Monthly Interest Rates Chartbook
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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	3.9 (F)	0.6	1.0	2.1	3.1	2.7
Real GDP YoY	2.2 (F)	1.9	2.0	1.7	1.9	2.2
Core PCE YoY	2.9	2.8	2.5	2.2	2.2	2.2
Unemployment	4.4	4.7	4.7	4.5	4.3	4.2
FDTR Lower Bound	4.00	3.50	3.00	3.00	3.00	3.00
FDTR Upper Bound	4.25	3.75	3.25	3.25	3.25	3.25
FDTR Midpoint	4.13	3.63	3.13	3.13	3.13	3.13
2 Year	3.61	3.25	3.25	3.00	3.00	3.00
10 Year	4.15	4.00	4.25	4.25	4.25	4.25

Source: BEA, BLS, Federal Reserve and SMBC Nikko

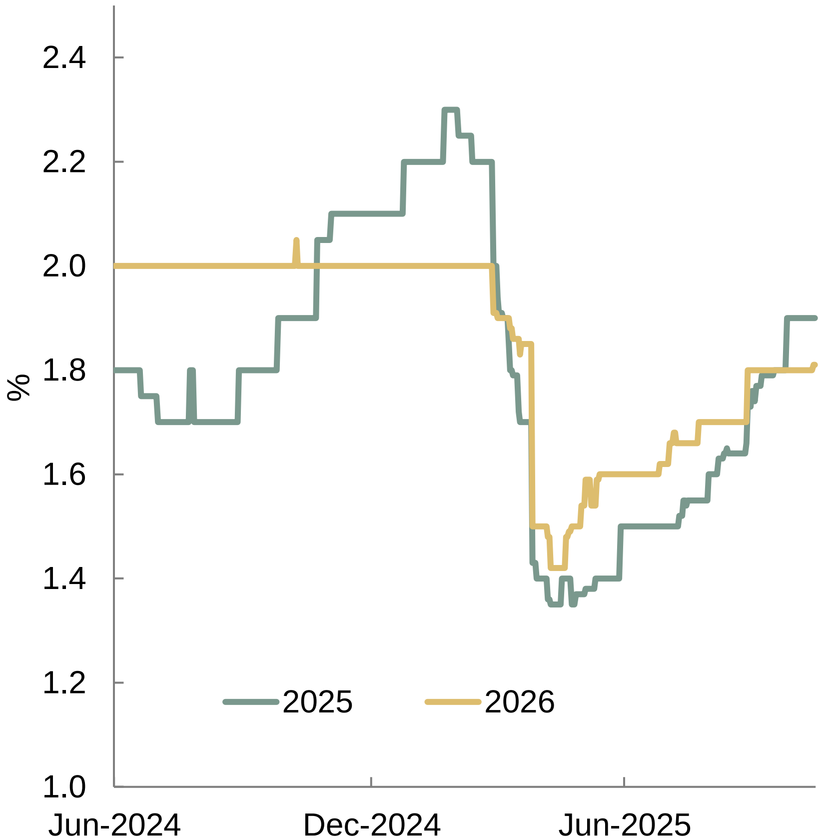
Summary of views

- Growth: After a pause this winter, we expect growth to accelerate with the unemployment rate declining swiftly
- Inflation: We look for inflation to decelerate as rent costs follow home prices lower. Tariff effects on goods prices appear to be muted.
- Fed: We expect the Fed to cut interest rates in December and twice in early 2026. We look for the Fed to begin offsetting the growth in its non-reserve liabilities in January or February.
- The IEEPA tariffs face legal uncertainty although the Administration has other trade rules to use to impose tariffs.

Growth outlook rebounds as policy uncertainty priced out?

- Growth expectations were revised down after Liberation Day and since then have been inching higher

Consensus GDP estimates (%)



Sources: Bloomberg, SMBC

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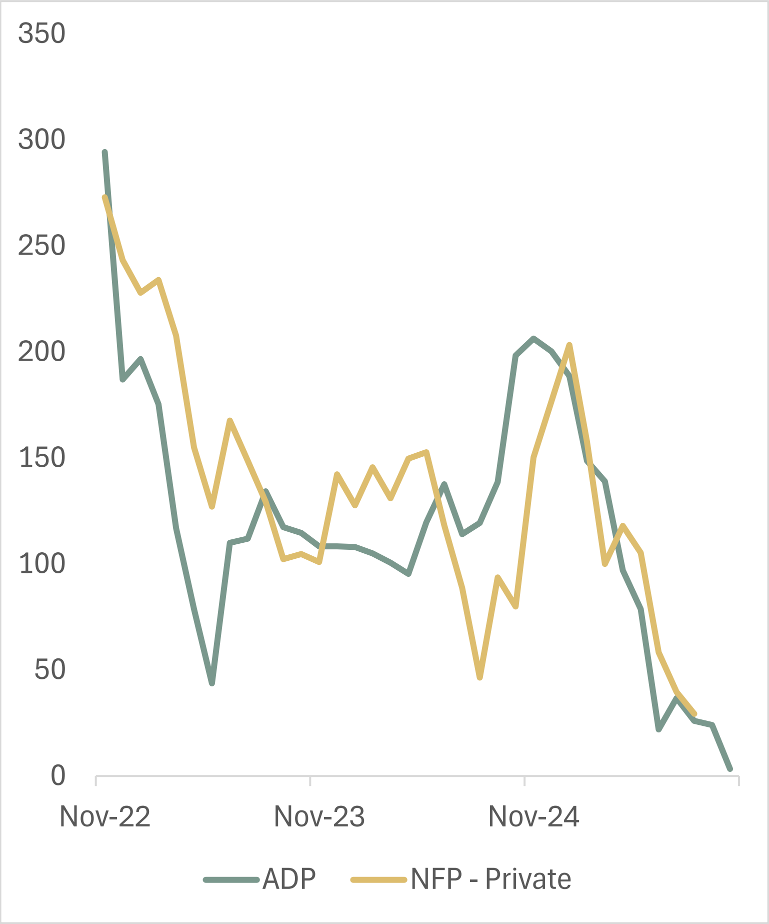
Hiring is slowing…

ADP and nonfarm payrolls (chng, 000)



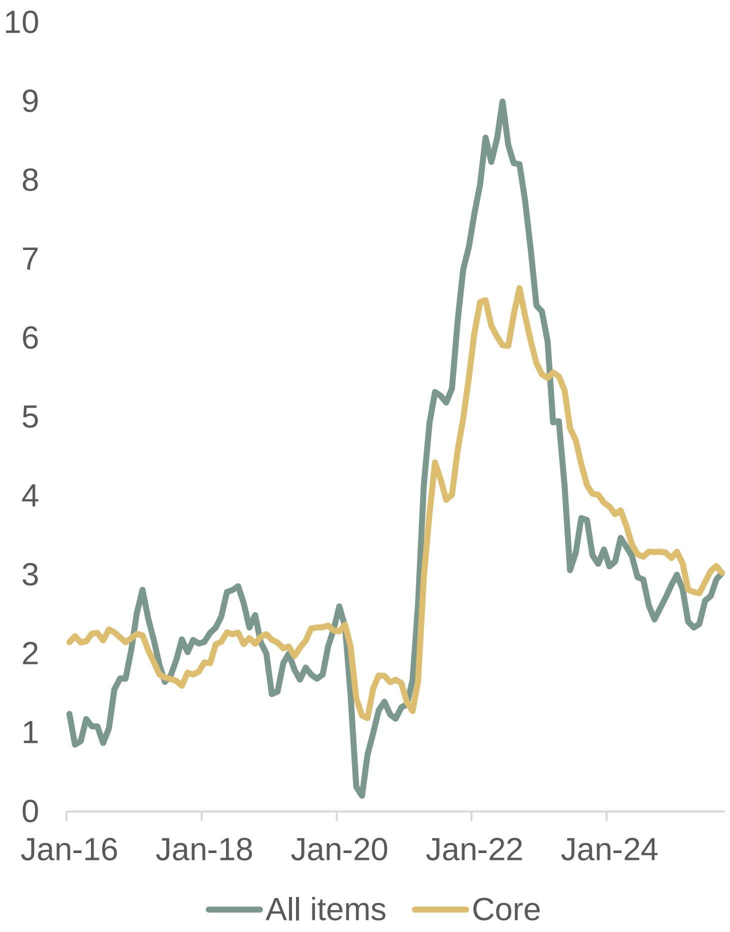
Note: 3m moving average change. Sources: ADP, BLS, SMBC Nikko

- Private sector measures indicate that hiring has continued to slow

…and inflation remains sticky

- Inflation has fallen but the deceleration has flattened in recent months
    - We look for cooling shelter costs to pull core inflation lower

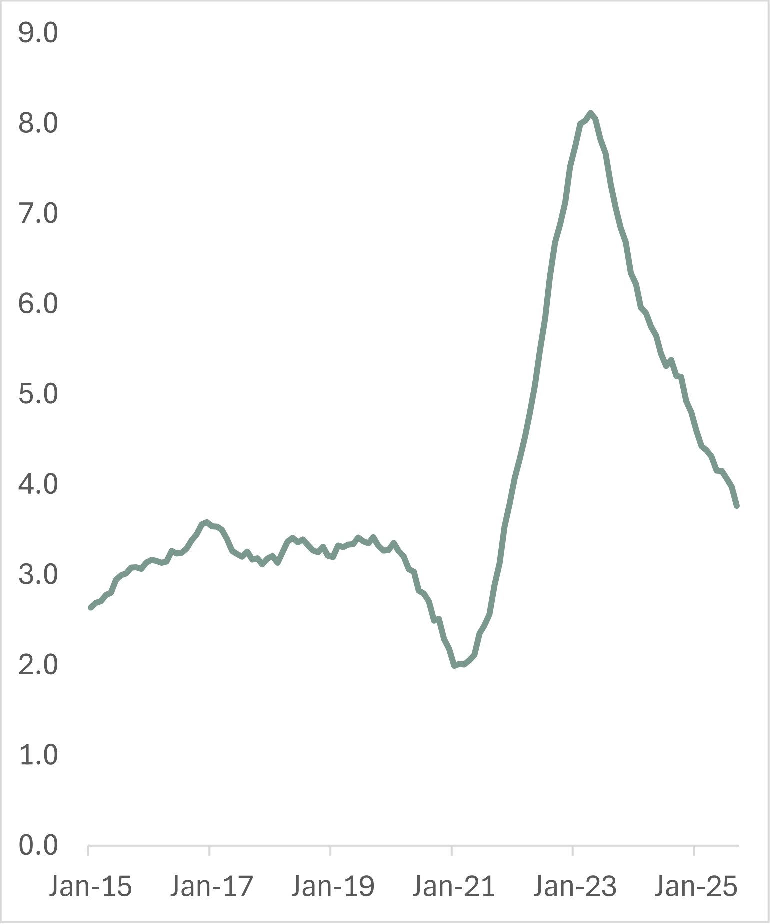
Inflation (%y/y)



Source: BLS, SMBC Nikko

Cooling shelter costs…

Owners equivalent rent (%y/y)



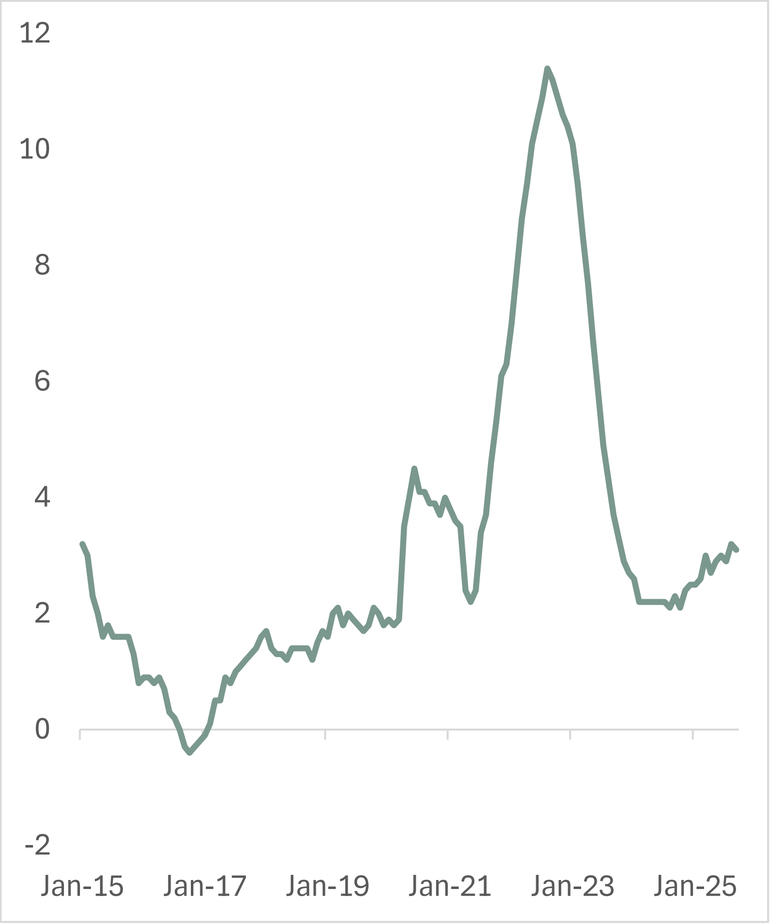
- We expect the decline in home prices will pull shelter costs lower

Sources: BLS, SMBC Nikko

…but higher food prices?

- We look for food prices to increase – 4% next year
  - As farmer's input costs, like feed and fertilizer rise

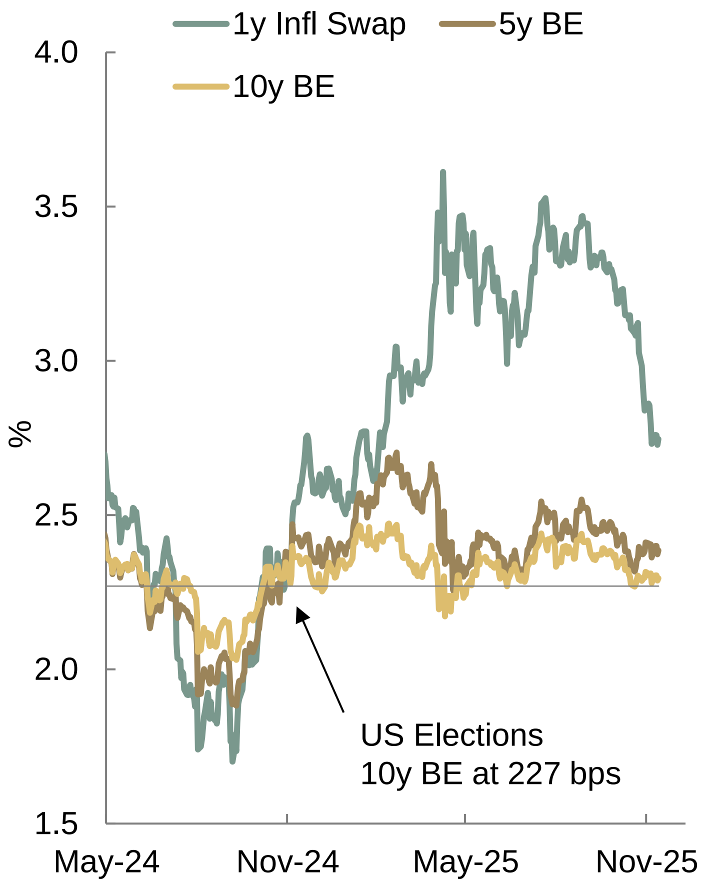
Food prices (%y/y)



Source: BLS, SMBC Nikko

Muted term inflation expectations

Inflation breakevens (%)



- 1y inflation swaps have fallen from post Liberation Day high of 3.5% to 2.75% with the challenge to tariffs and lower oil prices
- 10y TIPS breakevens are a few bps higher than their election day levels (229 bps as of November 13, 2025)

Sources: US Treasury, Bloomberg, SMBC

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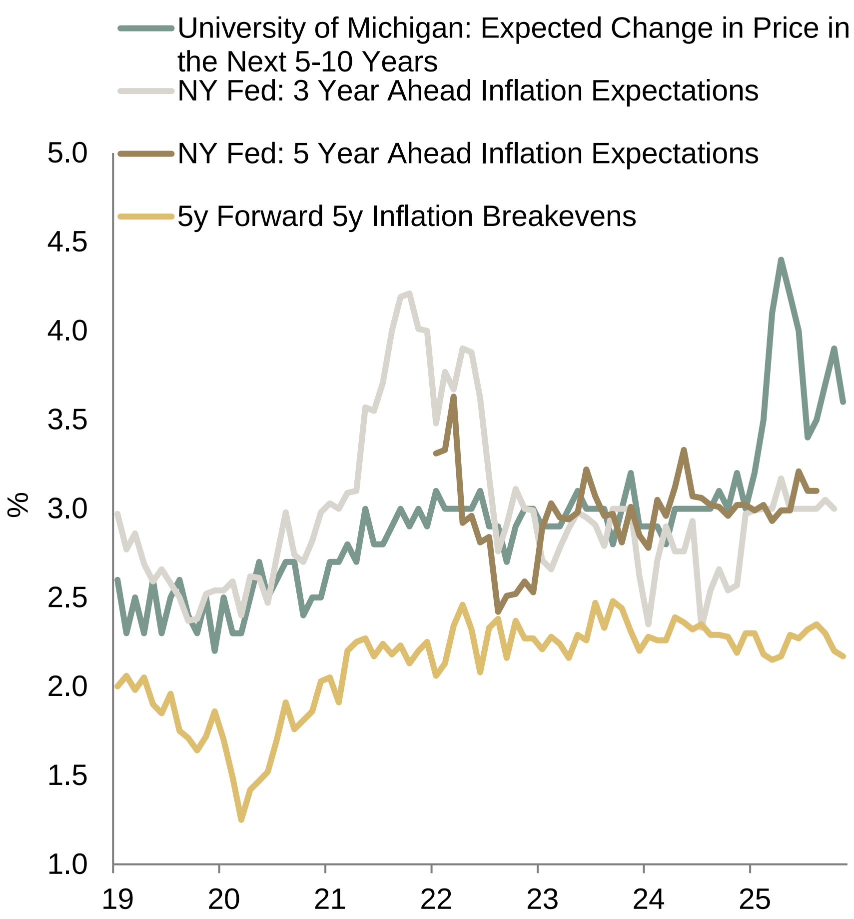
Long-term inflation expectations: Mixed signals

