The Federal Reserve

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I know that there are going to be people hearing this presentation who know far more about this topic than I, and for me, this topic has indeed been a quest. Economics is not my strong suit, so forgive me if I have overly simplified any of what you hear today. You will not hear of the many sidebars and complexities of US currency and world economics today. I will just try to help the rest of us understand a bit more about this mysterious "Fed" and its machinations, and what it means to all of us in our financial lives.

Both before and after the Revolutionary War, States issued their own currencies to facilitate trade within their borders, much as European countries did prior to establishment of the Euro as a common currency. This, along with British shillings and other foreign coinage constituted a disjointed means of trading among the colonies. The need for a common currency, easily transferrable across state lines, to facilitate easy trade among the now-independent states became quickly apparent to the Continental Congress.

In 1778, the Congress authorized Robert Morris, chair of the Monetary and Finance Committee, to establish monetary standards and a system for financial transactions. Morris had substantially financed the Revolutionary War with his own fortune, so certainly knew his way around finance. Working with Thomas Jefferson and Secretary of the Treasury, Alexander Hamilton, and 14 years later, the Coinage Act of 1792 was passed, essentially establishing the silver dollar as the standard unit of currency for the United States, with actual coins minted starting in 1794.

In late 1781, Congress federally chartered the Bank of North America, the first real bank in the new nation. Its private shareholders named that same Philadelphia financier, Robert Morris, to be the Bank's first superintendent. It became modern day Wells Fargo Bank.

In 1784, state charters were issued to the Bank of New York, founded by Alexander Hamilton, now known as BNY Mellon, and the Bank of Massachusetts, which, through mergers is now Bank of America.

Hamilton, in 1791, urged the Congress to charter the Bank of the United States as a central bank for an initial 20 year term, to lend money to the government, make loans to businesses, and to issue bank notes as a stable money supply. This central bank could lend money to other banks when their depositor demands or failed loans exceeded their available cash resources.

A few years later, in 1799, Aaron Burr, rival to Hamilton and his Bank of New York, co-founded the Bank of Manhattan Company in 1799, now known as J.P. Morgan Chase. Many more banks and savings institutions emerged in the following early decades of the 19th century. However, these banks were limited by law to single locations. With their capital and borrowing resources geographically limited, these banks were susceptible to the economic swings of their locales. In a year when farmers' crops failed and agricultural loans couldn't be repaid, these banks, with all their resources tied to the local

economy, had high failure rates. They also issued their own paper currency bank notes. Paper bank notes, backed by gold or silver held in the bank vault, were more convenient to use in trade than actual gold and silver coins, especially for larger amounts. Now, the bank was only required to keep a fraction of its deposits in precious metals. The rest of the deposits were lent out to borrowers. Therefore, bank notes were only as good as the bank's business practices. If the bank went under because of a lot of loan defaults, the bank notes became worthless. No wonder people hoarded gold and turned their silver into useful household items like flatware, serving dishes and candlesticks. They could always be melted down and held their metal content value.

The charter for the first Bank of the United States terminated in 1811, due to foreign ownership, constitutional questions regarding it being a government issue, and a general suspicion of banking. With no central bank, all banking was dispersed among the scattered state banks, still tied to their own geography. These banks continued to struggle.

In 1817, Congress authorized the Second Bank of the United States, which helped support struggling smaller state banks and to reduce their risk of failure. However, their over-issuance of currency to help these banks triggered inflation, leading to the first peacetime financial panic of 1819. It had almost monopolistic power in the markets that moved financial resources around the country and internationally. This was a time of strong belief in states' rights and against giving powers to a central government.

In response, President Andrew Jackson vowed to abolish the Second Bank. He pulled US government deposits from it, distributing and decentralizing them to state banks. This left no central bank for the nation. The panic of 1837 ensued, resulting in the failure of 40% of state banks, and the separate currencies they printed.

