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Quantitative Easing, Tapering, Liftoff, and Rolloff

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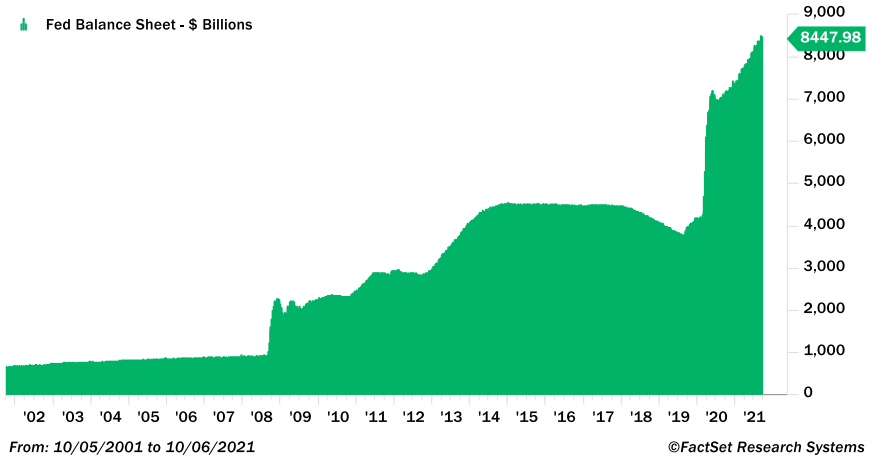
What does it all mean?

The primary monetary policy tool for central banks is setting the level of short-term interest rates. For the U.S. Federal Reserve (Fed), this means adjusting short-term interest rates to support its dual mandate of price stability (controlling inflation) and maximum sustainable employment. However, once short-term interest rates are set near-zero, central banks turn to unconventional policy tools, such as large-scale asset purchases known as Quantitative Easing (QE), to stimulate the economy further. Central banks have raised and lowered short-term interest rates for more than a century to achieve policy goals. The process is straightforward, and the market and economic impacts are relatively well known. Conversely, QE has only been utilized widely as a monetary policy since the global financial crisis (GFC) in 2008.

As the COVID-19 pandemic wreaked havoc on global markets, the Fed quickly cut short-term interest rates to zero and then turned to quantitative easing to stabilize the economy and markets. Since March 2020, the Fed has more than doubled its balance sheet (holdings of assets), purchasing trillions of Treasury, mortgage, municipal, and corporate bonds. It is still purchasing $120 billion worth of Treasuries and mortgage bonds monthly. With the COVID crisis abating and markets near record highs, the Fed plans to return to more normalized monetary policy in three broad steps. First, it will begin tapering (slowing) the current QE program (est. Dec 2021 to mid-2022). Next, it will "liftoff" or raise, short-term interest rates (est. late 2022 to early 2023). Finally, it will begin the process of balance sheet normalization (late 2020s or early 2030s).



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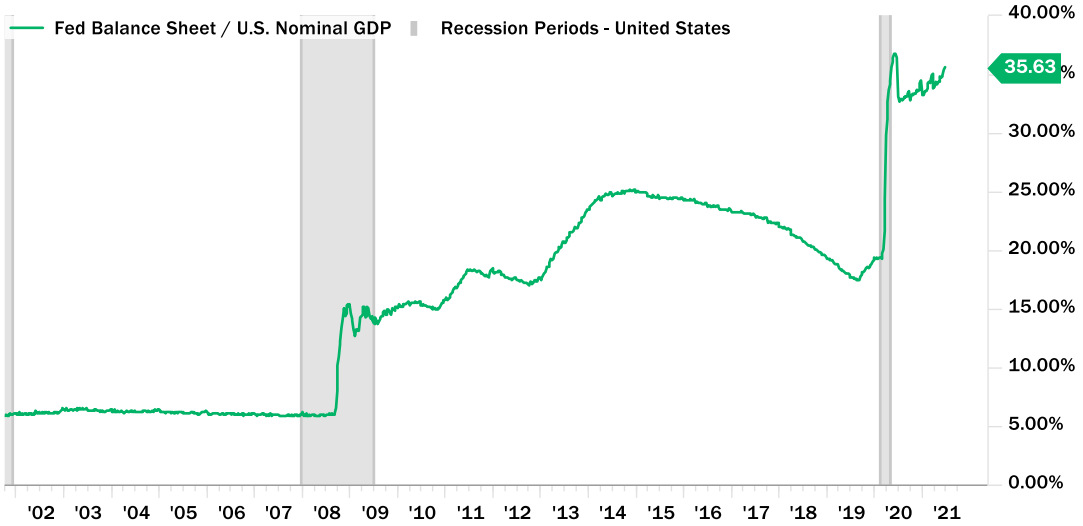
Why Quantitative Easing?

