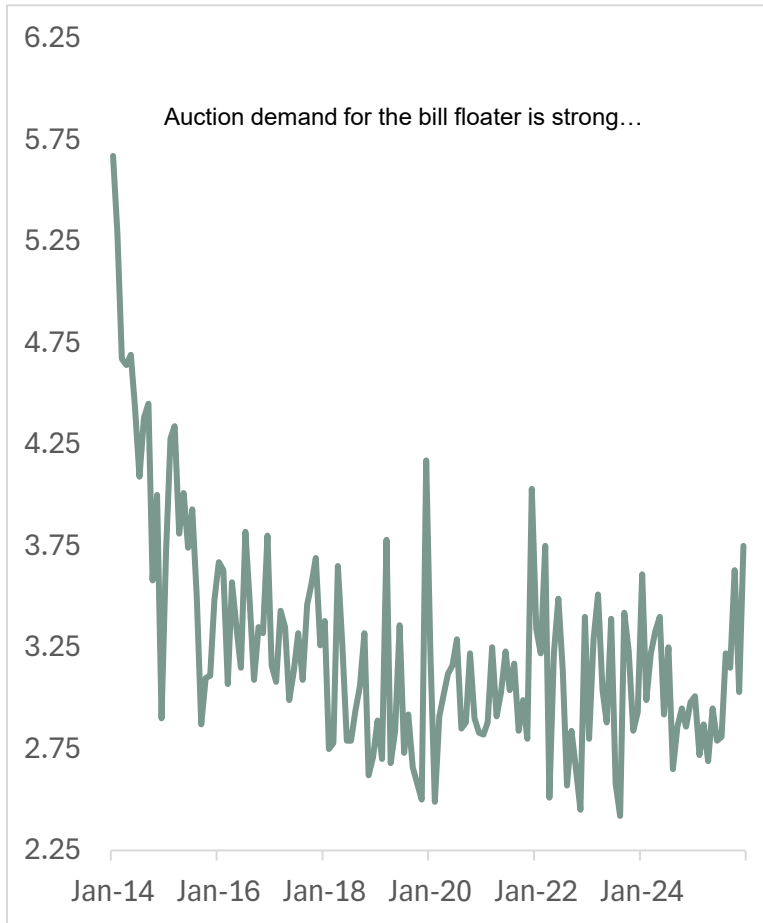
# Treasury FRN demand

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- A 1y SOFR-FRN might compete with the Treasury's bill floater
  - Its bill floater is indexed to the highest accepted rate at the most recent 3m bill auction
  - As the 3m bill is actioned weekly, the index rate changes once a week even though the security has a daily reset
    - Using the 3m bill avoids the need for a lookback or lockout period for calculating interest
- The daily reset on the Treasury's bill floater means that it is treated as an overnight WAM product in money fund portfolios.
  - It competes with overnight repo and bills for space in portfolios
    - However, 2a7 rules limit money fund portfolio WALs to 120d
      - So, the 2y final maturity consumes a large amount of the funds' available WAL capacity
- *We think a security with a shorter final maturity and a daily reset like a SOFR FRN would be more attractive to money funds*
  - *And could pull their demand away from the existing bill floater*

