# Monthly Interest Rates Chartbook
# December 2025

**Joseph Abate**
US Rates Strategy
SMBC Nikko Securities

(212) 893-1592
Joseph.Abate@smbcnikko-si.com

**Monty Gandhi**
US Rates Strategy
SMBC Capital Markets

(212) 224-5114
Monty.Gandhi@smbc-cm.com

**Troy Ludtka**
US Macroeconomics
SMBC Nikko Securities

(212) 224-5483
Troy.Ludtka@smbcnikko-si.com

# 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** | 3.6 (F) | 0.6 | 1.0 | 2.1 | 3.1 | 2.7 |
| **Real GDP YoY** | 2.2 (F) | 1.8 | 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 | 4.3 |
| **FDTR Lower Bound** | 4.00 | 3.50 | 3.00 | 3.00 | 2.75 | 2.75 |
| **FDTR Upper Bound** | 4.25 | 3.75 | 3.25 | 3.25 | 3.00 | 3.00 |
| **FDTR Midpoint** | 4.13 | 3.63 | 3.13 | 3.13 | 2.88 | 2.88 |
| **2 Year** | 3.61 | 3.35 | 3.25 | 3.00 | 3.00 | 3.00 |
| **10 Year** | 4.15 | 4.00 | 4.00 | 4.25 | 4.25 | 4.25 |

Source: BEA, BLS, Federal Reserve and SMBC Nikko

# Summary of views

- Growth: We look for growth to slow this winter but the economy will likely avoid a recession. We expect growth will quickly recover in the second half of 2026.
  - We expect somewhat above-trend growth in 2027 (2.5%) as AI-fueled productivity gains begin feeding into output

- Inflation: We continue to look for inflation to decelerate as rent costs follow home prices lower.
  - Tariff effects on goods prices (and output) appear to be muted
  - The IEEPA tariffs face legal challenges although the Administration has other trade rules it can use to impose import duties
    - But these too, may be challenged

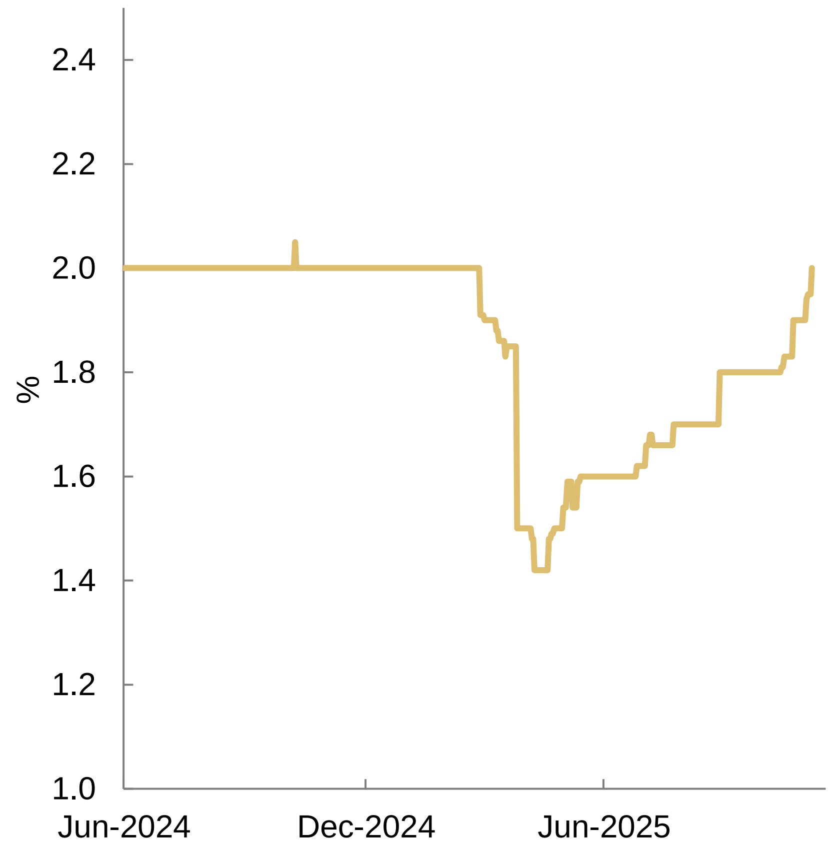
- Fed: We expect lingering labor market weakness will push the Fed to cut twice in Q1. A final cut may come in Q3 with the new Fed chair.
  - We look for the Fed to hold rates steady in 2027

# Growth outlook rebounds as policy uncertainty priced out

- 2026 growth expectations were revised down sharply in April
    - As the consensus looked for the economy to enter a recession

- But as tariff effects have been milder than expected the outlook for next year has improved

## Consensus 2026 GDP estimates (%)




Sources: Bloomberg, SMBC

# Hiring is slowing…

## ADP and nonfarm payrolls (chng, 000)


- Private sector measures indicate that hiring has continued to slow

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



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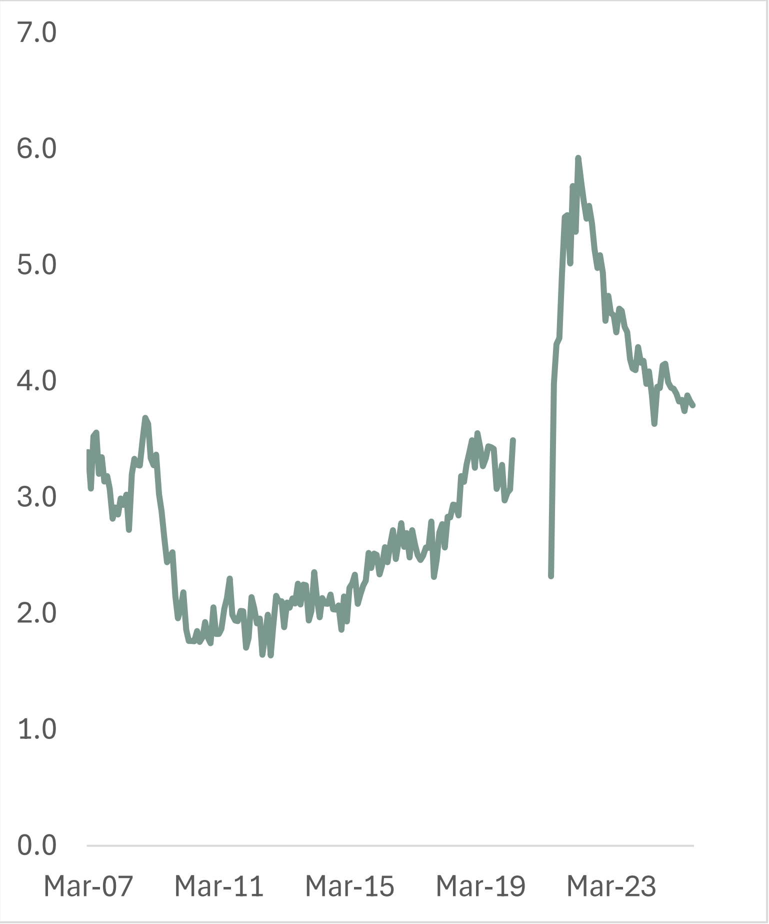
# …along with wages

- Labor market tightness pushed average hourly earnings growth above 5% in 2023
- But although wage pressures have ebbed since then, they remain higher than after the slow period following the financial crisis[1/]

## Average hourly earnings (%y/y)



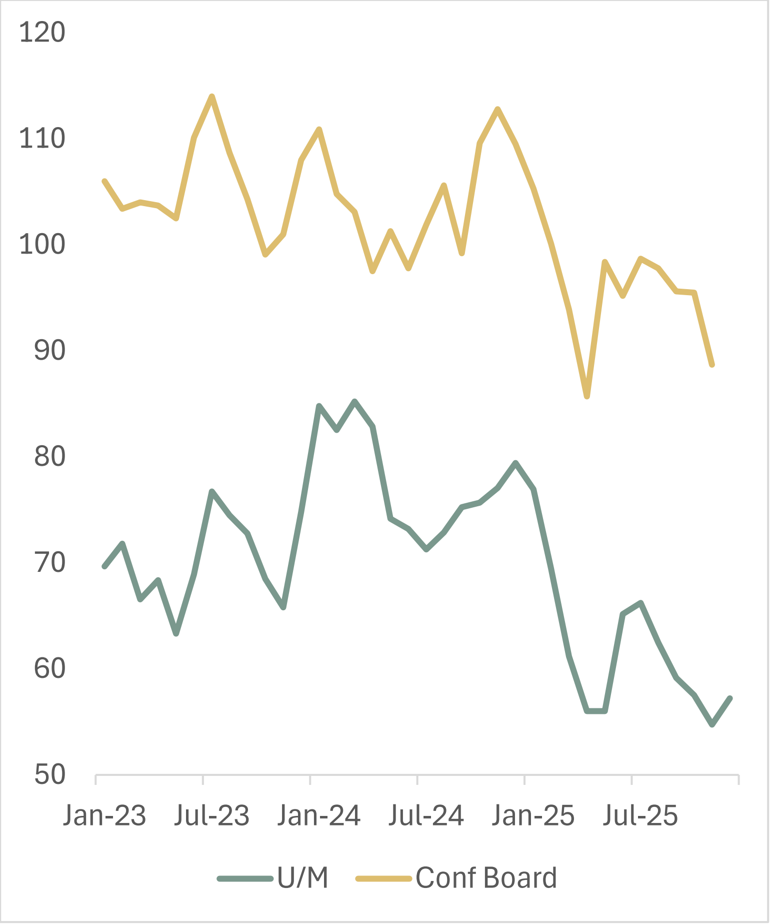

1/ This is also the case for the ECI, a broader measure of labor costs that includes benefits and accounts for the changing composition of jobs over time.

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

# Consumer sentiment

- Measures of consumer sentiment have drifted lower this year
  - After rebounding this summer

## Confidence measures (1985=100)




Note: The U/M measure has been re-indexed to 1985. Sources: University of Michigan, Conference Board, SMBC Nikko



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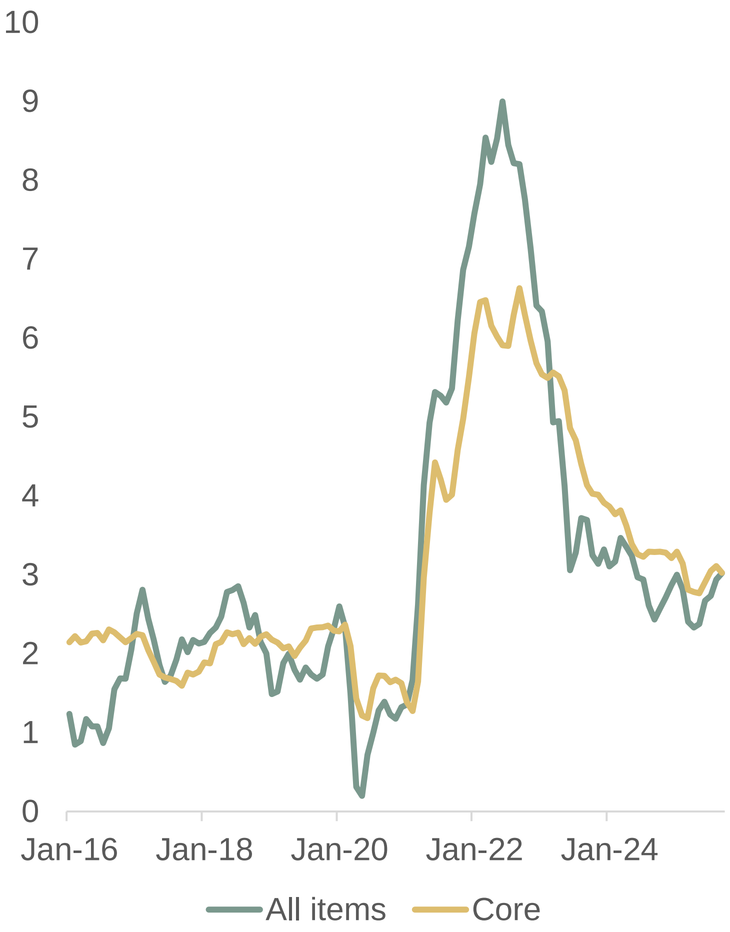
# Inflation remains sticky

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

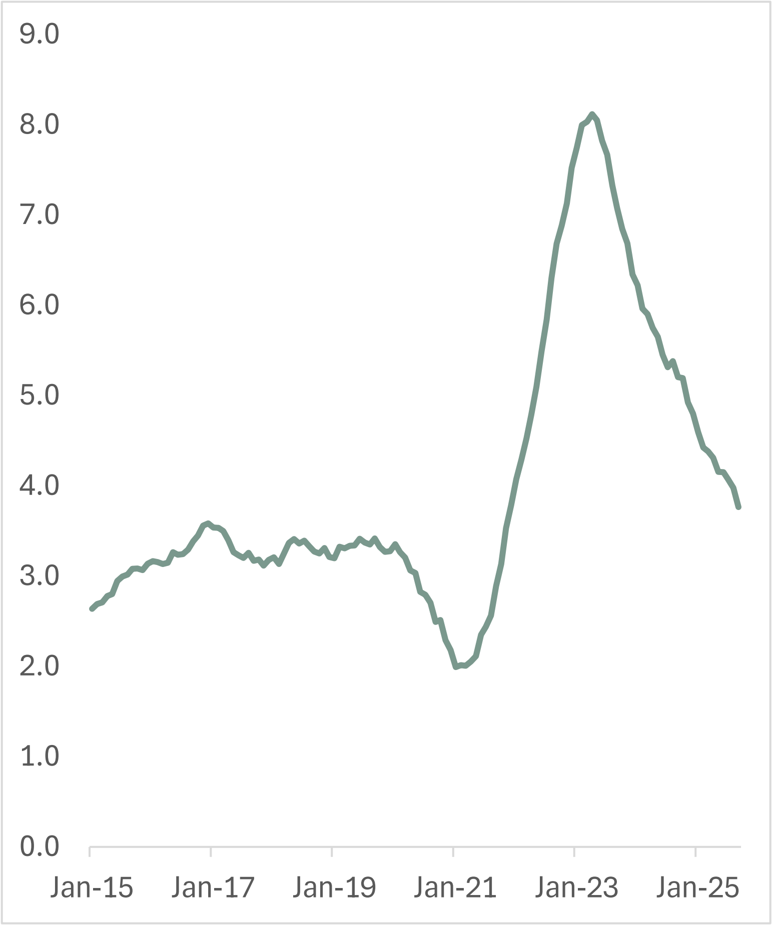
## Inflation (%y/y)




