

Monthly Interest Rates Chartbook

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Economic Summary

Summary of views

- **Growth and inflation**

- What's next in the Iran conflict?
- What will a negotiated settlement mean for oil prices and inflation in coming months?
- **Assuming oil prices hold at \$100/bbl for the next two months, we expect GDP growth to slow by 0.5% in Q2**
 - As consumption is shifted from discretionary spending
 - And higher input costs compress corporate margins
- We look for the unemployment rate to creep higher in the quarter
- Higher oil prices are expected to push the **PCE deflator to 5.5% in Q2** but we look for it to slow to slow to 2.3% in Q3 as oil prices fall
- **We think the Fed is more likely to ease than to hike interest rates**
- However, with inflation running above the Fed's target it may be difficult for the Fed to cut interest rates in the medium-term
- We are *tentatively* looking for the Fed to remain on hold this year
 - Although this is a race between which declines faster – inflation or growth
- We expect 10y rally toward 4.10-4.15% following a middle east settlement, followed by a climb into year-end towards 4.30%

US Forecasts

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

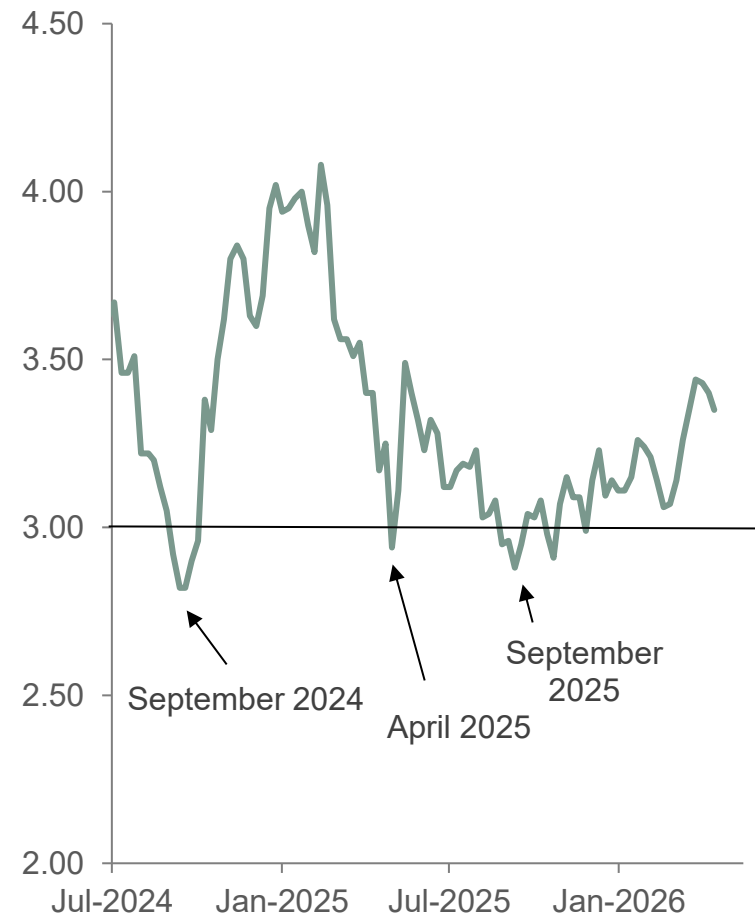
(%)	2025	2026			
	Q4 Act	Q1F	Q2F	Q3F	Q4F
Real GDP QoQar	1.4	1.6	1.1	2.1	2.2
Real GDP YoY	2.2	2.8	2.1	1.6	1.8
Core PCE YoY	2.9	2.7	3.2	2.8	2.4
Unemployment	4.4	4.5	4.8	4.7	4.6
Fed Funds Rate Upper Bound	3.75	3.75	3.75	3.75	3.75
2 Year	3.47	3.79	3.65	3.60	3.60
10 Year	4.17	4.32	4.20	4.25	4.30

Source: BEA, BLS, Federal Reserve and SMBC Nikko

Fed policy expectations

- The terminal rate bounced post Iran after it hit a four-month low in February amid concerns around geopolitics, AI valuations and private equity.
- A range bound view of the terminal rate has helped keep 10y Treasuries range bound.

Terminal rate pricing (%)

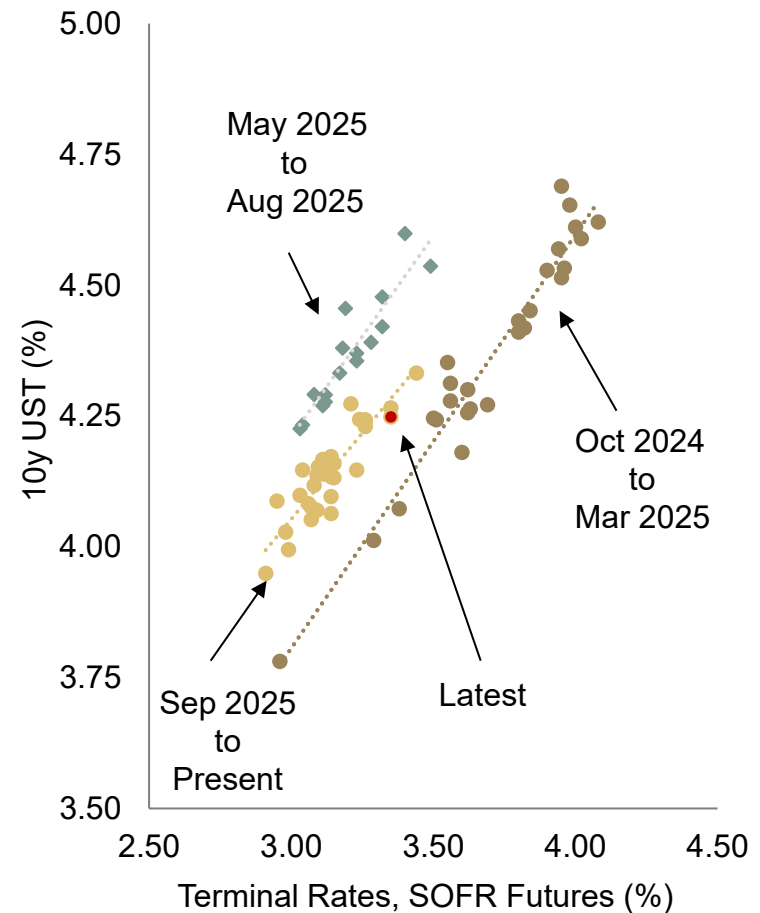


Note: Using SOFR futures. Sources: Bloomberg, SMBC Nikko

10y and terminal rate expectations

- 10y Treasury yields are trading in a new regime – sitting between the pre-Liberation Day regime and the post-Liberation Day one.
- This likely reflects reduced inflation concerns relative to immediately after Liberation Day, but still somewhat higher than before the event.

Terminal rate pricing (%)



Sources: Bloomberg, SMBC Nikko

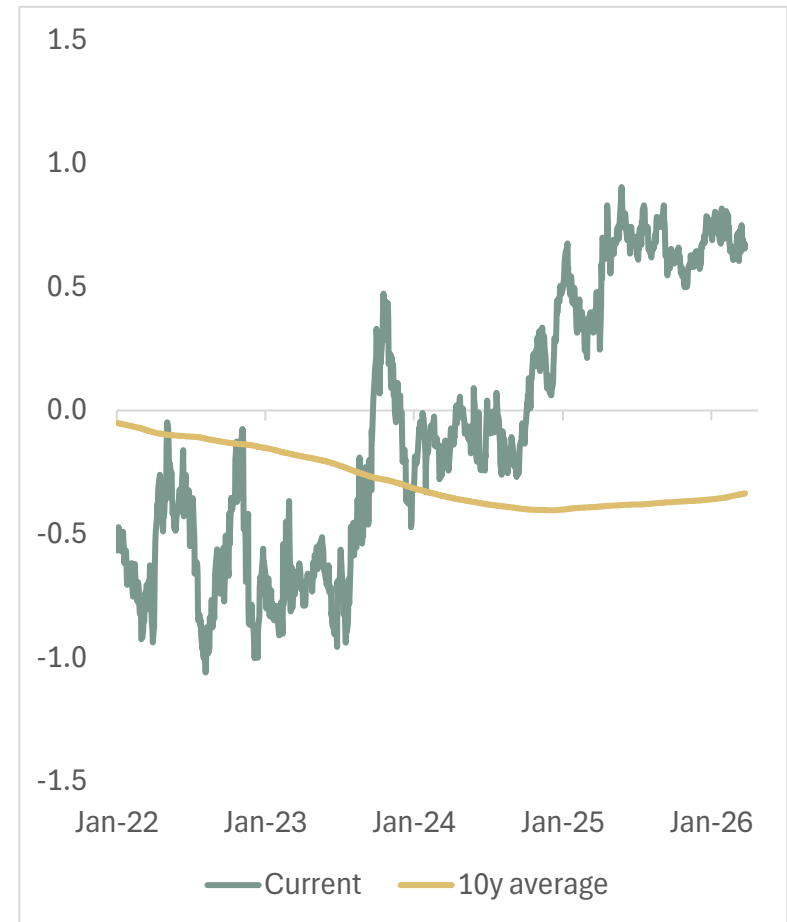
Roadmap for the 10y

- As and when Middle East risk diminishes, a kneejerk relief rally in the 10y towards 4.10-4.15%
- Thereafter, we expect yields to climb into the year-end, reaching our estimate of 4.30%
 - Our estimate is based on the current 10y rate regime from September 2025 onward (page 5), under which our estimated 3.39% terminal rate translates into a 4.30% 10y yield
 - Using the post-Liberation Day regime, which embeds a higher term premium, the implied 10y yields rises to 4.50%
 - Similarly, applying the pre-Liberation Day regime from Oct 2024 onward translates into a 4.10% yield

Higher term premia

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

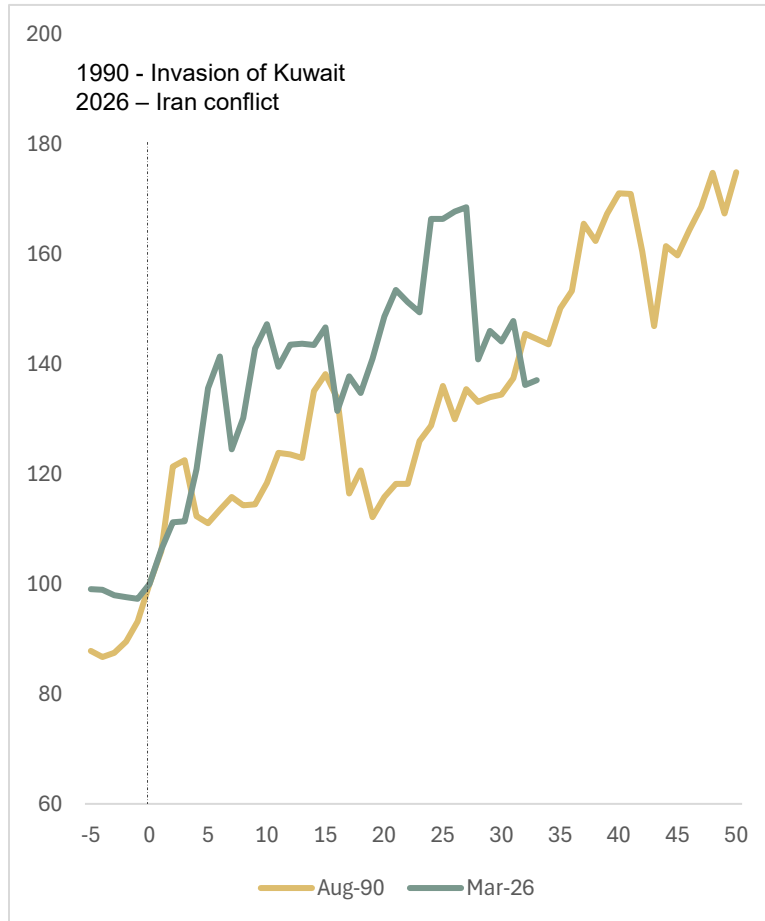
10y term premia (bp)



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

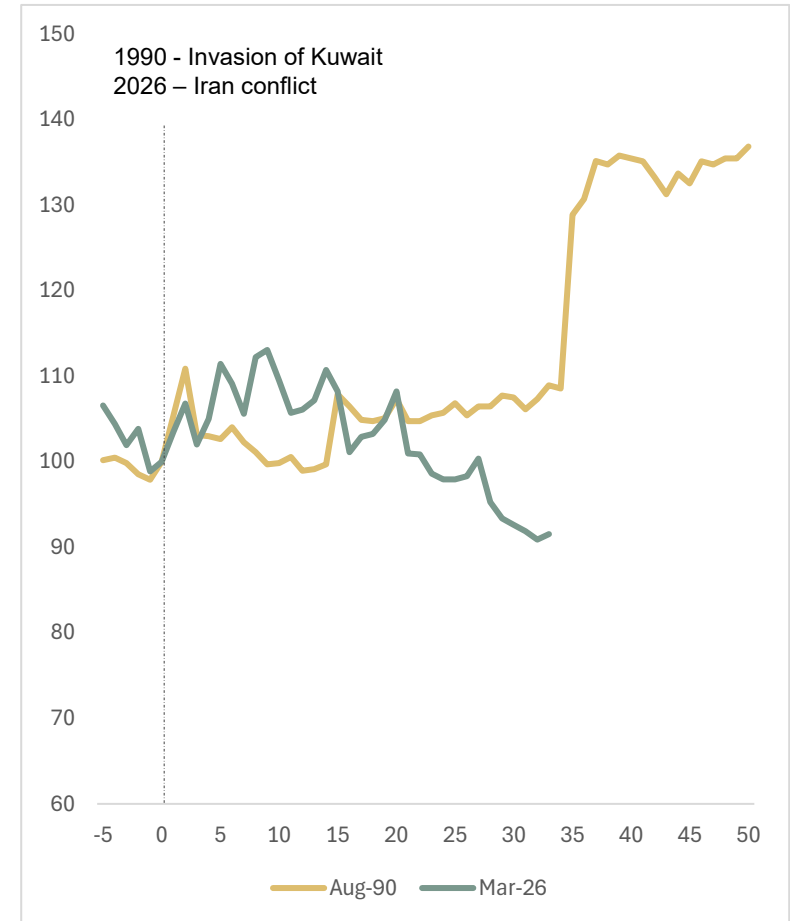
Energy price shock

Oil prices (index)



Note: WTI futures. Prices are indexed to the day before the shock (0 on the x-axis). Sources: Bloomberg, SMBC Nikko

Natural gas prices (index)



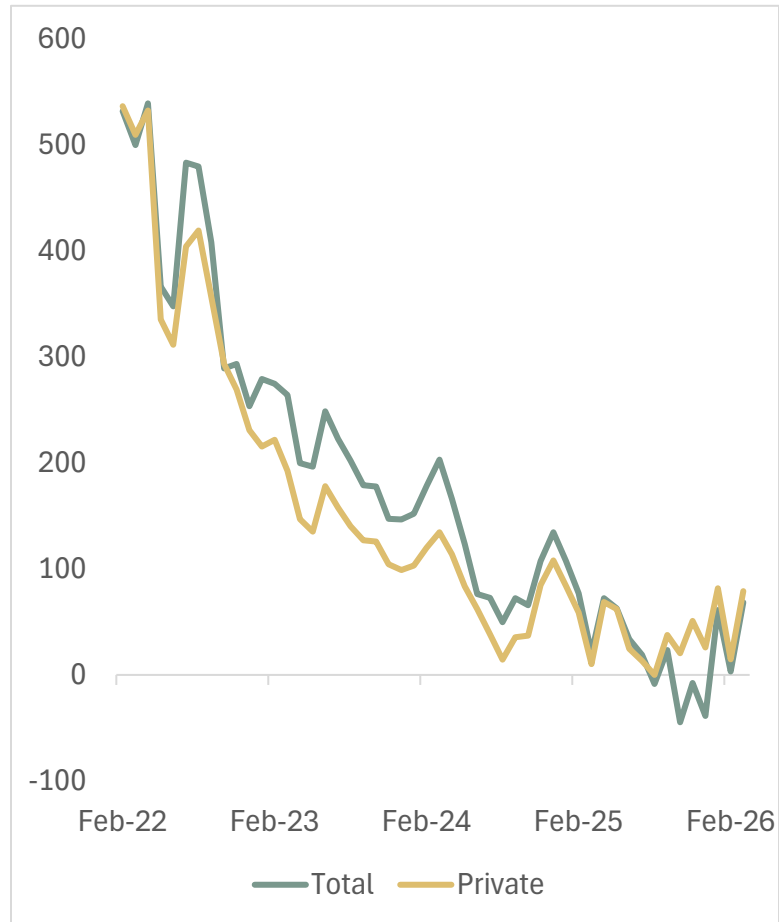
Note: Henry Hub futures. Prices are indexed to the day before the shock (0 on the x-axis). Sources: Bloomberg, SMBC Nikko

How harsh?

- *Is the oil shock enough to derail the US economy?*
- This depends on how high and for how long oil prices stay elevated
 - As well as on the economy's pre-conflict strength
- The key unknown is the effect of the conflict on consumer and business confidence

Hiring has been soft...

