The Damped Spring Report

"Shifts in growth, inflation, risk premium and positioning all lead to opportunities in markets"

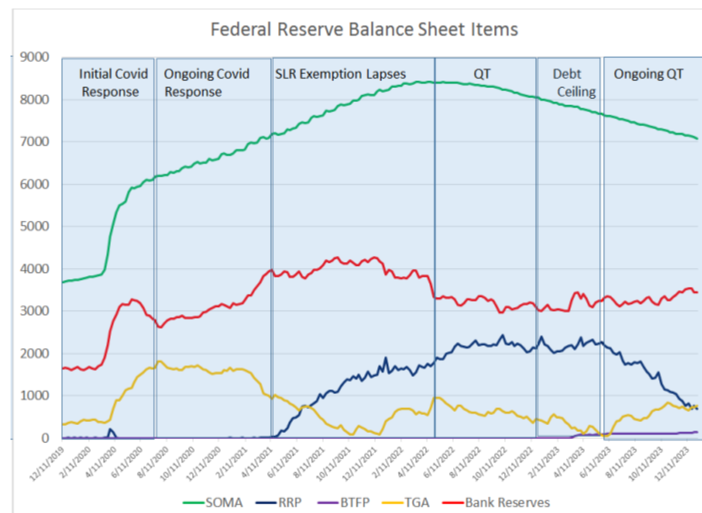
1/7/2023

In the minutes of the December FOMC meeting released last week, we noticed a new portion in the minutes regarding quantitative tightening:

"Several participants remarked that the Committee's balance sheet plans indicated that it would slow and then stop the decline in the size of the balance sheet when reserve balances are somewhat above the level judged consistent with ample reserves. These participants suggested that it would be appropriate for the Committee to begin to discuss the technical factors that would guide a decision to slow the pace of runoff well before such a decision was reached in order to provide appropriate advance notice to the public."

This statement indicates that for technical reasons the Fed may need to taper QT in 2024. We think they might do so. However, we don't think they need to taper when analyzing the rest of the moving parts of the Fed Balance Sheet and the likely path of Treasury issuance. Each of the major elements of the Fed's Balance Sheet are in motion and the Balance Sheet will continue to shift over the next year. This DSR examines the evolving Fed Balance Sheet. We start with a review of Balance Sheet shifts since Covid and then answer these questions:

- **QT continues to reduce RRP + Bank Reserves. What is the path of QT and when will taper likely occur?**
- **RRP is falling while Bank Reserves are rising. What are the market forces at work and when will the RRP reach zero?**
- **BTFP is growing due to arbitrage of financing rates. Will the Fed tweak terms and end or extend the program?**
- **SRF is ready to provide financing. Is financing pushing on a string?**



Overview of the Post-Covid Balance Sheet Evolution

Initial Covid Response

Beginning in April 2020, Treasury issued $3TN of debt to finance spending to offset the Covid shutdown. The debt was purchased by the Fed, causing the SOMA portfolio to grow rapidly. $1.5TN of spending immediately went to the private sector, causing deposits (and the offsetting Bank Reserves on the Fed's balance sheet) to jump. The rest of the financing was saved in Treasury's checking account at the Fed (TGA).

Ongoing Covid Response

After the initial Covid response, Treasury continued to issue debt, which was purchased by the Fed, the proceeds of which were deposited in the Private Sector's Bank Deposits and offset by over $1TN of Bank Reserve growth. Through the election in November 2020, the TGA was stable at $1.7TN. After the election, additional Covid support spending measure were enacted, and money began to flow from TGA to Bank Reserves and Private Sector Deposits. That resulted in Bank Reserves growing even faster than the SOMA portfolio.

SLR Exemption Lapses

This particular phase in the evolution of the Balance Sheet is under-appreciated by most. The big picture continued to be Government spending financed by debt purchased by the Fed. However, the spending didn't result in Bank Reserves growing; in fact, Bank Reserves fell. Why was that? One of the initial Covid policy responses was to create a regulatory exemption for banks. Prior to Covid, banks had to include Bank Reserves in their Supplementary Leverage Ratio (SLR). That meant that when Bank Reserves grew, the bank got more leveraged by this measure and that had consequences. Because Bank Reserves are essentially cash and given the huge growth in reserves expected from government Covid spending programs, the bank regulatory apparatus decided to exempt Bank Reserves from the SLR. On March 31, 2021, that exemption lapsed. Banks immediately went to their least profitable wholesale depositors and kicked them out of the banking system. Without belaboring the plumbing, the only place for the deposits to go was money market funds (MMFs) and the only place for those funds to invest was the RRP. It immediately grew by $1.8TN. Instead of Government spending financed with Fed purchases ending up in Private Sector Bank Deposits and offsetting Bank Reserves, the spending went to the private sector and was placed in MMFs and paid for by RRP growth. In aggregate, the RRP + Bank Reserves grew by the amount of the SOMA portfolio. But in this period, it was RRP growth that did the work.

