Monthly Interest Rates Chartbook
July 2026

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Economic summary

Summary of views

- Inflation
  - Overall prices remain sensitive to geopolitical developments
  - We expect the Fed to stay on hold this year
    - Although we cannot rule out a hike
  - The Fed is moving away from providing forward guidance

- Labor markets
  - Hiring picked up moderately this spring following anemic growth in 2025
  - But wages remain subdued

- Markets, economists and the FOMC have divergent views about the path of rates
  - Economists and the FOMC have the same inflation outlook yet the FOMC is slightly more hawkish. Markets and economists have different assessments of the Fed's reaction function

- Weaker interest in cash futures basis trades has reduced financing demand and helped pull repo rates lower

- Bill supply is expected to increase this quarter – rising \$300bn with a target Treasury cash balance for September 30 of \$950bn

Fed forecast

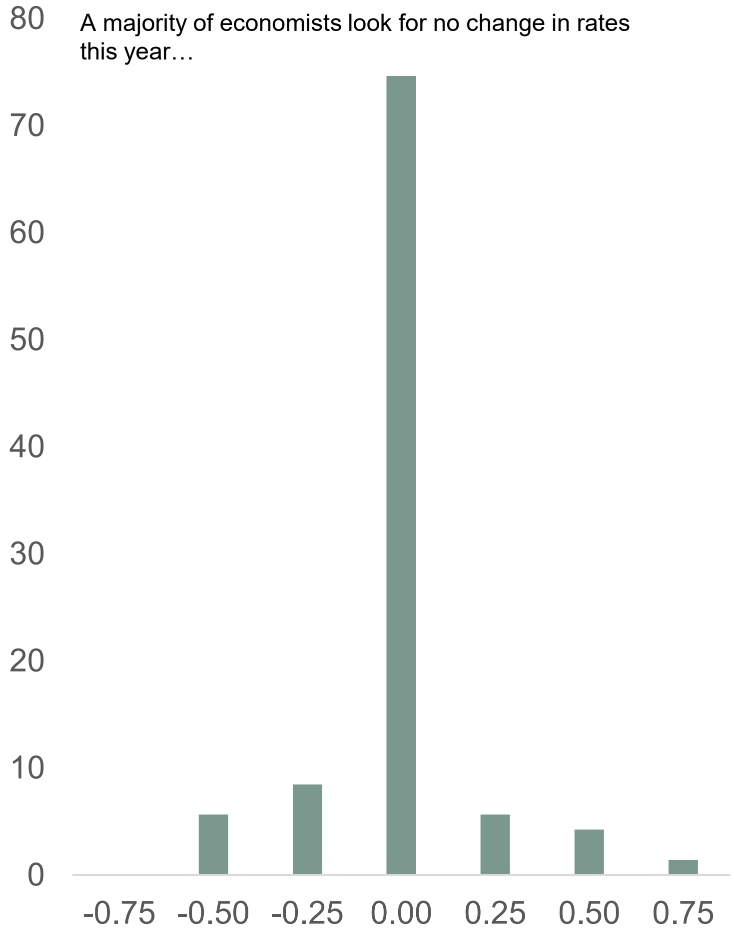
- The FOMC appears evenly divided between members expecting a rate hike this year and those expecting no change
  - At the June meeting, nine FOMC members were forecasting a rate hike in 2026
    - And 5 (of the 9) were looking for two rate increases
  - The FOMC has little patience for waiting for inflation to cool
    - The June FOMC statement noted “the Committee will deliver price stability”

- Financial markets are looking a rate hike this year
  - And one next year

- Our sense is that the Fed will ultimately stay on the sidelines this year
  - As consumer confidence is poor and wages hold steady
    - *Although this is a close call*

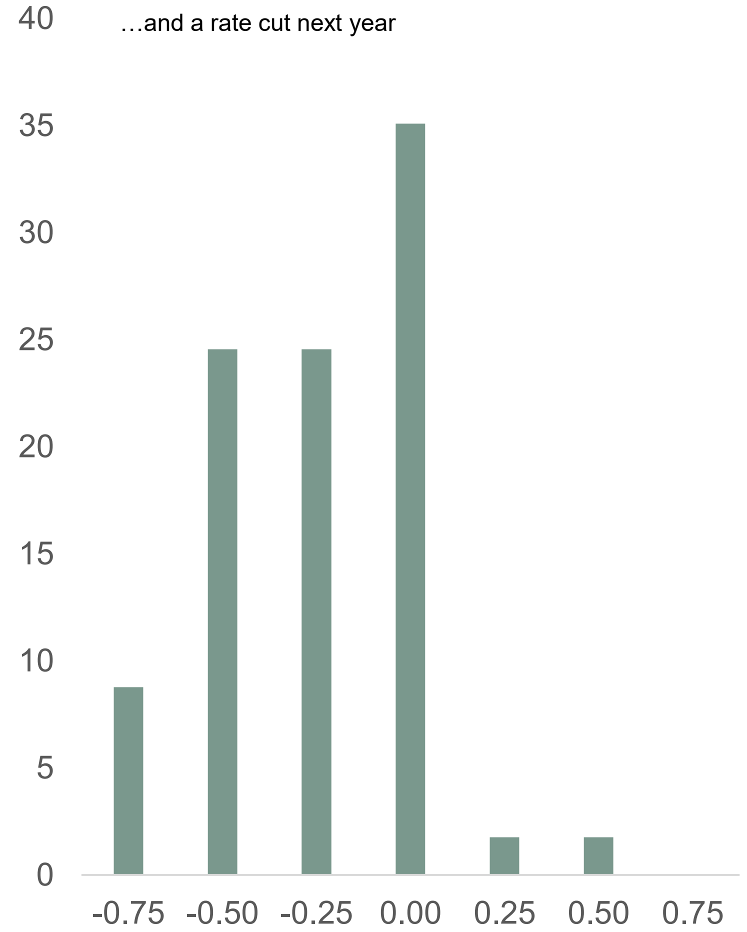
Economists' consensus fed funds forecasts…

Fed funds distribution, 2026 (%)



Sources: Bloomberg economist survey, as of June 26, 2026, n=71. SMBC Nikko

Fed funds distribution, 2027 (%)

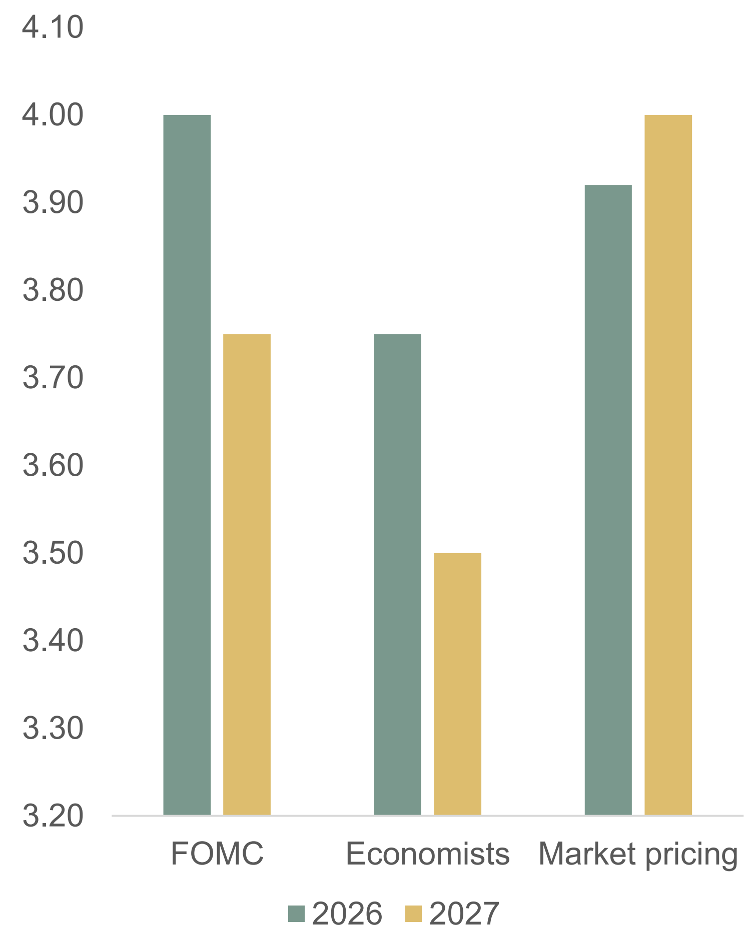


Note: The percentages do not sum to 100 because there are 2 forecasters (3%) looking for four rate cuts in 2027. Sources: Bloomberg economist survey, n= 57. SMBC Nikko

…diverge from market and FOMC expectations…

- Markets, economists and the FOMC have divergent views about the path of rates
  - With economists looking for less or no tightening
- We think some of the 2026 divergence reflects uncertainty about the FOMC's reaction function
  - Which, in turn, may be influenced by less forward guidance from the Fed

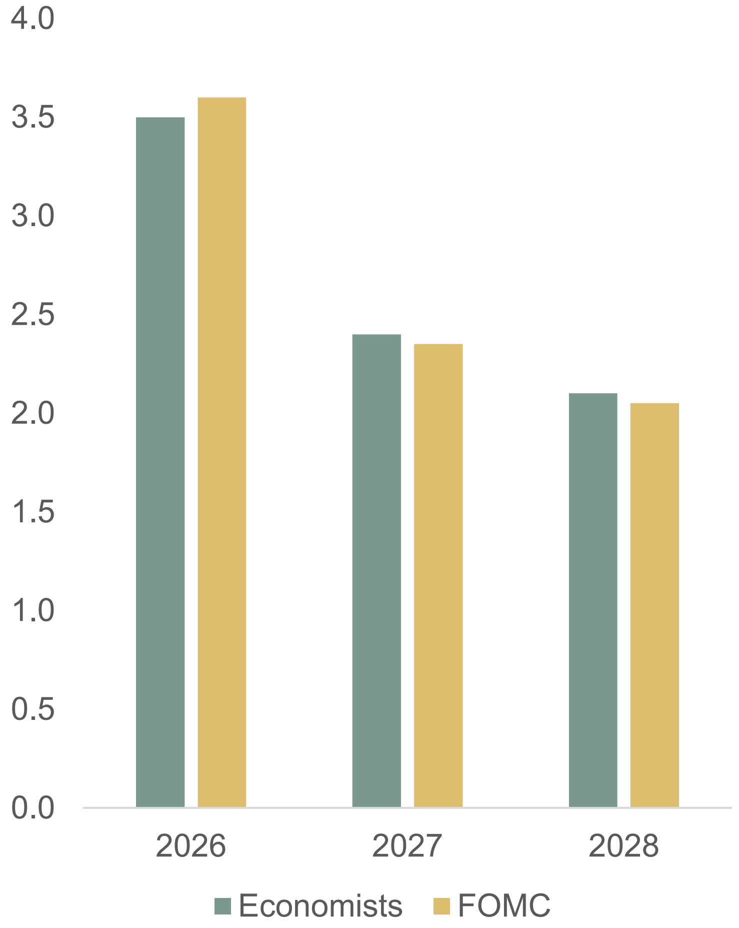
Median fed funds expectations (%)



Note: FOMC and economist predictions are the top of the fed funds band.
Sources: Federal Reserve (June SEP), Bloomberg, SMBC Nikko

…despite similar inflation expectations

Median PCE expectations (% y/y)



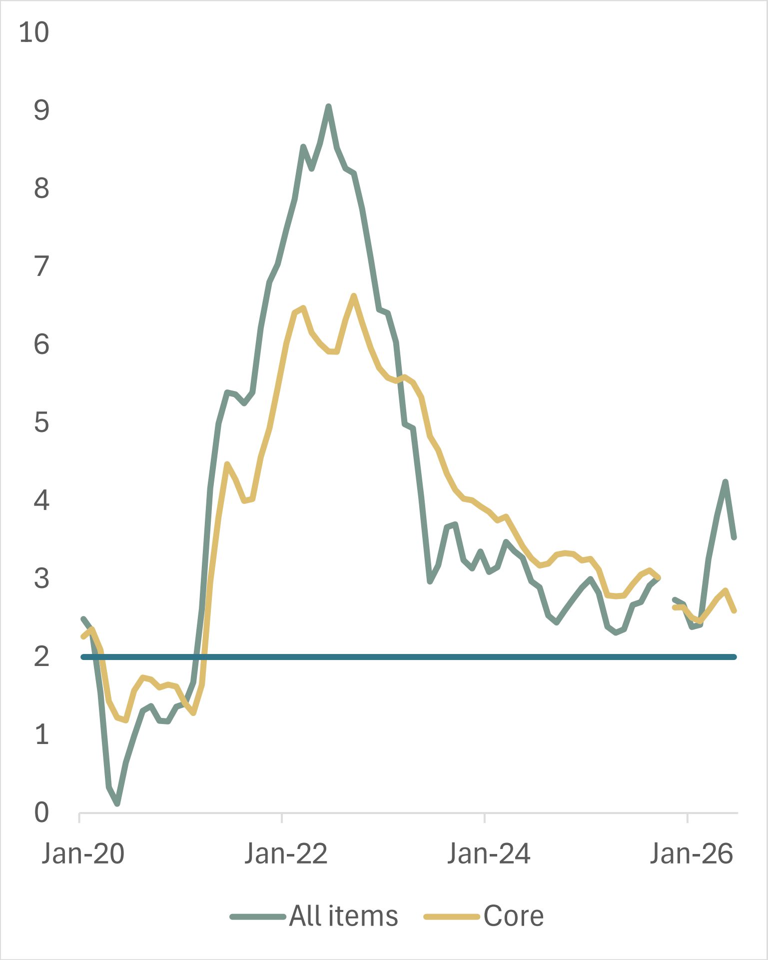
- Although economists and FOMC members share nearly identical inflation forecasts, their expected policy paths are different[1/]
- *The FOMC is more hawkish on rate hikes than the economist consensus*

Sources: Bloomberg economist survey, as of June 26, 2026. Federal Reserve June SEP, SMBC Nikko. The FOMC projection is the midpoint of the central tendency.

1/ Their forecasts for core PCE (not shown) are also nearly identical.

Are inflation expectations unanchored?

CPI (% y/y)



Sources: Federal Reserve Bank of New York, SMBC Nikko.

- Inflation has run above the Fed's 2% target since COVID
- *Is the Fed's inflation credibility in jeopardy?*
- Chair Warsh has stressed that the Fed will re-establish price stability
    - And that inflation *will* return to the Fed's 2% target

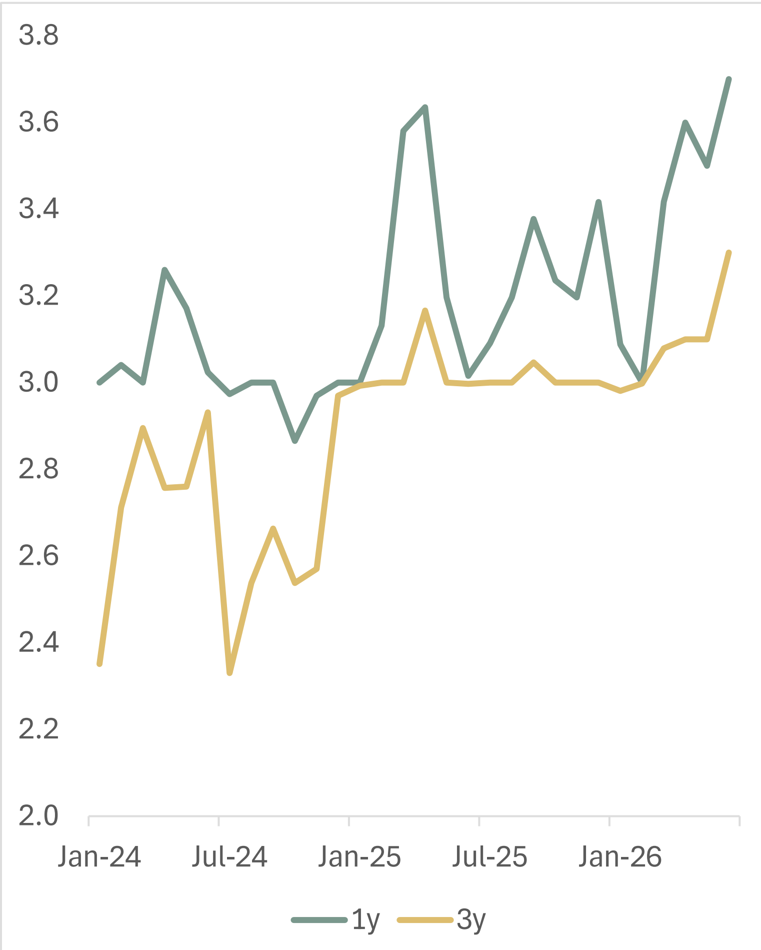
Anchoring inflation expectations

- Anchoring involves three dimensions[1/]
  - Sensitivity
    - Short-term inflation expectations may react to a shock
      - But long-term expectations should not
    - Households and markets “believe” the Fed will respond to the price shock
      - To achieve and maintain price stability
  - Level
    - Long-term expectations are anchored at the “right level”
    - that is, the Fed’s inflation target of 2%
  - Uncertainty
    - Uncertainty reflects the possibility for a shock to widen the bands around household future expectations

1/ See, “A Steady Anchor in a Stormy Sea”, J. Williams, Federal Reserve Bank of New York, November 9, 2022

Household inflation expectations

Median inflation expectations (% y/y)



Sources: Federal Reserve Bank of New York, SMBC Nikko.