- Uncertainty about the persistence of inflation pressures remains.
- The jump in University of Michigan long-term inflation expectations has not been reflected in other surveys
    - Which appear to be holding steady

Long-term inflation expectations (%)



Sources: Federal Reserve, NY Fed, University of Michigan, Bloomberg, SMBC

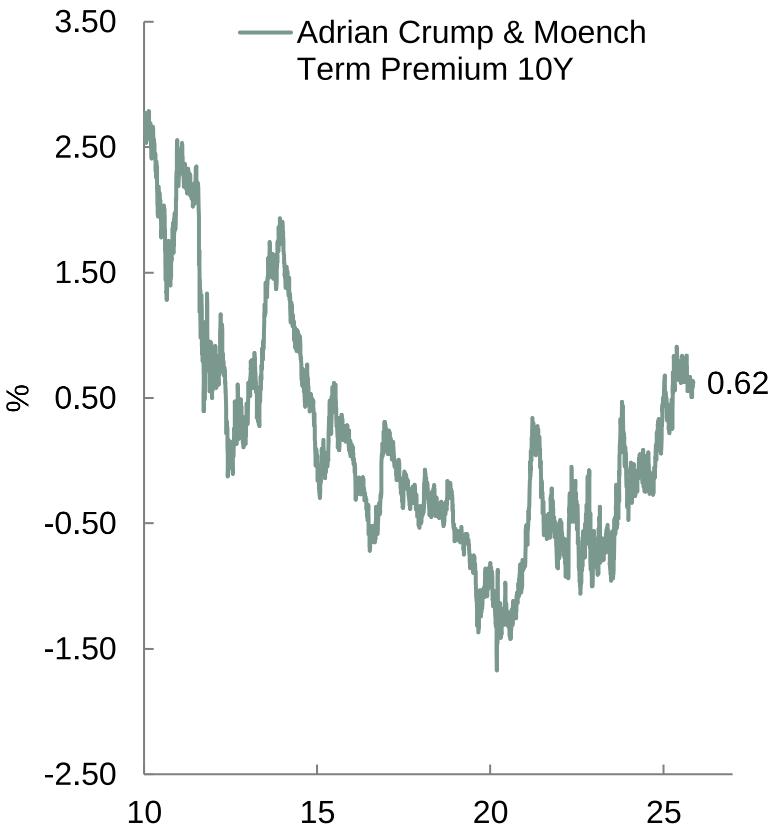
10-Year Valuation – Fed policy expectations + term premium

Terminal rate pricing (SOFR futures)

Resilient growth and inflation concerns have led to the rejection of a neutral rate pricing below 3%

Sources: Bloomberg, SMBC Nikko

Term premium

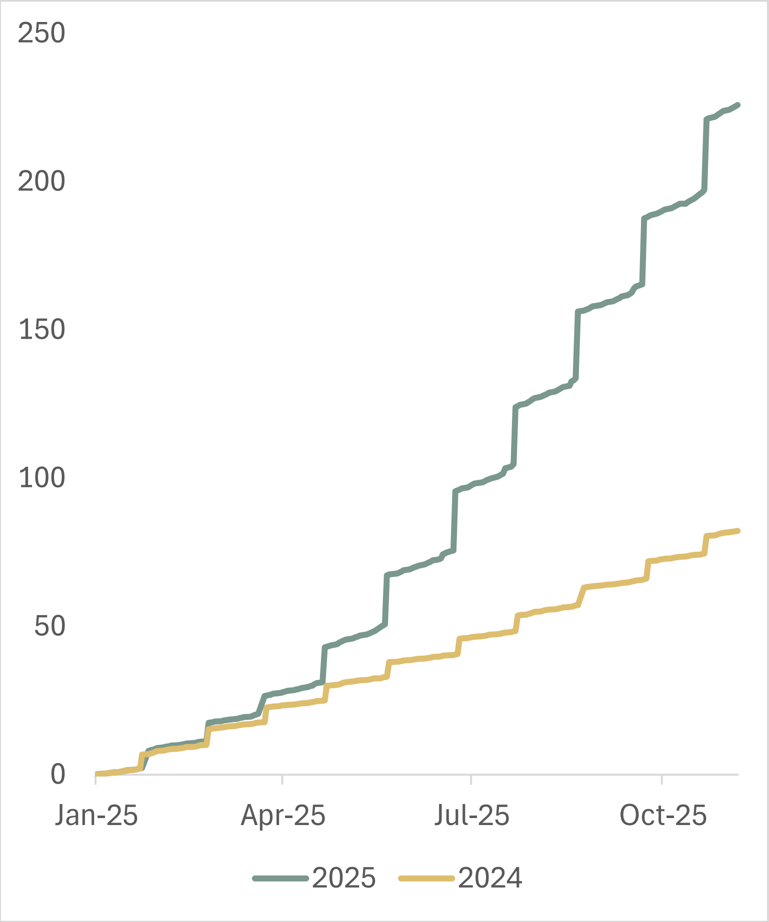


Sources: Federal Reserve, SMBC Nikko

Tariff revenues

- Higher tariffs have increased Treasury revenue
  - And are running at an annual rate of about $300bn
- The CBO estimates that tariffs might raise $3.3trn in revenue through 2035[1/]
  - Or approximately 0.2-0.8% of GDP in new revenue
- But higher prices will shift more production onshore
  - And over time, revenues may decline

Tariffs revenues ($bn)

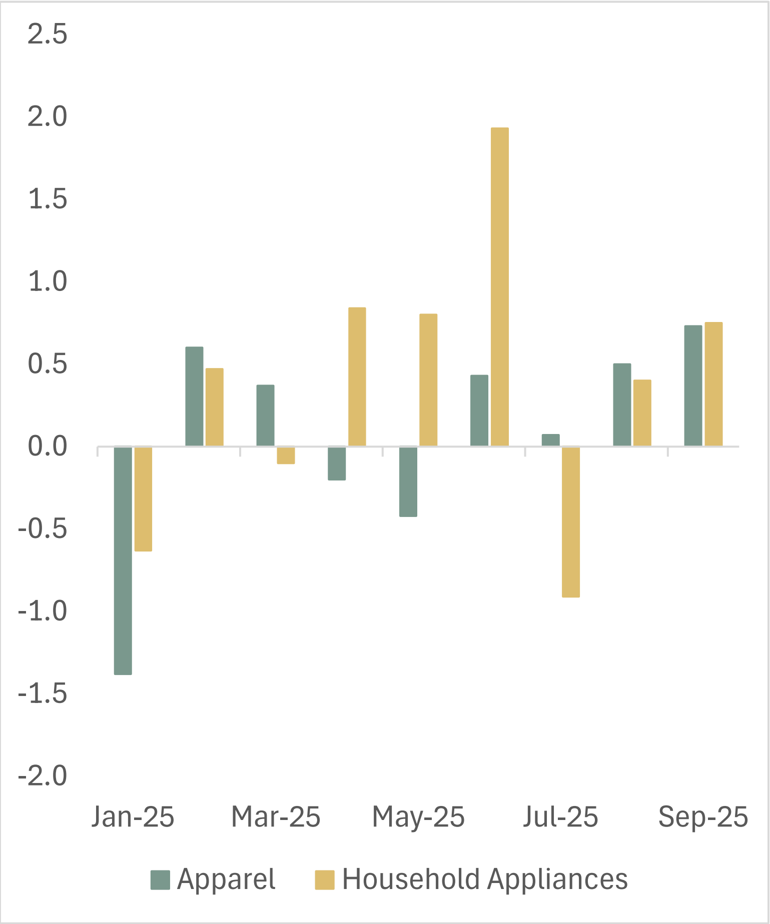


Note: Cumulative change since January 1. Source: US Treasury, SMBC Nikko

1/ Assuming current tariffs (including IEEPA) remain in effect over the period.

Tariff price effects?

Apparel and appliances (% m/m)



- Since tariffs were raised in April, the effects on broader goods prices have been hard to discern
    - Apparel and household appliance prices appear to have increased

Note: Domestic banks. Sources: Federal Reserve, SMBC Nikko

Tariff uncertainty

- The IEEPA tariffs face legal challenges
  - And it is unclear if the Supreme Court will limit the Administration's ability to impose these emergency tariffs
  - Moreover, if it rules against the Administration will the revenues collected be returned
    - And, how?

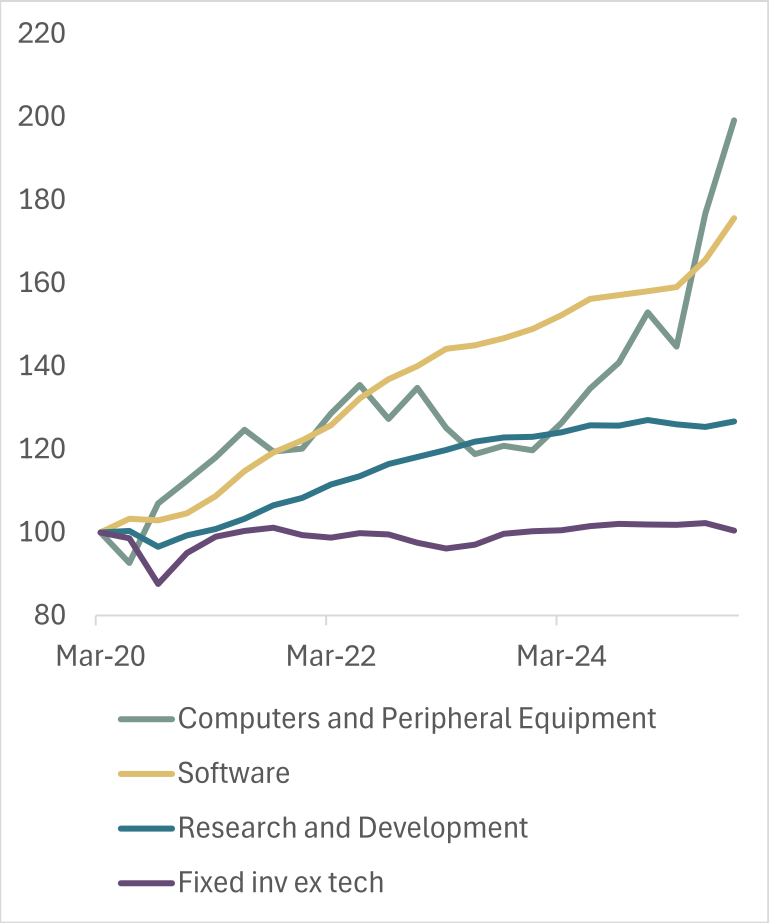
- The Administration has other channels for imposing tariffs:

  - **Sec 301**: Allows the US Trade Representative to impose tariffs or trade restrictions against trade practices deemed "unjustifiable"
    - But requires an investigation of these practices
  - **Sec 232**: Allows the President to tariffs if foreign trade practices are found to be a threat to national security.
    - Has been applied to metals, vehicles and parts[1/]
  - **Sec 122**: Allows the President to impose temporary tariffs and import restrictions without an investigation of trade practices.
    - Tariffs are limited to 15% and can only be set for a maximum of 150d
  - **Sec 338**: Allows the President to declare that a foreign country imposes "unreasonable charges…regulations or restrictions" on US trade
    - Enabling the President to impose tariffs of up to 50% on that country's imports
    - Has rarely been used and faces Congressional challenge

1/ In June 2025, Sec 232 authority increased tariffs on imported steel and aluminum from 25% to 50%.

Two economies: AI and everything else

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 and hiring: Too early

- Primary AI uses include:
  - Searching for information
  - Advertising/marketing
  - Business and predictive analysis
  - Data management

- *But is AI complementary for existing jobs or a substitute?*

- Results are so far mixed:

  - Layoffs related to AI are still uncommon[1/]
    - 13% of service firms anticipated AI related layoffs in the next 6m
    - But, a similar share reported they expected to increase hiring due to AI over the period
    - And significantly more expect to retrain their existing workers to use AI
  - Returns to re-training unemployed workers to use AI are high[2/]
    - But somewhat lower for workers who target jobs with high AI use
  - Other studies report no clear pattern in unemployment across occupations with higher AI exposure[3/]

1/ See, “Are Businesses Scaling Back Hiring due to AI?”, J. Abel, R. Deitz, N. Emanuel, B. Hyman, and N. Montalbano, Liberty Street Economics, Federal Reserve Bank of New York, September 4, 2025.
2/ See, “How Retrainable are AI-Exposed Workers?”, B. Hyman, B. Lahey, K. Ni, and L. Pilossoph, Federal Reserve Bank of New York, August 2025.
3/ See “Evaluating the Impact of AI on the Labor Market: Current State of Affairs”, M. Gimbel, M. Kinder, J. Kendall, and M. Lee, Yale Budget Lab, October 1, 2025

Interest Rates Strategy

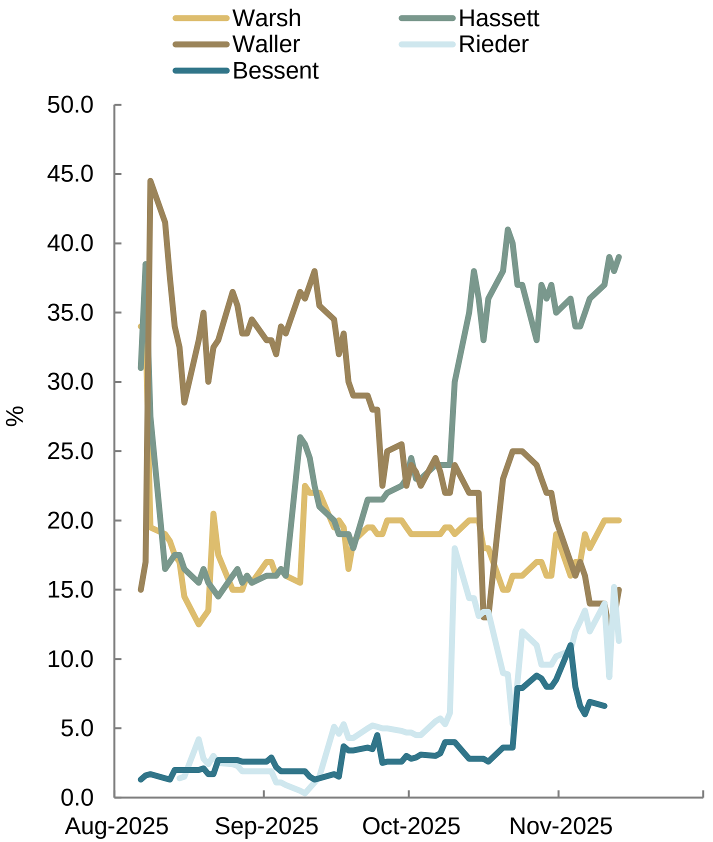
Interest rates summary

- Bank reserves reached ample more quickly-than-expected; the fed funds-IORB spread has narrowed and repo rates are regularly trading above the top of the fed funds target band.
- The Fed has several ways to address repo pressure. It can lower IORB. It can temporarily add liquidity systemwide through open market and term SRF operations. And it can purchase bills in the secondary market.
    - We think the Fed may consider term SRF operations
    - And may need to purchase bills to increase reserves
- The Fed plans to end QT on December 1. Thereafter it will stabilize its securities portfolio by reinvesting its maturing MBS holdings into bills.
- We look for bill supply to contract by $80-100bn through year-end. The Treasury may be able to keep coupon auction sizes unchanged next year.
- The Treasury's debt service costs have risen with the Fed's tightening and the expansion in public debt to 95% of GDP.
- But the Treasury's current issuance mix (generally) efficiently balances its goal of minimizing debt service costs and their volatility under a variety of economic scenarios.

A new Fed chair

- Hassett – Very dovish with scope for r* below 3% (even as he has not indicated that)
- Warsh – Hawkish leaning and does not like a large balance sheet
- Rieder – Favors cutting policy rates fast to 3% and flexible on balance sheet
- Waller – Had been hawkish during hiking cycle but dovish since mid-2024.
- Bessent – Dovish leaning and wants to reduce Fed footprint

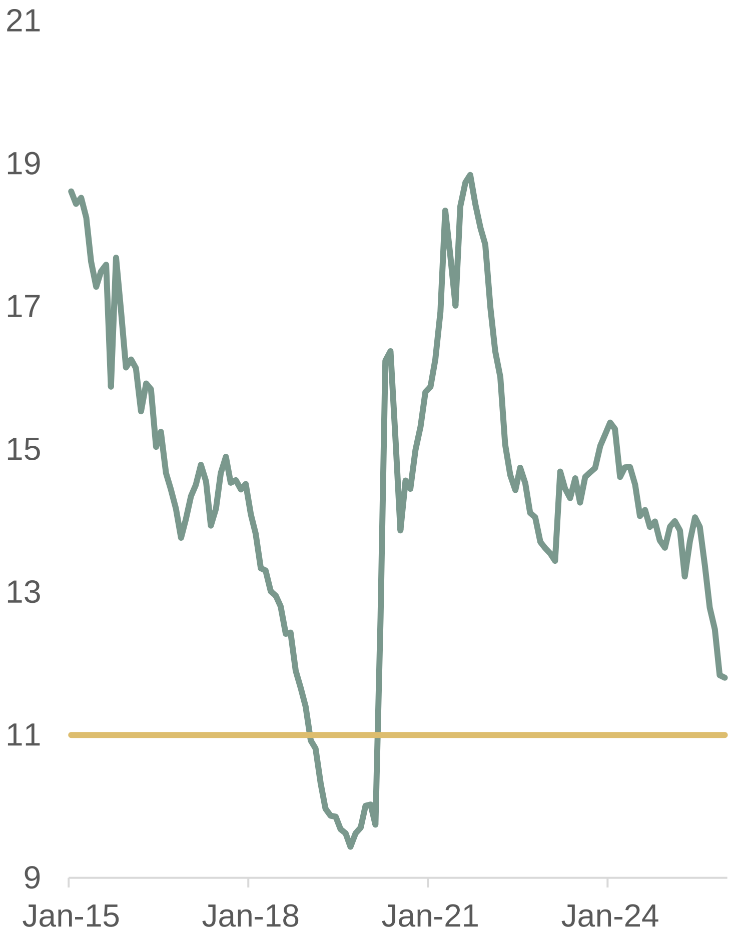
New Fed Chair Nomination (% prob)



Sources: Polymarket, SMBC Nikko

Bank reserves are not as ample…

Bank reserves (% bank assets)