QT

In Spring 2022, QT began. From that moment, instead of the Fed financing debt issuance from the Government and spending in the private sector, the Fed began asking for its money back, placing a burden on the private sector to repay the Fed. Noticing each of the Fed balance sheet items that can pay back the Fed, initially most of the money came from the still large TGA, but Bank Reserves fell while RRP stayed stable.

Debt Ceiling

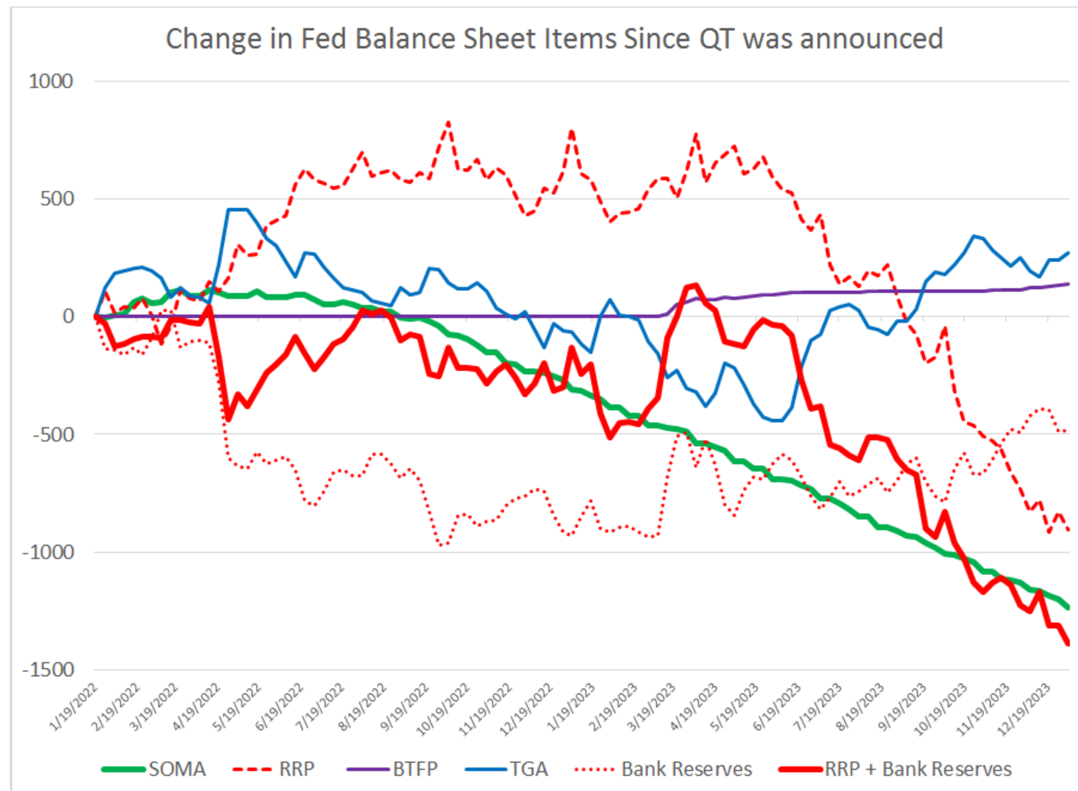
By the end of 2022, the Debt Ceiling prevented Treasury from tapping the private sector for money to pay back the Fed. RRP and Bank Reserves were stable, but the TGA collapsed to close to zero. During 1H23, another small balance sheet item, but one that both built reserves and saved some struggling banks was implemented. That is the BTFP, which has potential implications for the weak part of the banking sector but is not important for the overall environment.

Ongoing QT

Since the resolution of the Debt Ceiling, Treasury has issued to the private sector for two purposes: 1) to rebuild the TGA to its statutory minimum, and 2) to pay back the Fed (QT). Treasury's choice of funding sources for the financing was to tap either Bank Reserves or RRP investors. By choosing to issue a majority of its financing needs in Bills, Treasury managed to tap the RRP investor while Bank Reserves actually grew a bit.

Today

As we look forward to the future evolution of the Fed's balance sheet, QT continues to place a demand on the RRP and Bank Reserves to finance roughly $950BN of Fed balance sheet runoff. However, the TGA is fully rebuilt and no longer needs financing. The rapid drop in RRP + Bank Reserves will slow to a rate of $80BN per month. Note below the thick lines of RRP +Bank Reserves and SOMA move together while the dotted lines of RRP and Bank Reserves respond to market forces and issuance composition. We will discuss this in detail later in the report.



The Path of QT

We take seriously any mention of QT by the FOMC in prepared statements, post FOMC press conferences, and FOMC minutes. Hearing the drumbeats of QT in the December 2021 press conference was an edge for us to position for 2022 before the minutes were announced on Jan 3, 2022 and markets collapsed.