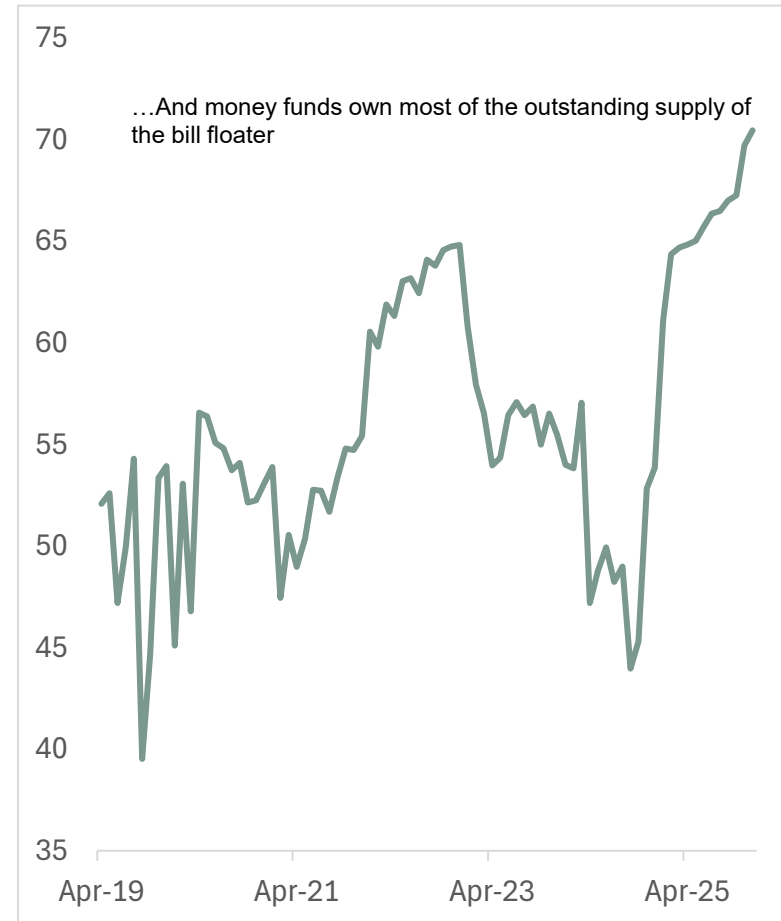
# Treasury FRN demand

## Treasury FRN bid/cover



Sources: US Treasury, SMBC Nikko

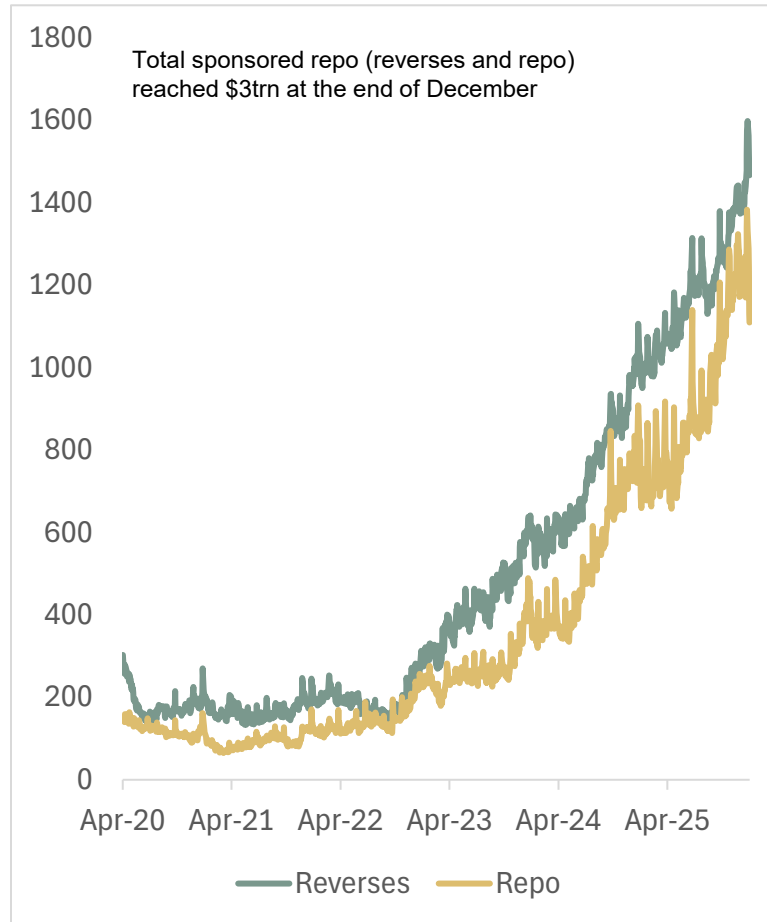
## Money fund demand (% outstanding)