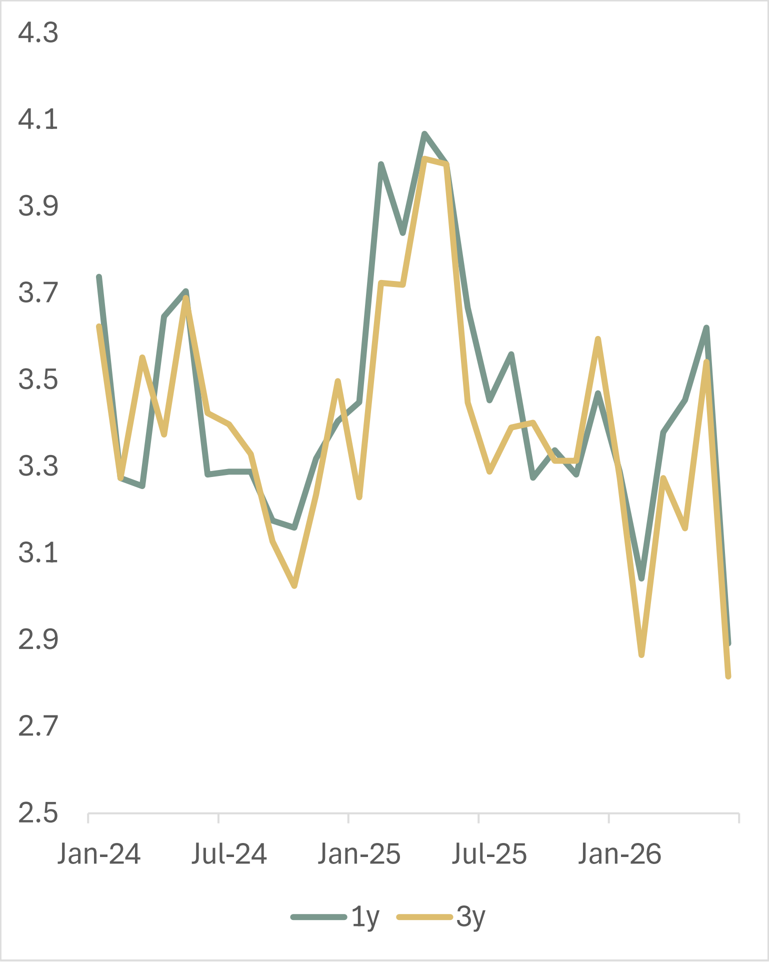
- Household's year-ahead inflation expectations have moved higher since the Iran conflict
  - As energy prices have risen
- But their longer-term expectations have also increased since the start of the Iran conflict
- *And both are above the Fed's 2% target*[1/]

1/ Even in periods of below target inflation, household expectations are somewhat higher than 2%. For example, in 2017, both 1- and 3y expectations were 2.5%.

Household inflation expectations uncertainty

- Uncertainty is measured as the standard deviation of future inflation
    - Household expectations uncertainty has come down since 2025

Inflation uncertainty (%)



Sources: Federal Reserve Bank of New York, SMBC Nikko

Ending forward guidance

- “Radical transparency” has encouraged markets to expect the Fed to telegraph planned policy changes
    - This reflects the Fed’s concerns that policy surprises increase market volatility
- However, Warsh plans to reshape the Fed’s approach to forward guidance
    - He did not include a dot forecast in the June FOMC’s SEP
    - And he shortened the FOMC statement and the press conference
- One of the Fed’s task forces this year will address communications and propose a plan by year-end[1/]
    - Our expectation is that it will recommend more “scenario-based” guidance
    - Along with significant modifications to the dot plot
    - We expect the Chair to discuss monetary policy less frequently than his predecessors

1/ Fed Chair Warsh indicated that the task forces may release preliminary reports earlier.

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Forward guidance: Misguided or misjudged?

- We think criticism of forward guidance may be overstated.
  - The slow policy response in 2022 reflected policy assumptions based on the post-GFC recovery

- The slowness in 2022 reflected an over-correction from past policy mistakes
  - Policy was tilted to maximum employment because of the jobless recovery after the GFC
  - And the Fed wanted to proceed in an orderly, well-telegraphed manner from QE to tightening
    - To prevent a replay of the 2013 taper tantrum

Delphic guidance

- Because the Fed is credible, markets view its forward-looking statements as promises
  - This is reinforced by the sense that the Fed "knows more" than the average forecaster

- But Warsh and others argue that the quality of these statements is more "Delphic"
  - They are vague, impressionistic and subject to interpretation

- And standard macro models tend to overstate the significance of forward guidance – especially at longer time horizons[1/]
  - The models do not adequately account for heterogeneity across households and the sensitivity of their spending to changes in interest rates[2/]

1/ See, "The Power of Forward Guidance Revisited", A. McKay, E. Nakamura, and J. Steinsson, American Economic Review 2016.
2/ See, "The Forward Guidance Puzzle", M. Del Negro, M. Giannoni, and C. Patterson, Federal Reserve Bank of New York, December 2015.

Policy pre-commitment

- A policy pre-commitment works well in a crisis when policy rates are pinned at zero
  - The Fed can commit to purchasing assets over an indefinite period to reinforce the expectation that policy is accommodative and designed to pull term interest rates lower even if the Fed isn't ready to take the funds rate negative

- But such a strategy may not work well once the economy is off the zero lower bound (ZLB)
  - Markets struggle with separating policy pre-commitments from contingent-based policy forecasts

Federal Reserve group-think?

Long-term inflation forecasts (%y/y)

Sources: Philadelphia Federal Reserve, Survey of Professional Forecasters, Federal Reserve, SMBC Nikko

- Fed Chair Warsh has criticized the Fed for group-think
    - And of an FOMC that strives too hard to achieve consensus
- This meant that while the private sector's longer term inflation expectations increased during COVID, the FOMC's were unchanged.
- Warsh argues that policy making should be more of a "good family fight"
    - With more competition across divergent views

Dot plot changes

- The dot plot does not provide context
  - This makes it difficult for markets to see the Fed’s rate projections as forecasts contingent on the state of the economy
    - Markets cannot parse changes in the Fed’s reaction function from changes in the Fed’s underlying economic projections

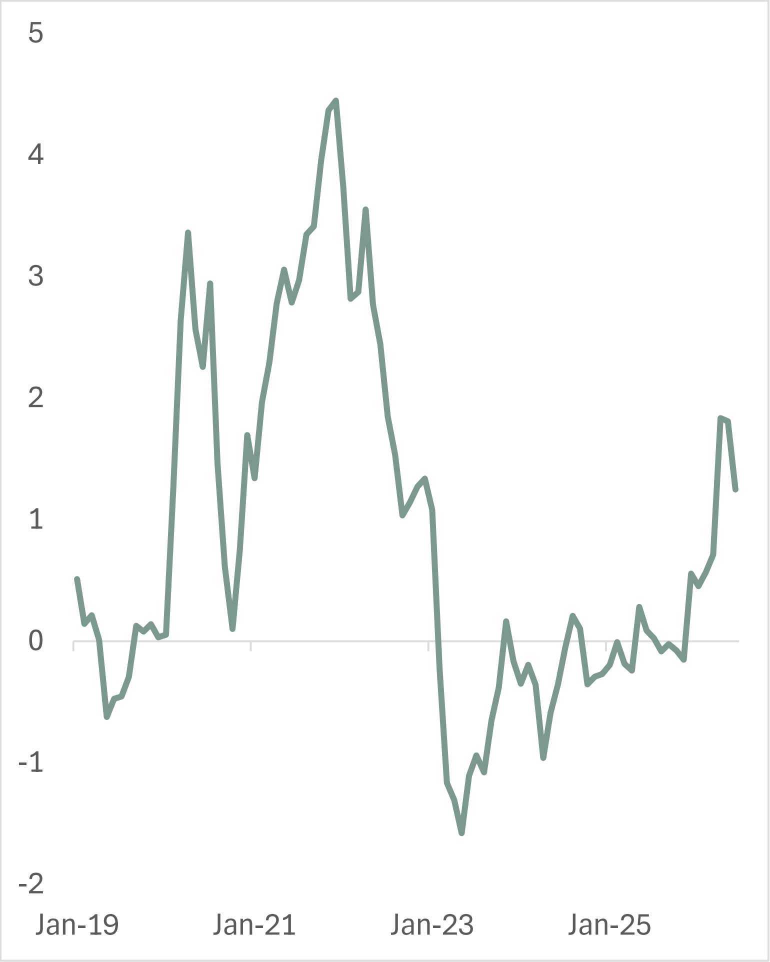
- We think this might be an argument for abandoning – or at least significantly changing – the dot plot

- But it may also require more communication from the Fed
  - That helps to clarify the Fed’s reaction function

Global supply chain pressures have eased…

- Global supply chain pressures eased in June
- Renewed tensions and an effective closure of the Straits of Hormuz could push prices higher and slow delivery times
    - Creating supply chain bottlenecks

GSCPI (%)



Sources: Federal Reserve, SMBC Nikko

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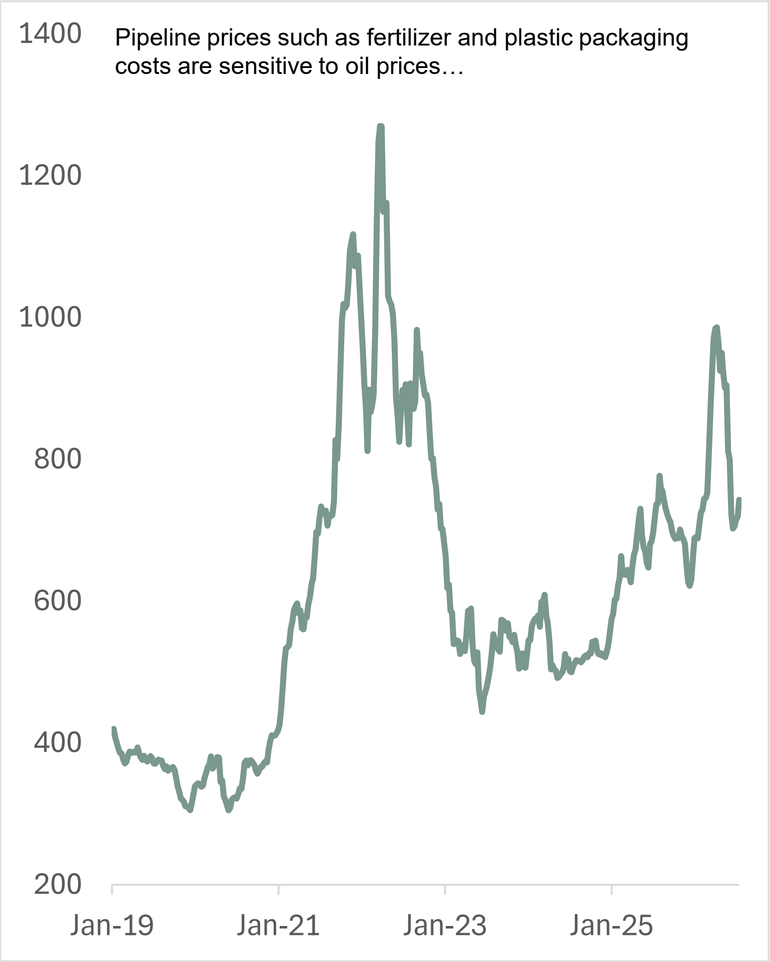
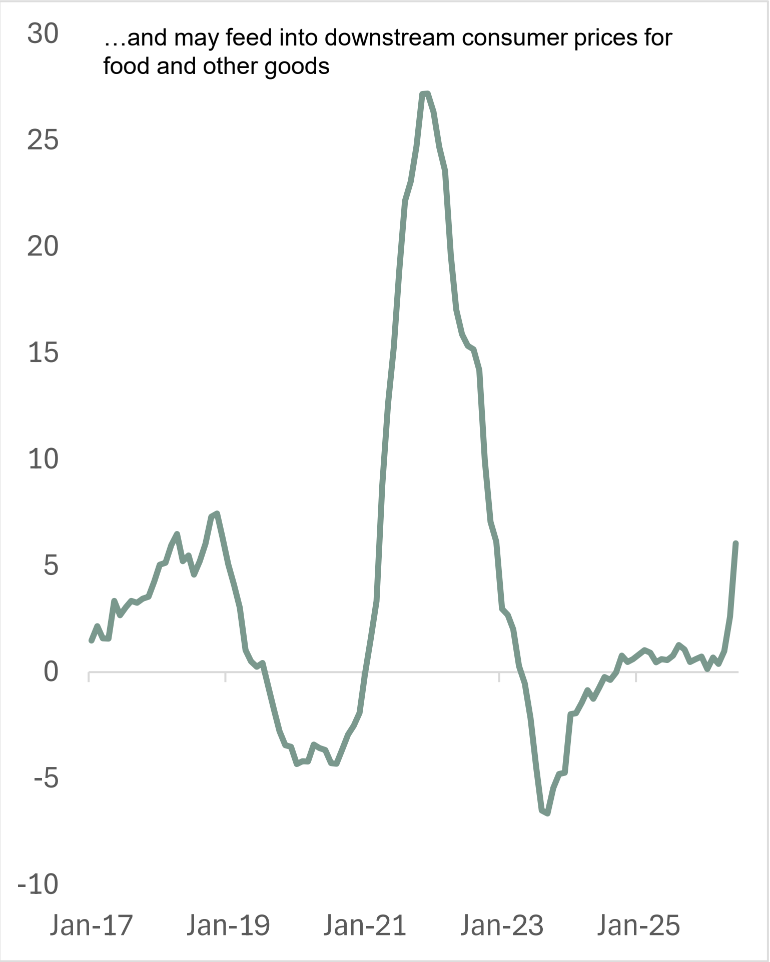
…but may echo through consumer goods prices

Fertilizer prices ($/short ton)



Sources: Green Markets North America Fertilizer Index, SMBC Nikko

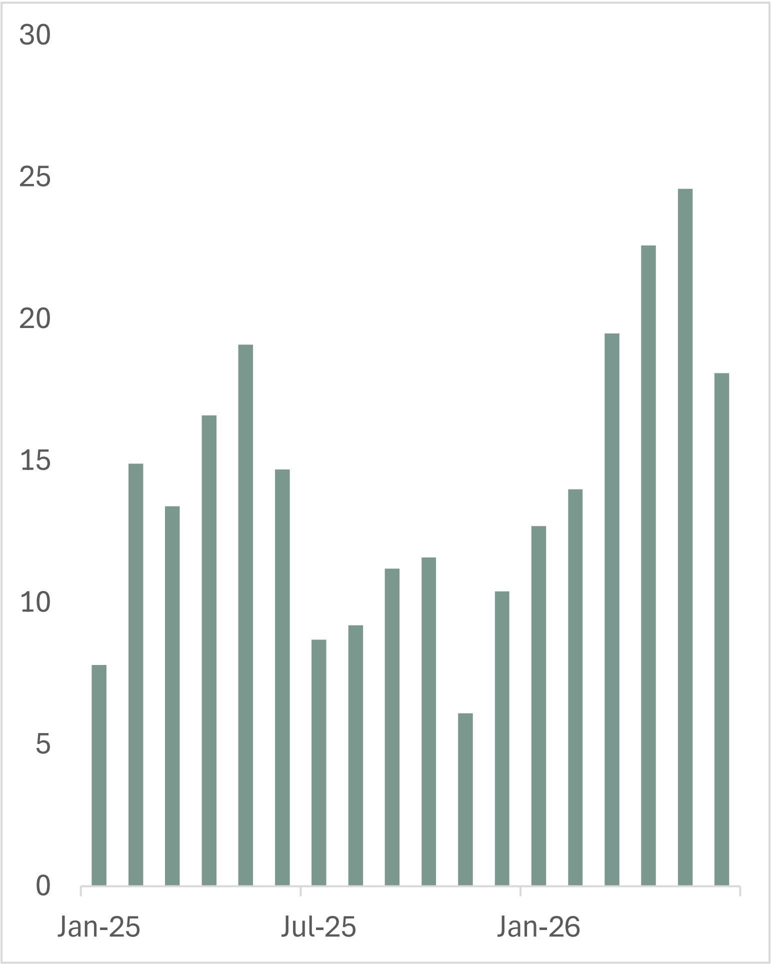
Plastic packaging (% y/y)



Sources: BLS, SMBC Nikko

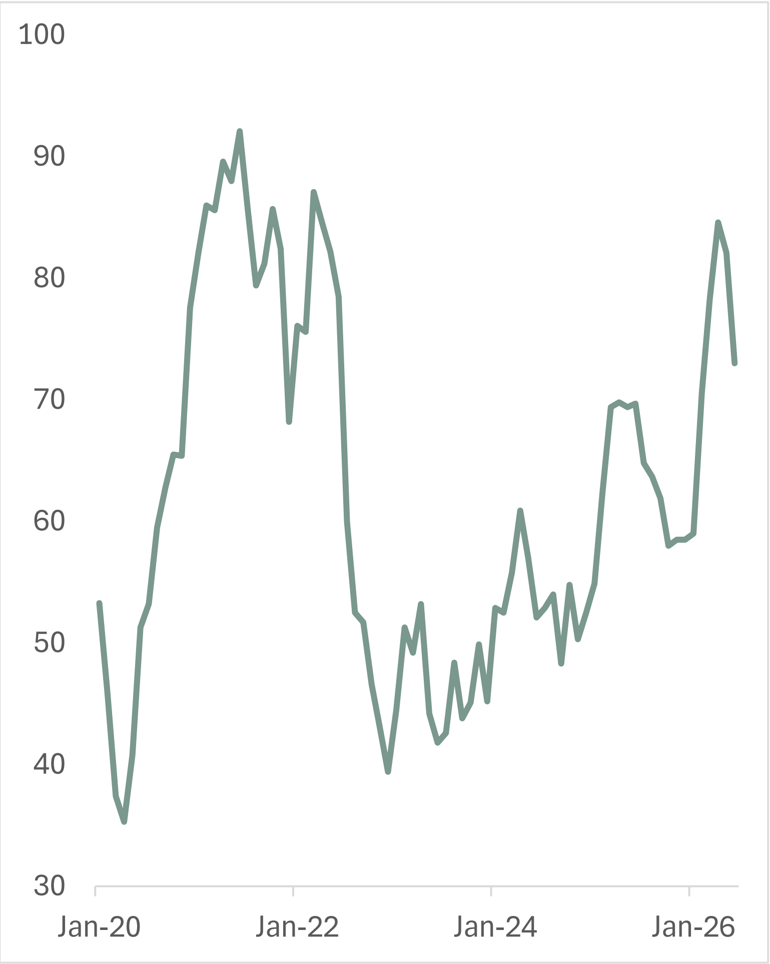
Slower deliveries and higher prices

Slower deliveries (% reporting slower)



