US Rates Watch

Fed balance sheet forecast: May update

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SOMA: System Open Market Account

UST: US Treasury

MBS: Mortgage-backed security

FIMA: Foreign & International Monetary Authorities

FDIC: Federal Deposit Insurance Corp

Fed balance sheet reduction slowed by emergency lending

The Fed balance sheet has been on a downward trend since the implementation of the Fed's quantitative tightening (QT) program in June of '22. However, recent bank stress has reversed some of this decline. We update our forecast for the Fed's balance sheet to reflect the impact from Fed lending programs and debt limit dynamics.

Background: QT offset by emergency lending

The Fed began its QT program in June '22 and the SOMA portfolio, which holds the Fed's UST and MBS securities, has since declined ~$700b (Exhibit 1). At the same time, the Fed's overall balance sheet has declined only ~$400b. The discrepancy between the decline in SOMA and decline in the Fed's balance sheet is largely due to growth in Fed loans since bank stress began in March. The Fed's balance sheet had previously hit a trough of $8.39tn on March 1, but quickly rose to $8.78t by March 22. Since then, the balance sheet has declined $230b, a trend that is likely to continue if bank stress stabilizes and QT continues. Note: we assume QT will continue until the first Fed cut, which our economists expect in March '24. It is possible Fed continues QT while cutting but we see this as unlikely.

Asset outlook: FDIC loan reduction & QT continuation

The Fed's QT program reduces the asset side of the balance sheet via the roll-off of UST and MBS securities (Exhibit 3). However, the recent bank stress led to an increase in Fed assets via the Fed's lending programs, including the discount window (DW), central bank swaps lines, FIMA repo, and their new bank term funding program (BTFP). The Fed's lending programs have grown ~$300b since the start March. This increase offsets the ~$700b decline from Fed QT and is why the overall Fed balance sheet has only declined ~$400b on net. More recently, Fed emergency lending has declined slightly. To forecast our expectations for Fed assets, we assume lending via the Fed facilities declines roughly around the pace of securities sales tied to the FDIC bridge bank loans, but DW moves quickly back to pre-bank-stress levels. A risk is more bank stress and higher Fed lending.

Fed liabilities: higher TGA and lower ON RRP likely

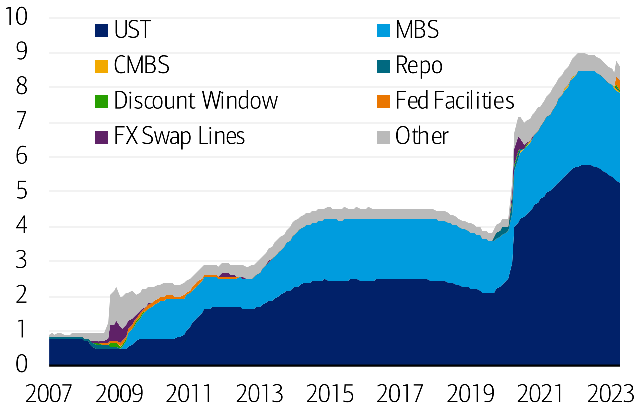
Fed liabilities: The decline in the Fed's SOMA holdings since June 1 has also been met with declines in Fed liabilities (Exhibit 2). Most of the move in Fed liabilities has been within the Treasury General Account (TGA), the overnight reverse repo facility (ON RRP) and bank reserves. Prior to bank stress, the Fed's balance sheet had declined $572b since June 1 '22; $503b came out of the TGA, $308b out of reserves, and an offsetting increase of $170b in ON RRP + $69b in other liabilities.

... See following pages for more detail ...

The ON RRP increased despite QT due to Fed hikes which prompted cash to move out of lower yielding bank deposits into money market funds (MMFs) who invest at the ON RRP, and MMFs staying short due to the uncertainty around the size of Fed hikes.

The decline in the TGA was driven by debt limit dynamics. At the debt limit the Treasury is limited in net new marketable borrowing and therefore uses its cash balance to pay for government outlays. The decline in the TGA has temporarily reduced some of the impact from QT on reserves and ON RRP. Once the debt limit is resolved and the TGA is rebuilt, it will then drain cash out of reserves and ON RRP (Exhibit 7). We discussed the mechanics of QT on Fed liabilities in more detail in [Fed QT mechanics & bank deposits.]

