

Fluctuations in the Treasury General Account and their effect on the Fed's balance sheet

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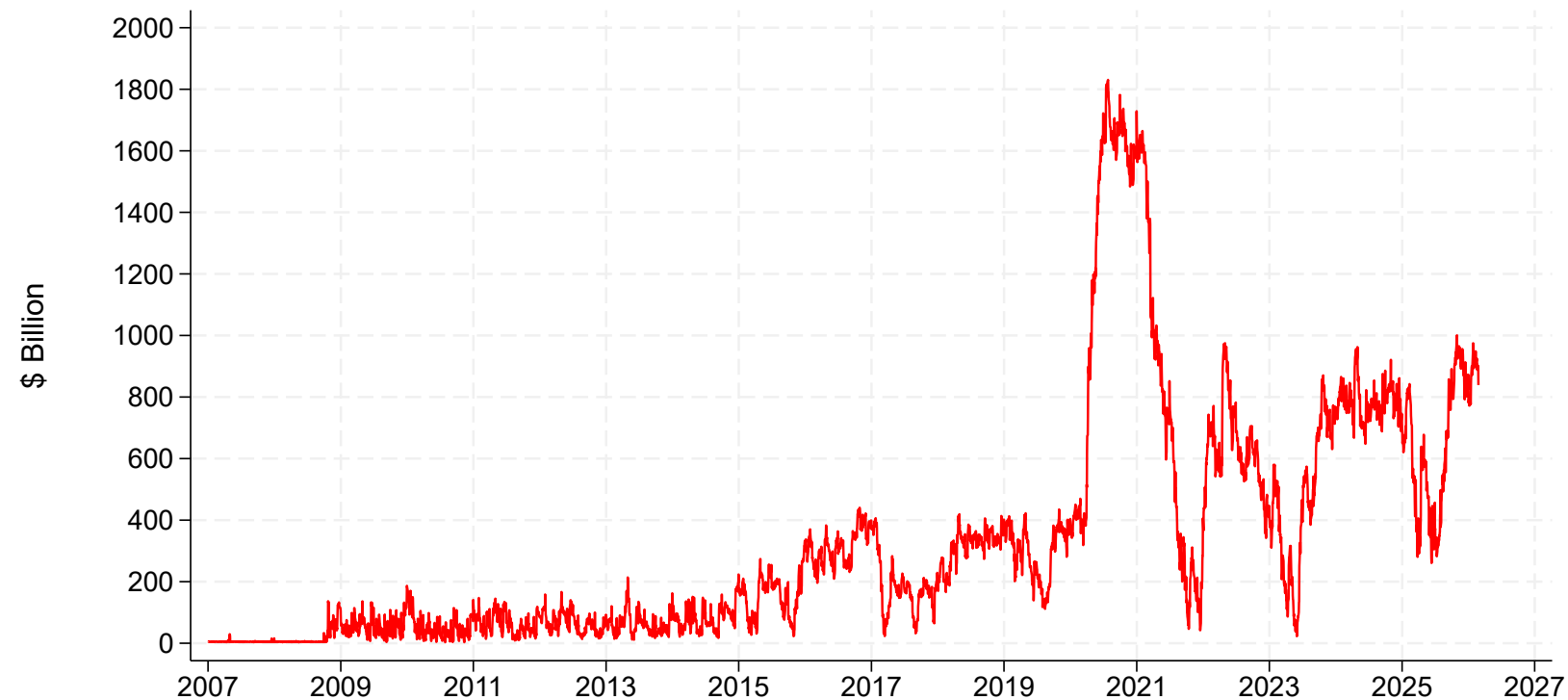
March 2026

Disclaimer: The views expressed herein are those of the author; they do not necessarily reflect those of the Federal Reserve Board or the Federal Reserve System.

The government's money demand

- Takes the form of the **Treasury General Account (TGA)** at the Federal Reserve
Via the TGA, the Fed provides **important banking services** to the government
- TGA has been **large and volatile** since 2015

Treasury General Account, level, January 2, 2007 to February 25, 2026, daily data



The government's money demand affects the Fed's balance sheet

TGA is a Fed liability: It is one component of the Fed's **money supply**

- Supplying money is one of the Fed's **core tasks**
- **TGA:** Supplies payment services to the government to facilitate taxes, spending and debt issuance
- **Currency:** Supplies payment services to households and firms
- **Reserves:** Supply payment services to banks

When the TGA changes: Something else **has to give** on the Fed balance sheet

- Reserves? Tends to affect short rates and short rate volatility
- Fed securities holdings? Tends to affect longer rates via duration risk, pre-payment risk, conv. yields

Question: Can we **design an operating framework** so the Fed can **keep its jobs separate?**

- Money supply, monetary policy

Yes!

Idea: Back the TGA with Treasury bills (or other short-term assets) and adjust bill holdings up/down with the TGA

- Performs better than the current ample reserves policy of letting the supply of reserves (and ON RRP balances) adjust passively to changes in the TGA

Policy design criteria:

- Interest rate control (short rates)
- Control of the Fed's overall policy stance (incl longer rates)
- Communication (incl whether a policy could be misperceived as the Fed reacting to fiscal policy)

Outline

1. Review the **moving parts** of the Fed's balance sheet
2. Drivers of the **level and volatility** of the TGA
3. Possible **approaches for the Fed** to address TGA fluctuations
4. **Challenges** that arise with **ample reserves policies** and why **backing the TGA with bills** could help
5. Possible effects on the **Treasury bill market**

1. Components of the Federal Reserve's balance sheet and their relation to Fed mandates

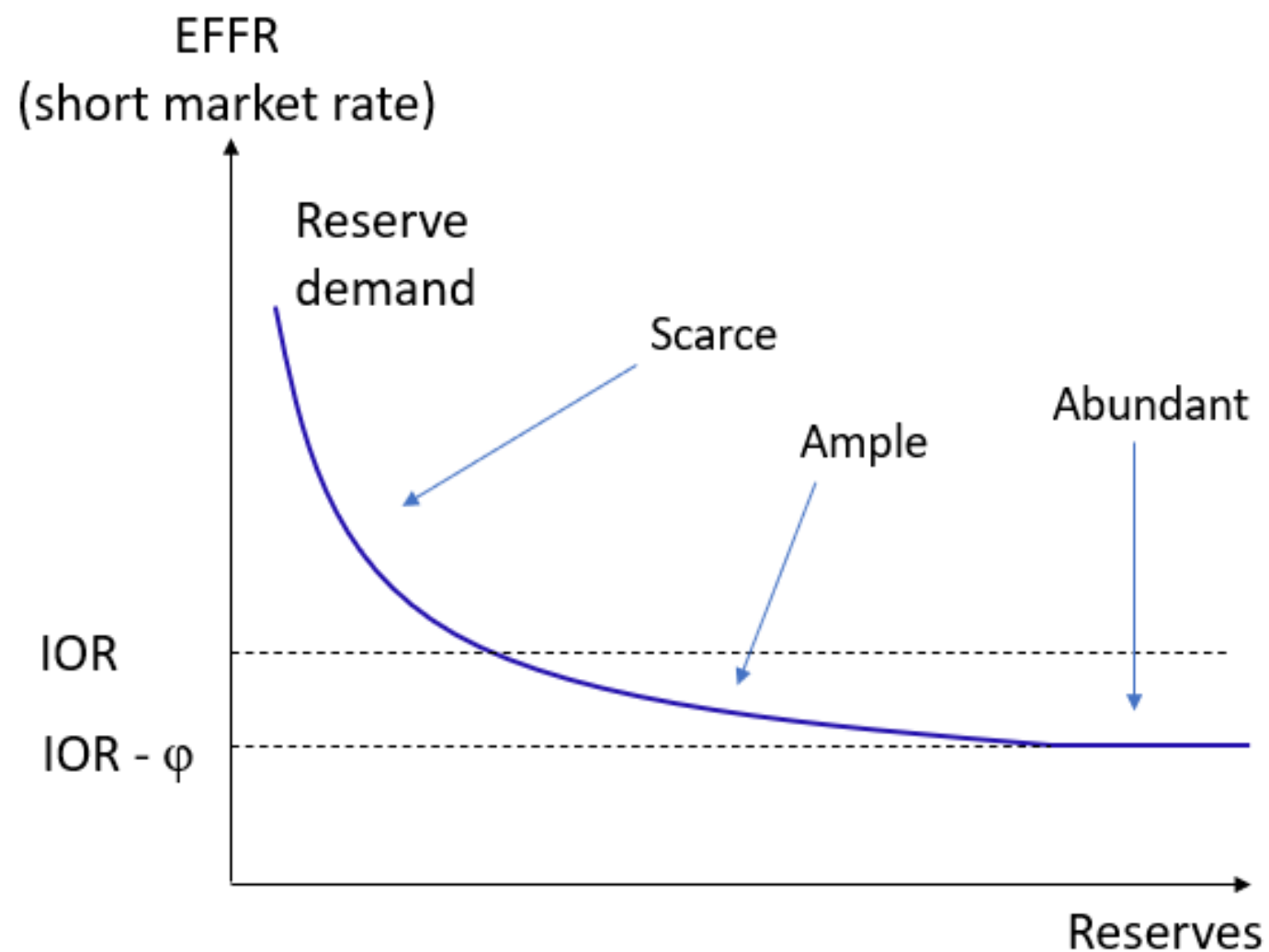
The Fed's balance sheet

Table 1. Federal Reserve balance sheet, February 25, 2026 (H.4.1 release)

Assets		Liabilities	
Securities		Autonomous factors	
Treasuries	4,322	Currency	2,432
MBS (incl. agency debt)	2,013	Treasury General Account	839
Lending		Other autonomous factors	579
Loans, repo and facilities	5	Reserves	3,004
Central bank liquidity swaps	0	Overnight reverse repo balances	1
Other	325	Other (not autonomous factors)	-191
	6,665		6,665

Securities + Lending = Autonomous factors (Currency, TGA, other) + [Reserves+ON RRP balances]

Balance sheet used for: Money supply



Supply autonomous factors **elastically** to accommodate demand

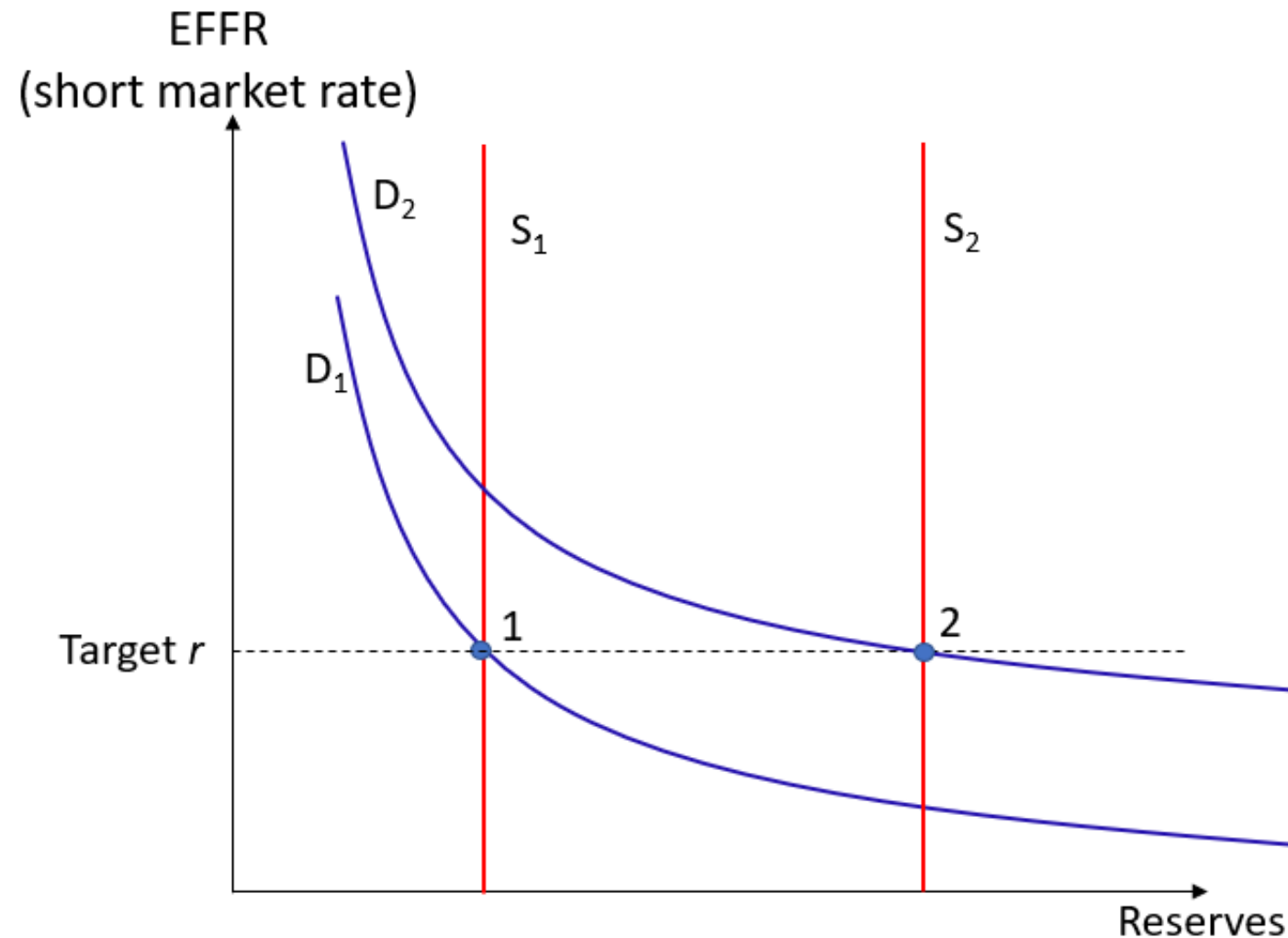
Supply reserves in “**ample**” amounts (current policy)

- **Reserve demand:** (Lopez-Salido and V-J, 2025)

$$r = \underbrace{IOR + v'_R(\text{Reserves}, \text{Deposits}) - \varphi}_{\text{Net benefit of additional reserves}}$$

- **r -IOR:** Measures **economic scarcity of reserves**
Value due to net convenience yield (from liquidity and regulatory use)
- **Ample:** $r - IOR = v'_R(.) - \varphi \leq 0$
with $v'_R(.)$ still positive

Balance sheet used for: Monetary policy (conventional and QE)



- **With IOR:** Can hit same r in many ways (Goodfriend (2002), Vissing-Jorgensen (2023))

$$r = IOR + v'_R(.) - \varphi$$

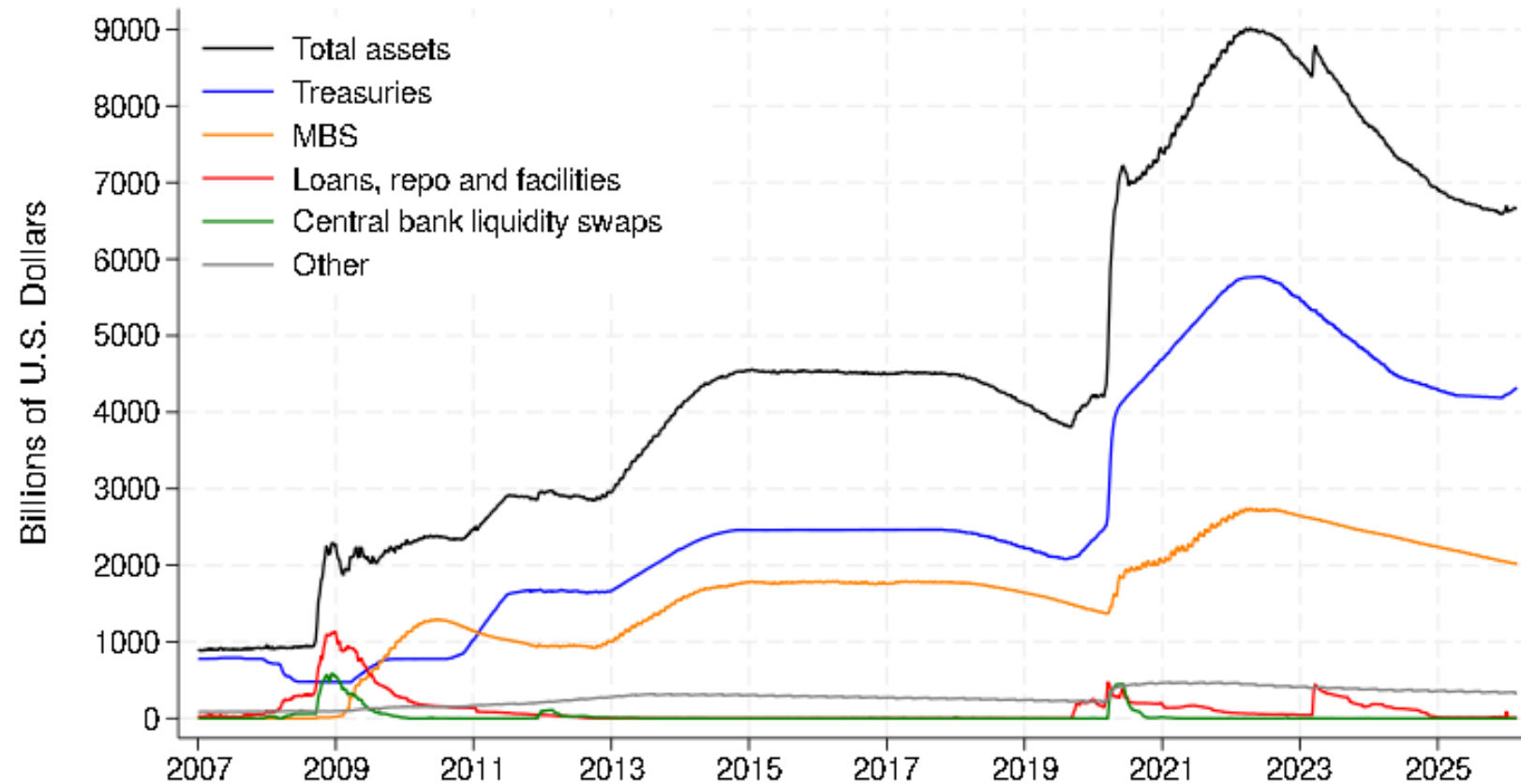
- Low IOR (low reserve demand)
High net conv. yield (low reserve supply)
- High IOR (high reserve demand)
Low net conv. yield (high reserve supply)
- An **ample reserves policy** is the **high reserves supply** approach
- Reserves **exceed ample** if needed for **QE** or **financial stability/LOLR**