Non-farm payrolls (3m, 000)



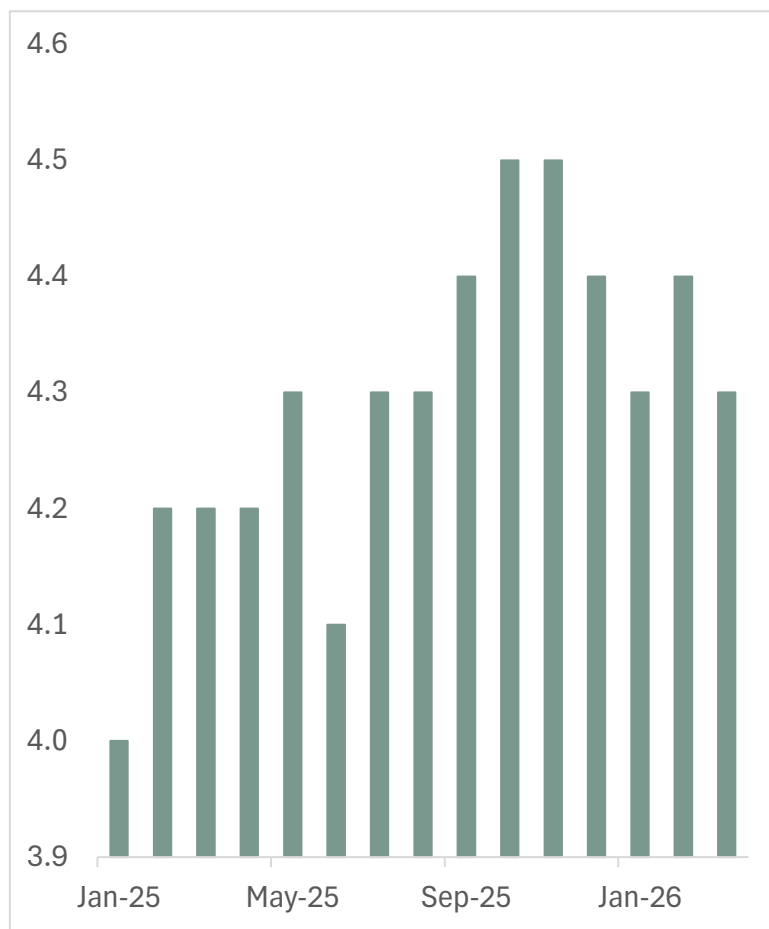
- The economy has been on a “slow hiring-low firing” path since early last year^{1/}
- Monthly average job gains last year were less than 20,000/m
 - And their slowest pace outside of a recession since the post-financial crisis recovery in 2011

Sources: BLS, SMBC Nikko

^{1/} Our sense is that this is primarily a reaction to post-pandemic labor hoarding rather than AI substitution.

...but the unemployment rate has held steady

Unemployment rate (%)



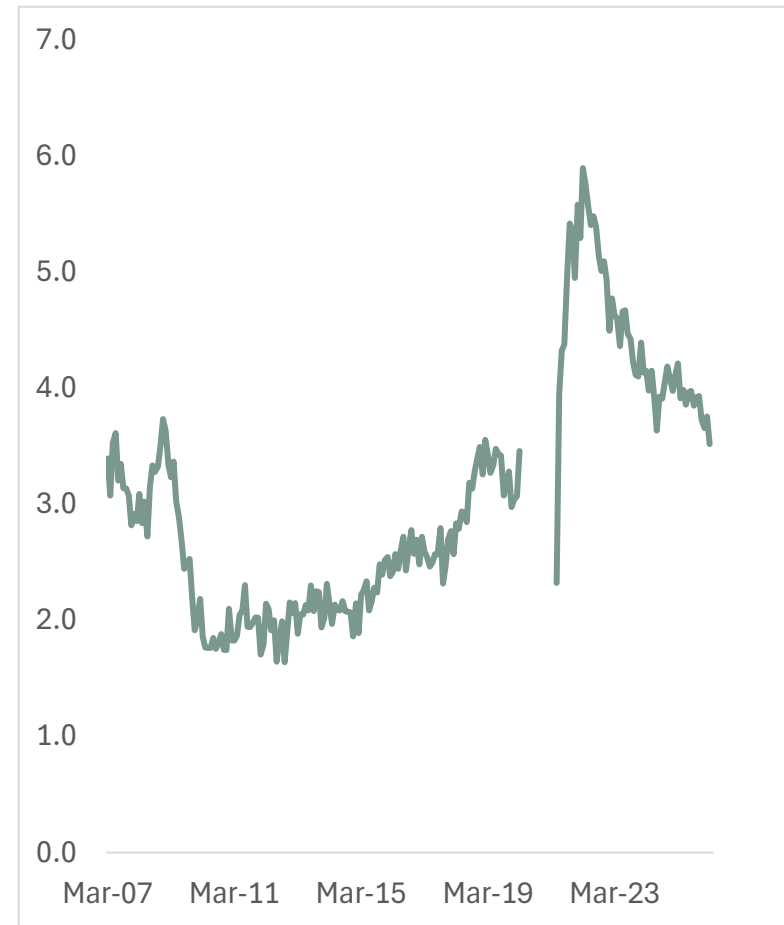
- The unemployment rate has hovered between 4.2% and 4.4% since last year
 - Slow hiring has been matched by equally weak growth in the labor force

Sources: BLS, SMBC Nikko

Wage growth continues to slow...

- Average hourly earnings have slowed since last year
 - And in March the year/year growth rate was the slowest since early in the post-COVID rebound

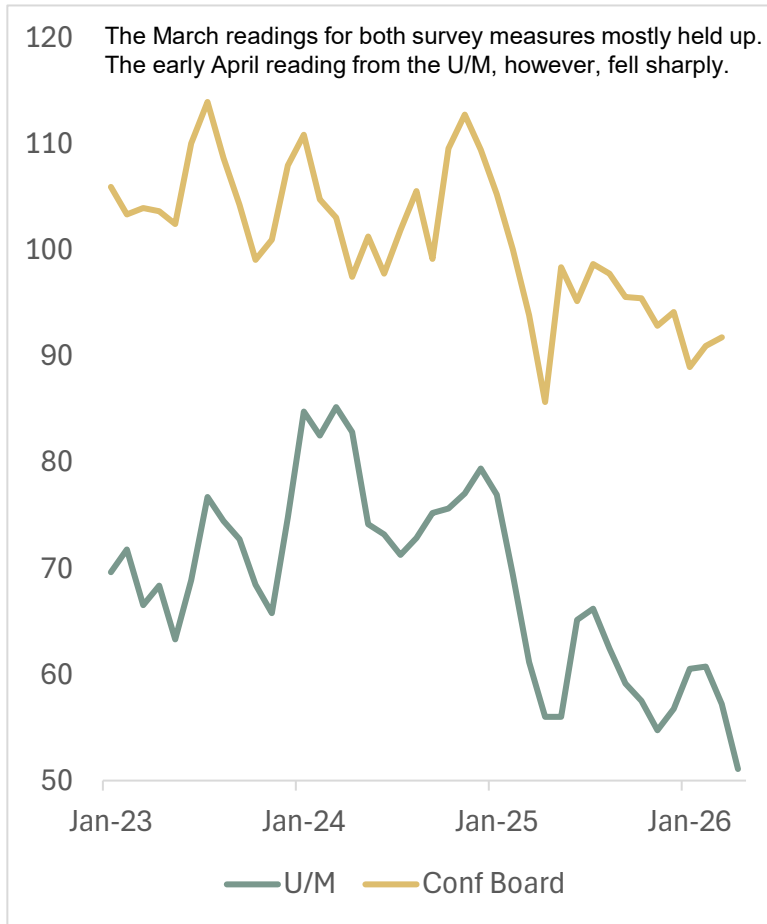
Average hourly earnings (%y/y)



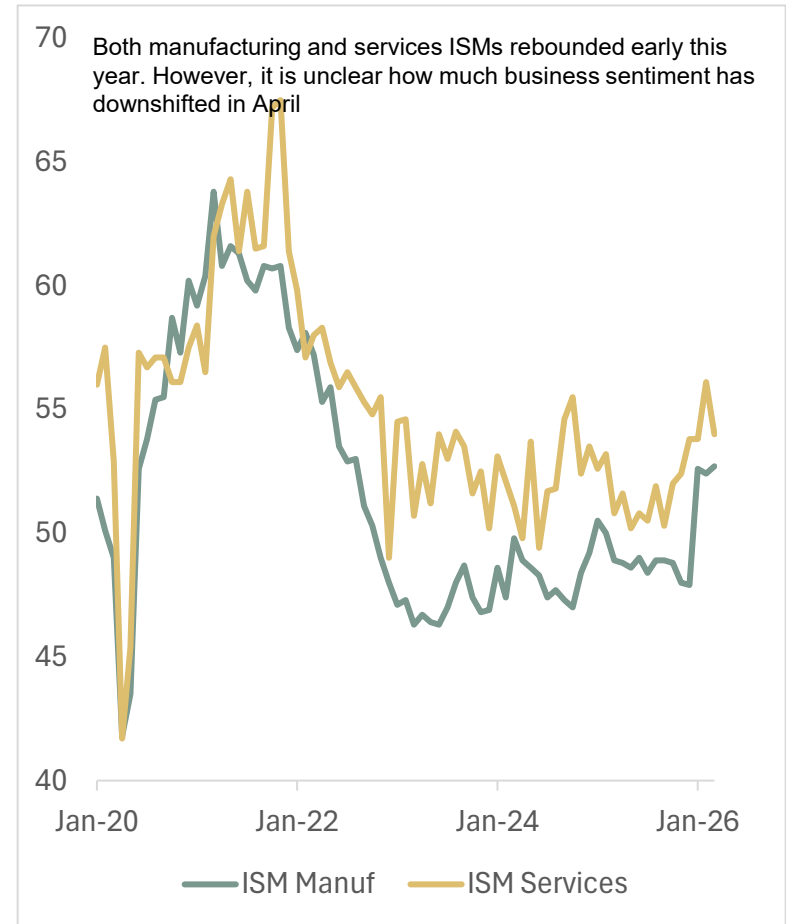
Note: We exclude the COVID period for clarity. Sources: BLS, SMBC Nikko

...and household and business confidence are slipping

Consumer confidence (1985=100)



ISM manufacturing and services (index)

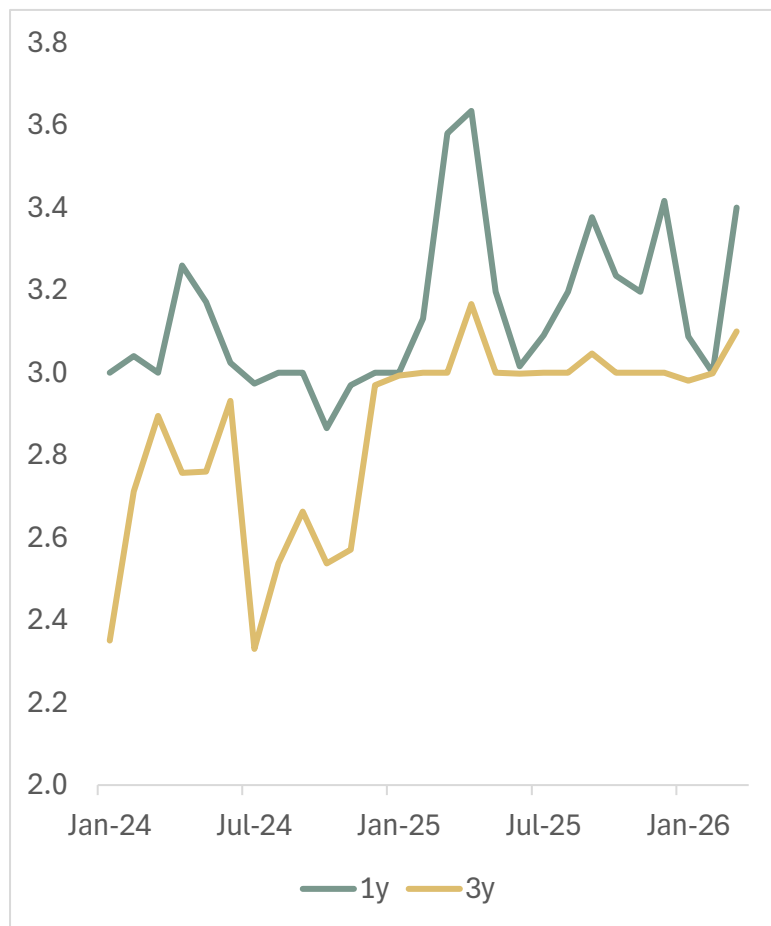


Sources: University of Michigan, SMBC Nikko

Sources: Institute of Supply Management, SMBC Nikko

Household inflation expectations have inched higher...

Median inflation expectations (%)



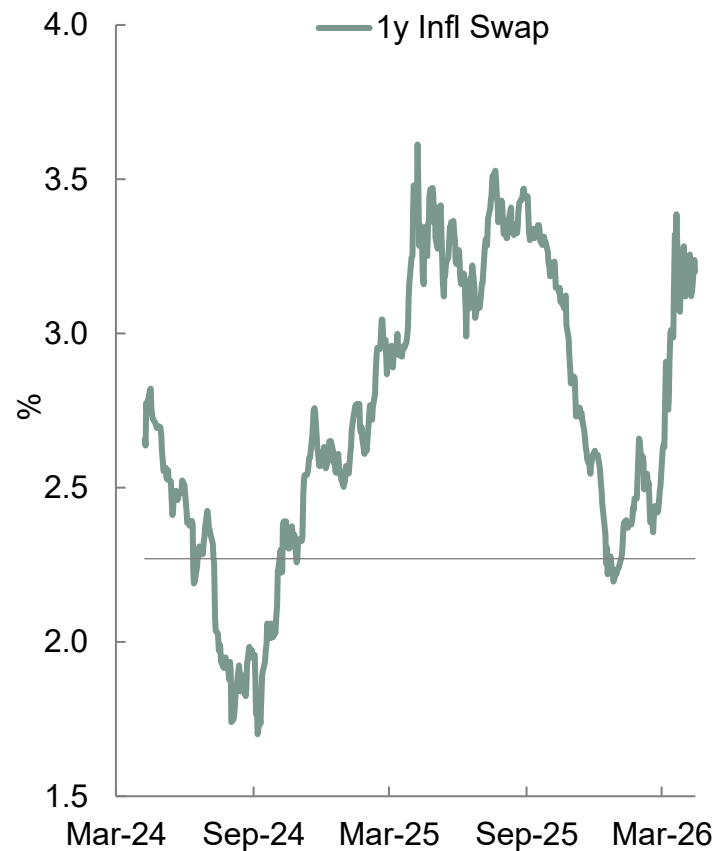
Sources: Federal Reserve Bank of New York, SMBC Nikko

- In March, median household inflation expectations increased over a 1y and 3y horizons
- The Fed is watching both measures for signs that higher inflation expectations are becoming entrenched
- But unlike in 2022, the labor market is softer and wages are increasing more slowly
 - So, we think there is less chance that inflation expectations create a wage-price spiral

...in line with market expectations

- 1y inflation swaps have jumped by 70 bps since the start of the Iran conflict, rising to 3.20%
 - This suggests that the market may be assigning a lower probability to a harsher oil price shock

Inflation breakevens (%)

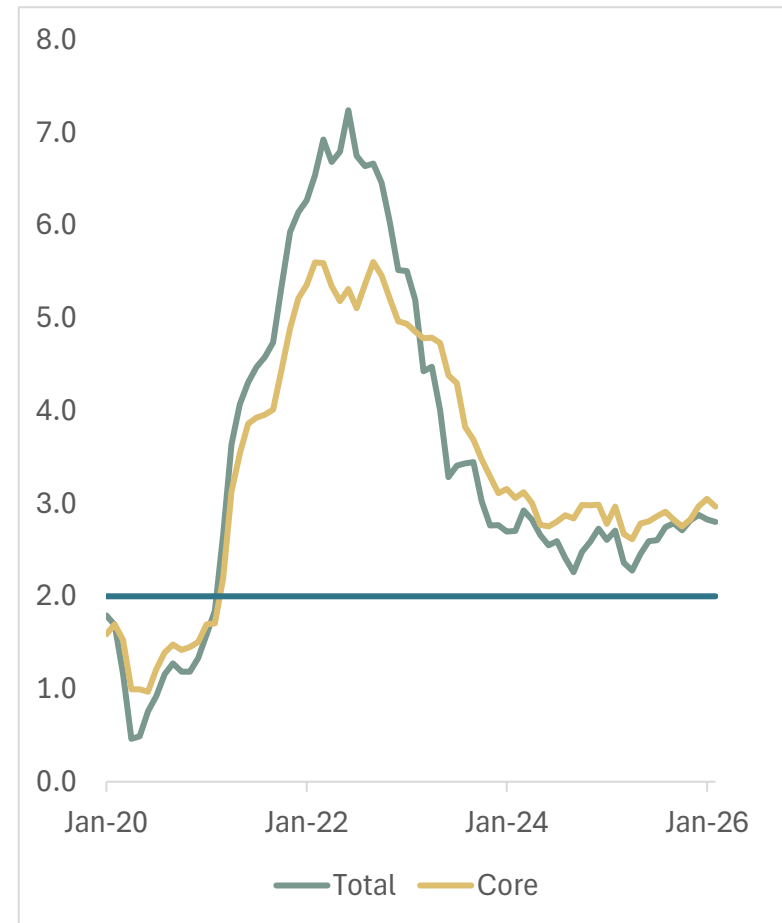


Sources: US Treasury, Bloomberg, SMBC Nikko

PCE was above the Fed's target before the conflict

- The Fed's preferred inflation gauge was running above its target before the conflict started
- Higher oil prices make it difficult to cut interest rates in the medium-term

Total and core PCE (% y/y)