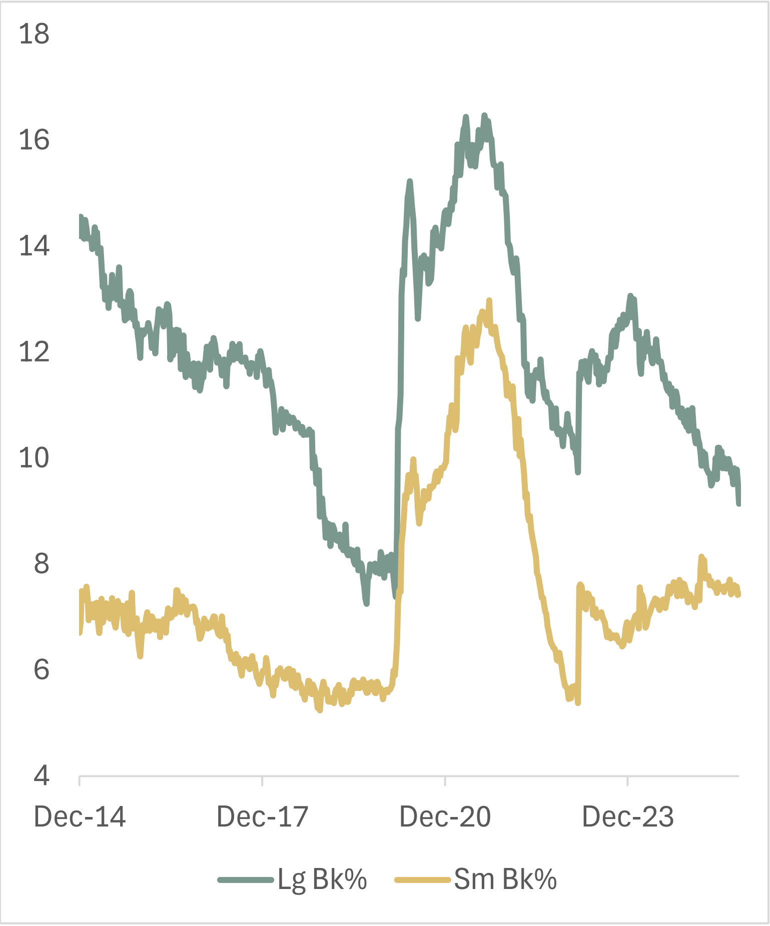


Sources: Federal Reserve, SMBC Nikko

- Bank reserves are above 11% of bank assets
  - And where the demand curve for balances at the Fed starts to steepen

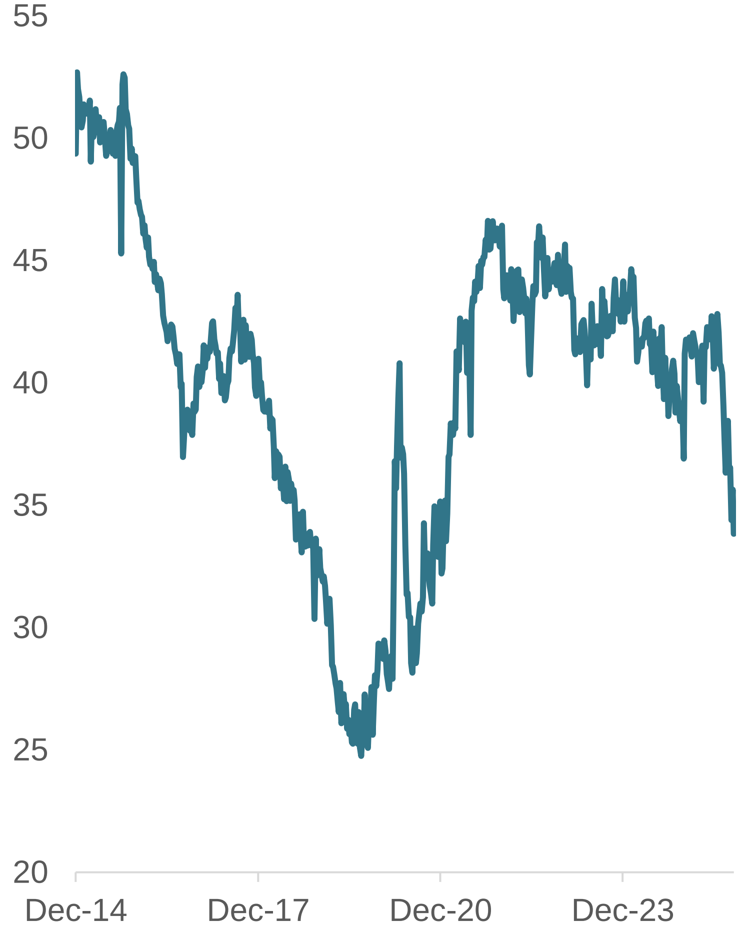
…and are falling across institutions

Reserves (% assets)



Note: Domestic banks. Sources: Federal Reserve, SMBC Nikko

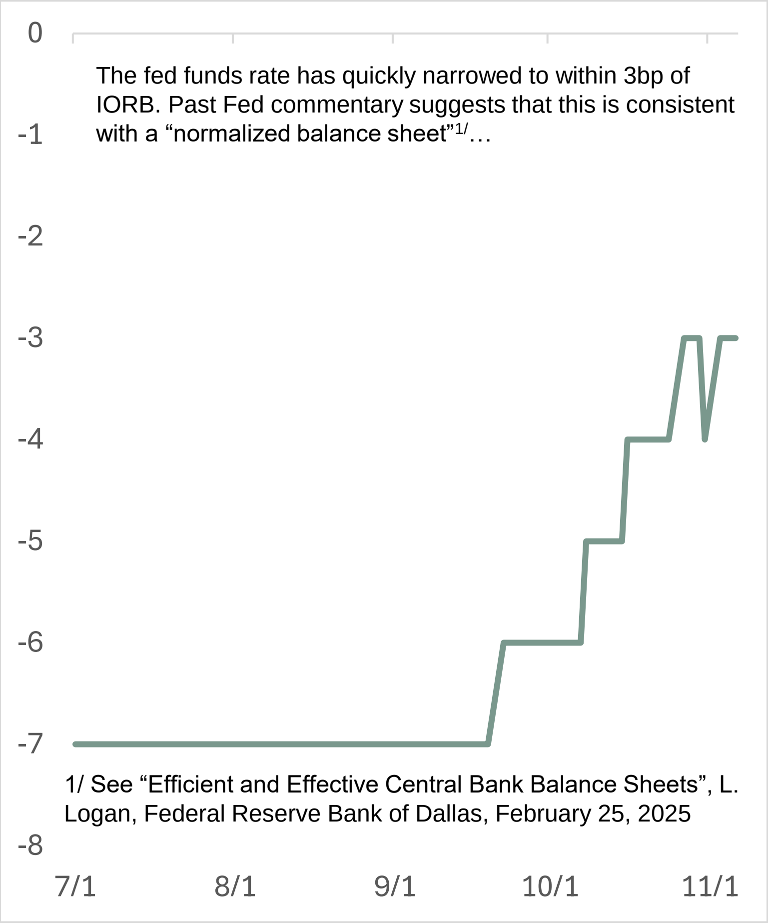
Foreign banks (% assets)



Sources: Federal Reserve, SMBC Nikko

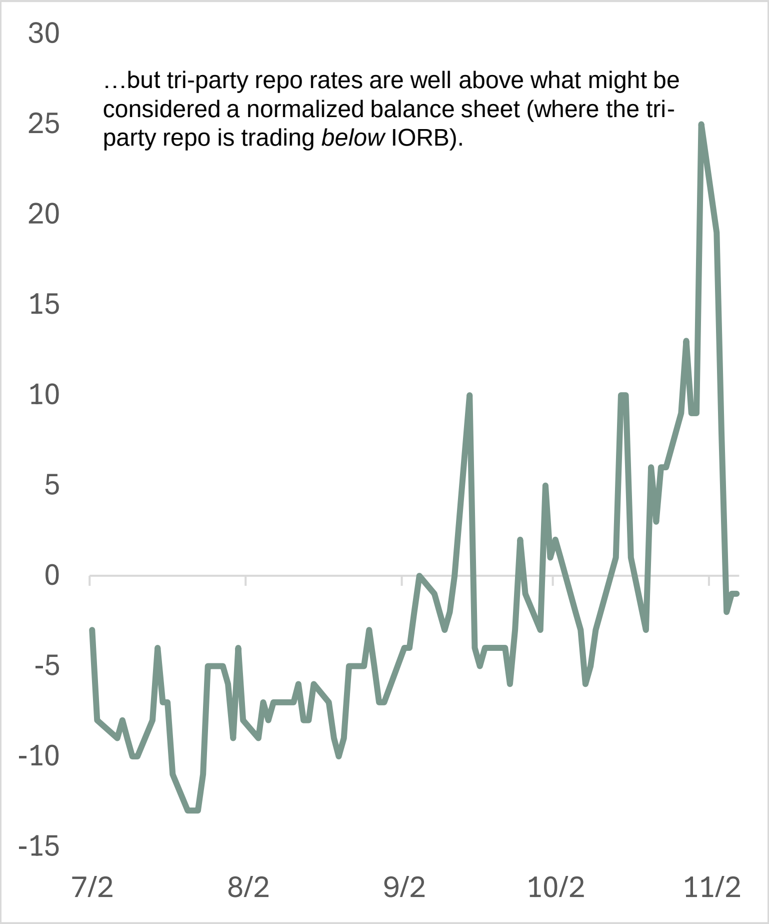
Overnight rates have tightened

FF-IORB (bp)



Source: Federal Reserve, SMBC Nikko

Tri-party repo–IORB (bp)

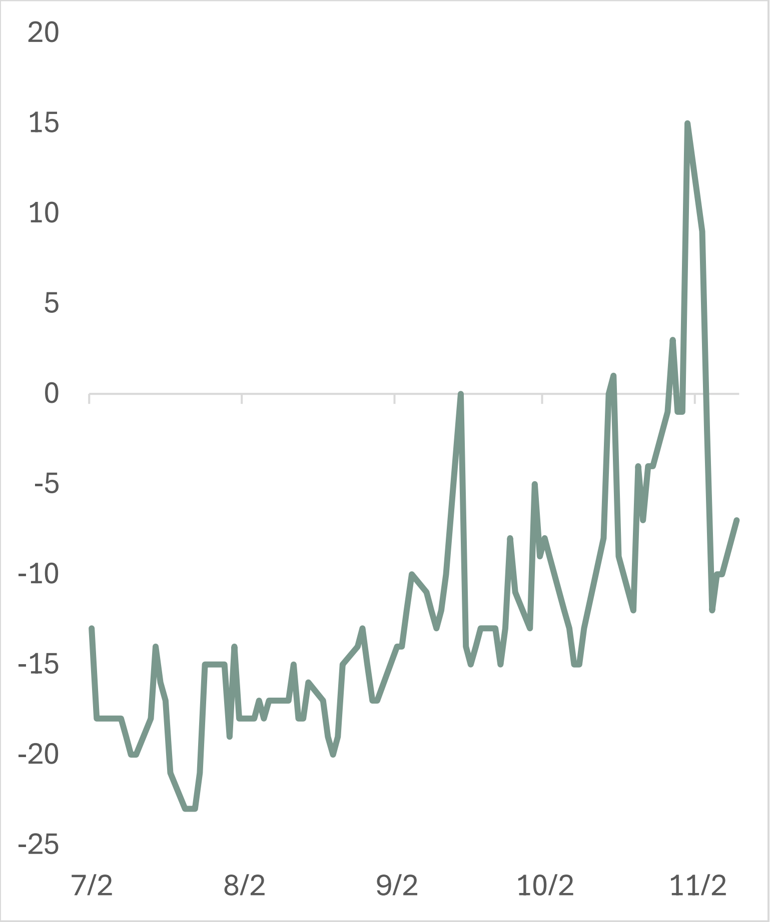


Source: Federal Reserve, SMBC Nikko

Tri-party rates are trading above the SRF rate

- Recently tri-party rates have traded above the SRF rate which is set at the top of the fed funds band
    - But it is not uncommon for repo to trade higher since it is more volatile the fed funds
    - And the band is defined in terms of the fed funds rate[1/]

Tri-party less SRF rate (bp)



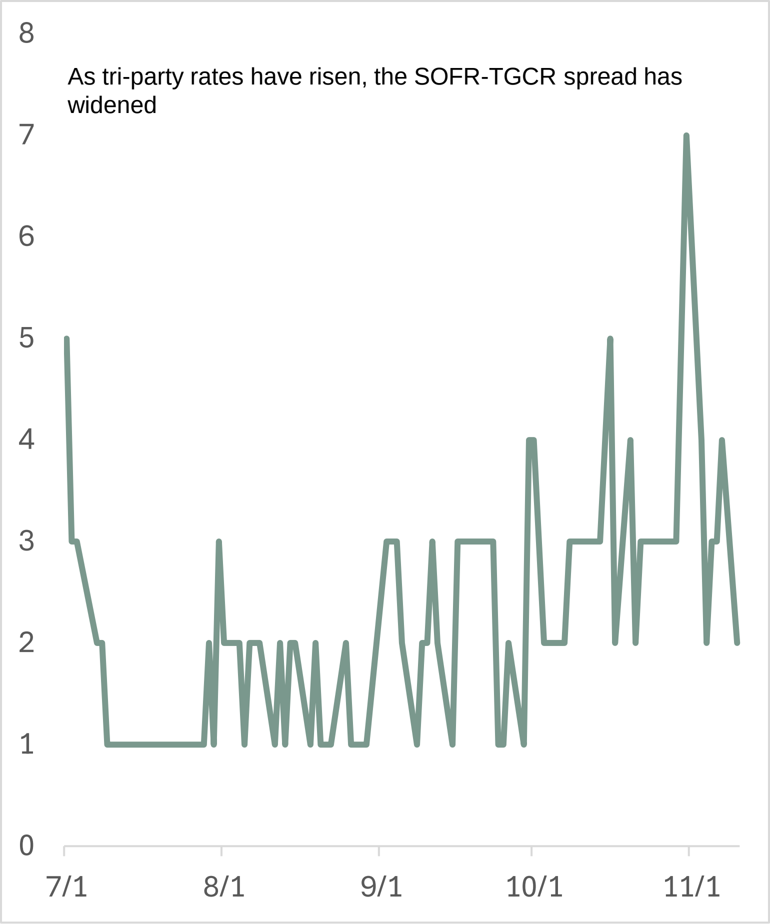
Note: We have plotted the top 25% of the tri-party volume rate.
Source: Federal Reserve Bank of New York, SMBC Nikko

1/ See “Money Market Conditions and the Federal Reserve’s Balance sheet”, R. Perli, SOMA Manager, Federal Reserve Bank of New York, November 12, 2025.

Why TGCR and not SOFR?

- Much of the focus on repo rates has been on TGCR rather than SOFR
    - Although SOFR has also risen
- TGCR more closely reflects financing costs
- SOFR includes tri-party rates as well as bilateral repo costs that reflect the demand for specific issues

SOFR-TGCR (bp)

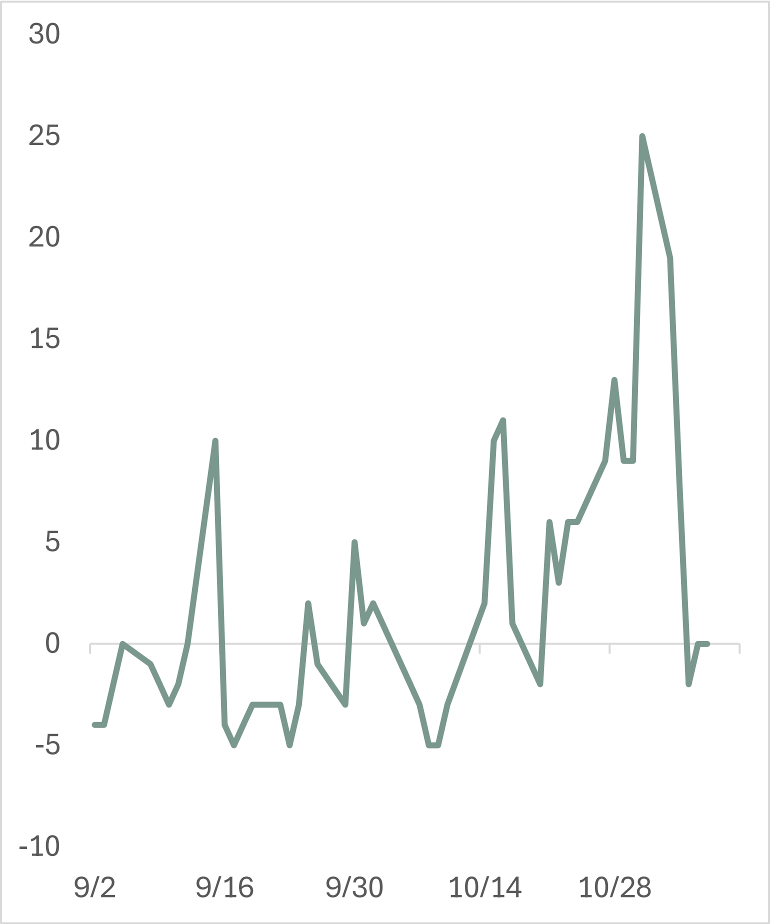


Source: Federal Reserve Bank of New York, SMBC Nikko

Heavy volume trades above the median tri-party rate

- The published tri-party rate is a volume-based median
  - Volumes are sorted from the lowest to highest rate
    - And the rate at the midpoint in the volume distribution is the published tri-party rate
- But the 8am rate has been 7bp higher than that day's published median[1/]
  - *And 25% of daily volume since mid-October has consistently traded above IORB*

Top 25% of TGCR - IORB (bp)



1/ On average since mid-October.