Balance sheet used for: Financial stability (lender of last resort)

- **Emergency lending** to US financial institutions (via the discount window or other facilities) or foreign banks (via central bank liquidity swaps)
- **Market functioning purchases**

Federal Reserve assets: Total and components

Wednesday levels, January 3, 2007 to February 25, 2026 (H.4.1 release)



- Various rounds of QE is visible in asset total
- Large market functioning purchases at the start of the COVID pandemic
- Lending to domestic financial institutions is substantial during crisis, including during SVB crisis in 2023

Federal Reserve liabilities: Components



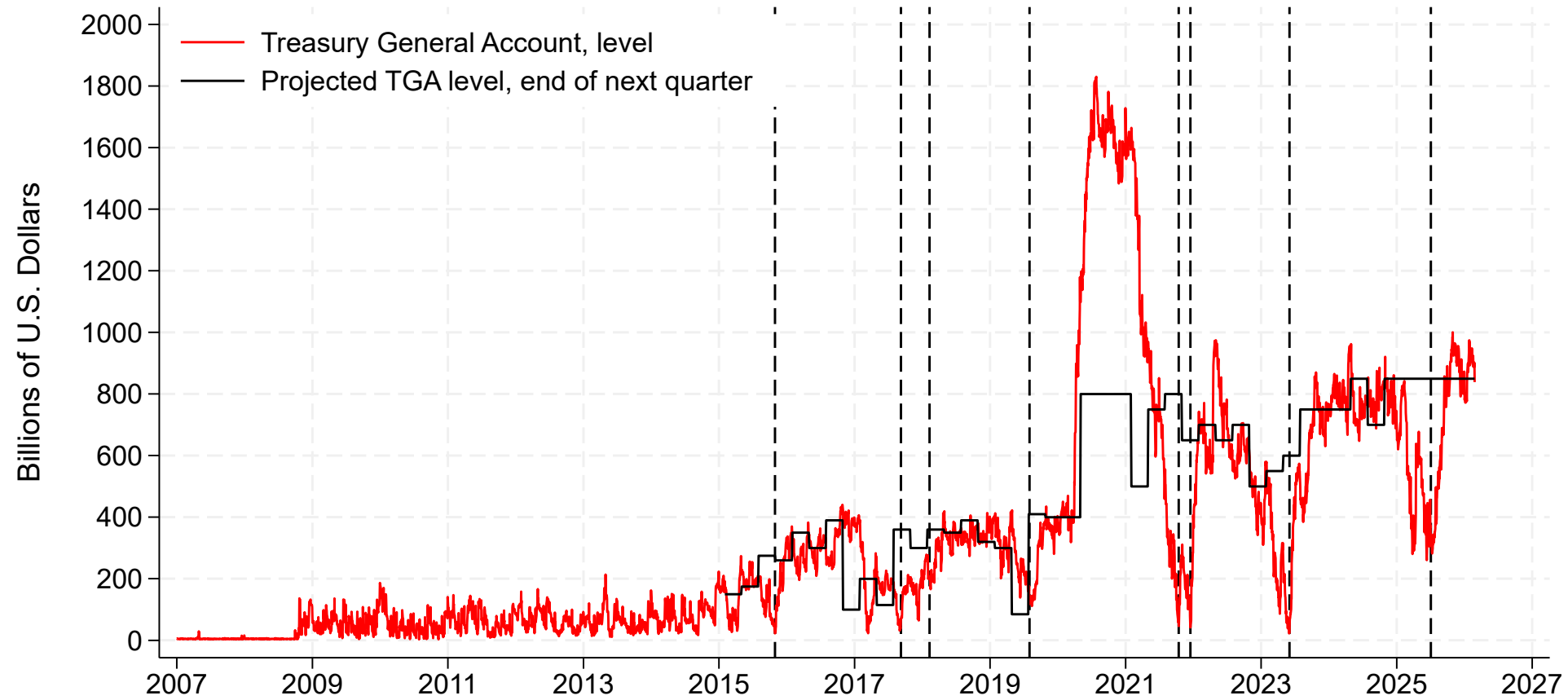
- **Currency** trends up smoothly in contrast to the **TGA**
- **Reserves** fluctuate with need to supply ample reserves and fund securities and lending in excess of the autonomous factors
- **ON RRP balances** large during in the period after the pandemic where reserves would otherwise have been even more ample

2. Drivers of the Treasury General Account

- A. Treasury's target size for the TGA
- B. Debt ceiling episodes: TGA reductions and rebuilding
- C. Surprises and seasonality in the Federal deficit and Treasury issuance

A. Changes to the Treasury's target size for the TGA over time

Treasury General Account balances: Level and target level



A. Changes to the Treasury's target size for the TGA over time

Pre-GFC: TGA small near \$5B. Treasury mostly banked with private banks:

- Treasury Tax & Loan Note Accounts (Santoro (2012)). Stabilized reserves

Oct 2008: Treasury switched to holding fewer deposits at private banks, more in the TGA

- Fed started paying IOR in Oct 2008 and EFFR cleared below IOR
→ Cheaper to bank with the Fed. And reserve stabilization less of an issue at large reserve supply

May 2015: Treasury announced a higher TGA to cover one week of outflows

- Announcement cites September 2001 attacks, Superstorm Sandy in 2012, risk of cyber-attacks
- Latest projected value for end of next quarter: \$850B

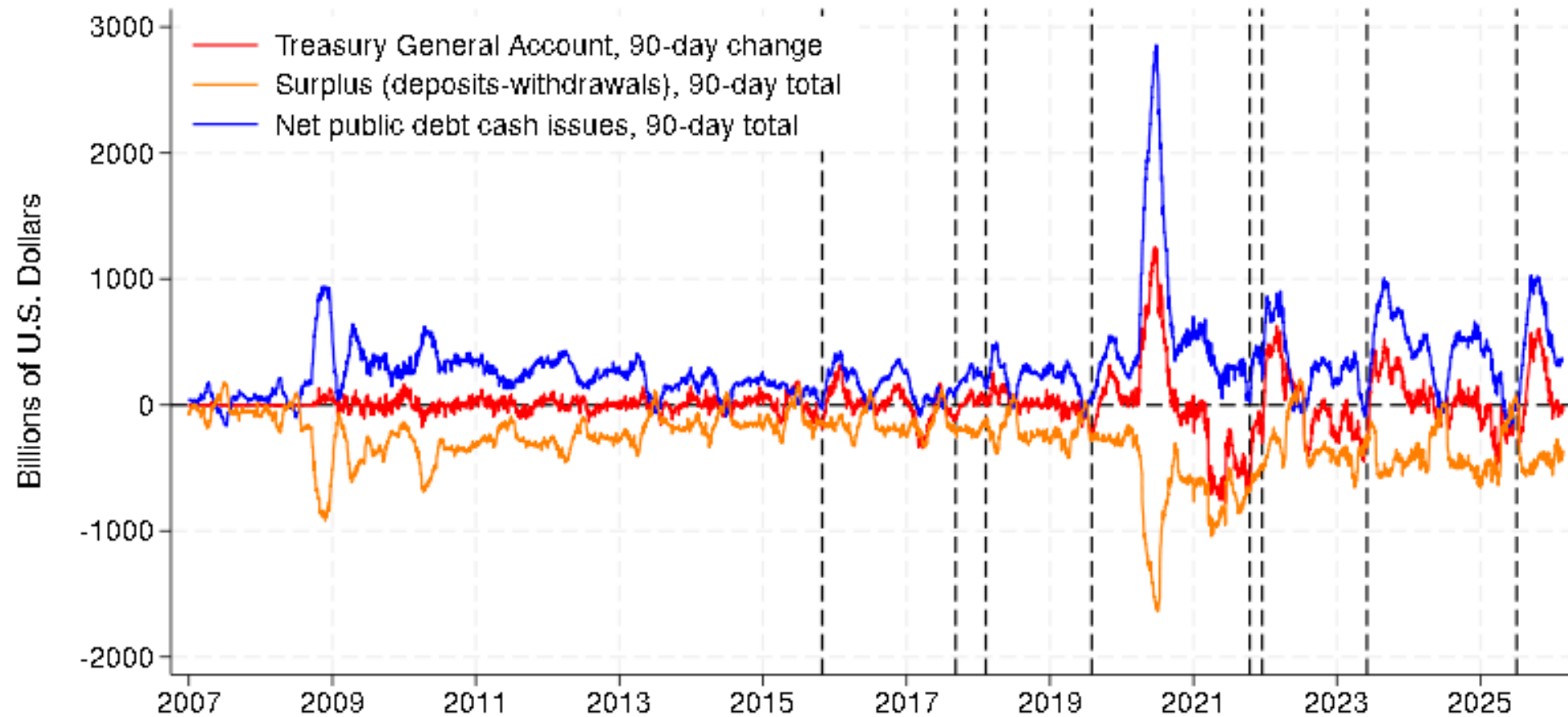
B. Debt ceiling dynamics

TGA does not pay interest, evolves according to:

$$\begin{aligned} \text{TGA}(t) - \text{TGA}(t-1) = & \text{Deposits}(t) - \text{Withdrawals}(t) \\ & + \text{Public Debt Cash Issues}(t) - \text{Public Debt Cash Redemptions}(t) \end{aligned}$$

- **Deposits:** Mainly from taxes
- **Withdrawals:** From both spending and interest payments on the debt
- **Public debt cash issues and redemptions differ from total Treasury debt issues and redemptions:**
 - Changes to **Government Account Series** of Treasury debt generate no cash flows to/from TGA
 - Second line = Change in the total debt ($t-1$ to t) - Change in the Govt Account Series ($t-1$ to t)

B. Debt ceiling dynamics



When debt ceiling is binding:

- Low (net) issuance
- Government covers remaining deficit by reducing TGA

After debt ceiling increase/suspension:

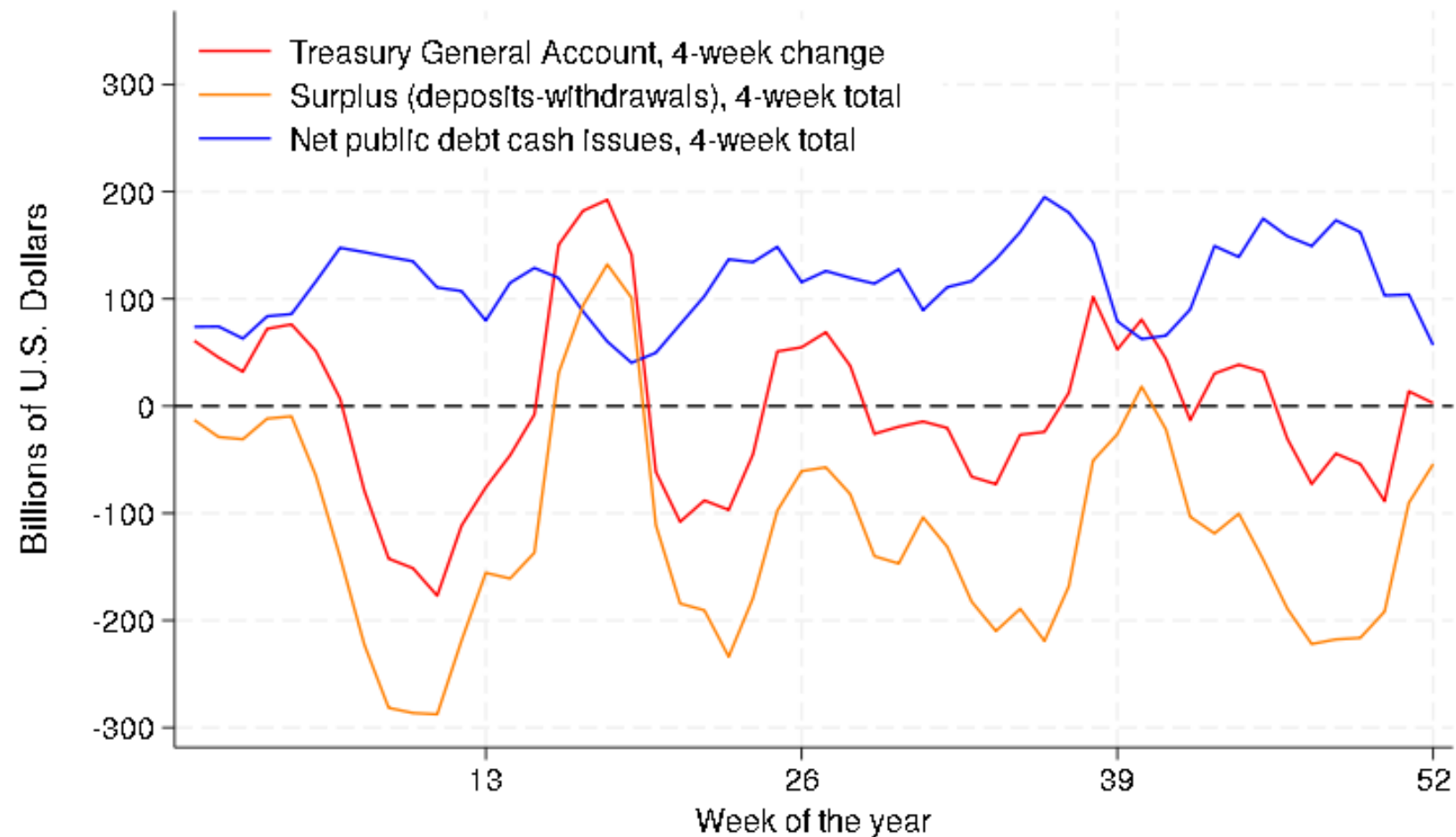
- High issuance
- TGA rebuilt

Vertical lines: Debt ceiling increased/suspended (2015 onward only)

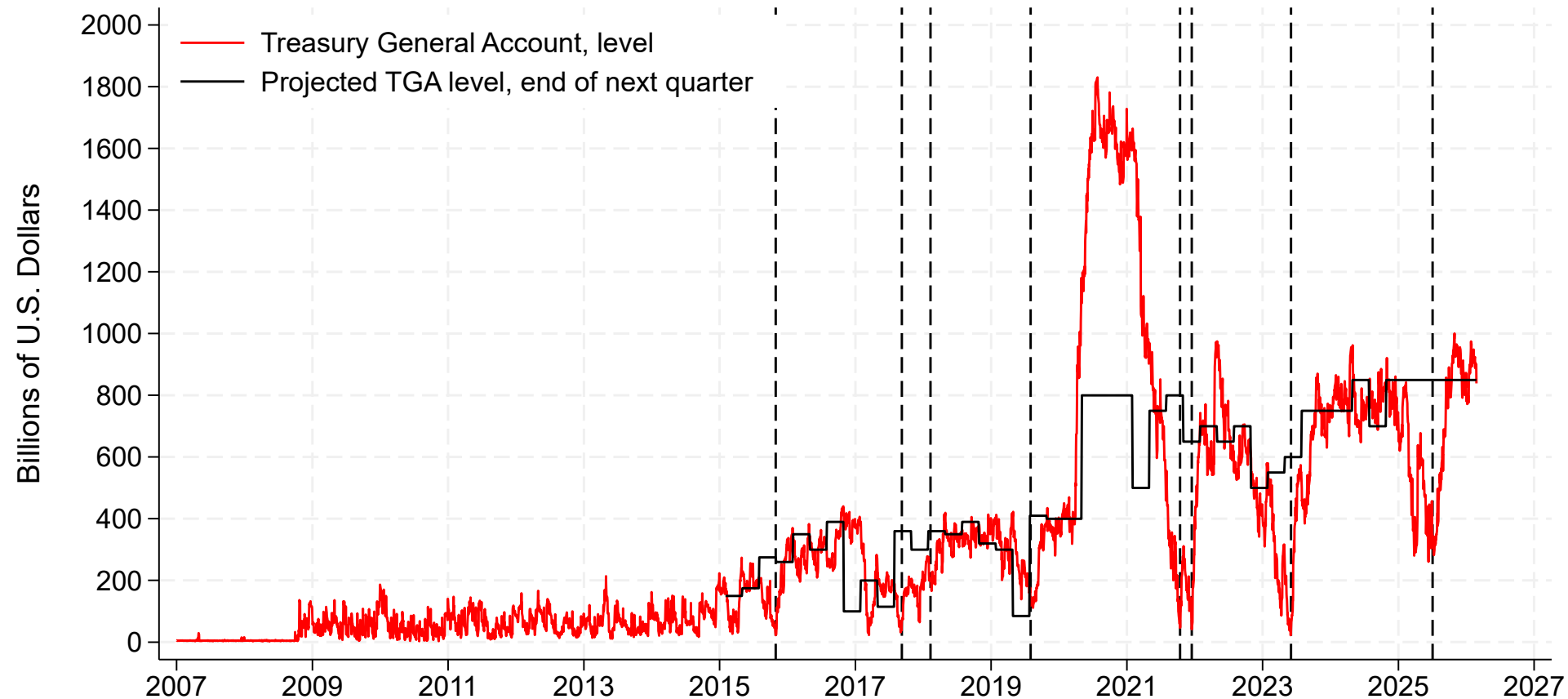
C. Surprises and seasonality

Important **tax deadlines** Apr 15, Jun 15, Sep 15, Dec 15

- **4-week changes**, averaged by week of the year. Sample: May 1, 2015 to Feb 25, 2026
- Per \$1 of surplus, about \$0.77 goes into TGA, -\$0.23 into lower debt issuance (all via bills)