Sources: BLS, SMBC Nikko

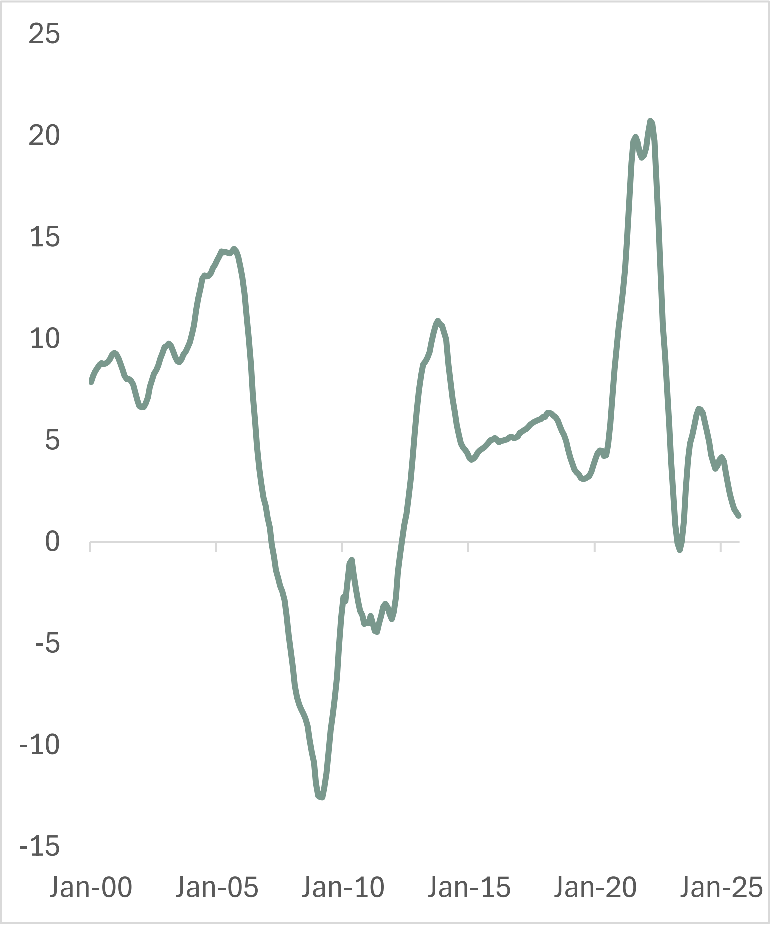
# Cooling shelter costs…

## Owners equivalent rent (%y/y)




Sources: BLS, SMBC Nikko

## National home prices (%y/y)

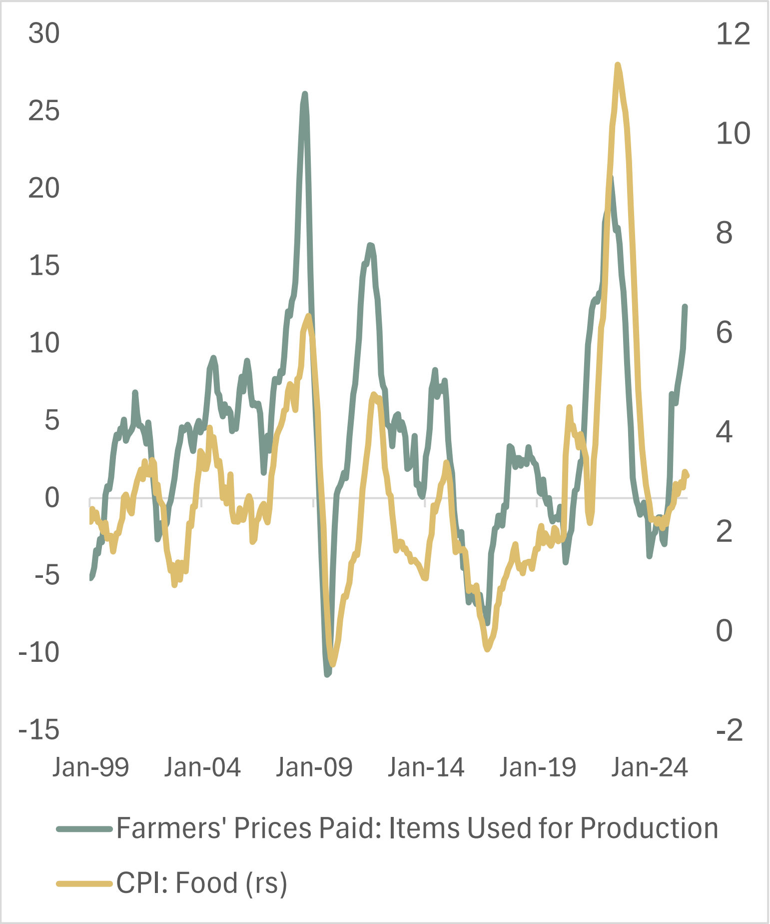



Sources: Case-Shiller, SMBC Nikko

# …but higher food prices?

- Food prices may come under pressure next year
  - As farmers' input costs have risen sharply in the past year
- Although this depends on the ability for farmers to pass along these increases
- As well as the cost of non-US substitutes

## Food prices (%y/y)

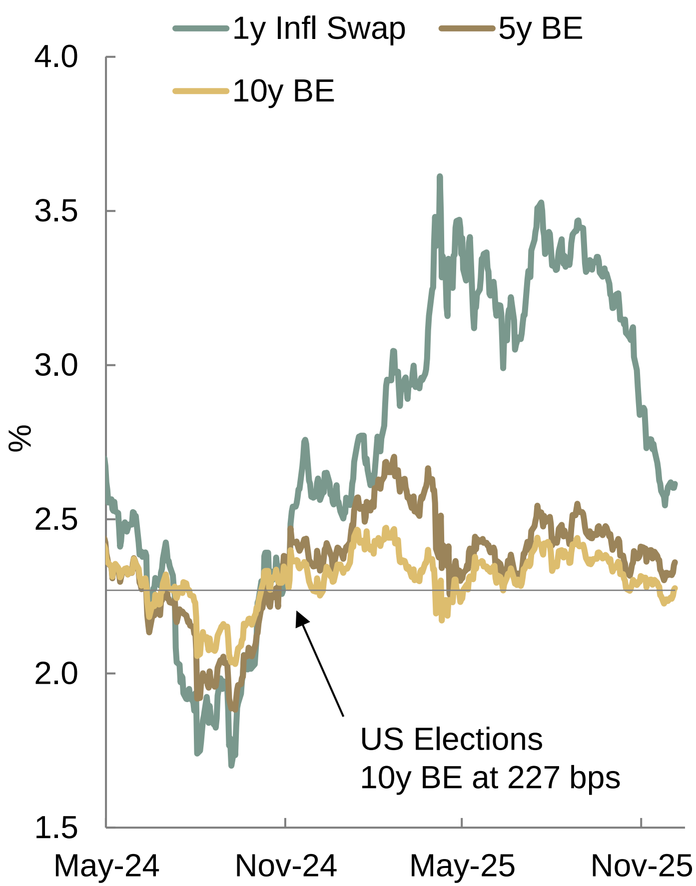



Sources: BLS, SMBC Nikko

# Muted term inflation expectations

- 1y inflation swaps have fallen from their April high of 3.5% to 2.61% with the legal challenge to tariffs and lower oil prices
- 10y TIPS breakevens are a few bps higher than their election day levels

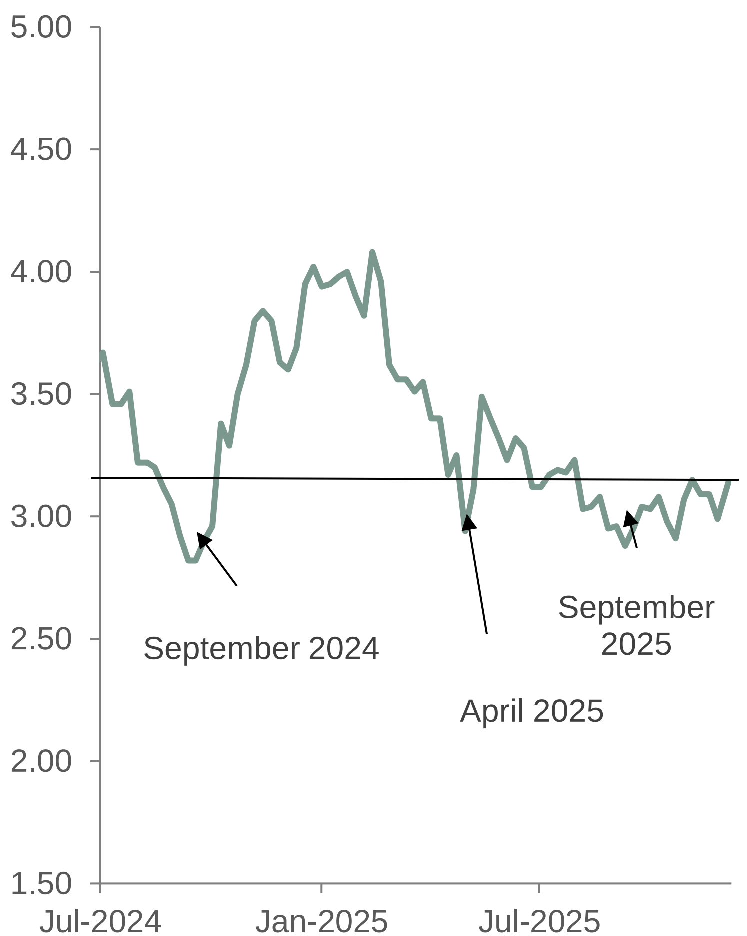
## Inflation breakevens (%)