Central banks use Quantitative Easing to reduce longer-term interest rates by increasing the supply of money and the demand for bonds, both of which reduce interest rates. With QE, the Fed purchases assets with money it creates – the money is new and did not exist in a bank account or elsewhere before. Thus, QE is monetary easing and increases the supply of money in the economy, lowers longer-term interest rates, and stimulates economic activity. The policy is controversial due to its unconventional nature and concerns that it distorts capital markets. However, various analyses estimate that QE has successfully reduced long-term U.S. interest rates by about 1%-2%. In a January 2020 speech, Ben Bernanke, the Fed Chair during the GFC, estimated (based on Fed research) that each $500 billion of QE reduced the interest rate on 10-year U.S. Treasury bonds by 0.20%. However, he said the maximum effect is capped at 1.20%.[1] Additionally, an analysis by the Peterson Institute for International Economics, a think tank, estimates that QE purchases of approximately 10% of GDP have the effect of reducing 10-year interest rates by 0.50%. Thus the Fed's balance sheet of ~36% of GDP implies QE is reducing 10-year rates by as much as 1.80%.[2] The reduction of long-term rates supported the economy and markets as they recovered from the global financial crisis and currently supports the economy recovering from the COVID-19 crisis. However, eventually, the Fed needs to slow down and then unwind QE, lest excess money in the economy sparks inflation or unstainable asset prices – both concerns today.



From: 10/05/2001 to 10/06/2021 *©FactSet Research Systems*

Talking about Tapering

The Fed has been talking about tapering since early this year. All this talking is to prepare markets for the eventual tapering announcement and avoid a repeat of the market volatility, or "Taper Tantrum", that accompanied its prior tapering announcement in 2013. Tapering reduces the pace of the Fed's monthly asset purchases. It is not the sale of any securities it already holds. Market participants expect the Fed to announce the beginning of tapering at its November meeting with a targeted completion date of mid-2022. While tapering, the Fed will continue to purchase over $400 billion in new Treasury and mortgage bonds. Even after the Fed finishes tapering, it will maintain the size of its balance sheet by reinvesting maturing bonds and mortgage principal payments, thereby postponing any monetary tightening until it decides to start the balance sheet normalization process. By mid-2022, the Fed's balance sheet will likely exceed $9 trillion, up from $4.2 trillion in March 2020 and just $800 billion in 2008.

Will there be a Tantrum? The Taper Tantrum in 2013 was primarily the result of then-Fed Chair Bernanke's comment during congressional testimony in May that tapering was likely to begin later that year, catching market participants off guard. In the ensuing months, market volatility spiked, U.S. equity markets declined as much as 6%, foreign markets declined between 10% to 20%, and bonds declined about 2% as the interest rate on 10-year Treasury bonds increased from 1.90% to 3.00%. Given the early warning on this taper, markets have experienced much less volatility.

When will short-term interest rates increase?

Increasing short-term interest rates will be the next step in the Fed's return to a more normalized monetary policy. After it began tapering in 2013, the Fed waited two years to raise interest rates. This time, it is expected that the Fed will increase rates in December 2022, followed by three additional increases each in 2023 and 2024, bringing short-term rates to ~2% by year-end 2024. These expectations are informed by the Fed's "dot plot" or the estimates of each Fed member as to what they think interest rates will be in the coming years.