C. Surprises and seasonality



Example of surprise: 2020Q2

Realized value for 2020Q2
>> Projection as of Feb

- Increase in **target value** to \$800B
- And **issuance was higher than needed** given lower-than-expected expenditures and higher-than-expected receipts in 2020Q2

3. Approaches for the Fed to address TGA fluctuations

The four possible approaches

Assets	Liabilities
Securities	Autonomous factors
Lending	Currency
	Treasury general account (TGA)
	Reserves
	Overnight reverse repo balances (ON RRP)

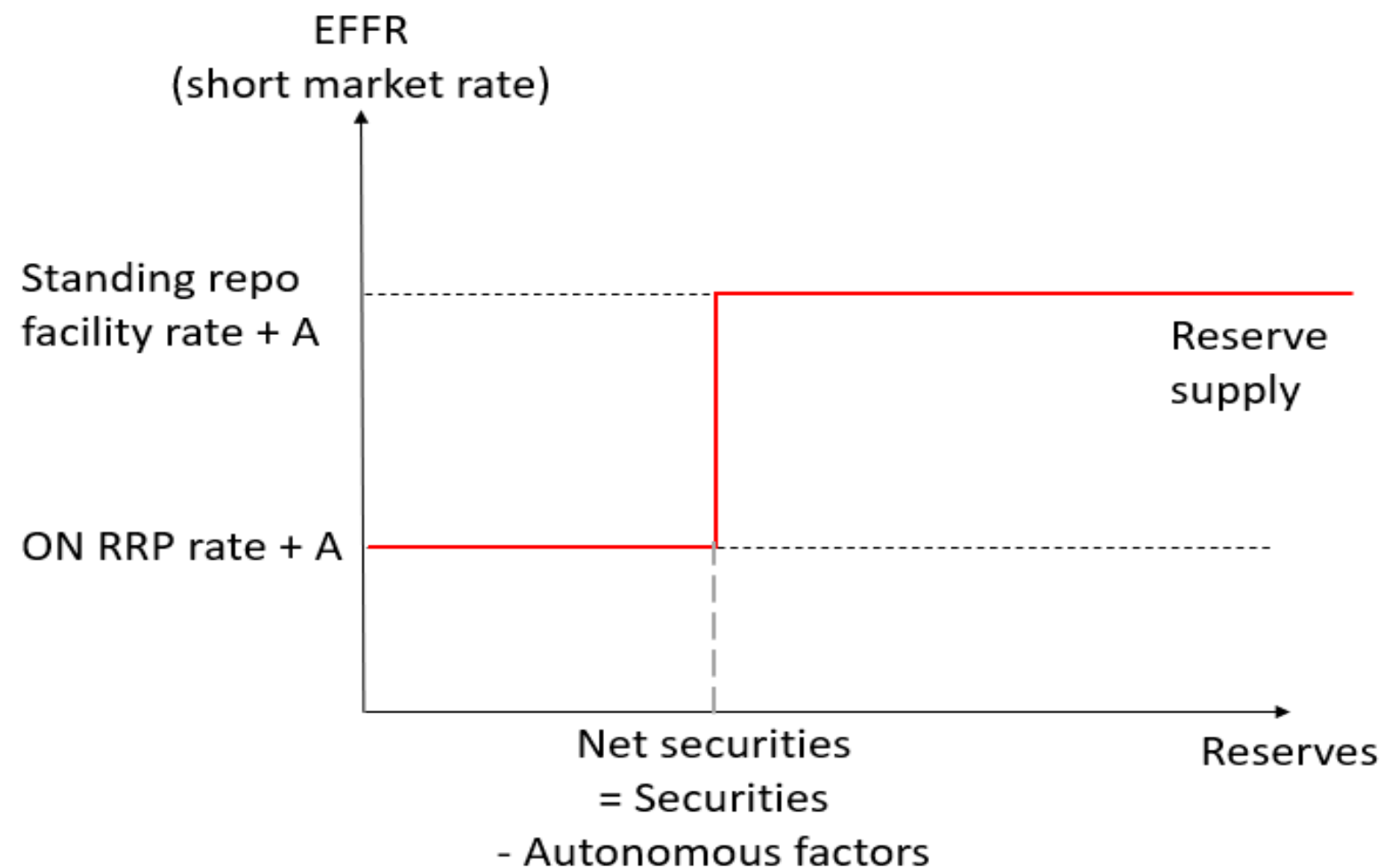
When the TGA fluctuates, **what gives?**

- **Not currency** (autonomous)
- That leaves the **four variables** in red

→ Four possible approaches to TGA management

Digression: Reserve supply

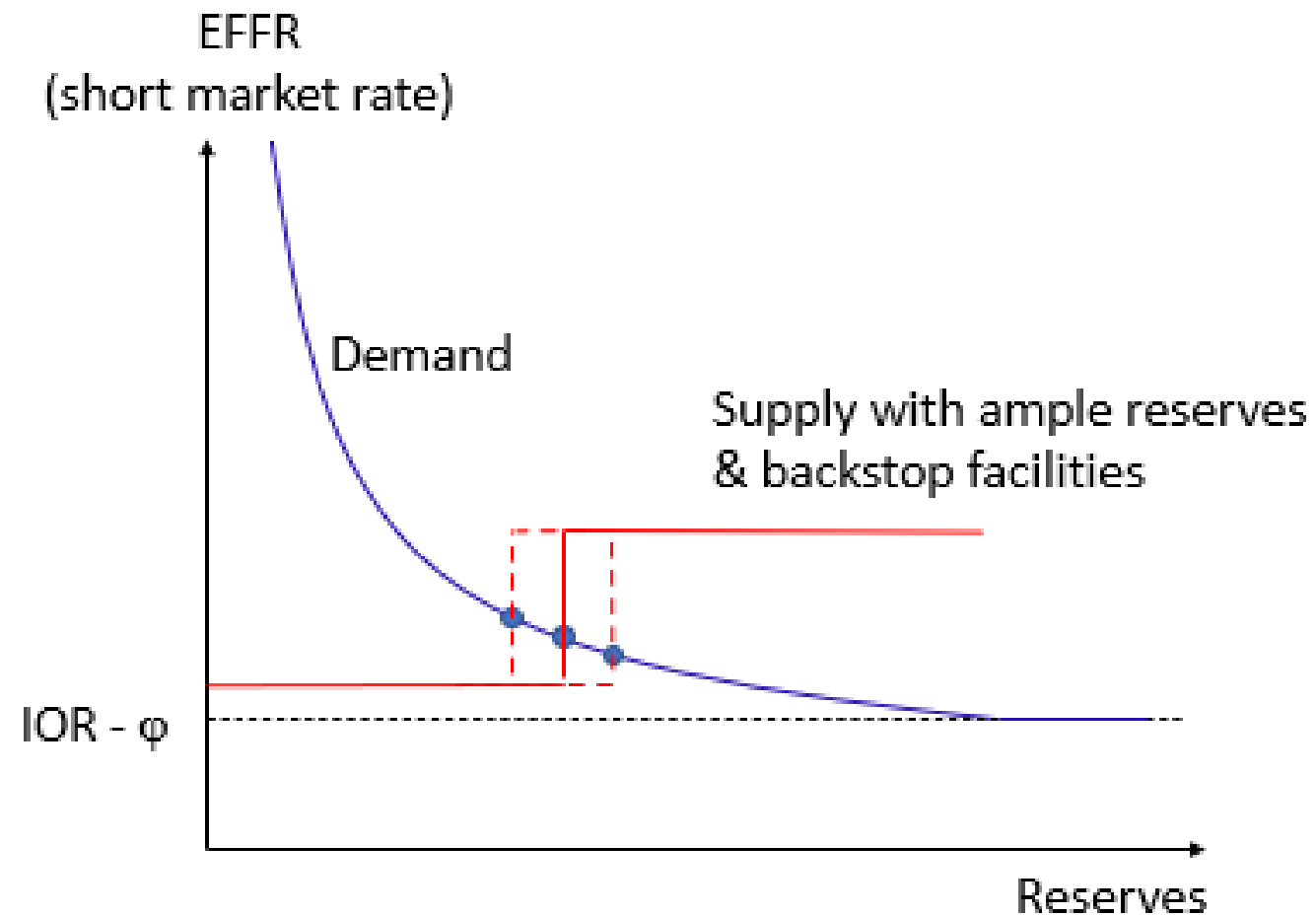
$$\text{Reserves} = \underbrace{\text{Net securities}}_{\text{Securities} - \text{Autonomous factors}} + \underbrace{\text{Lending}}_{\text{Reserves borrowed from the central bank}} - \underbrace{\text{ON RRP balances}}_{\text{Reserves lent to the central bank by non-banks}}$$



1. Ample reserves

Net securities
Securities – Autonomous factors

$$+ \text{Lending} = \text{Reserves} + \text{ON RRP balances}$$

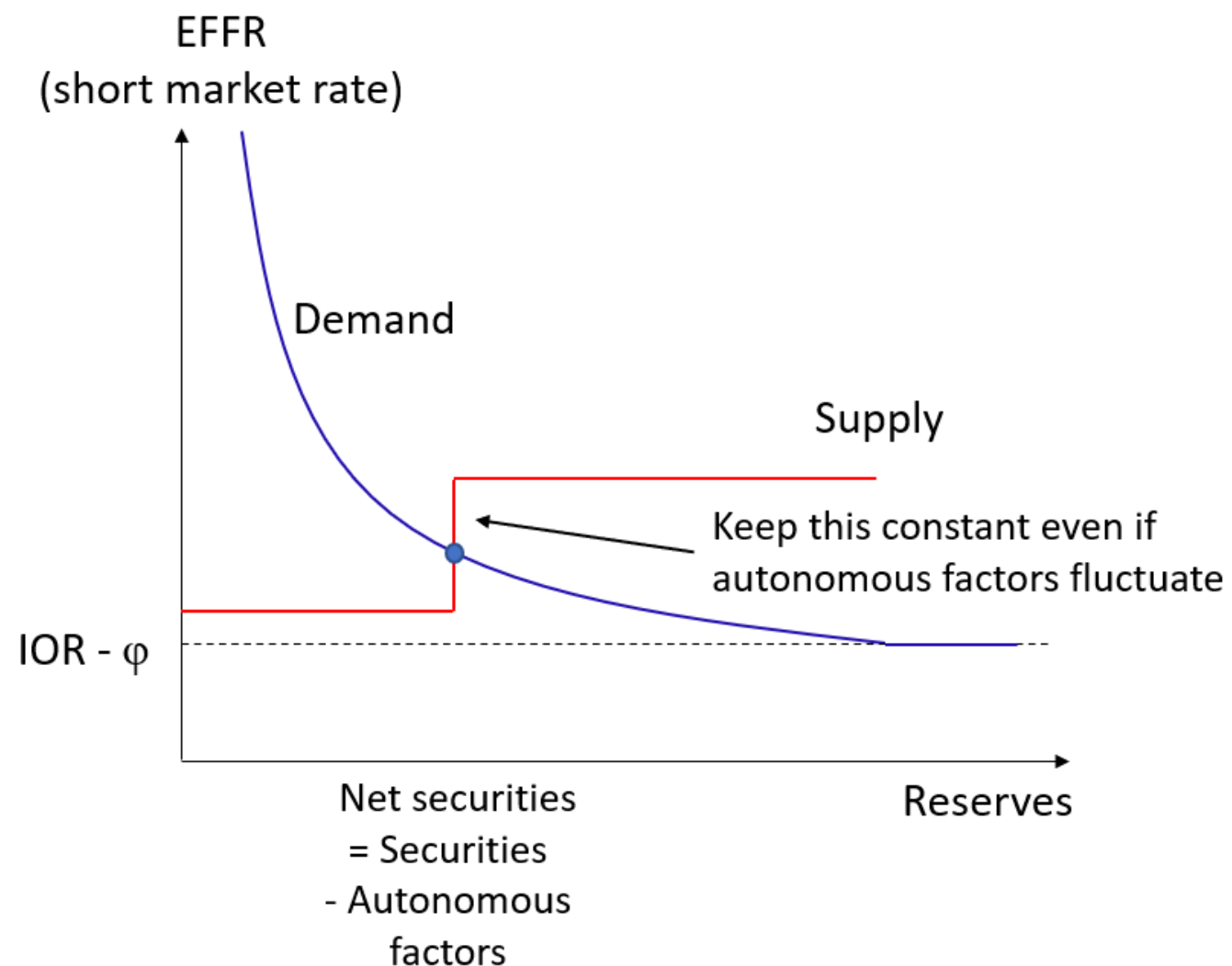


- Securities are passive, not adjusted with TGA
Net securities fluctuate
- Reserves adjust to TGA (in opposite direction)
- Net securities are kept large on average
→ Equilibrium fluctuates on fairly flat part of reserve demand → Little interest rate volatility

2. Active securities

Net securities
Securities - Autonomous factors

+ Lending = Reserves + ON RRP balances



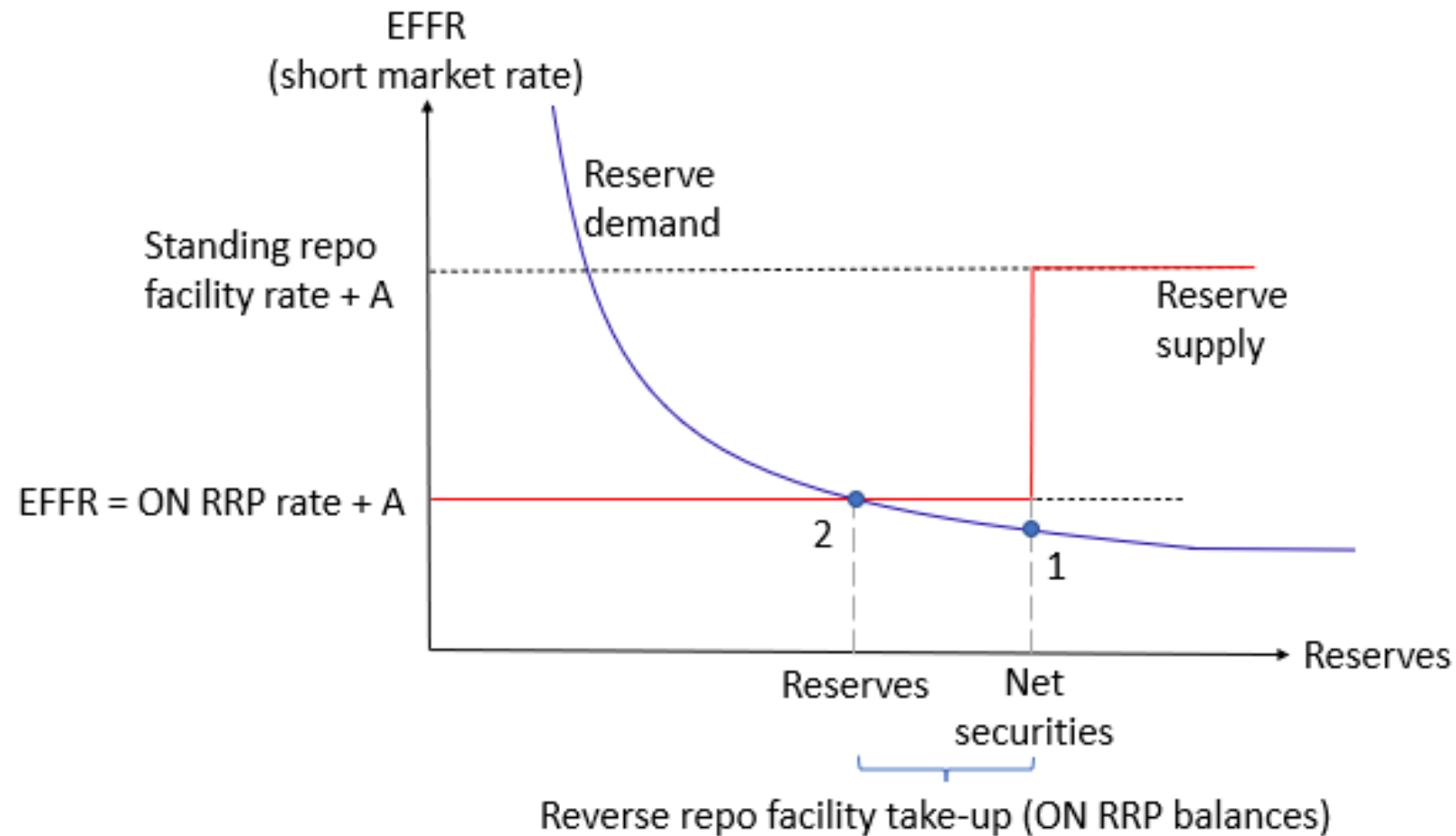
- **Securities are actively changed** with TGA (in the same direction)
Net securities are constant
- Reserves are constant
- Equilibrium is **unaffected** by TGA changes →
No interest rate volatility

Particular version of active securities approach:
TGA back with bills (or other short-term securities)

