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US Rates Watch

Fed balance sheet: QT & UST supply, August update

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Fed balance sheet: QT risks running for longer

Clients continue to inquire about our Fed balance sheet projections including composition of liquidity drain, reserve scarcity estimation, & QT outlook. Our quick take: we have not been surprised by the liquidity drain composition post debt limit (largely ON RRP), have not changed our reserve scarcity estimation ($2.25-2.5tn), & believe QT will run until a recession, market functioning issue, or scarcity. The largest shift in Fed balance sheet view comes from US economic resilience & QT length. Detail below.

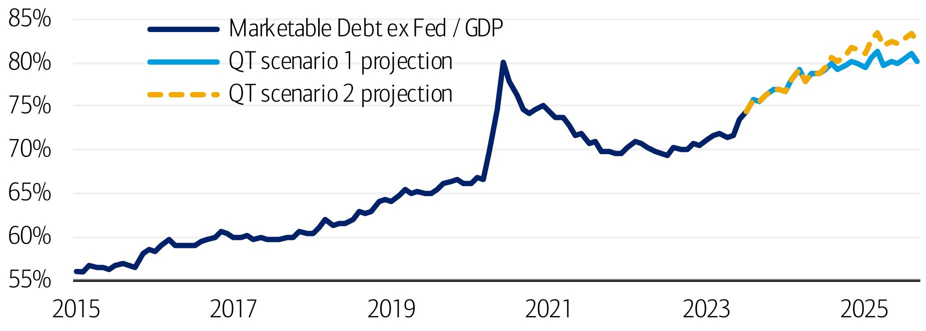
Longer QT a risk under soft landing scenario

Last week our US economists changed their call for a recession to a soft landing. They now expect the first Fed cut in June '24 with falling inflation to prevent monetary policy from becoming overly restrictive. They still expect QT to end with the first Fed cut but see risks to a longer QT period. Recent Fed communications have highlighted the possibility QT could continue with rate cuts & we detail UST supply impacts below.

UST supply impact under 2 QT scenarios

The Fed QT end date has a material impact on the UST supply outlook. QT impacts UST supply since the Treasury must issue new debt to the public to finance Fed maturities. Fed QT currently allows up to $60b of UST to mature each month which implies a higher UST financing need of up to $720b / year. NY Fed reports suggest the Fed will slow the QT pace as it approaches reserve scarcity and ends QT in April '25. Fed QT cessation in Jun '24 vs Apr '25 implies a $670b change in UST supply to the public. The Fed QT decision can shift the trajectory of UST debt help by the public (Exhibit 1).

Exhibit 1: Marketable debt ex Fed to GDP forecast
If QT continues through Q1 of '25 the public will need to take down more marketable debt



Source: BofA Global Research, Bloomberg

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In the remainder of this report, we provide a detailed review of Fed QT to date. We build off our recent prior updates: Fed balance sheet forecast: May update & US liquidity drain: RRP drop defers scarcity.

SOMA: System Open Market Account

UST: US Treasury

MBS: Mortgage-backed security

FIMA: Foreign & International Monetary Authorities

FDIC: Federal Deposit Insurance Corp

PD: Primary Dealer

QT: Quantitative Tightening

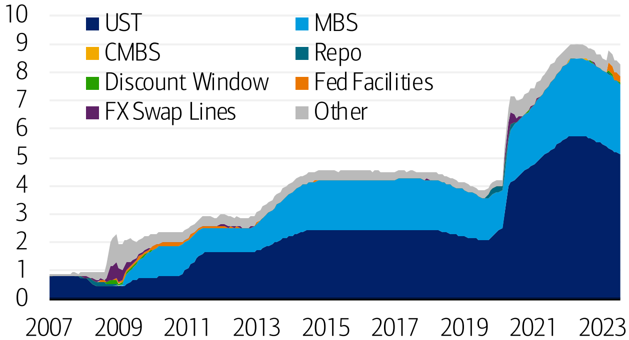
ON RRP: Overnight reverse repo facility

BTFP: Bank Term Funding Program

TGA: Treasury General Account

MMF: Money Market Fund

Exhibit 2: Fed Assets ($tn)
UST & MBS are driving the reduction in Fed balance sheet from QT