Sources: Crane's Data, SMBC Nikko

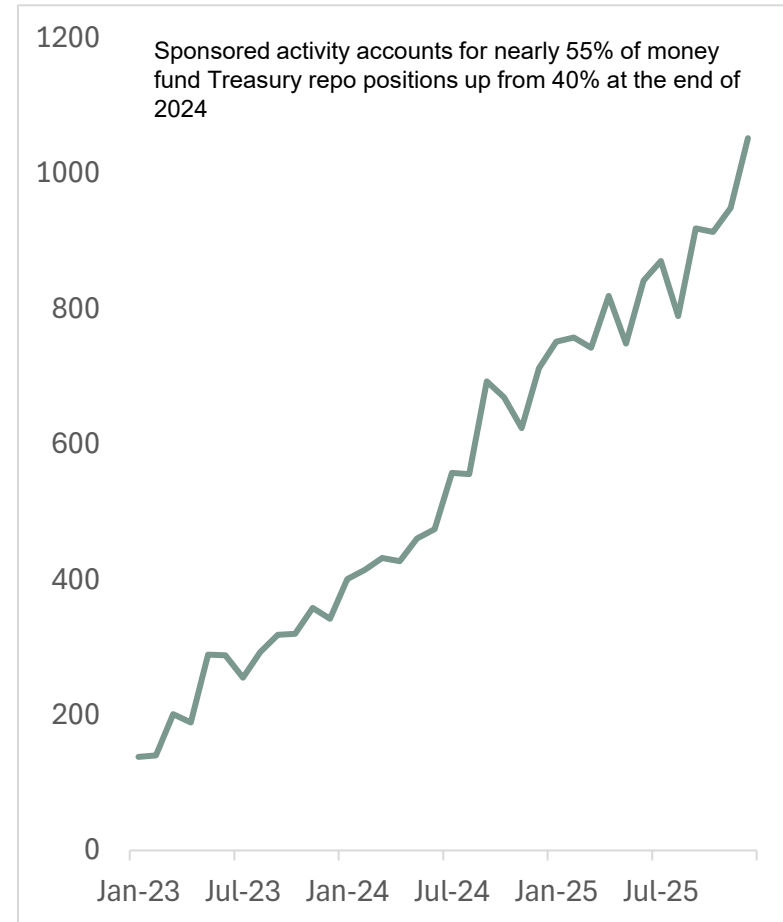
# Sponsored activity continues to grow

## Sponsored repo volumes (\$bn)



Sources: DTCC, SMBC Nikko

## Money fund sponsored repo (\$bn)

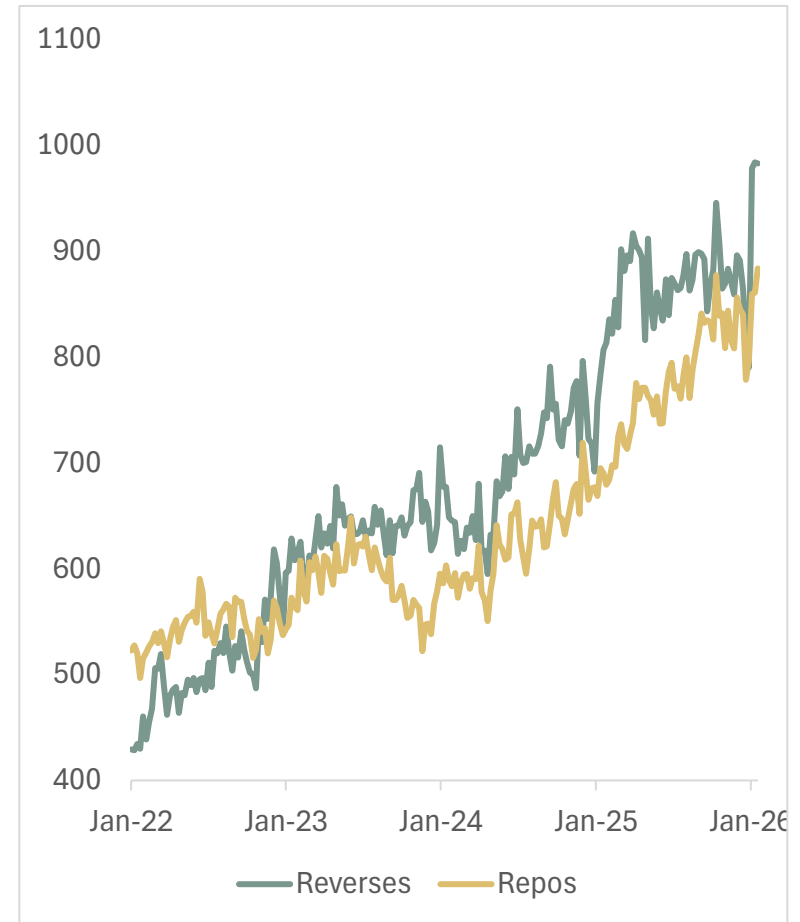


Sources: Crane's Data, SMBC Nikko

# SOFR and clearing

- There is roughly \$2trn in uncleared bilateral overnight repo that will be subject to the SEC's clearing requirement in mid-2027
- *How might the addition of these trades to the SOFR calculation change the rate?*

## Uncleared Treasury repo (\$bn)



Sources: Federal Reserve, SMBC Nikko

# Calculating SOFR

---

- SOFR is calculated from data on tri-party repo and cleared bilateral (DVP) activity
  - Tri-party is a funding market where cash lenders are less interested in a specific CUSIP
  - By contrast, in the cleared market, investors are typically looking for a specific CUSIP – to cover a short, for example
    - If the CUSIP is highly sought after or difficult to find, it may trade at a premium in the repo market – that is, its borrowing rate will be lower than the general collateral rate
    - The Fed removes this activity from the calculation of SOFR by trimming the bottom 20% of the clearing bilateral repo activity by rate
- The remaining transactions are sorted from the lowest to highest rate
  - The rate attached to the 50% volume percentile is the published SOFR rate<sup>1/</sup>
- *Mechanically, the effect of clearing on the SOFR rate depends on the rate distribution of uncleared activity relative to cleared data*

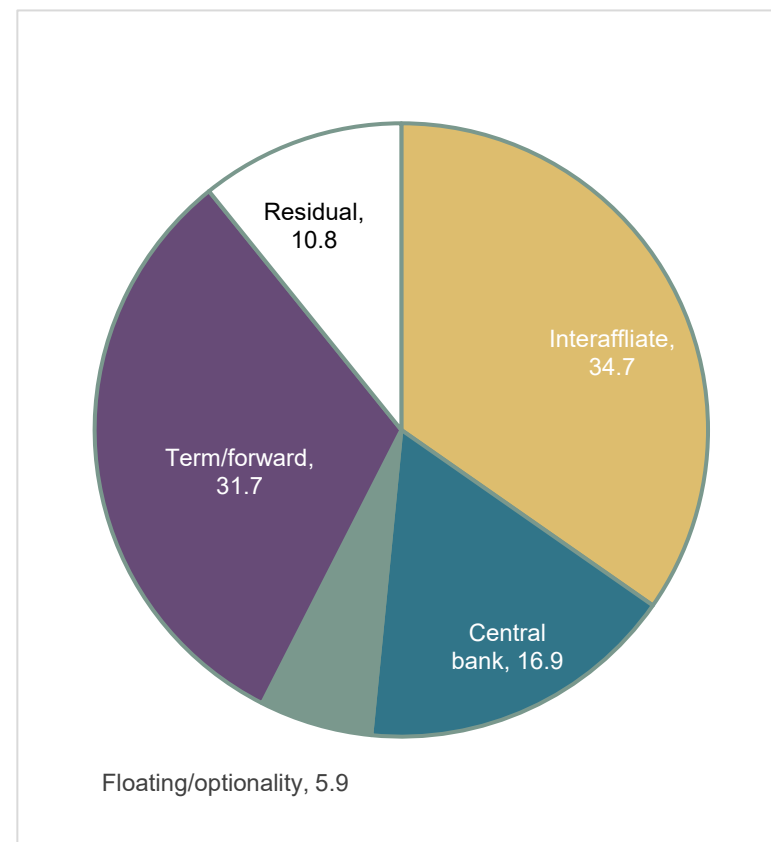
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<sup>1/</sup> The Fed calculates other parts of the distribution including the 1, 25, 75, and 99<sup>th</sup> percentiles.

