SEPTEMBER 2020 CLIENT QUESTION: THE FEDERAL RESERVE

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The Fed has implemented an extraordinary amount of monetary stimulus to help the economy recover from the coronavirus. In our opinion, the Fed's actions are mostly responsible for the rebound in the stock market and for avoiding an economic crisis. Despite all the press coverage, the Fed's impact on the economy and financial markets is not well understood by many investors.

In our September Client Question of the Month we will provide an overview of the Fed and detail why monetary policy is so important to the economy, interest rates, and stock prices.

OVERVIEW

The Federal Reserve, or simply the Fed, is the central bank of the United States. After the Financial Panic of 1907 and several bank failures, Congress decided that the country needed a central bank to act as the lender of last resort. As a result, the Fed was created by the Federal Reserve Act of 1913 and was signed into law by President Woodrow Wilson. The goal was to provide the nation with a safe, flexible, and stable monetary and financial system. The Fed is an independent government agency but is ultimately accountable to the public and Congress. While the President or members of Congress sometimes openly criticize the Fed, politics are not supposed to influence their decisions.

The Fed performs five key function to promote the effective operation of the US economy:

Conduct monetary policy for the United States	**Help maintain the stability of the financial system**	**Supervise and regulate financial institutions**	**Foster payment and settlement system safety and efficiency**	**Promote consumer protection and community development**

KEY ENTITIES

The three key entities of the Federal Reserve are the Board of Governors, the Federal Reserve Banks, and the Federal Open Market Committee (FOMC).

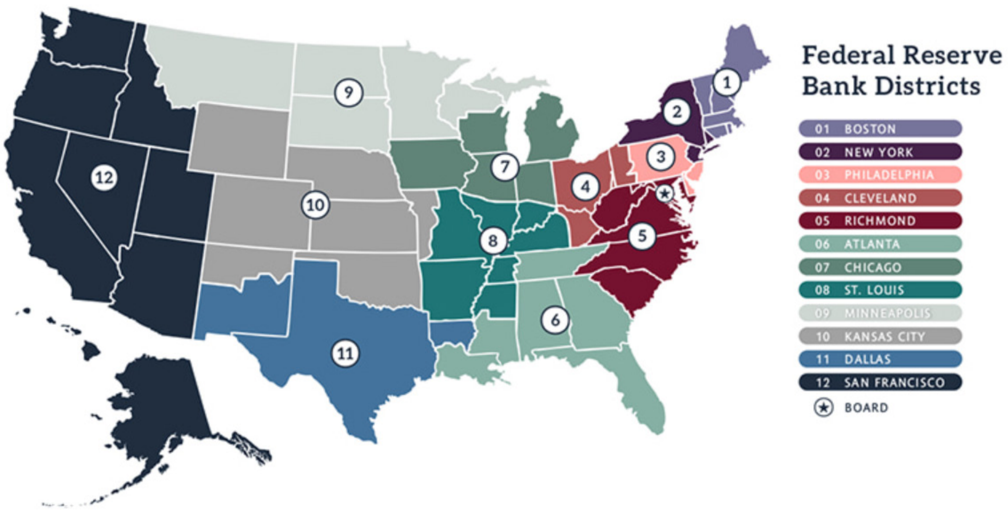
Federal Reserve Board of Governors

The board serves as the governing body for the Federal Reserve System. The Board of Governors are comprised of seven members who are each nominated by the President and confirmed by the Senate. Each member is appointed to a 14-year term, which are staggered so that one term expires on January 31st of every even number year. After serving a 14-year term, a board member cannot be reappointed.

The Fed Chair and Vice Chair are also appointed by the President and confirmed by the Senate. Both serve 4-year terms and may be reappointed. Fed Chair: Jerome Powell. Fed Vice Chair: Richard Clarida.

Federal Reserve Banks

The twelve Federal Reserve Banks act as the operating arm of the Federal Reserve System. Each of the twelve Reserve Banks operate within their own specific geographic region. The core functions of the Reserve Banks are to supervise financial institutions, offer lending services, and provide payment system functions to banks within their area.