Exhibit 1: Fed Assets ($tn)
Fed balance sheet reduction was slowed with bank stress



Source: Bloomberg

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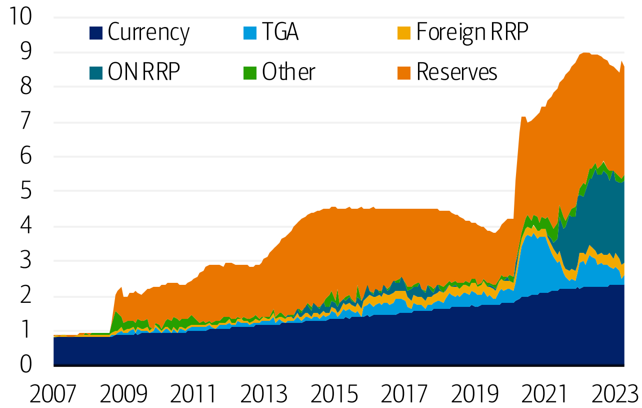
Exhibit 2: Fed Liabilities ($tn)
Fed reserve balances increased with bank stress



Source: Bloomberg

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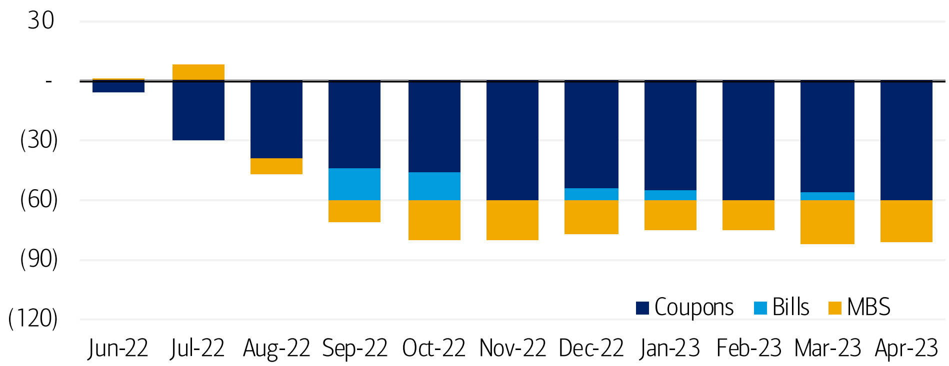
The recent bank stress has reversed some of the decline in bank reserves but April tax returns eventually brought reserves balances closer to levels seen before bank stress (Exhibit 4). Initially, via the Fed's lending programs, reserves grew $440b in a week. However, due to tax returns, reserves are now down roughly $280b from their peak, but still $163b higher than pre bank stress.

Exhibit 3: Monthly reduction in Fed balance sheet assets ($bn)
The Fed caps the monthly decline of UST at $60b/mo and of MBS at $35b/mo



Source: BofA Global Research, Bloomberg

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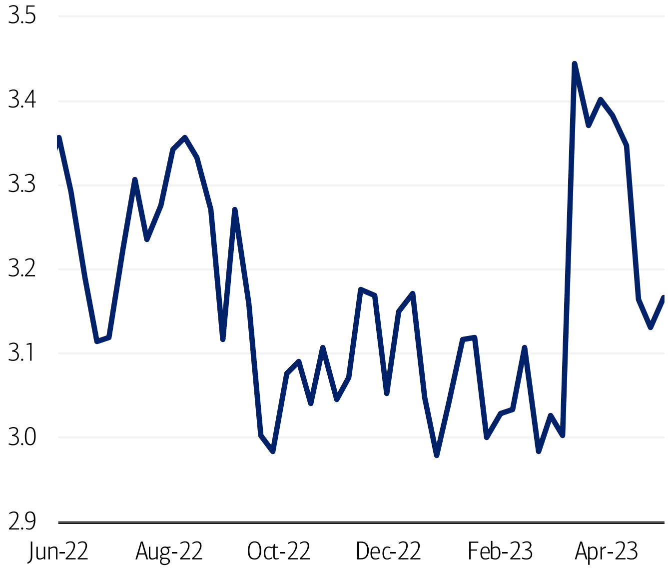
At the same time, the TGA is lower since March 1 and is now down $640b since the start of QT (Exhibit 5). We expect the TGA to continue to decline until Treasury's X-date of June 1. Our expectations is for a last minute resolution which would lead Treasury to rebuild its cash buffer from near zero to $700b by YE'23. For more detail regarding our expectations for Treasury's X-date see: [Debt limit stress is back]. The combination of TGA growth and QT will mean more outflows from ON RRP and reserve balances.