Sources: US Treasury, Bloomberg, SMBC

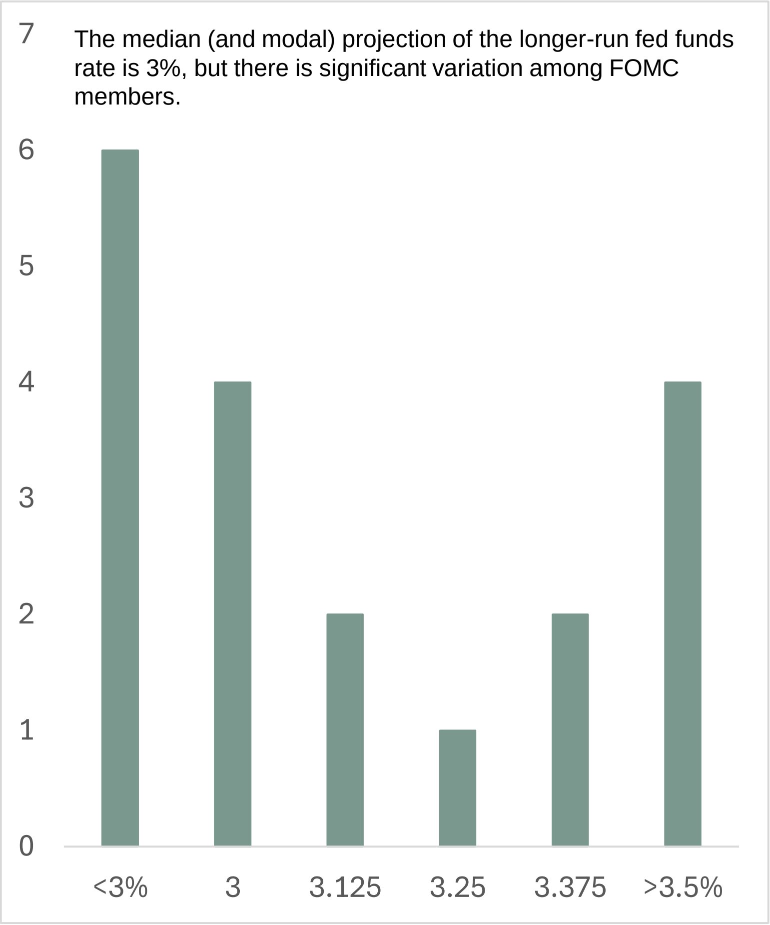
# Fed policy expectations

## Terminal rate pricing (%)




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

## Longer run fed funds rate distribution



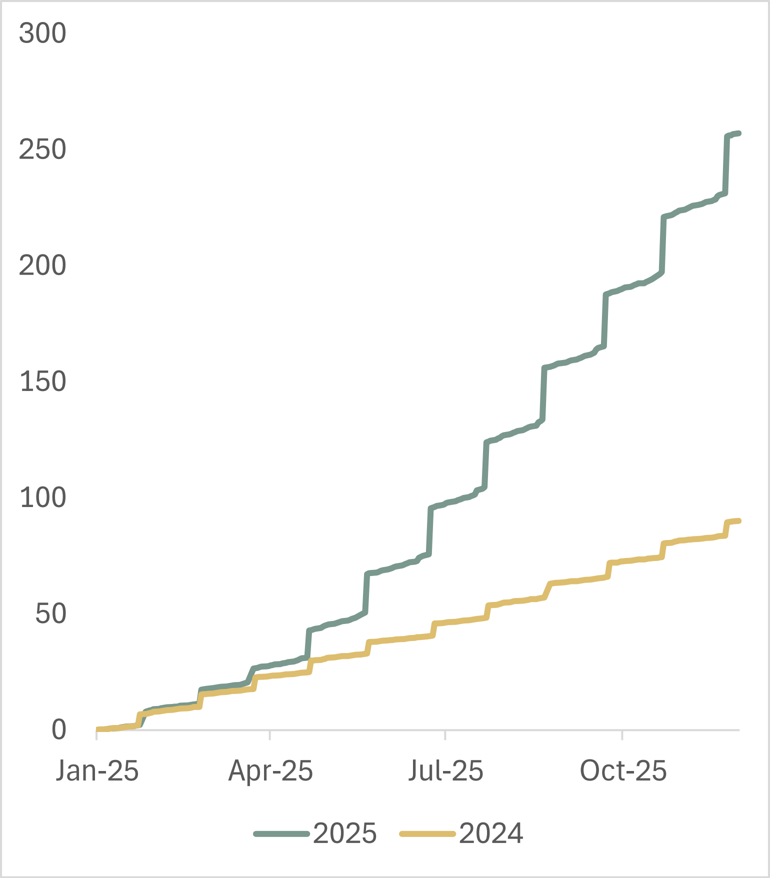

Sources: Federal Reserve, September FOMC Survey of Economic Projections, SMBC Nikko

# 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

## Tariffs revenues ($bn)




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

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

# Tariff refunds?

- The IEEPA tariffs face legal challenges
  - It is unclear if the Supreme Court will limit the Administration's ability to impose these emergency tariffs
  - Or if the Treasury will have to return these revenues
    - There is little legal precedent for returning these revenues
      - Importers might be able to file a protest with the Customs Bureau
        - But they face time limits on their ability to file
          - And protests apply to Customs Bureau decisions. Technically, a judicial repeal of IEEPA would not be a Customs Bureau decision
      - Importers may be able to sue at the Court of International Trade
  - *Our sense is that it might take years for importers to receive refunds*
    - *And the Treasury may keep a significant portion of the revenue already collected*

# Tariff refunds (2)?

- The Administration recently proposed $2000 tariff “dividends”
  - These refunds are meant to offset the cost of higher tariffs on “individuals of moderate income”
    - Although there is some question of exactly what form the refunds might take[1/]
  - Any refunds would have to be approved by Congress

- Depending on how the widely refunds are distributed, their expense might exceed the revenues collected
  - COVID payments of similar magnitude and coverage cost the US Treasury between $150-$410bn
    - Compared to the roughly $300bn in tariff revenue raised annually

1/ See “What to know about Trump’s promise of $2000 tariff dividend payments”, M. Zahn, ABCNews, November 10, 2025.

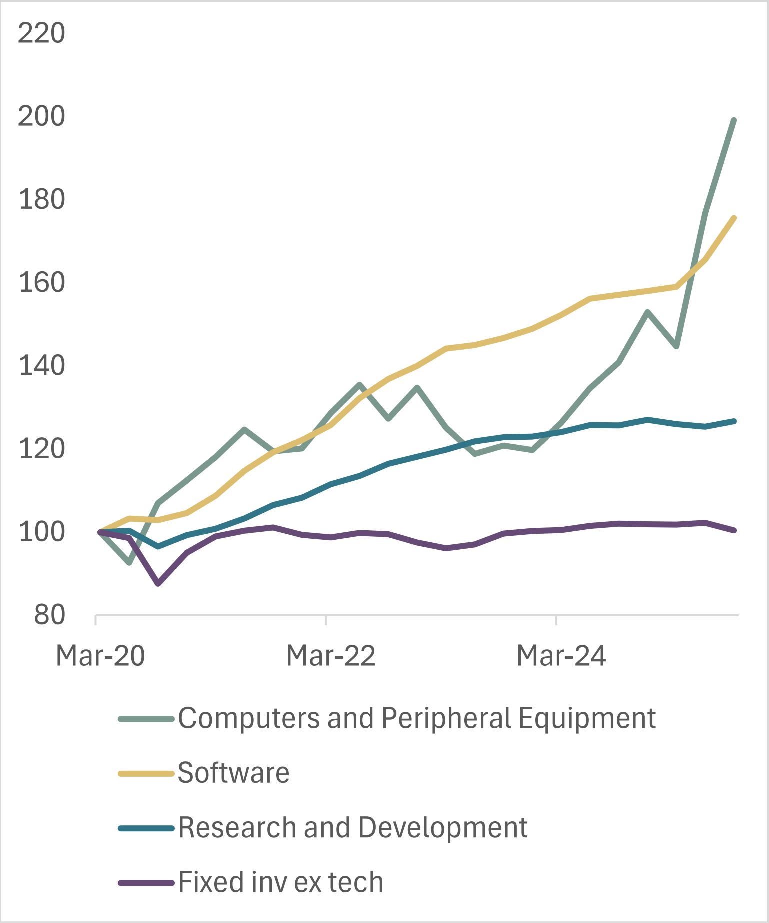
# Replacement tariffs

- 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 impose 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)

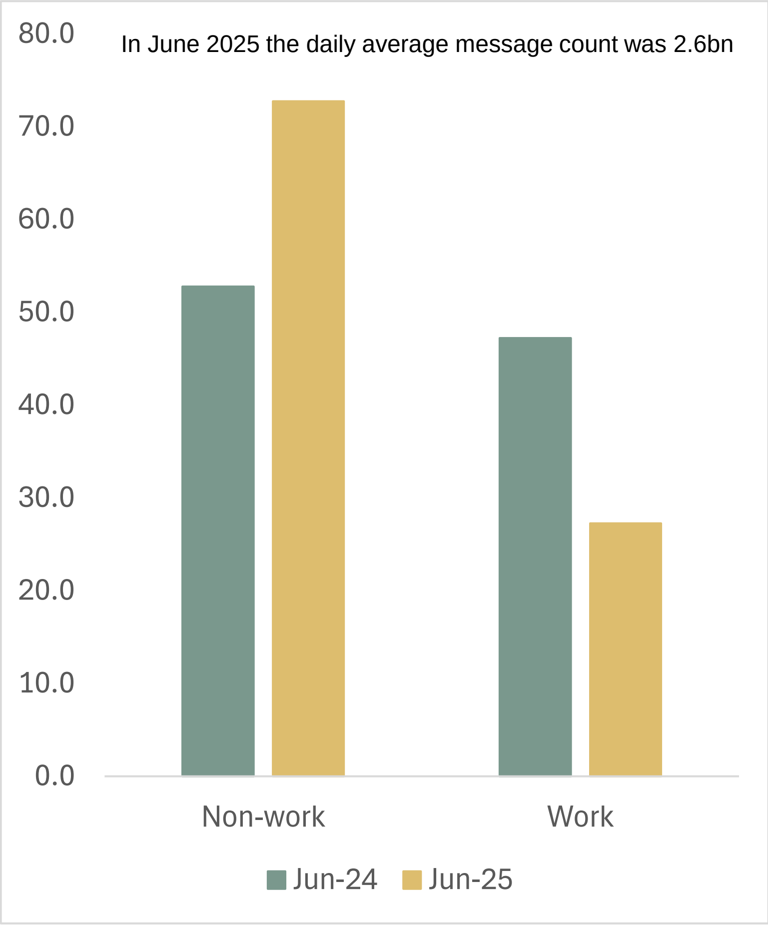



- Since 2020, there has been rapid growth in investment in computers and software
  - As AI-driven demand for computing power has surged
- Outside of the sector, real fixed investment has been sluggish

Sources: BEA, SMBC Nikko

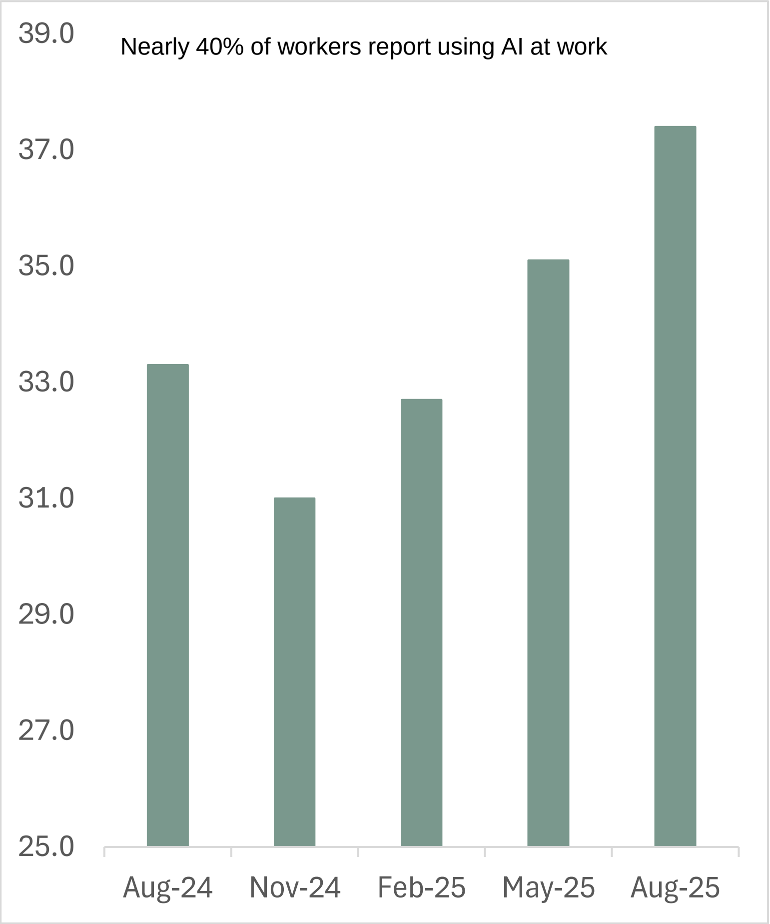
# AI use

## ChatGPT messages (% total)




Sources: Chatterji et al., SMBC Nikko

## AI use at work (% employees)

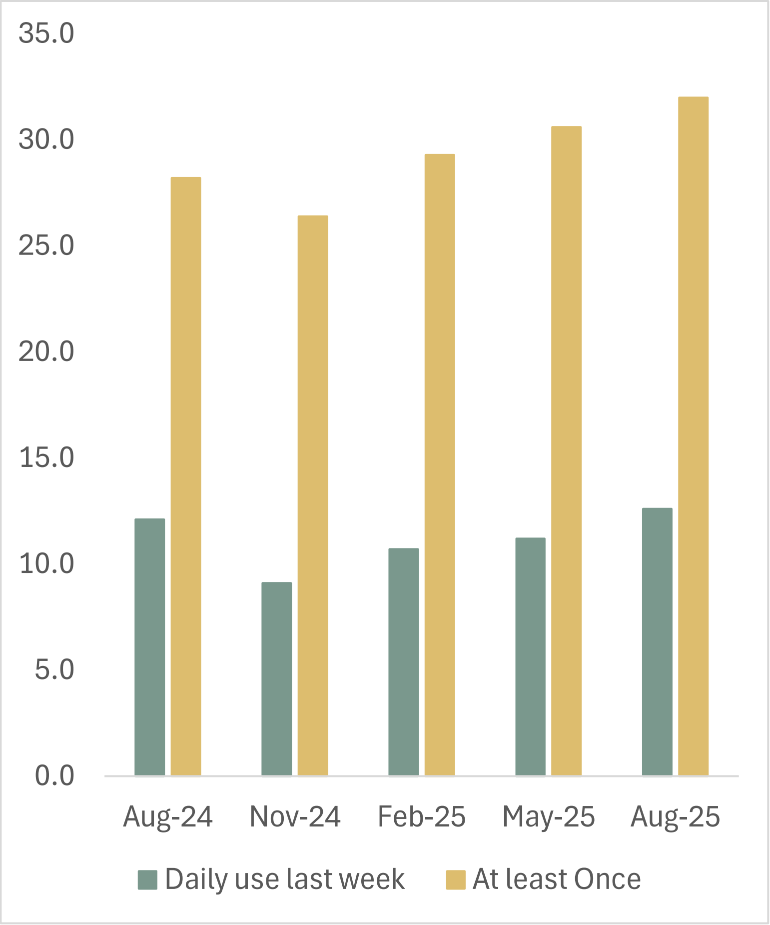



Sources: Bick et al., SMBC Nikko

See, See, "How People Use ChatGPT", A. Chatterji, T. Cunningham, D. Deming, Z. Hitzig, C. Ong, C. Shan, and K. Wadman, OpenAI, Duke University, and Harvard University, September 15, 2025 and "The State of Generative AI Adoption in 2025", A. Bick, A. Blandin, and D. Deming, Federal Reserve Bank of St. Louis, November 13, 2025

