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Federal Reserve Balance Sheet Unwind

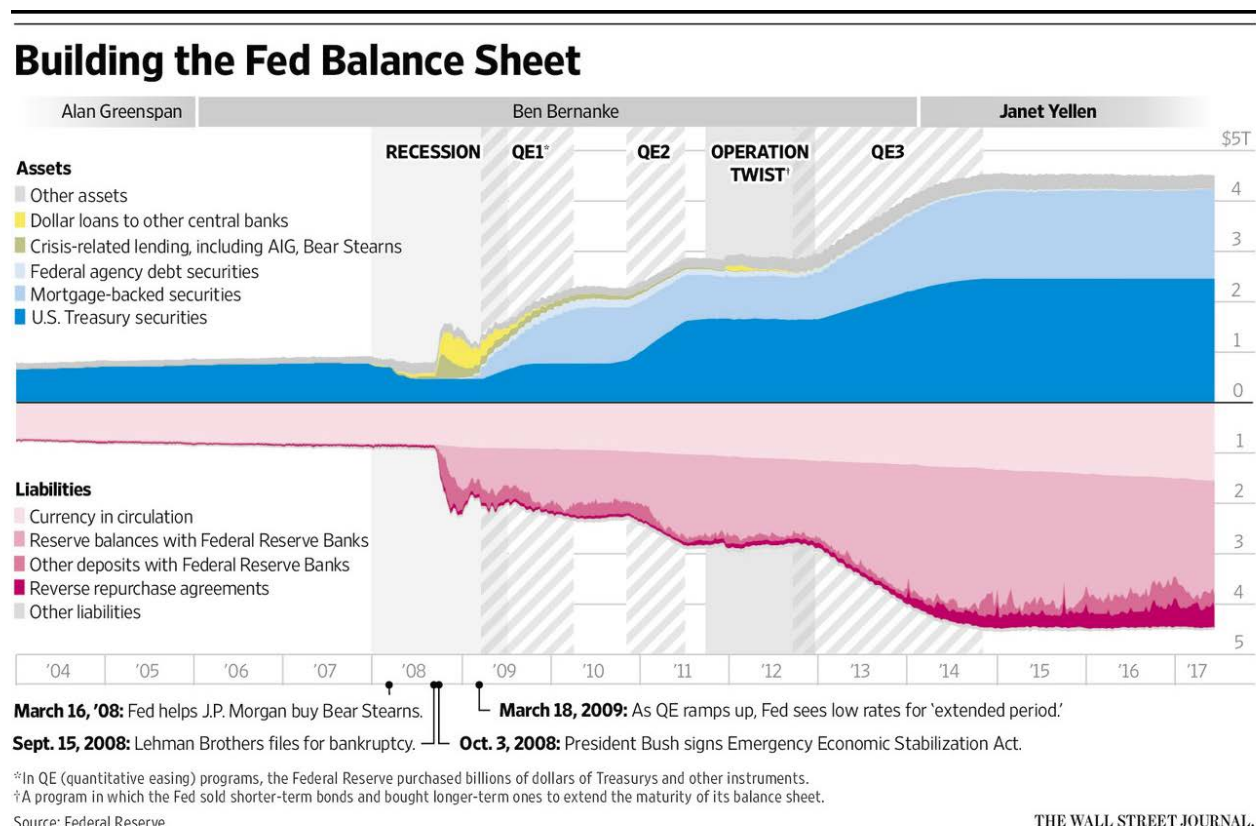
In recent weeks, the U.S. Federal Reserve has discussed plans to "unwind its balance sheet", the next step in its attempt to roll back quantitative easing efforts. In this piece, our goal is to provide a better understanding of what this means, explain the goals of the new action, and discuss possible market implications in the short to intermediate term.

How is the Fed's Balance sheet structured?

Before diving into the exact plans of a Fed unwind we will look at the breakdown of the Fed's balance sheet. Since the end of the most recent financial crisis, the Fed has increased its balance sheet size by just under $4 trillion.

The Fed purchased U.S. Treasuries and MBS in order to reduce interest rates and lending, ultimately hoping to boost the economy. These purchases increased the Fed's assets (Treasuries and MBS) while also increasing the Fed's liabilities (bank reserves).