Source: Bloomberg
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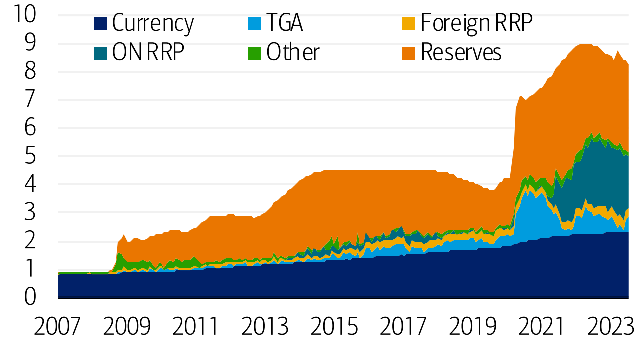
Exhibit 3: Fed Liabilities ($tn)
ON RRP and reserves are declining with QT and TGA increase



Source: Bloomberg
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Background: Fed QT has drained primarily from TGA

The Fed began its QT program in June '22 and its balance sheet has since declined $705b. Due to QT, the SOMA portfolio, which holds USTs and MBS has declined ~$911b over the same period (Exhibit 4). The discrepancy between the decline in SOMA and decline in the Fed's balance sheet is largely due to $239b in growth in Fed loans since bank stress began in March. On the liabilities side, most of the decline has come out of TGA ($-369b) due to debt limit dynamics and, to a lesser extent, the RRP (-$162b) and reserves (-$86b, Exhibit 5). For a detailed breakdown of Fed assets and liabilities see Fed policy plumbing, '23 edition.

Fed assets: QT & Fed loan paydowns to reduce assets

The Fed's QT program reduces the asset side of the balance sheet via the roll-off of UST and MBS securities (detail on QT implementation can be found here: QT update: the facts). We have frequently stated that we forecast QT to end for one of three reasons: (1) Fed cuts rates to offset recession (2) market functioning problem that forces Fed to buy securities (3) aggregate banking system reserve scarcity. Our base case has been for QT to end with the first Fed cut, but in this piece, we will also forecast the balance sheet based if QT were to continue until near reserve scarcity.

Another key Fed asset variable are loans, specifically loans to offset bank stress. We assume significant Fed emergency loan growth is unlikely & that we will see loans to facilitate FDIC securities & the bank term funding program decline.

For the Fed loan outlook, we assume DW lending remains around current levels and lending via the Fed facilities declines roughly around the pace of securities sales tied to the FDIC bridge bank loans, $10b/mo. The BTFP is still slowly moving higher but we assume this stabilizes at current levels & pays down slowly. For our forecast, we project that BTFP remains flat until the Fed starts to cut in June '24. At this point we forecast a reduction in the BTFP at a pace of roughly $10b per month until the termination of the program in Mar '25. We acknowledge elevated uncertainty around the BTFP outlook.

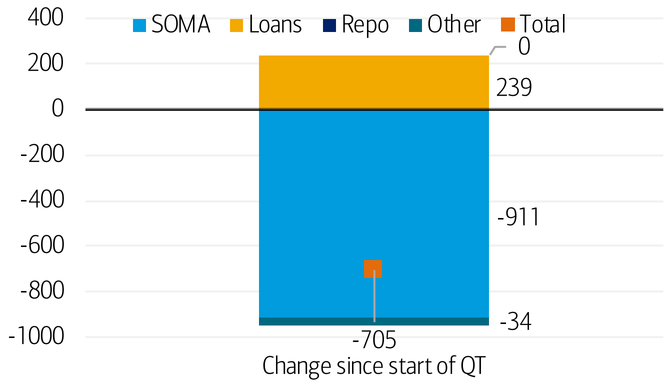
Fed liabilities: Drain will shift from TGA to RRP & reserves

The decline in the Fed's assets since the start of QT has also been met with declines in Fed liabilities. Most of the decline has come out of TGA ($-369b) due to debt limit dynamics and, to a lesser extent, the RRP (-$162b) and reserves (-$86b, Exhibit 5).

Post debt limit resolution this decline has shifted due to the refill of the TGA which has primarily come out of ON RRP. The reason we expected this was greater sensitivity of MMFs to front-end bill rates vs bank depositors. We generally expect this path to continue regardless of whether the supply is coming out of bills or coupons. Heavy ongoing bill supply will likely keep modest cheapening pressure on money market rates & continuing encouraging MMF to extend out of ON RRP.