## Uncleared activity

- Pilot data from the OFR indicate that there was roughly \$800bn/day in uncleared Treasury repo<sup>1/</sup>
- But, not all this activity is eligible for clearing
- The clearing requirement does not apply to:
  - Inter-affiliate trades
  - Or trades with official institutions
  - And FICC, currently cannot clear on-open repo trades
- Finally, SOFR is calculated from overnight trades with same day settlements
- *As a result, only a small portion (about 11%) of the roughly \$800bn/day in uncleared repo may be included in the SOFR calculation<sup>2/</sup>*

## Uncleared Treasury repo (% distribution)

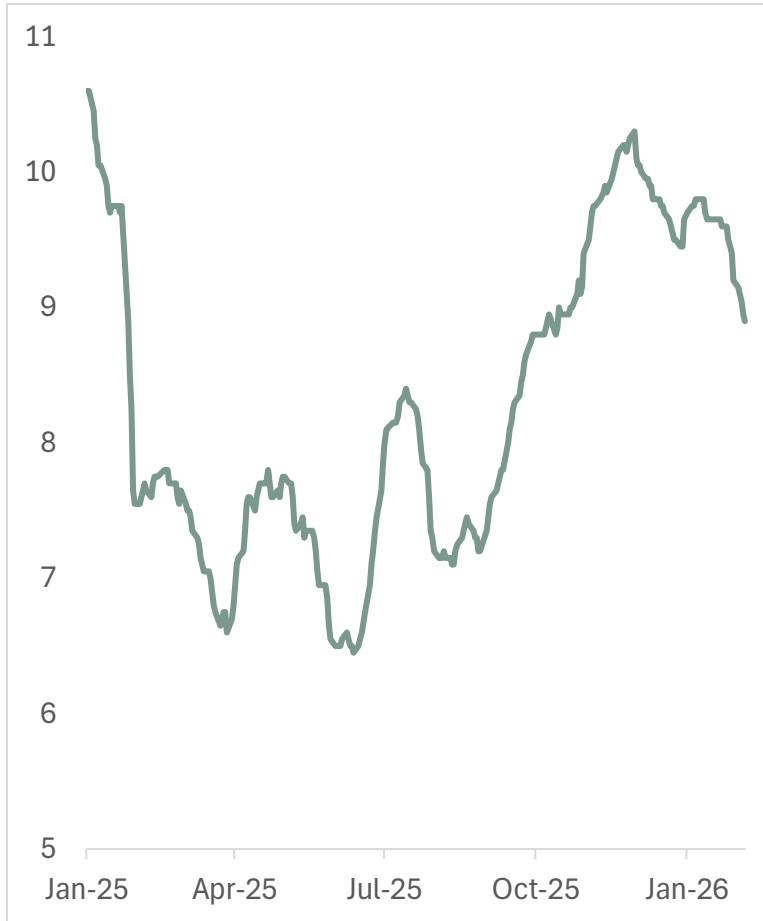


1/ The pilot data were collected for three days in June 2022 from nine large dealers.  
2/ See, "How the Treasury Clearing Rule for Repo Might Affect SOFR", A. Cenicola, and C. Garriott, Office of Financial Research, US Treasury, April 22, 2025

Note: Only the residual is eligible for the SOFR calculation. Sources: Federal Reserve, SMBC Nikko

# Recalculating SOFR

## Inter-quarter SOFR range (bp)



- Cenicola and Garriott add the eligible uncleared transactions from June 2022 into the data already collected for SOFR
  - They then recalculate the volume-based median
- The expanded rate is *identical* to the published (narrower) SOFR rate<sup>1/</sup>
- But the inter-quarter range is *wider*
  - Suggesting that uncleared activity trades over a wider range of repo rates

1/ Cenicola and Garriott (2025)

## Cost analysis: SOFR *may* go higher

---

- But the Cenicola and Garriott analysis is static; it does not consider changes in dealer and counterparty behavior resulting from clearing
- Balance sheet capacity
  - The central clearing mandate will increase dealer balance sheet capacity
  - In theory, the extra capacity will reduce the cost of repo<sup>1/</sup>
    - Which *could* pull the SOFR rate lower
- Clearing costs
  - Cleared trades are charged VaR margin based on the FICC's risk models
  - In theory, the clearing cost will be passed on by the direct member to its counterparty in turn boosting repo costs relative to formerly uncleared activity
    - And pushing the SOFR rate higher
  - But, some of these costs may be shared by the dealer
    - And the costs are sensitive to the relative bargaining power of the counterparties
      - As well as the access model chosen

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<sup>1/</sup> As we show below, the increase in balance sheet capacity has been matched by an increase in funding demand. So, the effect on spreads is hard to discern.