Sources: ISM, SMBC Nikko

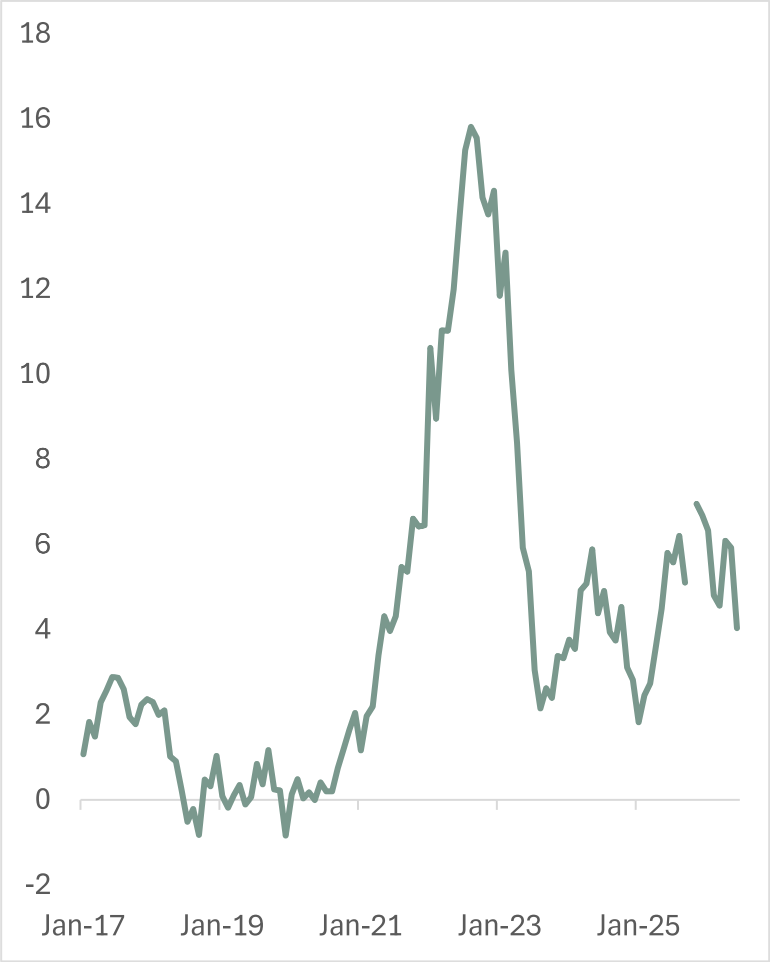
ISM manufacturing prices (index)



Sources: ISM, SMBC Nikko

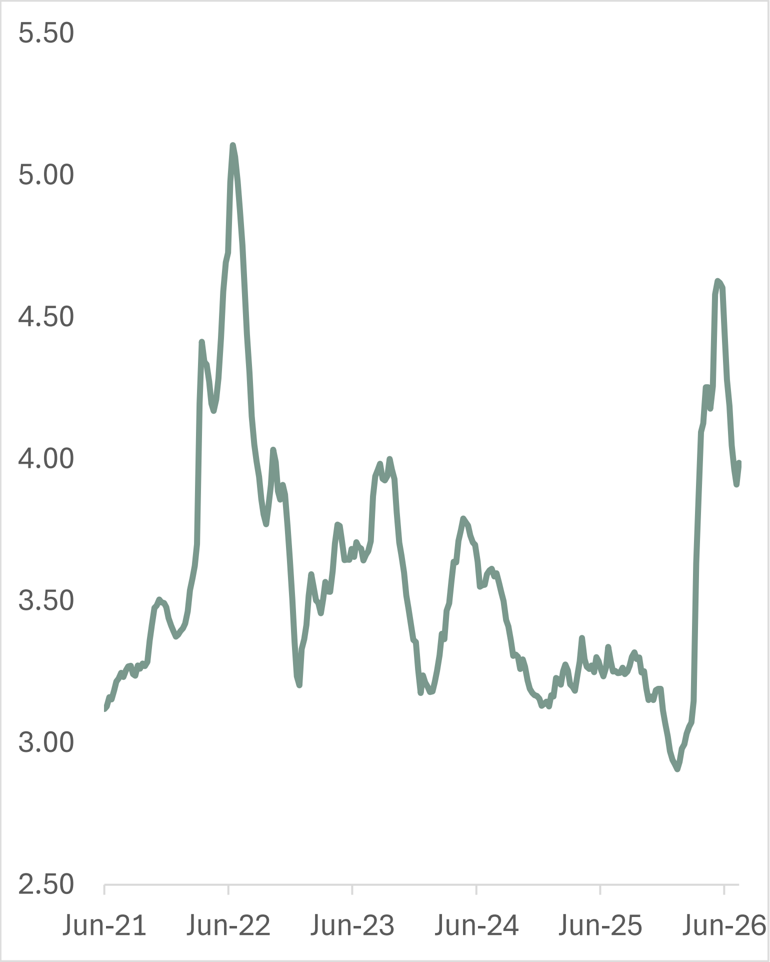
Electricity and gasoline prices have subsided…

Residential electricity (% y/y)



Sources: BLS, SMBC Nikko

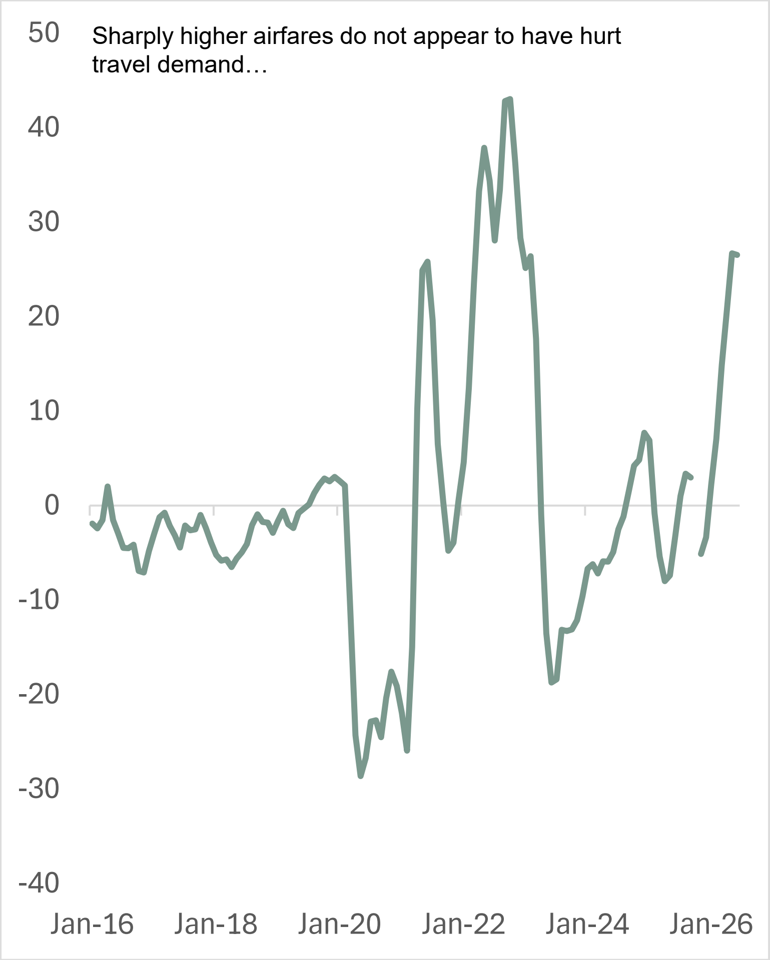
AAA retail gasoline prices ($/gal)



Note: US average. Sources: AAA, SMBC Nikko

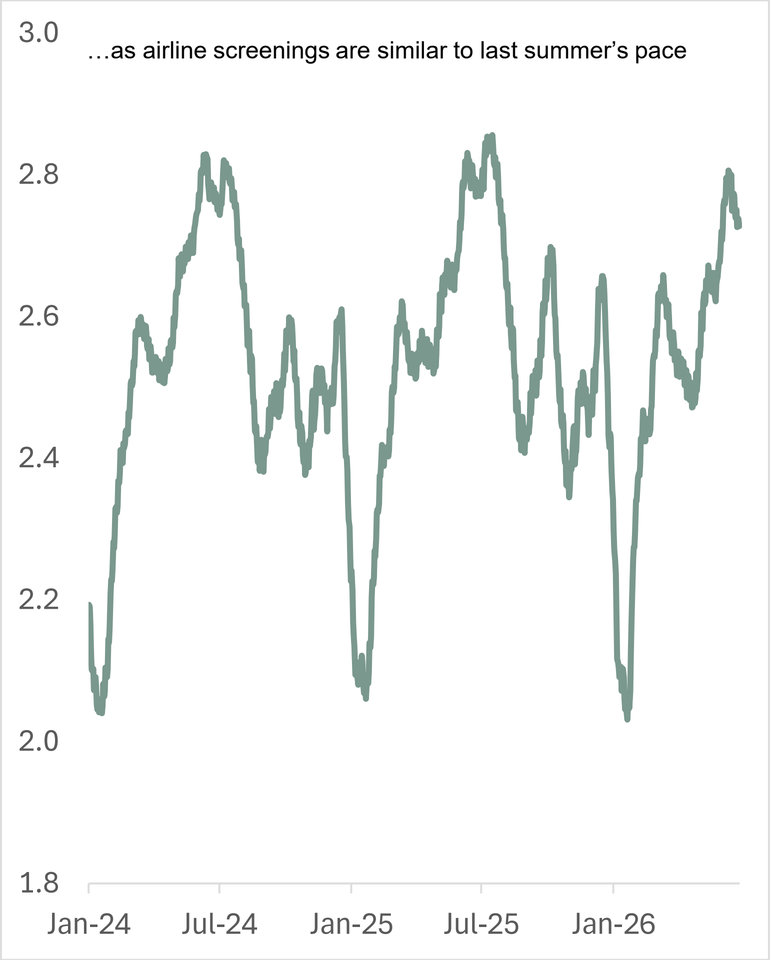
High prices haven't deterred travelers

Airfares (% y/y)



Sources: CPI, SMBC Nikko

TSA screenings (mn/d)

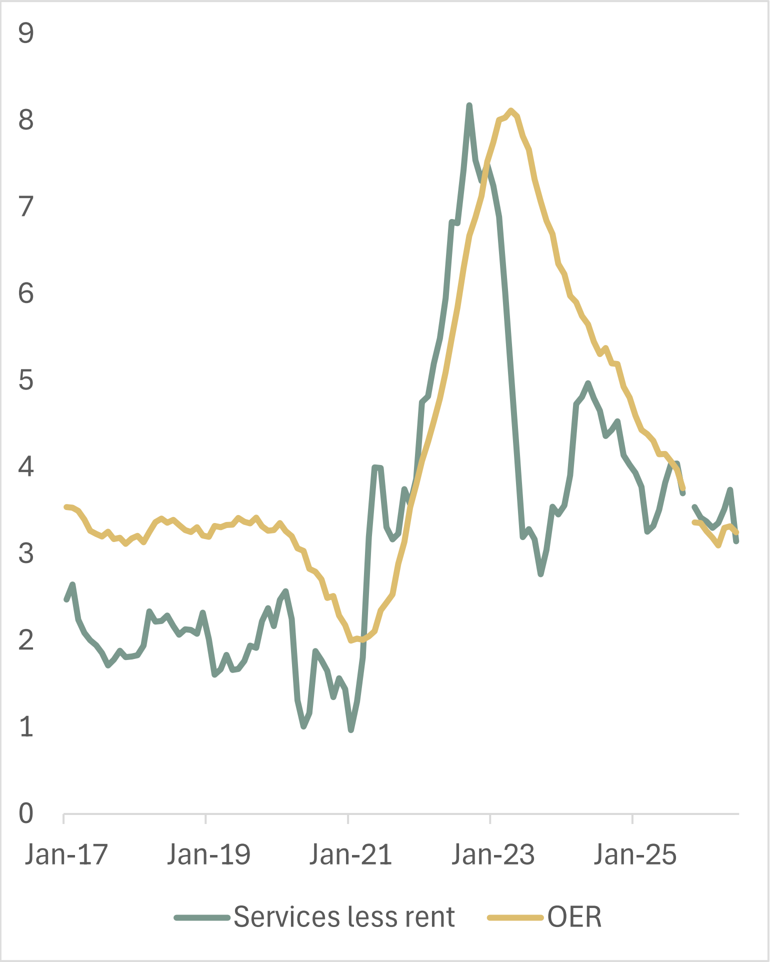


Sources: TSA, SMBC Nikko

Service sector prices

- Service sector prices have cooled since last summer but remain about 3% y/y
    - Services are key to the inflation outlook
        - And will determine how quickly the FOMC can bring inflation down to target

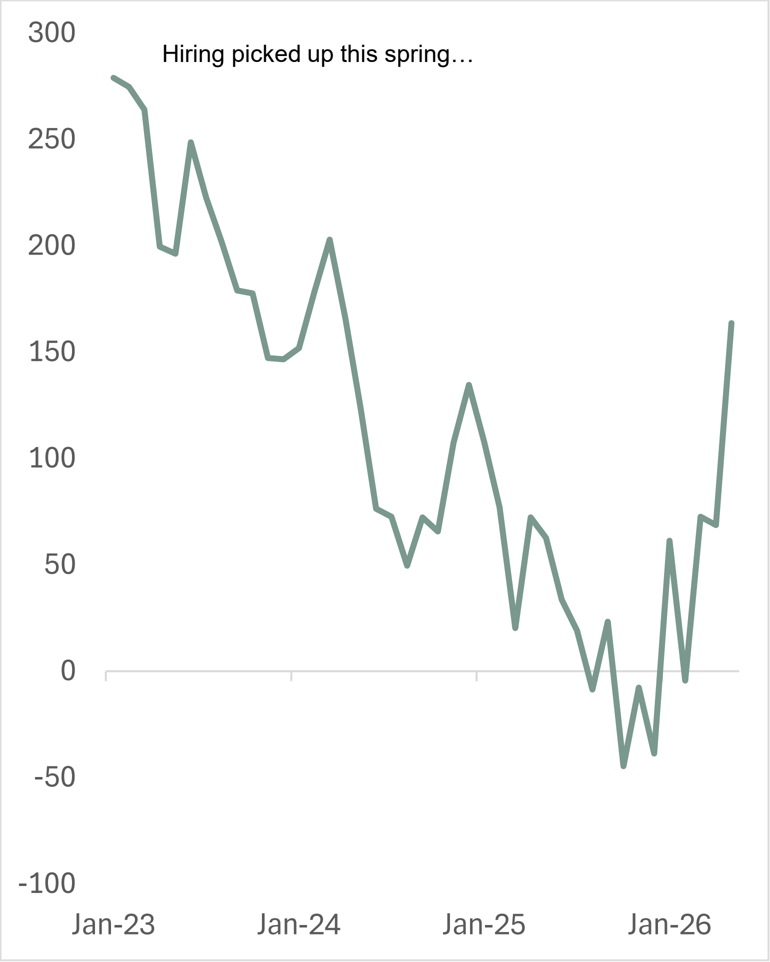
CPI services (% y/y)



Sources: BLS, SMBC Nikko

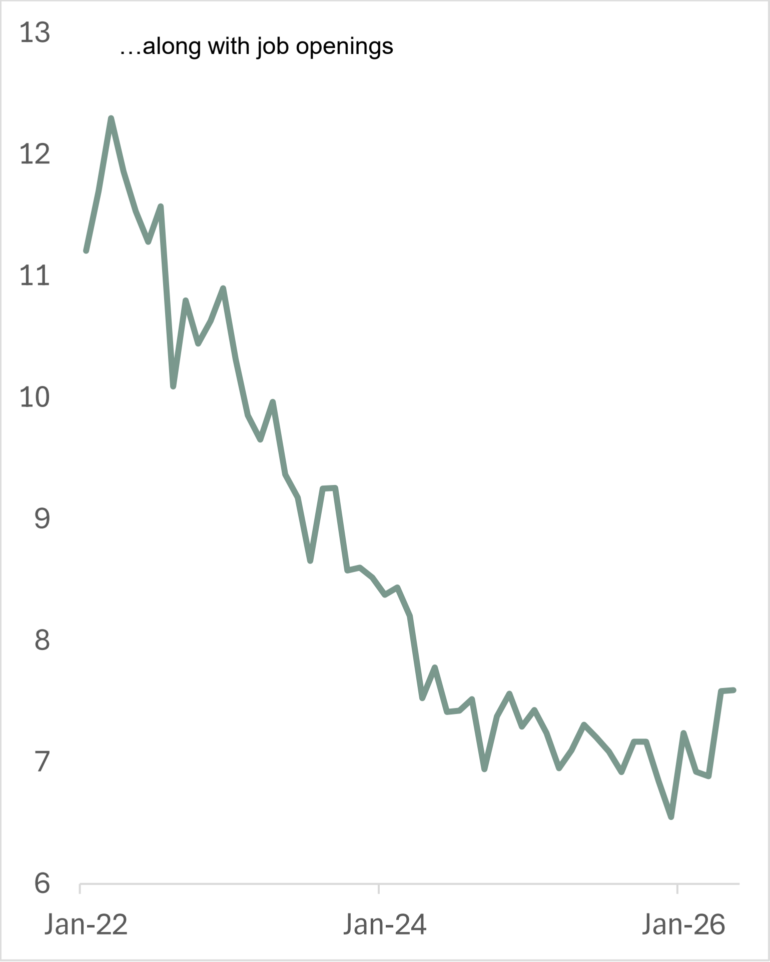
Hiring has picked up…

Non-farm payrolls (chng, 000)



Note: 3m averages. Sources: BLS, SMBC Nikko

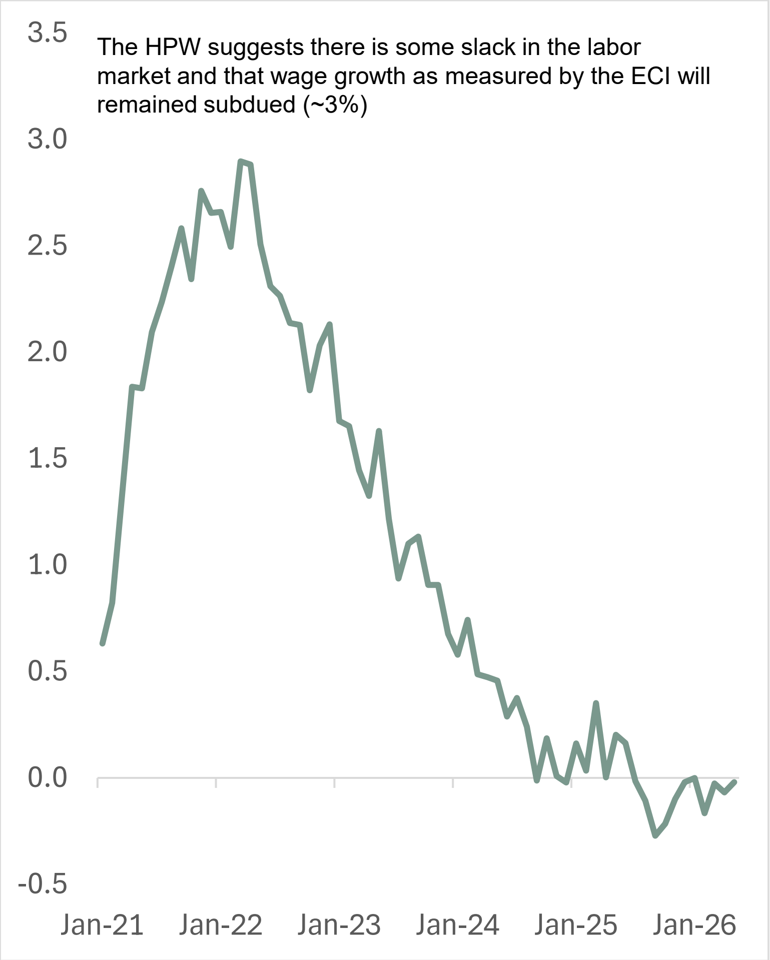
Job openings (mn)