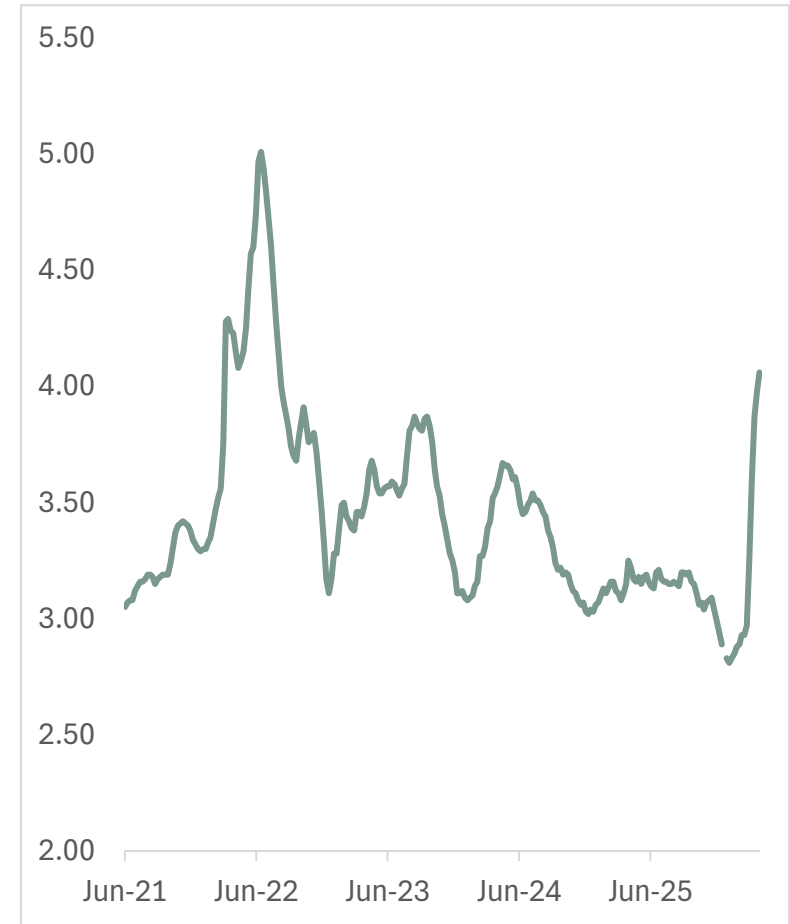


Sources: BEA, SMBC Nikko

Gasoline tax holiday

- A proposal in Congress would suspend the collection of the Federal gasoline tax
 - Of 18.4c/gallon
- But gasoline prices have risen \$1.10/gallon since the conflict began
 - And it might cost the Treasury \$21bn to offset the lost revenues to the Highway Trust Fund of a 6m tax suspension

AAA retail gasoline prices (\$/gal)



Note: US average. Sources: AAA, SMBC Nikko

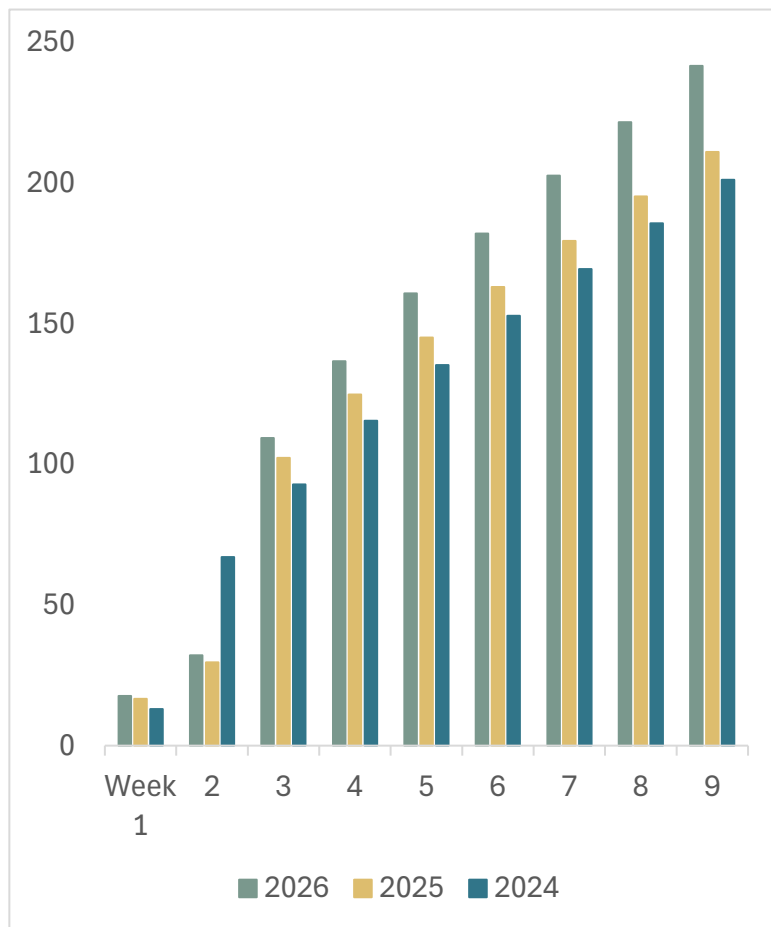
How effective is a gasoline tax holiday?

- In 2022, a Federal tax holiday was proposed but never implemented
 - However, several states suspended or reduced their local tax collections
- The CBO estimates that 24% of the lost revenues from a reduction in excise taxes are recaptured through higher income taxes
- And there is some evidence from the local holidays that the retail pass-through is less than 80%^{1/}
 - Pass-through effects are sensitive to local emissions standards, regional proximity to refining depots, as well as location (rural or urban)

1/ See, “Tax Holidays and the Heterogenous Pass-through of gasoline taxes”, T. Tsvetanov, Energy Economics, June 2024

Tax refunds

Total refunds paid (\$bn)



Note: Tax season cumulative totals by week. Sources: IRS, SMBC Nikko

- Tax refunds may temporarily mute the drag on consumer spending from higher gasoline prices
 - Aggregate refunds paid to date are 14.5% higher than last year^{1/}
 - An increase of \$30bn
- The average refund is \$3,462
- Both the aggregate and average refunds are smaller than expected payments at the start of the filing season^{2/}

1/ As of April 3, 2026

2/ Which suggested a net increase in refunds of \$100bn (of the processing season) and average refunds approaching \$4,000

Defense spending

- Last month, the Defense Department asked for \$200bn in Supplemental Emergency Funding to fund operations in Iran
 - But this amount includes additional spending on “global readiness” and likely overstates the Department’s expectations for the end of the conflict
- Assuming Congress does not agree to this amount, the Department of Defense may need to tap some of its “unobligated funds” – spending that has been authorized by Congress but not yet committed to specific contracts
 - While unobligated fund balances are between \$150-200bn only a small portion (perhaps \$25-40bn) may be legally available^{1/}

1/ As shown on the next slide, the *direct* daily cost might be around \$300mn/day depending on the tempo.

Defense spending: Daily outlays^{1/}

- The Defense Department estimated that spending over the first six days of the conflict was around \$1.6-1.9bn/day
 - Spending was likely higher in the initial stages of the conflict because the military needed to use more expensive equipment to establish air dominance
- The subsequent spending pace has likely been slower as the military was able to shift to cheaper munitions
 - But these outlays come from inventory rather than new procurements
 - Since the start of the conflict, daily consumption of munitions is estimated at around \$800mn/day
 - This amount includes expenses tied to destroyed equipment
 - Of around \$90mn/day
- Cease-fire – or baseline - expenditures might be around \$175mn/day
 - Combat operations might run toward \$100mn/day^{2/}
 - *So, the daily expenditures net of inventory consumption and destruction might be close to \$300mn/day*

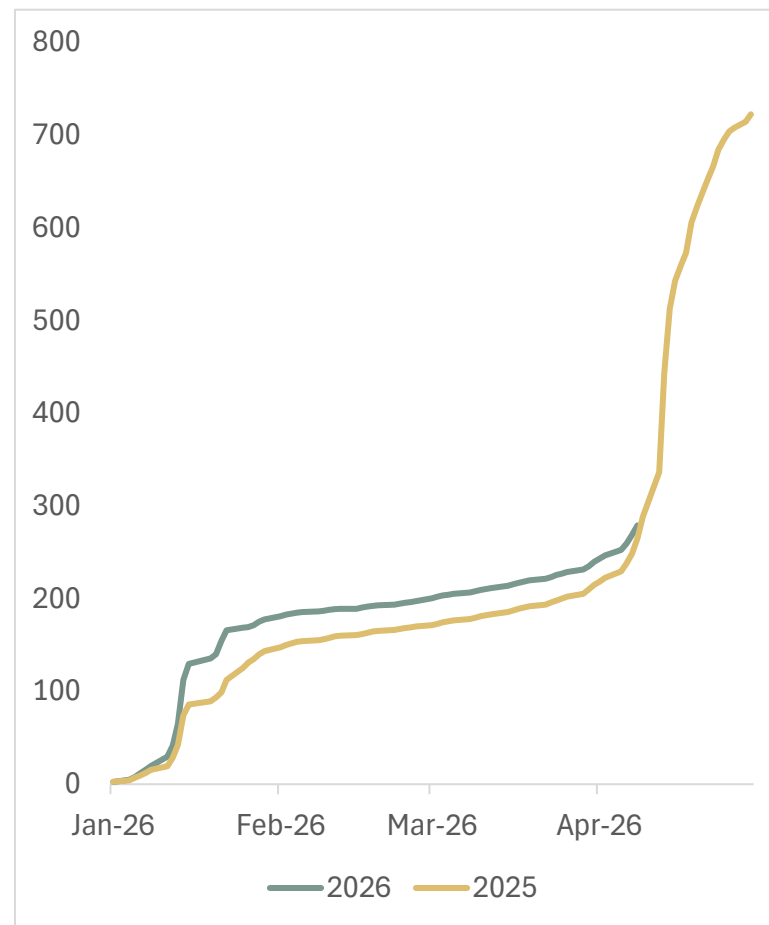
1/ Estimates based on Center for Strategic and International Studies (CSIS) Mark Cancian commentary.

2/ This depends on the tempo of the operations. It includes expenses related to air sorties, naval and intelligence expenditures.

Non-withheld taxes

- Non-withheld taxes on capital gains are running about 5-8% above last year's pace
- Collections will peak after the April 15 deadline
 - And could peak this year between \$760-780bn

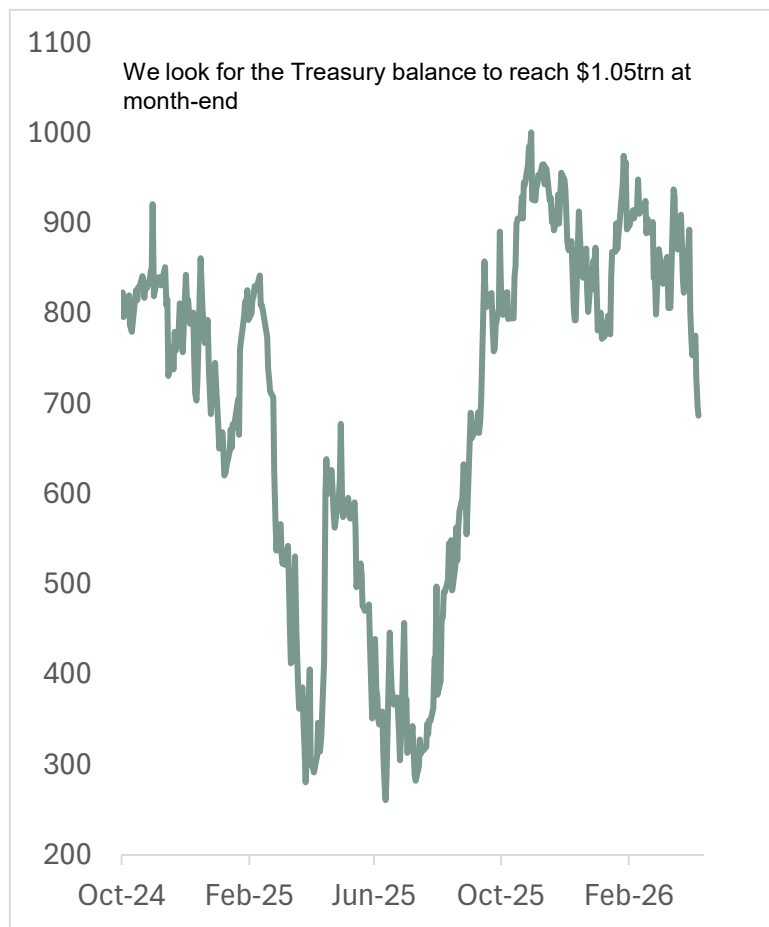
Non-withheld taxes (\$bn)



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

Rising Treasury cash balance...

Treasury cash balance (\$bn)



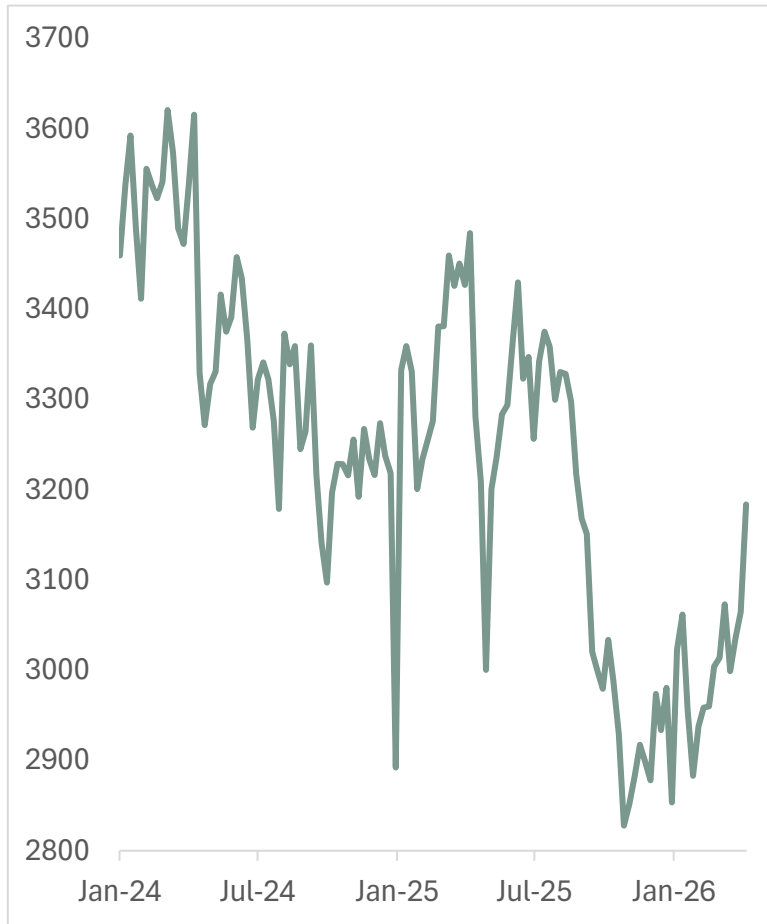
- As tax payments come into the Treasury, we look for its cash balance at the Federal Reserve to climb
- Balances may reach or exceed \$1trn by month-end
 - Draining \$300bn or more in bank reserves^{1/}
 - Potentially pushing repo rates higher

Sources: US Treasury, SMBC Nikko

1/ From their April 9 level

...and declining bank reserves

Bank reserves (\$bn)



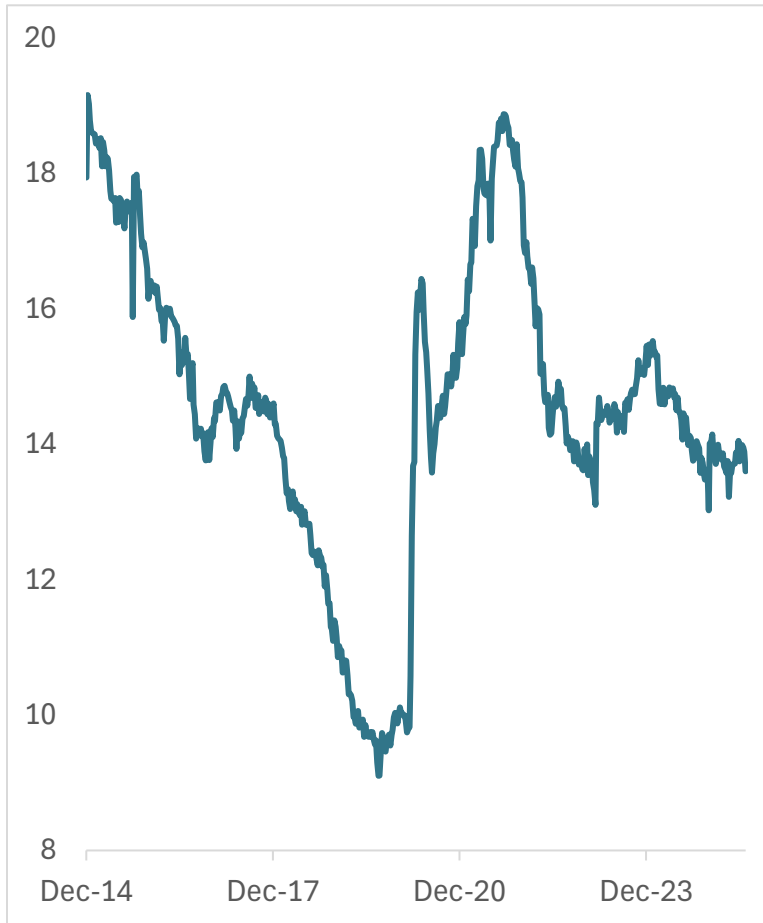
- The increase in the Treasury balance might pull bank reserves below \$2.9trn by month-end
- The Fed's reserve management purchases (RMPs), have added \$210bn to bank reserves since December^{1/}
- *Will this be enough to offset the anticipated drain from the Treasury's swollen balance?*

Sources: Federal Reserve, SMBC Nikko

1/ But are set to decline from \$40bn/mo to \$25bn/mo in April.