We don't consider the mention of QT as guaranteeing any near-term taper, but we do think they were intentional. The intent is likely to provide a framework for the evolution of QT that is richer than any prior statement and to deal with likely speed bumps along the way. In particular, while Bank Reserves rise, the prospect of RRP potentially going to zero is making influential Fed members at least suggest a plan if it becomes an issue. Lorie Logan in particular spoke about these issues this weekend:

> Turning to the Fed's balance sheet and policy implementation, we have reduced our securities holdings since mid-2022 at a brisk pace consistent with the principles and plans that the FOMC announced earlier that year. While securities holdings have declined by $1.3 trillion, bank reserve balances have actually risen by $350 billion dollars to around $3.5 trillion. That's because reduced balances in the Federal Reserve's overnight reverse repurchase agreement (ON RRP) facility have more than offset the decline in securities holdings. Increased Treasury issuance and a less uncertain interest rate path have contributed to the rapid ON RRP runoff by motivating money market funds to invest more in Treasury bills.

Starting by mentioning the rising Bank Reserves despite falling SOMA and then mentioning the potential risk of a zero RRP:

> The faster our balance sheet shrinks, the faster that redistribution needs to happen. I'd note that the current pace of asset runoff is around twice what it was in the first half of 2019. And while the current level of ON RRP balances provides comfort that liquidity is ample in aggregate, there will be more uncertainty about aggregate liquidity conditions as ON RRP balances approach zero.
>
> So, given the rapid decline of the ON RRP, I think it's appropriate to consider the parameters that will guide a decision to slow the runoff of our assets. In my view, we should slow the pace of runoff as ON RRP balances approach a low level. Normalizing the balance sheet more slowly can actually help get to a more efficient balance sheet in the long run by smoothing redistribution and reducing the likelihood that we'd have to stop prematurely.

Given the FOMC's new focus on the future of QT, it makes sense to review the goals of QT to understand the Fed's desired destination for the balance sheet, the potential speed bumps they may encounter on the way to their destination, and the economic or financial stability outcomes that would cause them to taper, stop, or reverse their destination.

Goals of QT

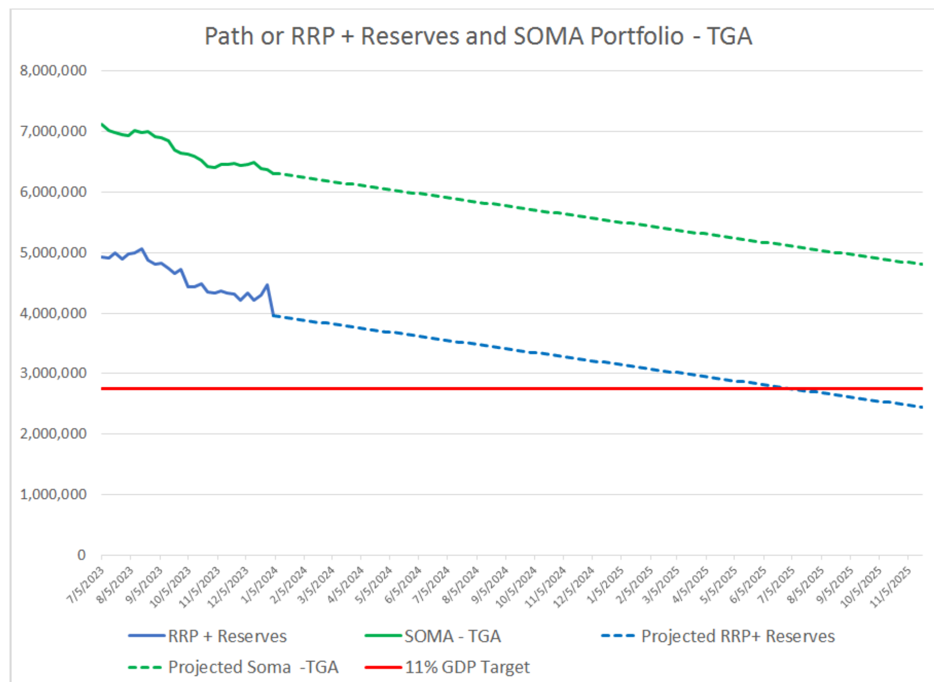
The SOMA portfolio was purchased during QE when the Fed was trying to achieve three principal goals:

- Increase reserve balances at banks.
- Provide temporary financing for the US Government to spend without causing financial conditions to tighten.
- To actively ease financial conditions for the private sector during a time of significant tightness

QT has opposite goals:

- Remove excess reserve balances from banks.
- Tighten financial conditions to slow the economy.

Of course, goals aren't destinations, but a journey, and we have little to determine when the journey is complete. However, the Fed has been very clear to date that the destination for RRP + Bank Reserves is 10-11% of GDP, or about $3TN. Assuming no speedbumps or economic distress, that destination is achieved by Q2 2025.