# Frequency of work use

## Frequency of use (% workers)



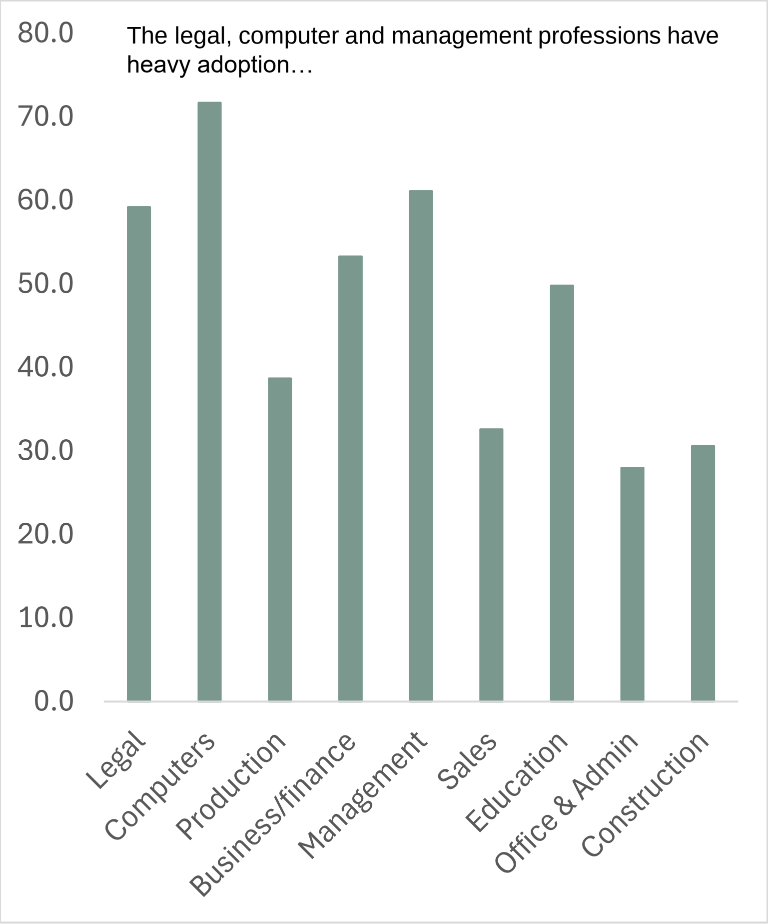

- Alongside the increase in adoption, workers are using the technology more frequently
  - The average worker reports using AI for about 2h/week[1/]
    - Up 40m from a year-earlier

Sources: Bick et al, SMBC Nikko

1/ In August 2025

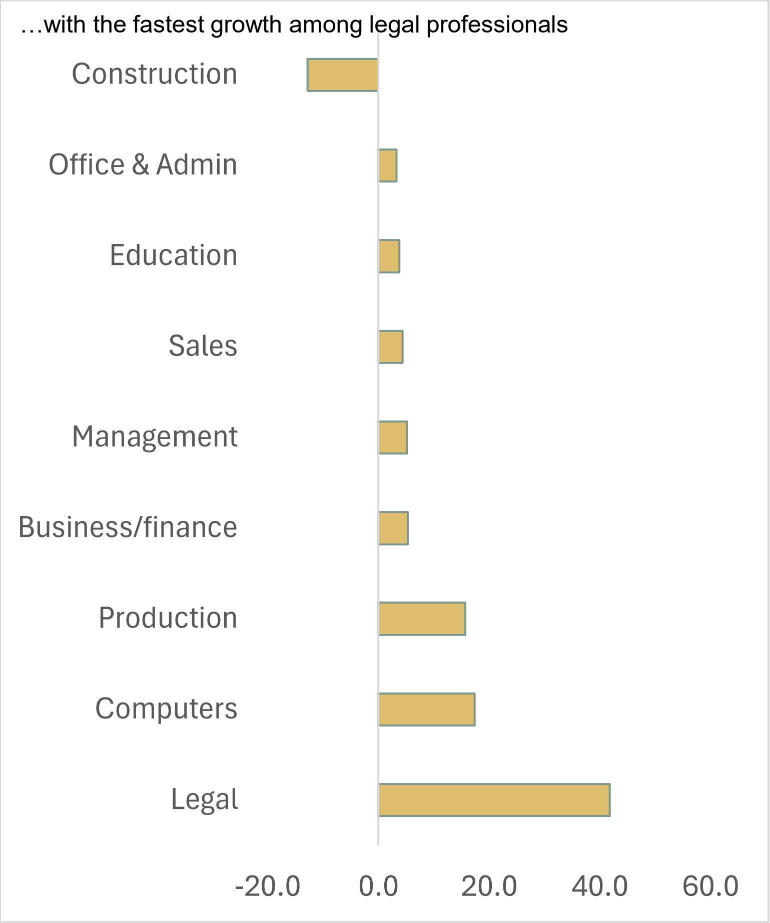
# AI use by occupation

## AI use by occupation (% workers)




Sources: Bick et al, SMBC Nikko

## Growth by occupation (% change)

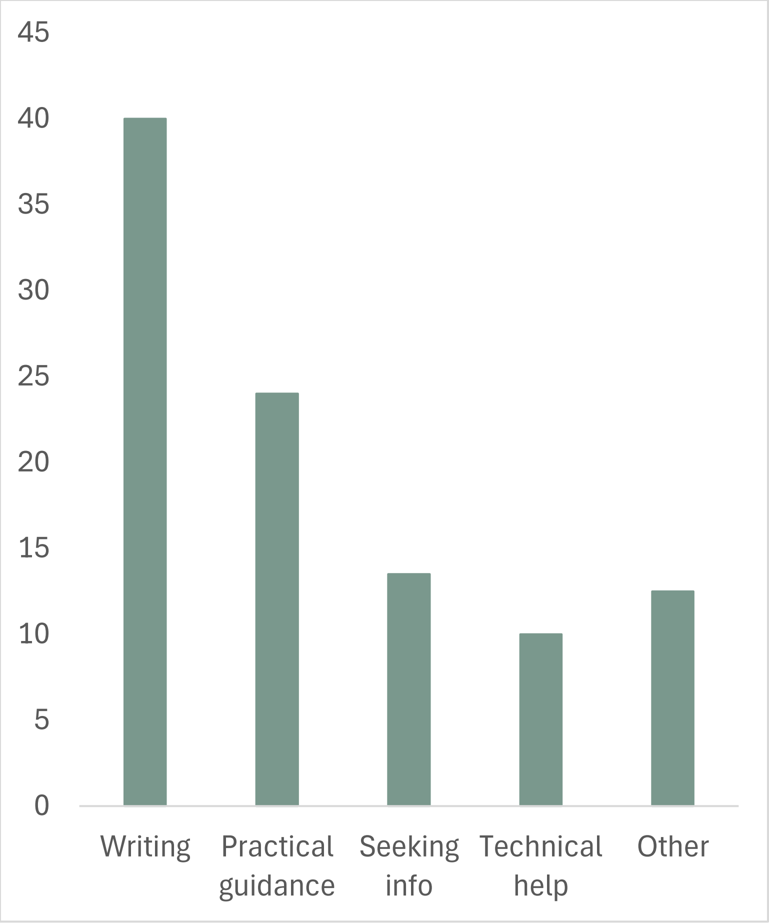



Note: Change since August 2024. Sources: Bick et al, SMBC Nikko

# AI tasks

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

## AI tasks (%)



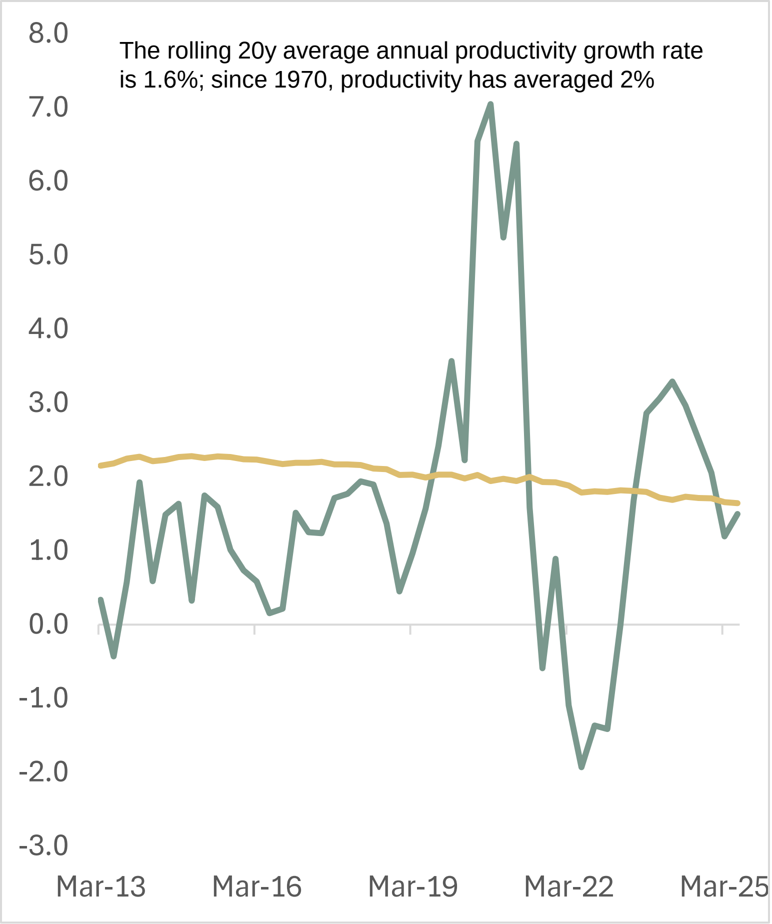

Sources: Chatterji et al. SMBC Nikko

# Productivity effects

- Survey evidence points to significant time savings from using AI
  - Across occupations and tasks

- *Bick et al estimates non-farm productivity may have increased by 1.3% based on the survey data since the introduction of ChatGPT in Q4 22*[1/]
  - But it is difficult to see the start of a new, higher trend

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




Sources: Federal Reserve Bank of New York, SMBC Nikko

1/ See, "The State of Generative AI Adoption in 2025", A. Bick, A. Blandin, and D. Deming, Federal Reserve Bank of St. Louis, November 13, 2025

# Interest Rates Strategy

# Interest rates summary

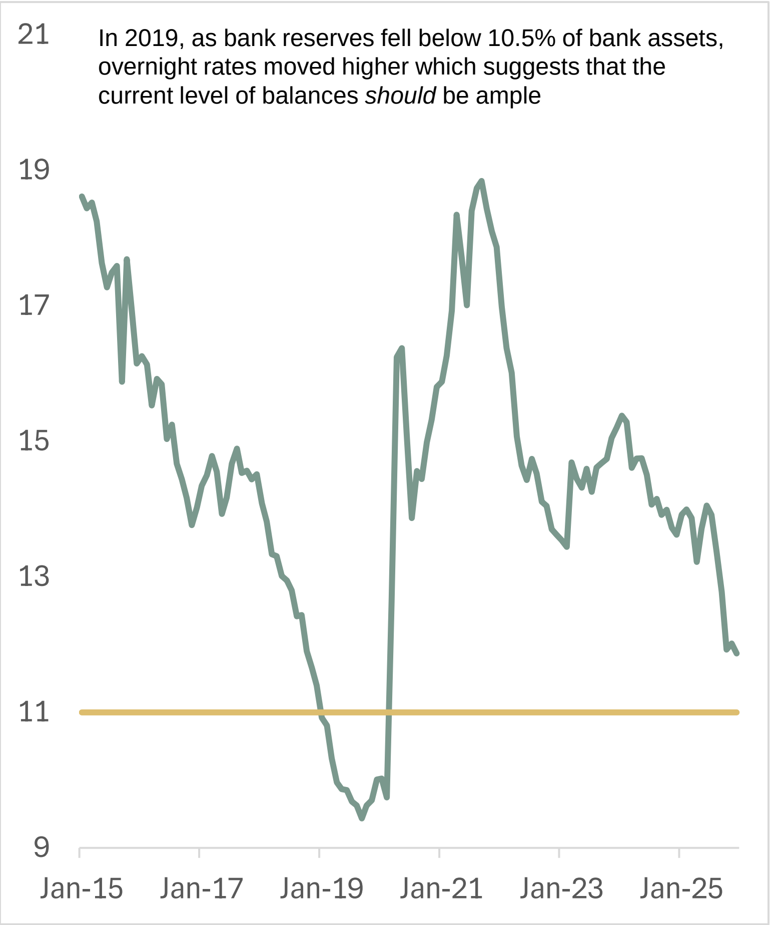
- Now that the Fed has ended QT, it will let its MBS holdings roll off and replace them with bills
  - It plans to begin reserve management purchases in December
    - To neutralize the effect on bank reserves from currency growth and higher Treasury balances
  - These purchases will start at $40bn/mo and be directed into bills

- The Treasury is likely to keep coupon auction sizes steady next year. We think bill issuance will rise by $600bn
  - We do not think the Treasury can significantly reduce its debt service costs by increasing bill issuance above its historical share of public debt

- 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.