Exhibit 4: Fed reserve balances ($tn)
Reserves temporarily reversed downward trends via Fed emergency lending



Source: Bloomberg

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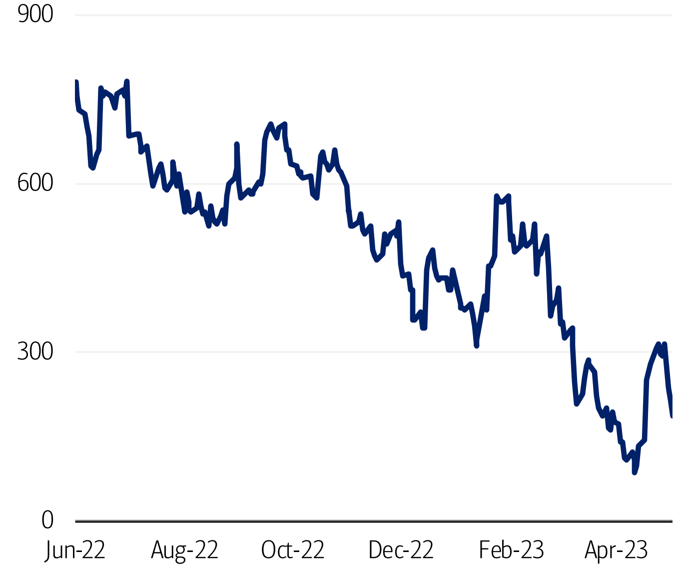
Exhibit 5: Treasury general account ($bn)
Despite tax receipts, TGA is still down $640b since start of QT



Source: Bloomberg

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The increase in the TGA will be driven primarily by bill issuance which is likely to cheapen bills enough to draw MMFs out of ON RRP. After the debt limit resolution and associated bill supply surge we expect the Fed QT & the TGA rebuild to primarily drain from ON RRP (Exhibit 7). As bills and front-end rates cheapen relative to the rate on the ON RRP, MMFs are incentivized to extend further out the curve (esp with the Fed likely near their peak in rates). ON RRP take-up is thus likely to absorb a large share of the liquidity drain. Post debt limit we assume the liquidity drain is 90% from ON RRP and 10% from reserves.

Exhibit 6: Fed balance sheet monthly projections ($bn)
We expect ON RRP to take brunt of the drain from QT, TGA increase, and Fed loan decline

		Asset								Liabilities						
		UST	MBS	CMBS	Repo	Discount Window & PDCF	Fed Facilities	FX Swap Lines	Other	Currency	TGA	Foreign RRP	ON RRP	Other	Reserves	Total
	Apr-23	5266	2576	8	0	74	253	0	436	2324	294	359	2325	179	3132	8613
25% Reserves / 75% ON RRP	May-23	5206	2551	8	0	5	301	0	437	2336	70	360	2404	180	3158	8508
10% reserve / 90% ON RRP drain	Jun-23	5146	2525	8	0	5	291	0	438	2349	250	362	2143	181	3129	8413
	Jul-23	5086	2501	8	0	5	281	0	439	2362	300	363	2001	182	3113	8320
	Aug-23	5026	2474	8	0	5	271	0	440	2375	400	364	1811	183	3092	8224
	Sep-23	4966	2453	8	0	5	261	0	441	2387	600	365	1536	184	3062	8134
	Oct-23	4906	2431	8	0	5	251	0	442	2400	600	366	1440	185	3051	8043
	Nov-23	4846	2411	8	0	5	241	0	443	2413	650	368	1302	186	3036	7955
	Dec-23	4786	2392	8	0	5	231	0	444	2426	700	369	1164	187	3020	7866