Going forward, we forecast TGA increasing to $750b by year-end and with QT continuing, most of the drain should come out of reserves and ON RRP. We forecast that 90% of the drain from TGA refill and QT redemptions should come out of ON RRP and the remaining 10% should come from reserves until ON RRP is $0.

Exhibit 4: Change in Fed assets since the start of QT ($bn)
QT has led to the redemption of $911b in SOMA securities



Source: BofA Global Research, Bloomberg

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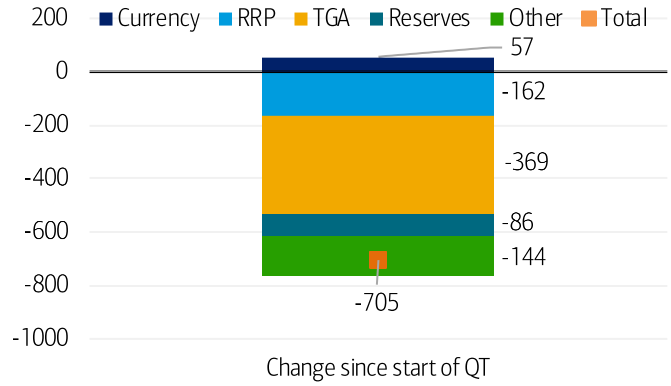
Exhibit 5: Change in Fed liabilities since the start of QT ($bn)
TGA has drawn most of the drain from QT



Source: BofA Global Research, Bloomberg

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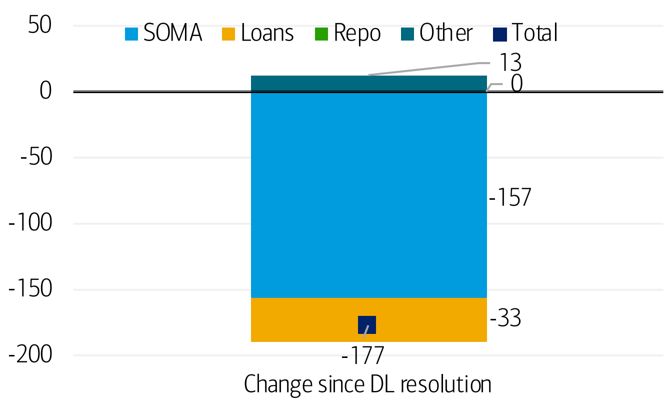
Year-end TGA forecast revised higher

The resolution of the debt limit in early June has prompted a shift in the decline of Fed liabilities. Previously, the TGA was drawing most of the drain from QT vs reserves and ON RRP. However, since the resolution of the debt limit, the TGA has been rebuilt $384b (Exhibit 7) via the issuance of $816b in Treasury bills and $118b in coupons.

As a result of the bill issuance and growth in TGA, the RRP has declined $485b due to MMFs allocating cash away from ON RRP and into T-bills. Foreign RRP has also declined, bringing the total decline in Fed RRP since the DL resolution to $519b (Exhibit 7). At the same time, bank reserves are $23b higher than they were, likely due to recent drawdowns in the TGA from typical start of month outflows, such as social security and Medicare. We see this dynamic as temporary; the TGA is expected to decline in August due to the higher deficit but end Sept at $650b and Dec at $750b, this should continue to drain ON RRP and reserves in addition to the drain that results from QT related redemptions. Further out, though we recognize the TGA can be volatile month to month, to simplify our projections, we assume a growth rate of $50b per year, which can be thought of as roughly nominal GDP + a small buffer.

Exhibit 6: Change in Fed assets since the debt limit resolution ($bn)
Fed lending has declined $32b since the DL resolution



Source: BofA Global Research, Bloomberg

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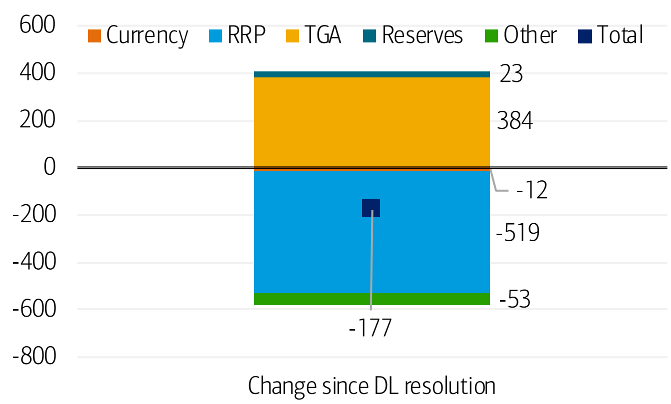
Exhibit 7: Change in Fed liabilities since the debt limit resolution ($bn)
QT, the increase in TGA, and decline in Fed lending has primarily drained RRP