Balance Sheet (2007 - 2017)

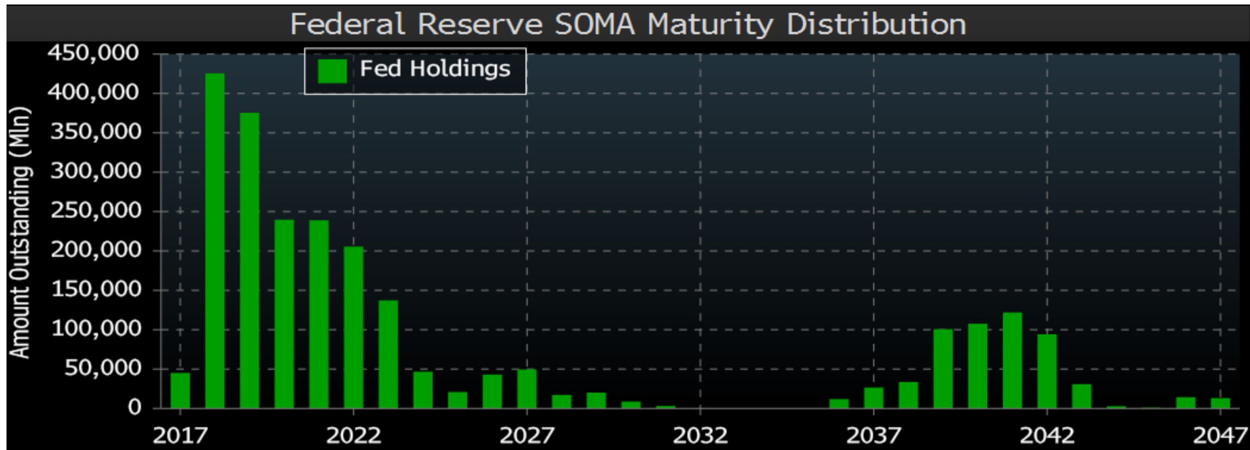


Since 2007, Fed bond purchasing programs have increased the size of the balance sheet from under $1 trillion to over $4.5 trillion.

What is the Fed's plan and what does that actually mean?

The Fed plans to reduce its balance sheet by eliminating its purchase of U.S. Treasuries and MBS. While the Fed has not initiated a bond buying program since 2014, they have been repurchasing Treasuries and MBS any time a security matures.

Bonds maturing by year ($million)



The plan is to not reinvest a certain amount of maturing assets, thus passively reducing the size of the balance sheet over time without actively selling securities.

For example, let's look at a Treasury bond that matured at the end of 2016. When the asset was first purchased in the secondary market, it was paid for by the Fed, increasing the Fed's assets (Treasury Security). The Fed buys the securities from private banks and electronically credits their excess reserves, creating a Fed liability (bank reserves). This increase in bank reserves provides member banks the opportunity to increase lending.

FEDERAL RESERVE	
Assets	**Liabilities**
Treasury securities +$1	Reserves held by banks +$1 Cash held by the Treasury

TREASURY	
Assets	**Liabilities**
Cash held at the Fed	Treasury securities

BANKING SECTOR	
Assets	**Liabilities**
Treasury securities −$1 Reserves at the Fed +$1	Deposits

PUBLIC	
Assets	**Liabilities**
Deposits Treasury securities	Wealth

Upon maturity, the Fed would receive cash for the principal value. During the period of quantitative easing, the Fed would turn around and immediately purchase more securities using this cash, maintaining the amount of Treasury Securities on its balance sheet.

Moving forward the plan is to gradually allow bonds to mature and not reinvest. In this case, the Fed asset (securities held) gets reduced along with a Fed liability (Treasury General Account). This reduces the size of the balance sheet, and decreases the amount of Treasury cash held at the Fed. Below is the schedule they currently have planned.

FEDERAL RESERVE	
Assets	**Liabilities**
Treasury securities −$1	Reserves held by banks Cash held by the Treasury −$1

TREASURY	
Assets	**Liabilities**
Cash held at the Fed −$1	Treasury securities −$1

BANKING SECTOR	
Assets	**Liabilities**
Treasury securities Reserves at the Fed	Deposits

PUBLIC	
Assets	**Liabilities**
Deposits Treasury securities	Wealth

Fed Unwind Schedule

	October - December 2017	December 2017 - September 2018
Treasuries	$6 billion per month run off	Increase $6 billion run off quarterly until getting to $30 billion
MBS	$4 billion per month run off	Increase $4 billion run off quarterly until getting to $20 billion
Total Result	$10 billion per month run off	Increase $10 billion run off quarterly until getting to $50 billion

By early 2019, the Fed plans to reduce reinvestments by $50 billion per month.

How is this different from previous monetary policy actions?

QE was the first time that the Federal Reserve so drastically increased its balance sheet in order to keep rates low and spur economic growth. As such, QE reduction will be the first time that the Fed has had to “wind down” its balance sheet.