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Federal Open Market Committee (FOMC)

The FOMC sets the national monetary policy on behalf of the Federal Reserve System. The FOMC is comprised of twelve voting members: the seven members of the Board of Governors, the President of the Federal Reserve Bank of New York, and four of the remaining eleven Reserve Bank presidents who serve one-year terms on a rotating basis. All twelve Federal Reserve Bank presidents attend FOMC meetings, but only voting members determine policy decisions.

The FOMC sets monetary policy through the use of traditional and nontraditional tools to achieve the three goals outlined by their statutory mandate from Congress.

The Federal Reserve's Statutory Mandate

1. Maximum Employment
2. Stable Prices
3. Moderate long-term interest rates

	Traditional Monetary Policy			Nontraditional Monetary Policy		
	Open Market Operations	**Reserve Requirements**	**Discount Window Lending**	**Forward Guidance**	**Large-Scale Asset Purchases**	**Lending Facilities**
Definition & Current Policy	Open market operations keep the federal funds rate at the target level set by the FOMC. The federal funds rate is the interest rate for overnight borrowing between banks. The Fed's most frequently used monetary policy tool consists of buying and selling US government securities on the open market, with the aim of aligning the federal funds rate with that publicly announced target set by the FOMC. In March 2020, the FOMC cut the federal funds rate by 1.50% total to a range of 0% to 0.25%.	All depository institutions are required to set aside a percentage of their deposits as reserves, to be held either as cash on hand or as account balances at a Reserve Bank. In January 2019, the FOMC announced its intention to implement monetary policy in an ample reserves regime. Reserve requirements do not play a significant role in this operating framework. On March 26, 2020 the FOMC reduced the required reserve ratio to 0%. This action eliminates reserve requirements for thousands of depository institutions and will help to support lending to households and businesses.	The interest rate a Federal Reserve Bank charges eligible financial institutions to borrow funds on a short term basis. The level of the discount rate is set above the federal funds rate target. As such, the discount window serves as a backup source of funding for depository institutions. The discount window can become the primary source of funds under unusual circumstances. In these instances, the Fed acts as the lender of last resort. On March 16, 2020 the FOMC lowered the primary credit rate by 1.50% to 0.25%.	Through their postmeeting statement, The Fed will communicate to the public how they intend to adjust monetary policy in the future. FOMC Statement The Committee expects to maintain this target range until it is confident that the economy has weathered recent events and is on track to achieve its maximum employment and price stability goals. Fed Chair Powell "We are not thinking about raising rates. We are not even thinking about thinking about raising rates."	The Fed purchases US Treasuries and government sponsored agency mortgage backed securities (MBS) in the private market through a competitive process. Also known as quantitative easing, the asset purchases are designed to support the economy by putting downward pressure on long-term interest rates, including mortgage rates. The Fed is currently purchasing about $80 billion in Treasuries and $40 billion Mortgage Backed Securities per month "to sustain smooth market functioning, thereby fostering effective transmission of monetary policy to broader financial conditions."	Under section 13(3) of the Federal Reserve Act, the Fed can create lending facilities with the approval of the US Treasury. The latest facilities are funded using equity from the CARES Act. The new credit and liquidity facilities fall into two categories: stabilizing short-term funding markets and providing more-direct support for credit across the economy. The Fed's goal is to provide stability to the financial system and support the flow of credit to households, businesses, and state and local governments.

THE FED'S BALANCE SHEET

The Fed's balance sheet is the consolidated amount of assets and liabilities for all twelve Federal Reserve Banks. Assets include holdings of Treasuries and mortgage backed securities (MBS), loans to other financial institutions, and the liquidity facilities. Liabilities include currency in circulation and bank reserves (deposits held at the Federal Reserve). Monetary policy has a direct impact on the size of the balance sheet. Generally, accommodative monetary policy will lead to a larger balance sheet and vice-versa.