3. Ample reserves with positive ON RRP balances

Net securities
Securities – Autonomous factors

$$+ \text{Lending} = \text{Reserves} + \text{ON RRP balances}$$

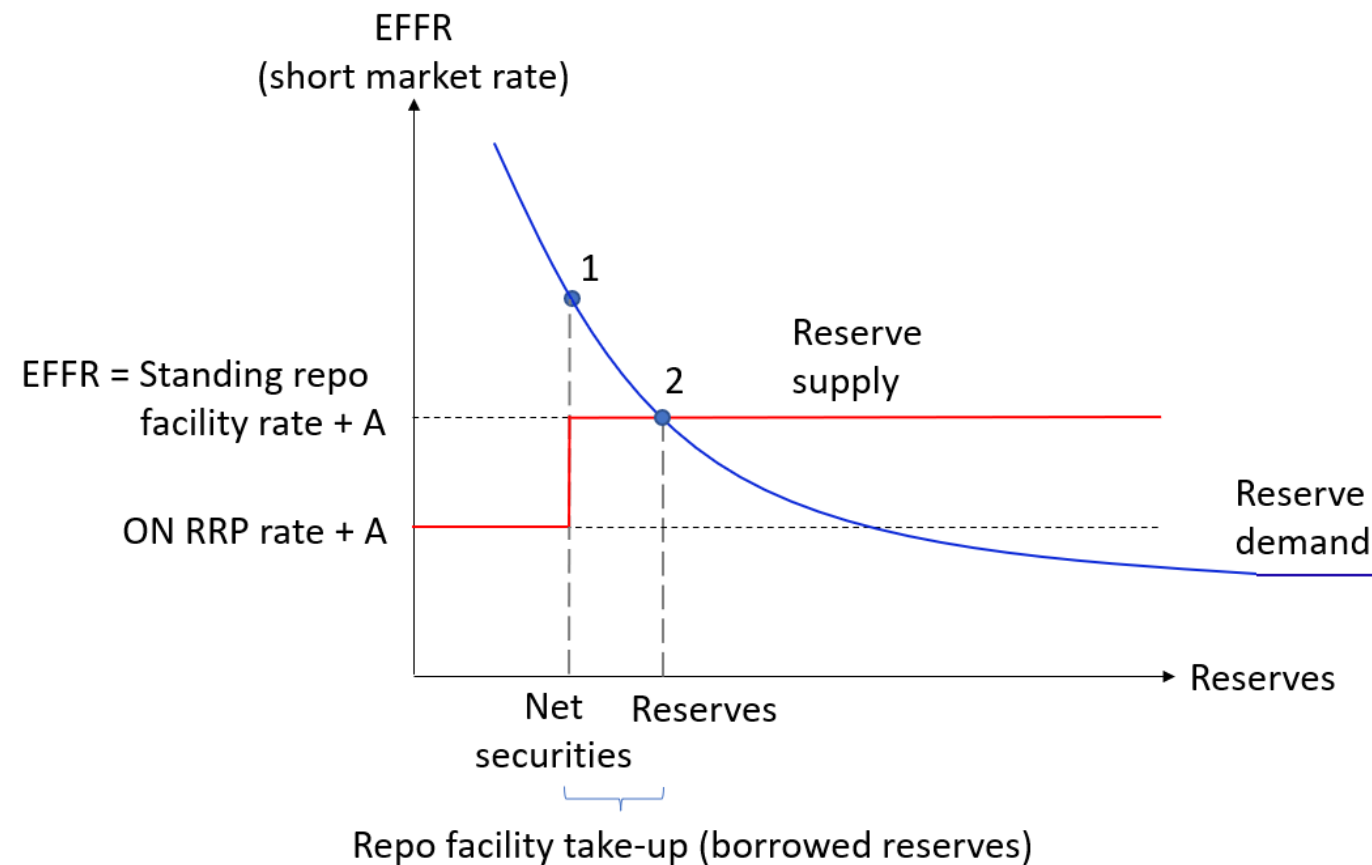


- Securities are passive, not adj. with TGA
Net securities fluctuate
- **ON RRP balances adjust** to TGA (in opposite direction)
- **Reserves are constant**
- **Equilibrium stays at point 2** even as net securities move with TGA → No interest rate volatility

4. Positive lending

Net securities
Securities – Autonomous factors

+ Lending = Reserves + ON RRP balances



- Securities are passive, not adjusted with TGA
Net securities fluctuate
- **Lending adjusts** to TGA (in the same direction)
- **Reserves are constant**
(but mix of “non-borrowed” and “borrowed” reserves change)
- **Equilibrium stays at point 2** even as net securities move with TGA → No interest rate volatility

Which approach has the Fed used since the GFC?

Mostly the **ample reserves** or **ample reserves with positive ON RRP** balances approaches:

- FOMC **clarified its policy in January 2019**
- FOMC **confirmed its policy January 2022** prior to current period of balance sheet normalization (QT)

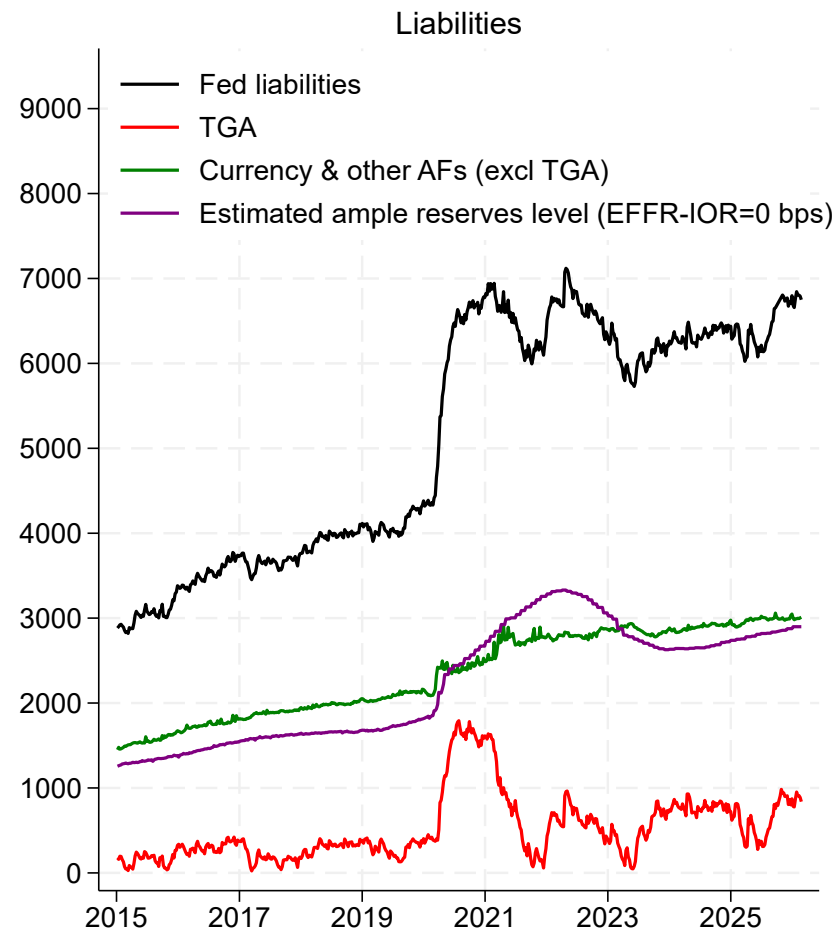
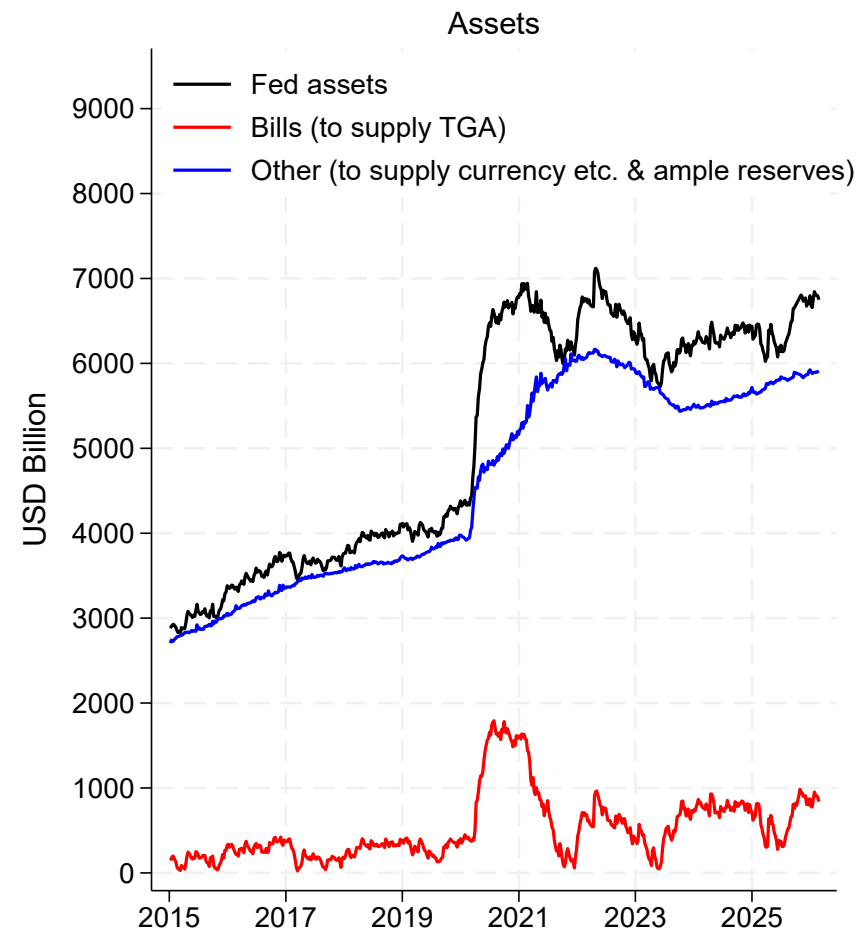
Active securities approach: Used reactively in **mid-September 2019** (OMOs)

Positive lending approach: Used as **backstop** (discount window, **Standing Repo Facility/Operations**)

Hypothetical Fed balance sheet for money supply purposes: TGA backed with bills approach

Fed assets = Currency & other autonomous factors + TGA + Estimated ample reserves level

Reserves = Estimated ample reserves level



Debt ceiling events:

- Fed assets move about 1-1 with TGA
- Ample reserve level does not appear to move with TGA in these events

Estimating the ample level of reserves: Lopez-Salido and Vissing-Jorgensen (2025)

- Conv yield on reserves net of marginal balance sheet cost is **log-linear in reserves, liquid deposits**

$$v'_R(\text{Reserves}, \text{Deposits}) - \varphi = B + C * \ln(\text{Reserves}) + D * \ln(\text{Liquid Deposits}) + U$$

- **Reserve demand function:**

$$EFFR - IOR = B + C * \ln(\text{Reserves}) + D * \ln(\text{Liquid Deposits}) + U$$

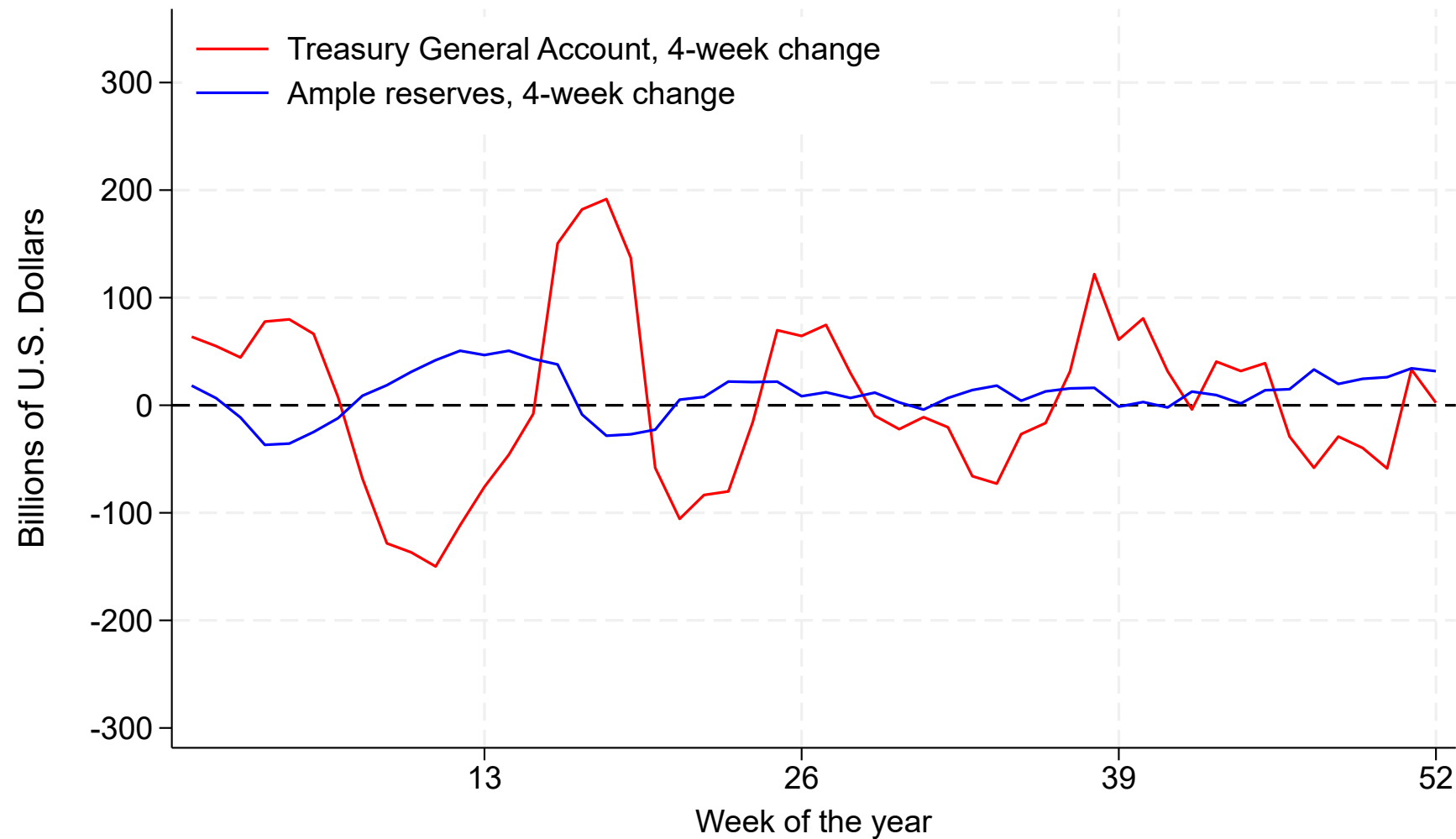
- **Ample reserves:**

$$0 = B + C * \ln(\text{Reserves}) + D * \ln(\text{Liquid Deposits})$$
$$\Rightarrow \text{Reserves}^{\text{Ample}} = \exp\left(\frac{-B - D * \ln(\text{Liquid Deposits})}{C}\right)$$

Hypothetical Fed balance sheet for money supply purposes: TGA backed with bills approach

Fed assets = Currency & other autonomous factors + TGA + Estimated ample reserves level

Reserves = Estimated ample reserves level



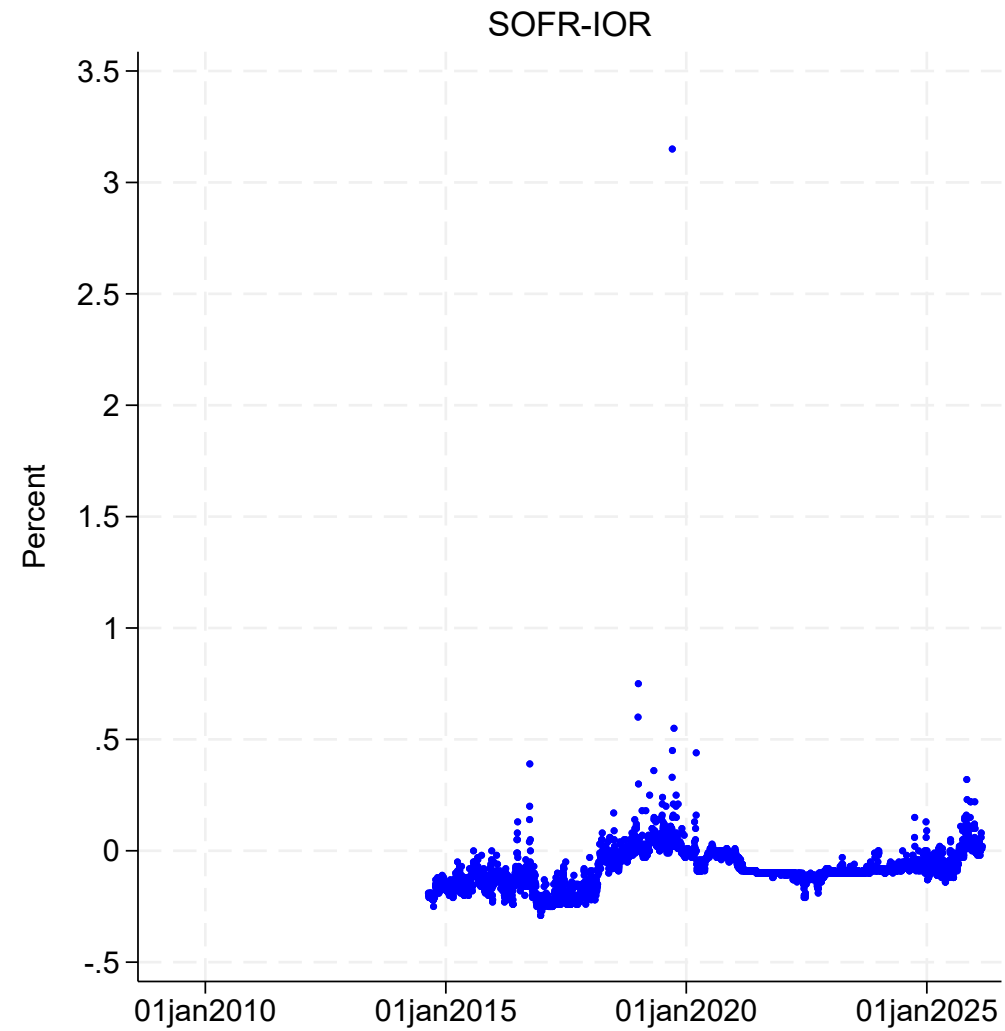
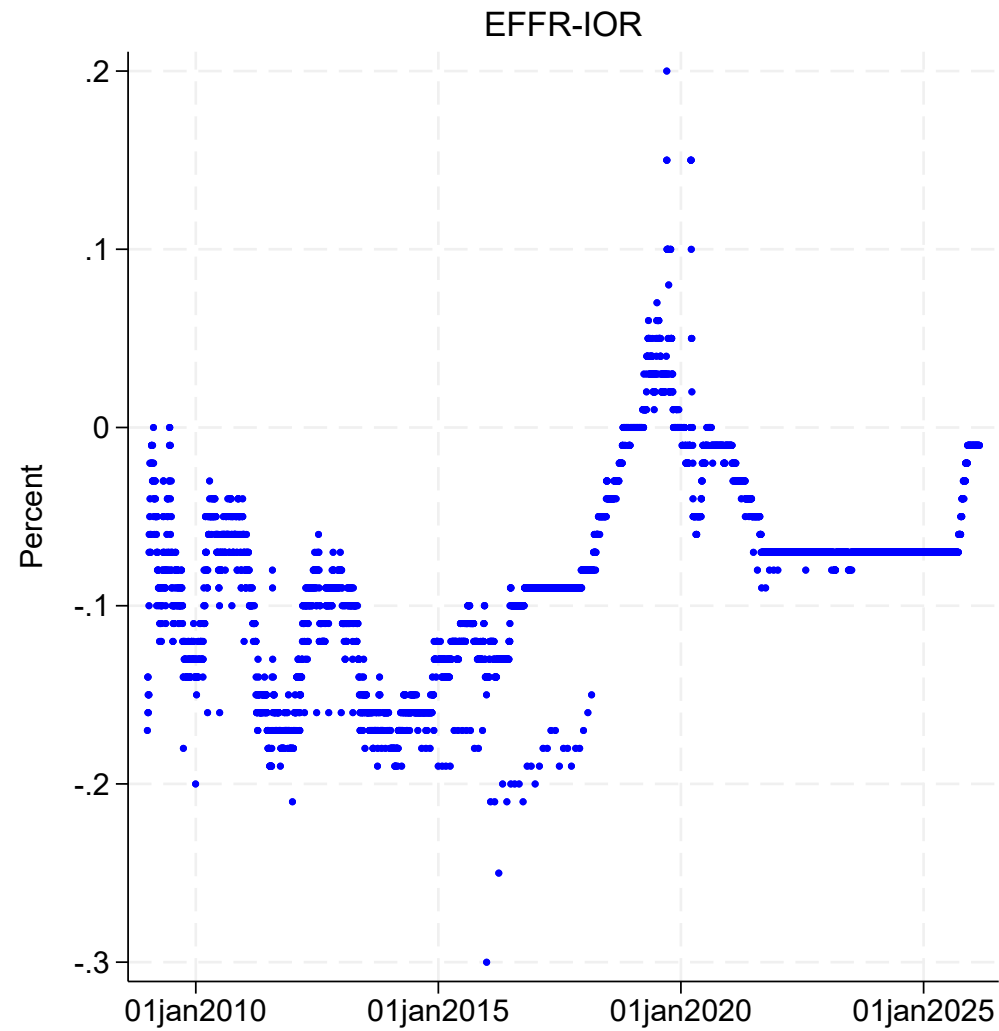
Seasonality:

- Fed assets move a bit less than 1-1 with TGA
- Modest seasonality in ample reserves, opposite of TGA

4. Challenges of the ample reserves approach. How backing the TGA with bills could help

- Interest rate control: Risk of interest rate spikes

Yield spike, September 17, 2019



Daily data to February 25, 2026

The risk of interest rate spikes

Lopez-Salido and Vissing-Jorgensen (2025)

- **Predicted EFFR-IOR spread** (i.e., predicted reserve scarcity) can be used as a guide to the level of reserve ampleness at which interest rate volatility may pick up
- Peaked at **4 bps** in exactly Sept 2019
- I'll use a 0 bps maximum tolerated predicted spread, but the claim below is general

The risk of interest rate spikes

Claim:

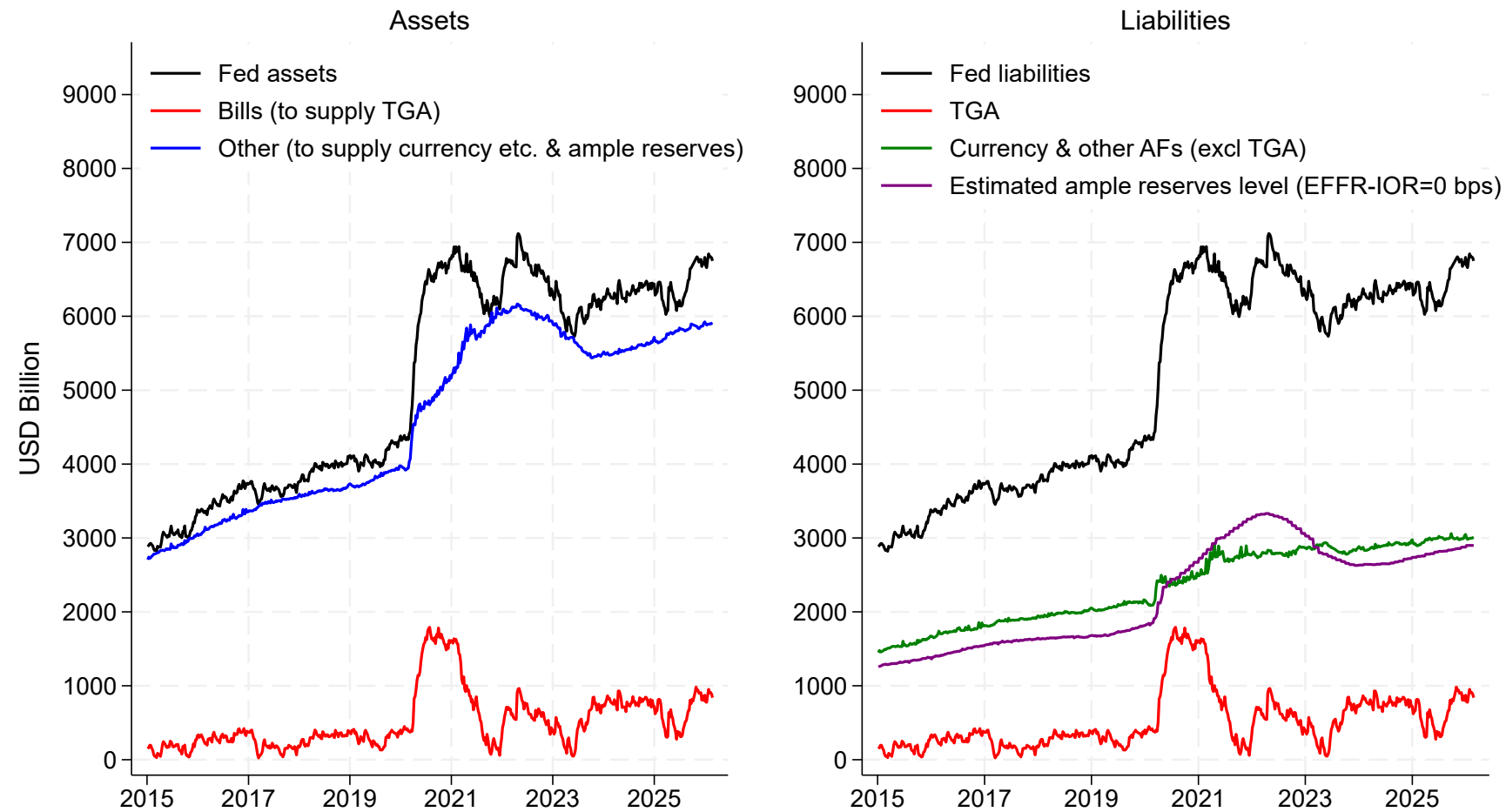
An approach of backing the TGA with bills is a more efficient way to ensure reserves do not fall below ample than the Fed's current ample reserves approach. It allows:

- a smaller average balance sheet for a given maximum tolerated predicted spread
- or a lower maximum tolerated predicted spread for the same average balance sheet size
- or a mix of the two

Hypothetical Fed balance sheet for money supply purposes: TGA backed with bills approach

Fed assets = Currency & other autonomous factors + TGA + Estimated ample reserves level

Reserves = Estimated ample reserves level



Hypothetical Fed balance sheet for money supply purposes: Ample reserves approach

Fed assets = Currency & other autonomous factors + **TGA peak level** + Estimated ample reserves level
Reserves = Fed assets - Currency & other autonomous factors - TGA
= Estimated ample reserves level + [**TGA peak level** - TGA]



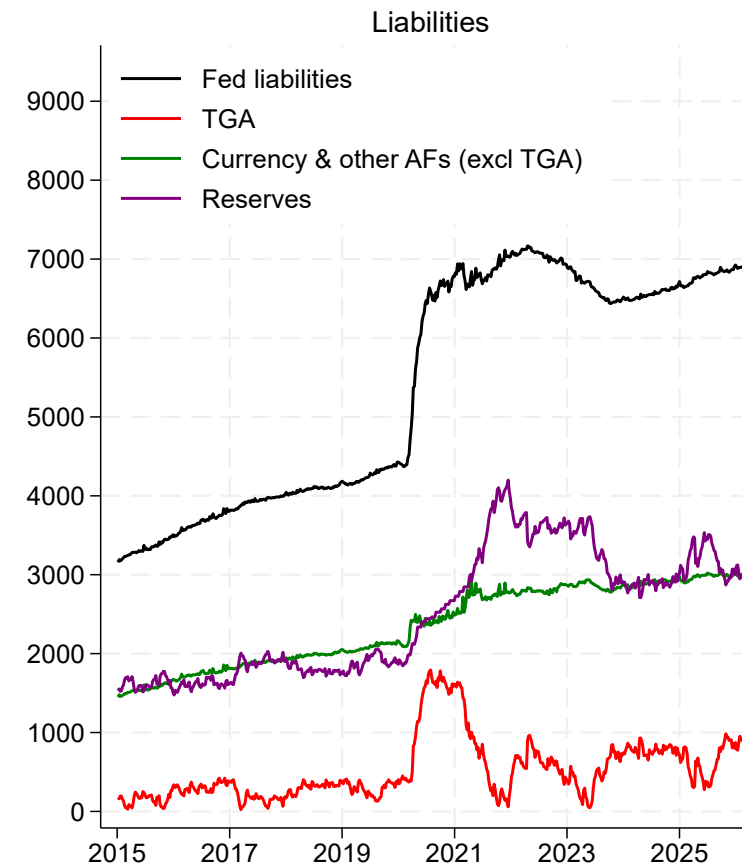
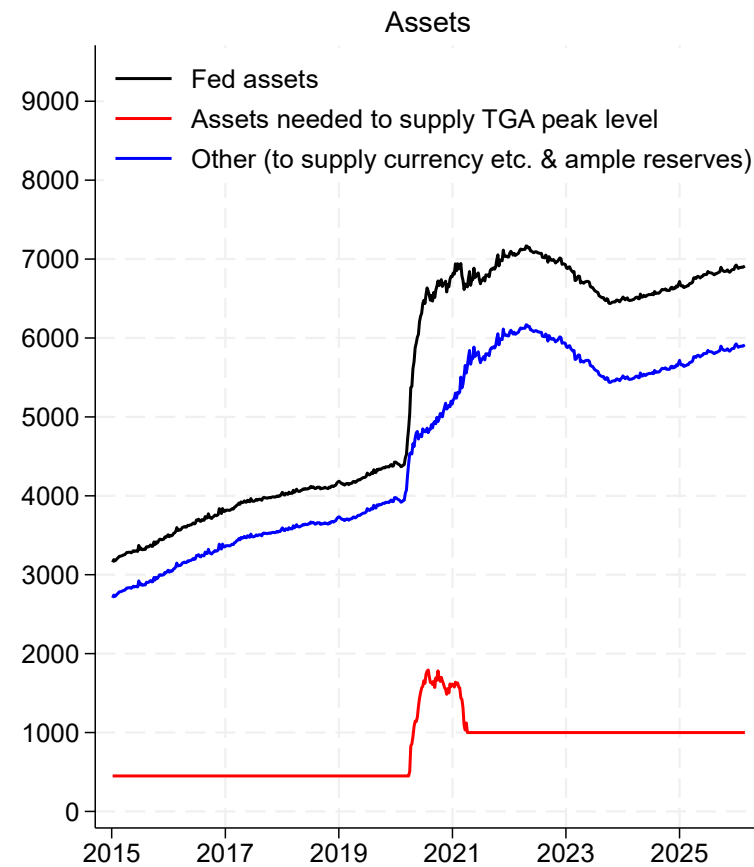
Horizontal lines are at \$450B and \$1000B.

My assumed **TGA peak level**:

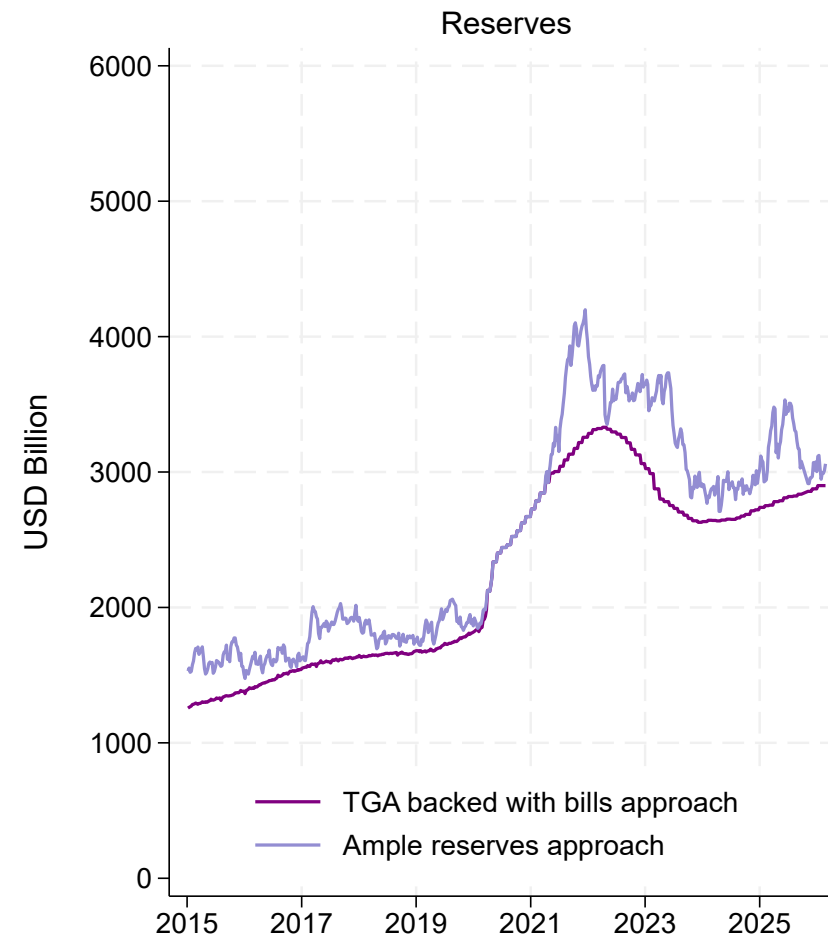
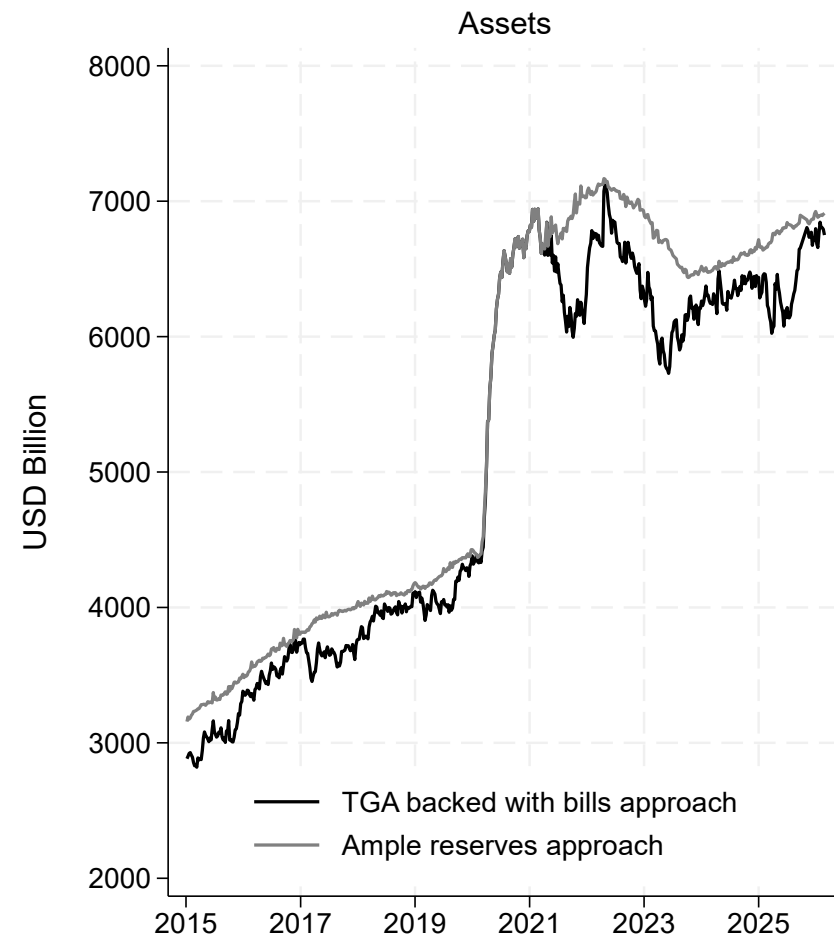
- \$450B from Jan 2015-Mar 2020
- \$1000B from Apr 2021-Feb 2026
- Actual TGA value during COVID from Apr 2020-Mar 2021

Hypothetical Fed balance sheet for money supply purposes: Ample reserves approach

Fed assets = Currency & other autonomous factors + **TGA peak level** + Estimated ample reserves level
Reserves = Fed assets - Currency & other autonomous factors - TGA
= Estimated ample reserves level + [**TGA peak level** - TGA]



Hypothetical Fed balance sheet for money supply purposes: Comparison



- Fed assets and reserves are lower under the TGA backed with bills approach
- Supplies **only the reserves needed**, not extra
- On average:
\$399B lower post-COVID (since April 2021)
\$271B lower since Jan 2015

Is a smaller balance sheet better?