Source: Federal Reserve Bank of New York, SMBC Nikko

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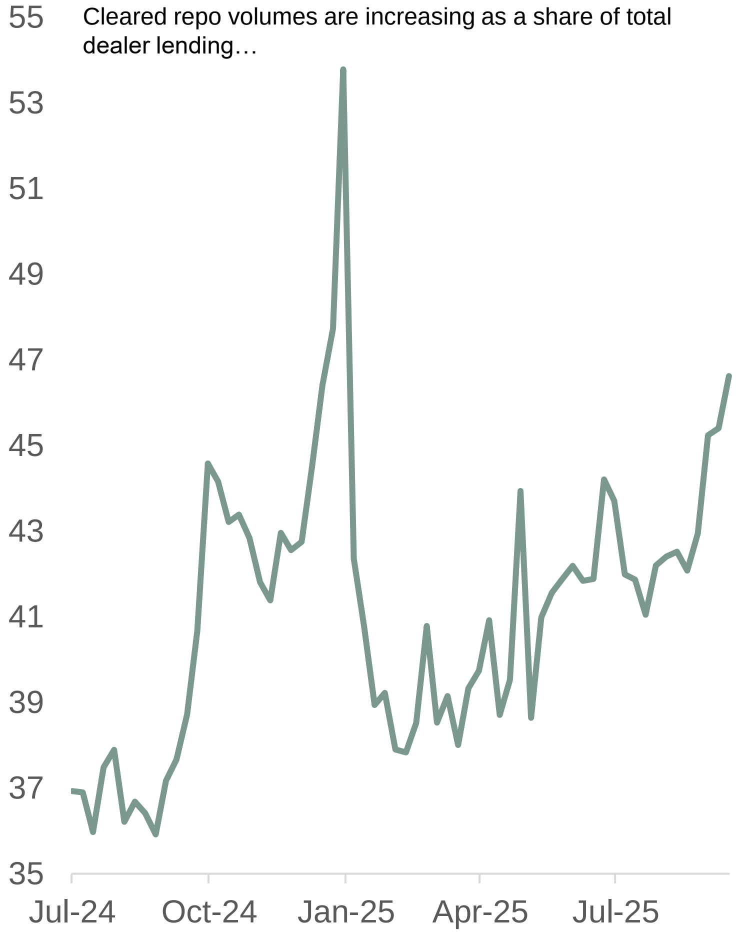
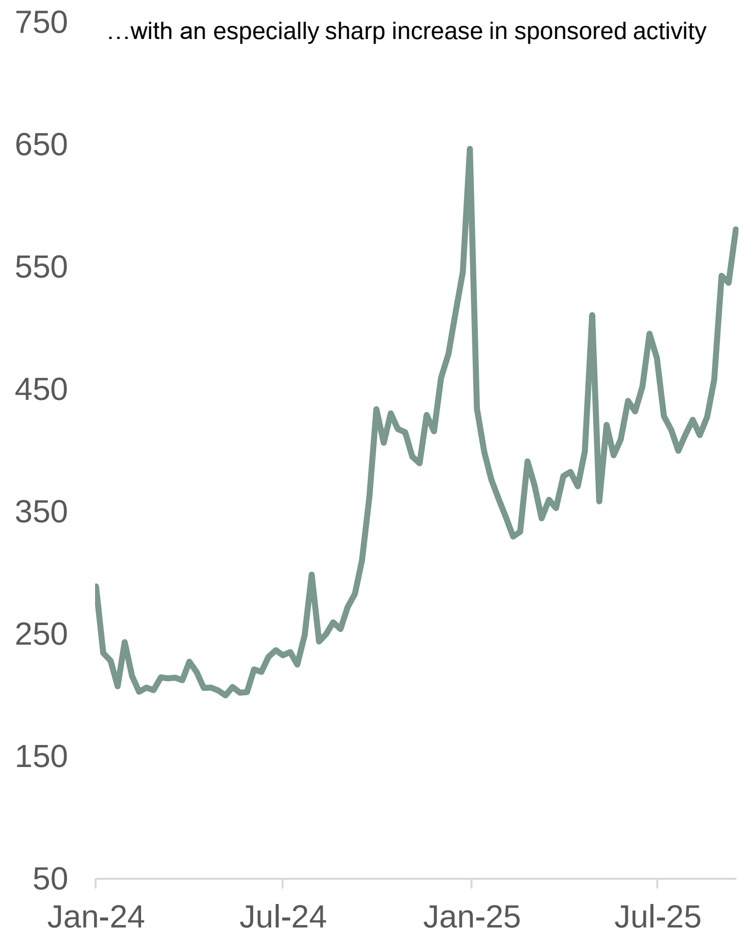
Cleared repo is growing…

Cleared repo (% total)



Note: Dealer reverses (dealer lends cash). Sources: Federal Reserve Bank of New York, SMBC Nikko

Sponsored repo ($bn)



Note: Dealer reverses (dealer lends cash). Sources: Federal Reserve Bank of New York, SMBC Nikko

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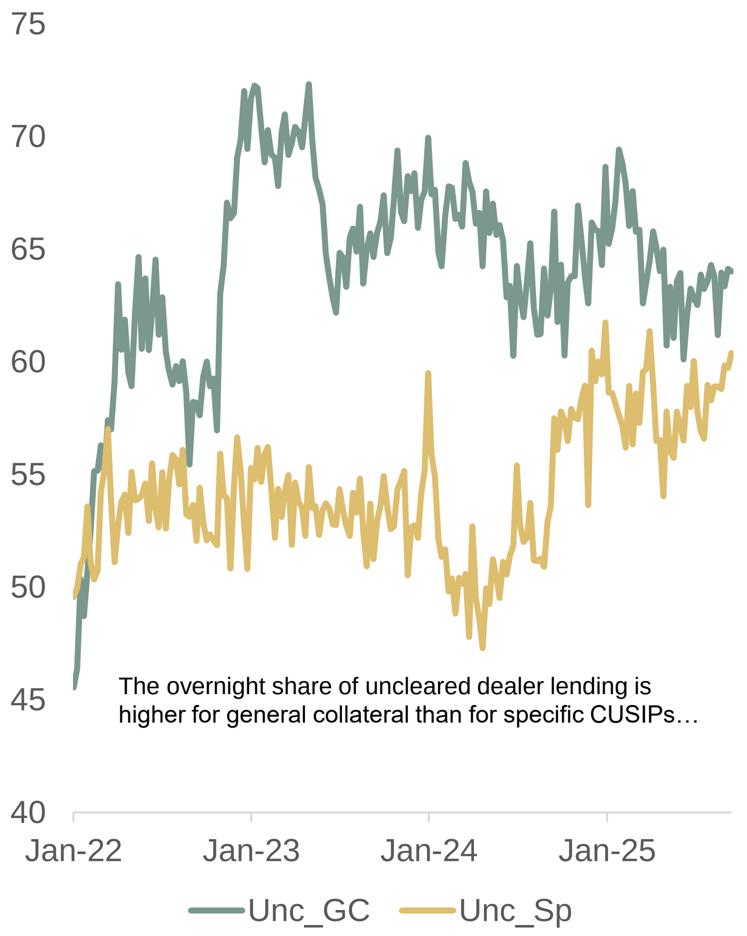
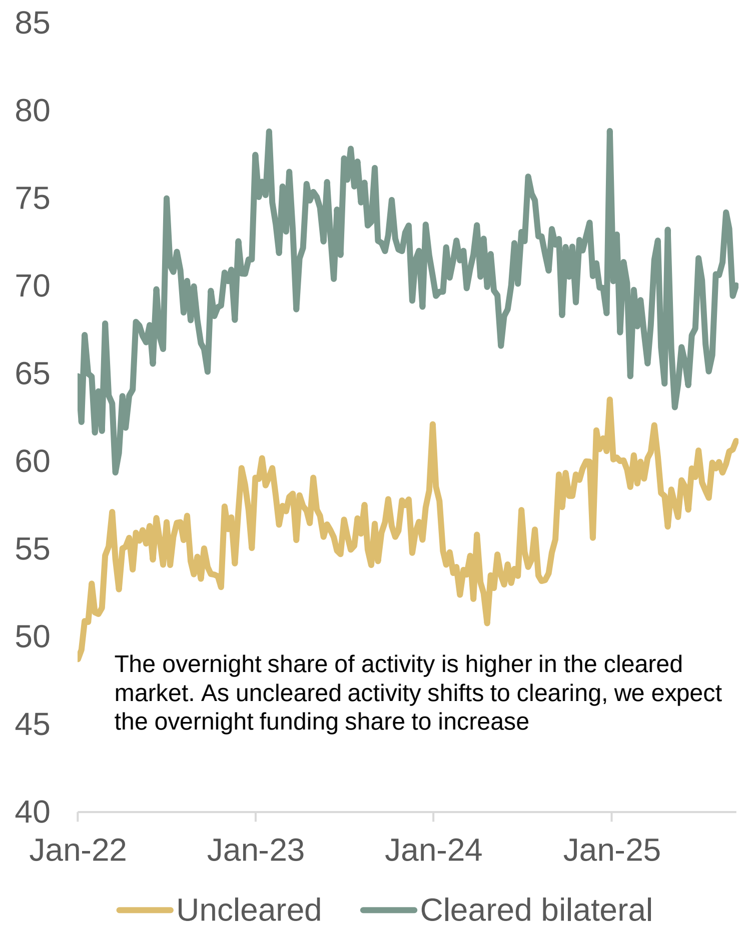
…but tends to be more overnight than uncleared

Overnight uncleared repo (% total)



Note: Dealer reverses (dealer lends cash). Sources: Federal Reserve Bank of New York, SMBC Nikko

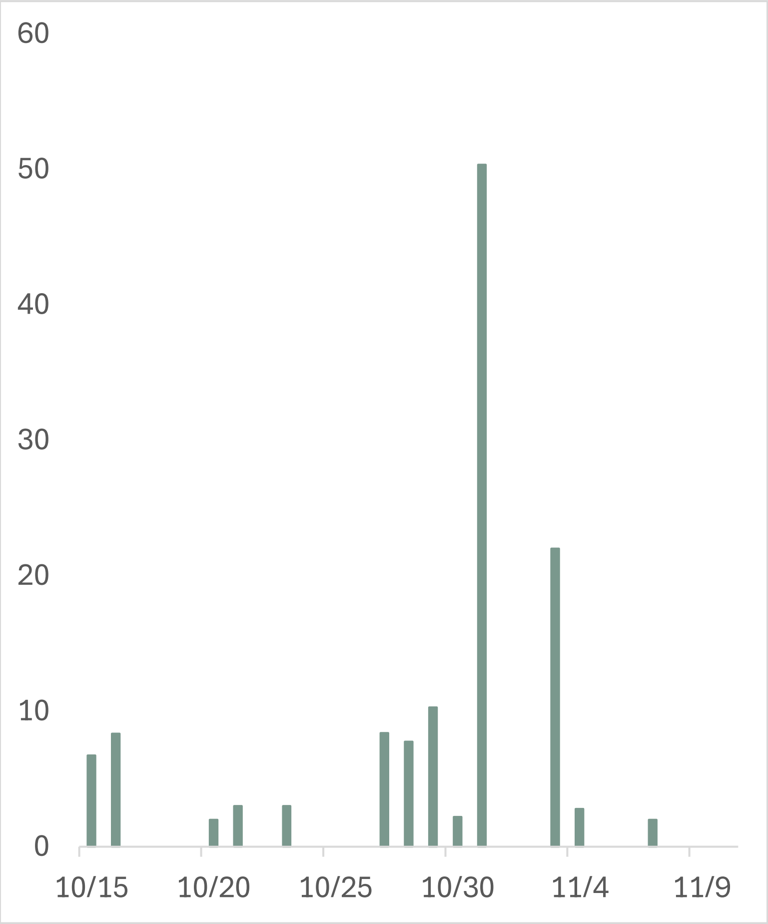
Overnight repo (% total)



Note: Dealer reverses (dealer lends cash). Sources: Federal Reserve Bank of New York, SMBC Nikko

Standing repo facility use has become more frequent

SRF borrowing ($bn)



Note: Includes both daily operations and all collateral types. Source: Federal Reserve, SMBC Nikko

- SRF has become more frequent
  - Although borrowing amounts (outside of month end) are relatively small
    - Considering the level of market rates at the time of the operations

SRF: Why is use low?

- *But a significant amount of tri-party transactions are occurring at rates above the minimum bid rate on the SRF*[1/]
- Is use suppressed because of stigma concerns?
- Or is it because dealers are less willing to negotiate with money funds for lower tri-party rates by going to the Fed program?
  - Instead, they may value maintaining stable funding relationships with money funds and thus might be unwilling to press too hard for a lower financing rate
    - Especially, if the heaviness is expected to be temporary
- This suggests that the psychological bargaining power of the SRF to rein in market rates may be more muted
- *But this restraint may start to fade as tri-party rates have consistently remained at high levels since mid-October*

1/ See slide 23

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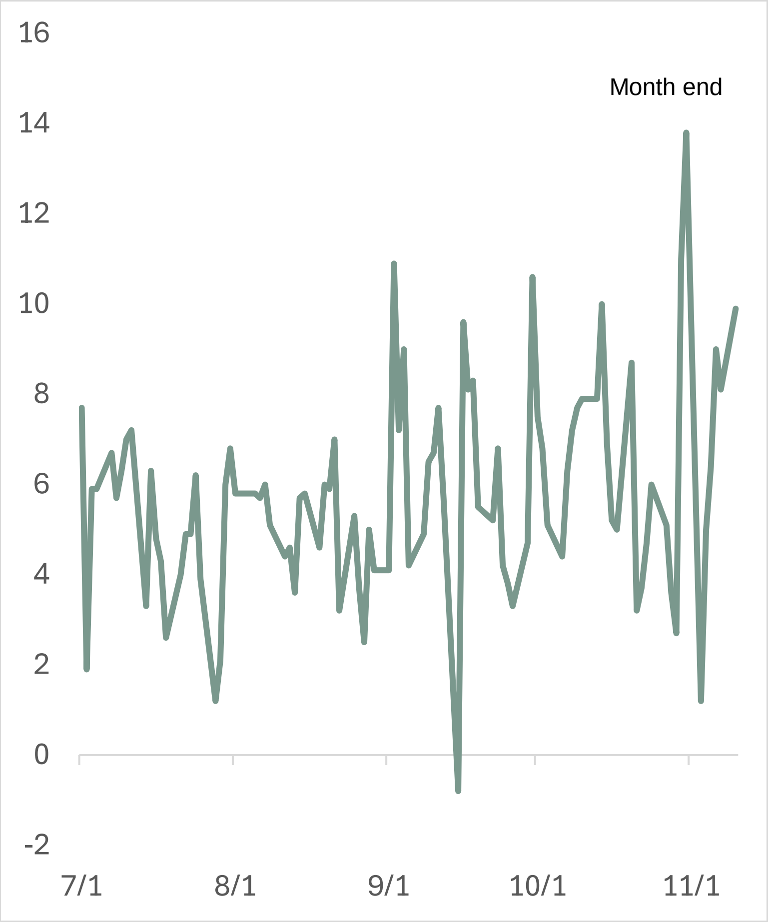
SRF: Policy dilemma

- Frequent but small use of the SRF raises an interesting policy dilemma – especially when there are transactions that occur above the program rate
    - How frequent should program use be if reserves are ample?
        - Is frequent – almost daily use – an indication of reserve scarcity or a sign that the program is being used as a normal (supplemental) funding source?
    - How much use?
        - The program is scaled to provide $500bn of liquidity
            - But average use since mid-October has been about $6bn/day[1/]
                - Which hardly suggests that the market is experiencing funding pressure
                    - Although, repo rates suggest otherwise[2/]

1/ Across all collateral and both daily operations.
2/ This point was recently raised by Dallas Fed President Logan, see "Ample Liquidity for a Safe and Efficient Banking System", Federal Reserve Bank of Dallas, October 31, 2025.

Dealer balance sheet capacity?

GCF less tri-party (bp)



Note: Includes both daily operations and all collateral types. Source: Federal Reserve, SMBC Nikko

- There appears to be some dealer balance sheet pressure on repo rates
  - Although this seems heavier on mid- and end-of-month coupon settlement dates

- The recurrent pressure on bill settlement days may also reflect intraday liquidity pressure
  - If dealers' intraday cash balances are too thin, they may slow payment processing

Which signal?

- *The tightening in the fed funds rate suggests the Fed has reached a normalized balance sheet, but the pressure in repo rates suggests QT may have pushed reserves beyond ample to scarce*

- As a result, each rate suggests a different Fed response:
  - "No action"
    - Fed funds suggests the Fed can allow bank reserves to glide lower – passively as currency demand increases and the Treasury's cash balance grows
      - On a day-by-day basis, reserve scarcity can be met through SRF borrowing
  - "Take action"
    - By contrast, the pressure in repo suggests that reserves are already scarce
      - And the Fed needs to increase their supply – perhaps on a more permanent basis

Replacing fed funds…

- Dallas Fed President has brought up replacing the fed funds rate as the Fed's policy target with the tri-party rate (TGCR)[1/]
    - The Fed is no longer operating a scarce reserves regime, so banks do not need to borrow in this market to top up their intraday liquidity[2/]
        - The narrowness of the market makes it vulnerable to changes in the behavior of either non-US banks or the FHLBs
            - Which could cause an abrupt plunge in its already thin activity
- The ideal replacement rate should be both a tool to communicate the Fed's policy intentions as well as an instrument to monitor liquidity conditions
- *But fed funds and TGCR are sending different signals about the level of reserves and what the Fed's next step might be*

1/ See "Options for Modernizing the FOMC's Operating Target Interest Rate", L. Logan and S. Schulhofer-Wohl, Federal Reserve Bank of Dallas, September 25, 2025.
2/ Assuming bank reserves are at least ample.

Strategies for addressing repo pressure

- **Do nothing** – repo rates will settle down on their own
  - Dealers and banks appear willing to use the SRF when necessary
    - Borrowing amounts are low and do not suggest there are deep strains in funding markets like September 2019

- **Cut IORB**
  - Lowering IORB might encourage banks with surplus cash to lend it in the repo market where rates are higher, eventually bringing secured rates lower

- **Cut the SRF rate**
  - Lower the SRF rate to make the program more attractive to encourage borrowing and liquidity redistribution

- **Add reserves temporarily**
  - Conduct temporary open market operations (repos). The Fed would reverse in collateral from the market and expand reserves. These would fall once the repo unwinds. Operations could be overnight or term.

- **Add reserves permanently**
  - Increase the level of reserves permanently by buying bills (or coupons) in the secondary market[1/]

1/ The Fed bought bills at a rate of $60bn/mo beginning in October 2019 to address the funding pressure. It also did daily overnight repos ($75bn/day) and one week term repo operations ($35bn/twice weekly).

Cutting IORB?