Prior to the financial crisis, the Fed's balance sheet did not receive much attention from the financial community. However, once the Fed launched their Quantitative Easing programs to help the economy recover from the crisis, the balance sheet began to receive a lot more focus. Mainly due to their purchases of Treasuries and mortgage backed securities (MBS), the Fed's balance sheet grew from about $900 billion in early 2008 to over $4.5 by early 2015. The Fed began tapering the size of the balance sheet from 2015 through 2019. Due to the programs announced to help the economy during the coronavirus period, mainly open-ended large-scale asset purchases and new lending facilities, the Fed's balance sheet now stands at over $7 trillion. **Please see our Client Question of the Month on the federal debt.**

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CONTROLLING THE MONETARY BASE

The Fed has direct control over the monetary base, which is the sum of currency in circulation plus bank reserves. The Fed can digitally "print" money by crediting a bank's reserve account when it makes a loan to or buys a bond from a bank. For example, assume the Fed buys a Treasury bond from a bank. The Fed will take ownership of the bond and credit the bank's reserve account for the corresponding amount. The net result is that the Fed "printed" money by increasing bank reserves and consequently the monetary base.

AVERAGE INFLATION TARGETING

In August 2020, Chair Powell formally announced a change to the FOMC's Statement on Longer-Run Goals and Monetary Policy Strategy to reflect average inflation targeting. Historically, the Fed has typically increased interest rates when inflation started to rise toward their old 2% objective. Under the new policy, the FOMC now "seeks to achieve inflation that averages 2% over time." This subtle change is very important for monetary policy going forward. Assuming the Fed sticks to this policy, they are willing to let inflation rise above 2% for some time before raising interest rates. Essentially, this means that interest rates are likely to stay lower for a longer period of time.

HOW MONETARY POLICY IMPACTS THE ECONOMY, INTEREST RATES, AND STOCK PRICES

> *My job continues to be to predict the financial markets, particularly the major stock, bond, commodity, and foreign exchange markets around the world. To do this job well, I've learned that nothing is more important than to anticipate the actions of the Federal Reserve System's Federal Open Market Committee (FOMC), which sets the course of monetary policy in the United States.*
> - Ed Yardeni, Market Strategist

The FOMC sets monetary policy to establish the financial conditions they believe will best achieve their three mandated goals of maximum employment, stable prices, and moderate long-term interest rates. As conditions in the economy change, the FOMC will adjust monetary policy accordingly. The Fed's most commonly used monetary policy tool is adjusting the federal funds rate. Accommodative monetary policy occurs when the FOMC is trying to boost the economy, while restrictive monetary policy occurs when the Fed is trying to slow the economy (typically because inflation is running higher than preferred).

According to the Fed, monetary policy directly affects interest rates; it indirectly affects stock prices, wealth, and currency exchange rates. Through these channels, monetary policy influences spending, investment, production, employment, and inflation in the United States. Effective monetary policy complements fiscal policy to support economic growth.

INTEREST RATES

The FOMC generally controls short term interest rates by setting the federal funds rate. As the federal funds rate increases or decreases, US Treasury bills, commercial paper, and other short-term bonds typically follow. The market controls long-term interest rates as investor demand will vary based on future expectations of inflation and economic growth. However, FOMC policy is still critically important for long-term interest rates. Investor demand for long-term bonds will vary depending on how they anticipate the FOMC will change the federal funds rate to boost or slow growth and inflation.

STOCK PRICES

> *The most direct and immediate effects of monetary policy actions, such as changes in the federal funds rate, are on the financial markets.*
> - Ben Bernanke, Former Fed Chair (2006 – 2014)

Monetary policy has a significant impact on equity prices. Accommodative monetary policy generally leads to lower interest rates and higher stock prices while restrictive monetary policy has the opposite effect.

Accommodative monetary increases stock prices for the following reasons (note that each of these factors are not mutually exclusive; they can work simultaneously):

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Lower discount rate

The stock market is a forward-looking discounting mechanism. When you buy a share of stock, you are purchasing an ownership stake in the underlying company. Your ownership stake represents a claim on the firm's cash flows, earnings (profits), and dividends. Stock prices represent the present value of expected future earnings. The discount rate is the interest rate used to determine the present value of future cash flows and will be heavily influenced by Fed policy. Consider the difference in present value based on the same cash flows but different discount rates:

Present Value	Discount Rate	Cash Flow 1	Cash Flow 2	Cash Flow 3	Cash Flow 4	Cash Flow 5
$471	2.00%	$100	$100	$100	$100	$100
$421	6.00%	$100	$100	$100	$100	$100

Note that present value is higher with a lower discount rate (these two variables move inversely to each other). Present value is essentially how much someone would need to invest today, at a certain discount rate, to receive specific future cash flows (i.e. someone would need to invest $471 today at a 2.00% discount rate to receive $100 in each of the next 5 years). To determine the current value of a stock price, an investor can calculate the present value based on an assumed discount rate and estimated cash flows. Thus, when the discount rate decreases the present value of future cash flows become more valuable today. This occurs because when the discount rate is low, an investor would need to invest a higher amount now to receive the future cash flows.