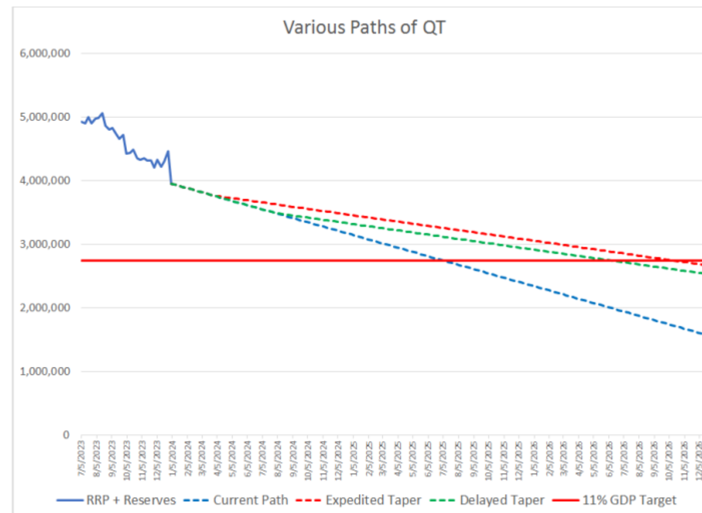
We explore a couple of scenarios based on the Fed's new focus. Using the past process as a guide, we believe the Fed will take time to formulate, announce and implement a change in QT. In this particular case, the speed bump of RRP going to zero seems to be generating the need to consider a slowdown. We think the RRP path is uncertain and highly dependent on market forces, Treasury composition choices and its seasonal financing needs. In the next section, we will address the speed bump that is generating the concern. As we aren't sure if some other concern is influencing the Fed, we will project our range of outcomes based purely on the Fed's pattern of making QT changes.

We expect the Fed to:

- Discuss the slowing of QT during the January FOMC meeting.
- The January Press conference will provide Chairman Powell some airtime to discuss broad concepts.
- During the March FOMC Meeting, if RRP has continued to fall rapidly or some other unknown stimulus has occurred, the Fed will announce a plan to lower the QT caps by 50% and implement that plan beginning in April.

- Perhaps if RRP has stabilized or other unknown stimulus has not occurred, the Fed will provide a plan to cut the QT Caps by 50% in a future month if necessary. This would be awkward but possible.

Assuming the end destination remains the same, the possible paths of QT may look like this:



If the Fed moves very rapidly from idea to implementation of a 50% reduction in QT Caps, QT would end in late 2026. If they take 6 months to implement, that will push the end of QT out to early 2026. Given the relatively short path to the goal, we think the idea of tapering at this point is silly, but we will consider the risks in continuing with the current path below.

Why Worry?

If the Fed decides to taper, we know how they could taper, and when they would achieve their goals if they did. The question is why they would change the path they are on. We think the reason is not about their dual mandate of stable prices and full employment but instead about their financial stability mandate. We may be wrong in that thinking but it does make sense to us that the ability for the markets to accommodate securities used to finance the Fed's runoff of UST and MBS is a financial stability mandate issue.

To date the existence of a large balance of RRP investment by MMFs gives the Fed confidence that runoff can be easily financed.

- Issuance of Bills to repay the Fed were absorbed easily as MMF investors are essentially indifferent between Bills and RRP;
- Issuance of Coupons isn't directly absorbed by RRP investors as the MMF that was invested in RRP can't buy Coupons; BUT
- RRP investment could shift to Private Sector repo to provide leverage for duration buyers including Coupon Treasuries and MBS

Now that the RRP appears headed toward zero, that eliminates the MMFs as natural buyers of Bill issuance as they are already fully invested and eliminates the MMFs as natural providers of private sector leverage which would make it harder for leveraged Coupon buyers to buy bonds.

Once that RRP investment is gone, MMFs will invest in either Private Sector repo or Bills depending on which offers a better return. Any supply demand equilibrium shock in one market will impact the other. That means if there is a high demand for Private Sector repo financing, that shock will cause Bills to fall in demand and rise in yields and vice versa.

Private Sector repo stability is important as it provides confidence to leveraged risk players to hold assets. These investors need consistent pricing and availability of repo. Shocks in financing availability and/or costs will be magnified in risky asset prices. It could be a real mess. Perhaps this is what the FOMC is afraid of. However, it makes no sense to us to panic, for various reasons, but primarily due to the existence of the standing repos facility (SRF). Currently unused, the SRF provides stable financing for Treasury Bond buyers in the event the private sector has limits to its capacity.

We also recognize that the Fed is already providing $140BN in secured financing via the BTFP program and that program, while scheduled to end in March, is now growing due to a design flaw that enables healthy banks to arb the financing spreads.

Besides the RRP heading toward zero and the BTFP end data in sight, it is possible that other things are causing the Fed to reconsider the pace of QT. These may include:

- A change in the Fed's Bank Reserves target.
- An expectation that economic conditions require less restrictive policy.
- A specific exposure of the financial sector that requires financing that the Fed would prefer to clear the runway for that financing. BTFP unwind for instance could be such an exposure.