Sources: BLS, SMBC Nikko

…but labor markets are not tight enough to push wages higher…

Labor market tightness index (HPW)



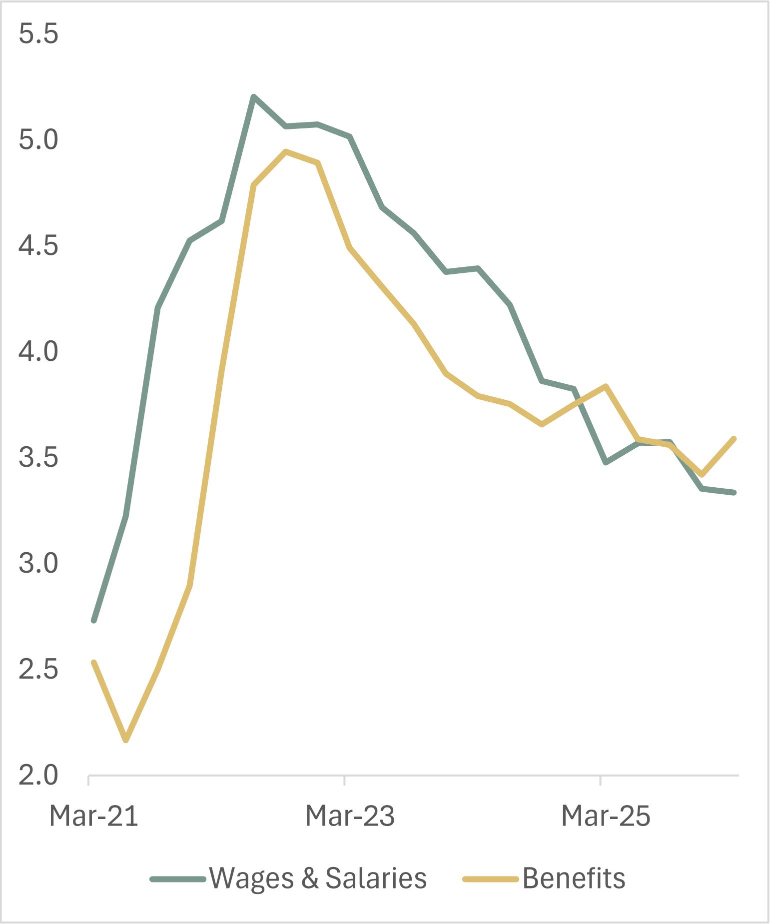
Sources: Federal Reserve Bank of New York, SMBC Nikko

- The HPW index measures labor market tightness based on quit rates and job vacancies per search
  - It accounts for the behavior of workers who may be looking for a new job while employed[1/]
    - Unlike other measures that assume workers transition from unemployed to employed only

1/ Defined as “effective searchers”

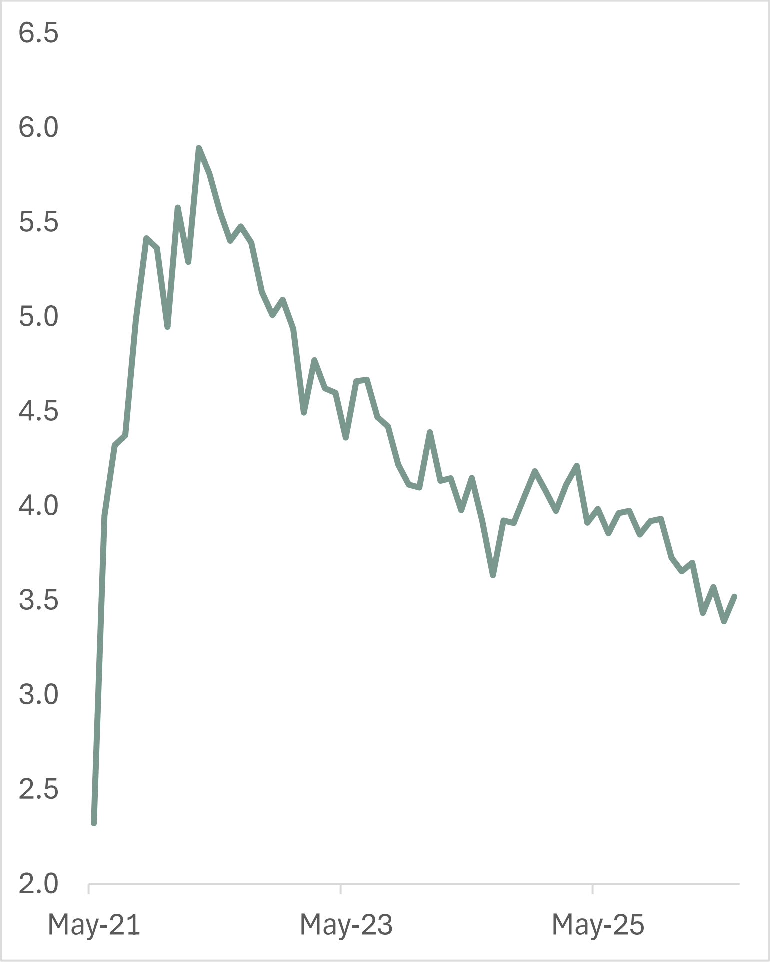
…and wages continue to slide

Employment cost index (% y/y)



Sources: BLS, SMBC Nikko

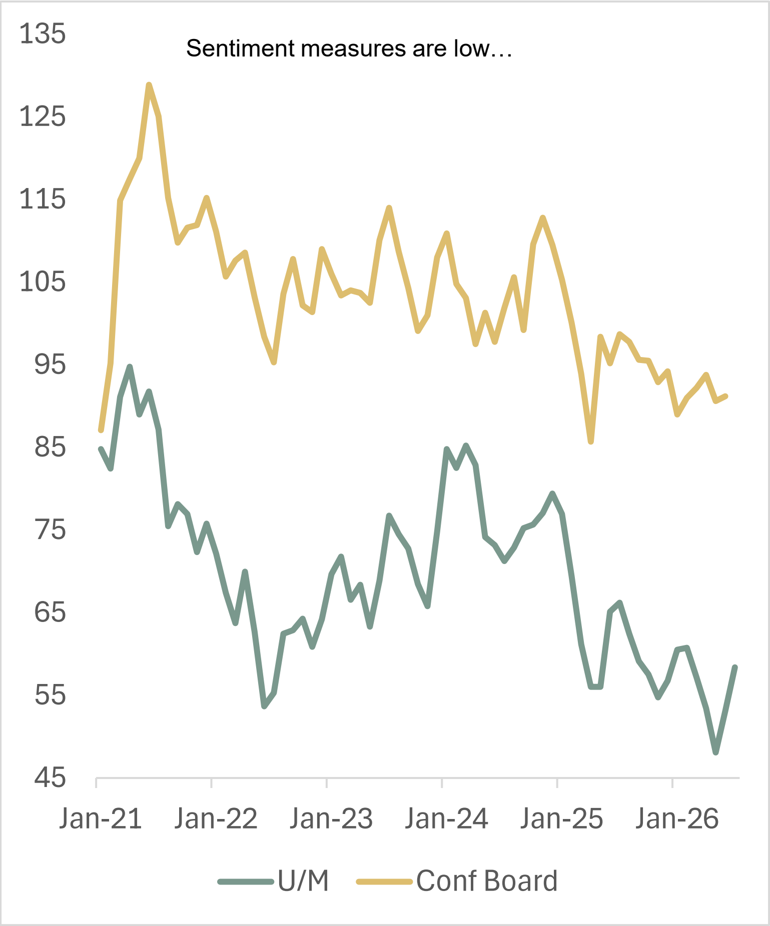
Average hourly earnings (% y/y)



Sources: BLS, SMBC Nikko

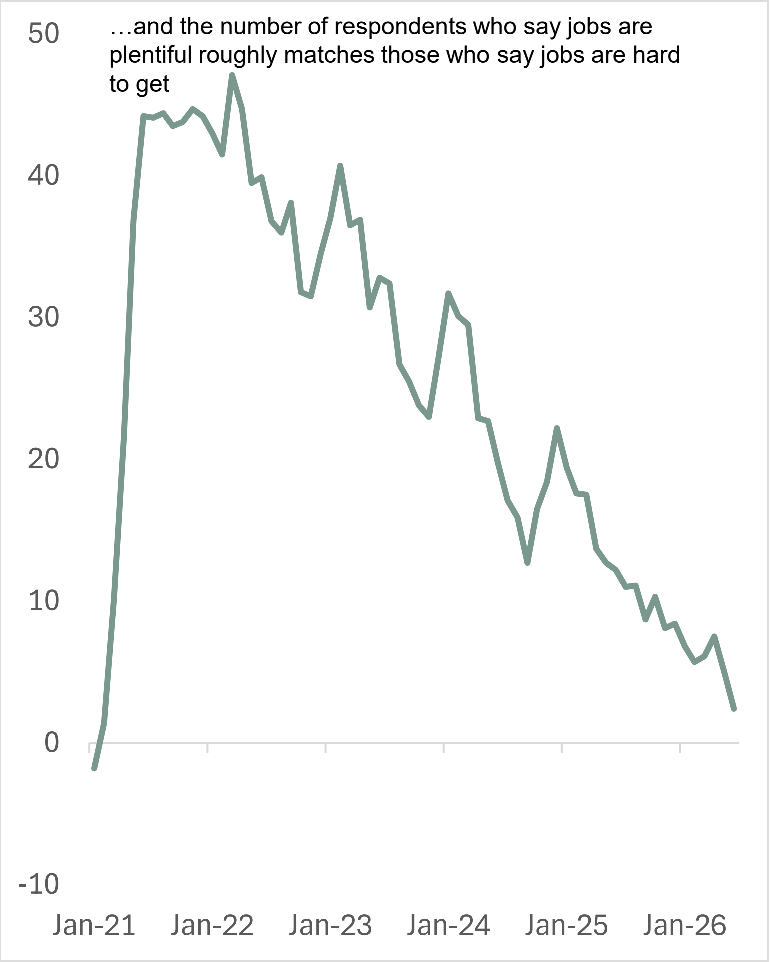
Consumer confidence remains low

Consumer sentiment (1985=100)



Sources: University of Michigan, Conference Board, SMBC Nikko

Jobs plentiful less hard to get (%)



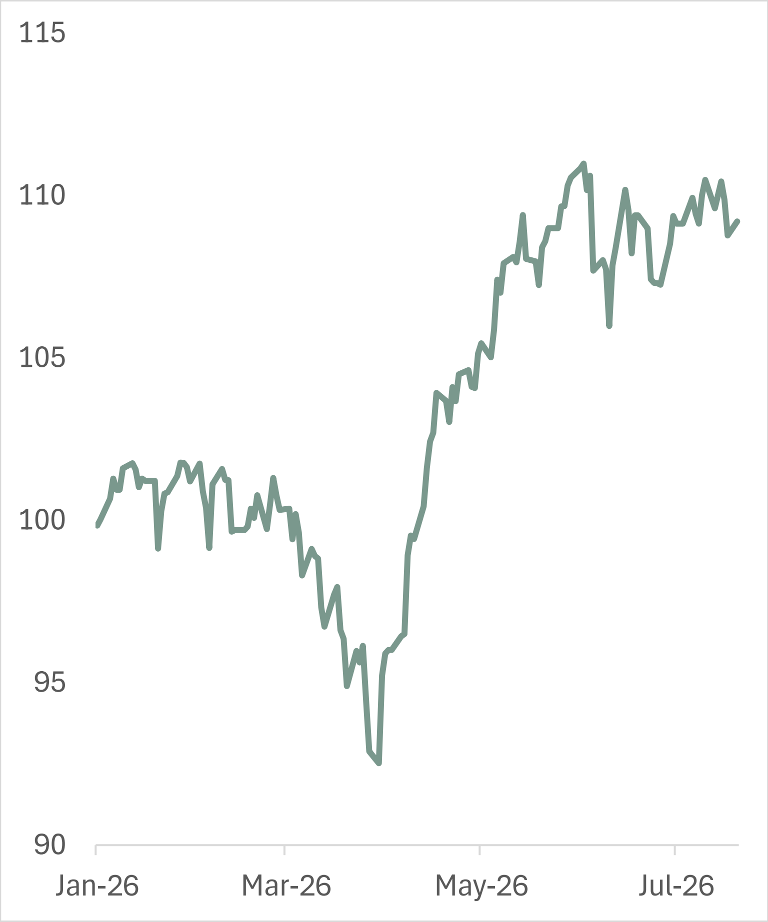
Sources: Conference Board, SMBC Nikko

Financial conditions

10y yield (%)

Sources: Bloomberg, BLS, SMBC Nikko

S&P500 (Dec 2025 = 100)



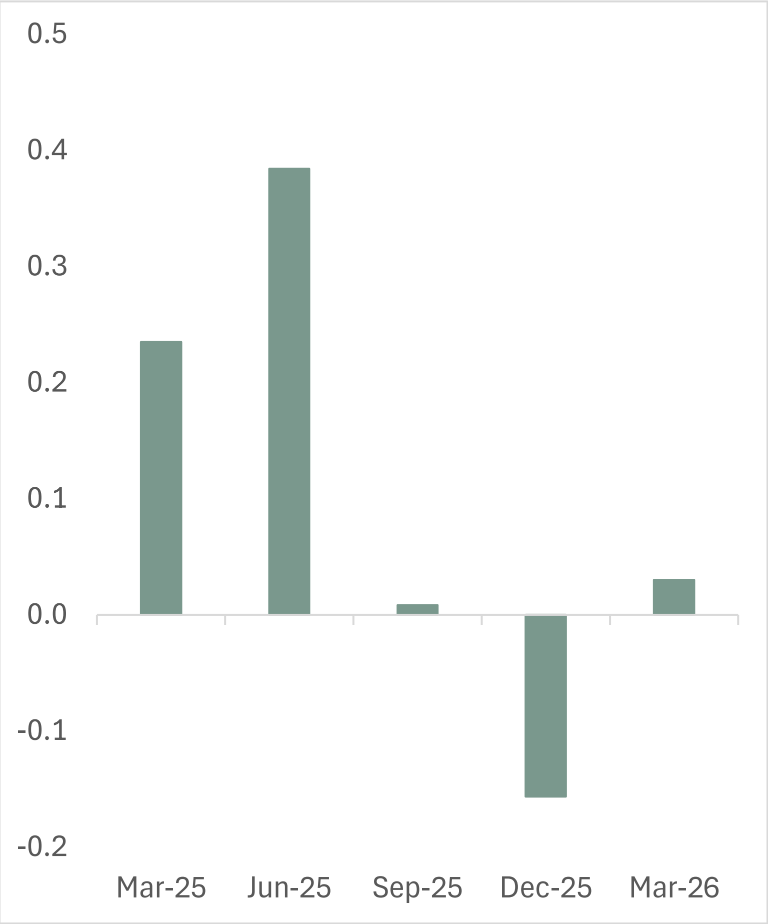
Sources: Bloomberg, SMBC Nikko

SMBC

Is AI spending causing the economy to overheat?

- Rapid spending on building out AI is adding to GDP growth
  - And should pick up later this year
- Spending plans this year are nearly double last year's pace
  - With four large tech companies planning to spend $750bn this year
- Unlike last year, much of these expenditures are being financed externally[1/]

Contributions to real GDP (%q/q, ar)

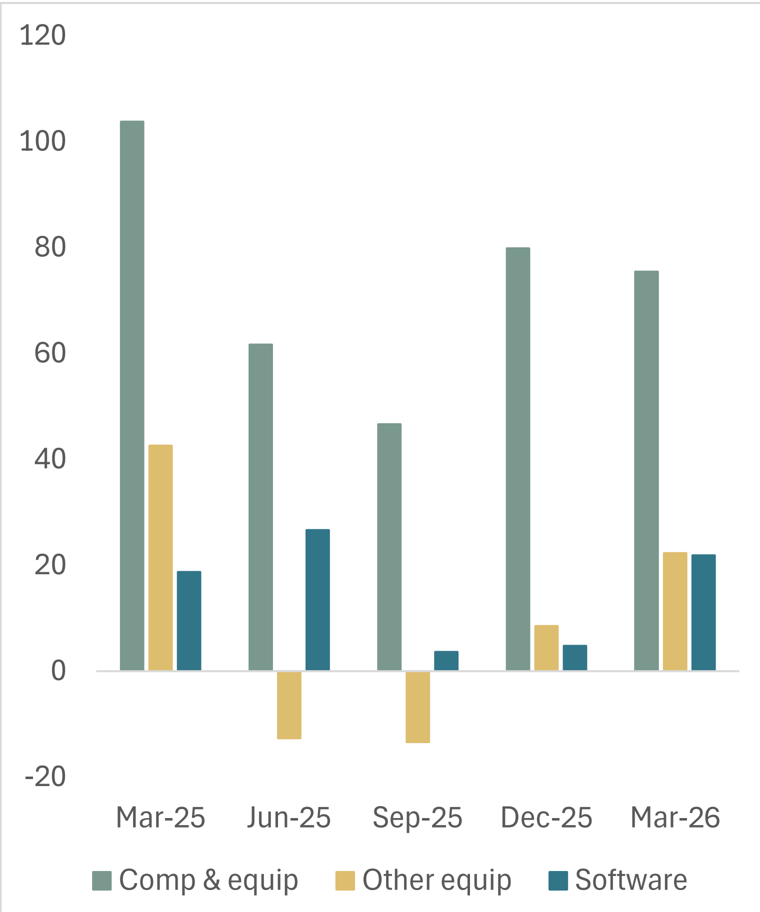


Sources: BEA, SMBC Nikko

1/ That is from investors rather than internally generated funds.