A Fed shift to accommodative monetary policy will lower the discount rate, which increases the present value of future cash flows and consequently stock prices.

Other Asset Classes Become Less Attractive

The investment phrase, there is no alternative (TINA) describes an environment where low interest rates effectively force investors into riskier assets. When interest rates are low, individuals or institutional investors who require a return above a certain threshold are forced to buy riskier assets to achieve those targets. In today's environment where savings accounts might yield at most 1% and the 10-Year Treasury is at 0.70%, where does an investor go to find yield? The simple answer is that a lot of investors will buy equities due to the lack of return potential with other alternatives.

With accommodative monetary policy and ultra-low interest rates, the Fed has pushed investors further out on the risk curve to achieve returns.

Higher Expectations of Future Cash Flows

As mentioned above, stock prices represent the present value of expected future earnings. Under accommodative monetary policy, investors forecast that economic growth will increase. When economic growth is strong, corporations should be able to generate higher cash flows and earnings. Conversely, when economic growth declines, corporations struggle to increase cash flows and earnings. This is why the stock market declines during recessions and tends to rise during expansions. Additionally, accommodative monetary policy leads to a decrease in borrowing costs, so corporations take the opportunity to add leverage or refinance existing debt. Finally, cash flows can also increase through investment in new projects and/or lower interest costs.

Accommodative monetary policy increases corporate cash flows, which raises stock prices.

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Accommodative monetary policy increases stock prices due to the following reasons:
Lowers the discount rate, which increases the present value of future cash flows.
Forces investors into riskier asset classes, including equities, to achieve returns.
Increases corporate cash flows through stronger economic activity and/or lower borrowing costs.

Restrictive monetary policy decreases stock prices due to the following reasons:
Raises the discount rate, which decreases the present value of future cash flows.
Allows investors to generate higher yields in low risk asset classes (i.e. Treasuries).
Decreases corporate cash flows through weaker economic activity and/or higher borrowing costs.

CONCLUSION

"Don't fight the Fed."
- Martin Zweig, Market Strategist

The Fed and their monetary policy decisions have a significant impact on the economy and financial markets. Since the Financial Crisis, the Fed has grown even more impactful as they have become more willing to use non-traditional monetary policy tools to boost the economy. During the coronavirus period, the Fed launched the most accommodative monetary policy environment in United States history. In the past several months the Fed has lowered interest rates to effectively zero, restarted their quantitative easing program by purchasing Treasuries and Mortgage Backed Securities, and launched several new lending facilities. As a result of the Fed's policies their balance sheet increased to over $7 trillion. The Fed also switched to an average inflation targeting framework and has used forward guidance to signal that interest rates will stay low for a long time. Regarding future interest rate increases, Chairman Powell reiterated, "we are not thinking about raising rates. We are not even thinking about thinking about raising rates." The Fed's policies and guidance on future rate increases have helped aid the economy, lower interest rates, calm credit markets, and boost equity prices during the current period.

At Winthrop Wealth, monetary policy is a vital component to our market outlook and portfolio positioning. We continue to believe that analyzing the impact of current Fed policy and anticipating the potential implications of future policy are critical to successful portfolio management.

We apply a total net worth approach to both comprehensive financial planning and investment management. Financial planning drives the investment strategy and provides a road map to each client's unique goals and objectives. The comprehensive financial plan defines cash flow needs, is stress tested for various market environments, optimizes account structures, considers tax minimization strategies, and continuously evaluates financial risks as circumstances and/or goals change. The investment management process is designed to provide well-diversified portfolios constructed with a methodology based on prudent risk management, asset allocation, and security selection.

DISCLOSURES:

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The economic forecasts set forth in this material may not develop as predicted and there can be no guarantee that strategies promoted will be successful.

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