While all of those things are possible, we expect weakening economic conditions would first be addressed with more sooner and larger cuts in Fed funds rates.

In the next three sections we will deal with the RRP path and the decision on how to manage the BTFP. Then we will discuss the policy consequences of providing liquidity with the SFR post-zero RRP.

When will the RRP reach zero?

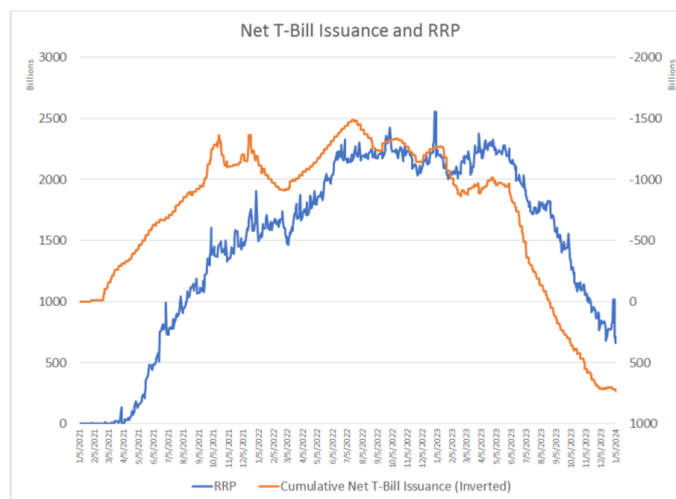
As mentioned above, the RRP is simply a place for MMFs to place cash overnight, akin to a wholesale bank deposit, without bank credit risk and yet with SOFR interest rates. The reason why the RRP even exists is the regulatory change made by the Fed to remove the exemption for Bank Reserves when calculating bank Supplementary Leverage Ratios. RRP also gives the Fed additional control over the

low end of the Fed fund's rate given the size of the cash balances looking for a home. However, the RRP has always moved based on market forces.
Before we turn to market forces, it important to note that each piece of the Fed's balance sheet affects the others. The one consistent driver of all Fed balance sheet items since April of 2022 has been QT. The current reduction in the SOMA asset places pressure on the liabilities of the Fed to fall at a pace of roughly $80BN per month. Exactly $60BN of UST and a variable amount of MBS runoff per month. That pressure doesn't prevent a particular liability to go up but in aggregate it is a pressure for all liabilities to go down. As seen during the "Banking Crisis", other assets can rise like the BTFP or the Discount Window. As those assets rise, so do aggregate liabilities. Absent the steady pressure of QT Runoff and the reactive moves to prevent financial stress, the other factors that impact the Fed balance sheet are market forces.

The RRP is one of the large categories of investment in which MMFs participate. The other two investments are Bills and other government backed short-term obligations, and Private Sector repo.

Private Sector repo is the most similar to the RRP investment as both are investing cash overnight (or for a few days), receiving government obligations as collateral, and getting paid SOFR interest. When market forces provide better returns for Private Sector repo than RRP, money shifts to that investment.

Bills are longer in maturity than RRP. Bills require the MMF portfolio manager to assess the path of short-term interest rates and determine if extending the maturity of its investments makes sense relative to RRP. Rate paths priced into markets provide the metric to use. If Bills offer a greater return than is priced into markets portfolio, managers shift from RRP to Bills. That's the various market forces in theory. In practice the dominant market force has simply been the number of Bills issued. When a lot of Bills come to market, MMFs reduce RRP and buy Bills. In fact, for the last year, one could predict the amount of RRP reduction by multiplying the new Bills issuance by 70%. Essentially, the RRP buys 70% of new money. In periods of time in which Bills were scarce, the MMFs shifted back to RRP at the same pace.



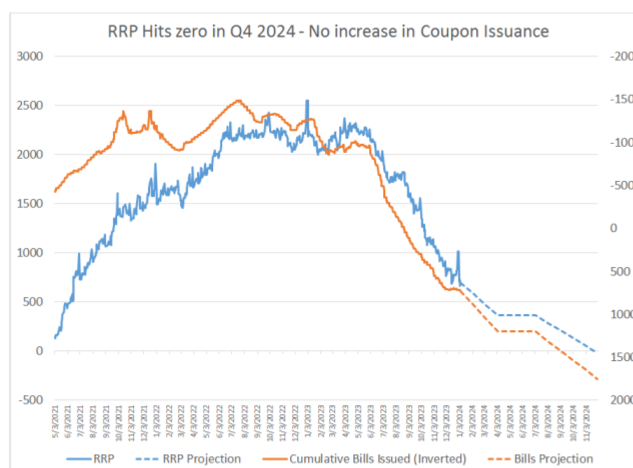
As we can see, the RRP may wiggle with shifts in the pricing of Private Sector repo but is driven almost entirely by the amount of new money Bills financing issued by Treasury. The path of Bills issuance is driven by two things.