Rapid growth in AI-related equipment spending

Real fixed investment (% q/q, ar)



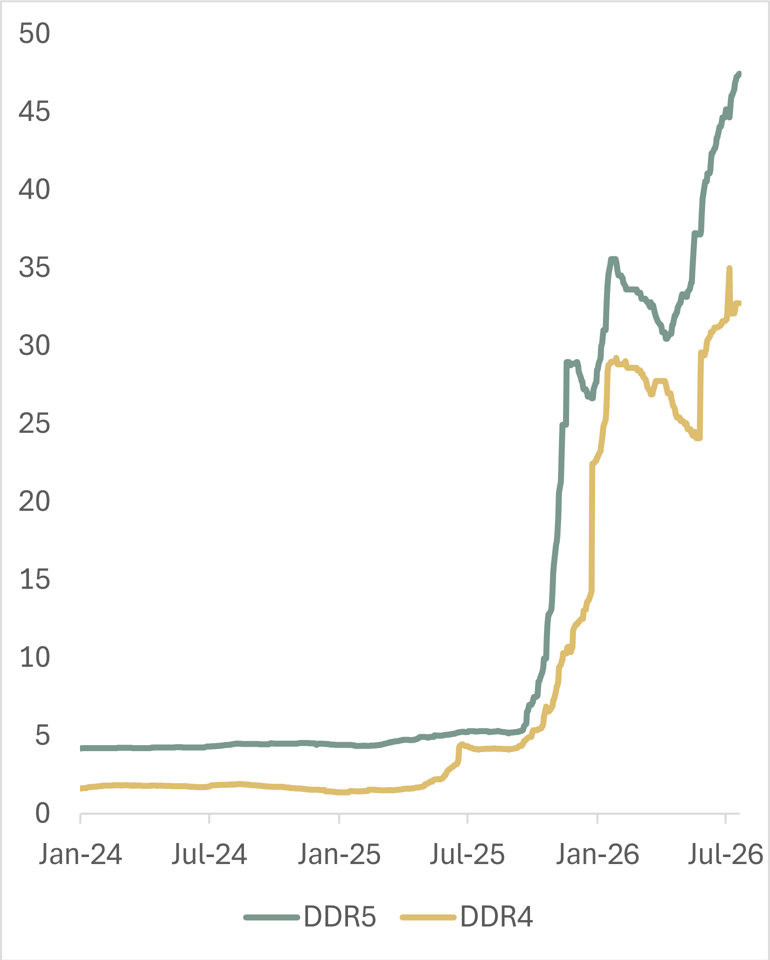
- AI-related equipment spending has surged since last year
  - Much of this has been on imports

1/ There is no specific GDP measure that captures all AI-related spending. We look at investments in computers & peripherals, other information technology (which includes servers) equipment, and software.

Sources: BEA, SMBC Nikko

Chip shock

Memory chip prices ($)



Sources: Bloomberg, SMBC Nikko

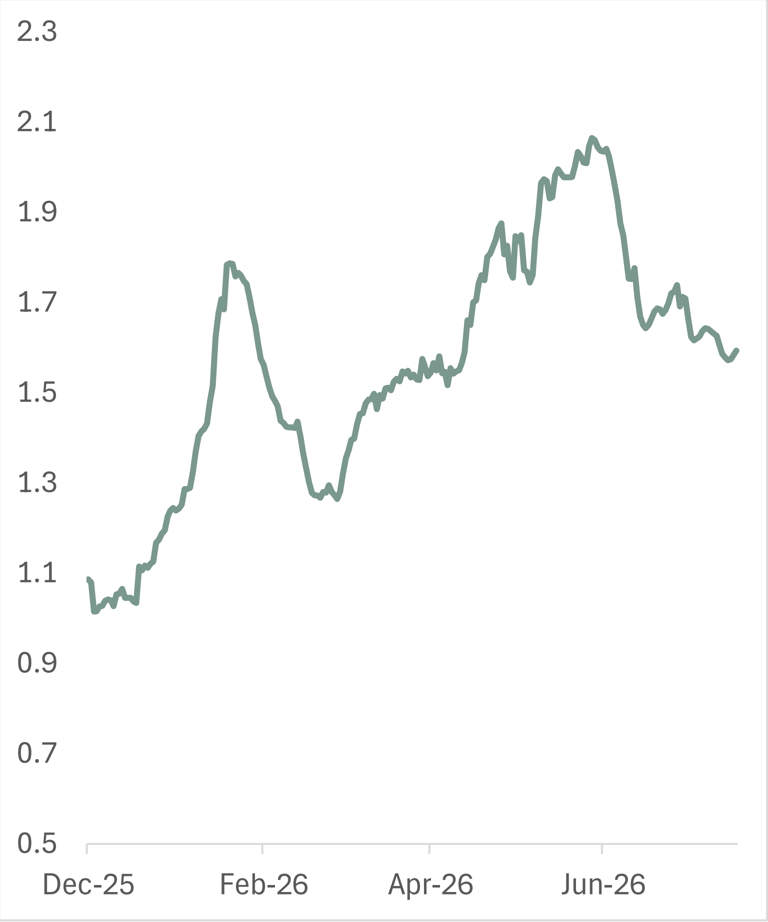
- Memory chip prices are accelerating rapidly
  - Even for older models as firms seek to save money on their AI expenditures
- Some companies have begun signing contracts committing to buy future (yet to be produced) chip production
  - As chip demand is so strong

Compute expenditures[1/]

- The intensity of AI tasks has increased
  - And tasks require more computing power

- *As compute costs increase, users have begun scaling back their use*
  - Or shifting to less intensive tasks

Compute ($/mTok)



1/ The Silicon Data Token Expenditure index is a normalized measure of the expenditures (in dollars) per million tokens. It includes input and output expenditures and adjusts expenditures for different task prices.

Sources: Silicon Data Token Expenditure index, SMBC Nikko

Gig economy

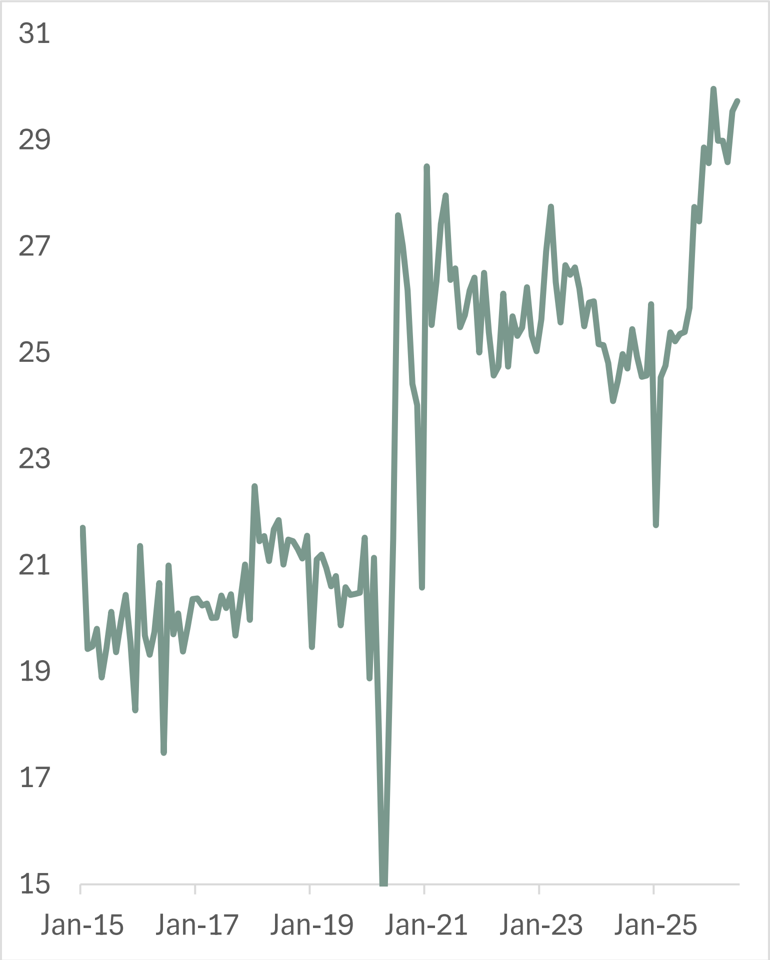
- In 2023, the BLS identified 11.9m workers who indicated they were independent contractors of whom 85% were self-employed[1/]
  - Similarly, another 6.9m workers said they were in contingent or gig jobs
    - Combined, this was about 12% of the employed labor force – up from the 2017 survey

- A 2021 Federal Reserve study noted that 27% "of people" earned some income from gig activities like paid childcare, selling goods, or renting out property[2/]
  - But only 8% of respondents reported doing regular gig work – that is, more than 20h in the prior month
    - Suggesting that most of this work is informal and the income is supplemental

1/ See, "Contingent and Alternative Employment Arrangements", Bureau of Labor Statistics, November 8, 2024
2/ Note all of whom are in the labor force. See, "The Economic Well-Being for US Households in 2020-May 2021", Federal Reserve Board of Governors.

New business formations

Projected next 4q (000)



Sources: Census Department, SMBC Nikko

- New business formations have increased since COVID
  - And especially after the introduction of ChatGPT in November 2022
- Projected formations are based on Census analysis of past applications
  - And those that are most likely to complete the tax ID filing process

Gig income

- *How much do gig workers earn?*

- The University of Michigan compares self-reported income from its Health and Retirement surveys against Treasury data[1/]
    - Self-reported income is higher than what is reported to the IRS

- Workers between the 5th and 75th income percentiles reported about $4,000 in self-employment income
    - But self-employment income was considerably higher in the tails of the distribution
        - For incomes below the 5th percentile, gig income averaged about $21,000 while above the 95th percentile it was $27,000

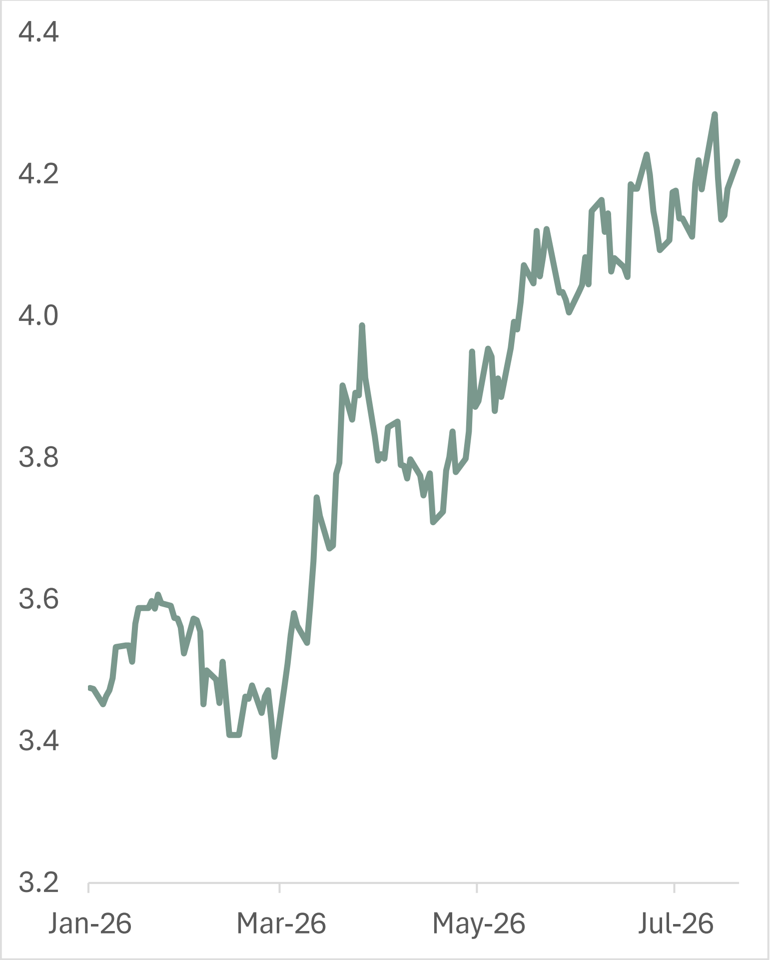
1/ See, "University of Michigan: Self Employment Income is Widely Underreported", February 20, 2025

Market summary

Fed policy expectations

- The market looks for the Fed to hike rates at least once before year-end
  - And potentially once more in early 2027

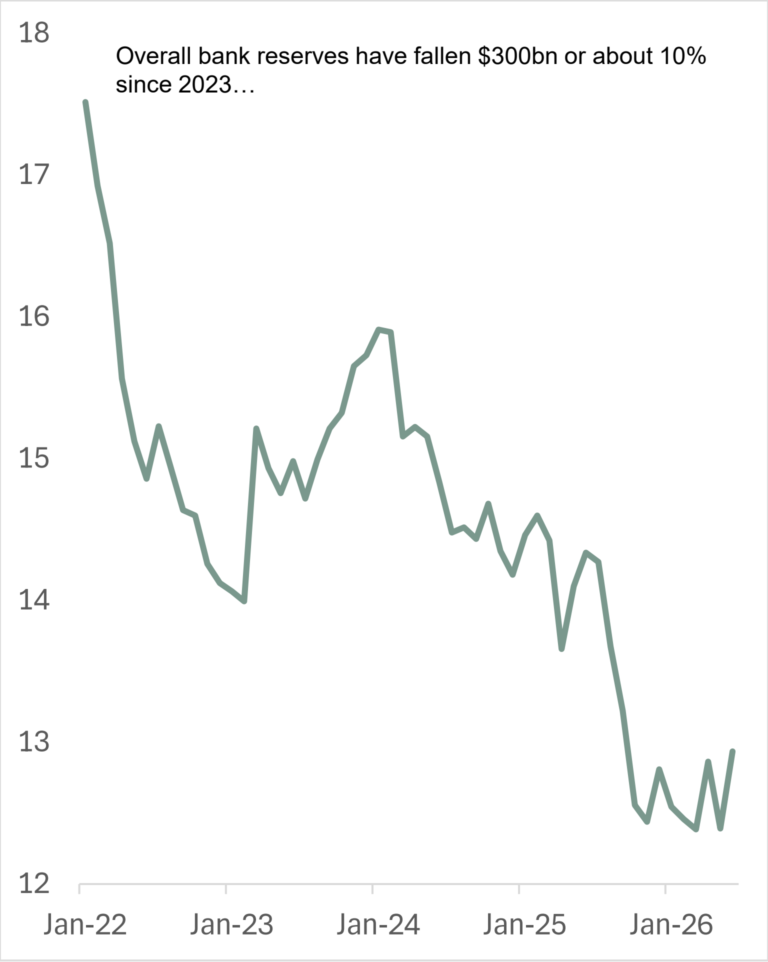
2y yields (%)



Sources: Bloomberg, SMBC Nikko

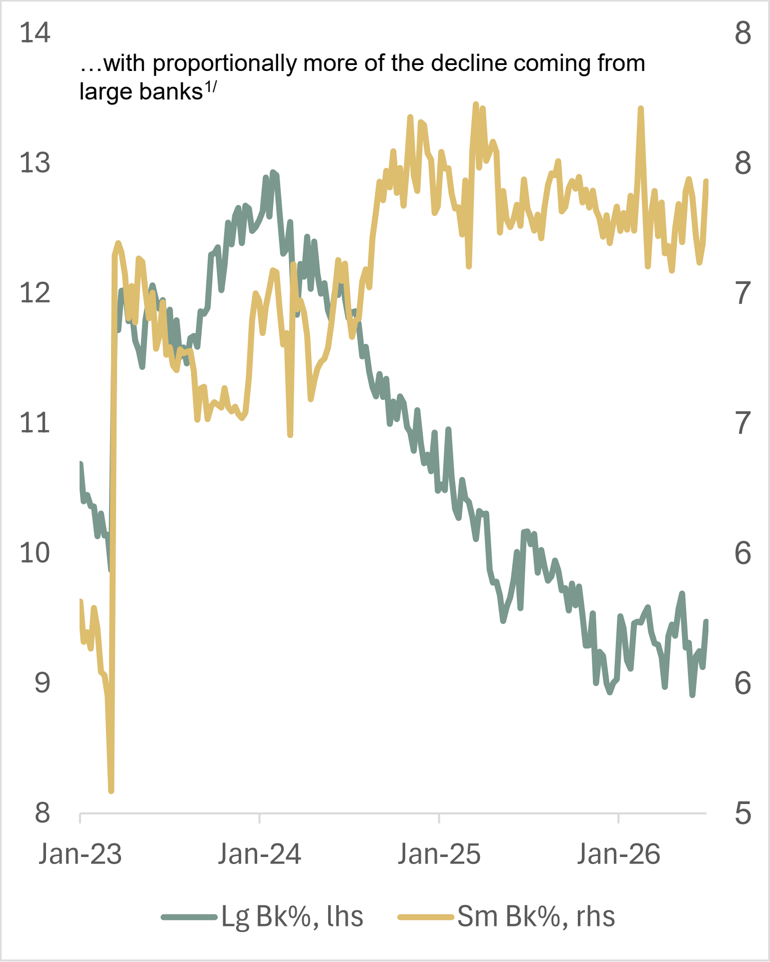
Bank reserve shrinkage

Bank reserves (% bank assets)



Sources: Federal Reserve, SMBC Nikko

Bank reserves (% bank assets)