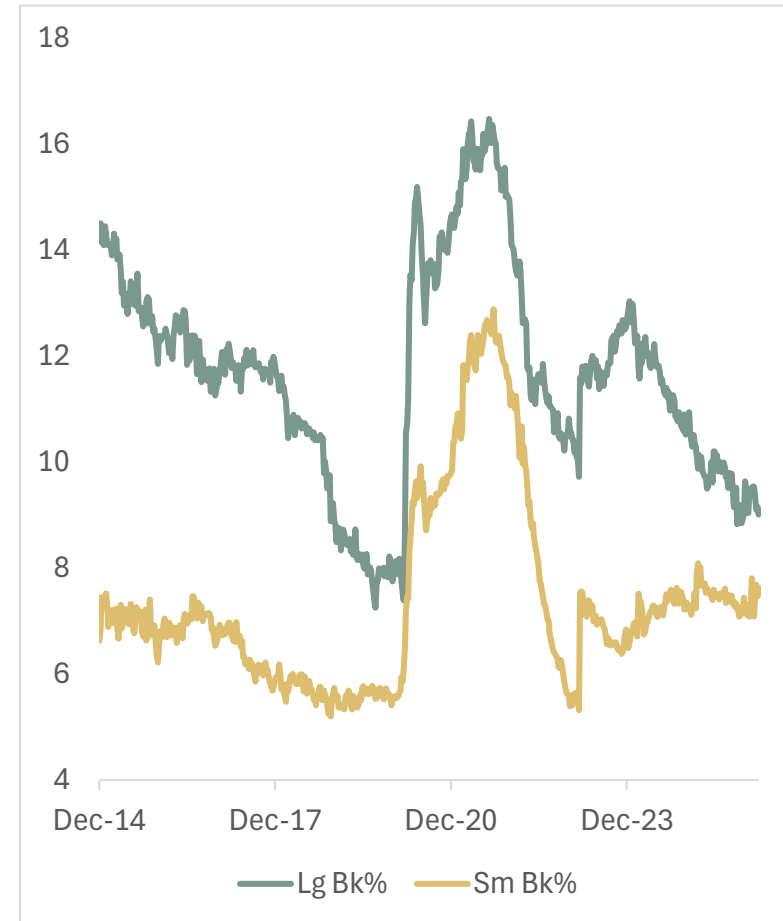
Are reserves ample?

Cash (% bank assets)



Sources: Federal Reserve, SMBC Nikko

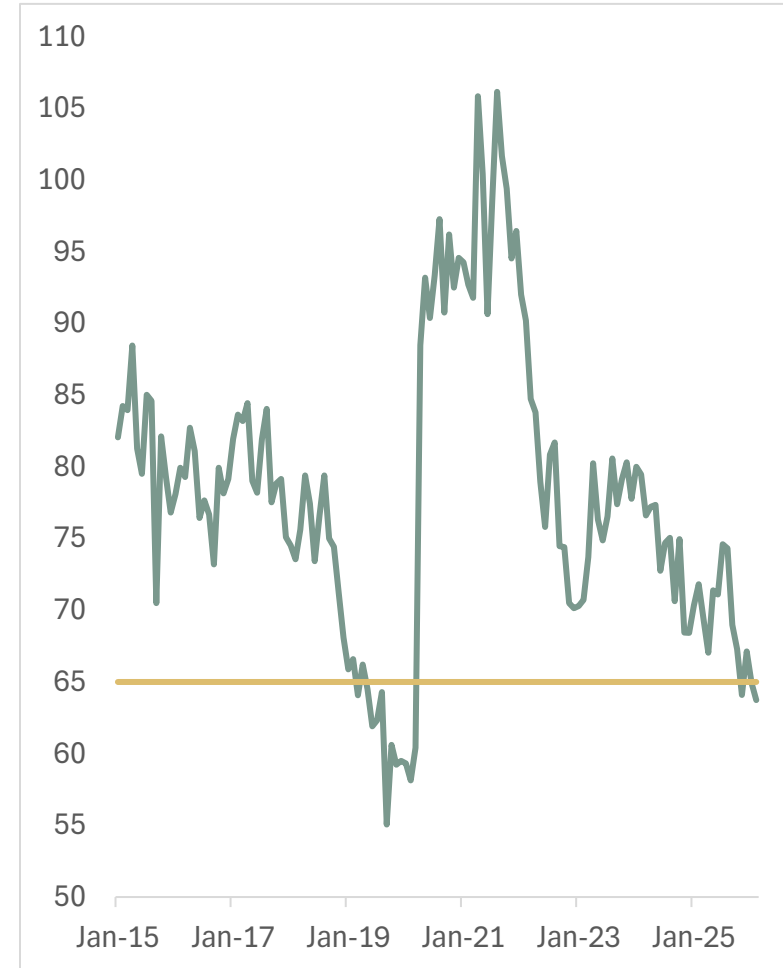
Cash (% bank assets)



Sources: Federal Reserve, SMBC Nikko

Fedwire payments

Reserves (% avg daily Fedwire payments)



- Banks' demand for reserves is influenced by the size of their daily intraday payment flows on Fedwire
 - Banks maintain cushions above their expected peak intraday flows
- Ferris et al. observe that funding rates rise as reserves fall below 65% of Fedwire payments^{1/}

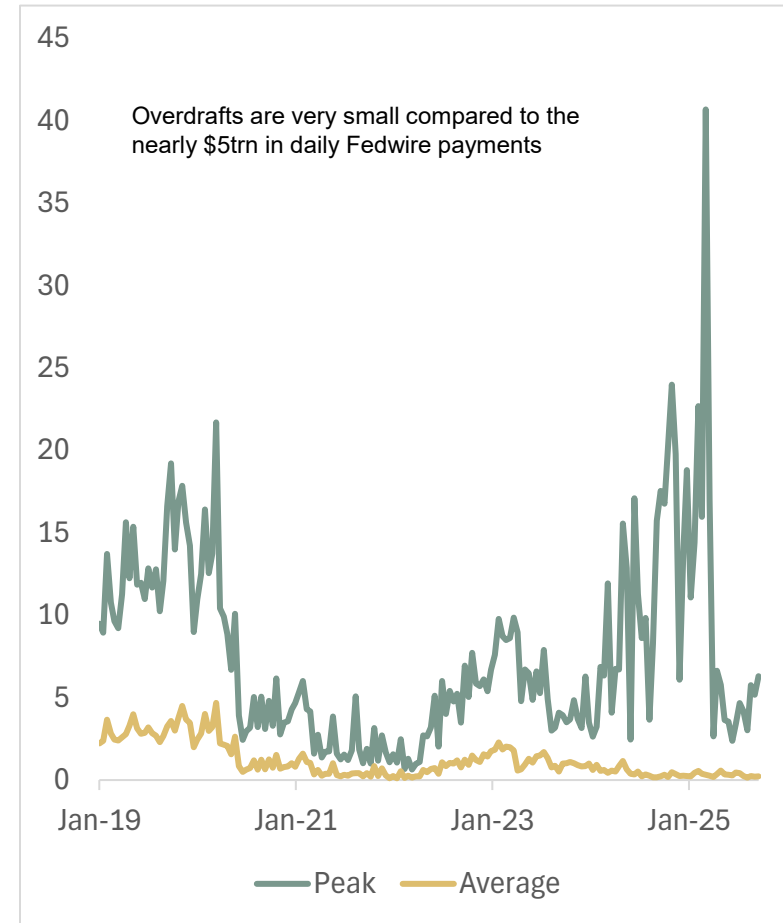
^{1/} See "What can public Fedwire payments data tell us about ample reserves?", E. Ferris, A. Rose, and M. Tase, Federal Reserve Board of Governors, July 18, 2025

Sources: Federal Reserve, US Treasury, SMBC Nikko

Peak and average intraday overdrafts

Overdrafts (\$bn)

- Banks hold pre-placed collateral at the discount window
 - Consisting mostly of mortgage loans
- This collateral can be pledged intraday to cover an overdraft in a bank's clearing account at the Fed
 - There is no charge on this access
- *That said, banks remain leery of using discount window loans*



Sources: Federal Reserve, SMBC Nikko

Payment efficiency

- Fedwire is a real time gross settlement system
 - That is, a bank's outflowing and inflowing payments are sent as they are received
- If banks have enough in their clearing account and access to intraday credit, they can process gross settlements without the need to queue up payments or delay them until money comes in
 - But this requires maintaining thick, precautionary buffers scaled above the bank's peak intraday payment flows
- Duffie argues that there may be ways for banks to net payments on Fedwire and thereby reduce their demand for precautionary reserves^{1/}
 - Intraday outflows would sit in a queue and only go out at specific points in the day
 - In the interval, the Fed would "match" inflows and outflows between the same pairs of banks and net off the difference^{2/}
 - So that only the net amount would flow over Fedwire

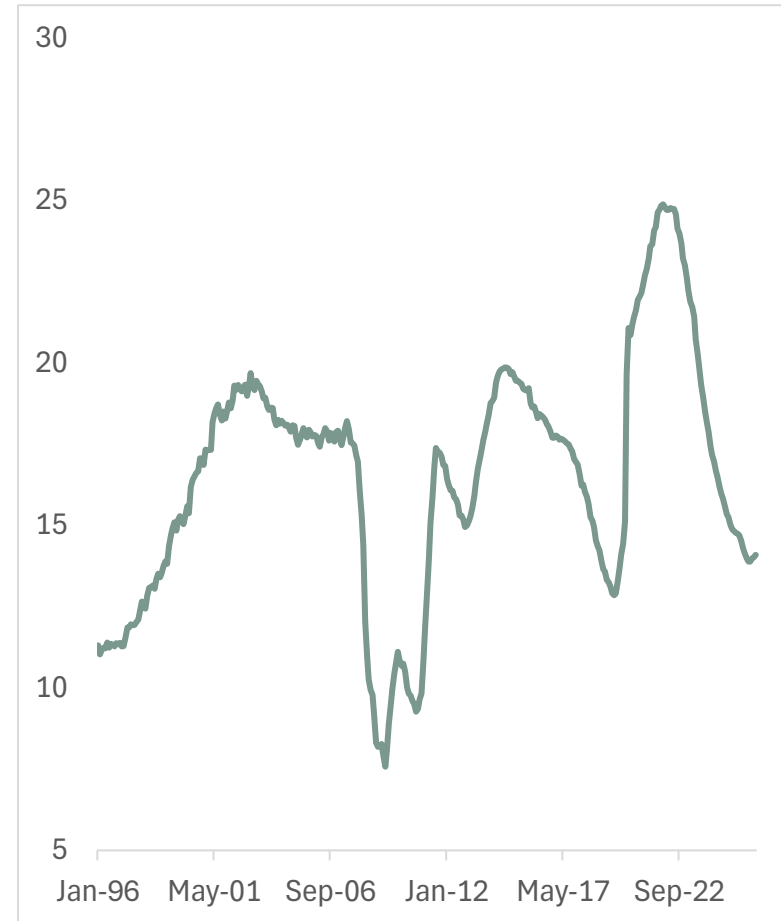
1/ See, "The Payment System Puts a Floor on the Fed's Balance Sheet", D. Duffie, Brookings Institute, March 26, 2026

2/ The system might work best with a limited number of banks so that the number of matching pairs is highest.

A smaller Federal Reserve balance sheet...

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

SOMA Treasuries (% outstanding)

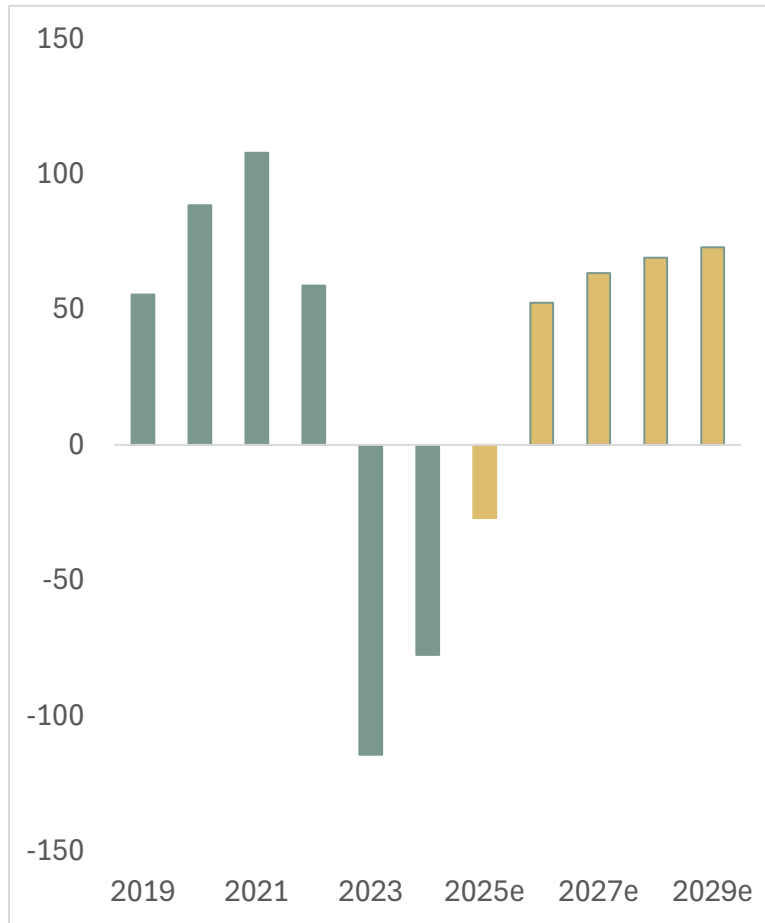


^{1/} As in September 2019 and again in March 2020

Sources: Federal Reserve, US Treasury, SMBC Nikko

...and steadier Federal Reserve earnings

Federal Reserve earnings (\$bn)



Sources: Federal Reserve, SMBC Nikko

- The Fed's portfolio has a maturity mismatch
 - QE pushed the maturity of its securities holdings longer
 - But its interest-bearing liabilities are primarily overnight^{1/}
- As a result, it has had negative income since 2022
 - Its income is expected to turn positive this year
 - But it may not be able to remit any surplus earnings to the Treasury until 2029
- *In addition to an argument against QE, negative earnings suggests the Fed's portfolio should be more bill-heavy*

1/ IORB and RRP balances

Path to smaller: Reducing reserve demand

- To significantly reduce its balance sheet, the Fed would need to reduce bank demand for reserves^{1/}
 - But this determined by regulation and their preference for precautionary liquidity buffers
 - As well as their preference for immediately available liquid assets
 - The Fed could try to reduce its non-reserve liabilities such as currency and the Treasury's cash balance^{2/}
- While banks can meet their liquidity requirements with Treasuries these need to be monetized in a crisis
 - In the market or by pledging them to the Fed at either the Discount Window or the SFP
 - Banks are reluctant to use either facility given concerns about disclosure
- *Ultimately, we do not think the Fed will be able to reduce its balance sheet*
 - However, it may be able to slow its growth
 - And shift it toward a more bill-heavy portfolio^{3/}

1/ We are assuming that the Fed is not considering *lowering* bank liquidity requirements. However, it could change the requirements to include some amount of pre-placed discount window collateral as part of banks' HQLA.

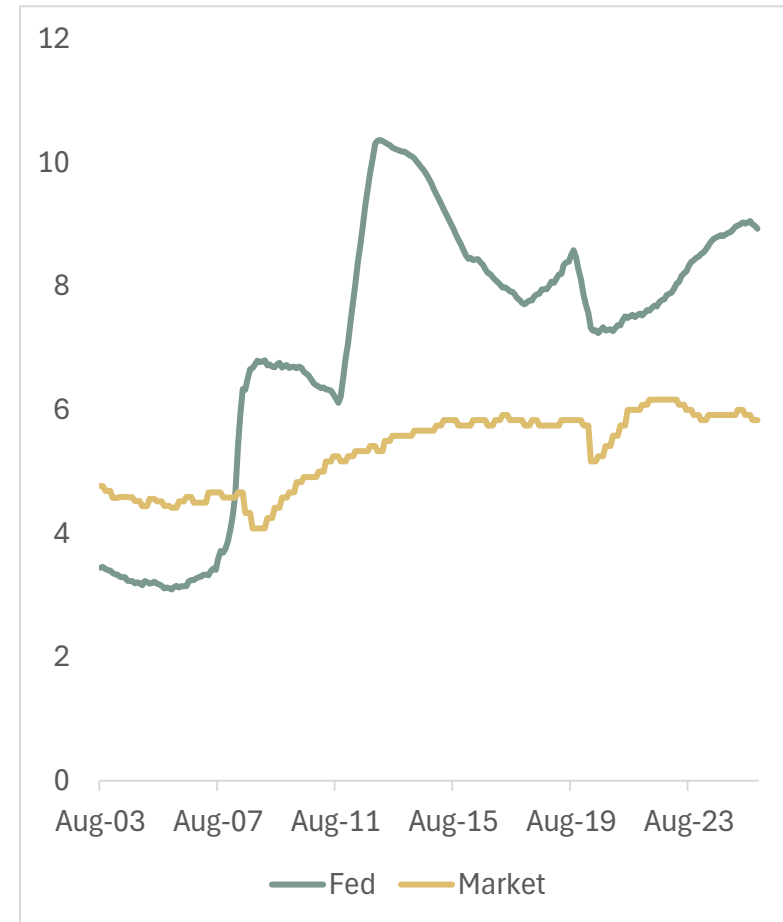
2/ See slide 36

3/ To a pre-GFC share of 35%

Market neutral portfolio

Treasury market WAMs (years)

- QE lengthened the Fed's portfolio WAM relative to Treasury debt outstanding
- A market neutral portfolio would match the Treasury debt outstanding
 - To minimize the influence the Fed's portfolio has on market rates
- This would require increasing its bill holdings to the market average (22%)



Sources: US Treasury, Federal Reserve, SMBC Nikko

Encouraging reduced reserve demand

- Banks' least comfortable level of reserves (LCLoR) includes precautionary liquidity buffers above their regulatory minimum
 - But they also maintain an additional buffer or "surplus excess" over the LCLoR.
- The size of these buffers reflects their concerns about the ability to monetize other forms of regulatory liquidity through the Fed's SRP and discount window.
- To reduce bank demand for reserves *without* pressuring funding markets, the Fed must satisfy two conditions.
 - The reduction should come from banks' surplus excess reserves
 - And it must be voluntary – that is, banks should not seek to replace their lower balances by borrowing in overnight markets.