- *The Fed might try to nudge tri-party repo rates lower by cutting IORB by 5bp*
  - Especially as tri-party pressure appears most concentrated on settlement days

- But the rate is trading near the top of the (fed funds) target range and it is unclear if the IORB rate cut will translate into a one-for-one reduction in tri-party rates

- While the Fed might consider a deeper IORB cut, the rate is currently 15bp above the RRP rate
  - So, the Fed's room to cut the rate is somewhat limited

- Separately, while lowering IORB might *temporarily* pull overnight rates down, it will not change the fundamental imbalance between the supply and demand for reserves[1/]

1/ This strategy was tried several times in 2018-19 and only briefly slowed the increase in overnight rates. Higher repo and fed funds reflected a shortfall in bank reserves rather than some anchoring effect tied to the spread between IORB and RRP.

Cutting SRF or TOMOs?

- *Could the Fed cut the SRF rate to encourage more program use to bring down repo rates?*

- **We are skeptical the Fed would cut the SRF rate**
  - The rate is meant to be a liquidity support facility that is clearly differentiated from a lender of last resort facility like the discount window
    - Even though the two rates are equal, the SRF is a competitive auction – borrowers are not guaranteed their full bid amount
      - The auction process is meant to reduce stigma from use
  - Cutting the rate might muddle perceptions about SRF stigma – making the program look more like an "emergency facility"

- **Instead, it might make more sense for the Fed to conduct temporary open market operations**
  - Expanding bank reserves – just like the SRF
  - But because these operations were a regular part of reserve management before the ample reserves regime, they do not have the same (potential) stigma as the SRF

- **We think the Fed could consider a term (1w) SRF operation – say, on Tuesdays and Thursdays to help offset bill settlement pressure**

Permanent balance sheet expansion

- *We think the Fed could consider permanently increasing the level of reserves through secondary market bill purchases*

- The persistent heaviness in tri-party rates suggests that reserves have become scarce
  - And while lowering IORB and conducting temporary open market operations will bring down funding rates, they do not address the fundamental imbalance between the supply of bank reserves and their demand

- Repo pressure emerged this fall once bank reserves fell below $3trn
  - So, the Fed's purchases may not need to be large

- We think the purchases might be directed toward bills
  - Heavy bill issuance appears to have added to the repo pressure, so mopping up some of the supply might amplify the effects from expanding bank reserves
  - The Fed is looking to increase its bill holdings[1/]

- In October 2019, the Fed committed to purchasing $60bn/mo in bills and doing daily and weekly open market operations
  - Funding conditions were normalized within six weeks
  - As the current pressure is less acute, the Fed may not need to do as much

1/ See slide 42

Ending QT

- *The Fed will end its balance sheet roll off on December 1*
  - *We estimate bank reserves will be around $2.8trn or 11.8% of bank assets*

- Mechanically, the Fed is removing the roll-off cap on its Treasury re-investments, so all its maturing Treasuries will be rolled over into the next auction as add-ons

- It plans to continue letting its MBS holdings roll off while re-investing the proceeds into bills
  - Bill purchases will be made in the secondary market in two maturity tranches
    - 75% in bills with remaining maturities of 1-4m
    - 25% in bills with remaining maturities of 4-12m
  - The Fed's purchases will be mid-month, multi-price auctions
  - Around the ninth business day of the month the Fed will announce how much it will be re-investing in bills
    - Our sense is that this amount will be around $15-20bn/mo

After QT: Three steps

- *The Fed's balance sheet normalization will not end with the end of QT*

- Instead, the Fed must make three additional adjustments to its balance sheet to keep bank reserves ample

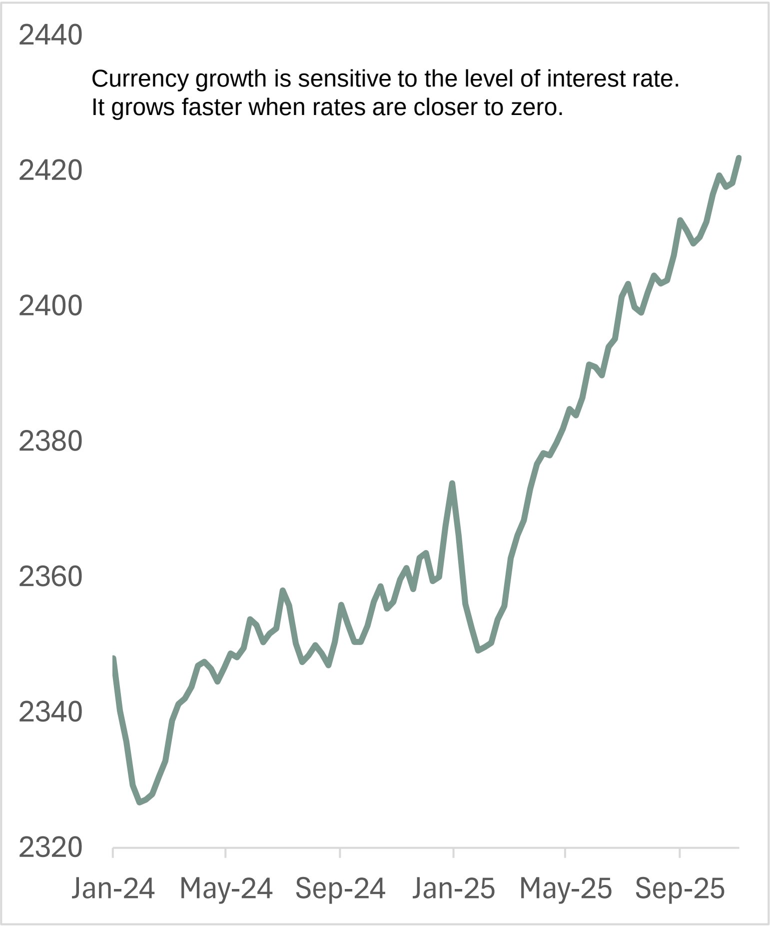
- **Step 1:** Keep its securities portfolio balance steady
    - Once QT ends, the Fed will immediately reinvest its maturing securities to keep the portfolio from shrinking. Treasuries will be rolled over at the next auction; MBS will be rolled into bills.

- **Step 2:** Keep the level of bank reserves steady
    - But even with a steady portfolio, the level of bank reserves will shrink as currency demand grows and the Treasury's cash balance increases
    - The Fed will need to offset these drains on reserves by buying Treasuries
        - We assume these purchases will begin early next year and be directed into bills

- **Step 3:** Increase the level of bank reserves in line with the growth in bank assets
    - As bank assets grow, their demand for reserves increases as they seek to maintain proportional liquidity balances
        - It is unclear how soon these Treasury purchases will begin
        - Or how they will be invested
            - *The Fed is looking to increase its bill holdings, but it also would like a "market neutral" portfolio – one in which the maturity distribution matches the outstanding Treasury market*

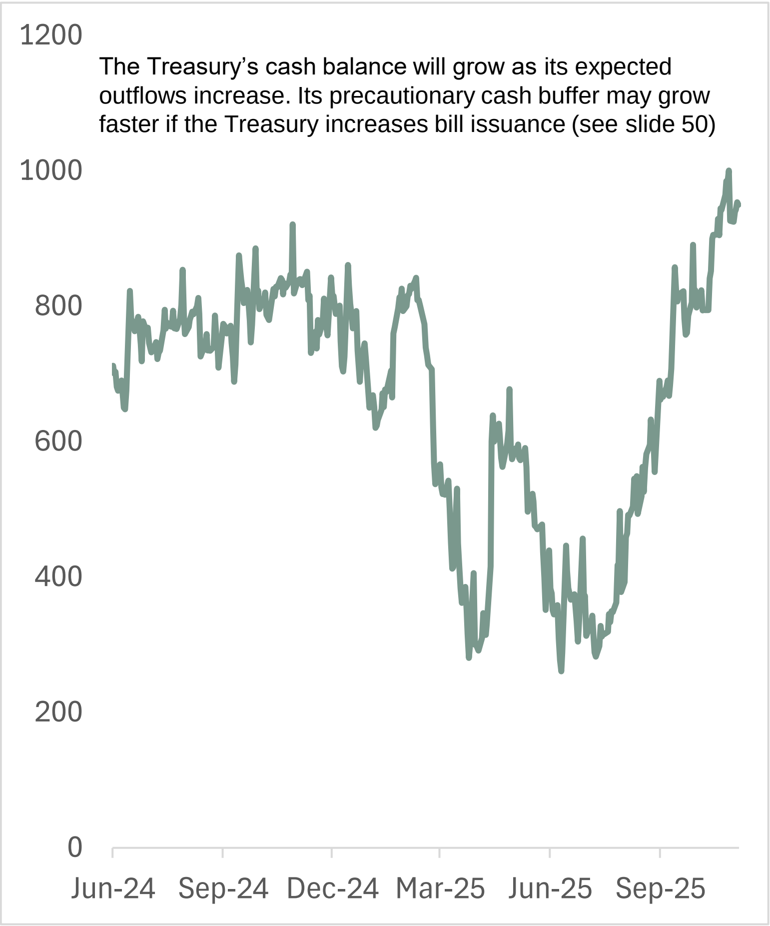
Federal Reserve: Other liabilities

Currency ($bn)



Sources: Federal Reserve, SMBC Nikko

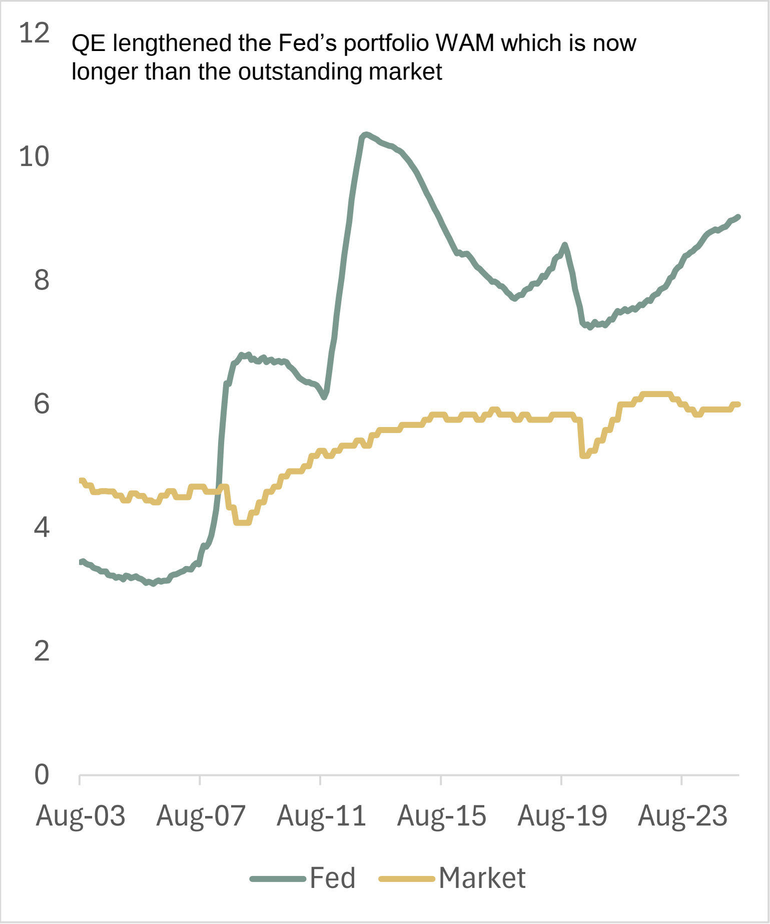
Treasury cash balance ($bn)



Sources: US Treasury, SMBC Nikko

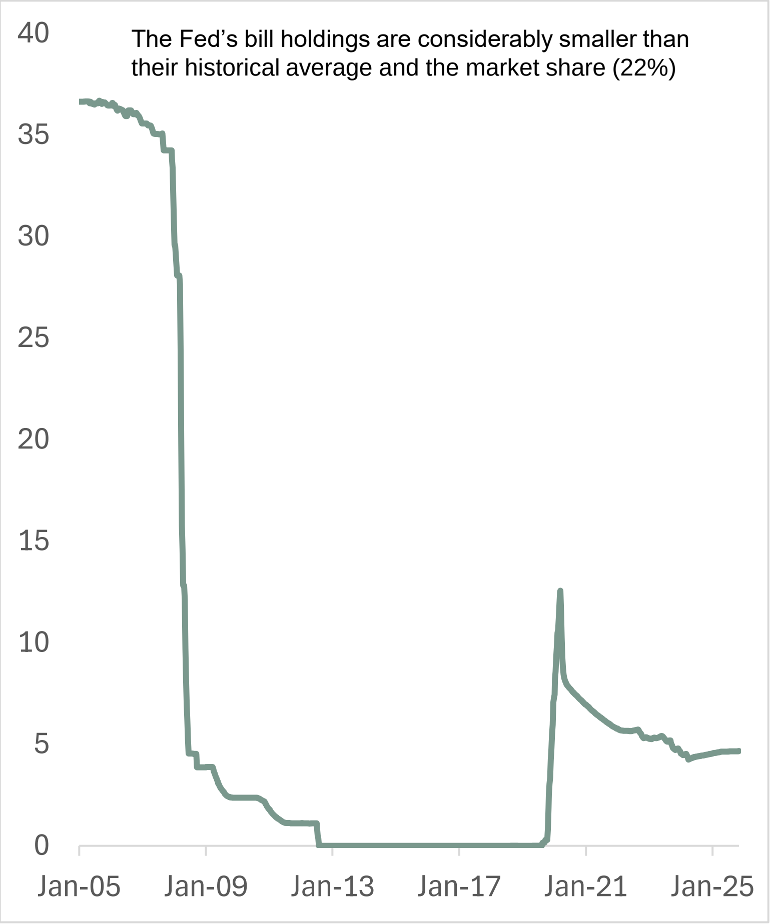
Federal Reserve bill holdings

Fed portfolio and market WAMs (y)



Sources: US Treasury, Federal Reserve, SMBC Nikko

Bills (% Fed Treasury holdings)



Sources: Federal Reserve, SMBC Nikko

The case for more bills

- More bills would increase the Fed's operational flexibility and reduce the portfolio's influence on market rates outside of QE
  - A larger share of bills in the portfolio makes it easier for the Fed to do MEP (maturity extension purchases) where it exchanges bills for term debt to bring down term rates[1/]
    - Without expanding its balance sheet

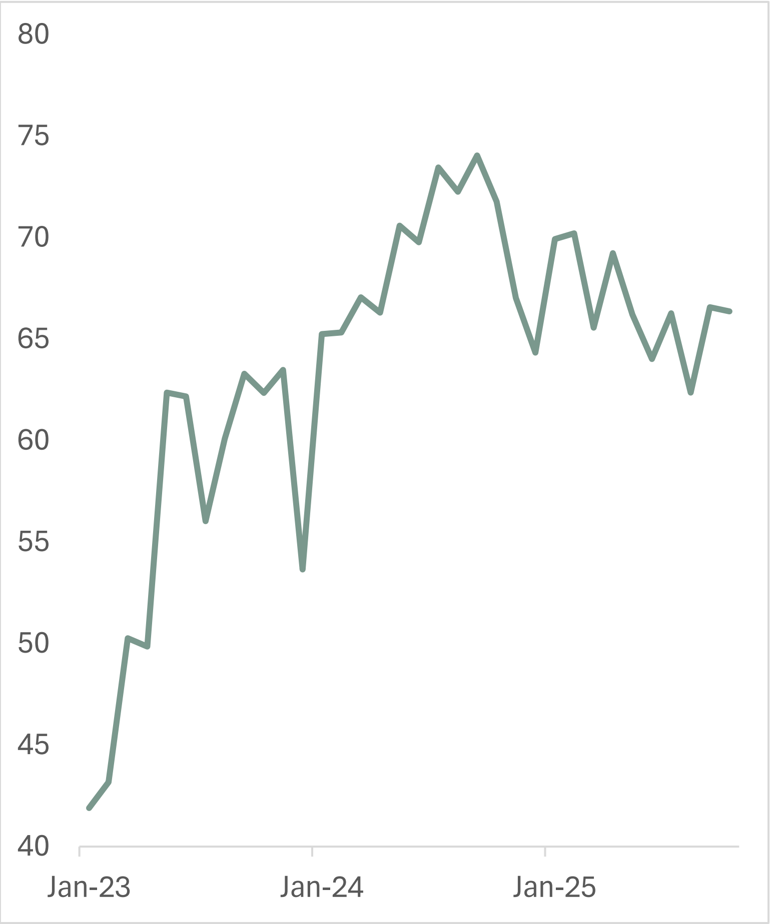
- But it is unclear how quickly the Fed wants to get to a more bill-heavy portfolio
  - If the Fed invests all of its MBS, liability offsetting, and reserve management purchases it could reach "bill neutrality" by 2029[2/, 3/]
    - This would require annual secondary bill market purchases of $300-$350bn/y over the period

- However, a bill-heavier portfolio will also mean that the market must absorb more term debt.
  - Assuming no changes in Treasury issuance, this could increase term premia[4/]

1/ The Fed successfully engaged in MEPs beginning in September 2011.
2/ That is, steps 1-3 on slide 39
3/ We define bill neutrality as the point at which the Fed's bill holdings match the current bill/debt share (of 22%)
4/ See "Transitioning to the Long-run Composition of the SOMA Portfolio: A Preliminary Analysis", FOMC preparation material, April 19, 2019

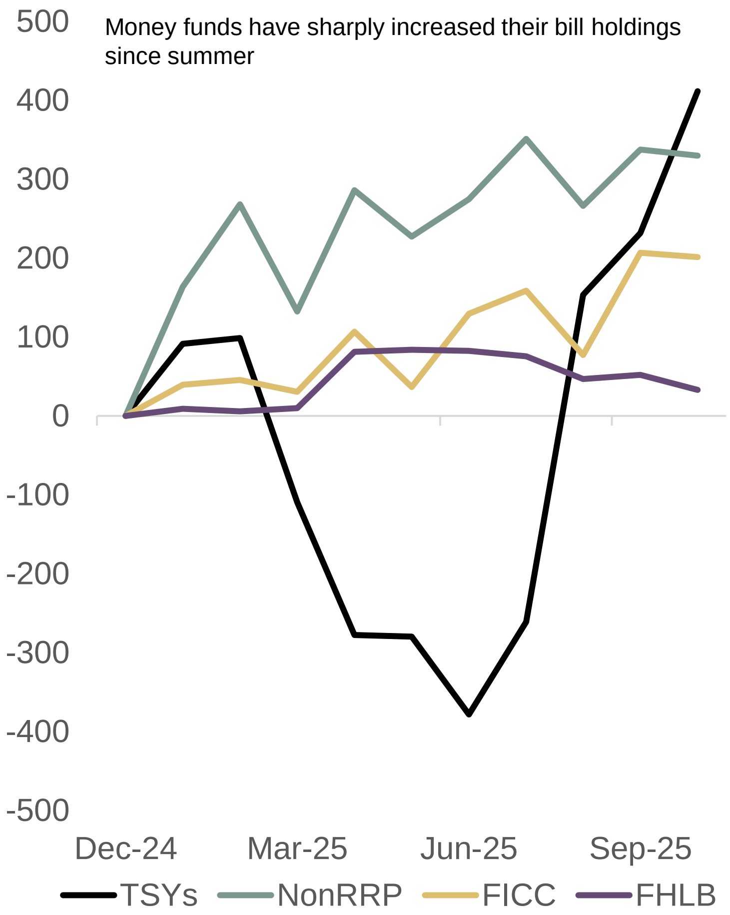
Money fund repo allocations

Money fund FICC repo (% sponsored)