The recent “tightening” by the Fed has been done by gradually increasing the federal funds rate. In a similar fashion, the reduction of the size of the Fed’s balance sheet reduces bank reserves, thus slowly increasing the cost of borrowing and reducing investment within the economy.

What are the expected outcomes and how will this affect markets?

The specific outcome of the Fed unwind is unknown as this is the first time we have experienced this type of monetary policy. However, the goal is for the Fed to “appreciably” reduce the size of its balance sheet while keeping it above where it was in 2007.

Increasing rates at the same time as reducing the Fed’s balance sheet adds a complex element to the monetary tightening process. Fed officials are more familiar with the market reaction to a change in interest rates, and they want to avoid a sharp spike in Treasury yields. Remember

that this market reaction occurred during the 2013 "Taper Tantrum" following the Fed's announced plan to reduce the overall money supply.

To this point, the prospect of the Fed reducing liquidity in financial markets has not hurt stocks, government paper or corporate credits. This is partially due to the Fed's telegraphing of its intentions, including the timing and general magnitude for quantitative tightening.

In theory, quantitative tightening should have the opposite effect of quantitative easing. In this scenario, we could see a change in the current "risk on" behavior by investors. This has the potential to increase volatility in different areas of the market.

However, the Fed remains extremely transparent and has allowed its policies to get priced into the market ahead of specific action. This process has held through the past three rate increases and will likely continue moving forward. An unexpected pullback in fixed income markets would likely only occur following a policy surprise from the Fed.

For these reasons, the Fed will likely be extremely cautious and will make sure that the wind down of its balance sheet is gradual. It is likely that there will be a slight give and take between the two levers of unwinding, rate increases and balance sheet compression.

What could be some additional implications caused by the Fed actions?

This could increase bank competition for U.S. deposits. Deposit levels have risen by nearly two-thirds since 2009, thanks in part to deposits created by excess reserves. The rolling off of maturing assets should create increased competition and impact rates paid on deposits. While most of the competition will be for institutional investors, over time this may trickle down to the individual consumer.

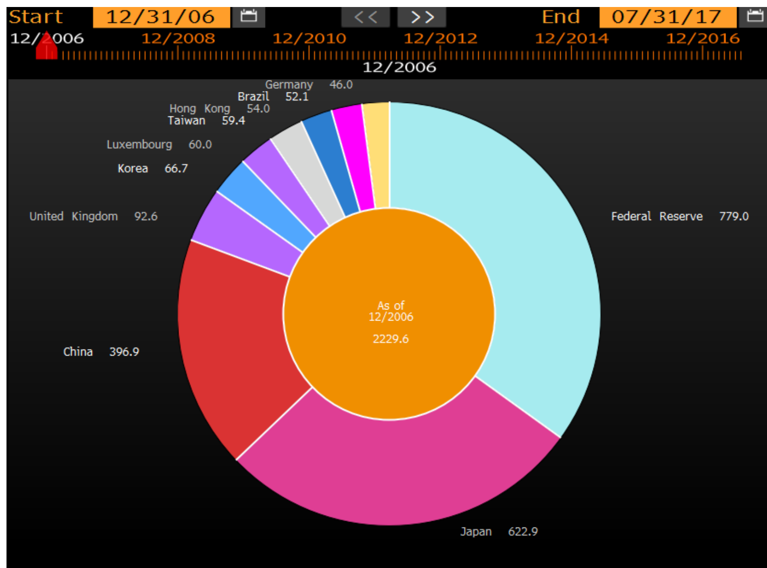
Regardless of outcome, the Fed's tightening actions will set a precedent for the rest of the world. The U.S. was one of many developed nations that utilized quantitative easing as a way to spark economic growth. We are currently the only country in a position to begin winding down its policies, but the outcome of our actions will likely affect other quantitative tightening actions in the future.

Who are the major holders of U.S. debt?

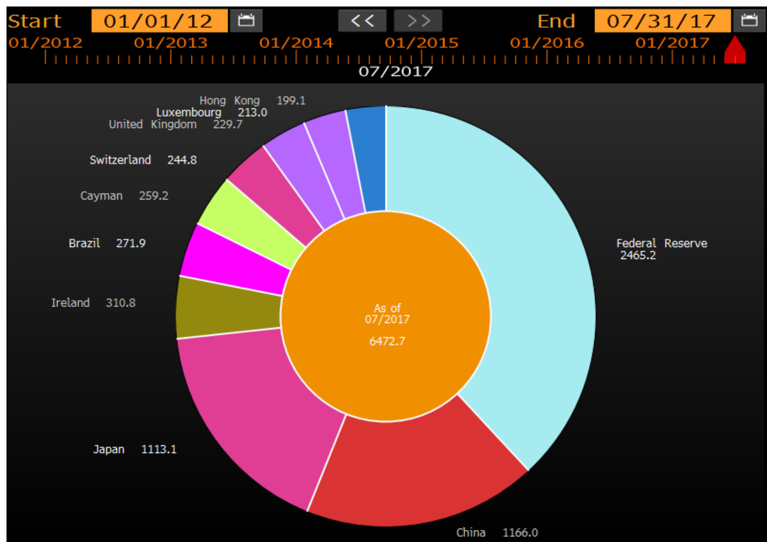
The Federal Reserve currently holds approximately 38% of all outstanding U.S. debt. Other major lenders include China and Japan.