- The financing needs of Treasury to fund the budget deficit and to pay back the Fed for QT runoff. (Last year it was also highly impacted by the Debt Ceiling and then the TGA rebuild, but neither of those are impactful this year).
- The composition of the issuance.

Since the Debt Ceiling was resolved, Treasury has issued roughly $1.3TN of Bills and intends to issue $467BN of Bills this quarter, some of which has already occurred. Not surprisingly about 70% of the issuance has been taken up by MMFs by moving from RRP. The balance of the issuance is funded by some combination of new money into MMFs from bank deposits (created by the deficit spending) and from bank deposits themselves.

Projecting the RRP in 2024

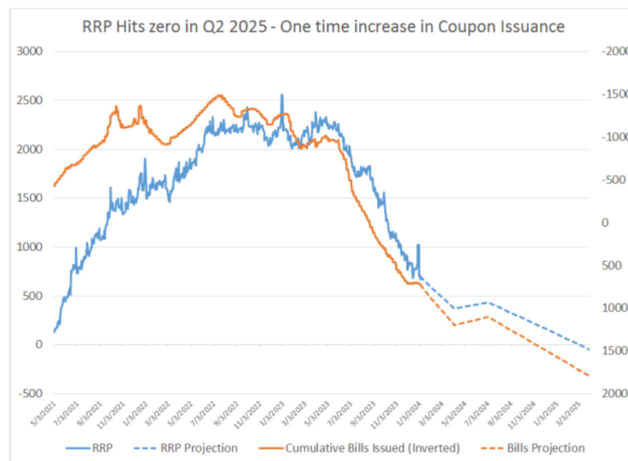
The path of the RRP is going to depend on overall financing needs and Treasury issuance composition. Assuming normal seasonal budgetary financing needs AND assuming Treasury is unwilling to issue more Coupon bonds despite the significant rally since they blinked in the last QRA, RRP runs to zero in 4Q24:



Our assumptions for the above for 2024:

Financing Needs - No Coupon Increase			
	Need	Bills	Coupons
Q1	816	468	348
Q2 Projected	348	0	348
Q3 Projected	678	330	348
Q4 Projected	678	330	348
QT Need	720		
Budget Need	1800		
Total Need	2520		

As we have repeatedly stated, Janet Yellen holds the Fed hostage with regard to its balance sheet. Spending the TGA during the Debt Ceiling offset tightening, financing in summer 2023 with Bills supported assets, then the increase in Coupons on 7/31 finally got the inflation fight unmuted and unleashed QT. But that only lasted until Halloween when Coupon issuance was kept constant despite the huge proportion of Bills issuance that was needed. It was no surprise that with a TGA build and Bills financing, the market rallied and the RRP fell dramatically. At the next QRA, Janet holds QT itself hostage. By issuing Bills instead of Coupons, she is more likely to drain the RRP and in fact cause the Fed, out of an abundance of caution, to taper QT. Though from the prior projection, the RRP is less vulnerable to heading toward zero than markets fear and Janet can assure that QT is not tapered prematurely by just financing the balance of the year's needs with about 75% Coupons, a rate of Coupon issuance that would still generate above-guideline Bills issuance. If Janet does as she has stated and makes one more Coupon issuance increase at the next QRA, RRP lasts well into 2Q25 and the taper can begin as planned.



Our assumptions for the above:

Financing Needs - One Coupon Increase	Need	Bills	Coupons
Q1	816	468	348
Q2 Projected	348	-100	448
Q3 Projected	678	230	448
Q4 Projected	678	230	448
QT Need	720		
Budget Need	1800		
Total Need	2520		

The RRP falling to zero is dependent on the amount of Bills issued. The amount of Bills issued is dependent on the Budget and QT BUT most importantly the choice of Bills vs Coupons. Our next DSR will provide our expectations for this coming QRA and our assessment of the market impact for any decision Janet makes, but this one seems clear: With 10Y yields at 4%, Equities near all-time highs and the path of QT vulnerable to the choice what does Treasury have to lose?

BTFP Extension Deadline and Current Abuse.

There is one fly in the ointment that could create various stresses on banks, financing rates, and the Fed balance sheet and that is the approaching deadline for the Bank Term Funding Program. Two issues need to be addressed:

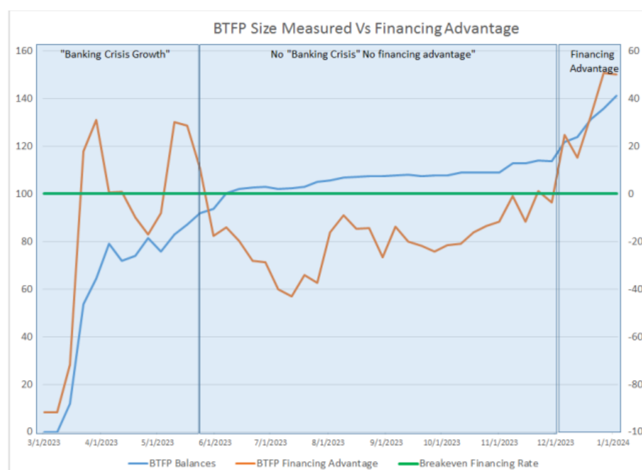
- Should existing troubled banks who are using the BTFP to finance underwater securities be allowed to extend?
- Tweaking the BTFP funding terms to prevent undesired arbitrage.