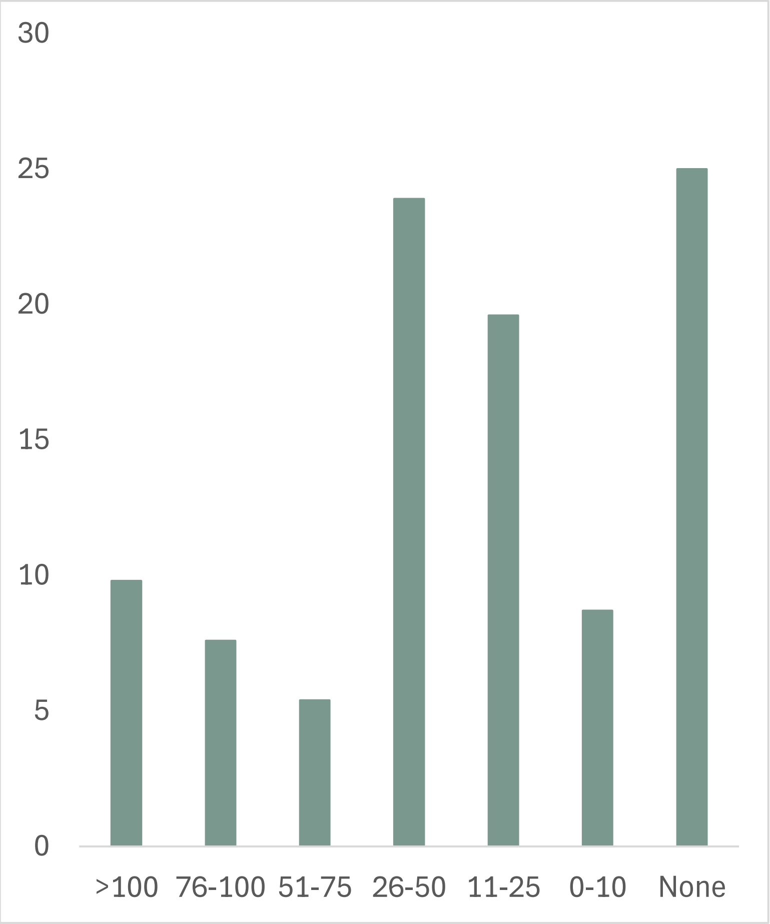
Sources: Federal Reserve, SMBC Nikko

1/ And foreign banks, not shown

Preferred reserves

- Most banks prefer maintaining a buffer above their LCLoR[1/]
    - The median respondent looks to maintain a buffer of between 11-25% of their LCLoR
- The LCLoR is defined by their regulatory liquidity needs and internal liquidity stress testing confidence intervals
- Their precautionary cushion is large relative to the size of their LCLoR
    - And partly reflects their reluctance to use the Fed's regular liquidity programs

Buffers above LCLoR (% survey)



Sources: Senior Financial Officer's Survey, Federal Reserve, SMBC Nikko, n=92

1/ Least comfortable level of reserves

Factors influencing reserve demand in the next two years[1/]

- *Banks were surveyed on the factors that they expected would influence their demand for reserves and liquidity management. On a scale of 1 (not important) to 5 (very important):*

1. Developments related to bank liquidity rules	3.9
2. Developments related to the Fed's balance sheet	3.1
3. Movement toward 24/7 payments	3.0
4. Movement toward faster retail and wholesale payments	2.7
5. Developments related to bank capital rules	2.6
6. Faster settlements of money market transactions	2.5

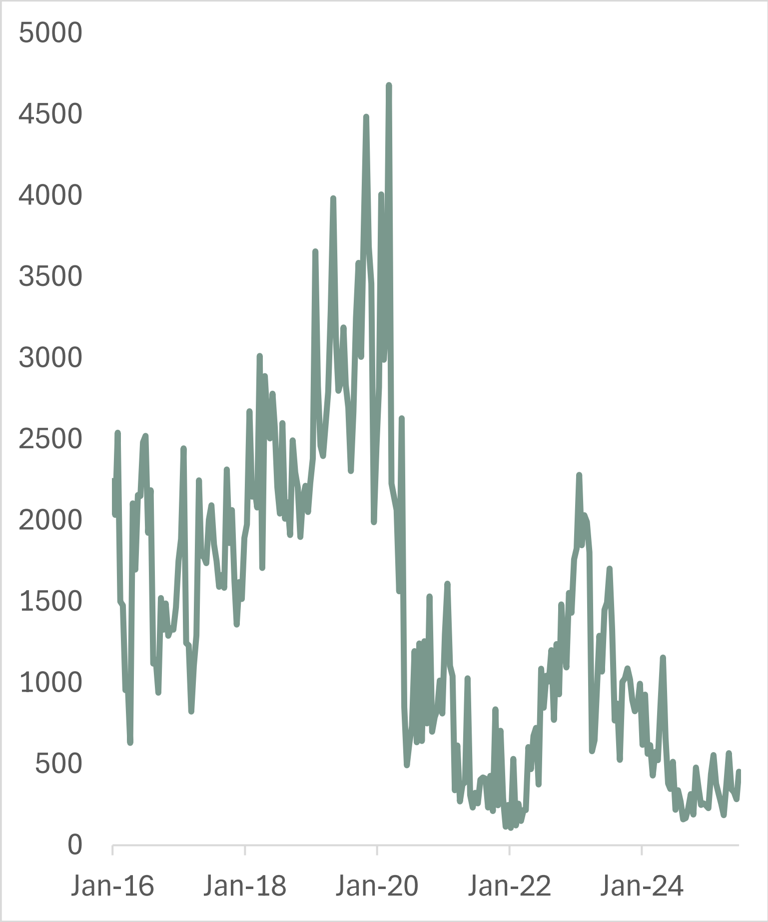
- While bank expectations about liquidity rules and the size of the Fed's balance sheet rated highly, so did expectations regarding faster payments

1/ See, Senior Financial Officers Survey, March 2026, Federal Reserve Board

Intraday liquidity

- Faster payments or a shift to 24/7 payment processing might increase the demand for reserves
  - And banks would seek to hold thicker intraday liquidity buffers
- But this depends on their willingness to borrow intraday liquidity from the Fed
  - Collateralized intraday borrowing from the discount window is free
    - But because reserves are ample banks borrow relatively little considering the volume of transactions processed

Average intraday overdrafts ($bn)



Sources: Federal Reserve, SMBC Nikko

Bank reserves and RMPs

- *We expect the Fed to continue its reserve management purchases (RMPs) of bills in the secondary market*
    - Although repo rates are somewhat soft and reserve balances are near $3.1trn we do not expect the Fed to end these purchases[1/]
        - And instead, we expect them to continue at their $10bn/mo pace through summer
- *At this pace, RMPs would roughly offset the expected trend growth in currency demand and the Treasury's cash balance*

1/ We expect repo rates to drift closer to IORB this summer

Balance sheet task force

- Warsh has long been critical about the large size of the Fed's balance sheet
  - And has argued for a smaller balance sheet – but any reduction would done gradually
  - Balance sheet policy is "more than plumbing"

- The Fed's balance sheet task force will release its findings at year-end
  - It is made up of the following members
    - Karen Dynan – Professor of Economics, Harvard, former Chief Economist, US Treasury
    - Jeremy Stein – Professor of Economics, Harvard, former Fed Governor
    - Raghuram Rajan – Former Governor of the Reserve Bank of India

"Liquidity dependence"[1/]

- Rajan et al argue that QE and the Fed's large balance sheet causes a build up of liquidity exposures on the asset side of bank balance sheets
  - For example, banks make more line-of-credit loans
  - And the maturity of their assets declines

- At the same time, bank liabilities shift from more expensive, insured deposits to cheaper, uninsured, non-operating deposits
  - These are more interest rate sensitive and flight-prone

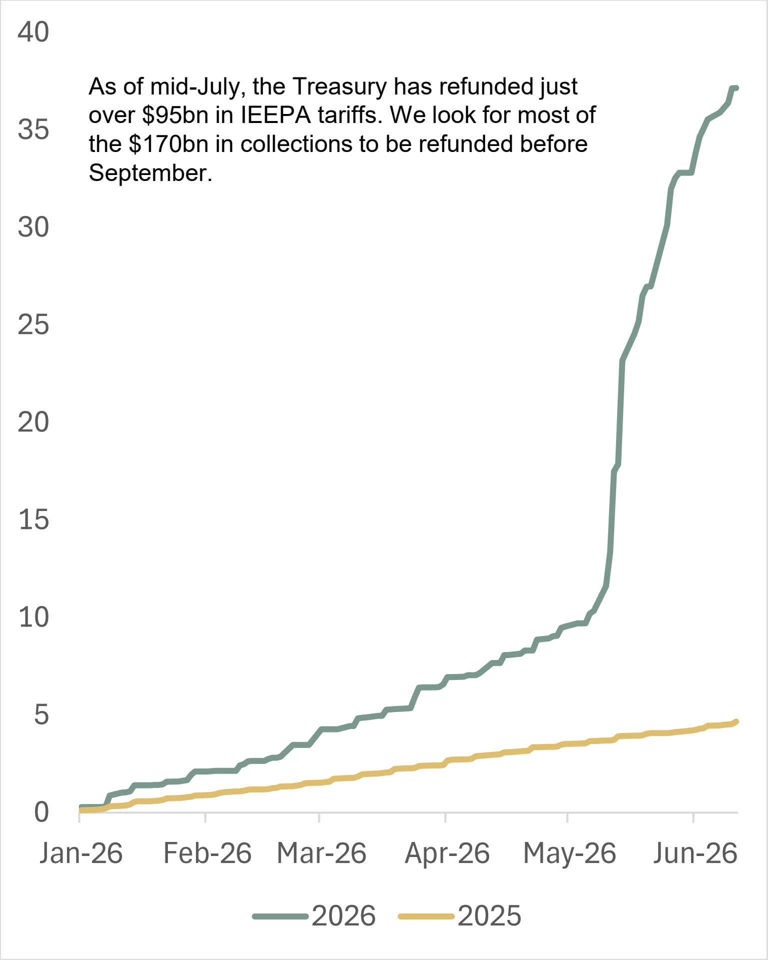
- *But when the Fed moves to shrink its balance sheet and the level of uninsured deposits declines, banks do not make proportional reductions on the asset side of their balance sheet*
  - *And these maturities remain short*
    - *Banks assume that they can support these assets and meet their liquidity requirements by borrowing more in the repo market*

- The liquidity mismatch on bank balance sheets created by QE forces banks to bid up repo rates
  - Which, in turn, pushes the Fed to expand its balance sheet to supply more liquidity and meet bank demand for funding
    - In effect, the Fed's balance sheet "ratchets" higher

1/ See, "Liquidity Dependence and the Waxing and Waning of Central Bank Balance Sheets", V. Acharya, R. Chauhan, R. Rajan, and S. Steffen, NBER, December 2024

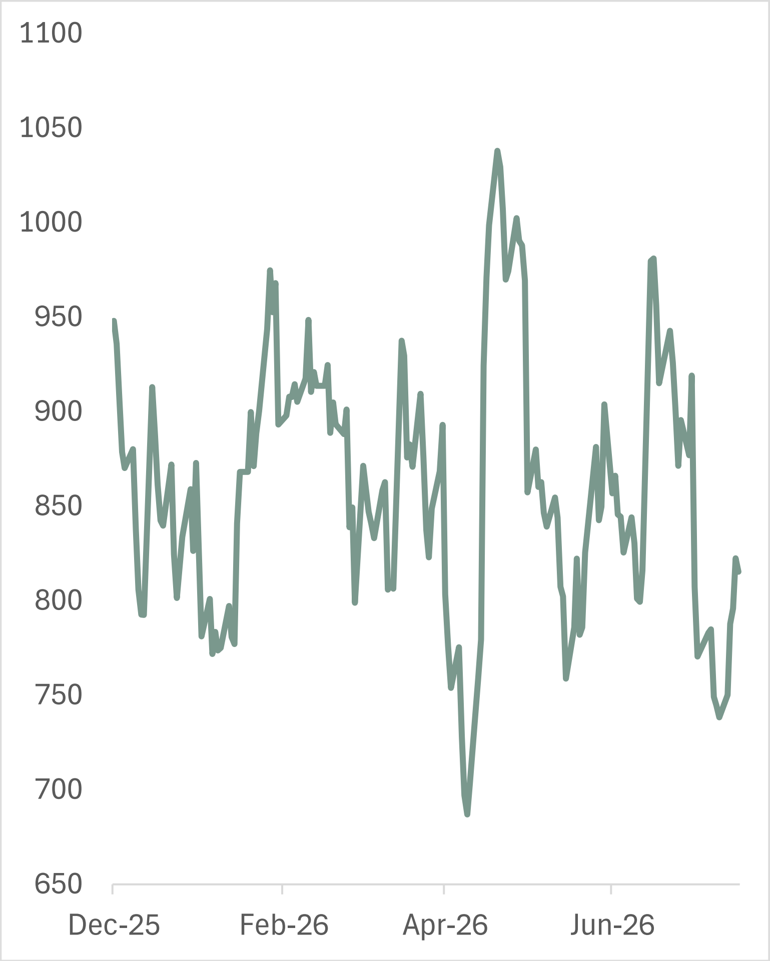
Treasury cash

Customs Bureau outlays ($bn)



Note: Cumulative total since start of year. Sources: US Treasury, SMBC Nikko

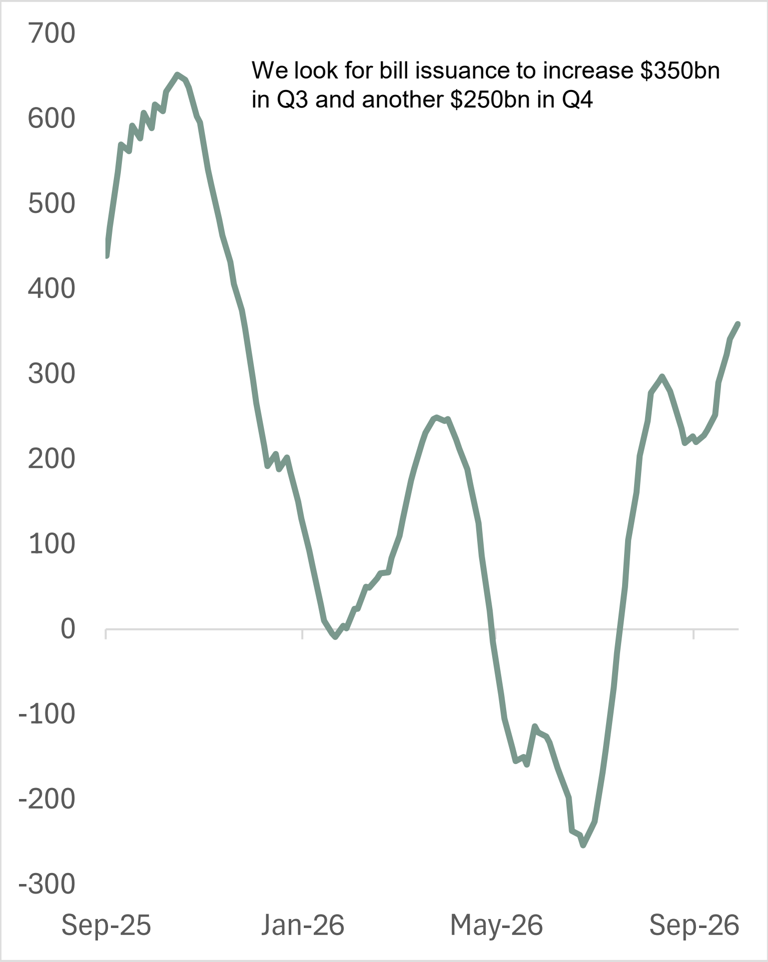
Treasury cash balance ($bn)



Sources: US Treasury, SMBC Nikko

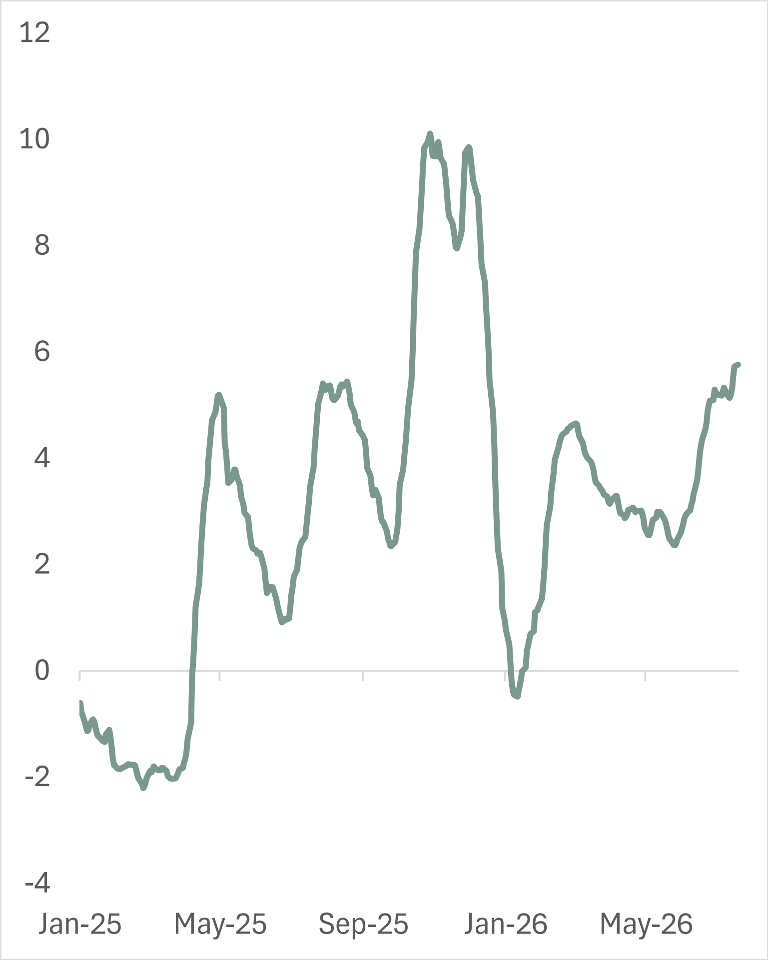
Bill supply is set to increase this summer

13w rolling sum ($bn)