Sources: Crane's Data, DTCC, SMBC Nikko

Change in money fund holdings ($bn)



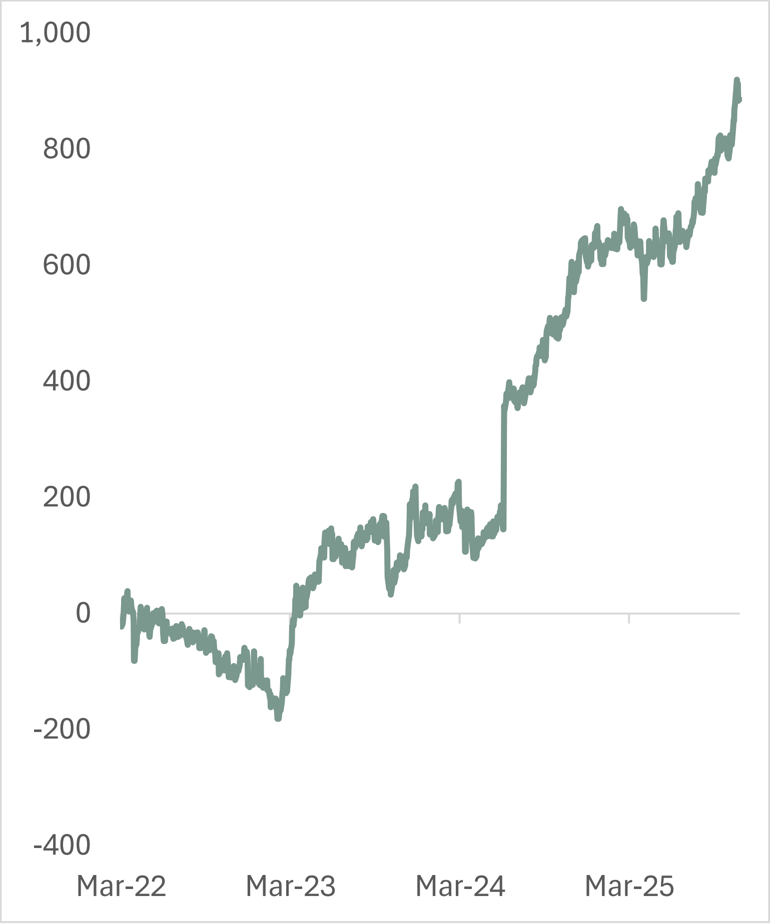
Note: Cumulative change in money fund holdings since December 2024. Sources: Crane's Data, SMBC Nikko

Money fund balances continue to rise

- Money fund balances continue to rise despite the Fed's rate cuts

- *We expect balances will continue rising*
  - As market rates remain above 3%
  - And the spread between money fund yields and bank deposit rates remains wide

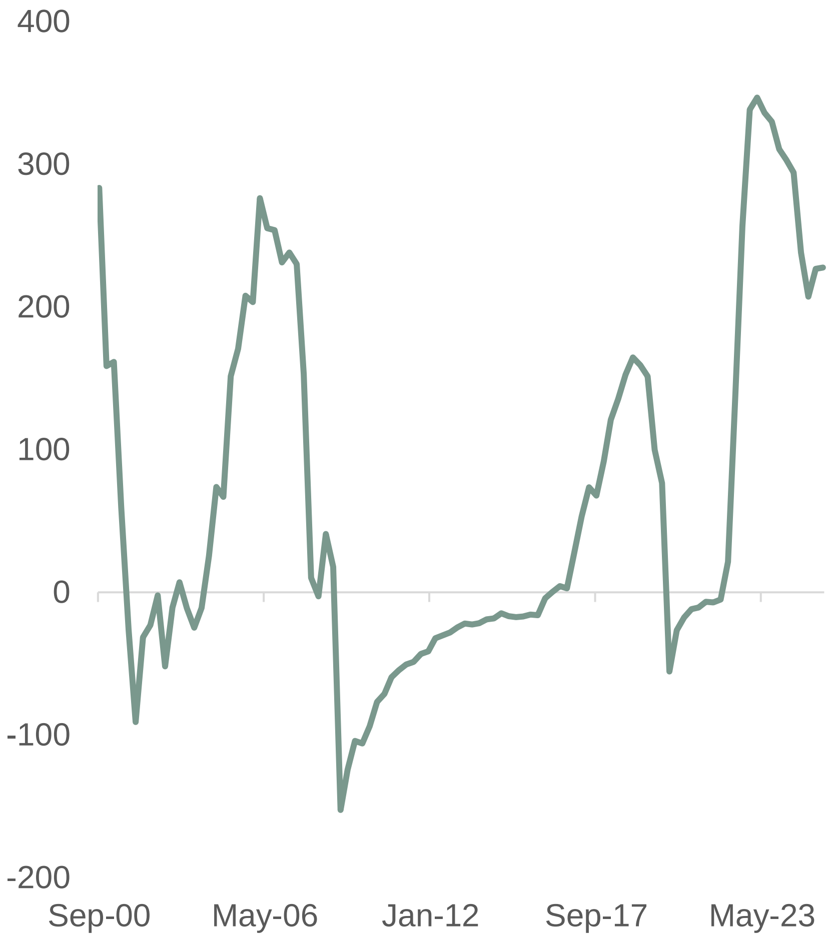
Money fund balances ($bn)



Note: Cumulative change since March 2022. Sources: Crane's Data, SMBC Nikko

Money fund yields and deposit rates

Fed funds less deposit rates (bp)

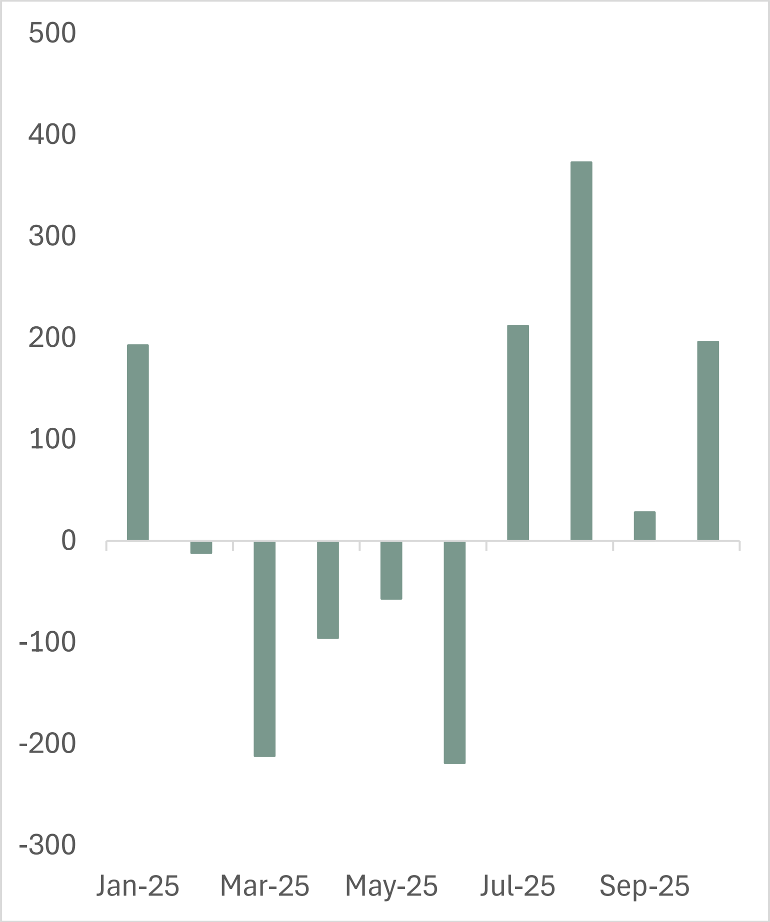


- Despite the Fed's rate cuts, money fund yields continue to exceed deposit rates

Note: We use the fed funds rate as a proxy for money fund yields.
Sources: FDIC, Federal Reserve, SMBC Nikko

Has there been too much bill issuance?

Bill supply (m/m change, $bn)



- After the debt ceiling was increased in early July, the Treasury steadily increased bill supply
- *But the sharp increase in repo rates since mid-October suggests money markets might be having trouble digesting the extra issuance*

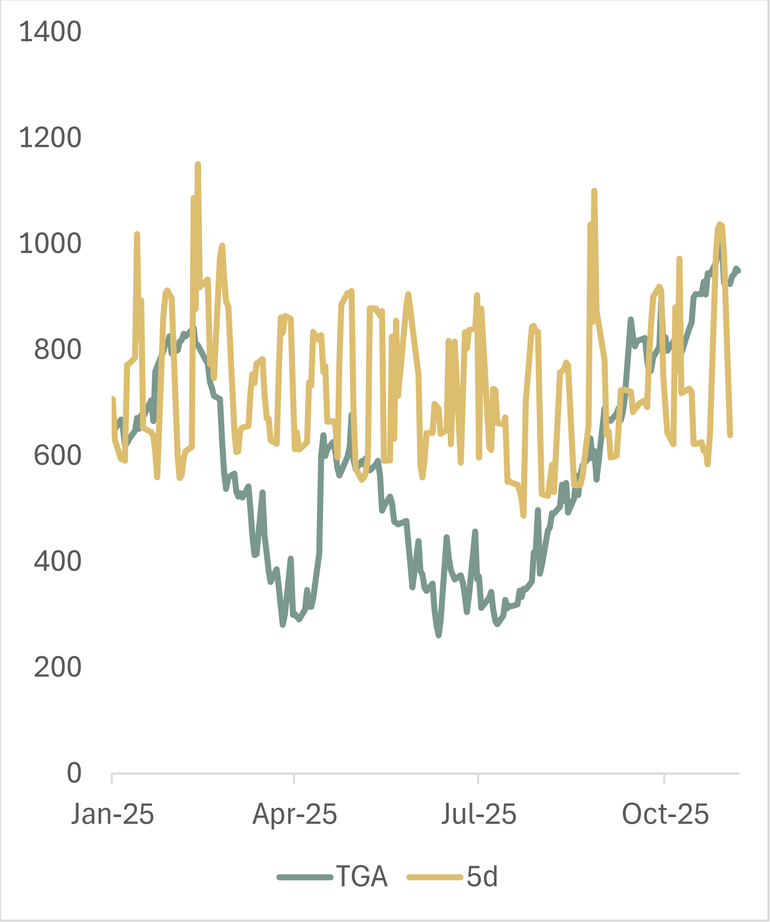
Sources: Bloomberg, SMBC Nikko

Treasury cash balance: Slow recovery

- The Treasury looks to maintain a daily operating balance equal to at least 5d of expected cash outflows

- But after the debt ceiling it moved slowly to restore its cash balance
    - Balances remained below the 5d threshold until September
        - As the Treasury attempted to moderate the effect of heavy bill issuance on interest rates

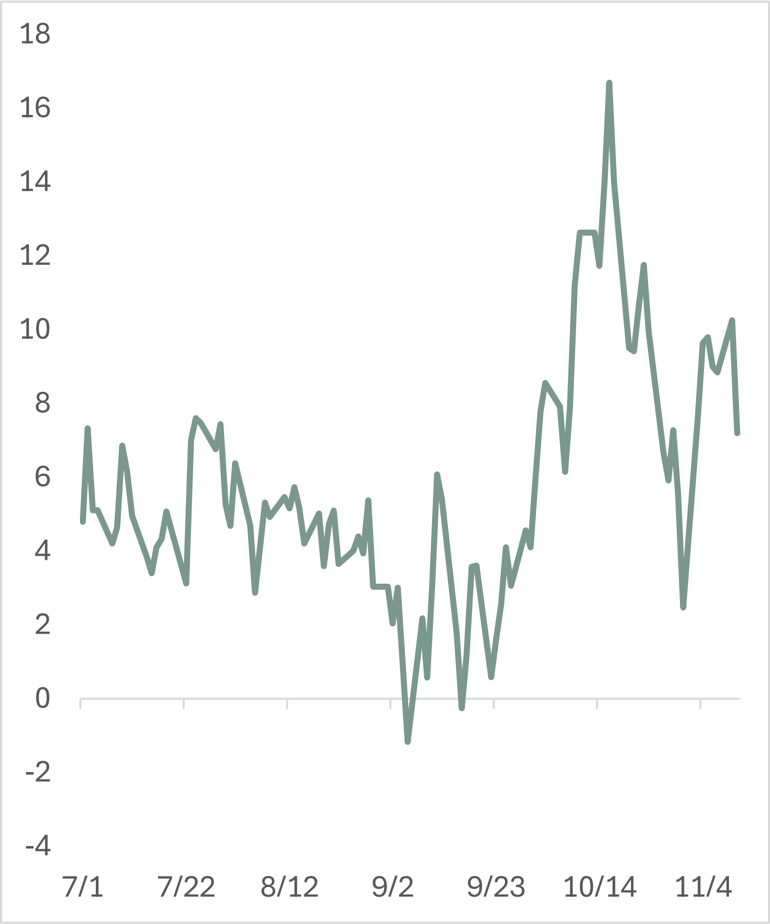
Treasury cash balance ($bn)



Source: US Treasury, SMBC Nikko

Heavy bill issuance initially had a modest effect on yields

3m bill less OIS (bp)



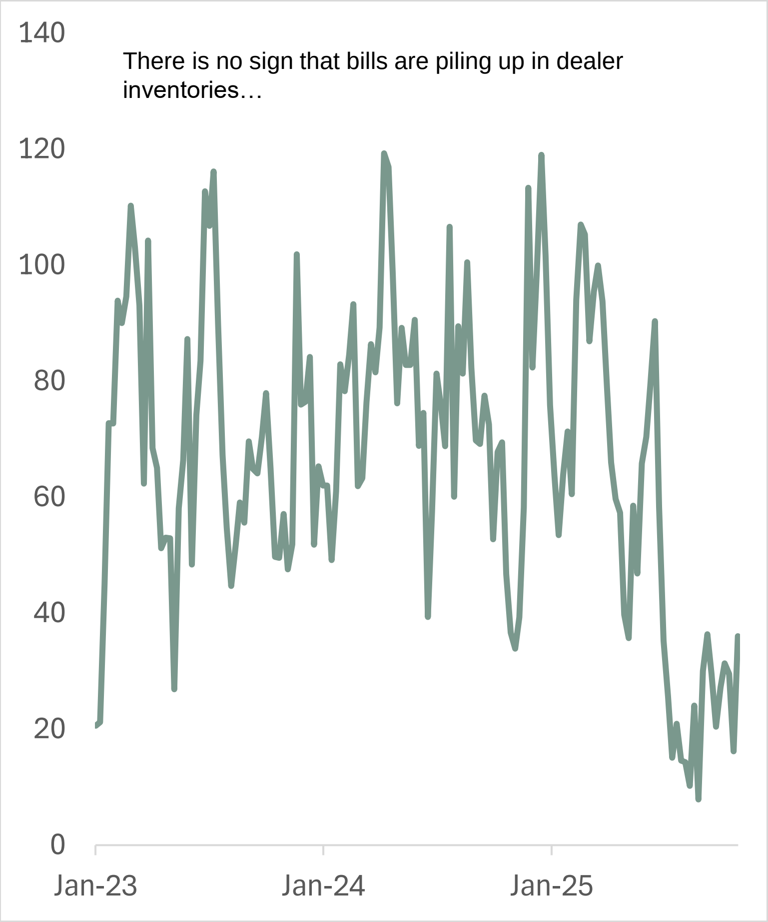
- This summer's issuance initially have a modest effect on bill yields
- *But after October, the increase in yields became more pronounced*

Sources: Bloomberg, SMBC Nikko

SMBC

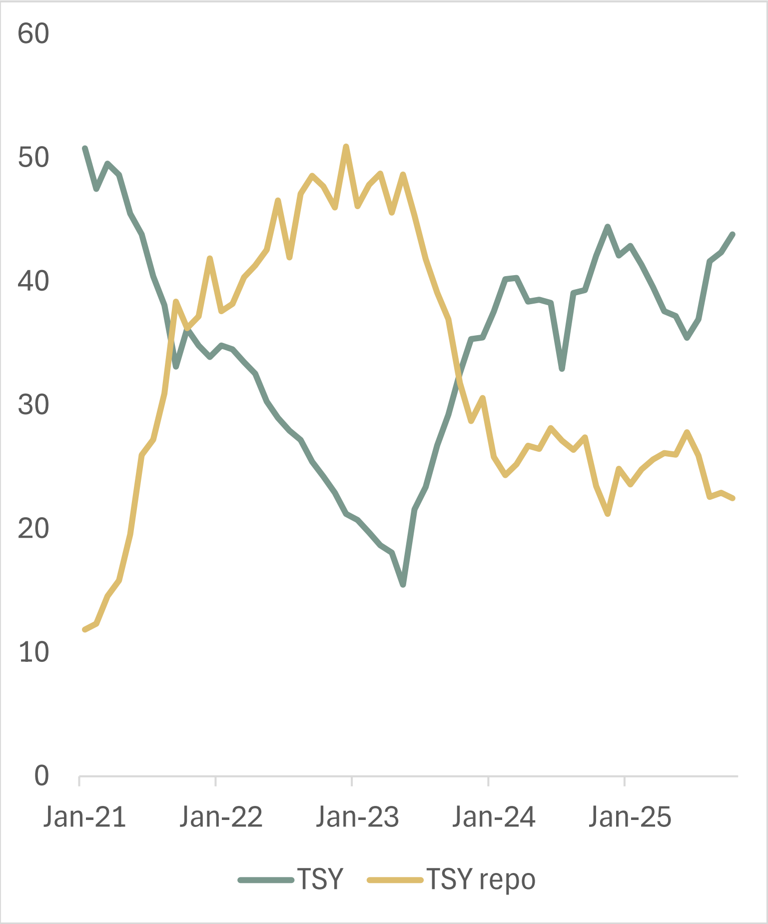
Heavy bill issuance has been readily absorbed…