Should the BTFP be extended?

The existing terms of the BTFP are too generous given the funding rate. We don't expect the Fed will allow healthy banks to arbitrage them. However, those banks that entered the program during the banking crisis may not have viable alternatives to funding. We don't think that is likely. FHLB funding has been highly liquid and Private Sector repo is robust. Deposits are no longer fleeing banks in general or from specific banks. Nonetheless, we are not anywhere near close enough to the ground to assess the participating banks and their liquidity profiles. We don't know whether the Fed will extend this program or not. If they extend the BTFP, the pressure on the RRP and the broader market as a source of funding would be delayed. If the program is not extended, we expect all of the funding would immediately be provided by the FHLB and Private Sector repo and, in turn, that funding will draw $136BN from the RRP. Given its size that would once again push forward a taper. We will watch with interest whether the Fed will extend but consider the decision all part of the same decision on when and what the consequences are of the RRP hitting zero.

Why should the BTFP terms be tweaked if extended or even today?

The original terms of the programs were to provide Fed funding at a rate of 1 Year OIS +10 repayable at any time. Currently OIS + 10 is 50BP below the Overnight Bank Funding Rate. That allows any banks with collateral purchased before March 2023 that they are currently funding via Private Sector repo at market rates to instead enter the BTFP program and pay 50bp less to borrow funds from the Fed and receive OEBR on the proceeds. That has created an arbitrage. All of the recent growth has been from that arbitrage and has increased Bank Reserves on the other side of the Fed Balance Sheet.



SRF Solves Financing Stress But Not Demand for Duration.

Switching from RRP to SRF

As we described above, there are various reasons why the Fed Balance Sheet moves around, and all pieces are in motion. The apparent reason expressed by the Fed's recent communications for considering tapering QT is the RRP program running toward zero. We get it. At zero, the buffer of MMF cash that can be redeployed to absorb Bills, FHLB securities, and Private Sector repo is exhausted, removing a convenient safety net from the financial stability highwire act. However, it must be noted that prior to the financial crisis, markets absorbed assets and banks created money via secured and unsecured loans without the Fed's balance sheet. In addition, besides QT the budget deficit does create assets that need to be absorbed but simultaneously provides the savings to absorb those assets as spending by Treasury works its way into savings of the private sector.

Nonetheless, the financial system is much larger than it was just 20 years ago. We think it makes sense that the Fed thinks about the implications of RRP going to zero, but also recognize that another deep net has already been erected by the Fed to provide a cushion for QT Runoff and the redistribution of risk throughout the financial system that is necessary when the system operates at this scale. That net is the Standing Repo Facility. Even before the RRP reaches zero, it is likely that idiosyncratic borrowers will need funding from the Standing Repo Facility. They will borrow reserves from the Fed and provide collateral to the Fed with liquid assets. The Fed's assets will rise, as will their Bank Reserves liabilities. This process will not be a light switch where RRP hits zero and SRF starts growing. If it were to be such a light switch, we understand that something could break in transition, but that is not how the world operates. Money and collateral have frictions. The important thing is that the net is erected, and the Fed should have little fear that something will slip through. We applaud the Fed for considering all aspects of the transition and think that the lessons of the "banking crisis" are evident in their preparation. However, they needn't overreact. We will see what they do.

Will SRF be QE?

Of course, market participants who follow the Fed's balance sheet will want to understand if SRF is good for asset prices and causes banks to lever up. Our framework follows the money and assesses the impact on asset prices by how behavior changes. SRF will increase the asset side of the balance sheet and will be offset by an increase in Bank Reserves. "Wait," you say! Isn't the whole purpose of QT to reduce reserves and balance sheet size? If this goes in the opposite direction, it must be QE! That really depends. QE/QT force investors to either sell risky long duration assets in exchange for Bank Reserves (QE) or buy those long duration assets. SRF exchanges cash for reserves. While it enables the private sector to leverage, it doesn't remove duration from the market. In other words, QE pulls assets out of the market while SRF growth pushes liquidity into the private sector. Like the proverbial pushing on a string, SRF is necessary for investors to lever up in a world of inadequate liquidity but isn't sufficient. What is needed for asset prices to increase is animal spirits that can convert the liquidity into risk-taking. The risk taking comes first. We consider the SRF to provide secured lending to the market and that's really it. Secured lending can be provided by banks without the SRF, but

if banks are unwilling or in narrow cases unable to provide secured lending, SRF provides the backstop but doesn't buy assets. That is for the private sector to deal with and their willingness to lever up depends on more than their ability to lever up.