## Hedge fund swap activity

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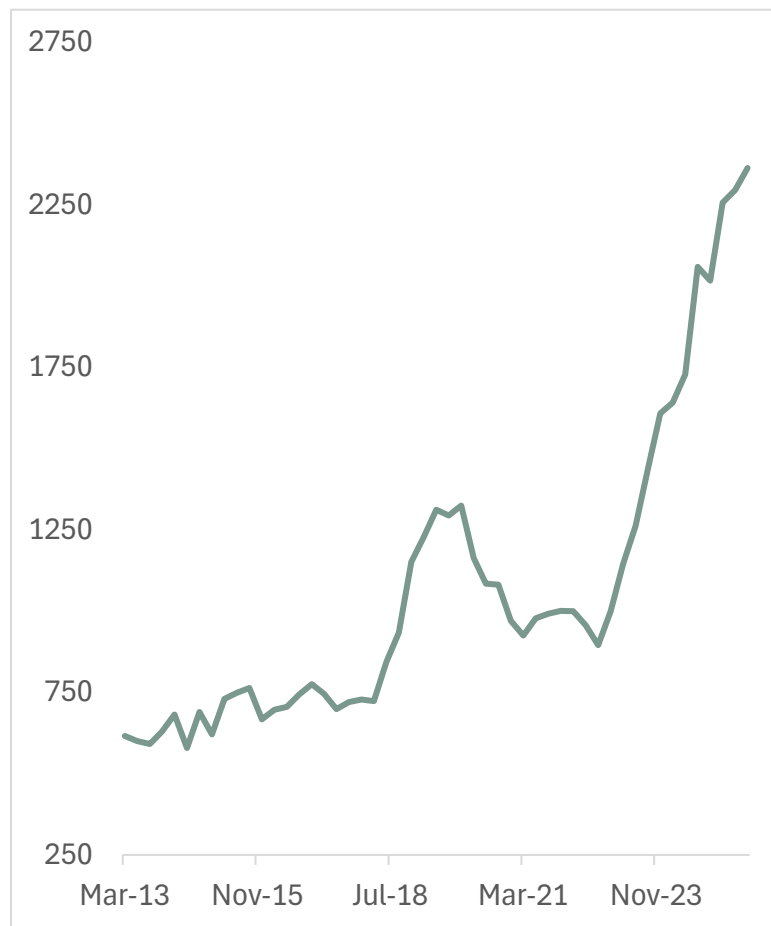
- Hedge fund long Treasury positions have more than doubled since the pandemic. Much of this growth has occurred since 2024 and likely reflects relative value trades keyed to expectations of SLR relief.
  - Hedge fund long Treasury cash and futures positions have risen \$1.4trn since March 2022. About \$350bn of this has occurred since December 2024
    - Hedge fund Treasury swap positions were around \$750bn at the end of September<sup>1/</sup>
  - Hedge funds use repo to finance the long side of their relative value trades. Since December 2024, hedge fund repo borrowings have increased nearly 30% (\$690bn), much of it (\$310bn) from the ten largest funds by gross assets<sup>2/</sup>

1/ Measurement issues suggest this is likely the upper boundary

2/ Repo volumes are against all collateral types; we cannot determine the Treasury share.