Sources: US Treasury, SMBC Nikko

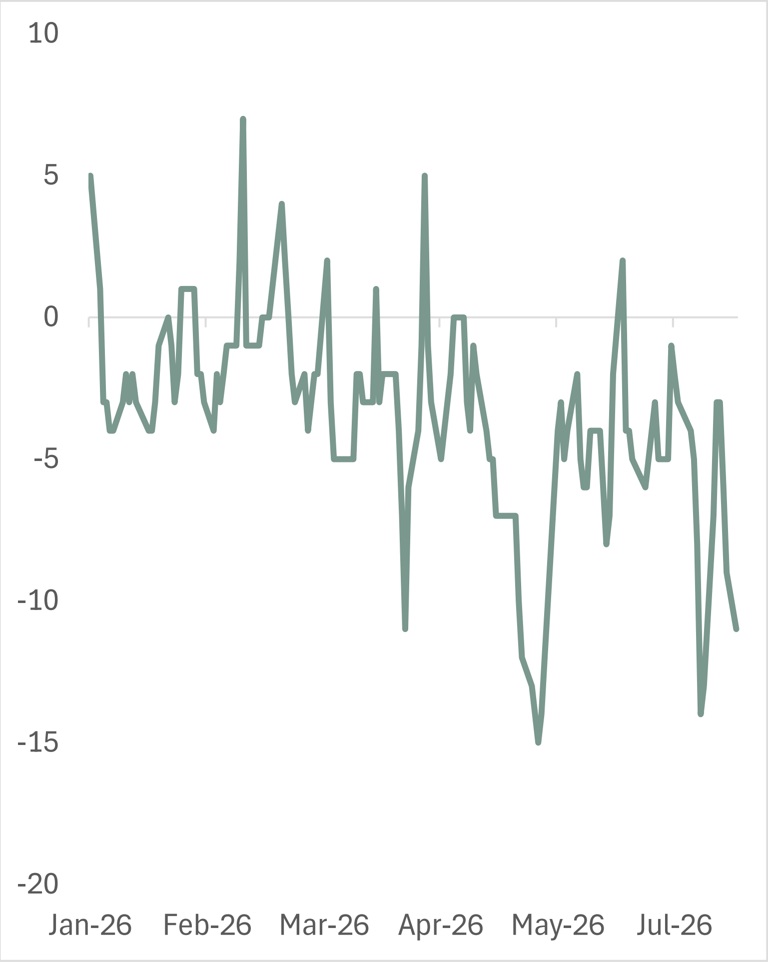
3m bill less OIS (bp)



Note: 20d average spread. Sources: Bloomberg, SMBC Nikko

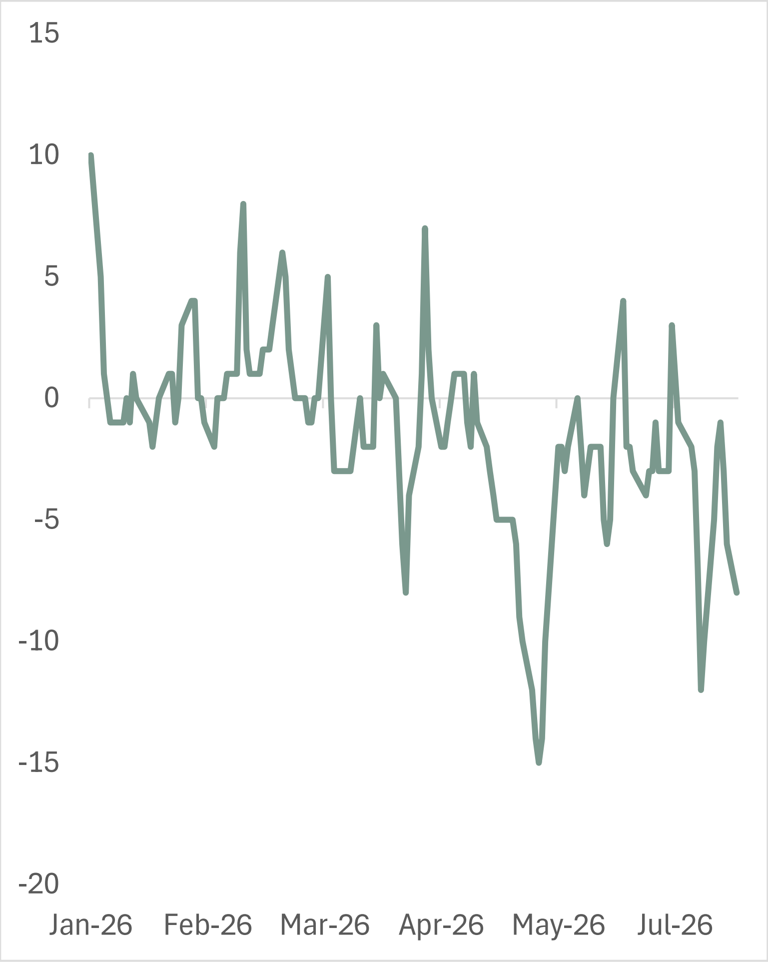
Repo rates have drifted lower since April…

Tri-party less IORB (bp)



Sources: Federal Reserve, SMBC Nikko

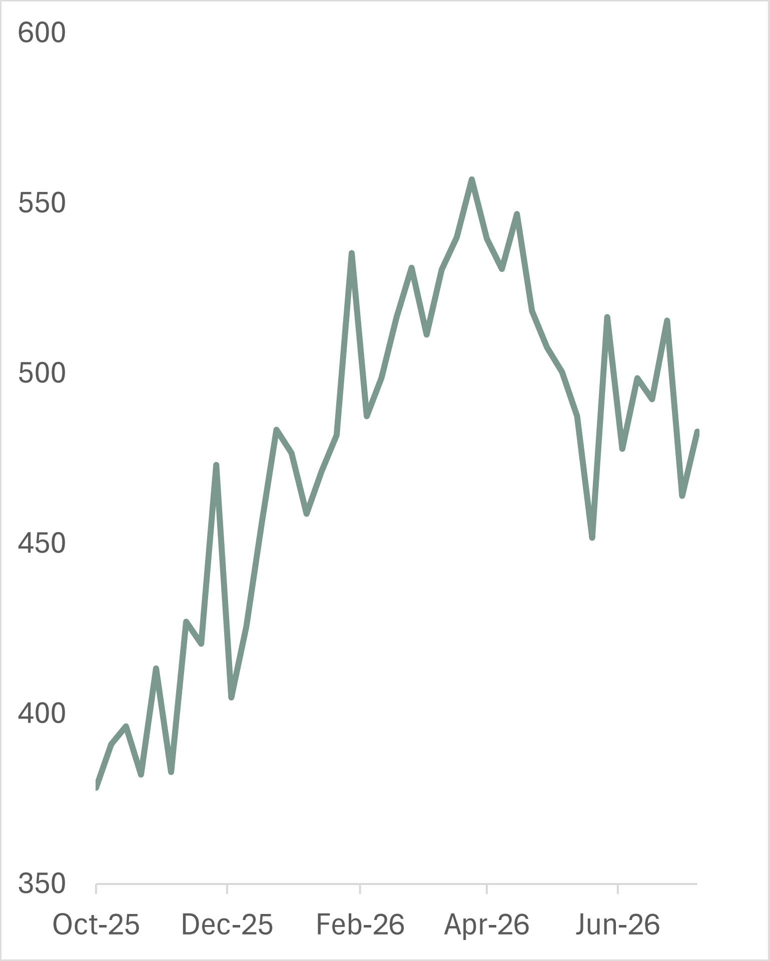
SOFR-fed funds (bp)



Sources: Federal Reserve, SMBC Nikko

…alongside a decline in dealer inventories

Off-the-run holdings ($bn)



- Dealer Treasury inventories have fallen since April
    - Amid market volatility

- This has reduced their demand for funding

Sources: Federal Reserve, SMBC Nikko

eSLR relief?

- Last November, bank regulators finalized eSLR rules that, among other things, were meant to lighten the burden of the leverage ratio for holdings of riskless assets such as Treasuries and bank reserves

- *Since the rule took effect earlier this year, have banks increased their holdings of reserves and Treasuries?*

    - Most banks reported no change to their reserve (75%) or Treasury holdings (63%) from changes to the eSLR[1/]
        - Only 1 bank expected the changes would allow it to increase its Treasury holdings

- We do not think the increase in dealer inventories last winter was eSLR-related (see last slide)
    - The most substantial relief was at the depository level not the dealer level where most of the trading activity and a significant portion of Treasury inventories are held
        - And holdings have retreated since the Iran conflict

1/ However, the sample size reported in the Senior Financial Officer's Survey is small, n=8.

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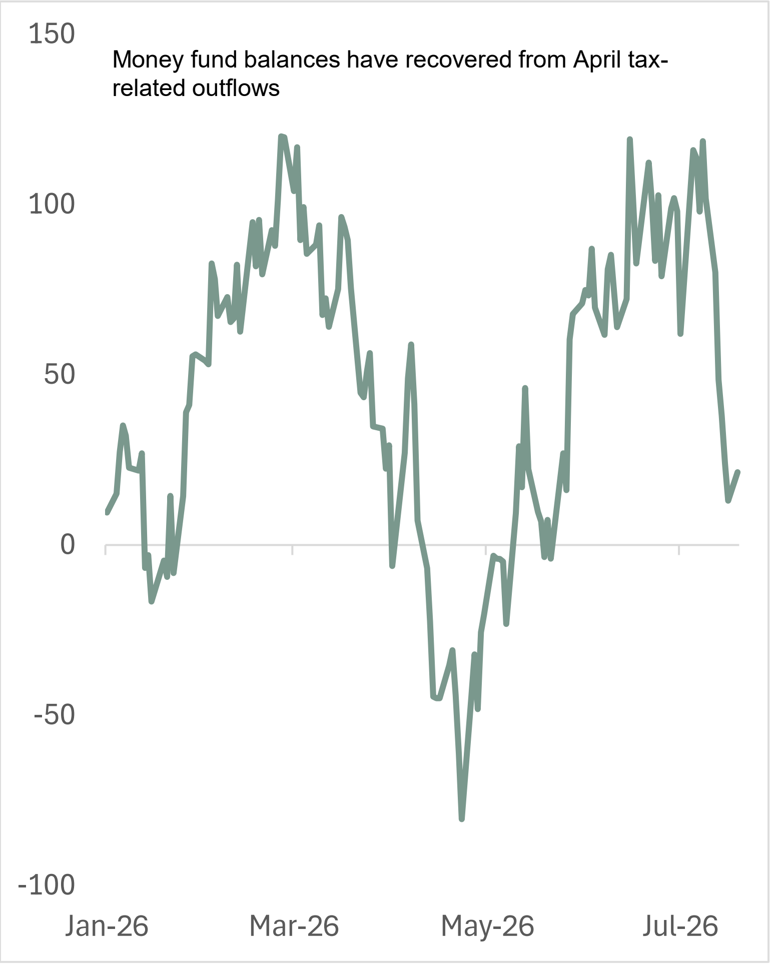
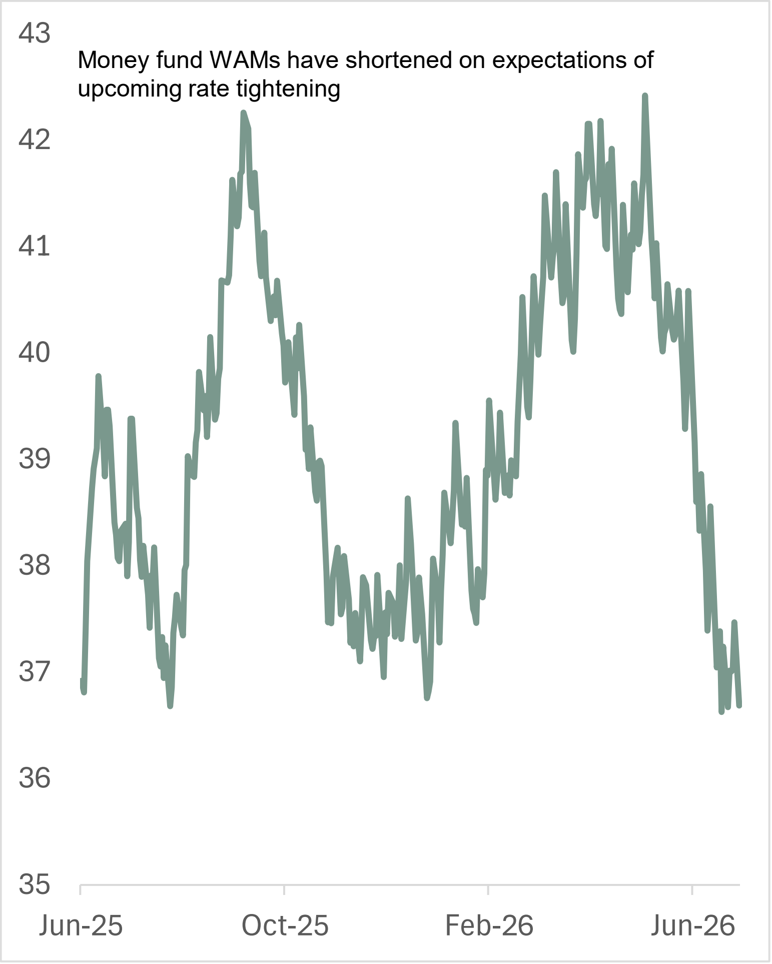
Money fund balances

Gov-only fund balances ($bn)



Note: Institutional balances. Cumulative change since December 30, 2025. Sources: Crane's Data, SMBC Nikko

WAMs (d)

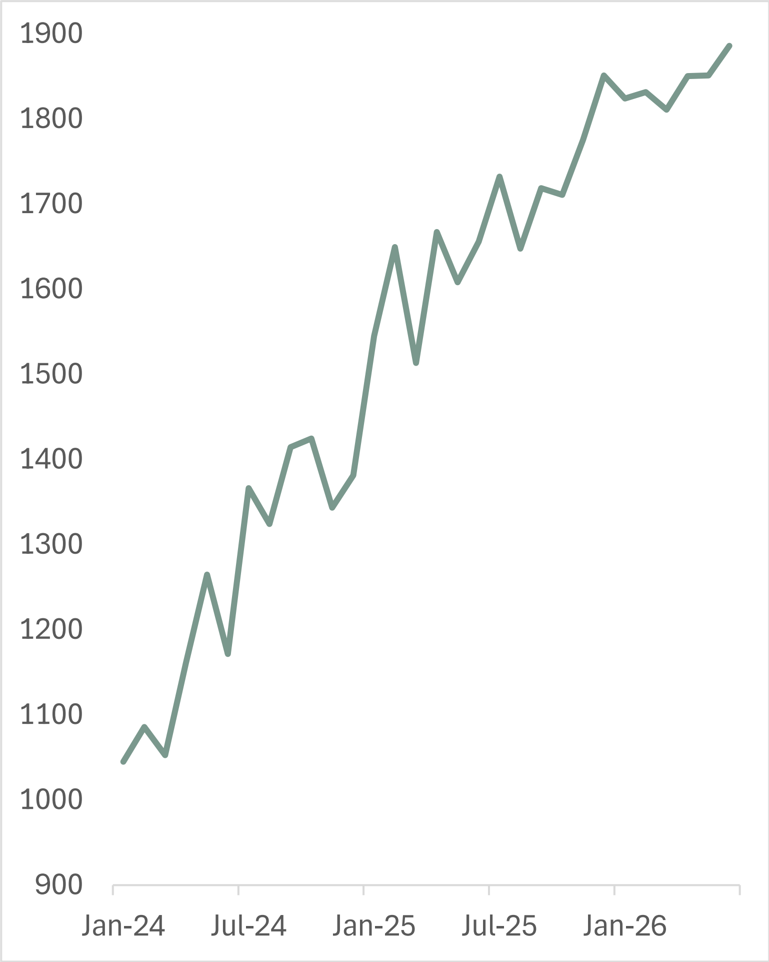


Note: Institutional balances. Sources: Crane's Data, SMBC Nikko

Money fund Treasury repo holdings

- Money fund repo holdings have nearly doubled since January 2024
  - Their repo holdings account for nearly a quarter of their assets
- Over the same period their Treasury holdings have increased 38%

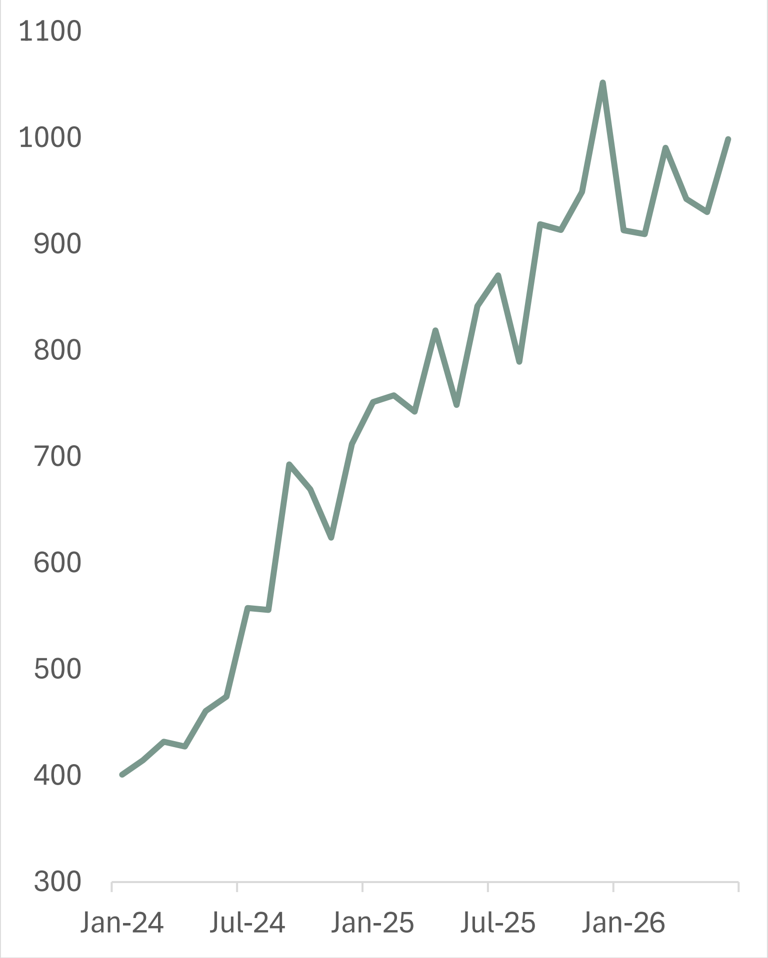
Money fund Treasury repo holdings ($bn)