Dealer bill inventories ($bn)



Source: Federal Reserve, SMBC Nikko

Money fund holdings (%)



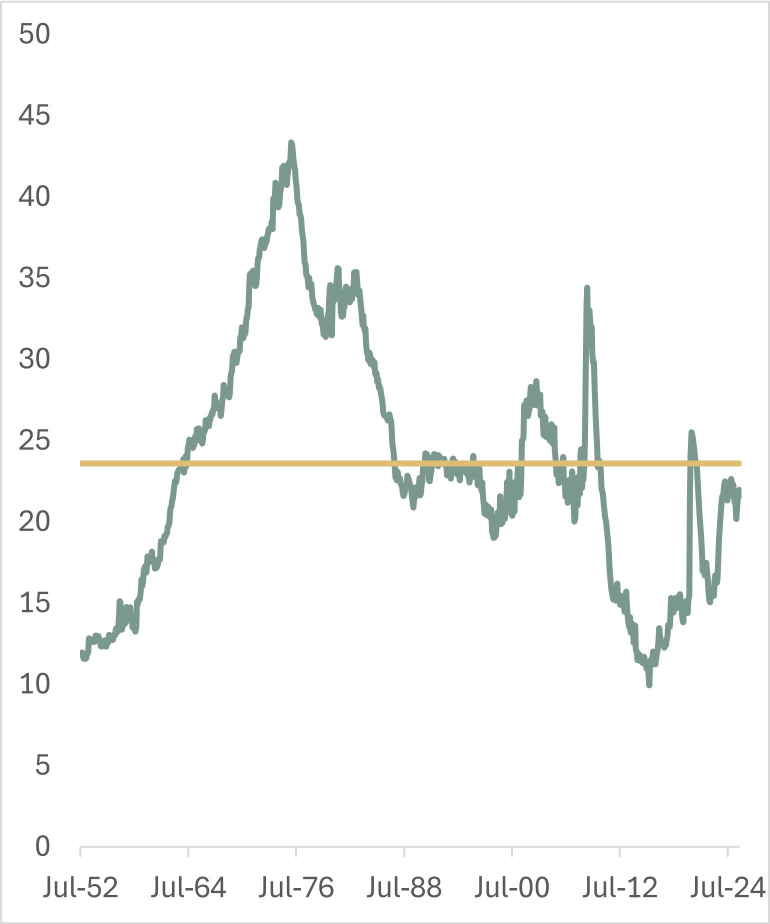
Note: TSY repo holdings include RRP balances. Source: Federal Reserve, SMBC Nikko

Bill supply outlook

- At the November quarterly refunding, the Treasury maintained its quarter-end cash balance target at $850bn for December 2025 and March 2026
  - We look for a FY 26 deficit of $2trn – somewhat wider than FY 25
- We think it can reach these totals with modest bill issuance over the next four months
  - We look for bill supply to shrink $80-$100bn between now and the end of December
  - And supply to increase by roughly $200bn in Q1
- The November refunding suggests the Treasury can keep coupon auction sizes unchanged through at least September 2026
  - We think it might be able to keep them steady longer - through December 2026
    - This would require increasing bill supply by $600bn
      - This would push the bill/debt share closer to 23%

Bills outstanding

Bills (% outstanding debt)



- Total bills outstanding are close to their long-run historical average[1/]

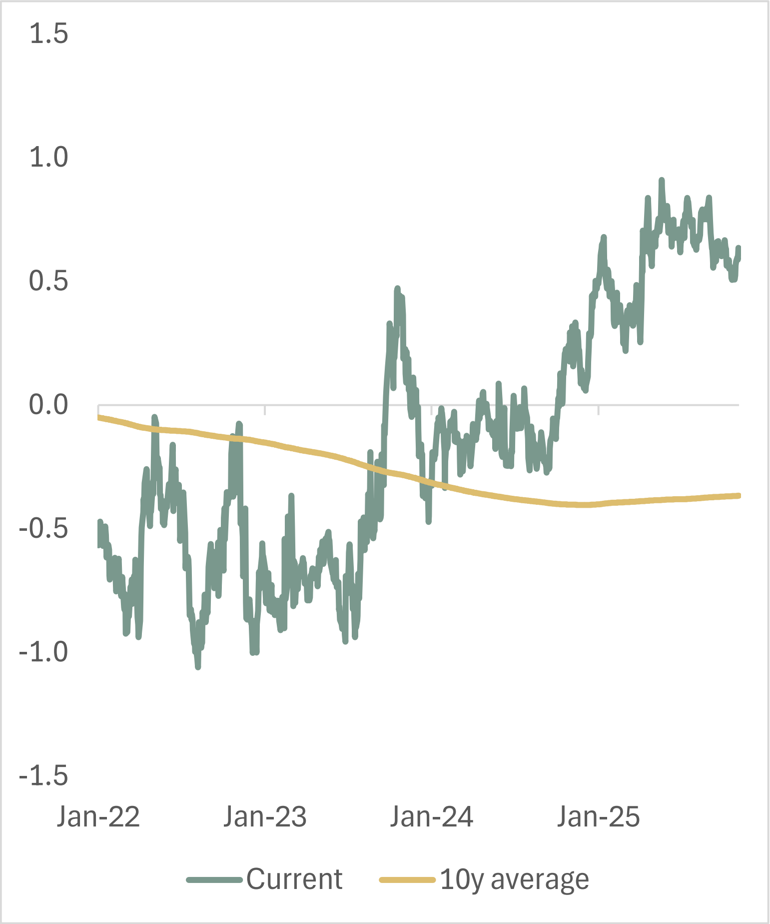
Sources: US Treasury, SMBC Nikko

1/ Of 23.6% since 1952

Higher term premia

- Treasury 10y term premia have risen 120bp since January 2022
  - So, issuing more debt at shorter maturities might be cheaper

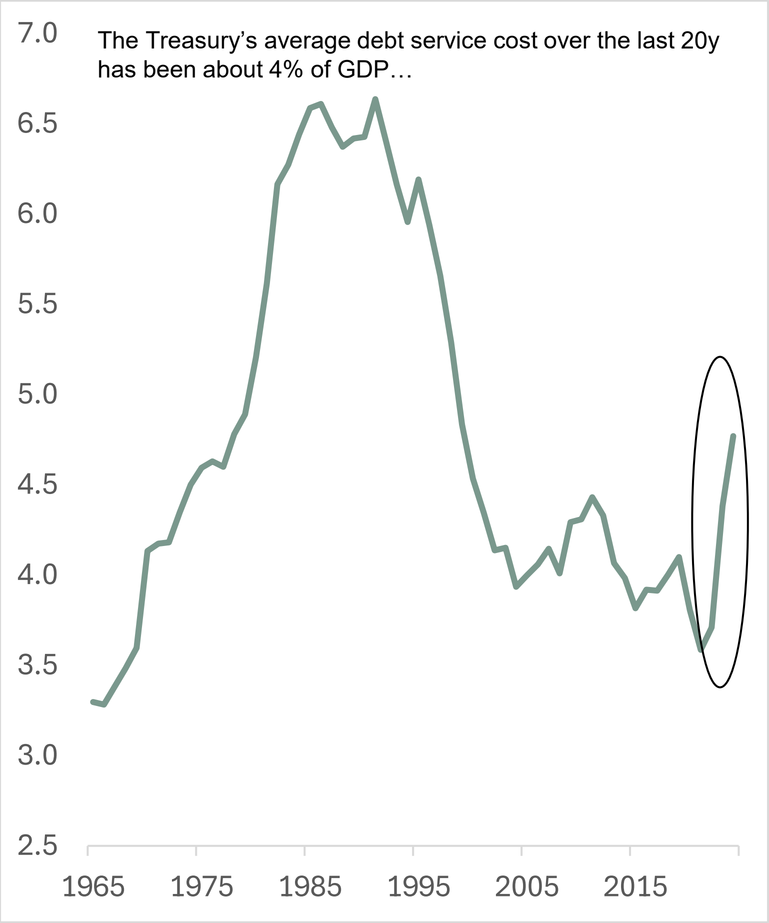
10y term premia (bp)



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

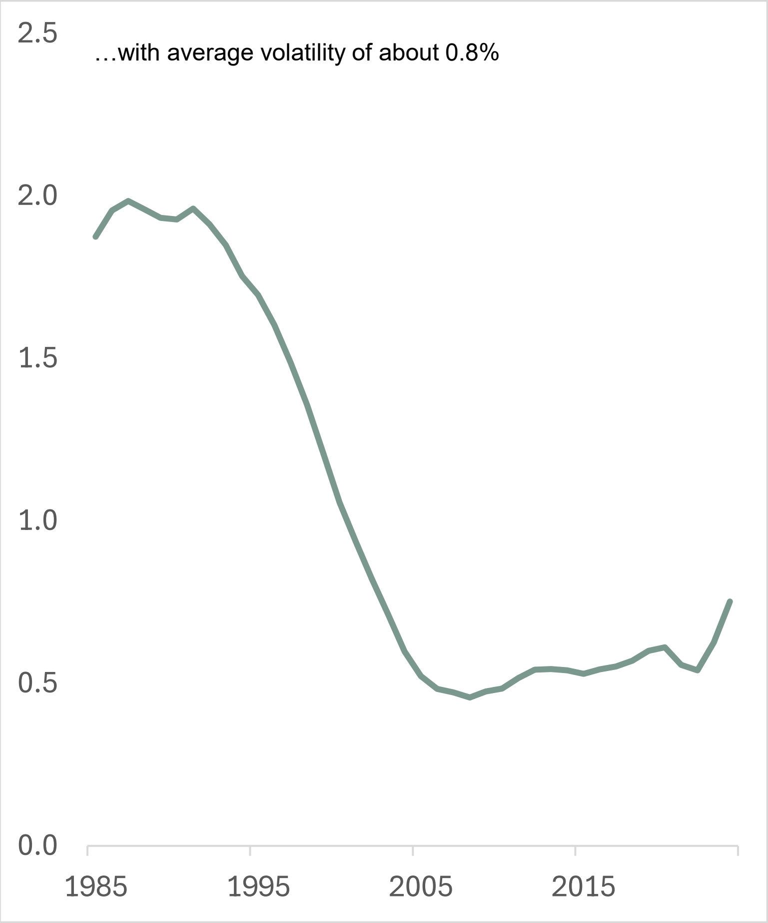
Debt servicing costs are rising…

Interest (% GDP)



Sources: BEA, SMBC Nikko

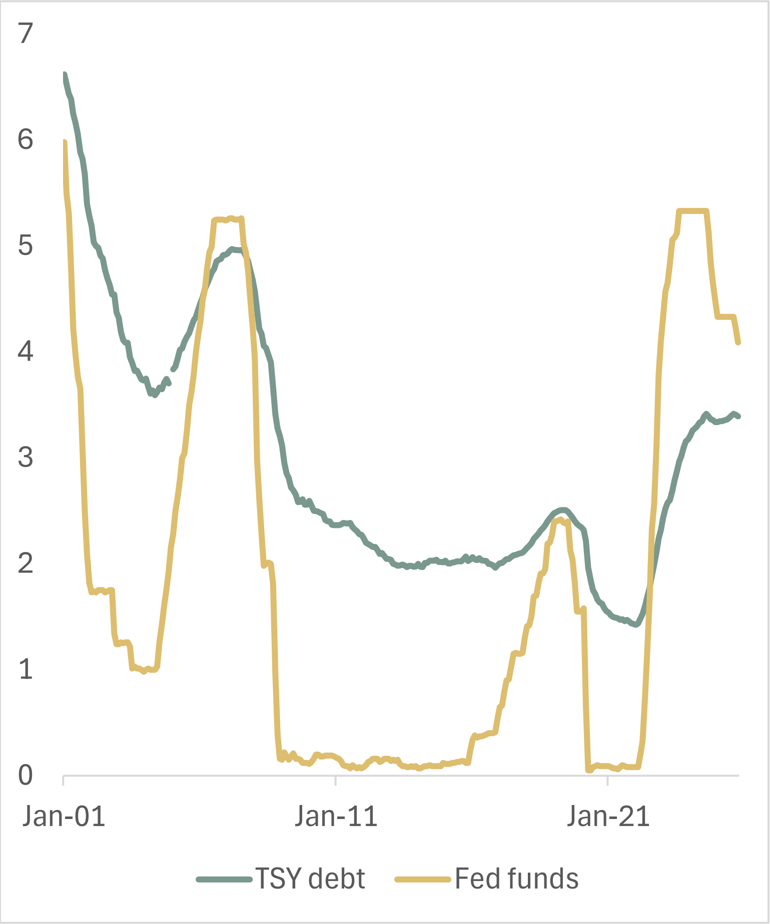
Volatility (st. dev. % GDP)



Note: 10y standard deviation. Sources: BEA, SMBC Nikko

…and reflect the increase in market rates

Marketable debt rate and fed funds (%)



- The interest rate on the outstanding market has risen since the Fed tightened
  - A larger bill share would increase the responsiveness of Treasury's interest cost to changes in the fed funds rate

Sources: US Treasury, SMBC Nikko

SMBC

Optimal Treasury issuance

- **The Treasury's choice of maturities seeks to minimize its debt service costs and their volatility**.
  - It can save on its servicing costs by shifting more issuance to bills but this increases their sensitivity to changes in market rates
  - But as term premia rise with maturity, shifting to a long-maturity heavy issuance portfolio increases servicing costs while reducing their volatility
  - The choice must also meet Treasury investor demand while keeping issuance "regular and predictable"

- **Should the Treasury increase its bill issuance further to bring down debt servicing costs?**

- The Treasury Borrowing Advisory Committee (TBAC) estimates the Treasury's current bill heavier maturity mix is near the efficient frontier between servicing costs and volatility[1/]
  - Baseline debt servicing costs average 4.5% of GDP with volatility of about 1% over the 20y forecast horizon.

1/ See, TBAC Charge, November 2025 Quarterly Refunding presentation, November 5, 2025

Optimal issuance is sensitive to economic and fiscal factors

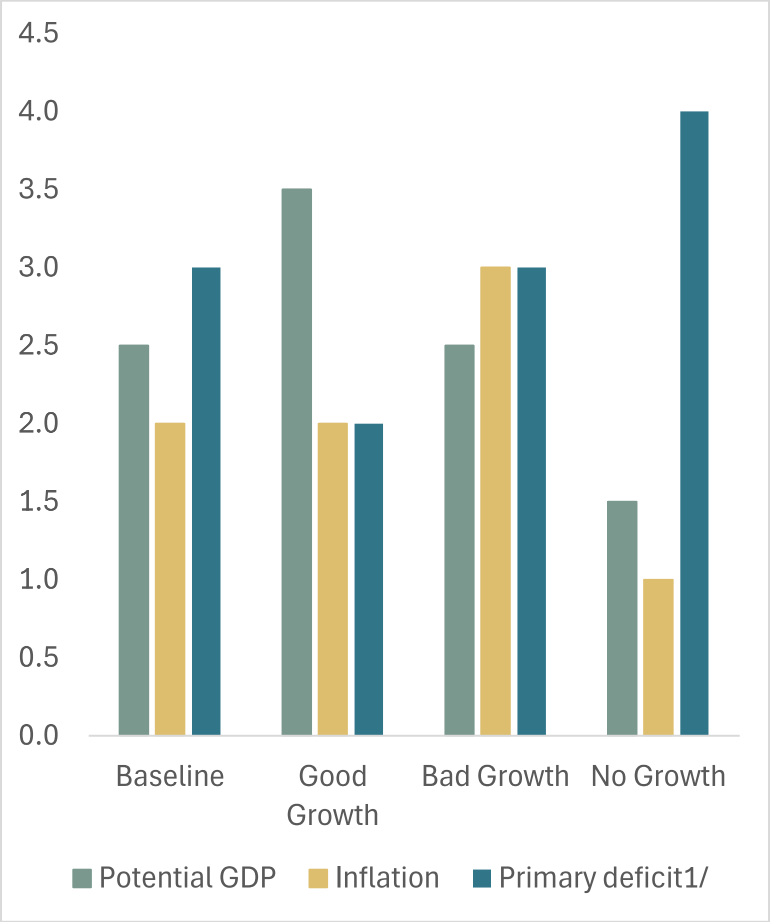
- **But the optimal mix changes with shifts in the economy and term premia**.

- TBAC finds that the current mix is less efficient if growth slows or inflation rises[1/]
    - Instead, the Treasury might consider a more conservative issuance portfolio
        - Shifting some of its bill issuance to coupons with maturities of 2-7y

1/ The Treasury might be able to reduce the volatility of its servicing costs without much of an increase in cost.

Economic scenario assumptions

Economic assumptions (%)



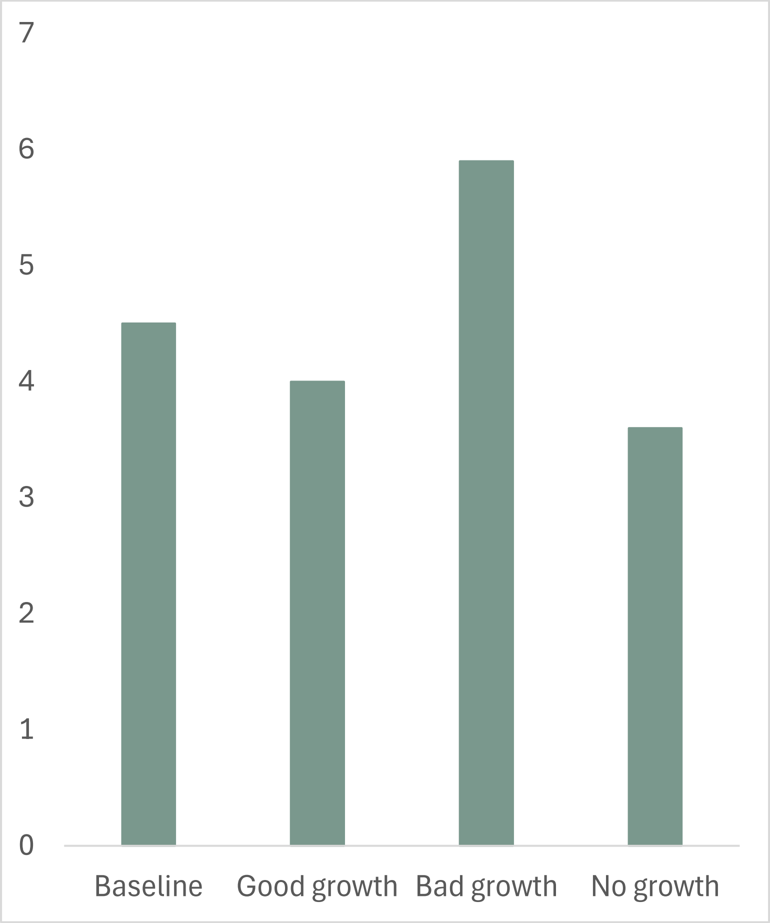
- The TBAC simulated the average cost and volatility of the current issuance mix under different economic scenarios[2/]
  - And random shocks

Sources: US Treasury TBAC Presentation, November 2025, SMBC Nikko

1/ Deficit excluding servicing costs over the next 10y
2/ See next slide for the results.