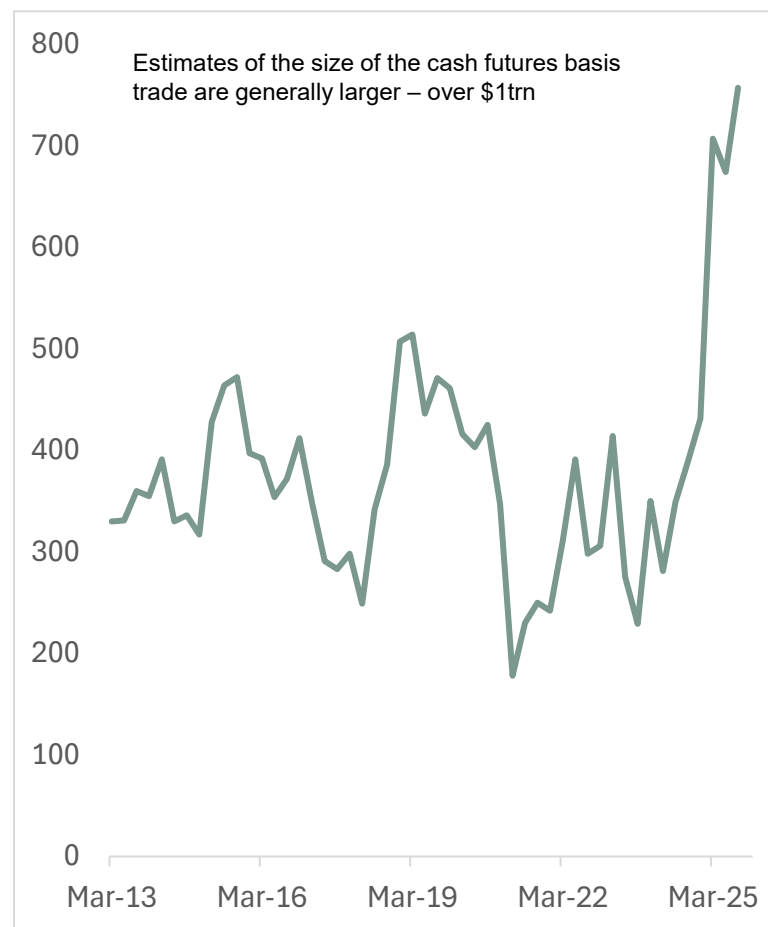
# Hedge fund Treasury activity

## Long Treasury positions (\$bn)



Sources: OFR, SMBC Nikko

## Estimated Treasury swaps (\$bn)

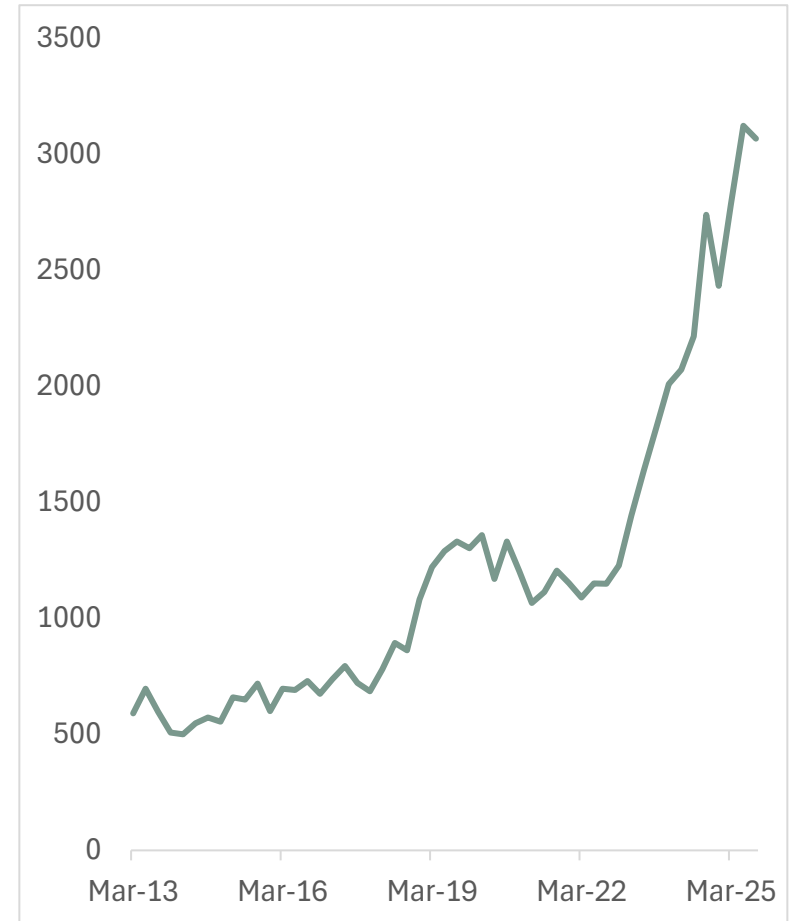


Sources: OFR, SMBC Nikko

# Hedge fund repo volume

- Clearing has expanded dealer balance sheet capacity
  - Which has grown to accommodate the increase in funding demand

## Repo borrowing (\$bn)

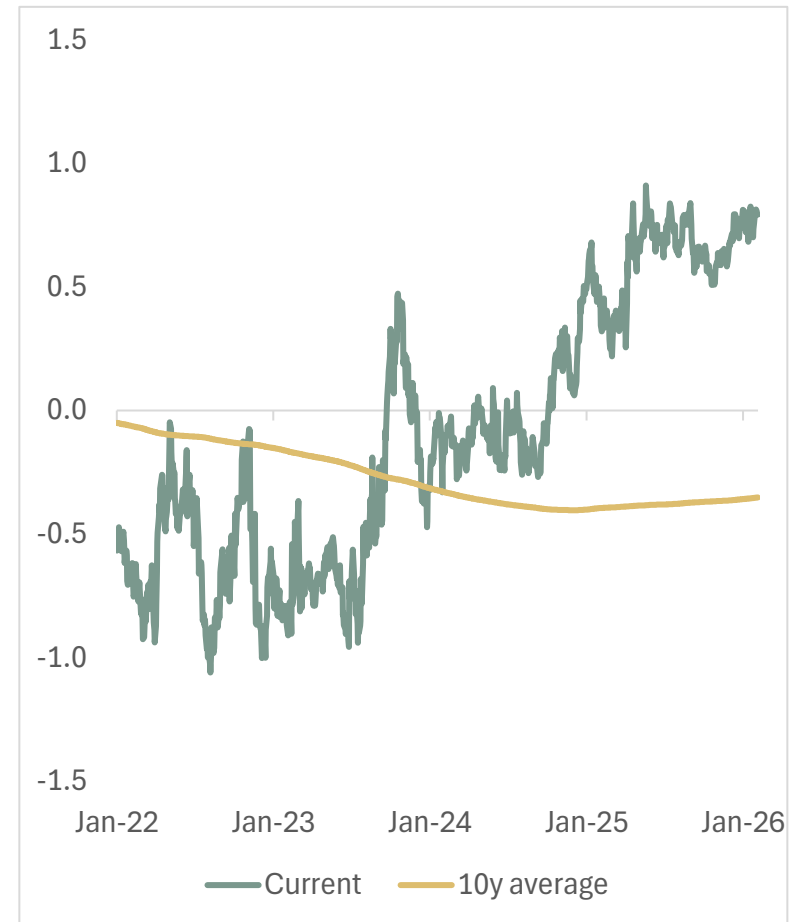


Note: Against all collateral types. Sources: OFR, SMBC Nikko

# Higher term premia

- Treasury 10y term premia have risen 135bp since January 2022
  - So, issuing more Treasury debt at shorter maturities might be cheaper

## 10y term premia (bp)

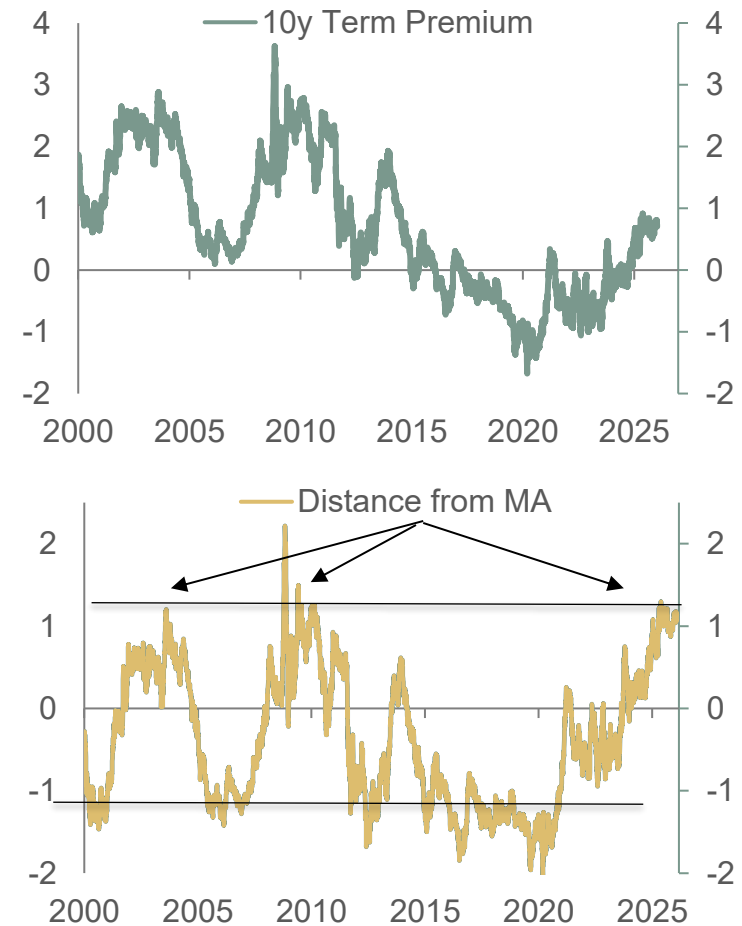


Sources: Adrian, Crump, and Moench, Federal Reserve Bank of New York, SMBC Nikko

# Term premium in consolidation phase?

- History shows that term premium meets resistance after a rise of 115-140 bps from the 10y moving average.
  - Currently term premium at 79 bps vs. 10y average at -35 bps.
- Unless the fiscal situation improves, term premium may resume rising