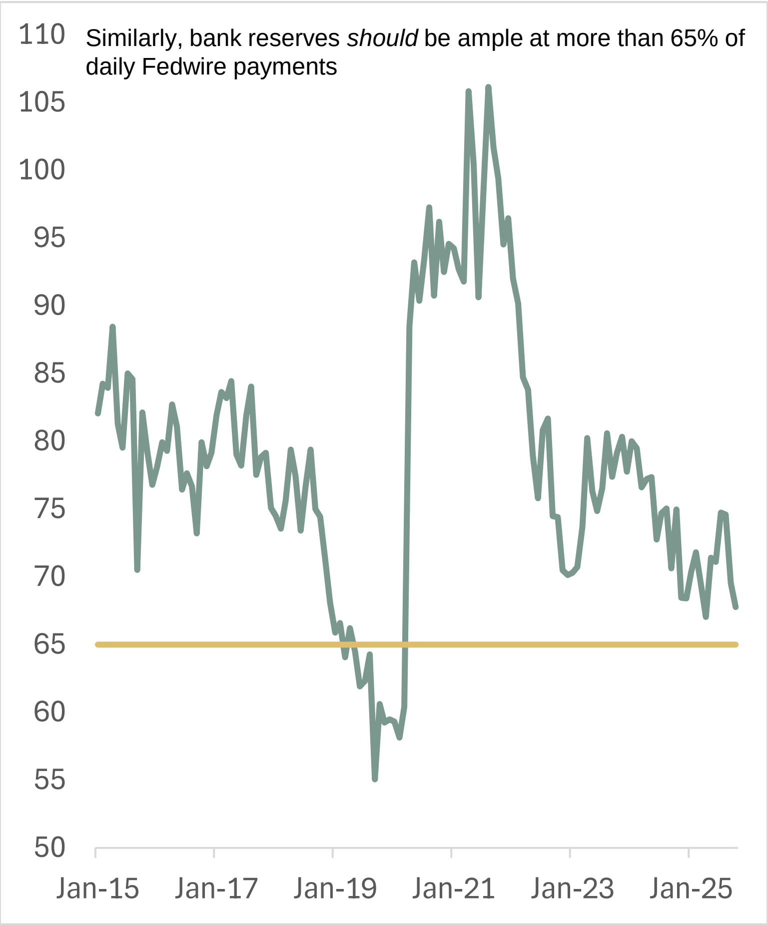
# Bank reserves are not as ample as earlier this year

## Bank reserves (% bank assets)




Sources: Federal Reserve, SMBC Nikko

## Bank reserves (% daily Fedwire payments)




Sources: Federal Reserve, SMBC Nikko



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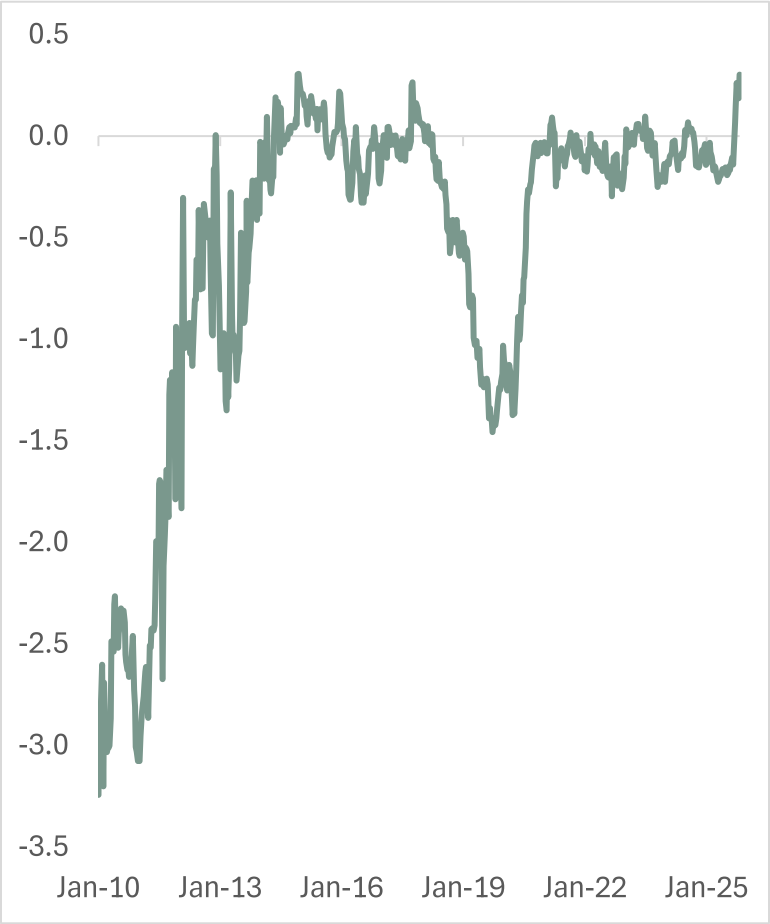
# Reserve demand elasticity

- The RDE measures the sensitivity of the fed funds/IORB spread to changes in the rate reserves as a share of bank reserves
  - When the slope is near-zero, the Fed can shrink the supply of reserves
    - Without causing the fed funds/IORB spread to narrow

- But the behavior of overnight rates since mid-October suggests that reserves have become scarce(r)

## RDE (%)




Sources: Federal Reserve Bank of New York, SMBC Nikko



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# Higher reserve demand?

- *Why are traditional measures of reserve ampleness not suggesting as much scarcity as the pressure in overnight rates?*

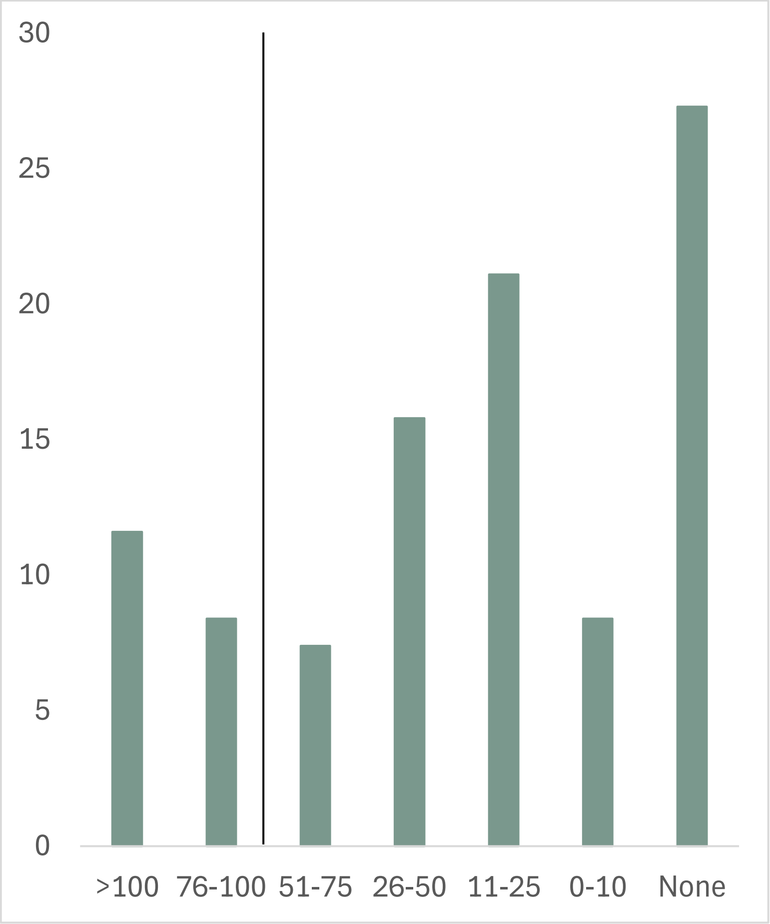
- We suspect that the demand for reserves has increased
  - Some of the increased demand reflects the fact that in an abundant reserve regime, banks do not have to work as hard to find alternatives to meet their liquidity requirements

  - In addition, banks may prefer to hold reserves over Treasuries as these are immediately available
    - Where Treasuries need to be monetized – in the market or through one of the Fed's liquidity programs (the Discount Window and the SRF)

- *The Fed could reduce the demand for bank reserves if banks felt more comfortable using these programs as part of their daily, business as usual, liquidity management*

# Reserve demand: Survey evidence

## Percent balances over LCLoR (%)




- Most banks (72.6%) prefer to maintain reserve balances above their least comfortable level of reserves (LCLoR)[1/]
  - And nearly 20% of banks prefer to keep very high surpluses (>76%) above their LCLoR

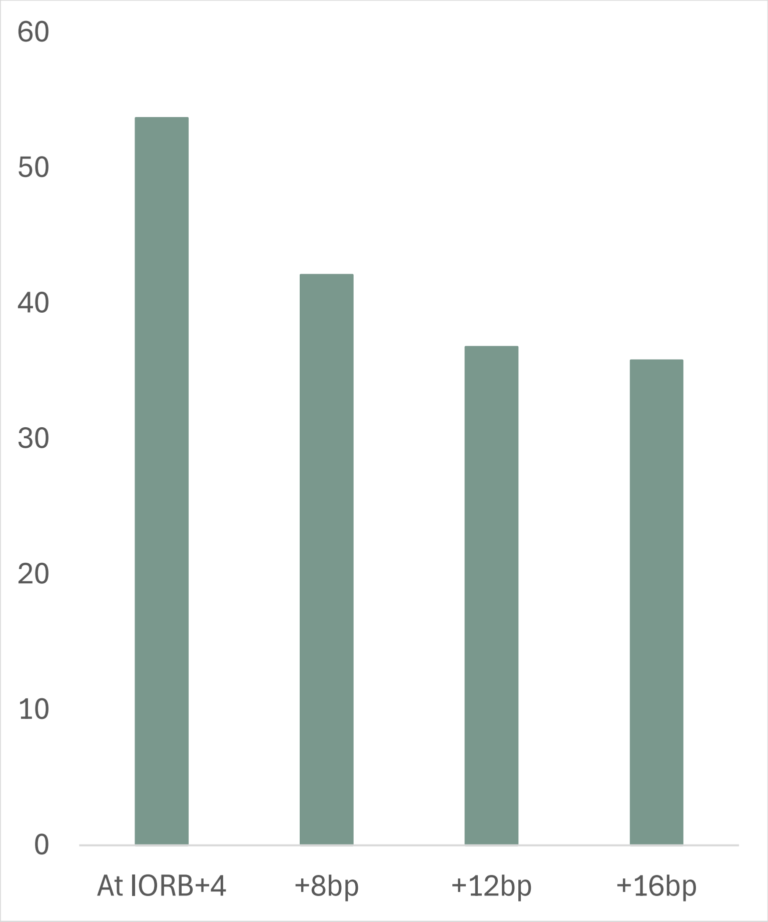
Note: The x-axis is the percentage of preferred surplus balances as a share of banks' LCLoR. Sources: Federal Reserve, SMBC Nikko

1/ See, "Senior Financial Officer Survey", Federal Reserve Board, September 2025.

# Higher rates and reserve demand

- High overnight rates (above the return to reserves, or IORB) reduce the demand for bank reserves[2/]
    - And increase banks' willingness to lend their cash into the repo market
- But repo rates may need to be at *least 8bp* above IORB to tempt more than half of banks to shift balances from reserves
    - And lend in the repo market

## Percent reporting no change in reserve balances by spread to IORB (%)[1/]

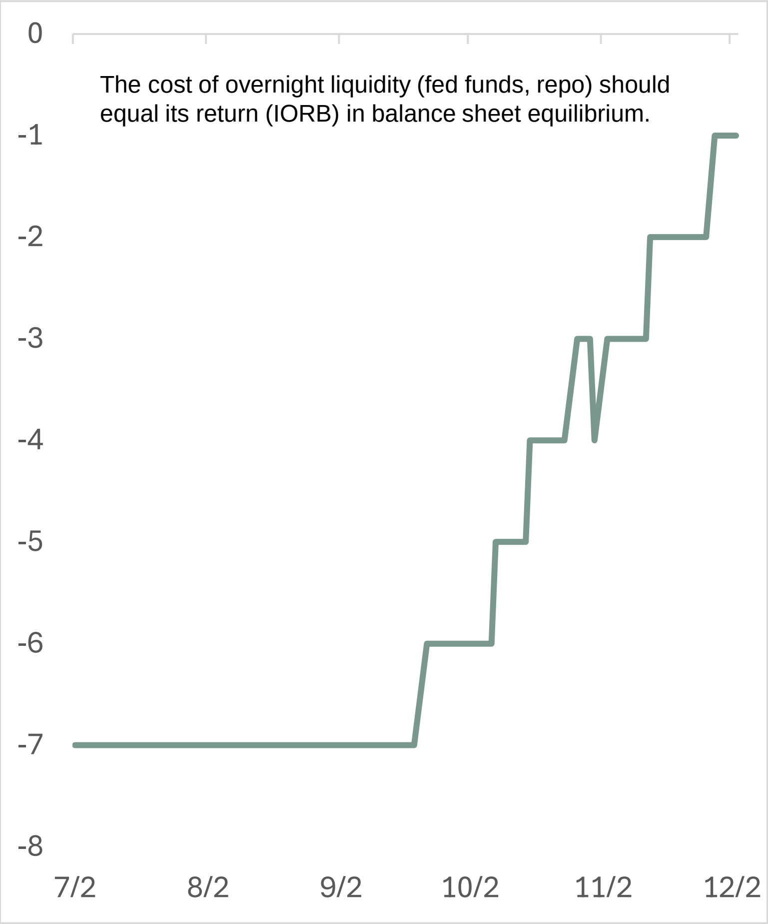



1/ See, "Senior Financial Officer Survey", Federal Reserve Board, September 2025.
2/ As banks can earn more than IORB by lending their cash in the repo market