Increases in short-term rates are not necessarily negative for markets. Markets experienced positive returns during the three-year tightening period when the Fed was increasing rates from Dec 2015 until Dec 2018. All asset classes recorded positive returns, including bonds which experienced

high single-digit gains.

Rolloff and Balance Sheet Normalization

After tapering and liftoff, balance sheet normalization will be the Fed's next step to return to a more normalized monetary policy. If history is a guide, this process will begin a couple of years after the Fed starts raising short-term interest rates. Balance sheet normalization is a form of monetary tightening and will be achieved by letting maturing bonds "rolloff" the Fed's balance sheet without being reinvested. As bonds mature, the money the Fed receives as principal payments is removed from the economy, shrinking the money supply. In a controlled manner, the Fed will allow a targeted amount of bonds (e.g., $50 billion during the 2017-2019 tightening cycle) to mature each month without being reinvested.

The tapering, liftoff, and rolloff outlined here assumes the economy continues to expand and markets remain stable and functioning. Any number of eventualities could occur, changing this outlook. We are especially looking to the current debt ceiling crisis, the changing composition of the Fed members, and concerns about inflation as we refine our thoughts on this timeline.

Our attention is currently on Congress and the current U.S. debt ceiling debate. It appears Congress is poised to punt the debt ceiling debate until year-end. If Congress does not raise the debt ceiling, the U.S. will default on its debt. A default would almost certainly delay current tapering plans. In 2013, the U.S. came within one day of defaulting. Reviewing the Fed's 2013 meeting transcripts which became publicly available in 2018, provides insight into potential Fed response should a default occur. In an unannounced and unscheduled meeting on the eve of the 2013 potential default, the Fed discussed contingency plans which included expanding QE and purchasing defaulted Treasuries, among other measures to support the markets and economy. At the time, current Fed Chair and then-Fed governor Powell lamented the "loathsome" decisions the Fed would be forced to make. That said, we view a U.S. sovereign default as a low probability event and expect a last minute deal to raise the ceiling.

The composition of the Fed membership, and thus, its monetary policy views, are in flux. The policy views of Fed members can be categorized from dovishness (supporting more QE, lower rates for longer) to hawkishness (less QE, raise rates faster). Chair Powell's (moderately dovish) term ends in February 2022, and President Biden has yet to decide whether to reappoint him. Additionally, two Fed

Presidents (Rosengren and Kaplan – both moderately hawkish) recently announced early retirements due to controversies regarding personal stock trading during the height of the pandemic. Bloomberg Economics, a financial data firm, estimates the Fed currently has a neutral to slightly hawkish policy stance. The addition of new dovish members could lead to a different monetary policy path than is currently anticipated by the markets.

The issue that could impact the pace of tapering and interest rate increases is inflation. Inflation is currently running above the Fed's long-term 2% target. However, Chair Powell believes that this bout of inflation is transitory and largely in response to COVID-19 economic and supply chain disruptions. If inflation proves to be less transitory than the Fed currently anticipates, we would expect the timeline of tapering and liftoff to be moved forward.

Where does this leave us?

Quantitative easing is here to stay. Relative to pre-GFC levels, the Fed's balance sheet will likely remain larger as a percent of GDP. The expanded balance sheet will support future rounds of QE and is also in response to post-GFC changes in banking regulations requiring banks to hold significantly higher reserves at the Fed. The Fed's balance sheet size will ebb and flow, just like short-term interest rates rise and fall, and QE will remain another policy tool used by the Fed to influence interest rates and stimulate the economy. While the full impact of the QE expansion and contraction cycle is not yet fully understood, a multi-asset class diversified portfolio helps prepare and adapt your investments for a wide range of market outcomes.

1 Ben Bernanke, "The New Tools of Monetary Policy" January 4, 2020 American Economic Association Presidential Address, https://www.brookings.edu/wp-content/uploads/2019/12/Bernanke_ASSA_lecture.pdf

2 Joseph Gagnon, Quantitative Easing: An Underappreciated Success, Policy Brief16-4 (Washington, DC: Peterson Institute for International Economics April 2016) https://www.piie.com/system/files/documents/pb16-4.pdf