Yes (to a point). Potential **welfare costs** of a large balance sheet

1. Reserves may **crowd out bank lending** (Diamond et al (2024), and Chakraborty et al (2020))
2. Reserves may **crowd in bank deposits** → Financial stab risks, if uninsured (Acharya et al (2022))
3. Reduces available **convenient assets available to investors** (Vissing-Jorgensen (2023))

Optimal money supply equalizes convenience yields on reserves & Fed assets

4. Risk of **central bank losses** from large balance sheets leading to threats to **central bank independence** and **less headroom for future QE** (Hauser (2022))

Only 4. goes away if the larger balance sheet is in bills.

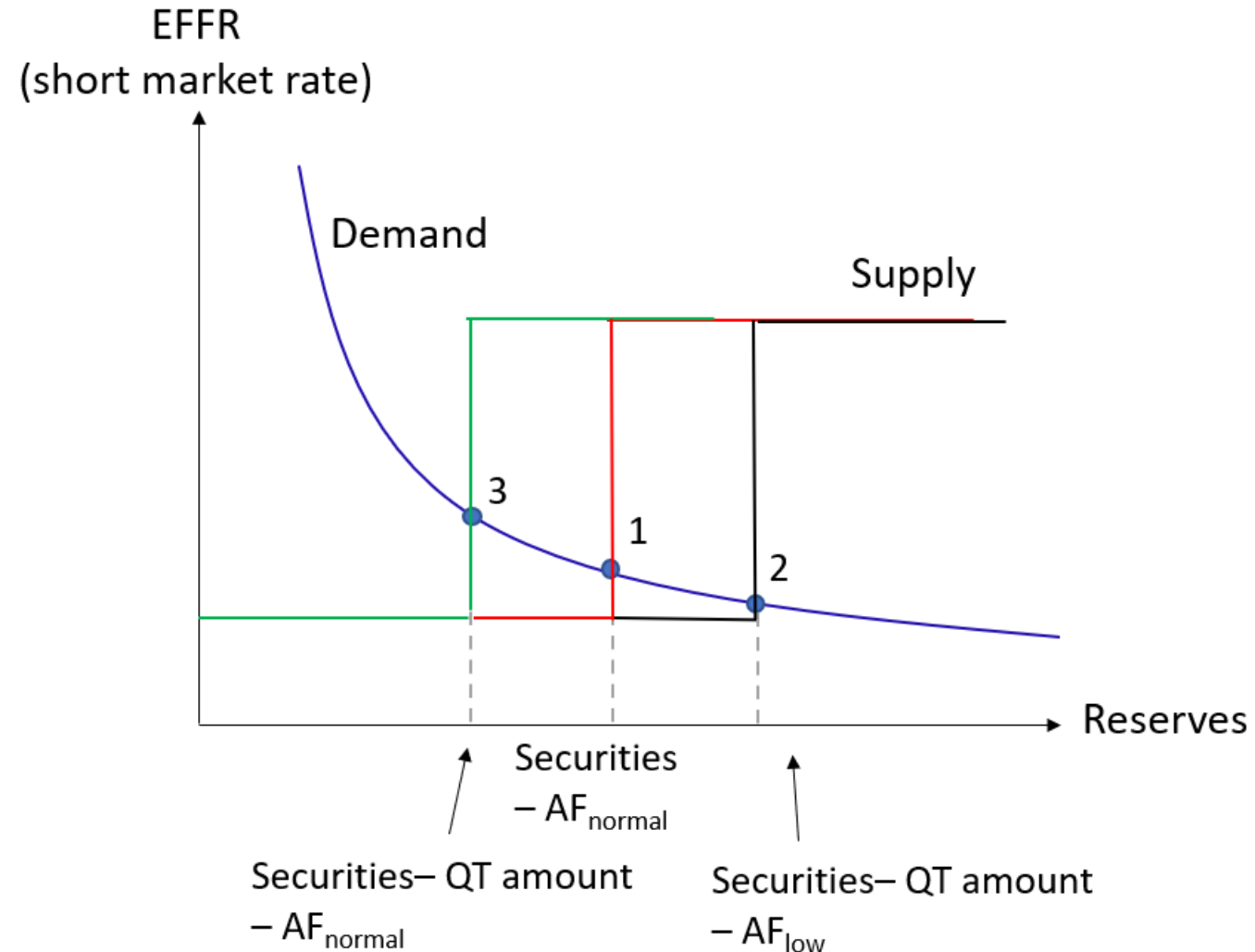
If you think a large balance sheet is **not a problem**:

- You can get **better interest rate control** with the approach of backing the TGA with bills

4. Challenges of the ample reserves approach. How backing the TGA with bills could help

- Control of the Fed's overall policy stance
 - TGA fluctuations complicate QT in an ample reserves regime
 - Can make you do too much or too little QT

TGA fluctuations complicate QT



Consider the effect of TGA fluctuations during QT in an ample reserves regime

Absent a debt ceiling event:

- Gradual move from point 1 toward 3
- May end QT before point 3

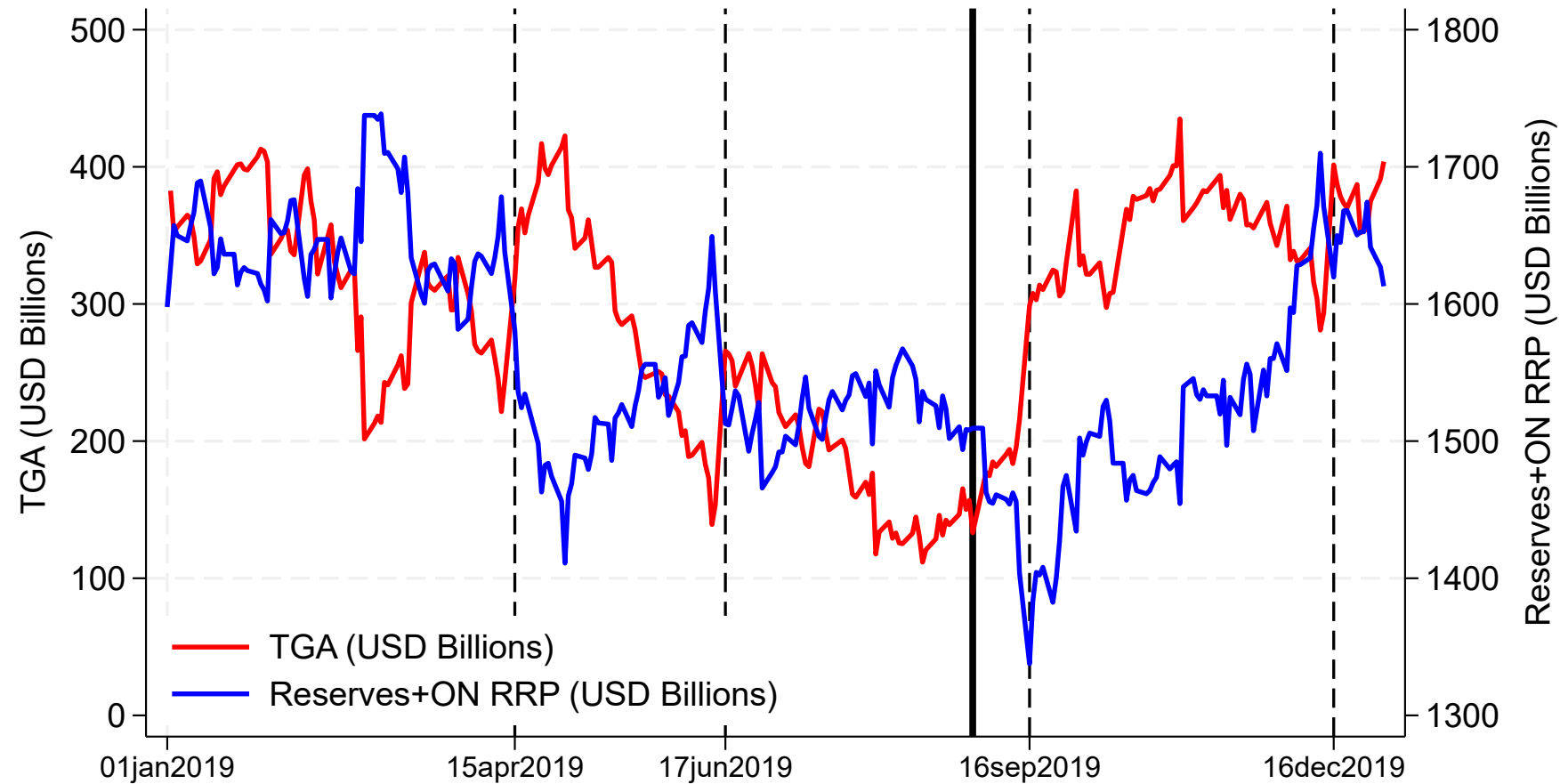
With debt ceiling binding:

- If TGA (plus currency) declines faster than the Fed's securities holdings:

Move from point 1 to 2, then snap back to 3 as TGA rebuilt → Risk of overdoing QT

QT1, debt ceiling episode & seasonal tax payments led to September 2019 yield spike

TGA and (Reserves + ON RRP) over the year 2019



Note: Dashed vertical lines indicate key tax deadlines on 15apr2019, 17jun2019, 16sep2019 and 16dec2019. The solid vertical line marks the end of QT1 at the end of August 2019.

Vertical line: End of QT1, Aug 2019

On Aug 30: TGA was low

- \$133B < \$410 target by end of 2019
- Debt ceiling event ended on Aug 2
- August is also a seasonal TGA low

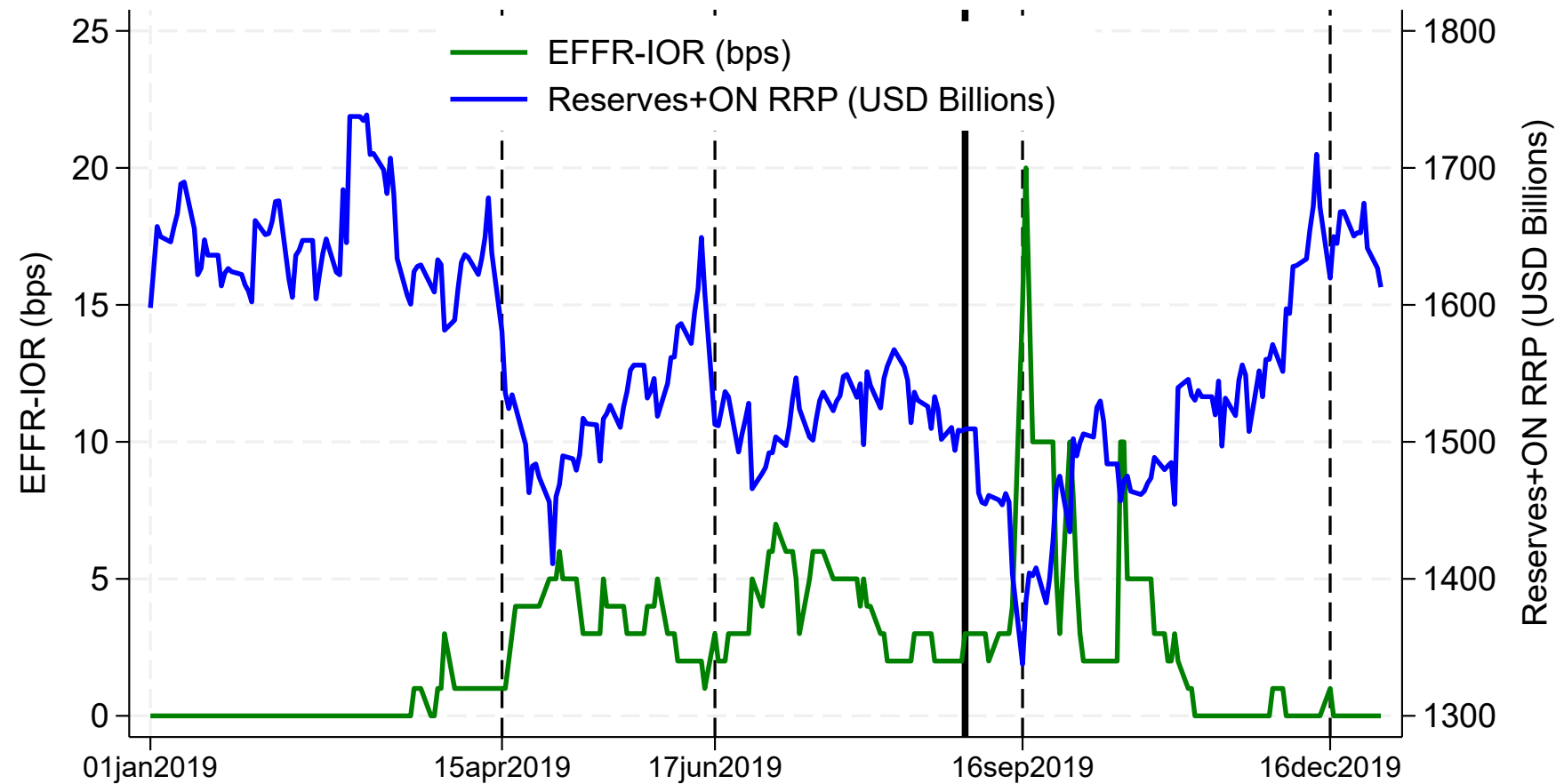
Aug 30 to Sep 16: TGA up by \$166B

- Large Treasury issuance on Sep 3
- Large tax payments on Sep 13 & 16

→ Corresponding drop in reserves

QT1, debt ceiling episode & seasonal tax payments led to September 2019 yield spike

Reserves plus ON RRP and EFFR-IOR spread over 2019



Yield spike on Sep 16 to 18, 2019:

- Lines up with TGA increase and reserves drop

Fed **injected reserves** via Treasury bill purchases and repo lending

- This allowed reserves to increase by about \$300B even as TGA was further rebuilt

Note: Dashed vertical lines indicate key tax deadlines on 15apr2019, 17jun2019, 16sep2019 and 16dec2019. The solid vertical line marks the end of QT1 at the end of August 2019.

Slowing QT2 early amid worries of TGA rebuild: “Snapback risk”

Knowing this “snapback” risk, the Fed may (at point 1): Decide to **slow QT**, **pause QT**, or **end QT early**

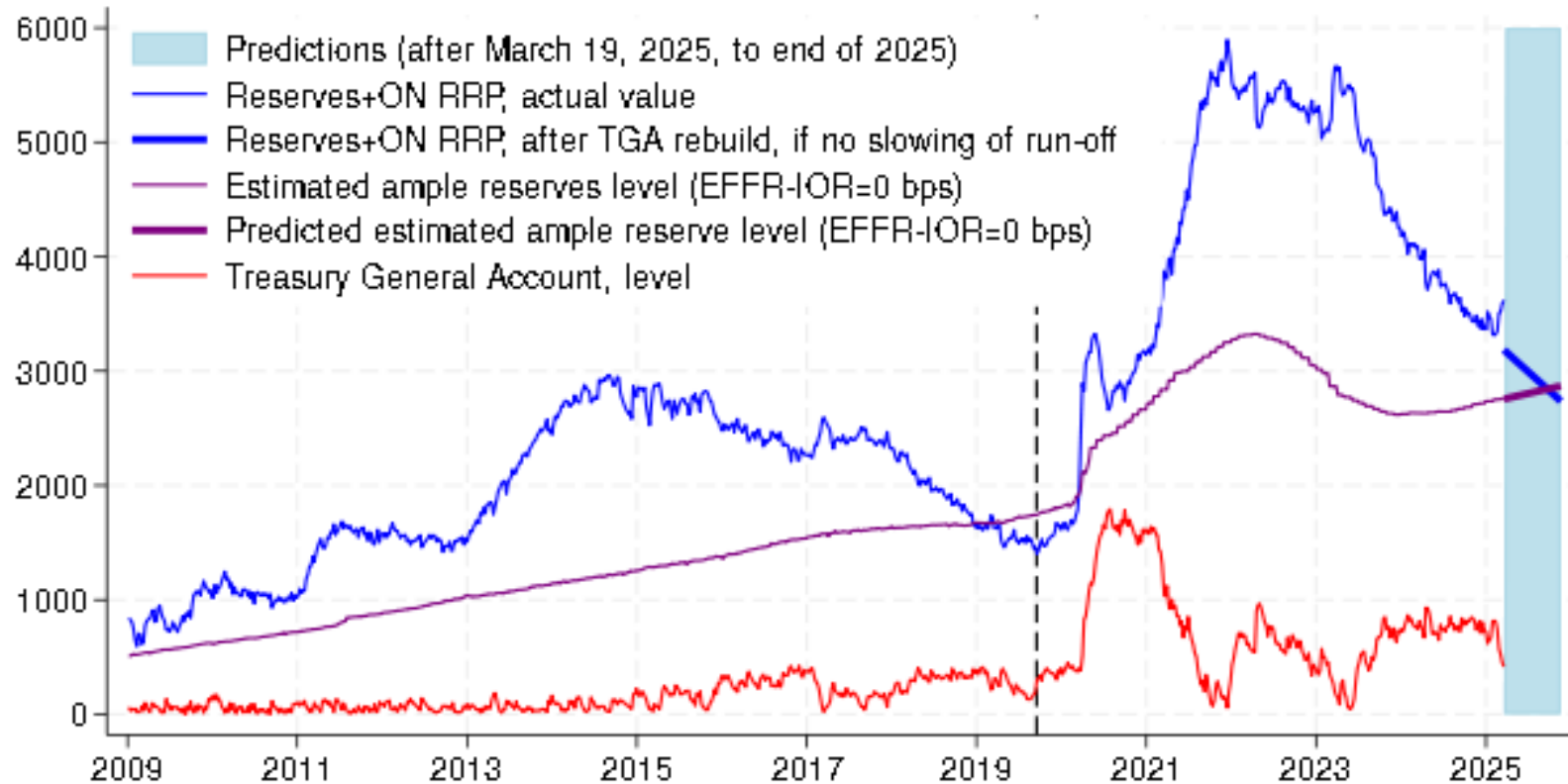
- March 19, 2025: FOMC **slowed QT** (Treasury redemption cap down from \$25B/month to \$5B/month)

“**natural progression** of the slowing decided at the May 2024 meeting”

“some participants noted that a slower pace of runoff would also **help guard against reserve scarcity emerging** with **little advance notice** during a period of potentially rapid **increase in the TGA**”

- **Market commentary** interpreted slowing of QT as due to debt ceiling concerns. WSJ, March 19, 2025,
- A simple calculation shows that concern about snapback risk was likely **quantitatively relevant**

Slowing QT2 early amid worries of TGA rebuild: “Snapback risk”



Vertical line marks September 17, 2019 (yield spike)

As of March 19, 2025:

- Debt ceiling episode in-progress since early February
- Estimated X-date: Aug/Sept. Add 4 months for TGA rebuild → Rebuild may take to end of 2025

Thick blue:

- Hypothetical evolution of point 3 (Reserves+ON RRP balances after TGA rebuild) with unchanged runoff

Thick purple:

- Projected ample reserves (EFFR-IOR=0), assuming same slope as in 6 months before March 19, 2025

Comparison: How well do the approaches do insulating Fed's overall policy stance from TGA?