Sources: Federal Reserve, SMBC Nikko

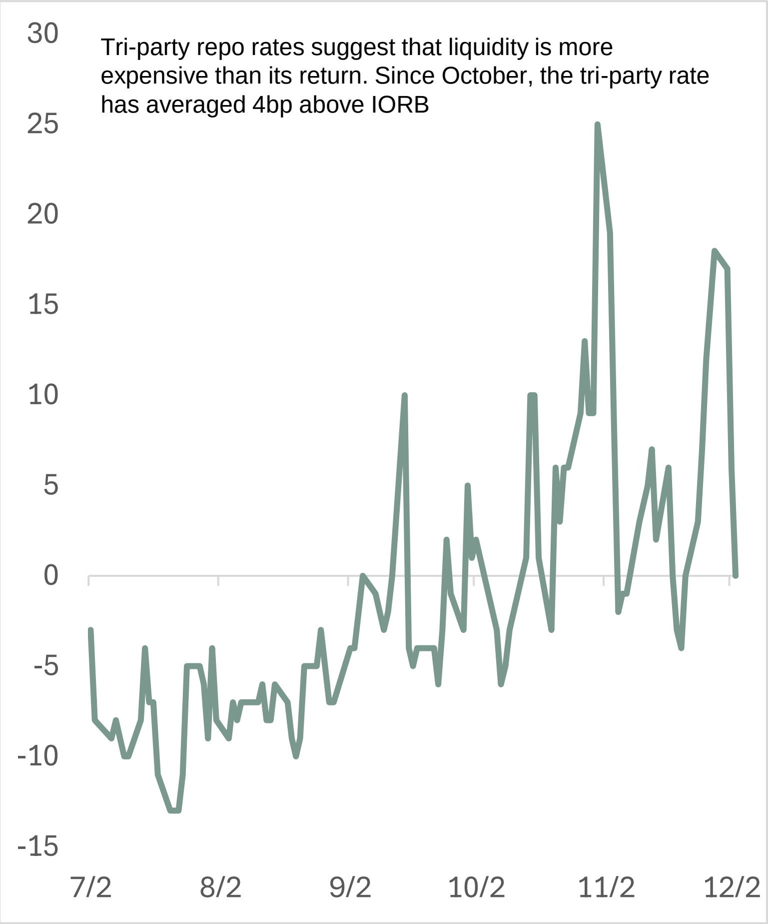
# Overnight rates have tightened

## FF-IORB (bp)




Sources: Federal Reserve, SMBC Nikko

## Tri-party repo–IORB (bp)

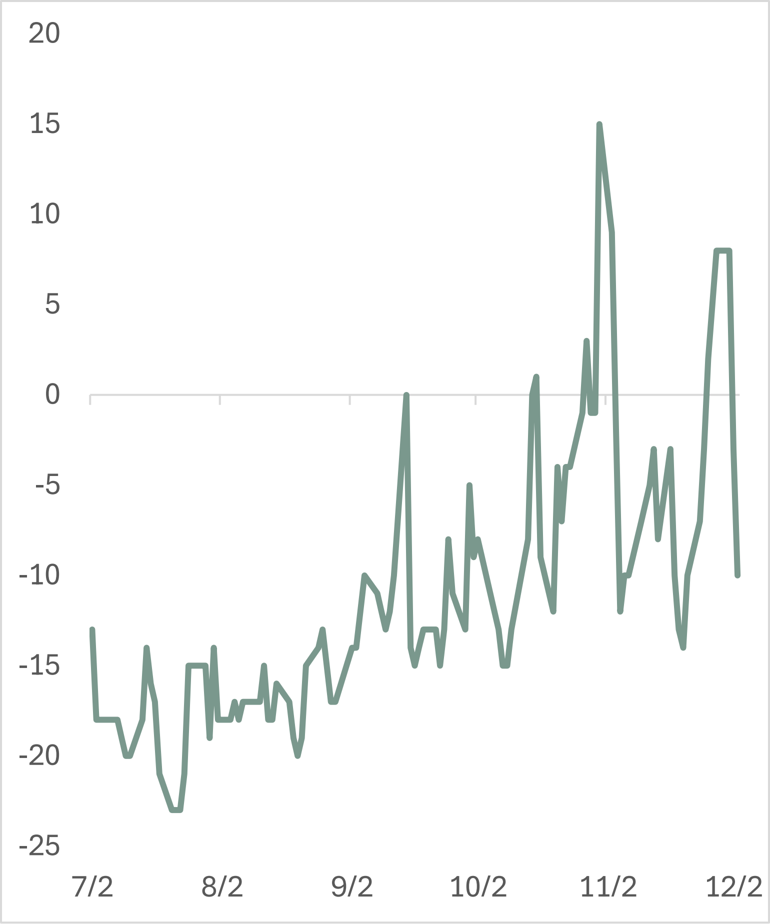



Sources: Federal Reserve, SMBC Nikko

# Tri-party rates are trading above the SRF rate

- A significant portion of the tri-party trades are occurring at rates above the SRF rate

## Tri-party less SRF rate (bp)




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

# Reserve management purchases (RMPs)

- *The Fed plans to begin its reserve management purchases this month*
  - *These purchases are meant to offset the growth in the Fed's non-reserve liabilities such as currency and the Treasury account*
    - *All the purchases will be in the secondary market*

- This month's RMPs will be $40bn
  - And be directed to bills
  - Although the Fed indicated that it could buy <3y paper if market conditions make it difficult to buy the full amount in bills
    - Most of the bill purchases (75%) will be in maturities of between 1 and 4m; the balance will be in bills out to 1y
      - The Fed will not buy bills with less than 4w to maturity

- The purchases will be announced around the ninth business day of the month
  - And occur from the middle of the month through the middle of the following month

# Fine tuning RMPs

- The Fed will fine tune its RMPs
  - It plans to ramp up (or down) the pace of its RMPs based on seasonal, non-reserve flows

- In the near-term the Fed seeks to increase the level of reserves in anticipation of the April tax date
  - It plans to oversupply reserves through its monthly RMPs
    - And then, after the tax date, the increase in the Treasury's cash account will whittle down the oversupply
      - So that reserves move closer to ample

  - In 2024, the Treasury's cash balance increased $160bn in April[1/]
  - As a result, we think its RMPs through the end of March may total $200bn
    - With the monthly purchase pace slowing to $5bn/mo in April and May

1/ We use 2024 for comparison as 2025 was affected by the debt ceiling.

# 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*



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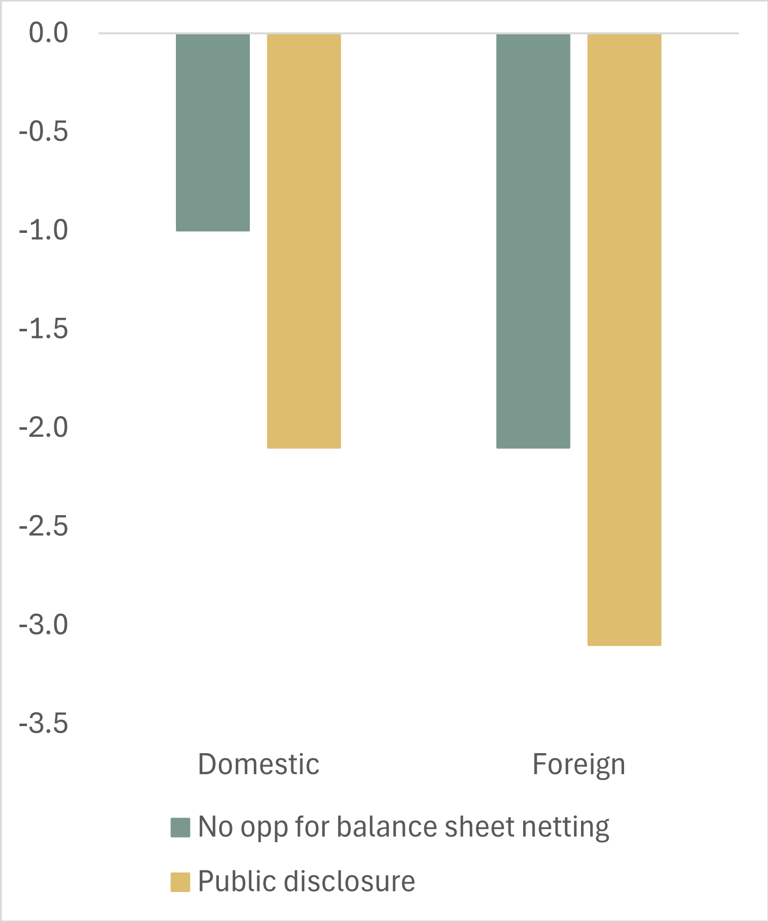
# Stigma?

- Like the Fed's other liquidity programs, usage of the SRF is publicly disclosed
  - Operation amounts are reported immediately after the operation
  - But participants' names are reported with a two-year lag

- In the March 2025 Senior Financial Officer survey, banks were asked about their attitudes toward the SRF[1/]
  - Public disclosure was a key concern
    - For both domestic and foreign banks

- *Reputational concerns reflect management psychology, fears of bank regulator scrutiny as well as worries about attracting market attention*

**SRF features: Attractive or not? (scale -4 to 4)**




Note: -4 "strongly discourages" use while 4 "strongly encourages use.
Sources: Federal Reserve, SMBC Nikko

1/ See "Senior Financial Officer Survey", Federal Reserve Board, March 2025.

# Do banks include borrowing from the Fed in their liquidity plans?

- In addition to reserves, banks hold liquid assets (such as Treasuries) that they can monetize in a funding crisis
- They can include discount window and SRF access in their regulatory stress test planning to monetize these assets
  - But not all banks assume access
    - And non-US banks seem more reluctant to incorporate SRF access into their liquidity stress testing[1/]

## Indicating borrowing is included (%)


1/ See "Senior Financial Officer Survey", Federal Reserve Board, September 2025.

Sources: Federal Reserve, SMBC Nikko



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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 $7bn/day[1/]

1/ Across all collateral and both daily operations.

# 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/]
    - 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[3/]

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

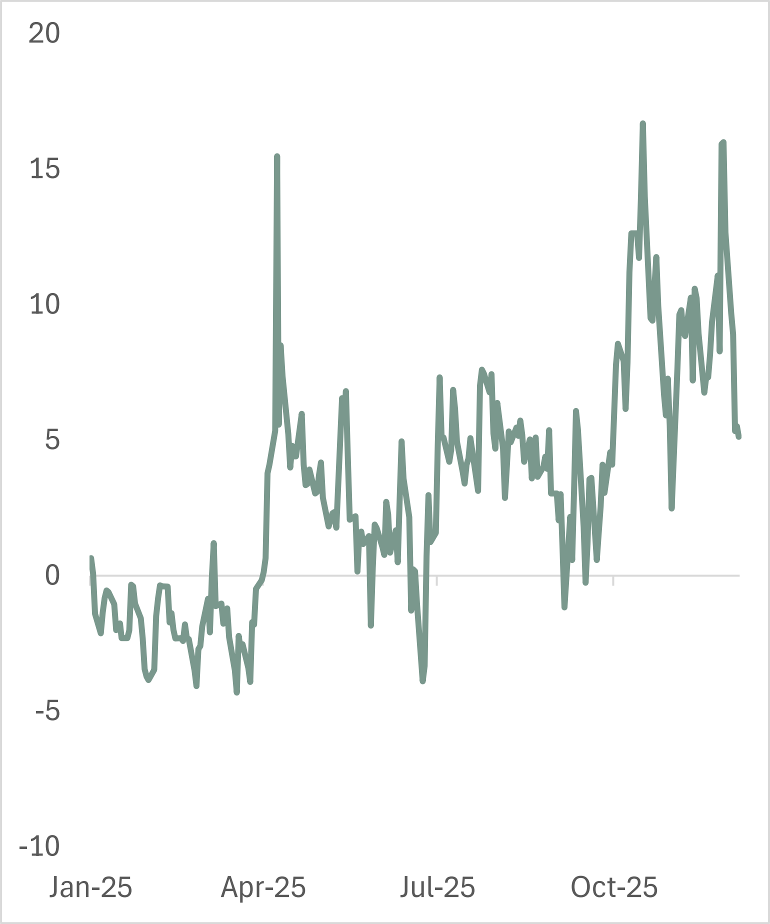
# Bill supply outlook

- We look for a FY 26 deficit of $2trn – somewhat wider than FY 25
  - With a year-end cash target of $900bn

- The November refunding suggests the Treasury can keep coupon auction sizes unchanged for "several quarters" – through at least September 2026
  - But we think it might be able to keep auction sizes unchanged through December 2026
    - This would require increasing bill supply by $600bn
      - This would push the bill/debt share closer to 23%