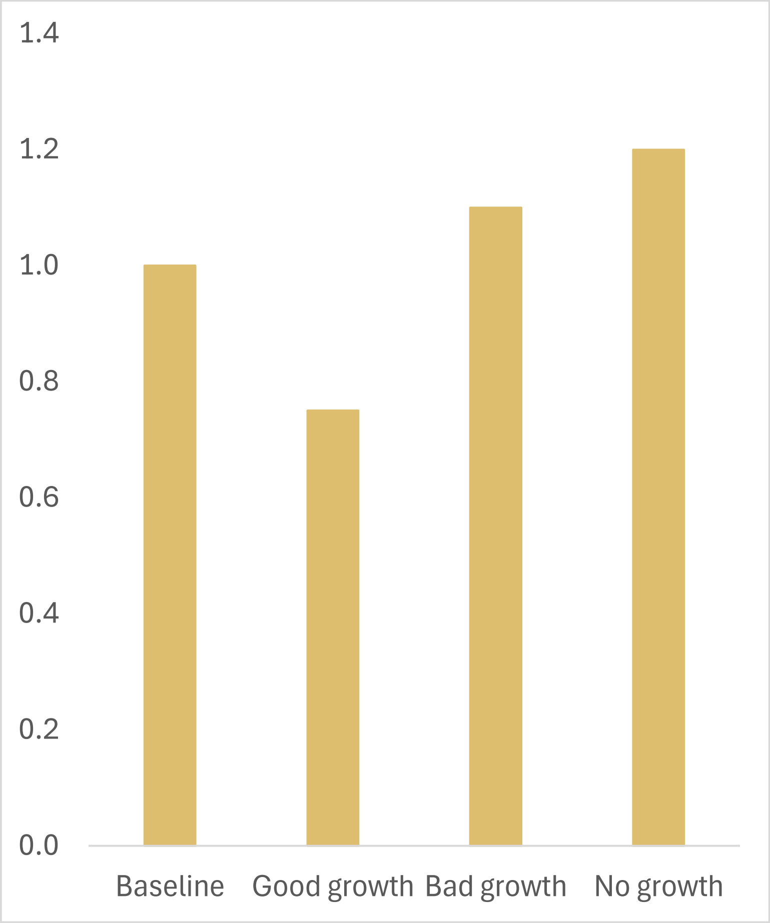
Economic scenarios

Average debt service costs (% GDP)



Sources: US Treasury TBAC November 2025 presentation, SMBC Nikko

Average volatility (% GDP)

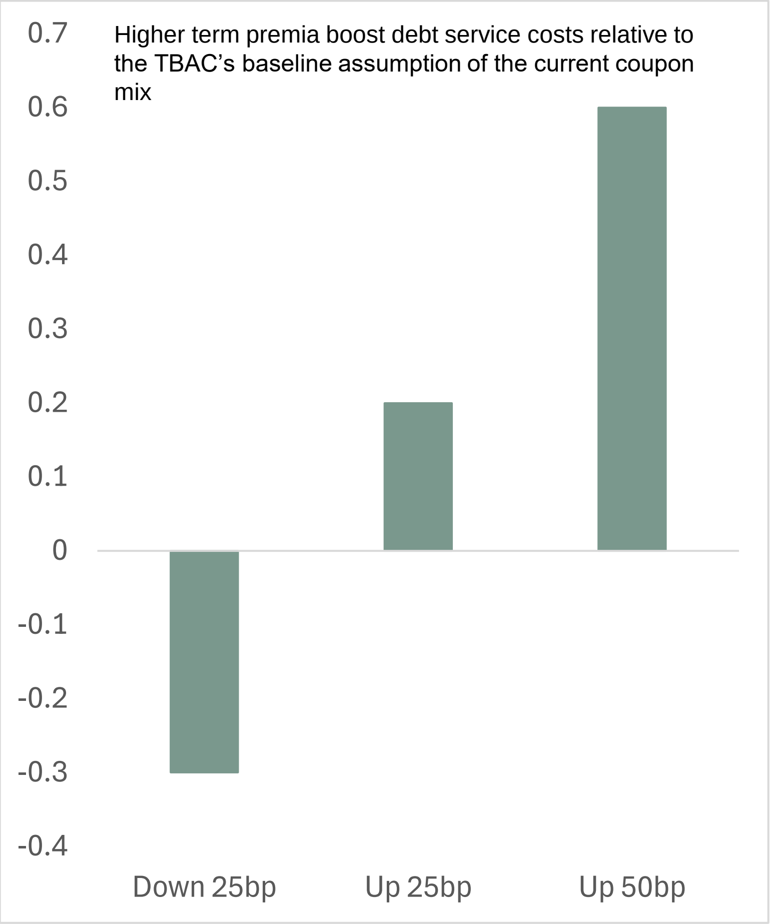


Sources: US Treasury TBAC November 2025 presentation, SMBC Nikko

Higher term premia boost debt service costs…

- Higher term premia boost debt servicing costs
  - Particularly for issuance mixes with more term issuance

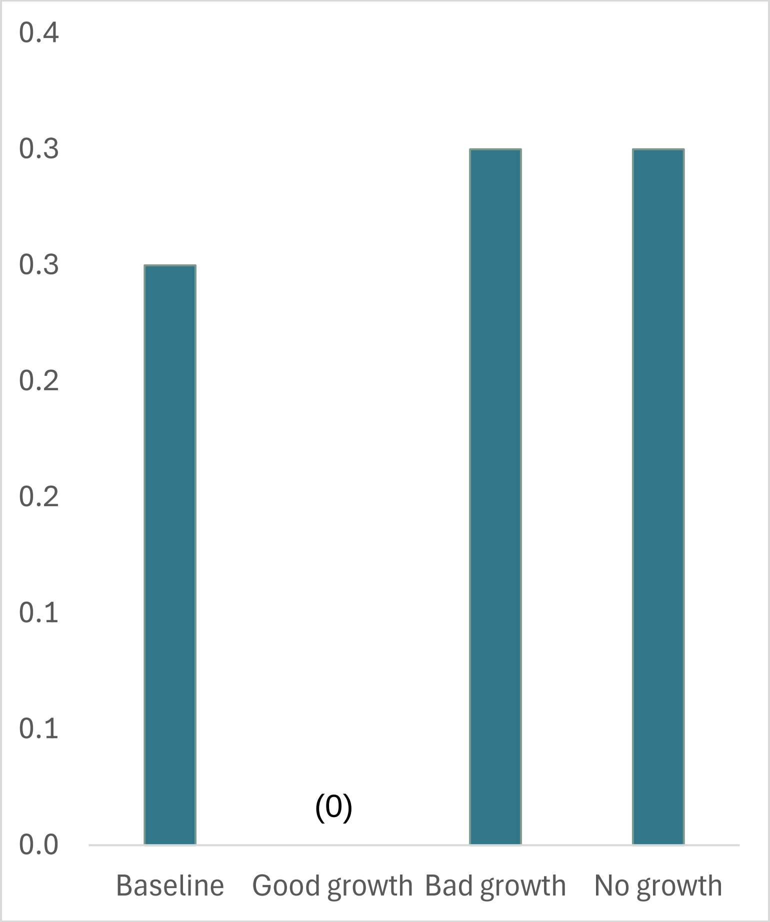
Estimated change in costs (%GDP)



Sources: US Treasury TBAC November 2025 presentation, SMBC Nikko

…but heavy bill issuance may not reduce costs much

Service cost volatility (% GDP)



- TBAC estimated the cost (and volatility) of sharply increasing bill supply under the same growth scenarios
    - It assumed that coupon issuance grew in line with GDP and the balance of the deficit was financed with bills[1/]

- Relative to the current mix the bill heavy issuance mix saves only a tenth or so
    - But with more volatility

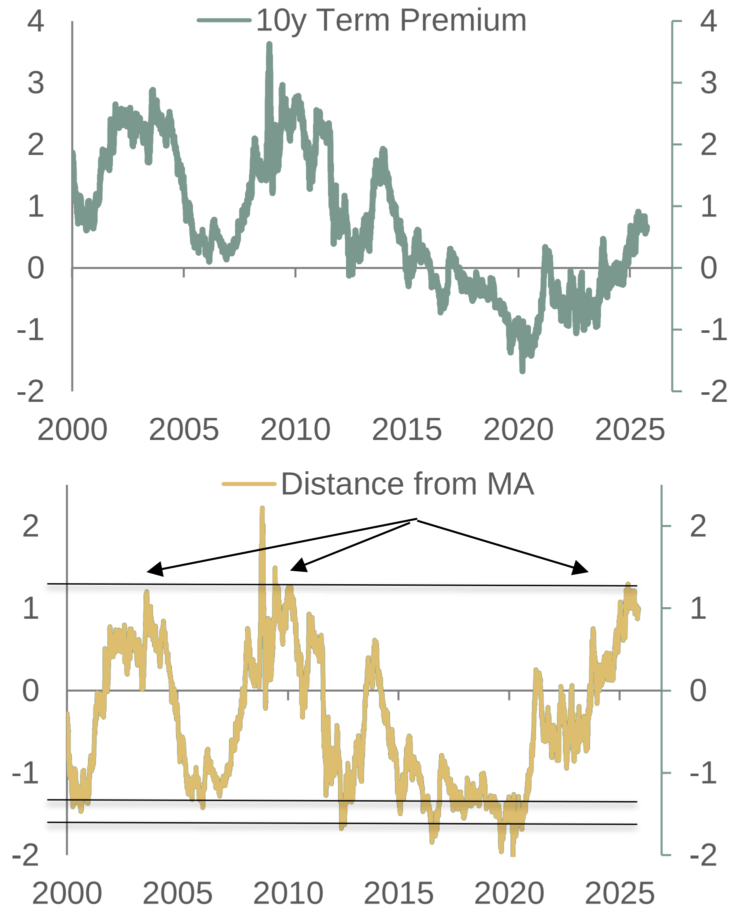
Sources: US Treasury TBAC Presentation, November 2025, SMBC Nikko

1/ This pushes the bill debt share toward 50% over the 20y forecast horizon.

Term premium in consolidation phase ?

- History shows that term premium finds resistance after a rise of 115-140 bps rise from the 10y moving average (MA). Currently term premium at 62 bps vs. 10y average at -37 bps.
- However, unless the fiscal situation improves, after a period of consolidation, term premium may rise again.

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



Sources: Federal Reserve, Bloomberg, SMBC

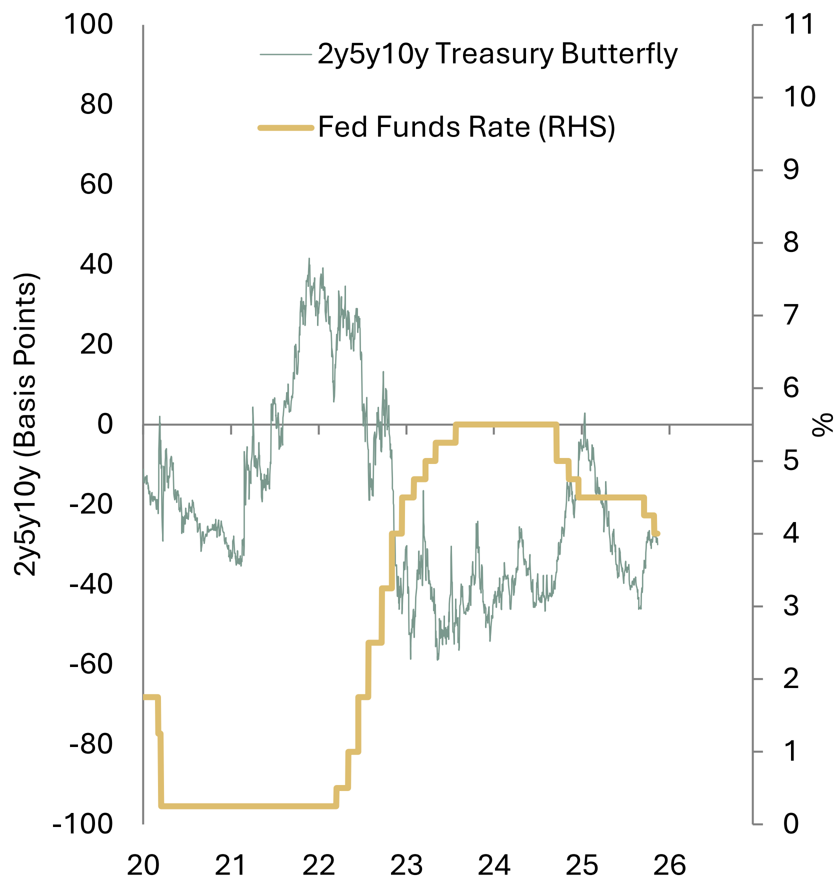
5y has cheapened against 2y and 10y but more room to go

- 5y had richened from January to September 2025 as the 2s5s flattened (cuts being pushed out) and the 5s10s curve steepened (term premium being injected in the long end)

- 5s has richened as investors that were hiding in the 5y-7y part of the curve (going underweight) into September 2025 are extending to 10y-30y part of the curve, as they turn neutral.

- The cheapening in the 5y has been fast and some consolidation is welcome but there is more room for cheapening of the 5y.

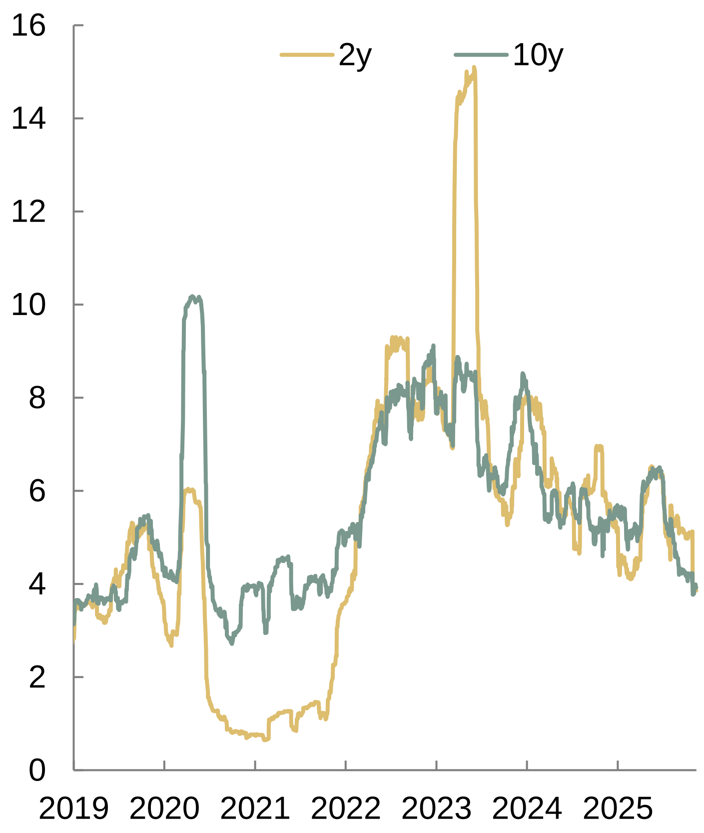
2y5y10y UST Fly (bps) vs. Fed Funds (%)



Sources: US Treasury, Bloomberg, SMBC

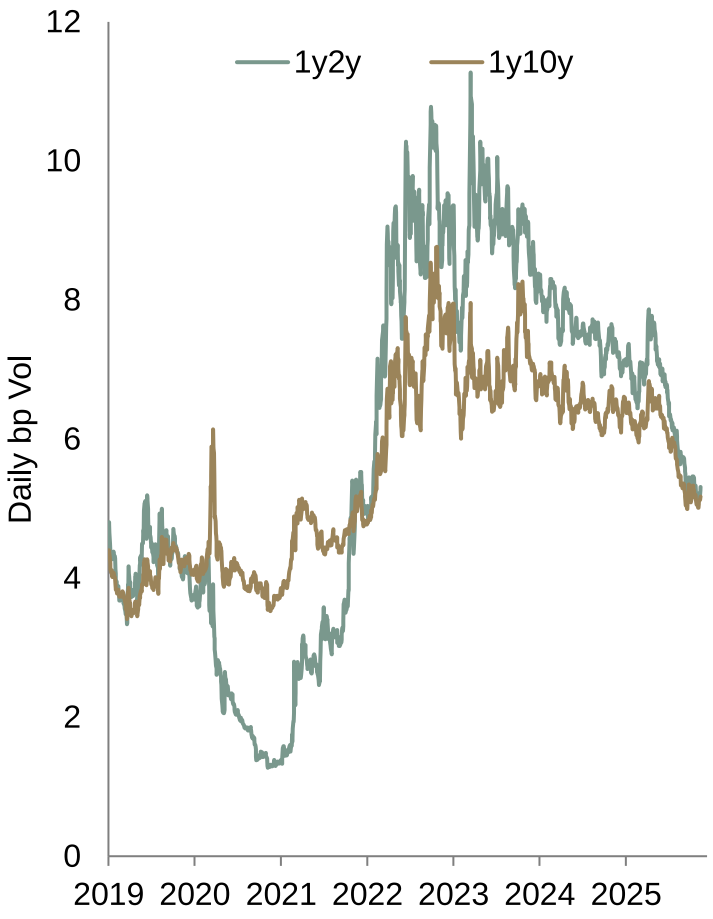
Time to fade the multi-year lows in vol ?

Realized vol (daily bp)



Sources: Bloomberg, SMBC Nikko

Implied vol (daily bp vol)



Sources: Bloomberg, SMBC Nikko

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