Note: Excluding RRP holdings. Sources: Crane's Data, SMBC Nikko

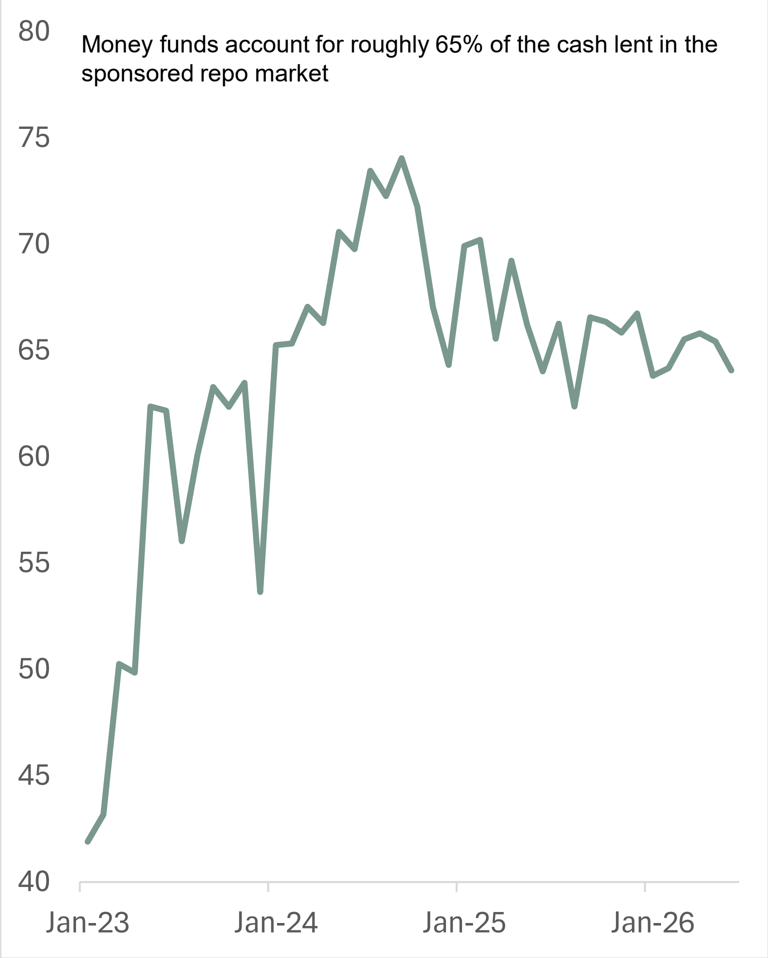
Money funds sponsored repo activity

Money funds sponsored repo ($bn)



Sources: Crane's Data, SMBC Nikko

As a share of cash lent (%)

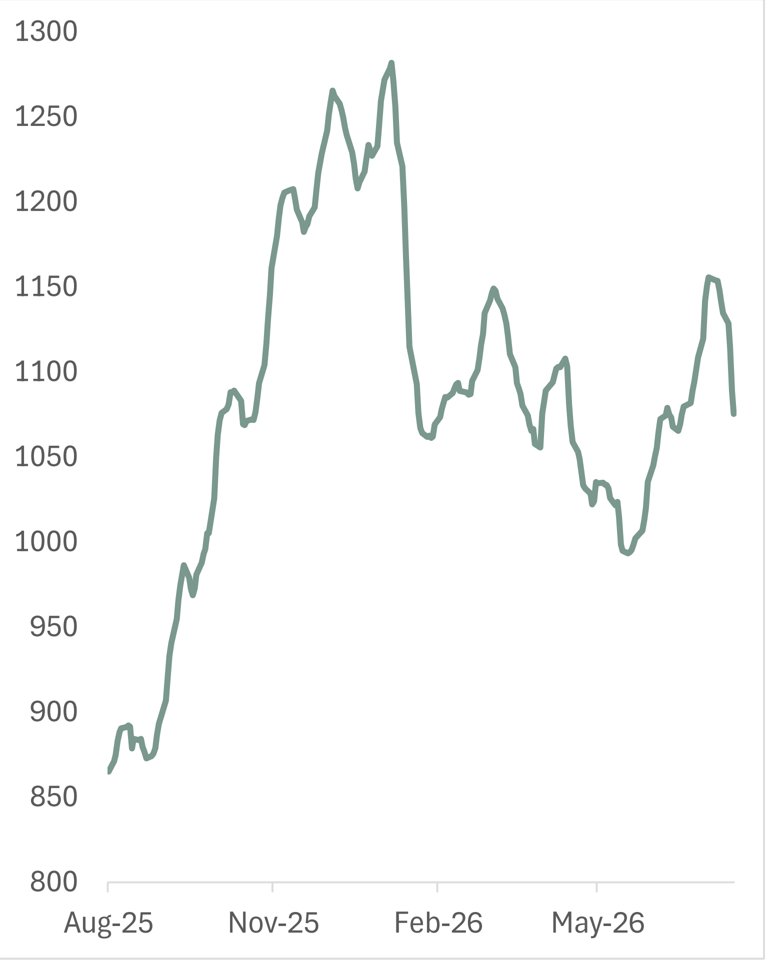


Sources: DTCC, Crane's Data, SMBC Nikko

Has the demand for funding declined?

- Sponsored repo volumes have fallen since last year
    - And during the Iran-conflict
- Activity reflects market positioning and the demand for leverage
    - Which until mid-July appeared to be recovering

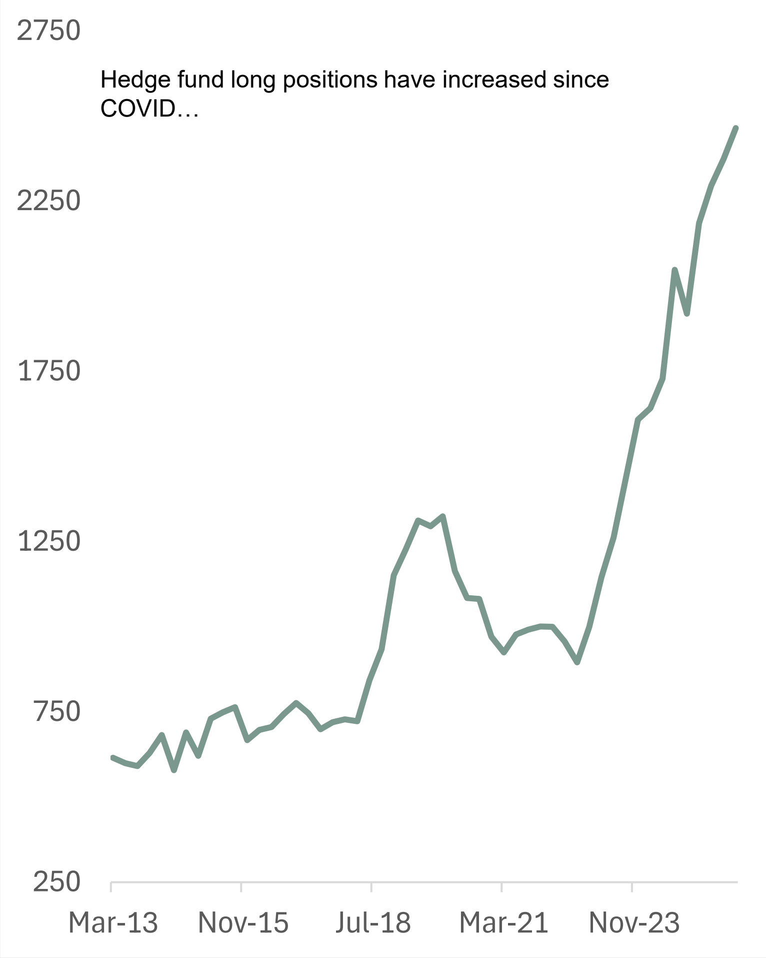
Sponsored repo ($bn)



Note: 10d average. Sources: DTCC, SMBC Nikko

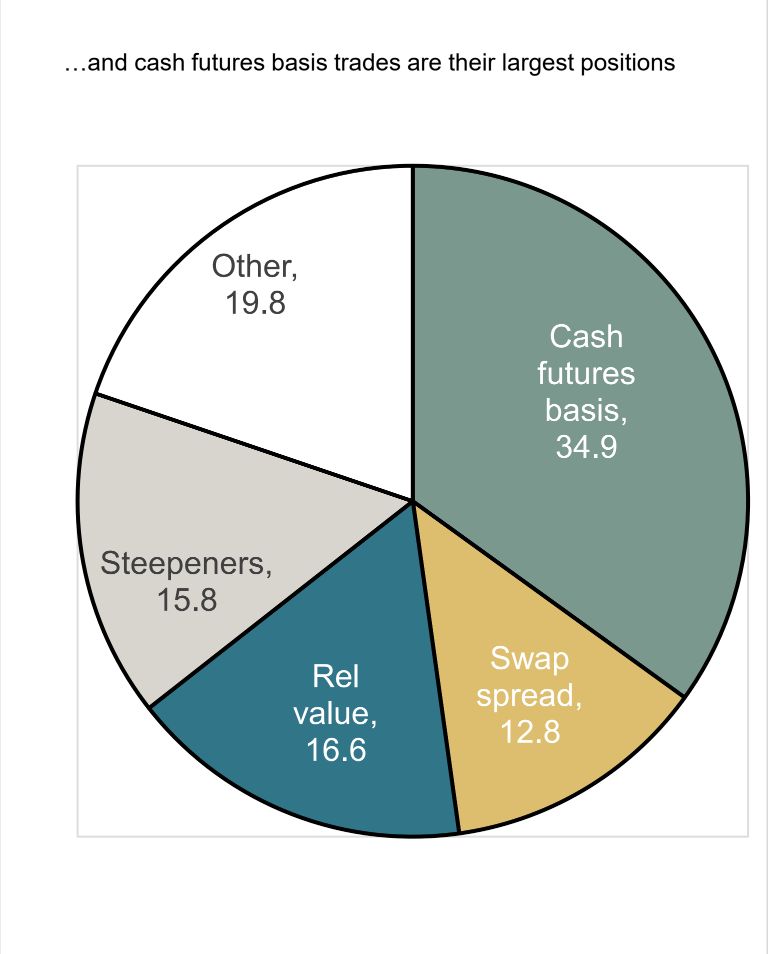
Hedge fund long Treasury positions

Long Treasury positions ($bn)



Sources: SEC, SMBC Nikko

Trade composition (% longs)[1/]



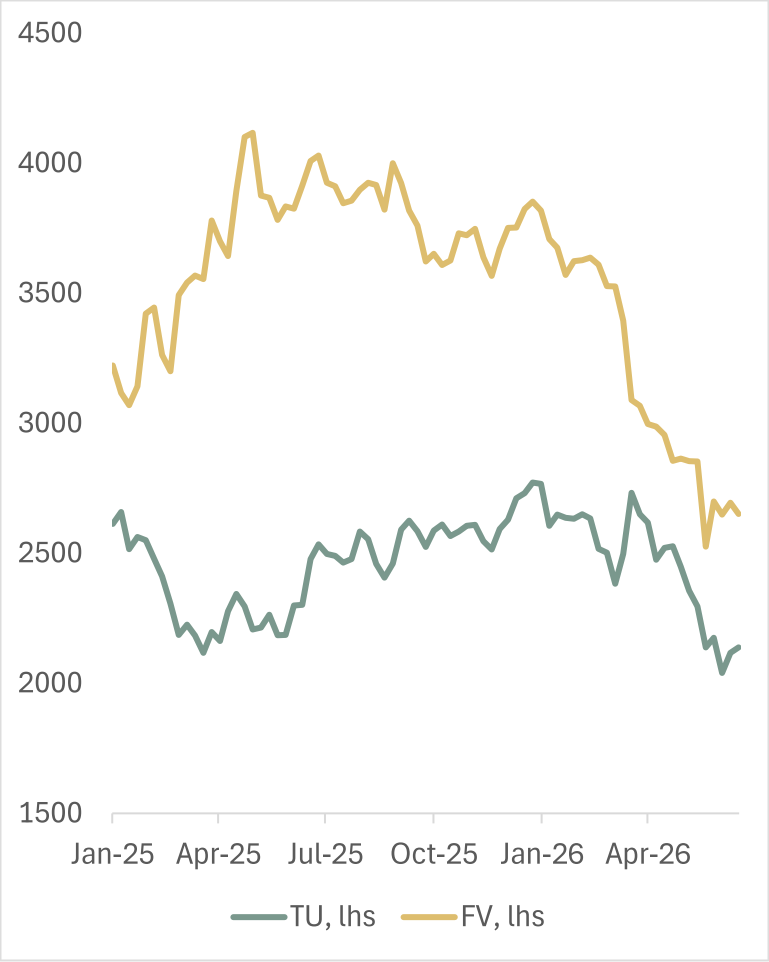
Note: As of September 2025. Sources: Monin, SMBC Nikko

1/ See “Decomposing Hedge Funds’ US Treasury Exposures”, P. Monin, Federal Reserve Board, June 22, 2026

Declining interest

- Hedge funds' short futures contracts have fallen since the start of the Iran-conflict

Hedge fund short futures (contracts)



Sources: Bloomberg, SMBC Nikko

Clearing and margin costs

- *Will mandated clearing and margin costs push the cash futures basis wider?*

- **Clearing expenses – particularly margin costs – are part of the intermediation cost dealers pass along to their basis trading clients**

  - While these could widen the basis, our sense is that they are more likely to *add variability* into the cost of executing a basis trade
    - As they depend on the clearing access model and the availability of cross-product margining (between CME and FICC)
    - Along with how these expenses are passed along to clients[1/]

1/ See, “Treasury Market Practices Group Releases Best Practice Recommendations for US Treasury Repo Risk Management”, Federal Reserve Bank of New York, May 22, 2025

Spread widening

- Other factors could push the cash futures basis wider

- Shifting Treasury issuance
  - The Treasury has ramped up bill supply while keeping coupon auction sizes steady
  - But we expect it will need to increase short-maturity coupons beginning next year
    - As its debt service costs remain high
    - And the capacity for the bill market to absorb more supply slows with a slowdown in the growth in money fund balances

- Fed balance sheet changes
  - Will the Fed shrink its balance sheet and over what amount of time?
    - And how disruptive could this be for funding rates?
  - In addition, the Fed’s balance has a longer WAM than the maturity of the outstanding Treasury debt
    - We expect the Fed will increase its bill holdings – potentially absorbing more of the outstanding bill stock

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Synthetic stablecoins

- Synthetic stablecoins maintain par through arbitrage rather than a portfolio of liquid assets
  - These tokens are used in DeFi (de-centralized finance) “repo-like” transactions to create leverage

- Synthetic stablecoins are created from a long position in a crypto asset and against a short in a perpetual futures contract
  - The returns to this transaction are the sum of the staking yield and the funding rate

“Repo-like” transactions

- DeFi allows borrowers and lenders to trade on a collateralized basis just like traditional repo but without a financial intermediary
  - Participants pledge their volatile crypto in return for stablecoins which they use to buy more crypto
    - Lending and borrowing use self-executing smart contracts
  - If the position becomes undercollateralized, other smart contracts automatically close it out and auction off the pledged collateral
    - The lender can still lose money – if, for example, the value of the collateral falls so much that no buyers can be found to buy it at the auction unwind

- Structural differences with traditional repo
  - Unlike traditional repo, the collateral is pooled across investors; each has a claim on the assets in the pool
  - The protocol typically has pre-determined borrowing rates and loan-to-value (LTV) thresholds that are tied to the proportion of the pool that has already been lent out
  - The maturity of the borrowing agreement is theoretically unlimited
    - Although borrowers can prepay their loan at any time

DeFi leverage

- Heimbach et al examined borrowing and deposit activity across individual wallets on two large lending platforms[1/]
  - For each of the 57,000 wallets they calculate its asset-to-equity ratio
    - Where the assets include any crypto that has been deposited – including any crypto that has not been pledged
      - Equity is the difference between assets and the debt (collateralized with crypto but held as stablecoins in the wallet)

- *They find that the average asset-to-equity ratio was 1.6.*
  - *And this is significantly lower than the average permissible leverage (an LTV of 4.0)*
  - *In other words, crypto traders use considerably less than their available leverage in these trades*

1/ See “DeFi Leverage”, L. Heimbach and W. Huang, Bank for International Settlements, March 2024

Why are investors underleveraged?

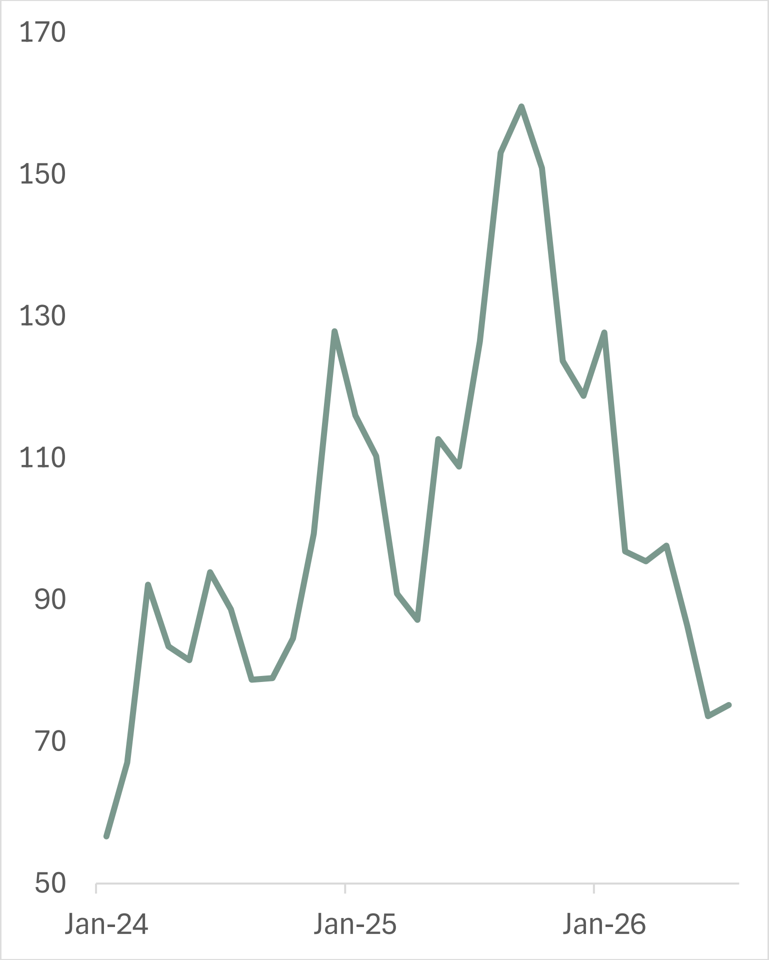
- Underleverage reflects:
  - Potential investor losses
    - Investors losses may be significant if their positions are closed out automatically and it is difficult to find a collateral buyer in the auction
      - As a result, investors may only borrow what they feel they can reasonably lose

  - In addition, the deposit protocols pay a yield so investors do not need to be leveraged to earn a return
    - And, as crypto prices rally, borrowers generally deposit more crypto on these platforms without increasing their other borrowings
      - So, their asset-to-equity ratios fall

DeFi activity has cooled

- DeFi activity as measured by the total value locked on chains has fallen since last year

TVL ($bn)



Sources: DeFillama, SMBC Nikko

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