Reducing demand: Harder than it looks

- The Fed *might* be able to reduce banks' demand for reserves^{1/}:
 - Convince banks that regular use of the discount window and SRP is part of normal liquidity management
 - This has had limited success to date
 - Allow banks to include a portion of their pre-placed discount window collateral as part of their HQLA in regulatory liquidity calculations such as the LCR, NSFR and stress testing^{2/}
 - Create new, stigma-free liquidity tools that are only available to healthy banks
 - Although this would likely increase the stigma associated with the discount window as only “distressed” banks would use that facility
 - Net Fedwire payments^{3/}
 - Fedwire handles more than 1m transactions daily
 - IORB tiering^{4/}
 - Supply reserves only equal to the amount that banks ask for – a “voluntary demand floor”
 - Balances that banks hold over this amount might not be remunerated
 - If banks want more balances and are willing to incur the opportunity cost, they could get extra balances from a daily discount window loan auction

1/ See, “Options for Reducing the Size of the Fed’s Balance Sheet”, L. Logan and S. Schulhofer-Wohl, Federal Reserve Bank of Dallas, April 2, 2026

2/ Banks have over \$3trn in pre-placed discount window collateral on their balance sheets.

3/ See slide 28

4/ See next slide

Reducing demand: Tiered IORB

- The Fed could increase the relative price of reserves by tiering its payment of IORB
 - Bank balances below the threshold would receive the full IORB rate
 - *But balances above would receive a rate below IORB and, potentially, nothing*
 - In theory, this might encourage banks to keep their surplus reserves in Treasuries
 - We think banks might substitute bills for reserves given their liquidity in stress periods
- But gauging where to set the remuneration threshold (and rate) on a tiering system is likely to be challenging
 - Bank demand for reserves changes
 - And given their reluctance to use Fed liquidity facilities, banks may simply accept a lower return on their surplus (non-exempt) reserves

Capping the Treasury account?

- One option for the Fed to shrink its balance sheet might be for the Treasury to shift its cash balance off the Fed's balance sheet^{1/}
 - And, instead, invest the cash temporarily in the repo market
- This would allow it to maintain a steady(ier) balance at the Fed
 - While re-injecting reserves back into funding markets^{2/}
 - To prevent repo rates from spiking
- It would also eliminate the need for the Fed to pre-place reserves into the banking system through RMPs in advance of expected increases in the Treasury account
 - If bank reserves are less volatile and more predictable, banks might reduce their demand for insulating balances above their LCLoR (least comfortable level of reserves)
- And the Treasury would earn a return (tri-party repo) on its cash
 - Treasury cash held on deposit at the Fed is unremunerated

1/ Practically, the Treasury might target a balance at the Fed of say \$500bn, and anything over that amount would be invested in tri-party repo.

2/ In effect, reserves would not leave banks as the Treasury's repo operations would recycle them, rather than removing balances from the system temporarily as its cash deposit increases.

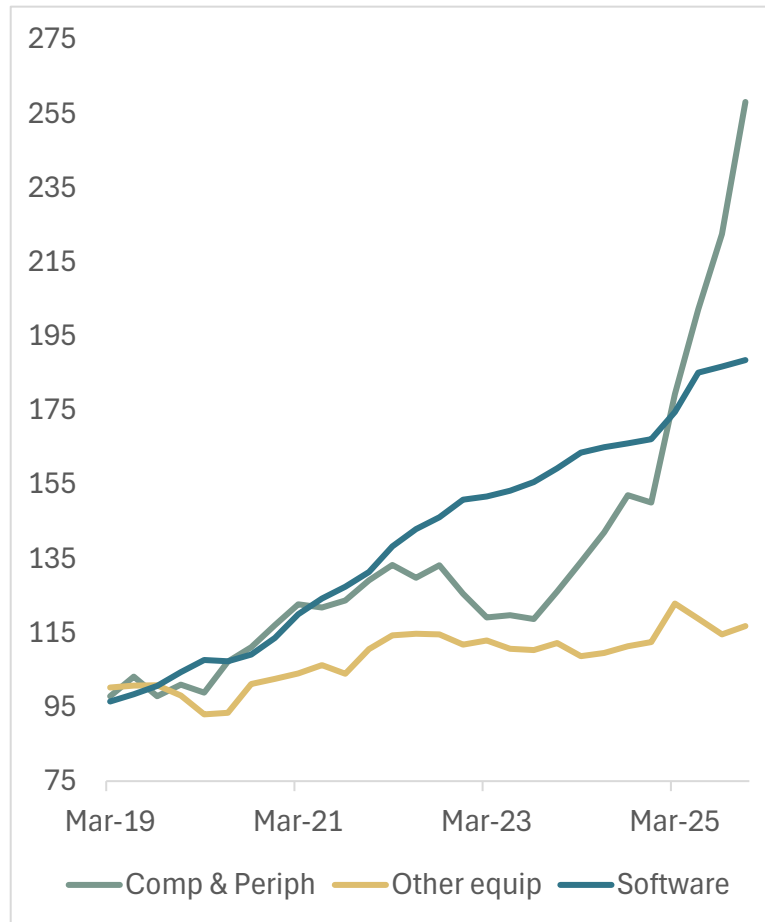
“Treasury” repos

- *We are somewhat skeptical about capping the Treasury’s cash account*
- Operational risk
 - The Treasury’s cash might be unavailable in the repo market in an emergency
 - In anticipation of having to meet a sudden, unexpected Treasury request for cash, banks’ demand for precautionary reserves might go up proportionally with the scale of the Treasury’s repos
- The Treasury’s repos would not be subject to clearing
 - The Treasury’s repos would increase on the same (settlement) days as balance sheets get tightest
 - The transactions might need to be cleared to free up dealer balance sheet^{1/}
- The Treasury’s repos would compete with tri-party cash raised from money funds
 - Dealers may prefer the latter as it is steadier while the Treasury’s repos could be hard to predict
 - Dealer desks and other borrowers would need to forecast daily changes in the Treasury’s cash flows
 - As we have less information about these flows than the Fed our forecasts are likely to be inaccurate – adding to repo rate volatility.

^{1/} Like the Fed’s SRP, this raises a mechanical question of how clearing might work. We assume that some remote access model (say, collateral in lieu) might be adopted.

AI capital deepening

Real fixed investment (2019 =100)



- Since 2020, there has been rapid growth in investment in technology^{1/}
 - Spending for computers and peripherals accelerated in 2024
 - This category includes spending on servers

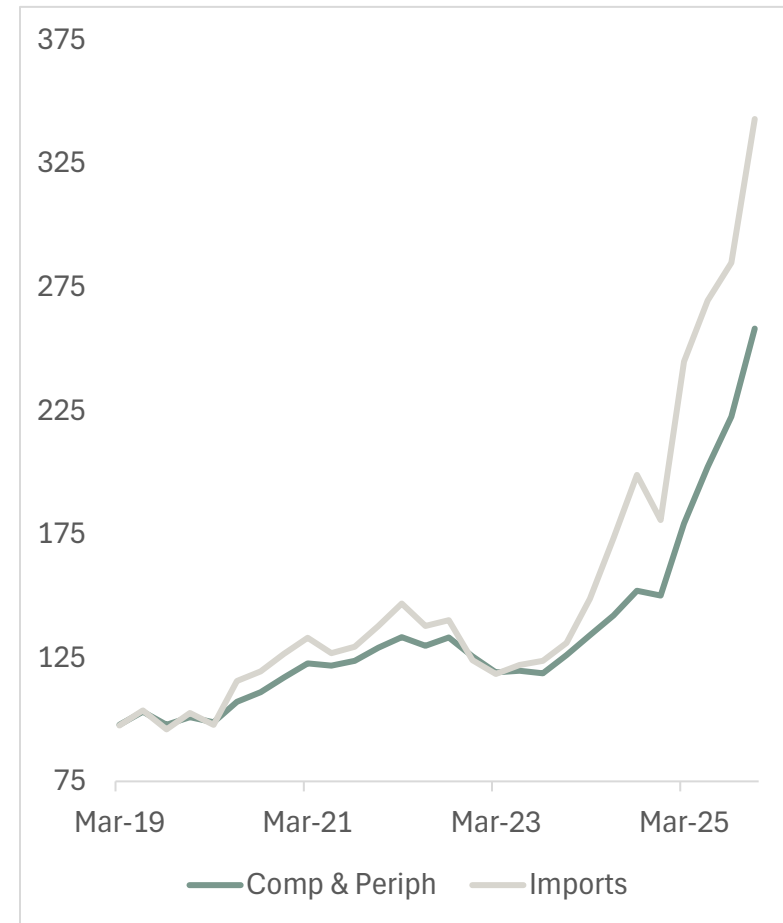
^{1/} There is no specific GDP measure that captures all AI-related spending. We look at investments in computers & peripherals, other information technology equipment, and software.

Sources: BEA, SMBC Nikko

Imports of technology

Investment and imports (2019=100)

- But a significant portion of the investment in computers and peripherals is on imported goods
- In turn, this reduces domestic production of this equipment
 - And as a result, the direct contribution of AI investment to GDP is much smaller than its rapid growth suggests

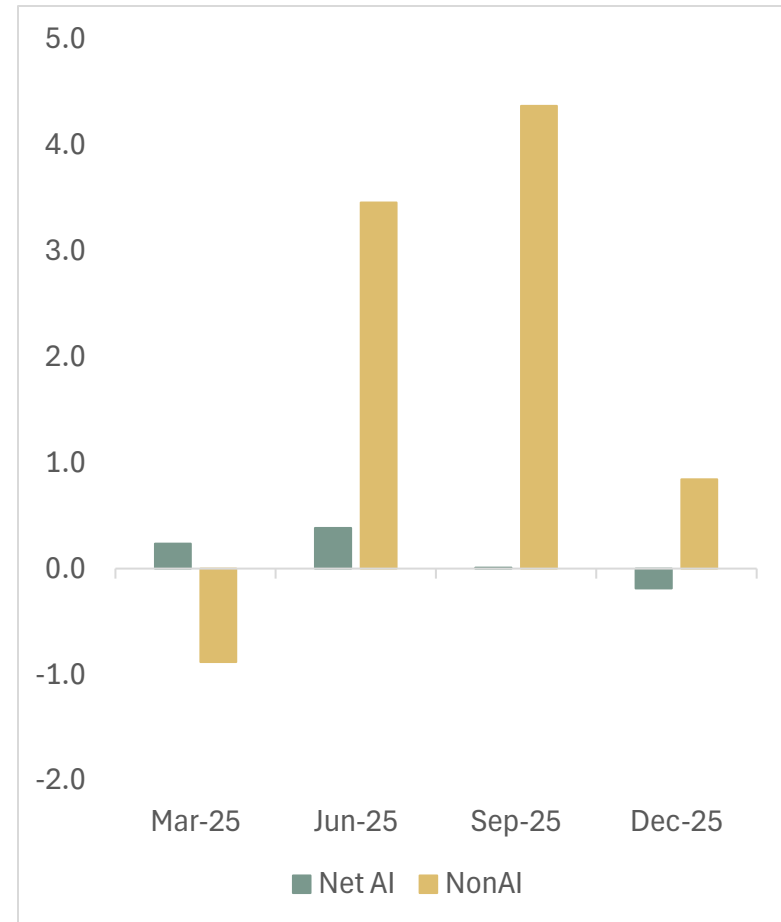


Sources: BEA, SMBC Nikko

AI GDP contribution

- Despite its rapid growth, spending on servers and AI-related investment has added less than 0.5% per quarter to GDP growth last year
- And GDP outside of AI was solid

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



Sources: BEA, SMBC Nikko

Measuring AI

- *Measuring AI's contribution to GDP outside of investment is difficult*
- Spending on AI services is too aggregated
 - Spending on cloud services includes web hosting, database management as well as model training
 - This data is derived from revenues from AI service providers
- The GDP data only include spending on final goods and services
 - But a fair amount of AI is being developed and used internally
 - Or it is an input in the production of other goods and services
- *While we have a good sense for spending on new computers (domestically-made and imported) we only have an imperfect sense for the non-investment components tied to AI in the GDP accounts*
 - Which makes measuring productivity difficult
 - And could explain why there is such a divergence between the results of task surveys and officially measured output/hour
 - Measurement issues are likely to grow over time as the AI build-out nears completion and spending shifts from investment to the purchases of AI services

Value added

- Heavy investment in AI-related equipment reflects only new spending
 - It does not measure the “value added” to GDP from the manufacturing of computers and business services created from existing capital
- The BEA’s “value added” measures from the manufacturing of computers and business services from computer design are similar in size to the GDP expenditure contributions (about 0.4%/quarter)
- We are not considering obsolescence effects from rapidly evolving AI technology.
 - AI investments have short lifespans and spending may need to remain elevated just to stay ahead of the innovation cycle
 - But this does not prevent the equipment from being reused for other, less technologically demanding purposes
 - *As a result, measuring AI’s contribution to growth from the value added data may be more useful than the expenditures figures*

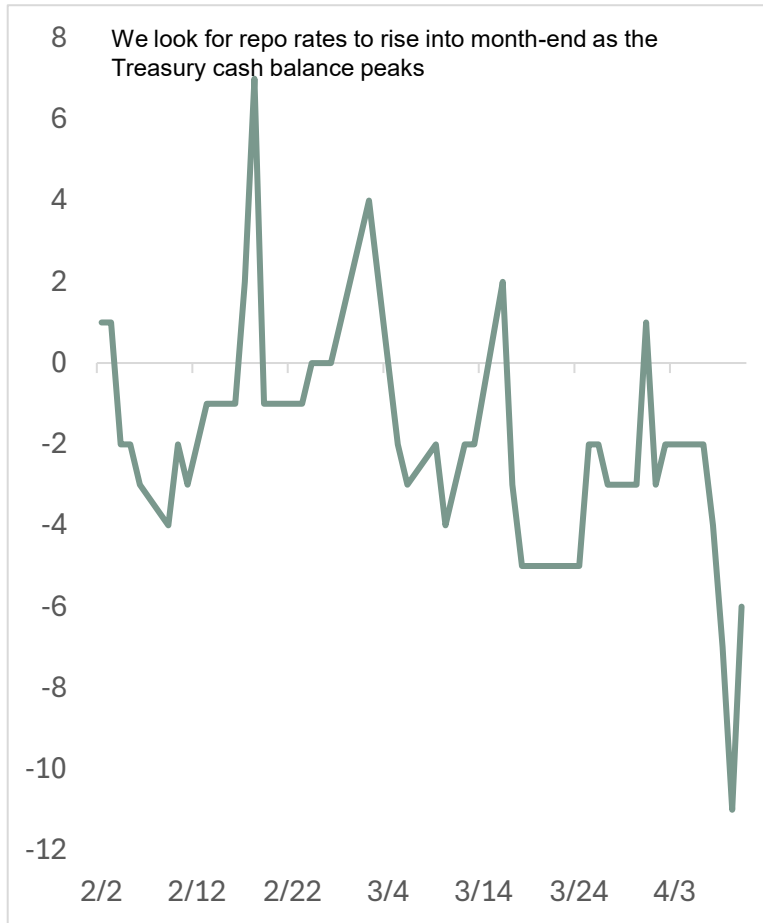
Markets

Flight to cash?

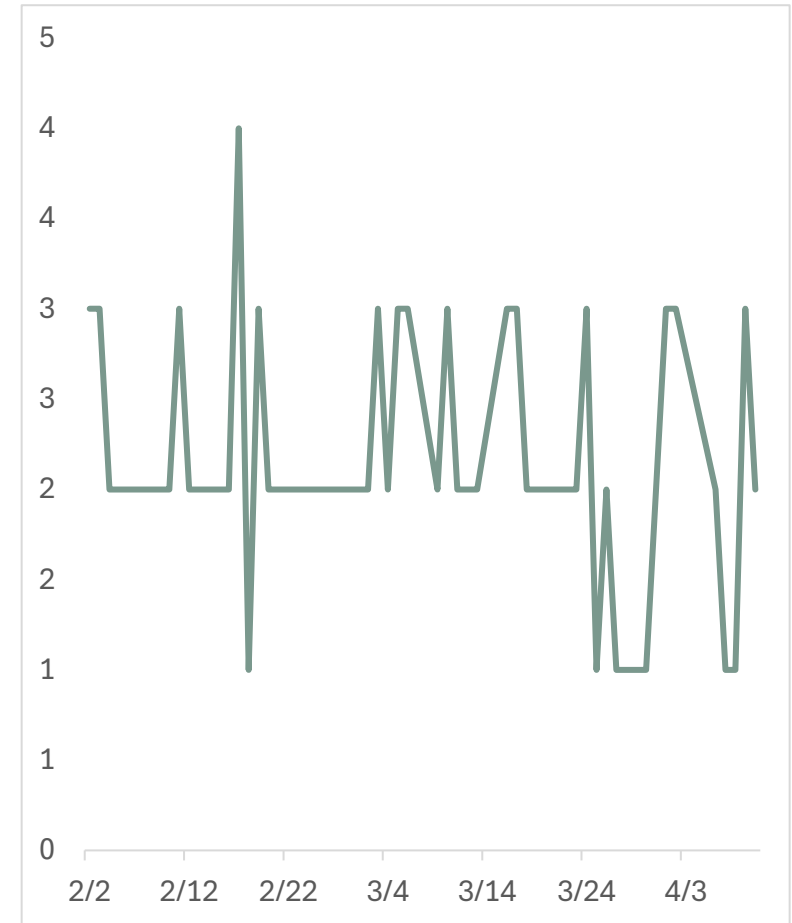
- In past episodes of financial market stress, like COVID or the invasion of the Ukraine, there was “dash for cash”
 - As investors defensively into cash and stepped back from lending
- But since the Iran conflict began:
 - Repo rates have held steady or declined
 - CCPs have not shifted their margin cash onto the Fed’s balance sheet
 - Gov-only money fund balances have fallen but prime fund balances have been steady
 - Large bank deposits increased in March – but the gain was smaller than in February
 - Non-financial CP rates have increased but outstandings are hovering near record levels
 - *Our sense is that front-end investors may be temporarily sidelined waiting for more clarity on the direction of interest rates*

Higher repo rates?

Tri-party less IORB (bp)



SOFR-tri-party (bp)



Sources: Federal Reserve, SMBC Nikko

Sources: Federal Reserve, SMBC Nikko

Calculating SOFR

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

^{1/} The Fed calculates other parts of the distribution including the 1, 25, 75, and 99th percentiles.