## Estimated term-premium and its distance from the 10y Moving Average (%)



Sources: Federal Reserve, Bloomberg, SMBC

## 10s remain range bound

- Labor market data showing signs of stabilization but weak real retail sales and the quarterly ECI back at pre-COVID levels suggest easing in inflation pressure
- Negative impulse from Japan and European bond markets appears to have run its course

### 10y Yields (%)



Sources: US Treasury, Bloomberg, SMBC

## 5y cheapening mostly played out if past is a guide

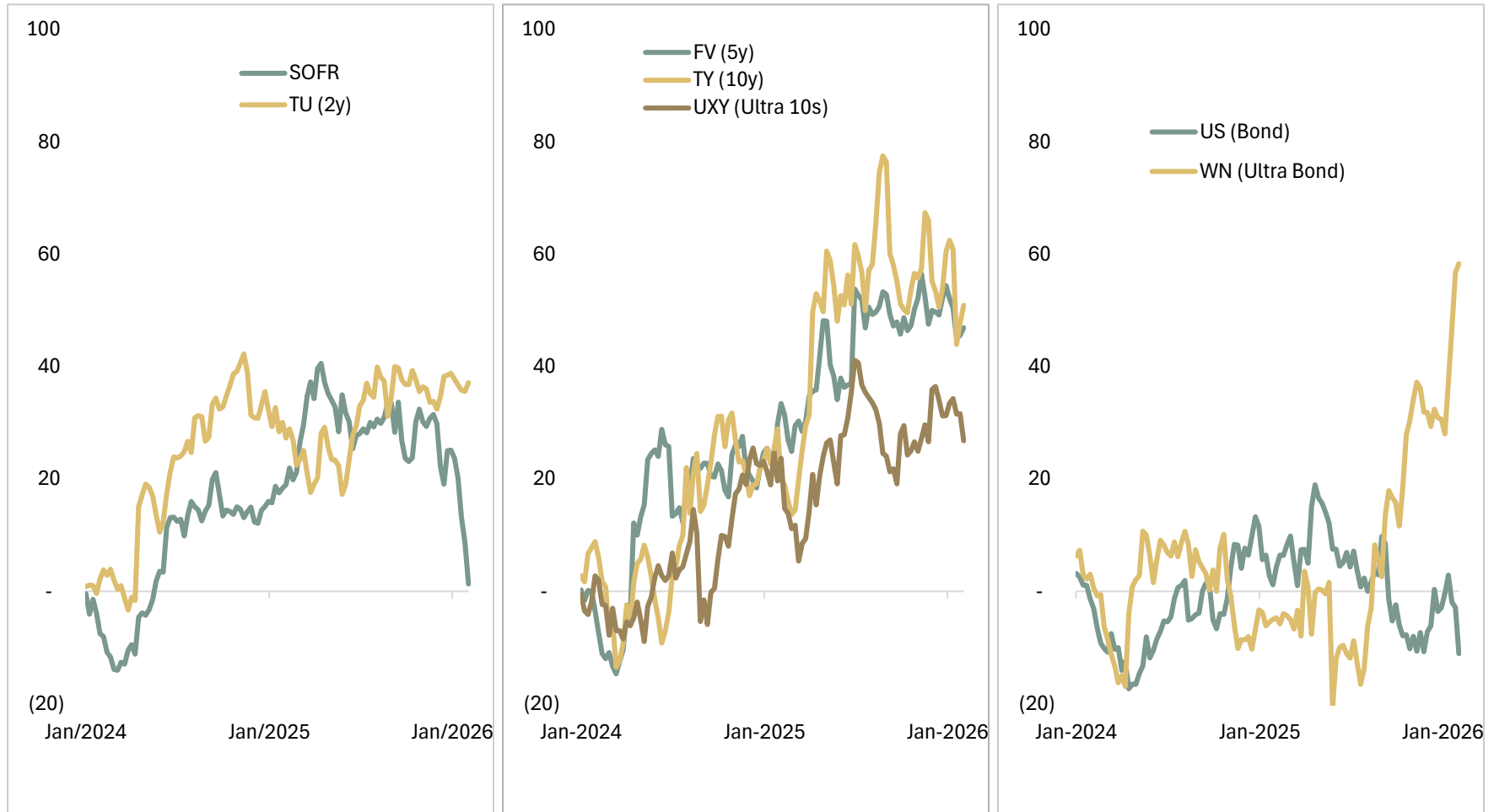
- 5y has cheapened in line with past easing cycle
- Going forward, while additional cheapening is possible, the easy part of the trade is likely behind us