# Heavy bill issuance has pushed rates higher

## 3m bill less OIS (bp)

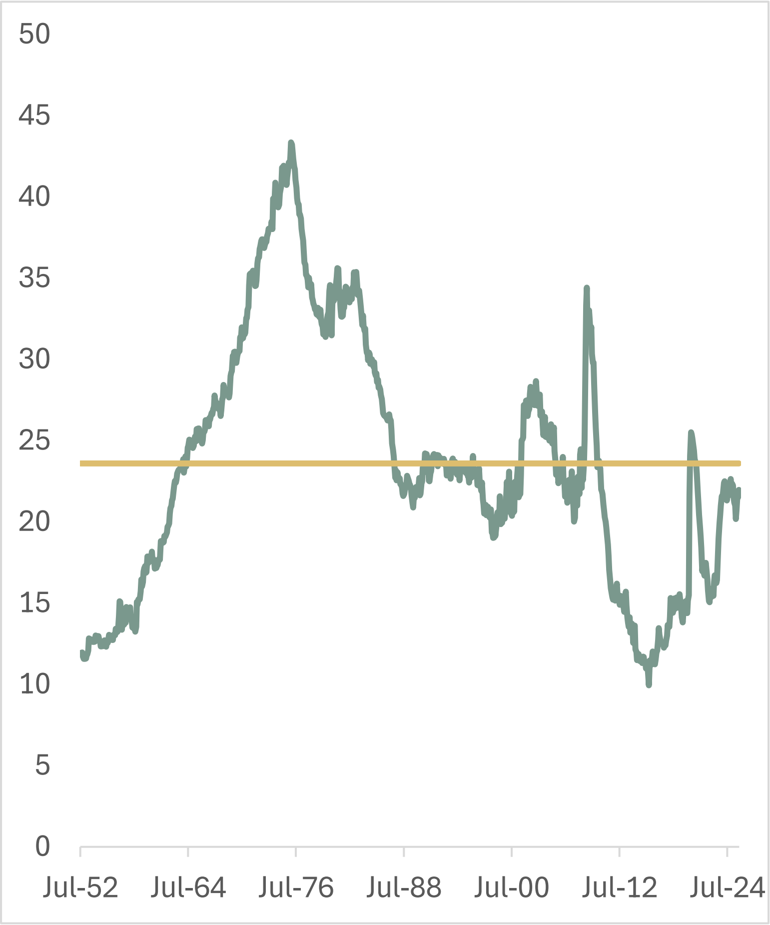



- Heavy bill issuance this fall pushed bill yields higher
  - And contributed to the increase in repo rates

Sources: Bloomberg, SMBC Nikko

# Bills outstanding

## Bills (% outstanding debt)




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

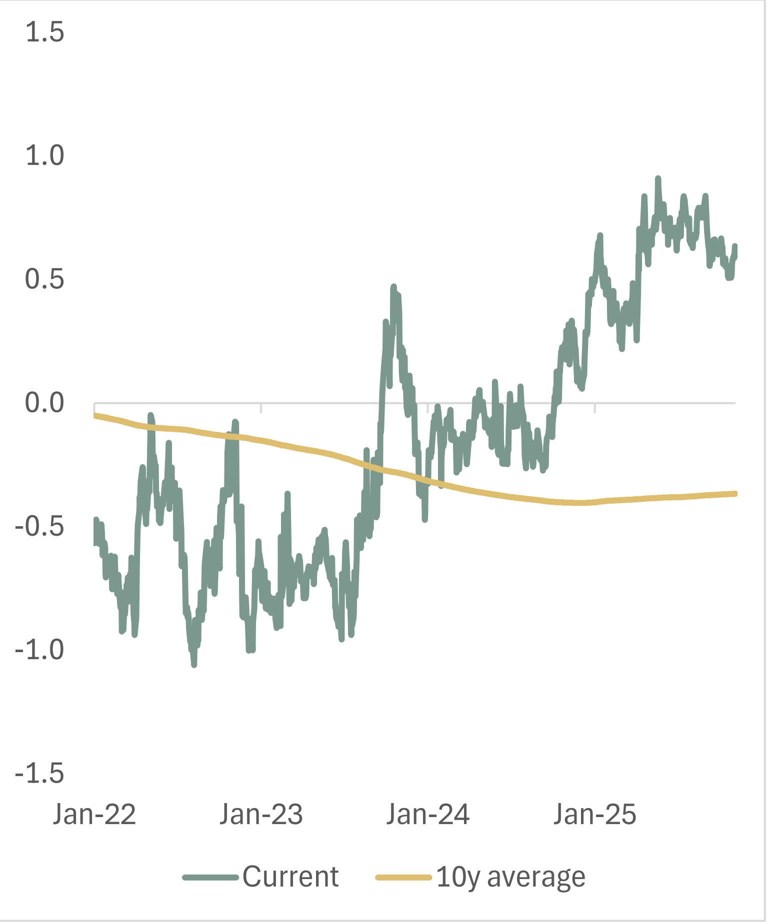
Sources: US Treasury, SMBC Nikko

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)

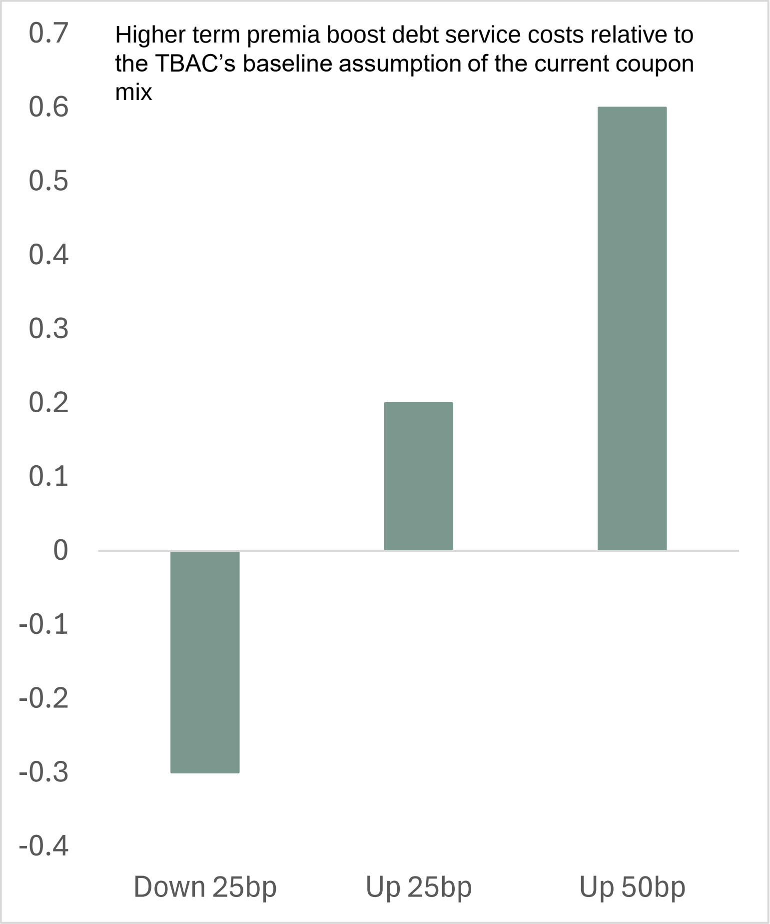



Sources: Adrian, Crump, and Moench, Federal Reserve Bank of New York, SMBC Nikko

# Higher term premia boost debt service costs

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

## Estimated change in costs (%GDP)

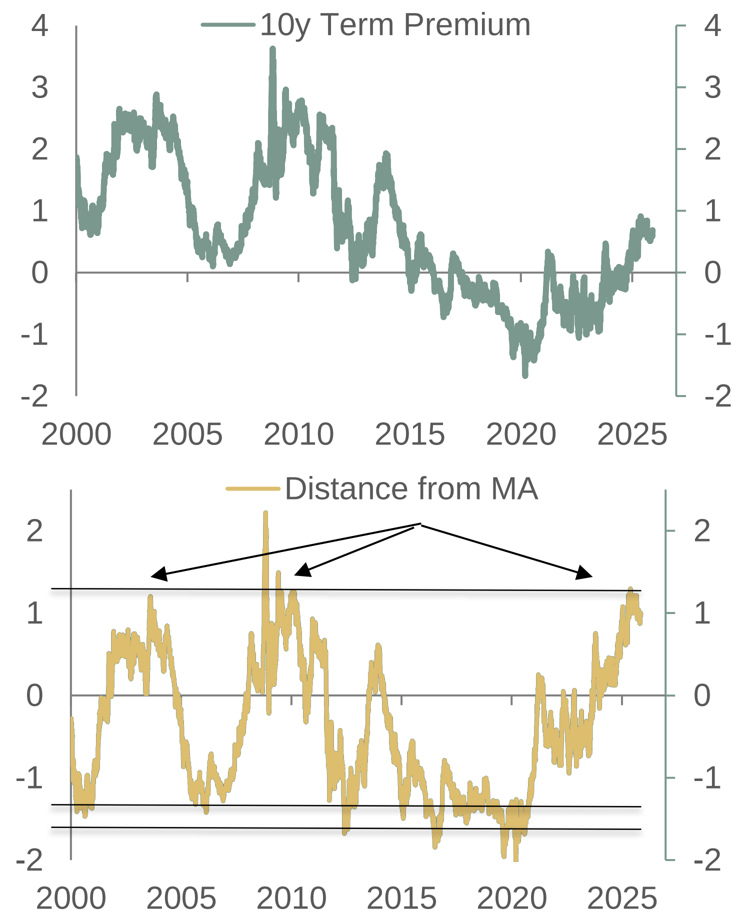



Sources: US Treasury TBAC November 2025 presentation, SMBC Nikko

# 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 69 bps vs. 10y average at -36 bps.
- Unless the fiscal situation improves, term premium may resume rising

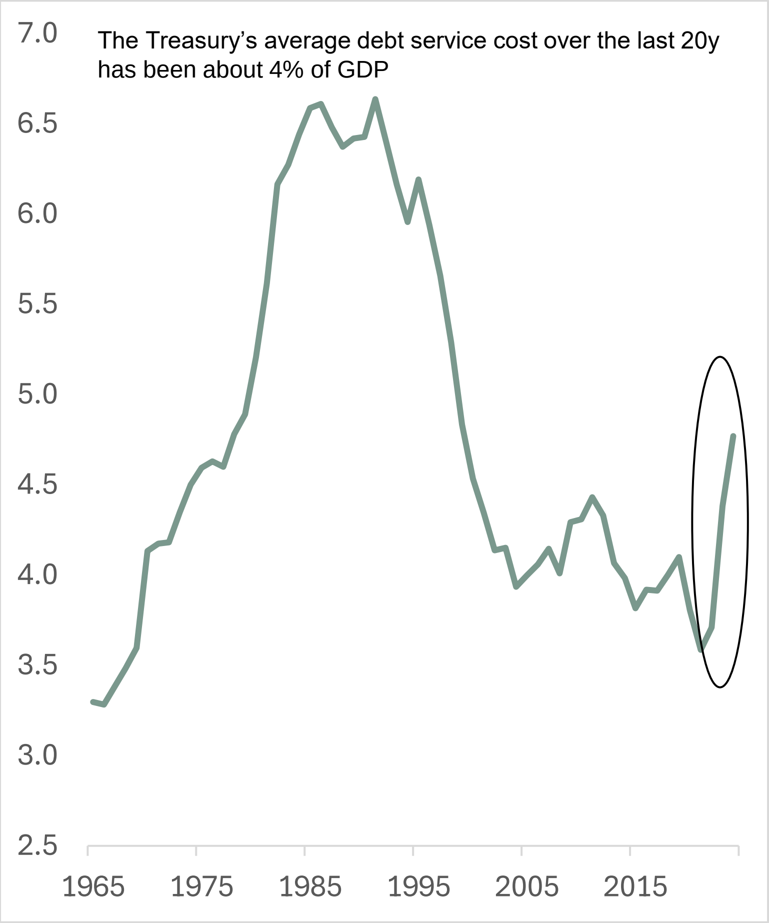
**Estimated term-premium and its distance from the 10y Moving Average (%)**




Sources: Federal Reserve, Bloomberg, SMBC

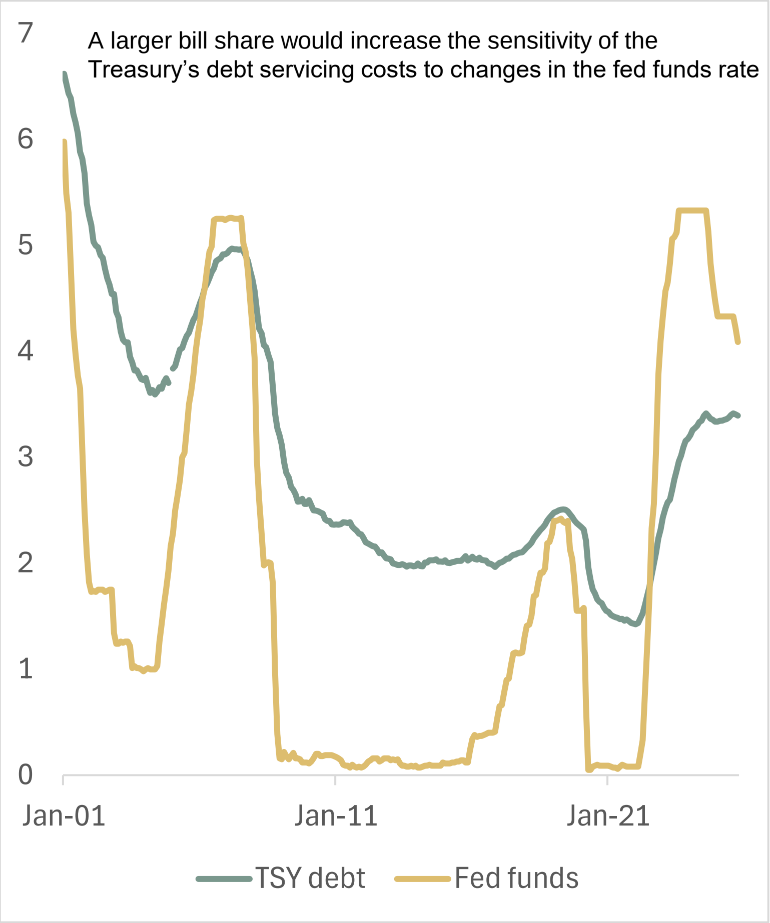
# Debt servicing costs are rising

## Interest (% GDP)




Sources: BEA, SMBC Nikko

## Marketable debt rate and fed funds (%)




Sources: US Treasury, SMBC Nikko

# Can the US Treasury save much by issuing more bills?

- *Over a 20y horizon, our analysis shows little cost savings from issuing more bills*