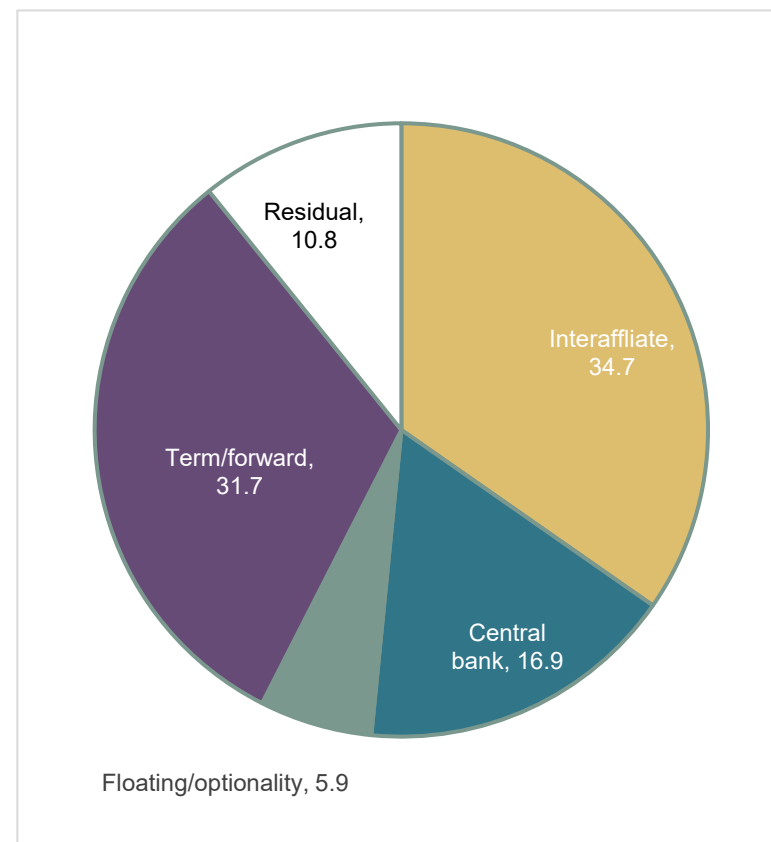
Uncleared activity

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

1/ The pilot data were collected for three days in June 2022 from nine large dealers.

2/ See, "How the Treasury Clearing Rule for Repo Might Affect SOFR", A. Cenicola, and C. Garriott, Office of Financial Research, US Treasury, April 22, 2025

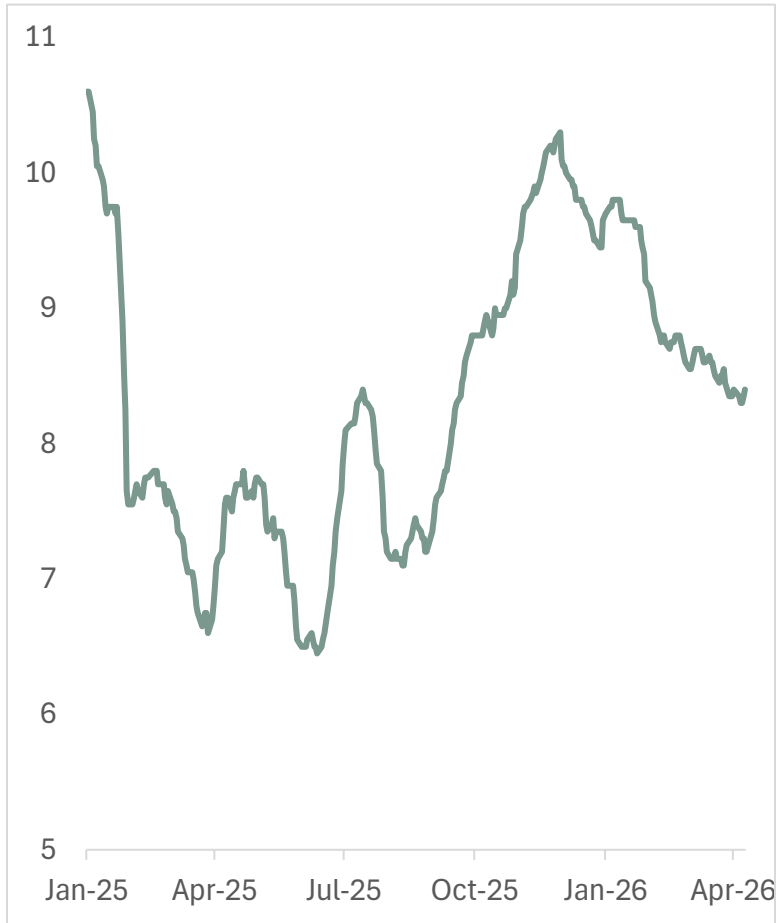
Uncleared Treasury repo (% distribution)



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

Recalculating SOFR

Inter-quarter SOFR range (bp)



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

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

1/ Cenicola and Garriott (2025)

SOFR *may* go higher after clearing

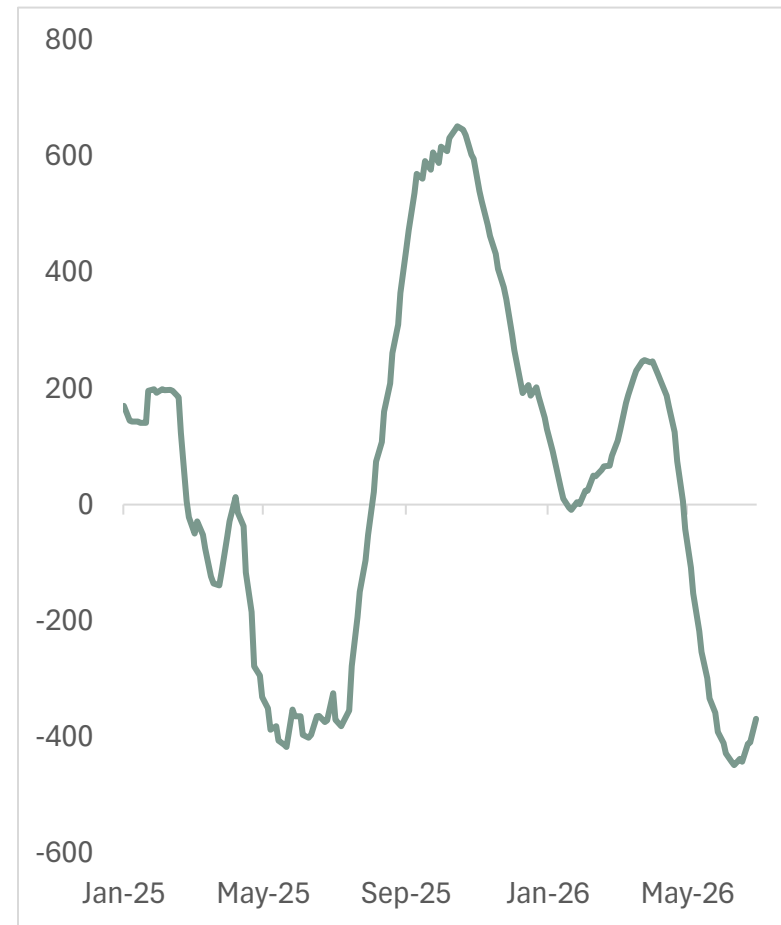
- But the Cenicola and Garriott analysis is static; it does not consider changes in dealer and counterparty behavior resulting from clearing
- Balance sheet capacity
 - The central clearing mandate will increase dealer balance sheet capacity
 - In theory, the extra capacity will reduce the cost of repo^{1/}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

^{1/} But the increase in balance sheet capacity has been matched by an increase in funding demand. So, the effect on spreads is hard to discern.

Seasonal bill paydowns

Bill issuance (\$bn)

- We look for the Treasury's seasonal paydown this quarter to total \$300bn
- Issuance will start increasing in late June
 - And is likely to exceed \$500bn by year-end

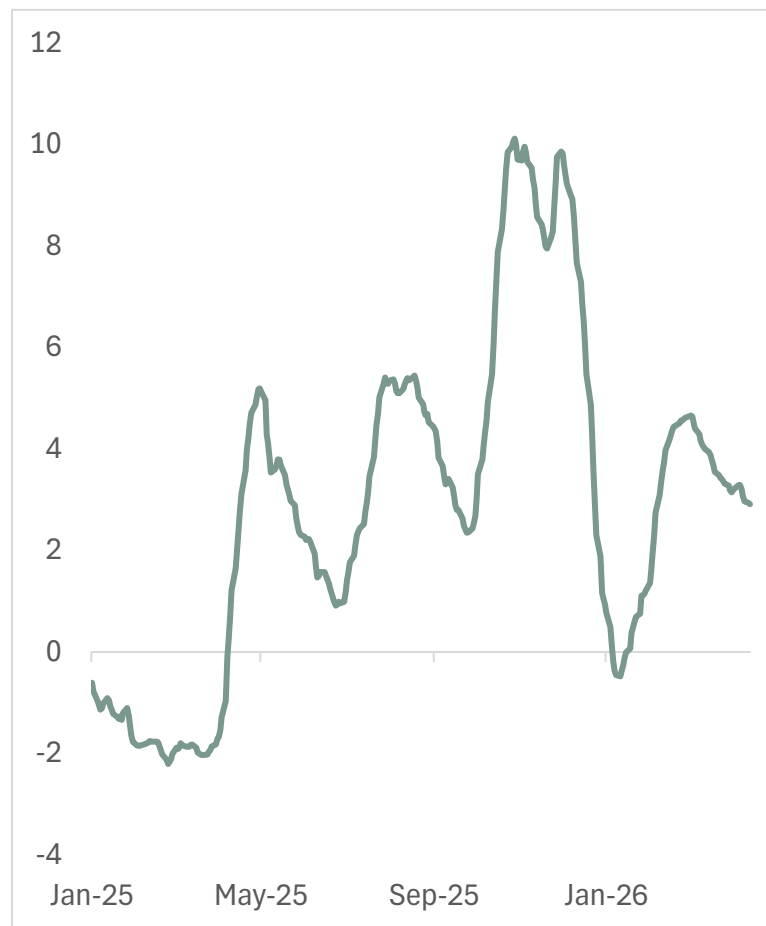


Note: 13w rolling sum. Sources: US Treasury, SMBC Nikko

Bill yields are likely to rise this summer

3m bill less OIS (bp)

- Heavier bill issuance this summer is expected to push yields higher
 - Along with tri-party rates
 - Although we think the effect will be relatively small (2-4bp)



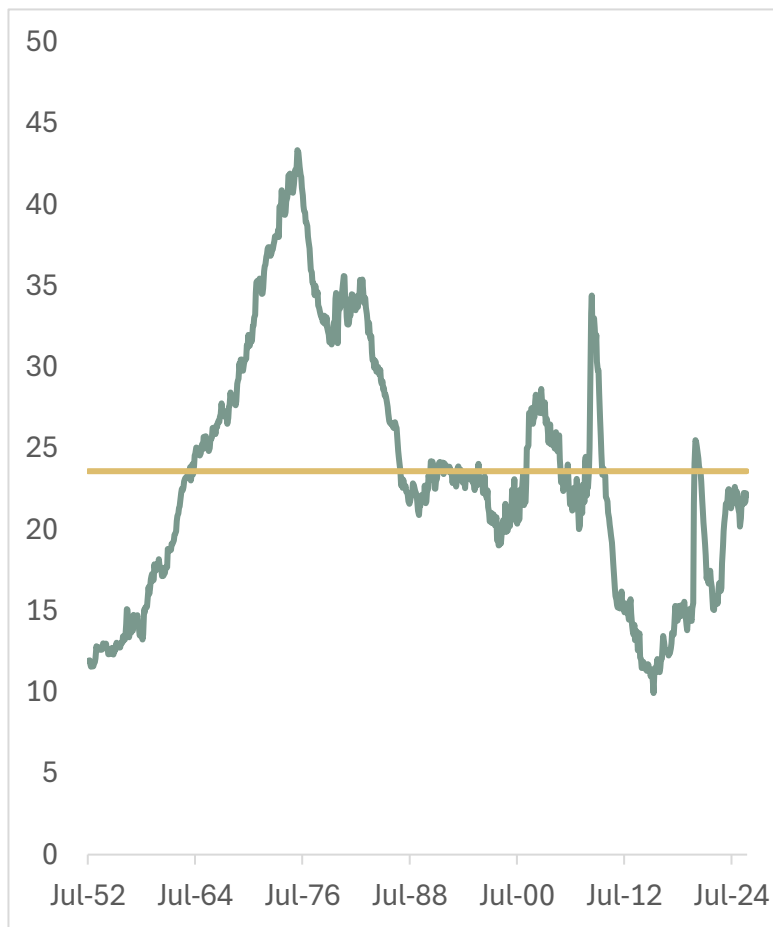
Note: 20d average. Sources: US Treasury, SMBC Nikko

IEEPA refunds and bill issuance

- *The Supreme Court ruled against the Administration on its IEEPA tariffs in January*
- The Customs Bureau is required to issue refunds to importers who paid the tariff
- The Bureau will complete construction of a website to process tariff refunds by April 20
 - The website will be able to process refunds within 45d of filing a claim
- *As a result, we expect a significant portion of the \$170bn in IEEPA refunds could be refunded this quarter and next*
 - We assume the Treasury will increase its bill issuance to finance the refunds
 - This could require issuing one or more large cash management bills (\$50bn each) in coming months

Bill issuance will increase in the longer run

Bill share (% debt)

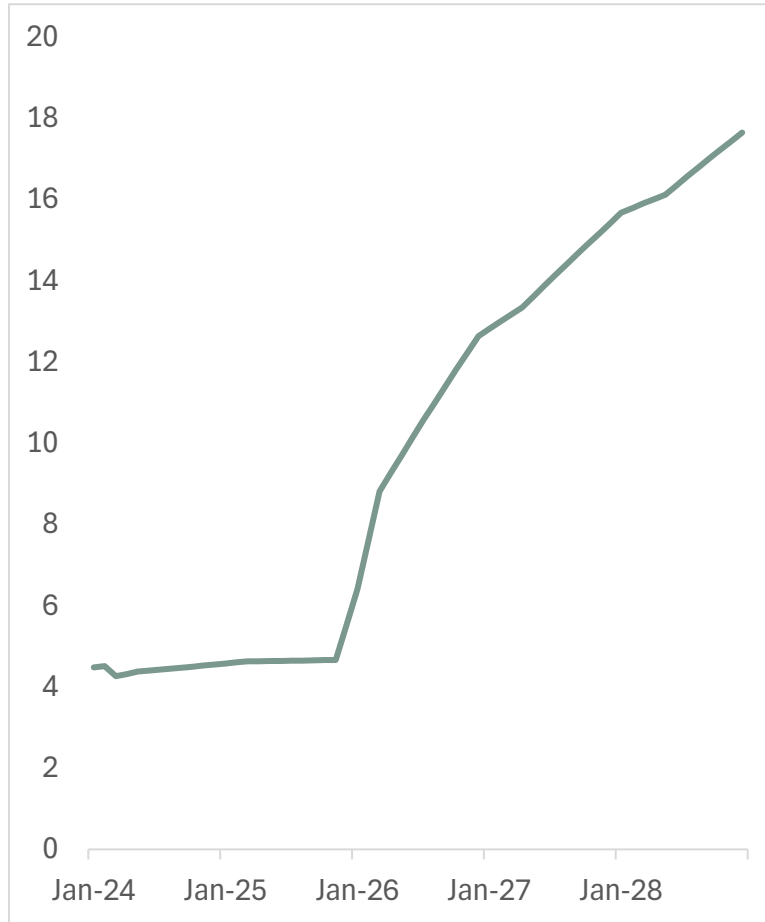


- The Treasury is looking to increase the bill share of debt outstanding
 - As a replacement for increased issuance of long-term debt
- We look for the Treasury to keep auction sizes steady this year
 - And financing more of the deficit through bill supply
- *However, it is unclear how much bill spreads could widen once the bill share exceeds its long run historical average (23.6%)*

Sources: US Treasury, SMBC Nikko

The Fed's bill holdings are increasing

Bill holdings (% Treasury SOMA holdings)



- The Fed's bill holdings are steadily increasing as its RMPs are currently concentrated in the sector
 - And its MBS rollofs are being rolled into bills
- Bills now make up 9% of its Treasury holdings
- *The Fed has not indicated what its long-run portfolio might look like*
 - *We expect Chair Warsh to guide this discussion*