Synthesis and outlook

The Fed has rightly surfaced a pending issue and is considering the BTFP program and the RRP as potential speedbumps for their plans for the balance sheet. While they are right to surface the issues, the actual supply of Bills will have a major impact on the destination of the RRP. If Janet Yellen increase Coupon issuance at the next QRA, we think the Fed will be able to complete QT at around the time that the RRP runs dry. Even if Janet continues to shy away from Coupon issuance, the seasonal budget flows are not likely to cause RRP to go to zero before 4Q24. In addition, the SRF stands ready to provide financing when the RRP runs dry. Idiosyncratic stresses may occur as that transition occurs and so some caution makes sense. However, due to all of these factors, we see no reason to taper QT prematurely. We recognize that it's possible that the Fed will in fact taper and taper rapidly as early as April. If they do, we will wonder why. We see the Fed with a fairly sensible plan to maintain Real Fed Funds at a restrictive level by modestly cutting Fed Funds in 2024. That makes sense to us. Given the 4Q23 easing in literally all forms of financial conditions, however, a further step to ease by tapering QT which will cause further contraction in already negative term premiums would speak to a very different economic path than the path well documented in the Summary of Economic Projections.

Our positioning remains light ahead of the QRA and FOMC meeting and while we think Janet "should" increase Coupons and Jay "should" maintain QT at current pace and cut rates modestly, we will look at what they "do" when adding risk at month-end.

Current Portfolio and Performance

Assumed Portfolio size	$ 100,000,000		
LTD P/L	$ 62,508,797		
Total Return	62.51%	YTD Return in excess of cash	3.63%
Today's Date	1/6/2024	Portfolio Created	4/15/2019

Date	Position	Entry Price	Amount	Worst case loss	MTM	P/L	Open/Closed
11/7/2023	CLG4 85/88 Call Spread 1/17/2024	0.61	1639	$ 1,000,000	0.02	$ (967,213)	Open
12/13/2023	ESH3 Two's and SPOOS	4,708.00	-100		4734	$ (130,000)	Open
11/29/2023	NDX 2/16/2024 15500/15000 Put Spread	85.00	118	$ 1,000,000	50	$ (411,765)	Open
12/1/2023	NDX 2/16/2024 15500/15000 Put Spread	101.00	99	$ 1,000,000	50	$ (504,950)	Open
12/28/2023	NDX 2/16/2024 16500 Put	205.00	49	$ 1,000,000	405	$ 975,610	Open
1/5/2024	NDX 2/16/2024 15800 Put (hedge to 16500)	186.00	-49	$ (911,400)	159	$ 132,300	Open
11/29/2023	SPX 2/16/2024 4400/4300 Put Spread	12.20	820	$ 1,000,000	5	$ (590,164)	Open
12/1/2023	SPX 2/16/2024 4400/4300 Put Spread	12.40	806	$ 1,000,000	5	$ (596,774)	Open
12/22/2023	SPX 3/15/2024 4600 Put	54.40	184	$ 1,000,000	58	$ 66,176	Open
12/1/2023	ZBH4 2/23/24 114/110 Put Spread	0.90625	1103	$ 1,000,000	0.19	$ (793,103)	Open
12/8/2023	ZBH4 2/23/24 114/110 Put Spread	0.67	1493	$ 1,000,000	0.19	$ (720,149)	Open
1/5/2024	ZBH4 2/23/24 121/119 Put Spread	0.625	1600	$ 1,000,000	0.70	$ 125,000	Open
11/29/2023	ZNH4 2/23/24 108/106 Put Spread	0.375	2667	$ 1,000,000	0.11	$ (708,333)	Open
12/8/2023	ZNH4 2/23/24 108/106 Put Spread	0.375	2667	$ 1,000,000	0.11	$ (708,333)	Open
12/27/2023	ZNH4 2/23/24 112 Put	0.796875	1255	$ 1,000,000	1.28	$ 607,843	Open
12/27/2023	ZNH4 2/23/24 110 Put	0.625	-1255	$ (784,375)	0.48	$ 176,484	Open
11/28/2023	ZTH4 Two's and Spoo's	102.09375	-225		102.63	$ (239,063)	Open
12/27/2023	"Sell All Assets Basket" SPY	475.80	-15763		467.92	$ 124,212	Open
12/27/2023	"Sell All Assets Basket" TLT	99.57	-90389		96.29	$ 296,475	Open
12/27/2023	"Sell All Assets Basket" TIP	107.67	-69661	$ 1,000,000	106.77	$ 62,346	Open
12/27/2023	"Sell All Assets Basket" GLD	191.88	-15635		189.35	$ 39,556	Open
12/27/2023	"Sell All Assets Basket" GSG	20.66	-145208		20.33	$ 47,919	Open