Ample reserves approach: Poorly

- QT1 was too large
- QT2 had to be slowed “early” due to snapback risk and no scarcity signal
- Overall policy stance affected by TGA

Backing TGA with bills approach: Well

- QT can proceed regardless of TGA fluctuations and debt ceiling episodes
- Notes and bond holdings can follow desired QT path (from point 1 toward point 3)
- Continuous scarcity signal, no snapback risk

4. Challenges of the ample reserves approach. How backing the TGA with bills could help

- Communication

Ample reserves approach: Difficult to communicate

- May look like **fiscal policy affecting monetary policy**
- Powell and the FOMC minutes **struggled** with this for the March 19, 2026, decision to slow QT

VICTORIA GUIDO (Politico). [...] if you wouldn't mind talking a little more about **the balance sheet decision and what drove that**. Did that have anything to do with expectations of how the debt ceiling—**raising the debt ceiling might affect the reserve supply?**

CHAIR POWELL. In terms of the balance sheet—so, yeah, we—I think—I guess the way I'd say it is, you know, **it was the flows in and out of the, the TGA that got us thinking about it, but** as we, you know, as we thought about it, we really came to the view that this was a **good time to, to make the move that we made**. And, broadly, Committee came around—came around to the view that we, we would do the same thing we'd already done, which is, once we—I guess in June, we— was it June? Whenever it was, we, **we lowered the pace of QT, and we're just going to do that again**. [...] And, of course, now, the **TGA is emptying out, so reserves are, are higher now, so you can't really see the underlying signal**. So we came around to the view, and, and it had a lot of appeal, and so we did it.

Backing TGA with bills approach: Easy to explain

- Keeps Fed **jobs separate**: Being the government's bank and doing monetary policy
- The Fed already accommodates **trends in the autonomous factors** via higher assets
This approach just extends that principle to **fluctuations in the autonomous factors**
- Would have **no effect** on the **TGA**:
Government would have same ability to increase or decrease TGA balances as previously

5. Possible effects on the Treasury bill market

- In general: Sustained changes to Fed bill holdings may not affect bill scarcity as Treasury likely **adjusts supply** (Treasury focuses on “privately held net marketable borrowing” which nets out Fed)
- But in **debt ceiling episodes** bill supply is determined by “regular and predictable” note & bond issuance → Bill issuance falls.

Suggested approach could help **alleviate scarcity of safe Treasury bills**

Conclusion

Fed provides **important banking services** to the government via the TGA

- Since 2015: **TGA has increased**
- This provides a **buffer** to keep making payments for a week even without Treasury issuance
- Achieving **this liquidity buffer is free** to tax payers when it is **supplied by the Fed**:
 - Treasury issues additional securities and keeps the proceeds in the TGA
 - The Fed buys the additional securities and remits its profits to the Treasury

But, TGA volatility **interferes with monetary policy** in an **ample reserves regime**

Backing the TGA with Treasury bills and adjusting bill holdings with the TGA has benefits:

- **Allows smaller avg. balance sheet, lower risk of interest rate volatility, or a mix**
- Ensures TGA fluctuations do **not interfere with QT or QE**
- Keeps the **Fed's jobs separate** and should be **easy to communicate** to the public

Minutes of the Federal Open Market Committee

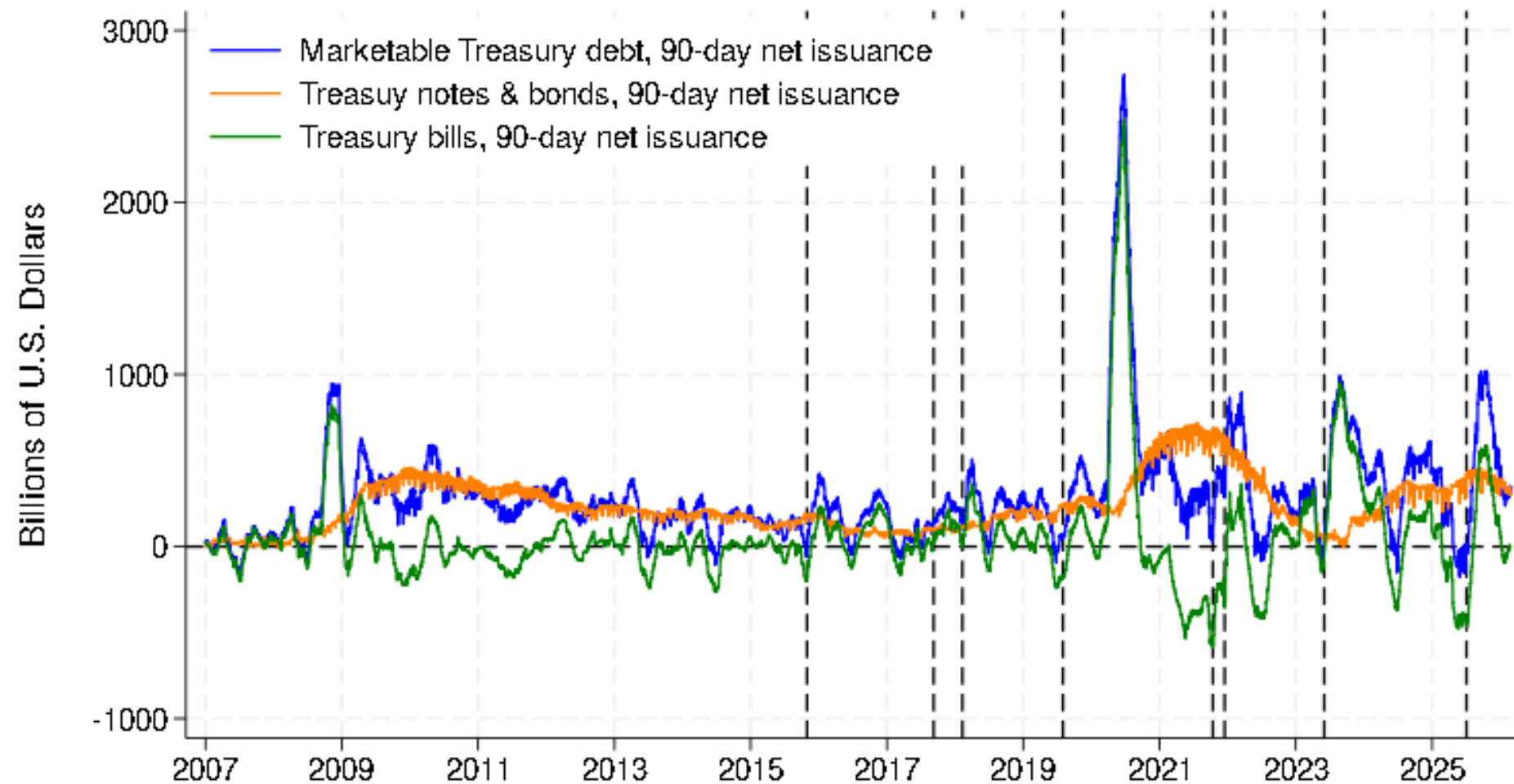
December 9–10, 2025

“Several participants noted that [aligning variation in SOMA Treasury bill holdings](#) with [variation in nonreserve liabilities](#) would [insulate reserve supply from TGA changes](#), citing research by the Federal Reserve staff.”

Backup slides on the bill market

Bill issuance is the shock absorber for change to Treasury issuance in debt ceiling episodes

Components of Treasury debt outstanding, 90-day changes

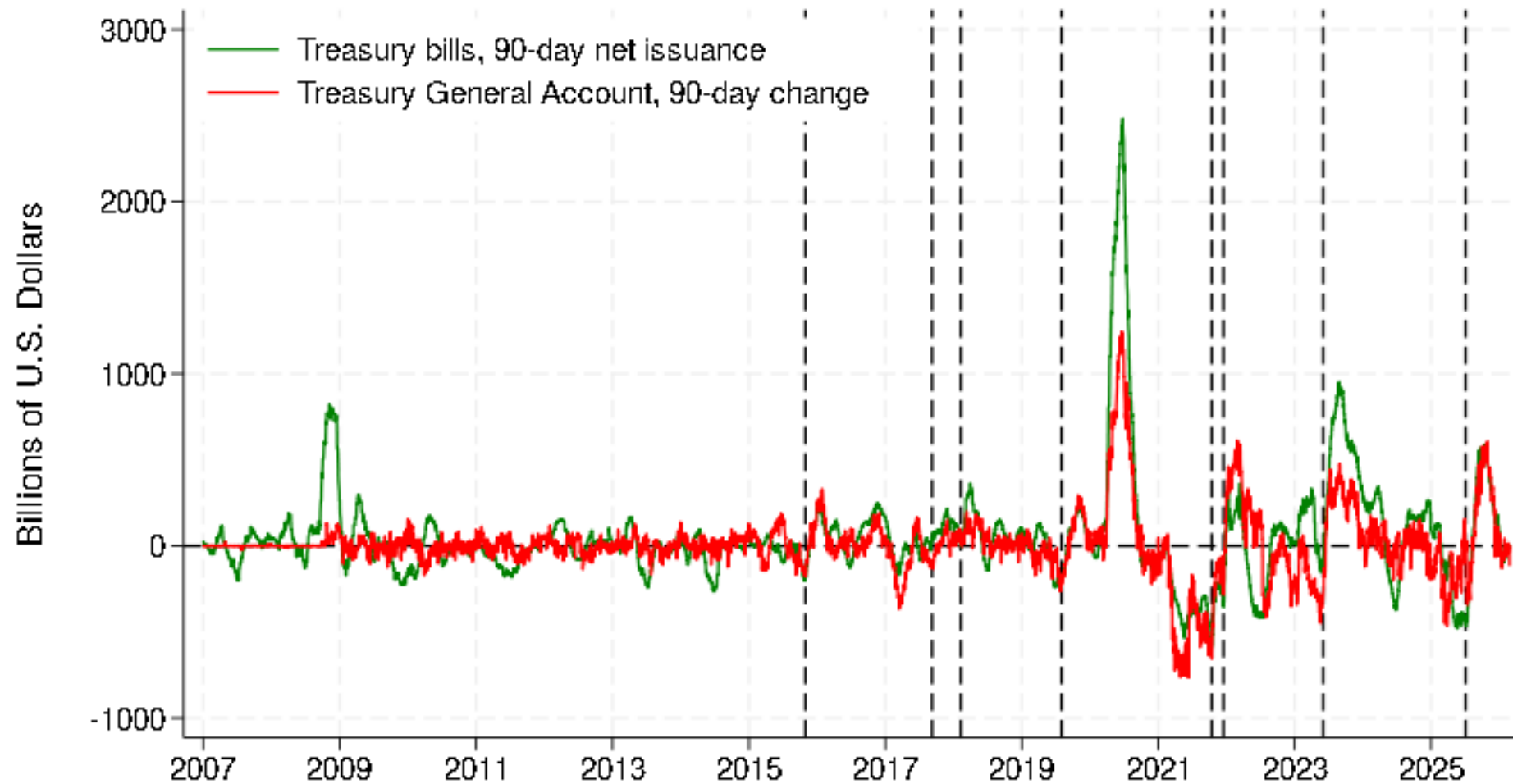


Issuance of **notes and bonds** is “**regular and predictable**” (Garbade (2007))

- Treasury **initially** adjusts **bill issuance** with issuance needs
- **Gradually**, adjusts issuance amounts (auction sizes) for **notes and bonds** (GFC, Covid)

TGA changes are tightly correlated with Treasury bill issuance

TGA and Treasury bills outstanding, 90-day changes



Strong correlation of TGA changes and Treasury issuance:

- Driven by bill issuance

Scarcity of safe & liquid Treasury bills during debt ceiling episodes (Stein and Wallen, 2025)

Yields on 1-month bills and the 1-month expected TGCR rate (annualized)



- 1-month expected TGCR rate = TGCR + [1mo OIS - EFR]
- Vertical lines:
June 3, 2023 (debt limit suspended)
July 4, 2025 (debt limit increased)
- Scarcity of T-bills that mature before expected X-date, followed by high bill yields if we get near expected X-date

Scarcity of safe & liquid Treasury bills during debt ceiling episodes

2023 episode: Expected X-date in early June (Treasury stated this on May 1)

2025 episode: Resolved farther from the X-date which the Treasury projected to be in August 2025

An active securities approach with **TGA is backed with bills** could **somewhat alleviate bill scarcity** in **debt ceiling episodes**

- It can **smooth the public's T-bill holdings as the Fed lowers** its bill holdings with the TGA
- It **cannot** make **bills maturing after X-date attractive**
 - If debt ceiling episode continues to near the X-date, all Treasury bills are unattractive

Scarcity of safe & liquid Treasury bills during debt ceiling episodes

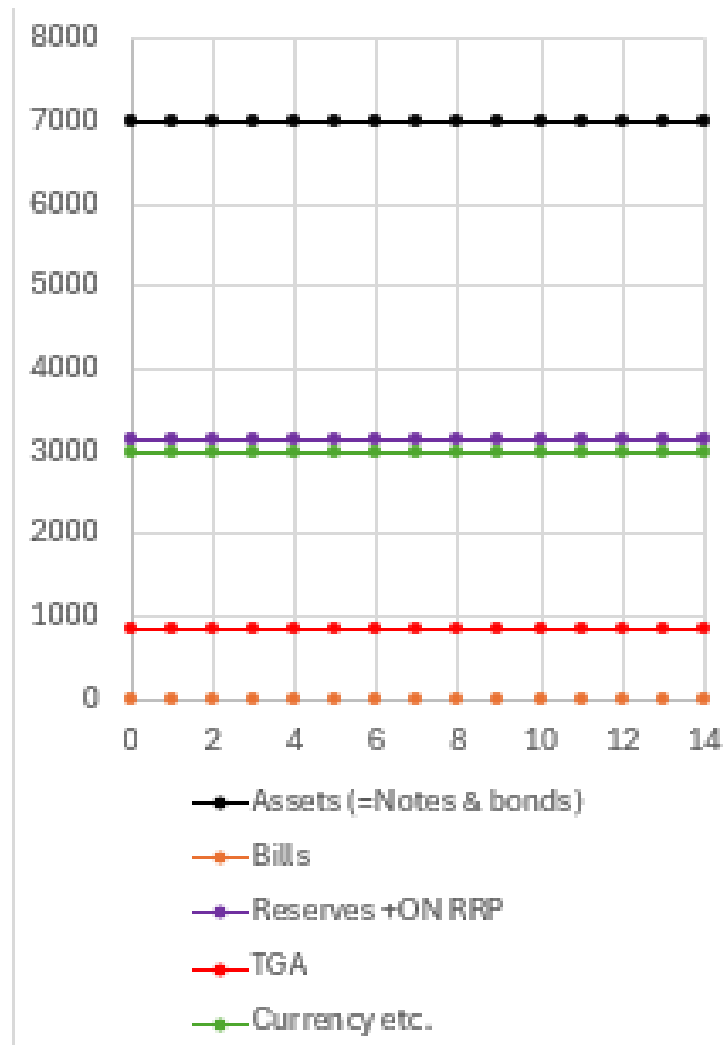
Example: Hypothetical example of the evolution of quantities during a debt ceiling episode

- Time is in months
- Quantities are just examples but roughly realistic
- Absent debt ceiling issues, the Fed's balance sheet and its components are flat over time (this is not central to the argument made here)
- Government is running a deficit and debt increases (in fixed proportions) unless debt ceiling binds
 - Regular and predictable note and bond issuance: Unaffected by debt ceiling episode
 - Bill issuance drops in debt ceiling episodes
- Fed holds bills only in the regime of backing the TGA will bills
 - Total Treasury bill supply adjusts (higher by "peak" TGA amount)
 - Doesn't matter if the Fed holds bills in ample reserves regime

With debt ceiling episode: TGA falls while the debt ceiling is binding, then rebuilt quickly