|                 |               |                   |            | Level of 2y5y10y (Basis Points) |                         |      |      |      | Change in 2y5y10y (Basis Points)     |       |       |       |  |
|-----------------|---------------|-------------------|------------|---------------------------------|-------------------------|------|------|------|--------------------------------------|-------|-------|-------|--|
|                 |               |                   |            | Months Before Ease              | Months After First Ease |      |      |      | Months After Ease vs. 1m Before Ease |       |       |       |  |
| Start of Easing | End of Easing | First Ease in bps | Total Cuts |                                 |                         |      |      |      |                                      |       |       |       |  |
|                 |               |                   |            | -1                              | + 1                     | + 2  | + 3  | + 6  | + 1                                  | + 2   | + 3   | + 6   |  |
| 7/6/1995        | 1/31/1996     | -25               | -75        | 10.8                            | -2                      | 3    | -3   | 1    | ↓ -13                                | ↓ -8  | ↓ -14 | ↓ -10 |  |
| 9/29/1998       | 11/17/1998    | -25               | -75        | -2.7                            | -8                      | -32  | -15  | 3    | ↓ -5                                 | ↓ -30 | ↓ -12 | ↑ 5   |  |
| 1/3/2001        | 12/11/2001    | -50               | -475       | -17.4                           | -5                      | -5   | 5    | 15   | ↑ 13                                 | ↑ 13  | ↑ 22  | ↑ 32  |  |
| 11/6/2002       | 11/6/2002     | -50               | -50        | -8.5                            | 23                      | 19   | 27   | -2   | ↑ 31                                 | ↑ 27  | ↑ 35  | ↑ 6   |  |
| 6/25/2003       | 6/25/2003     | -25               | -25        | -5.2                            | 29                      | 54   | 36   | 35   | ↑ 34                                 | ↑ 59  | ↑ 42  | ↑ 40  |  |
| 9/18/2007       | 12/16/2008    | -50               | -513       | -12.5                           | -12                     | -15  | -29  | -19  | ↑ 1                                  | ↓ -2  | ↓ -16 | ↓ -7  |  |
| 9/18/2019       | 12/11/2019    | -25               | -75        | -20.1                           | -20                     | -14  | -9   | -16  | ↓ 0                                  | ↑ 6   | ↑ 12  | ↑ 4   |  |
| 3/3/2020        | 3/15/2020     | -50               | -150       | -19.0                           | -8                      | -10  | -22  | -30  | ↑ 11                                 | ↑ 9   | ↓ -3  | ↓ -11 |  |
| 9/18/2024       | 12/18/2024    | -50               | -75        | -42.9                           | -28                     | -16  | -7   | -18  | ↑ 15                                 | ↑ 27  | ↑ 36  | ↑ 25  |  |
| 9/17/2025       | ?             | -25               | ?          | -40.7                           | -29                     | -32  | -24  | -20  | ↑ 12                                 | ↑ 8   | ↑ 16  | ?     |  |
|                 |               |                   |            | Median                          | -6.3                    | -7.2 | -5.7 | -0.9 | 11                                   | 9     | 14    | 5.3   |  |

Sources: US Treasury, Bloomberg, SMBC

# Asset managers buying long end

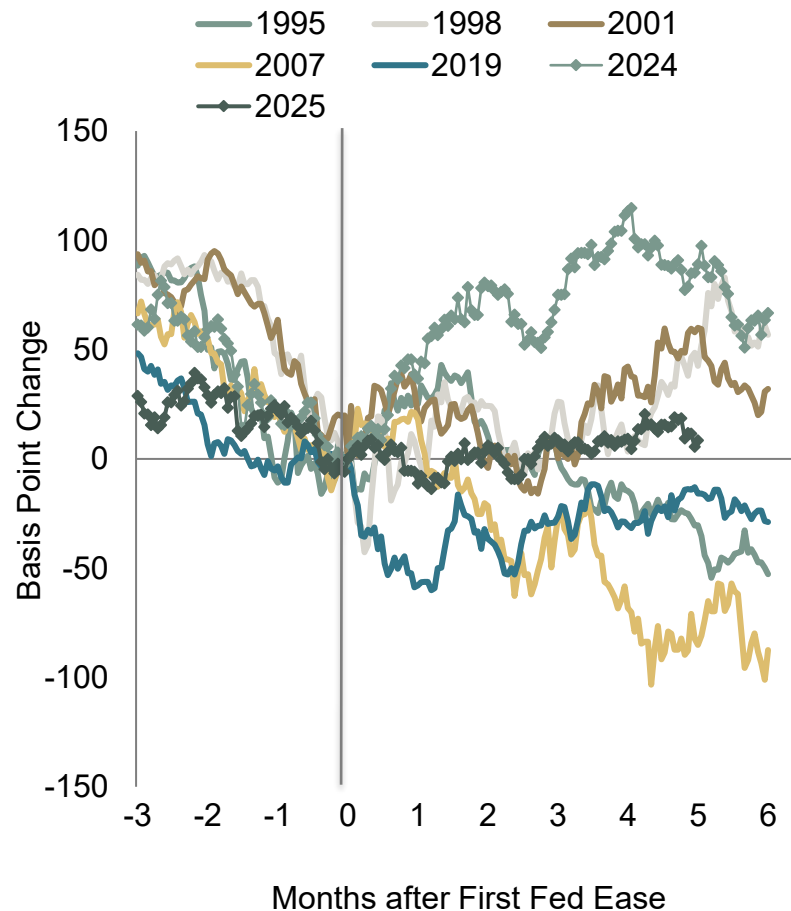
## Futures positions (DV01 \$mm), cumulative from Jan 2024



# History Shows that Range can Break in the Next 3-4 Months

- 10y yields trade in a range in the weeks/months after the first Fed cut but the range tends to break in six months.
- A breakout one way or other should support vol

## 10y Yields Around First Fed Cut



Sources: Bloomberg, SMBC Nikko

# Disclaimers

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