Source: BofA Global Research, Bloomberg

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Exhibit 8: Treasury general account ($bn)
Despite tax receipts, TGA is still down $640b since start of QT

Source: Bloomberg

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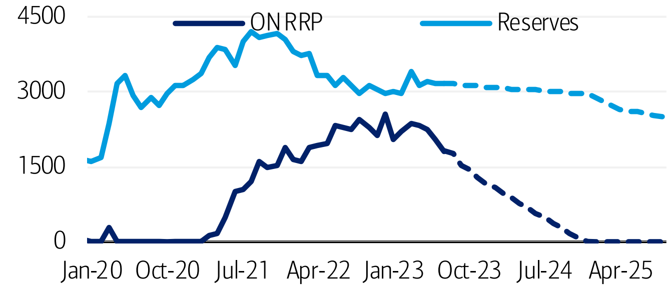
Exhibit 9: Fed ON RRP and reserve balances projections ($bn)
We forecast ON RRP to take 90% of the QT drain until ON RRP hits 0



Source: BofA Global Research, Bloomberg

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We forecast the continued growth in the TGA to be funded by $815b in bills to the public between July month-end and year-end. This continuation of the bill supply wave implies to us that most of the drain will continue to come from ON RRP as bill issuance cheapens bills relative to the ON RRP and 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 9).

Fed QT: a tale of two scenarios

Our economists recently revised their forecast from a mild recession to no recession in '24. Our economists still expect the Fed to cut next year & bring fed funds closer to neutral. We previously assumed that the Fed would end QT at the same time as the first cut, however, the Fed is no longer cutting due to a recession, there is a higher risk the Fed continues QT until they hit reserve scarcity. We analyze two scenarios (1) ending QT with the first cut (2) end QT when reserves near reserve scarcity.

End QT with Fed cut: Our economists are forecasting the first rate cut to be in June '24. As a result, we forecast that June '24 will be the last month of QT. If QT redemption caps remain at $60b per month for UST and $35b per month for MBS, between end of Jul '23 and end of Jun '24, we forecast SOMA to decline $894b alongside a $120b decline in Fed lending programs.

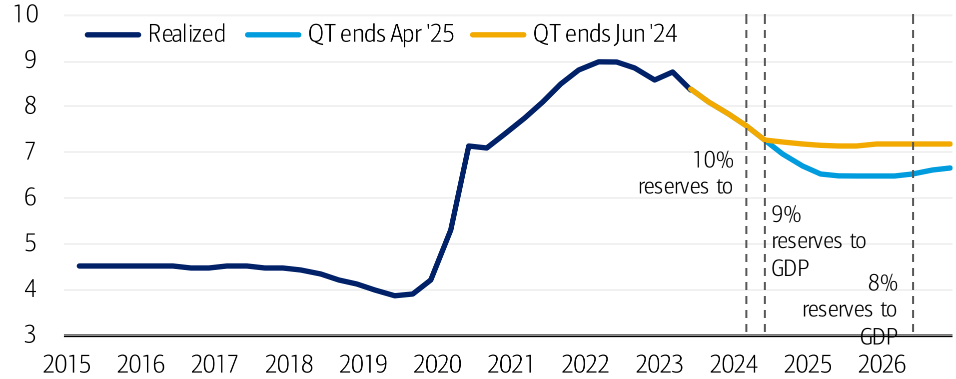
To forecast the impact of this drain on Fed liabilities we make a few assumptions: (1) we forecast currency growth of 6.5% per year (2) we forecast TGA to grow to $750b by year-end and then grow roughly $50b or 6% per year (3) we forecast foreign RRP and other liabilities to grow by 4% per year and (4) after adjusting for growth in other liabilities, ON RRP will absorb 90% of the drain in Fed assets and reserves will absorb 10% of the drain.

As a result of these assumptions, when the Fed cuts rates in June '24, the overall Fed balance sheet will be $7.29tn, reserves will be $3.03tn, and ON RRP will be $589b. We estimate that reserves at this point will be $500-$750b above reserve scarcity of $2.25-2.5tn, or roughly 8% of reserves / GDP.