It is interesting to note that, while the amount of debt has increased so drastically, the proportionate ownership by the major holders has not changed much over time. This is important because, when the Fed halts repurchasing of debt, demand will inherently decrease. However, this will be partially offset as long as other foreign nations continue to buy U.S. debt securities.

2007 Major Holders



2017 Major Holders

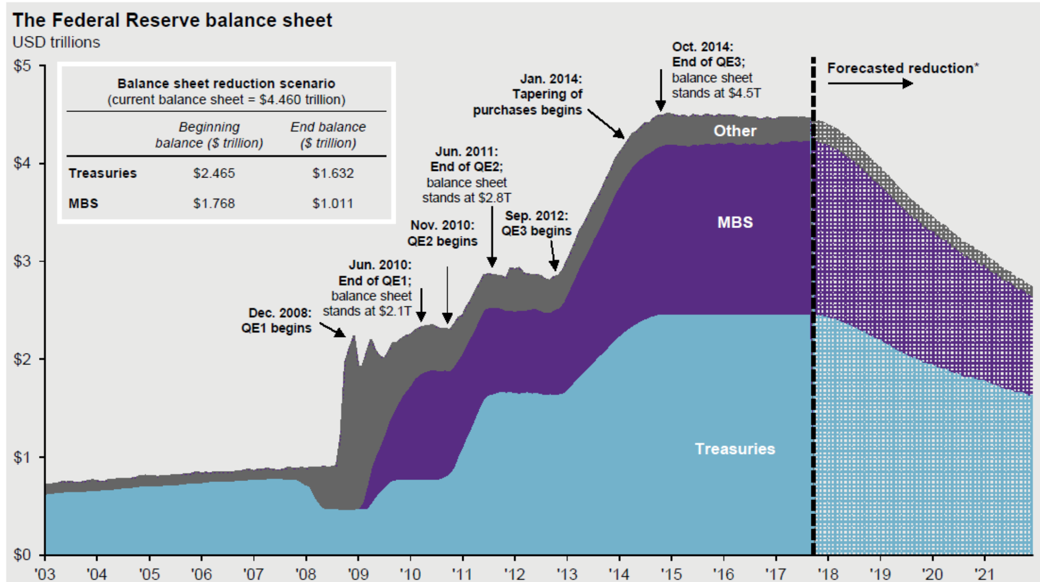


What is the right size for the Fed balance sheet?

There is not a consensus answer to this question, and the Fed has not made any indication of a potential "end point" for the size of the balance sheet. Again, there is so much unknown about this unwinding tactic so it is difficult to say when the gradual reductions should be halted.

Janet Yellen believes that the balance sheet should shrink because the stimulus it provides to the economy is no longer needed. While the reduction is a generally accepted consensus, exactly how far to go will likely become more apparent over time.

Below is a possible reduction outcome through 2021 assuming the current proposal.



Conclusion:

The "unwind" of the Fed's balance sheet is a practice that the whole world will monitor closely. As we have discussed, such drastic expansion of the central bank balance sheet to spur economic growth has never been utilized before. As such, we believe that the Fed will remain transparent so as not to scare markets with a surprise change in policy.

While there is no way to know exactly how this will play out, we will continue to monitor the Fed's meetings, notes, and actions moving forward. The broad unknown surrounding the "unwind" is yet another example of why we build diversified portfolios that limit over-exposure to securities in a specific region or asset class.

Articles to get a better understanding:

https://www.economist.com/blogs/freeexchange/2017/09/unwinding-qe

https://www.brookings.edu/blog/ben-bernanke/2017/01/26/shrinking-the-feds-balance-sheet/

http://libertystreeteconomics.newyorkfed.org/2017/07/how-the-fed-changes-the-size-of-its-balance-sheet.html

http://libertystreeteconomics.newyorkfed.org/2017/08/a-closer-look-at-the-feds-balance-sheet-accounting.html