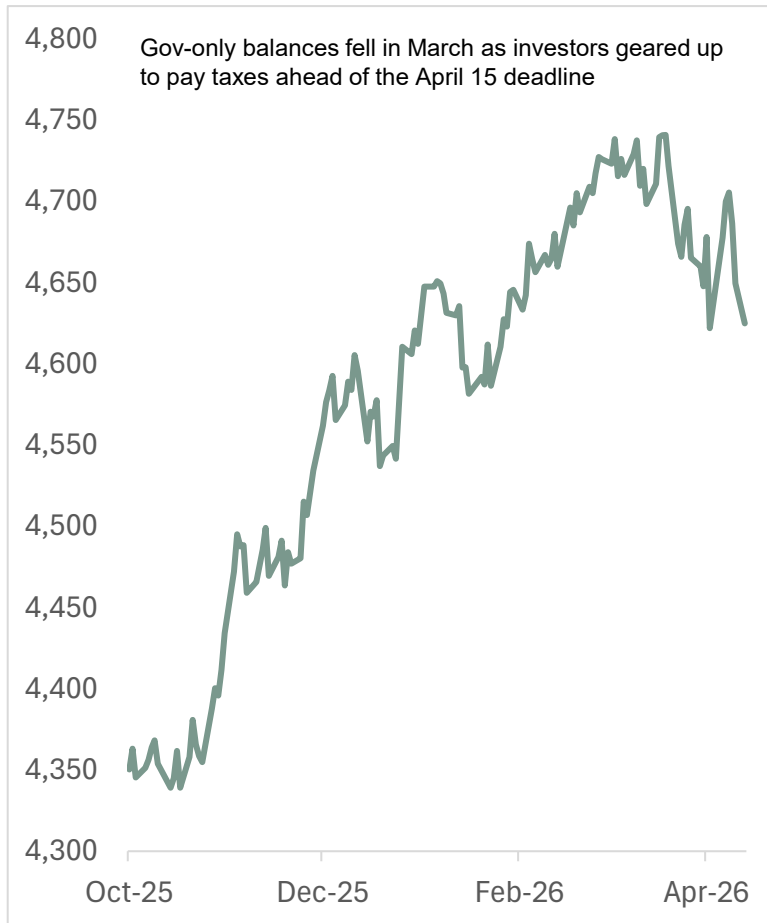
Sources: Federal Reserve, SMBC Nikko

Smaller RMPs

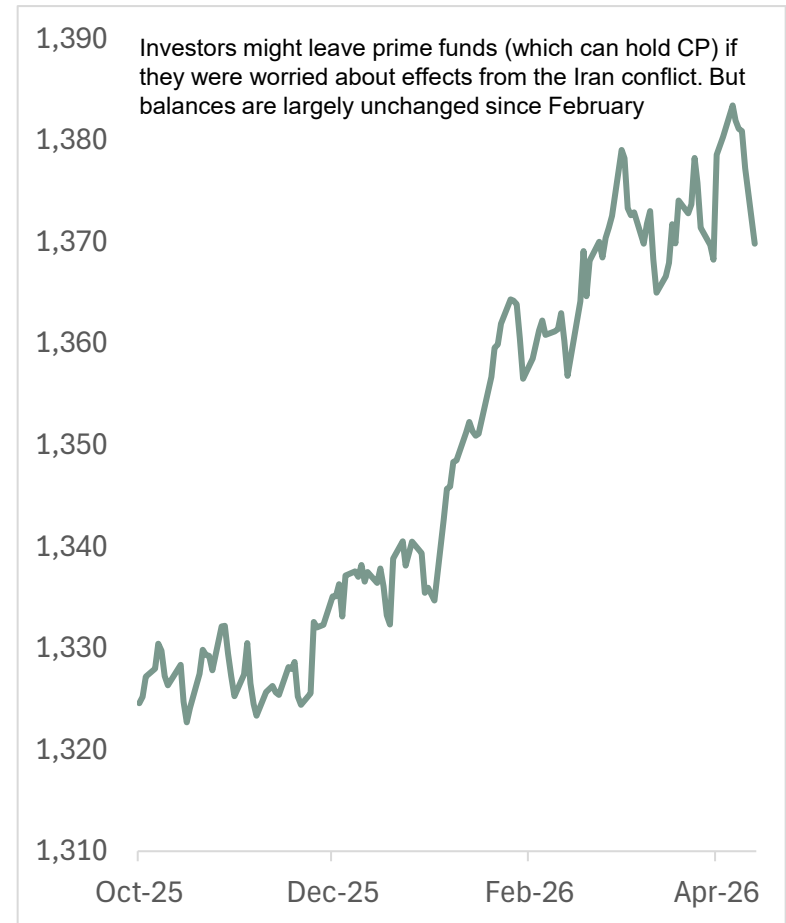
- The Fed's reserve management bill purchases (RMPs) will slow from \$40bn/mo to \$25bn/mo in April
- It is using the RMPs to expand its balance sheet and increase the level of bank reserves ahead of the peak in the Treasury's cash balance (on April 30)
 - The Treasury's deposit will shrink reserves from the upper end of the ample zone toward the midpoint
- *We expect the Fed to slow RMPs further in coming months - probably toward \$10-15bn*
 - *This would be slightly more than enough to offset currency demand and a higher year-end target Treasury cash balance*
 - *We look for RMPs to remain all in bills*
- The Fed is still letting its MBS portfolio roll off and re-investing the proceeds in bills

Money fund balances

Gov-only funds (\$bn)



Prime funds (\$bn)

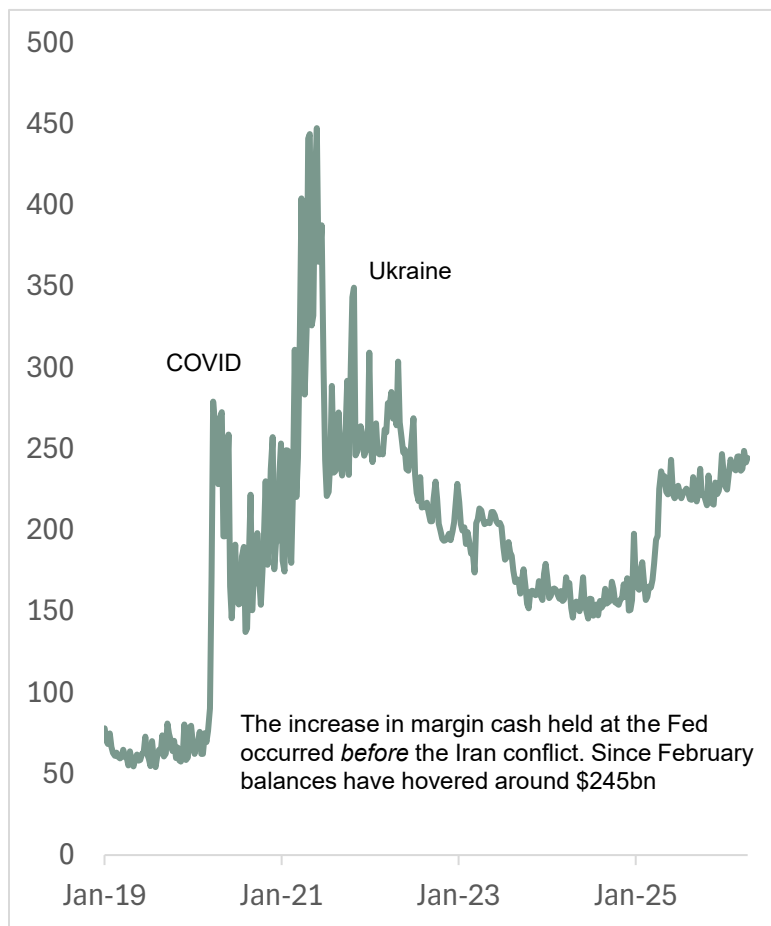


Note: Institutional balances. Sources: Crane's Data, SMBC Nikko

Sources: Crane's Data, SMBC Nikko

CCP margin

Other deposits (\$bn)^{1/}



Sources: Federal Reserve, SMBC Nikko

- In periods of market stress, central clearing platforms may increase their initial margin requirements
- They invest the margin collected in repo, bank deposits and on the Fed's balance sheet^{2/}
 - These investments recycle the liquidity collected from higher margin requirements
- If they become nervous about their own liquidity, they may shift more of their margin cash to the Fed
 - Draining bank reserves as happened during COVID and the Ukraine invasion

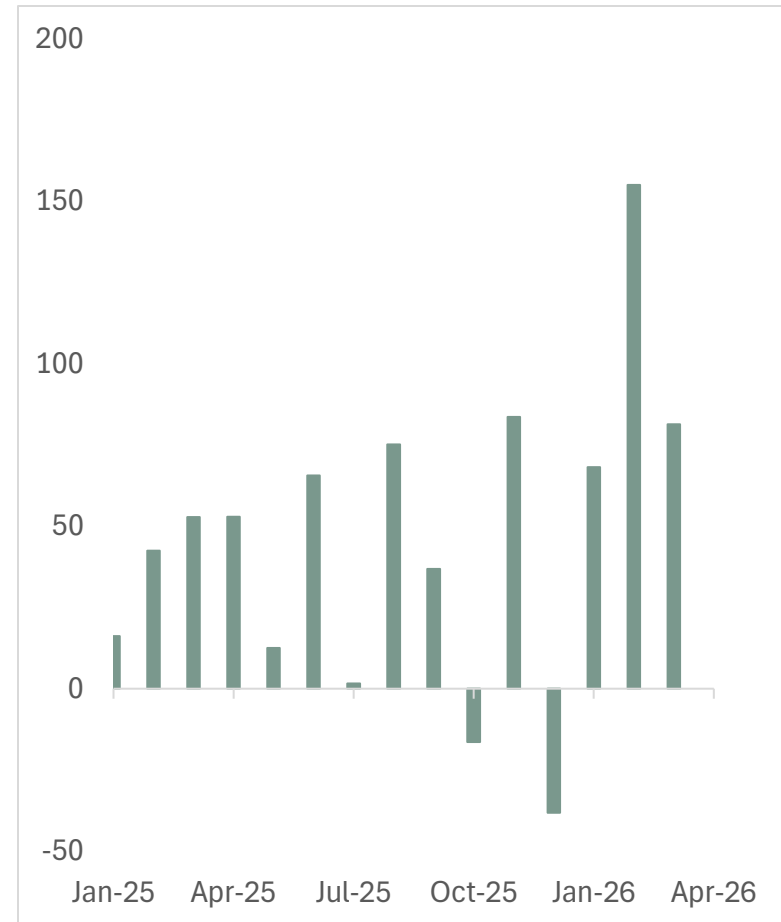
1/ CCPs can keep the margin they collect in deposits at the Fed. These are identified on the Fed's balance sheet as "other deposit". Other deposits also include GSE cash, but these balances are unremunerated.

2/ At IORB

Large bank deposits

- Growth in large bank deposits in March was not unusually high

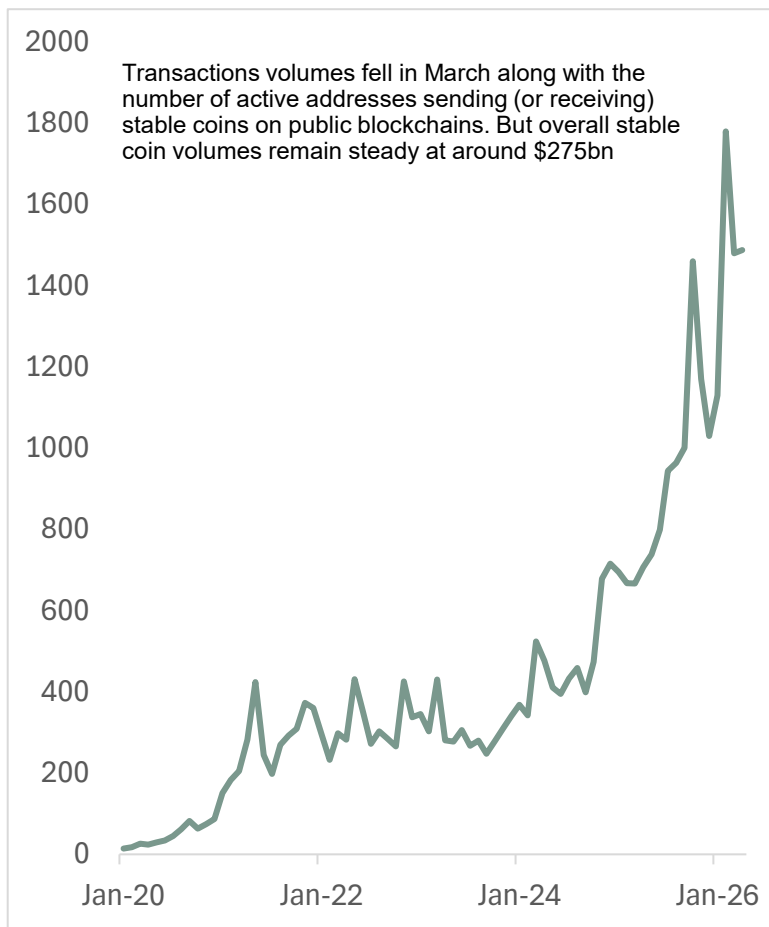
Large bank deposits (\$bn)



Note: Excluding time deposits. Sources: Federal Reserve, SMBC Nikko

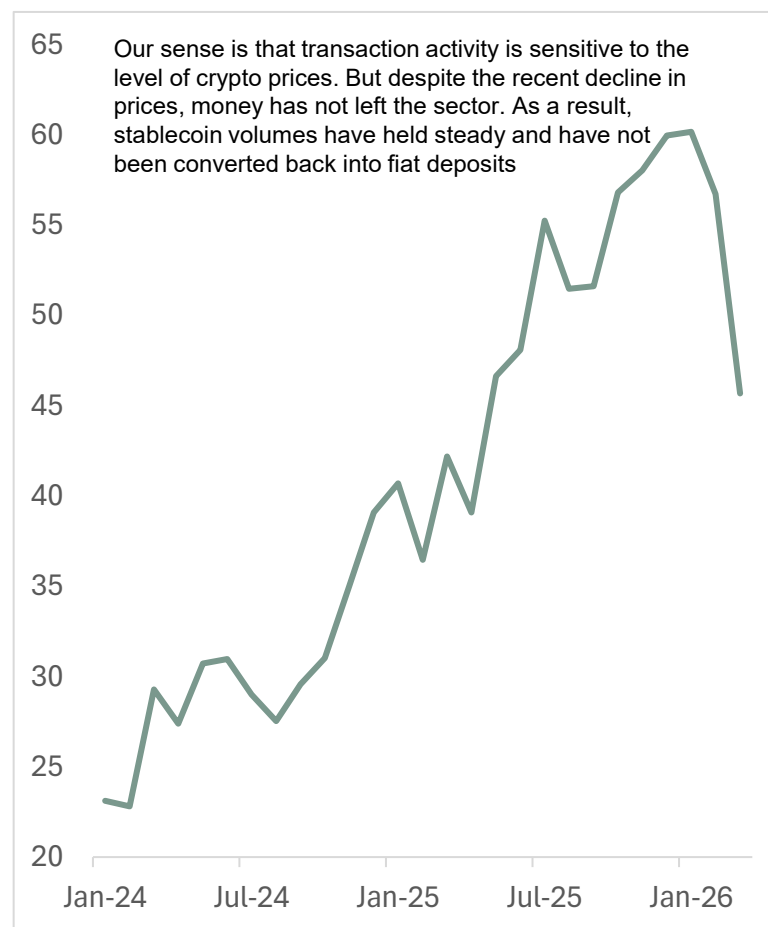
Stablecoin caution?

Stablecoin transaction volume (\$bn)



Note: We have adjusted the April data assuming the same pace prevails over all 30d. Sources: Visaonchainanalytics, SMBC Nikko

Average active addresses (m)



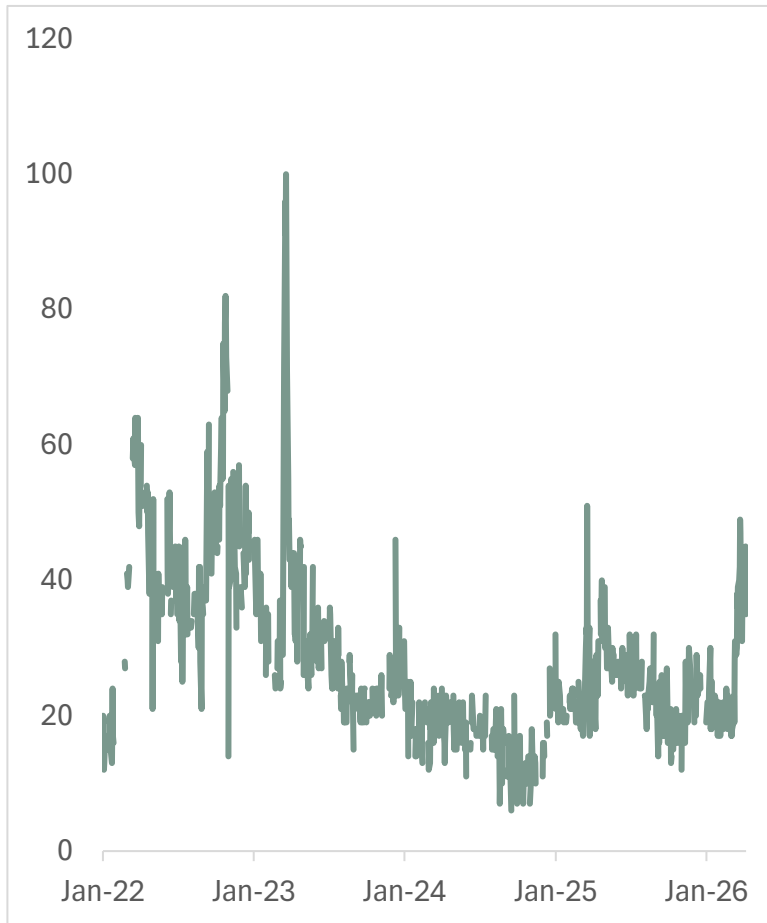
Sources: Visaonchainanalytics, SMBC Nikko

Access to working capital

- Despite the higher yields we do not think the Iran conflict has reduced non-financial firms' access to working capital
 - Outstanding CP remains high
 - WAMs have not shortened
 - And C&I lending has continued to grow
- Money funds and other investors continue to purchase CP

Non-financial CP rates have risen...