Source: BofA Global Research, Bloomberg

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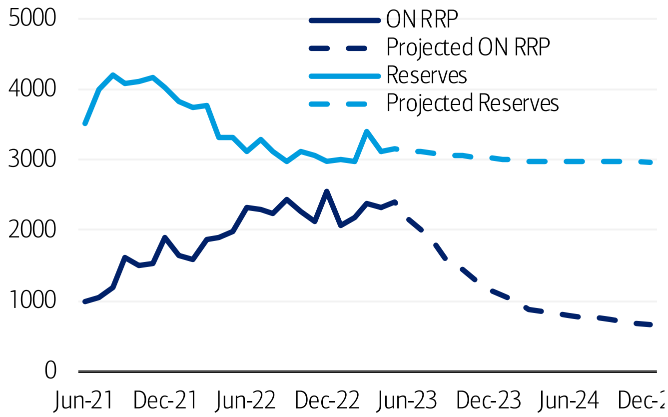
Clients have frequently asked why we are so confident the TGA rebuild and subsequent QT will draw from ON RRP instead of reserves. We cite two factors: (1) recent history (2) sensitivity of bill rates around ON RRP. Detail on each:

Recent history: in Jan '23 the US Treasury sharply increased their cash balance via bill supply after they employed a "debt issuance suspension period". In Jan, TGA increased $121b which included $241b of bill supply. The TGA increase of $121b was fully paid for by a $184b decline in ON RRP as reserves stayed flat. Our takeaway: TGA increase financed by bill supply and bill cheapening is likely to draw funds out of ON RRP.

Sensitivity of bill rates around ON RRP: the upcoming bill supply surge will likely see a material cheapening of bills vs ON RRP. From Mar '22 to Mar '23, 3m bills vs OIS traded 20bps rich. We expect they will likely trade 10 to 20bps cheap after the supply surge. We believe money market mutual funds will be more sensitive to this bill cheapening vs retail depositors. Retail depositors typically re-allocate out of bank deposits if the interest rate spread between deposits & money markets is several hundred basis points. Money funds are likely to cap the bill cheapening before retail materially shifts behavior.

Exhibit 7: ON RRP and bank reserve forecasts ($bn)

We forecast ON RRP / Reserve drain of 90 / 10



Source: BofA Global Research, Bloomberg

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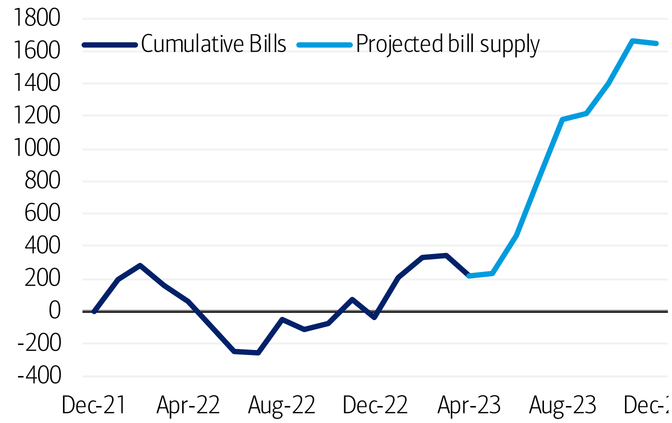
Exhibit 8: Projected cumulative bill supply ($bn)

We forecast $1.4tn of bills to come post debt limit resolution



Source: BofA Global Research, Treasury

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Market impact: We expect that as the Fed continues to drain reserves and ON RRP via QT, and especially post debt limit resolution, we will see a large shift in the cash/collateral balance. This will likely lead to upward pressure in front-end rates, driven primarily by large Treasury issuance to rebuild the TGA.

We expect Treasury to issue $1.4tn in bill supply between an early June debt limit resolution and the end of the year to return the TGA to $700b. This large wave of bill supply is likely to cheapen bills, however, the cheapening will likely be limited to 30-40bps b/c an extension out of the $2.25tn currently held in Fed ON RRP.