End QT when nearing reserve scarcity: Our forecasts between the two scenarios only start to diverge following June '24 (Exhibit 10). We continue to forecast ON RRP taking 90% of the reserve drain until ON RRP hits $0 around year-end '24. At this point the drain will come completely out of reserves (Exhibit 11).

In our estimate for reserve scarcity, using guidelines from the New York Fed and GDP forecasts from our economists, we forecast the Fed will halve the redemption caps for Treasuries once reserves are 10% of GDP in Jan '25 and end Treasury redemptions when reserves are at 9% of GDP in Apr '25 (Exhibit 10). We assume even after QT end, the Fed will continue to roll off MBS and reinvest those prepayments back into US Treasuries thus keeping the level of SOMA flat. Further out, to keep reserves ample, we forecast the Fed start buying USTs at ~$20b/mo once reserves near 8% of GDP in Jun '26.

Exhibit 10: Fed Balance Sheet projections under different QT scenarios ($tn)
Tripwires indicate changes to QT based on guidance from the NY Fed in our reserve scarcity QT scenario



Source: BofA Global Research, Bloomberg

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Exhibit 11: Fed balance sheet monthly projections ($bn)
In the reserve scarcity scenario, we forecast a slowdown in UST redemption caps when reserves are at 10% of GDP and QT ends at 9% of GDP

		Asset								Liabilities						
		UST	MBS	CMBS	Repo	DW & PDCF	Fed Facilities	BTFP	Other	Currency	TGA	Foreign RRP	ON RRP	Other	Reserves	Total
10% reserve / 90% ON RRP drain from QT	Sep-23	4961	2469	8	0	2	133	105	428	2358	650	319	1536	107	3135	8107
	Dec-23	4781	2408	8	0	2	103	105	431	2397	750	323	1165	110	3094	7839
	Mar-24	4601	2355	8	0	2	73	105	434	2436	761	326	880	113	3062	7579
	Jun-24	4421	2284	8	0	2	43	95	437	2476	773	329	569	116	3028	7290
	Sep-24	4241	2211	8	0	2	13	65	440	2516	784	332	238	119	2991	6981
	Dec-24	4091	2152	8	0	2	0	35	443	2557	800	336	0	122	2916	6731
100% reserves	Mar-25	4001	2086	8	0	2	0	0	446	2599	812	339	0	126	2667	6543
Post QT period	Jun-25	4015	2020	8	0	2	0	0	449	2642	824	342	0	129	2557	6494
	Sep-25	4081	1954	8	0	2	0	0	452	2685	837	346	0	132	2498	6497
	Dec-25	4147	1888	8	0	2	0	0	455	2729	850	349	0	135	2438	6500

Source: BofA Global Research, Bloomberg

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Market impact: The divergence between the above 2 scenarios has significant impacts on the amount of marketable debt the public will need to take down through 2025 (Exhibit 1). Marketable debt ex Fed to GDP is already projected to approach record highs, which could put pressure on PD balance sheets who will likely need to take down the additional supply. More UST held by the public likely means more crowding out of dealer balance sheets and therefore upward pressure on funding rates and a reduction in market intermediation / repo costs.

According to our estimates, the longer period of QT would result in $670b more USTs needing to be taken down by the public, this equates to roughly 45% of the deficit projection for FY'24. Elevated coupon supply poses great risks to Treasury market functioning especially if the economy remains resilient & demand weak.

As discussed in UST demand in 2H '23: higher supply, few buyers, the biggest headwind to easy absorption of supply is wavering confidence in the long duration view from asset managers and outflows from bond funds. While demand so far has been firm with global benchmark funds overweight US duration and inflows into UST bond funds strong, reduced recession fears may support a reversal. In an environment where banks and foreign investors are likely sidelined, this raises concern about UST demand. Upward shocks to supply or very weak demand could benefit a short spread position out the curve. It also poses upside risks to our rates forecasts.

Bottom line: we have not been surprised by the liquidity drain composition post debt limit (largely ON RRP), have not changed our reserve scarcity estimation ($2.25-2.5tn), & believe QT will run until a recession, market functioning issue, or scarcity. Fed QT cessation in Jun '24 vs Apr '25 implies a $670b change in UST supply to the public.

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