30d A2/P2 less AA (bp)

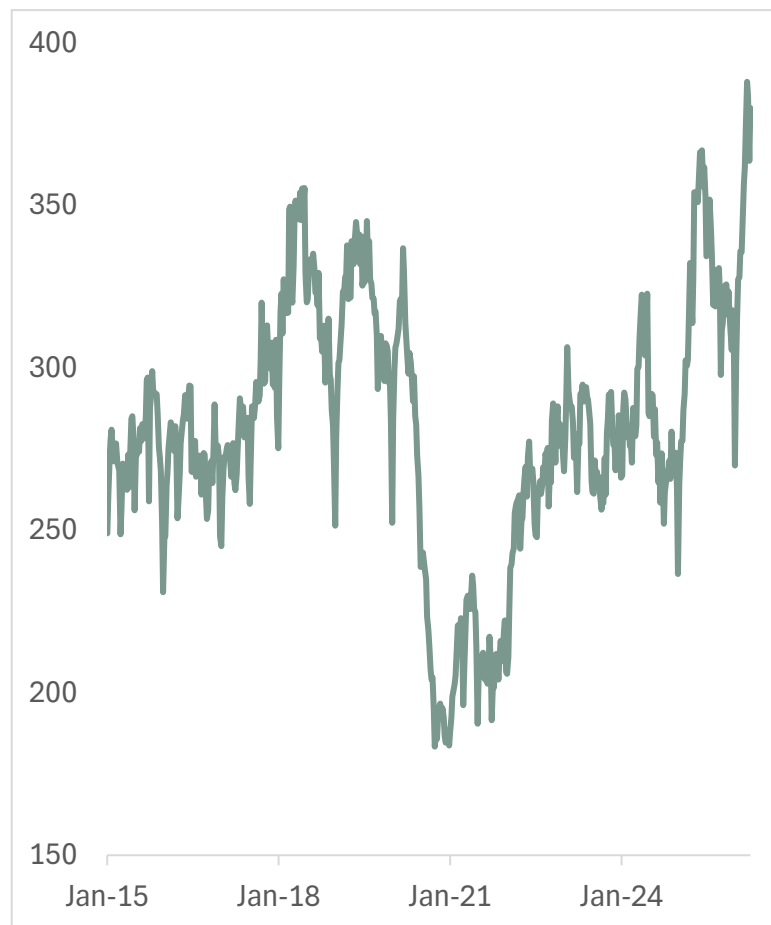


- Non-financial CP rates have risen since the start of the Iran conflict
 - But A2/P2 rates have risen more than AA rates
- And the spread between the two has widened

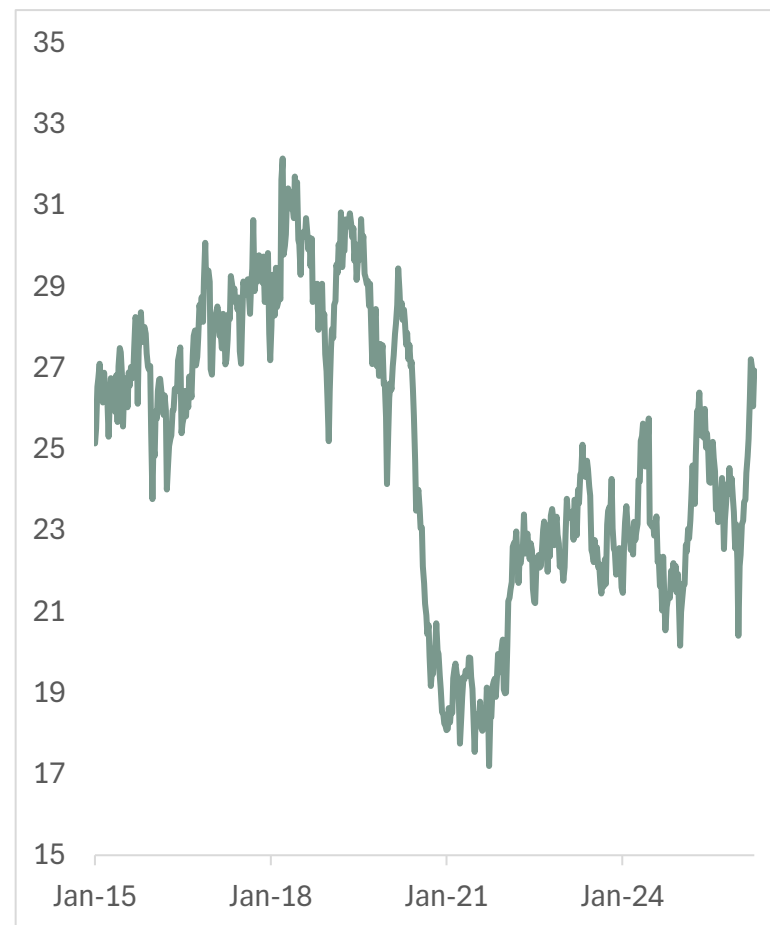
Sources: Federal Reserve, SMBC Nikko

...but outstandings are at record levels

Non-financial CP outstanding (\$bn)



Share of total CP (%)

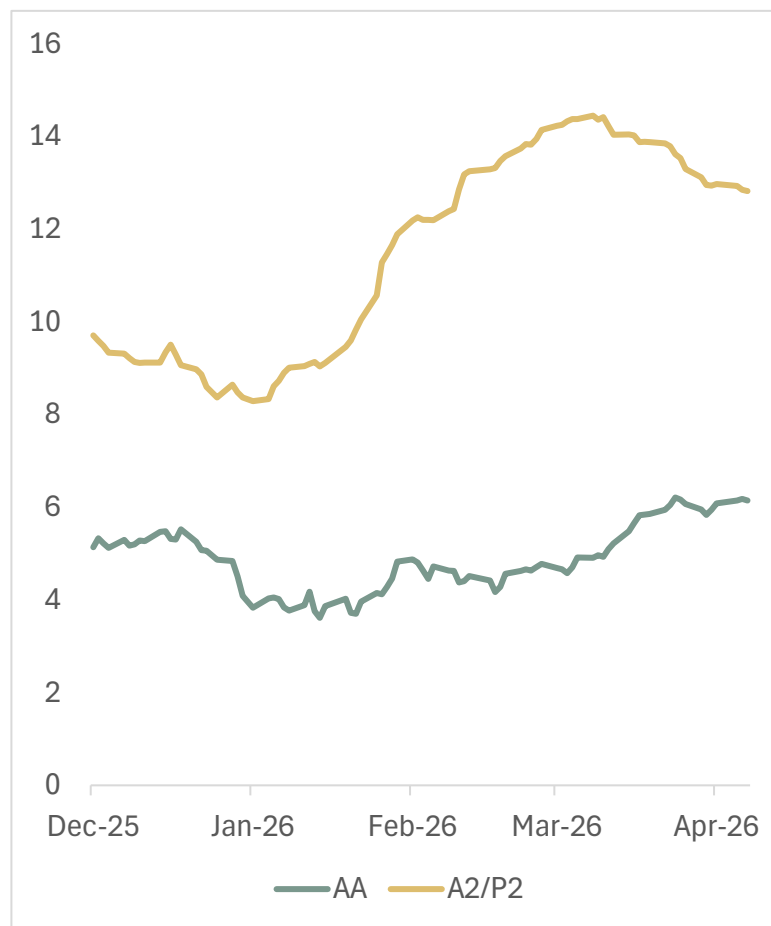


Sources: Federal Reserve, SMBC Nikko

Sources: Federal Reserve, SMBC Nikko

...and daily issuance has not cooled much...

Daily non-financial issuance (\$bn)



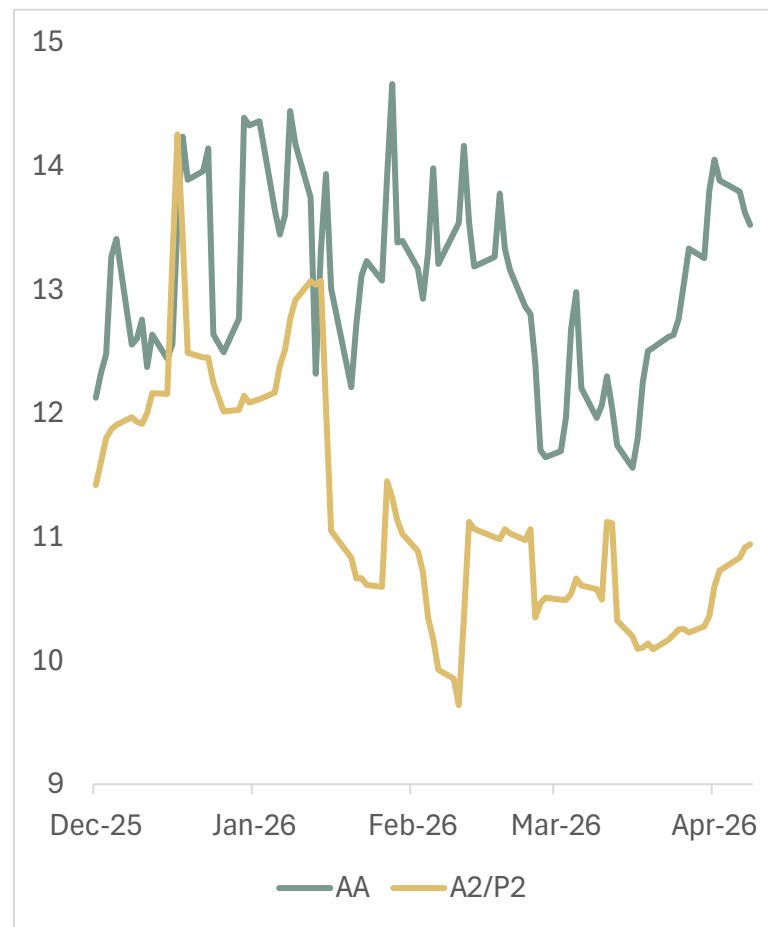
- Daily A2/P2 issuance slowed in March but it still exceeds last winter's pace
- AA issuance continues to creep higher

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

...nor have issuance WAMs shortened

Estimated WAMs (d)

- Estimated issuance WAMs have been steady or higher in March^{1/}



^{1/} The Fed's issuance data are in maturity buckets. We use the midpoint of each maturity bucket to calculate the overall WAM assuming all paper >80d has an 80d maturity.

Sources: Federal Reserve, SMBC Nikko

Bank capital rules

Basel III

- The Basel III proposal is expected to reduce overall bank tier 1 capital requirements
 - But, its effects on trading activity and market risk are more nuanced
 - As the new rules will increase capital required for some types of trades and securities
 - Capital in these trades will become less pro-cyclical
- Overall capital requirements are expected to fall 5%
 - Most of the reduction at the largest banks (Category I and II) comes from changes to stress testing assumptions
 - And updating the GSIB systemic risk scoring framework

Basel III (2)

- Basel III limits risk diversification benefits and applies stricter assumptions about non-modellable risks
- We expect these changes will increase capital requirements for less liquid securities, those with more complex payouts, and those whose returns are difficult to model
 - But the Basel III changes may affect how these securities are traded rather than their volume
 - With more trading shifting to clearing
 - A reduction in the warehousing of securities
 - And increased efforts to model risk

GSLB risk scoring

- Along with the Basel III proposal, the Federal Reserve is considering changes to the formulas large banks use to calculate their systemic risk, freeing up bank capital
 - Large banks are required to hold an extra cushion of capital to account for the systemic risk their size and activities pose to the economy and markets
 - Required capital is determined by a score across five dimensions of risk
- The Fed plans to update the component risk weights to account for economic growth since 2019. This one-time adjustment would lower aggregate risk scores by 12%.
- And it will also reduce the weight applied to the short-term wholesale funding (STWF) component
 - This would lower aggregate risk scores by an additional 15%
 - Most of the STWF component is made up of Treasury repo.

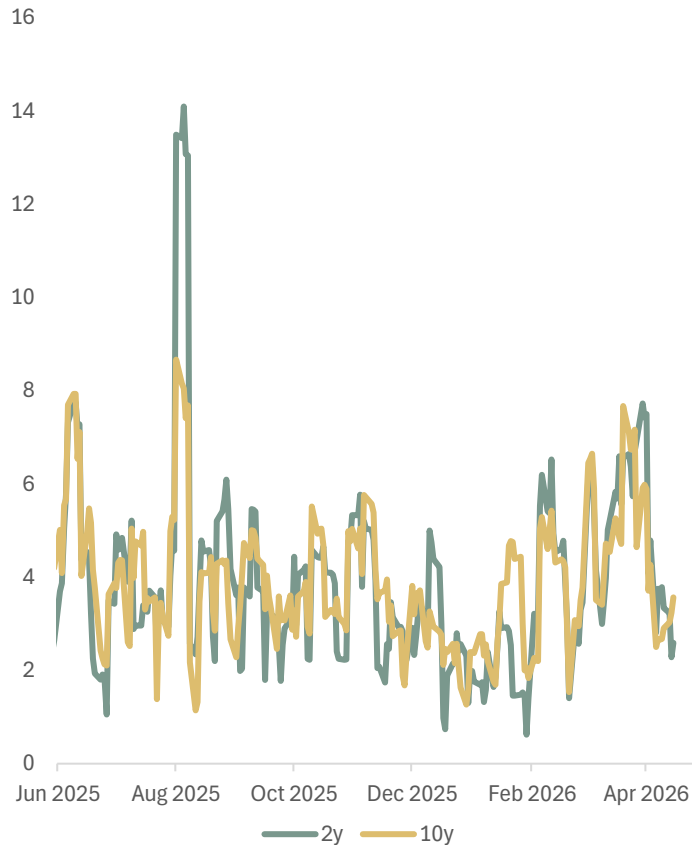
GSIB risk scoring (2)

- At the margin, we think changes to the STWF component could increase the repo intermediation capacity of these banks
 - However, the 8 GSIB banks reported over \$2.2trn in Treasury repo borrowing at the end of last year^{1/}
- Other changes to the score including averaging and reducing cliff effects in the connection between the score and capital requirements could mean that the GSIB banks' intermediation activity is steadier
 - And there is less seasonal "risk dieting"
 - That causes repo rates to spike and cross currency bases to regularly widen in Q4

1/ With maturities out to 30d

Short tail vol to underperform with strong case for Fed on hold

Realized vol (2-week, bps)



Implied - 3mx2y less 3mx10y (annual bp vol)

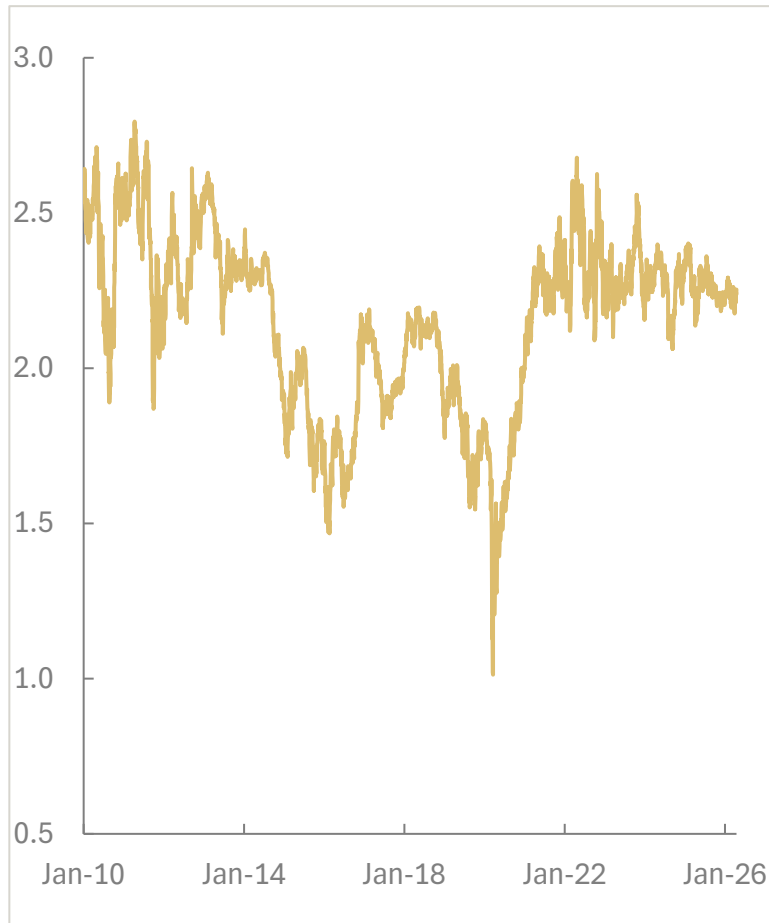


Sources: SMBC Nikko, ICAP, Bloomberg

Sources: SMBC Nikko, Bloomberg, ICAP

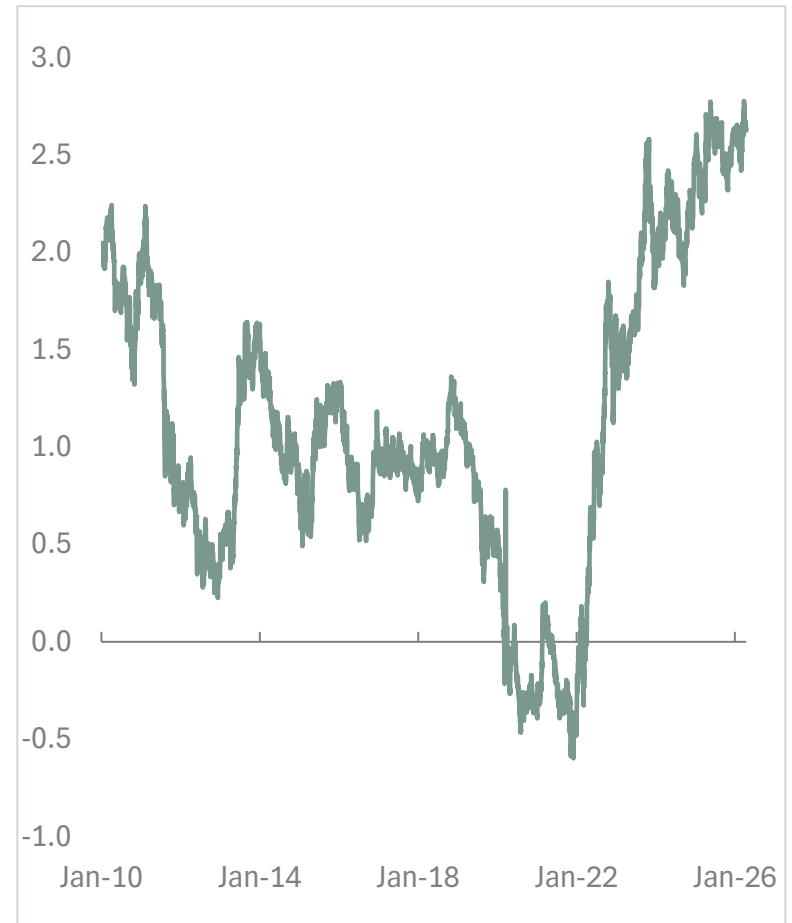
30Y TIPS BEs are cheap with real yields near recent highs

30y TIPS breakevens (%)



Sources: Bloomberg, SMBC Nikko

30y Real yields (%)



Sources: Bloomberg, SMBC Nikko

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