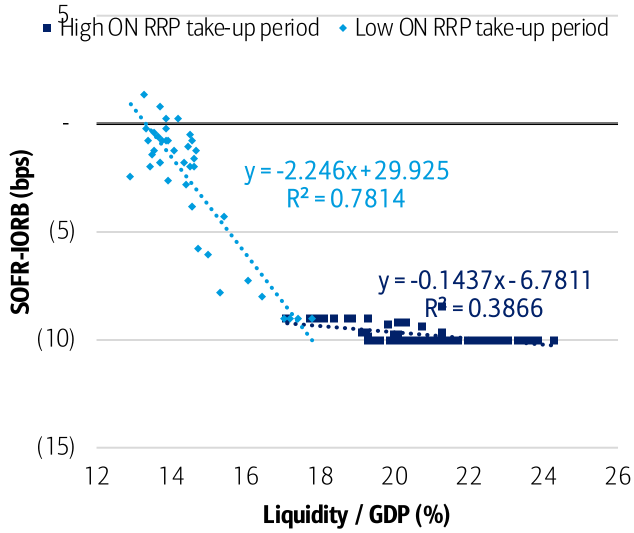
Despite a large wave of bill issuance, we project ON RRP take-up will remain elevated (>$500b) through CY'24, assuming QT ends in early '24. We do not believe tri-party repo will likely lift notably off ON RRP until ON RRP has been sufficiently drained. As a result, SOFR is likely to move up slower than Fed funds (Exhibit 9, Exhibit 10, Exhibit 11).

Risks to our forecast: We see several risks to our balance sheet forecast: (1) Fed could need to provide more financing to banking system (2) QT ends earlier due to economic or market stress (3) assumptions for liquidity drain composition are wrong.

Bank stress could require more emergency Fed lending, which would mean higher total balance sheet and likely more reserves. QT could end earlier due to economic or market stress; this would mean a larger balance sheet and more liquidity outstanding. We could also be wrong if TGA rebuild draws more from bank deposits than we expect.

Bottom line: we continue to see a reduction in the Fed balance sheet and drain of liquidity but needed to recalibrate our estimates due to emergency Fed lending. Fed assets likely will continue to decline with a slow reduction in FDIC loans and ongoing QT. Fed liabilities will likely meaningfully shift with debt limit passage, TGA rebuild, elevated bill supply, and ON RRP drain. Risks skew to larger Fed balance sheet and less ON RRP drain.

Exhibit 9: SOFR-IORB spread vs Liquidity to GDP
We expect SOFR to remain close to ON RRP while ON RRP take-up is elevated



Source: BofA Global Research, Bloomberg, FRBNY

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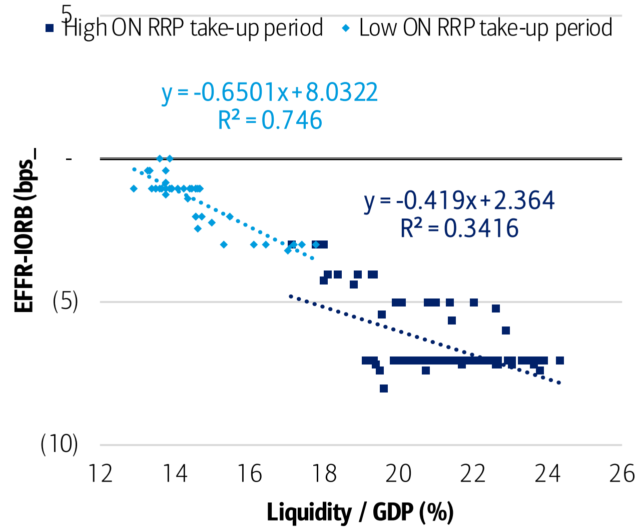
Exhibit 10: EFFR-IORB spread vs Liquidity to GDP
EFFR is likely to pick up faster than SOFR



Source: BofA Global Research, Bloomberg, FRBNY

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Exhibit 11: FF-SOFR projections under low and high ON RRP take-up scenarios (bps)
We project ON RRP will remain above $500b through the forecast window, so we focus on the "high ON RRP take-up" scenario

	Low ON RRP take-up			High ON RRP take-up		
Date	**SOFR-IORB**	**EFFR-IORB**	**FF-SOFR**	**SOFR-IORB**	**EFFR-IORB**	**FF-SOFR**
Dec-2022	-16	-5	11	-10	-6	4
Mar-2023	-18	-6	12	-9	-6	3
Jun-2023	-14	-5	9	-10	-6	4
Sep-2023	-9	-3	6	-9	-5	4
Dec-2023	-5	-2	3	-9	-4	5
Mar-2024	-1	-1	0	-8	-3	5
Jun-2024	-1	-1	0	-8	-3	5
Sep-2024	0	-1	-1	-8	-3	5
Dec-2024	1	0	-1	-8	-3	5

Source: BofA Global Research, Bloomberg, FRBNY

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