- In our baseline we assume:
  - Coupon auction sizes grow in line with nominal GDP
    - Until the bill-to-debt ratio reaches 23.6%.[1/] Then auction sizes are adjusted higher to keep the ratio at this level

- In our alternative scenario, we assume coupon auction sizes grow in line with nominal GDP but we allow the bill-to-debt ratio to climb further
  - Reaching 32% after 20y

## Average annual debt servicing cost (% of GDP)

| Change in Coupon Rate | Baseline | No Caps for Bill/Debt Ratio |
|---|---|---|
| -50 bps | 3.86% | 3.83% |
| - 25 bps | 4.09% | 4.04% |
| 0 bps (Current Coupons) | 4.32% | 4.25% |
| + 25 bps | 4.54% | 4.45% |
| + 50 bps | 4.85% | 4.71% |

Sources: US Treasury, Bloomberg, SMBC

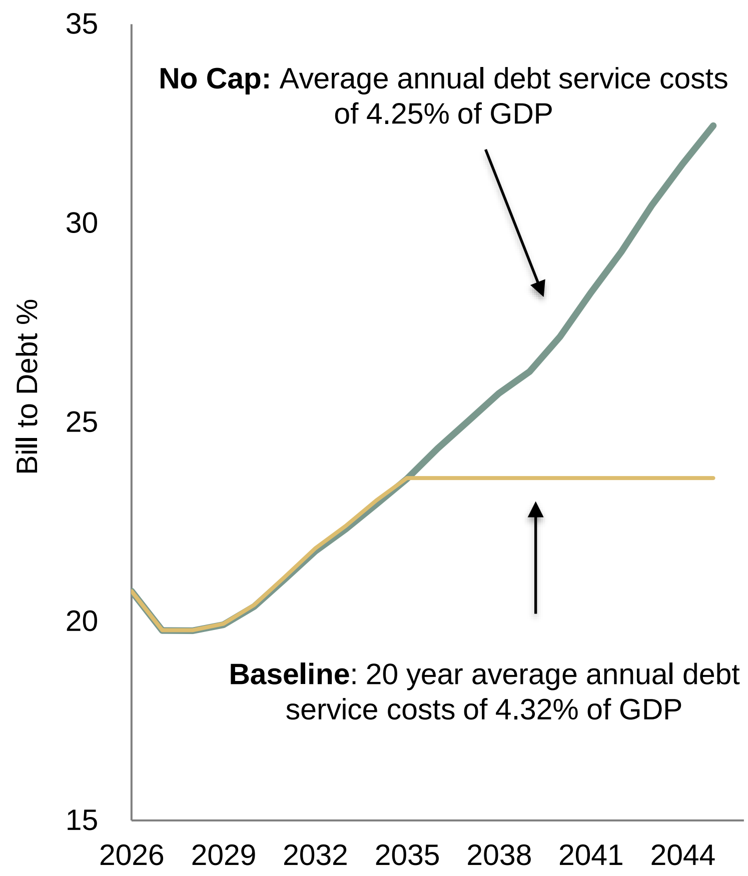
- In both the baseline and alternative scenarios we allow coupon rates to change
  - By assuming increases in the 10y term premium[2/]
    - With equivalent adjustments at other maturities

1/ The long-run average bill share since 1952. In both scenarios we use the CBO’s primary deficit forecasts
2/ By the indicated amount

# If coupons stay at current levels

- Baseline scenario:
  - The bill/debt ratio is capped at 23.6% which is reached in year 10.
    - Average annual debt service cost over the 20-year period is 4.32% of GDP.
- No-cap scenario:
  - The bill-to-debt ratio reaches 32% after 20 years
    - *And debt service costs are only slightly lower than in the baseline scenario*[1/]

## Bill share (% debt outstanding)




1/ See previous slide

Sources: Bloomberg, SMBC Nikko

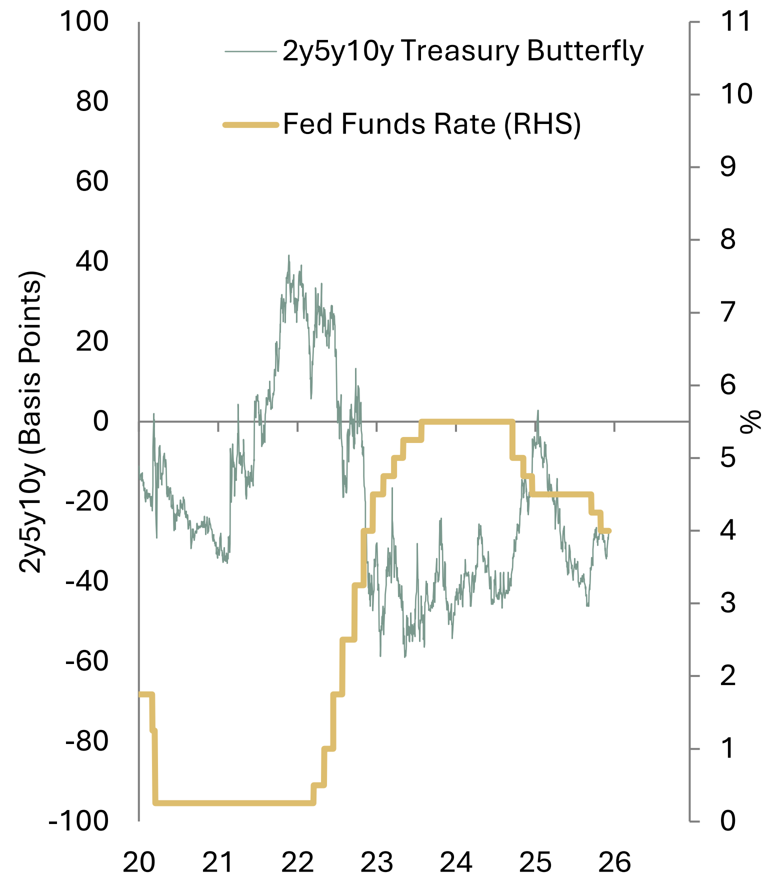
# 5y has cheapened against 2y and 10y but more room to go

- 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.

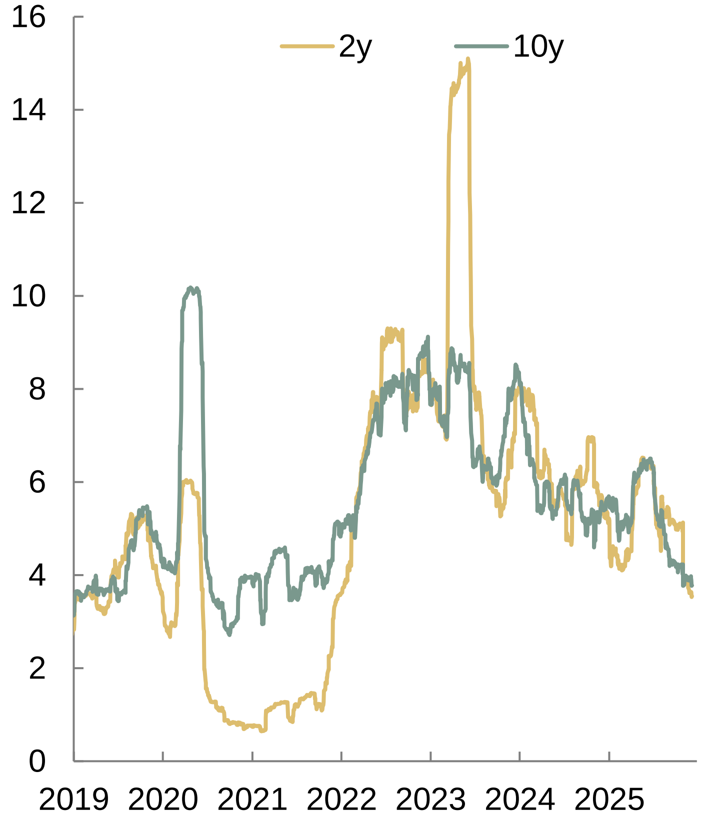
## 2y5y10y UST Fly (bps) vs. Fed Funds (%)




Sources: US Treasury, Bloomberg, SMBC

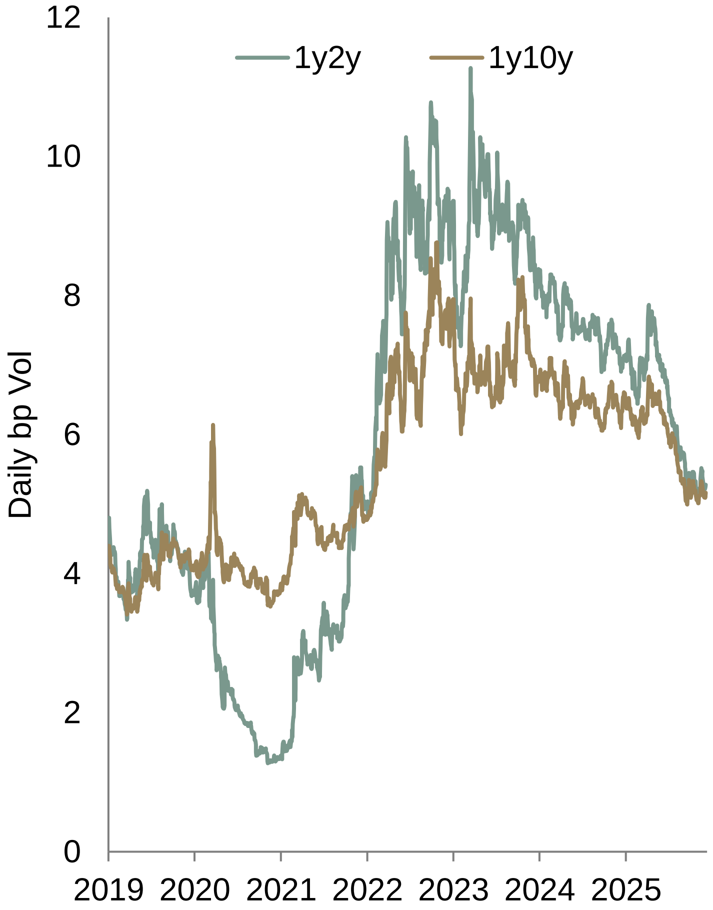
# Time to fade the multi-year lows in vol?

## Realized vol (daily bp)




Sources: Bloomberg, SMBC Nikko

## Implied vol (daily bp vol)




Sources: Bloomberg, SMBC Nikko



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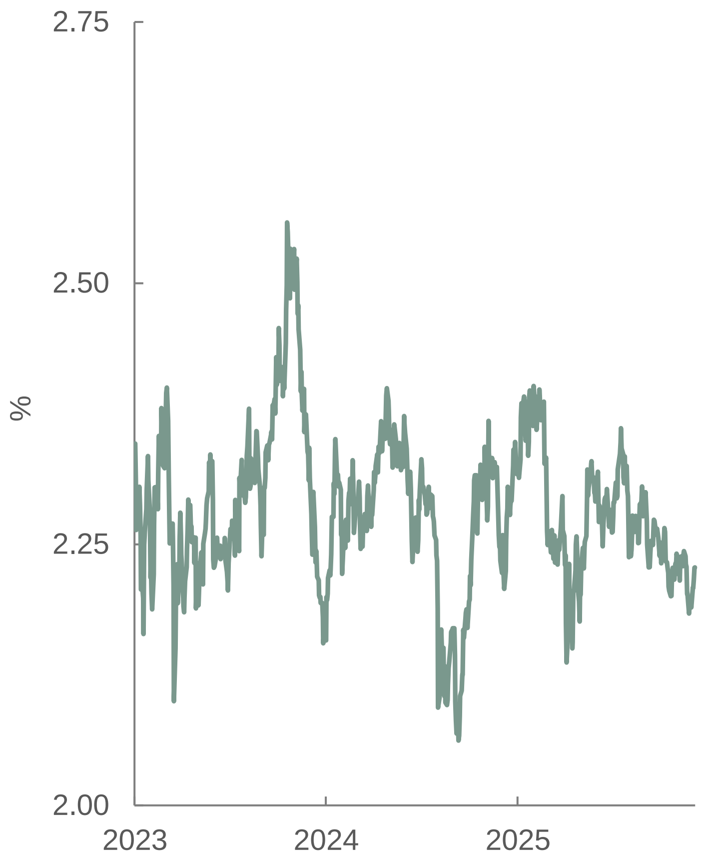
# Favor 30y BEs

- Valuations are attractive: 30y BE's are trading at the lower end of the post COVID range. 30y real yields at 2.60% are only 18bps below their cycle highs , compared to 30y nominal yields, which are 30 bps below their highs.

- Inflation risk premium inadequate given concerns about Fed independence.

- A key risk would be a rates rally driven by labor market concerns or a very hawkish Fed.

## 30y TIPS Inflation Breakevens




Sources: Bloomberg, SMBC Nikko



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