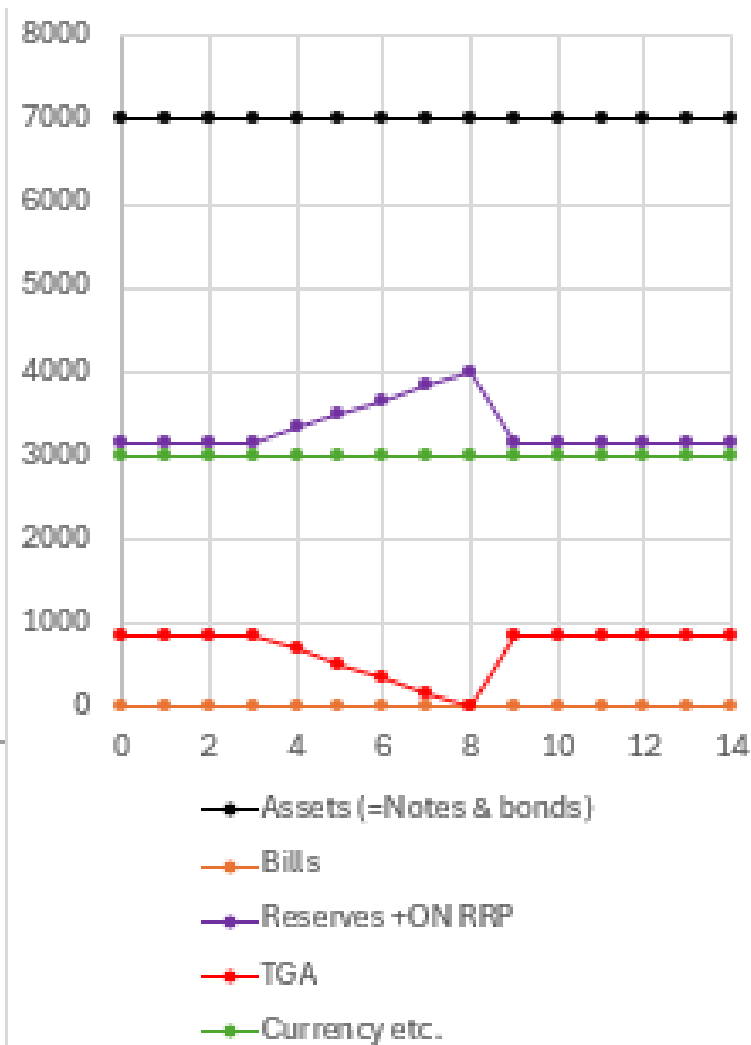
Panel A. Fed balance sheet

No debt ceiling episode,
ample reserves regime



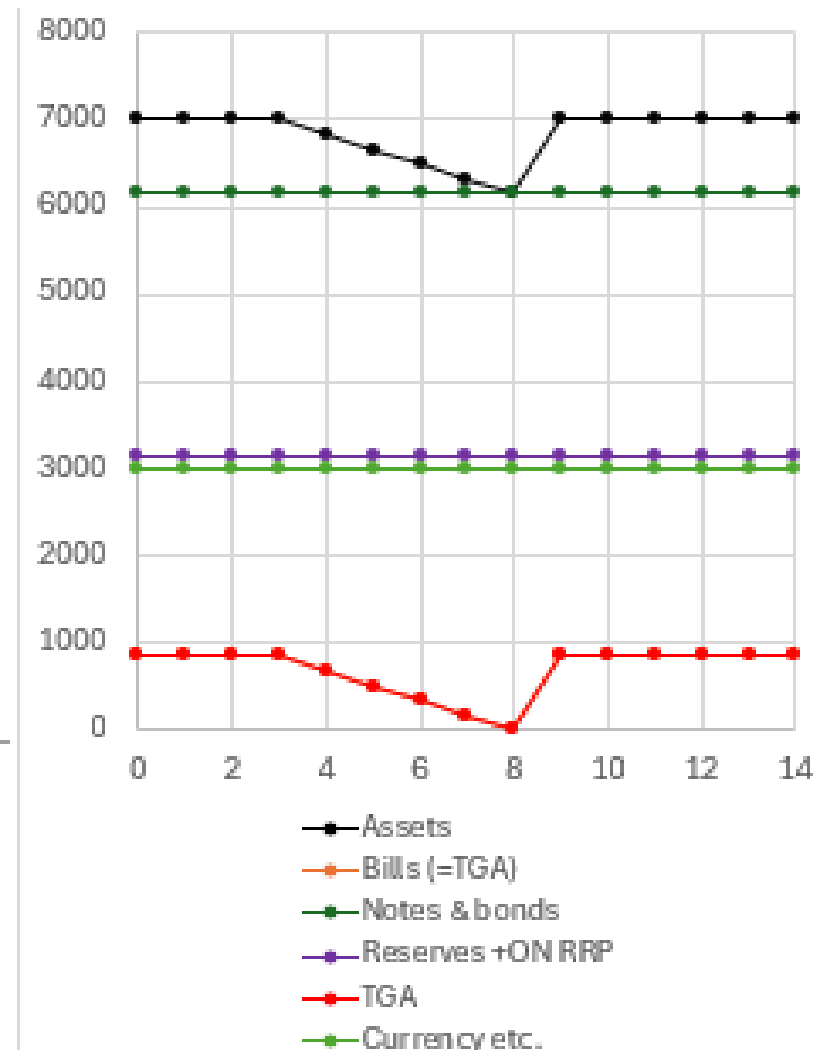
Debt ceiling episode,
ample reserves regime

Reserves+ON RRP changes



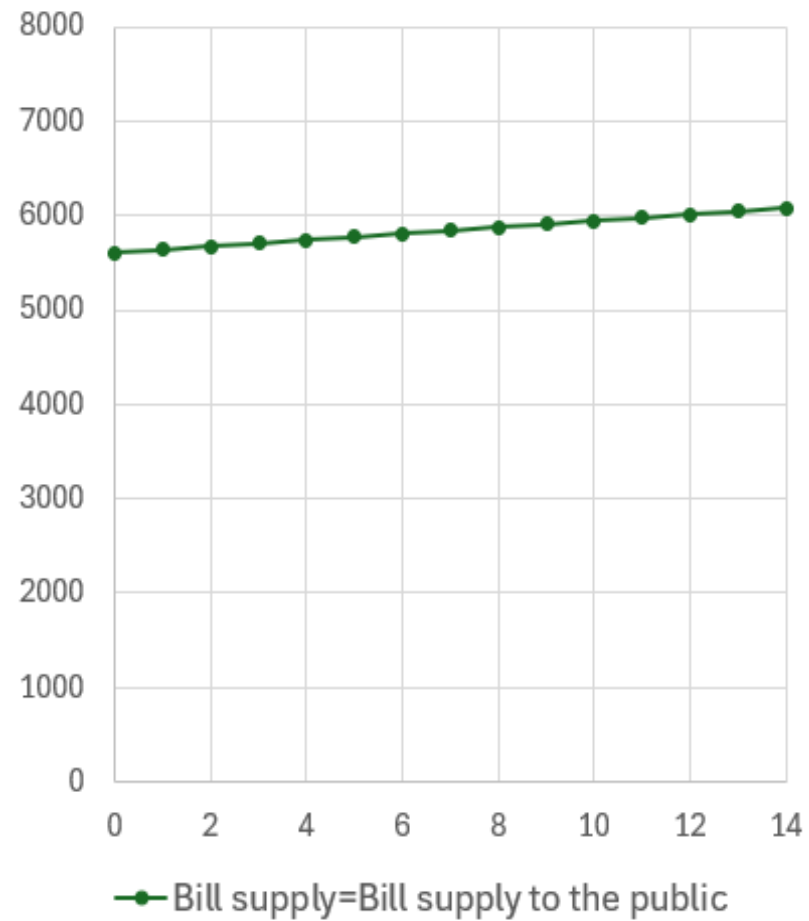
Debt ceiling episode,
TGA backed with bills

Reserves+ON RRP insulated!



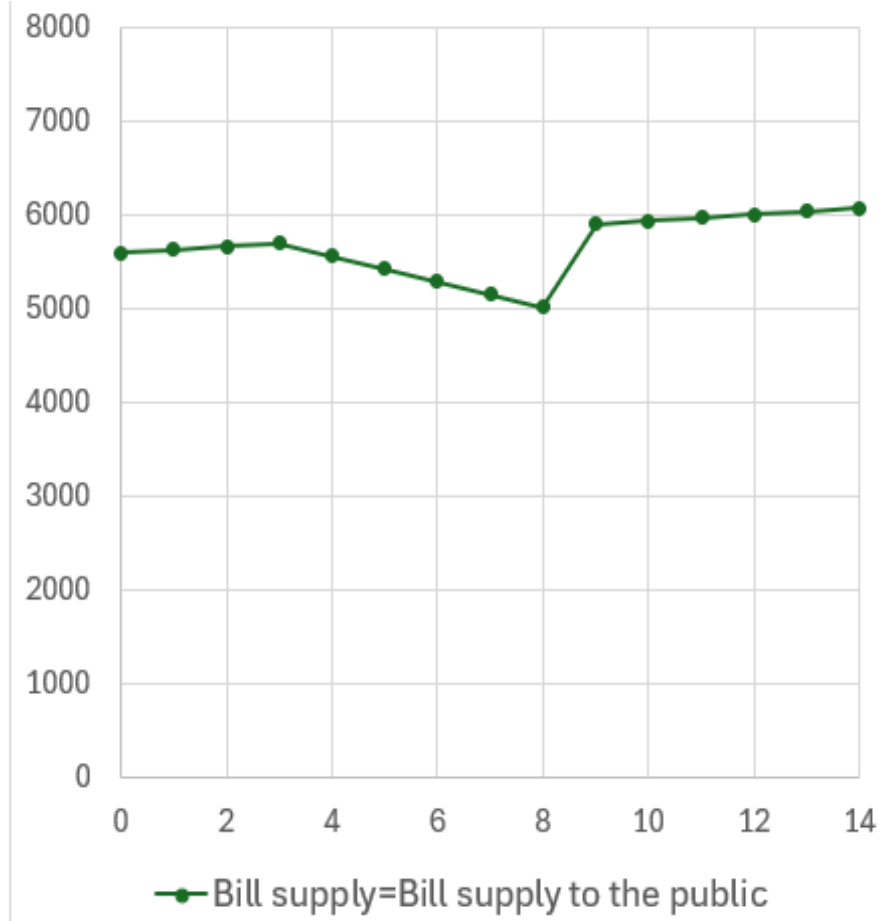
Panel B. Treasury bill supply

No debt ceiling episode,
ample reserves regime



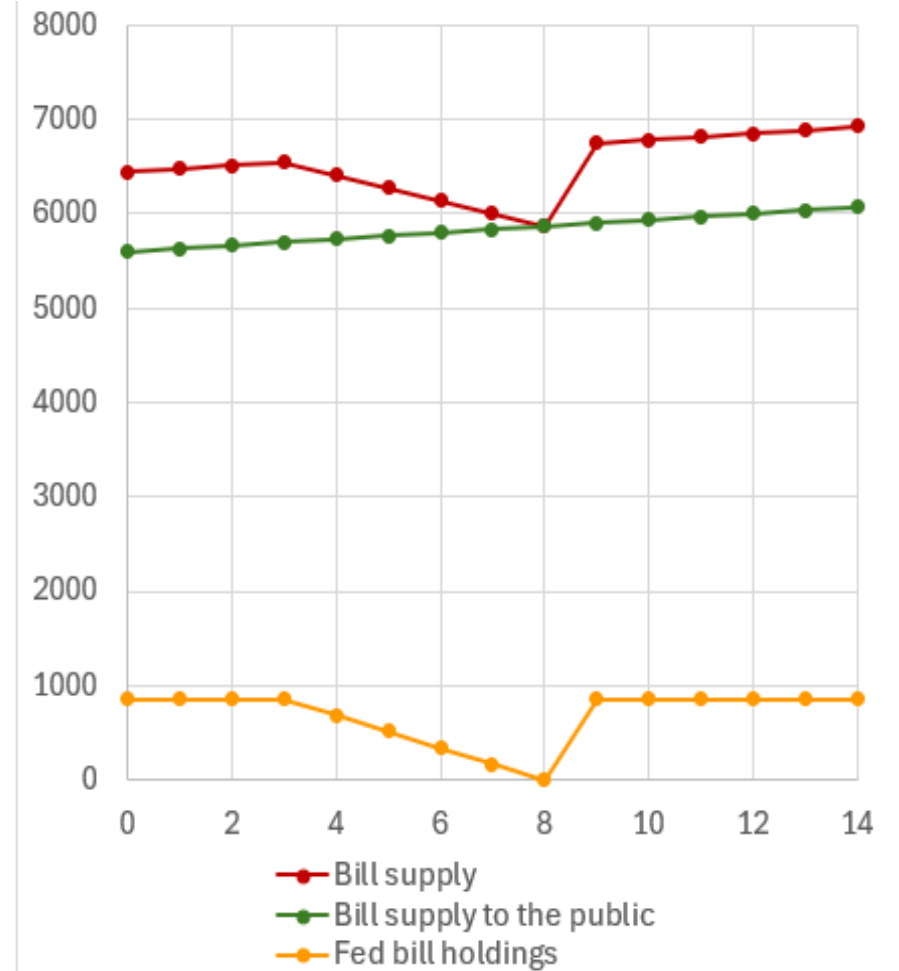
Debt ceiling episode,
ample reserves regime

Bill supply to public changes



Debt ceiling episode,
TGA backed with bills

Bill supply to public insulated



Potential effects on the seasonality in Treasury bill yields

Backing the TGA with bills would **increase the cyclical** in the **bill supply available to the public**

- Fed would **buy bills when the TGA increased** with **seasonally high tax payments**, given the modest offset from seasonality in the ample level of reserves
- **Seasonality in bill yields** may reemerge
 - Greenwood, Hanson and Stein (2015) document the causal effect of bill supply seasonality on yields using data from 1983-2009
 - During that period: Stronger response of bill supply to the surplus (my Table 2, Panel B)

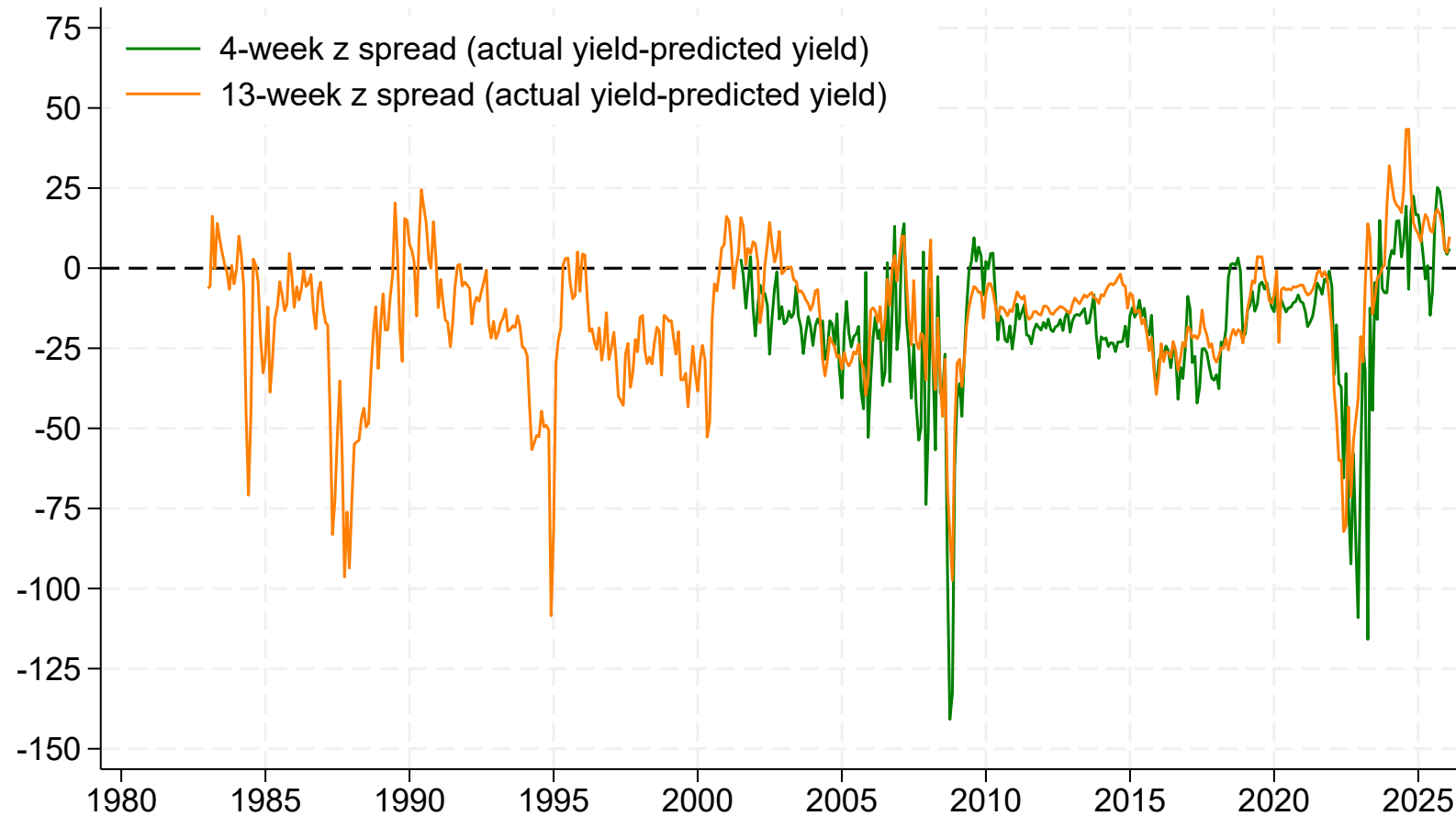
A few observations on this issue

1. **Seasonality in bill yields may not reemerge** if Treasury bill convenience yields are generally low outside debt ceiling episodes
2. Could use a **mix of bills & repo**, or **bills & short-term notes/bonds** for seasonal adj. to Fed assets

Effects on T-bill markets: Is bill scarcity a thing of the past except in debt ceiling episodes?

Bill scarcity relative to other Treasuries over time (z-spread)

Monthly averages, January 1983-February 2026



Greenwood, Hanson and Stein (2015), *n*-week z-spread

$$z_t^{(n)} = y_t^{(n)} - \hat{y}_t^{(n)}$$

$y_t^{(n)}$: Actual *n*-week bill yield

$\hat{y}_t^{(n)}$: Predicted *n*-week yield based on yield curve model estimated using only notes and bonds with remaining maturities ≥ 3 months

Chumbo & Krishnamurthy (2025): Similar chart for CP-Bill spread