Part of what created instability in the economy in the 19th century was the boom and bust cycles related to national expansion. Regionally, if the crops failed, the local economy failed. When the mines are mined out, or the timber is all cut, the local economy fails. But, on the flip side, with booms come inflation. With waves of immigrants coming, providing horsepower for manufacturing and other producers, came demand for loans to grow businesses. With a limited money supply, there is only so much available for purchases and loans before a bidding war emerges, where prices go up (including interest rates for loans) to the point where demand begins to collapse because things are no longer affordable. Collapsed demand for goods means the manufacturers lose the income they need to pay the loan they took to expand production. Factories close, jobs are lost, the economy destabilizes.

Financing of the Civil War necessitated Congress authorizing $150 million in Federal "greenbacks", followed by 1863 and 1864 laws establishing a single Federal currency for use nationwide, in a move toward standardizing a common currency for the rapidly expanding nation. These laws also created a system of chartered National Banks, required to hold higher reserves, with the ability to issue the standardized greenback, to be accepted at all other National and member banks. This began to wean the nation off of the less reliable locally issued currencies of the state banks. The National Banks could also receive deposits and make loans to member banks, to help even out demand from area to area within the National Bank's region. This was a significant step toward smoothing out the peaks and valleys of the booms and busts of the 19th century's economy.

With greater required deposits held by the chartered National Banks, more currency could be issued, backed by these deposits. One needs currency to make economic transactions, whether it is actual precious metal, or paper currency backed by those metals. When the economy grows, and more financial transactions take place, one needs more currency to make the transactions.

In any economy, a unit of currency is invaluable as an aid in making business transactions. The old barter system has its limits (do you have change for a chicken?). If that unit of currency is something of intrinsic value, like gold or silver, then the coin's face value is equal to the marketplace value of gold or silver, per ounce, for example. The fluctuation of the value of the metal can cause the value of the coin to fluctuate, unless government imposes a value per ounce on the precious metal. This stabilizes the value of the coin. As mentioned earlier, from 1792 to 1834 the US used the silver dollar as its base currency, and bank notes were issued as a convenient way to make transactions, based on the promise that they could be redeemed for actual silver held in the bank's vaults. The amount of silver available in the economy limited the amount of currency that could be issued by any bank, or the Treasury.

In 1834, the system moved to gold as the standard for currencies as this more precious metal was capable of supporting larger sums of paper currency. It was the job of banks and the Treasury to physically create more money, still with precious metals backing its value. The gold standard remained in place until 1934, and between then and 1971, a quasi-gold standard was used.

In 1971, backing paper money with precious metals was entirely abandoned, and the current system of dollars being backed by the full faith and credit of the US government was created. In part, this new standard was created to reduce inflation, the result of an expanding economy, and to keep foreign holders of dollar currencies from raiding and undermining the gold reserves of the US Treasury. This series of actions is important to know, as it allowed the now, enormous, stable, and resilient US economy, and the Federal government to use its credibility alone as the basis for creating value in its currency. A supply of precious metals no longer limited how many dollar bill promises the Treasury could now issue, and was no longer a limitation on economic growth. However, overissuance of currency and having too much money in the system has the disadvantage of devaluing the remaining dollars, with repercussions for savers and investors. We call that deflation, and it can be as damaging as inflation to the economy.

So, from that sidebar, back to the origins of the Federal Reserve.

The system of independent regional National banks was severely tested in 1907, when the New York Stock Exchange fell almost 50% from the previous year. In October of that year, banks had lent money to an attempt to corner the market on stock with the United Copper Company. Copper was coming into huge demand with Edison's inventions to electrify the world. When that coup attempt failed, banks that had lent money to this effort found their customers demanding back their deposits, filtering down through much of the banking system. With more demands for account withdrawals than available cash on hand, banks were in a pickle, on the brink of collapse. It was J. P. Morgan who convinced fellow solvent bankers to shore up the banking industry, to prevent complete collapse. There's a parallel in there somewhere with George Bailey, hero of "It's a Wonderful Life" bailing out his family's Building and Loan with his own honeymoon money on the silver screen.

Anyway, this highlighted the limitations of the US Independent Treasury System. The following year, Senator Nelson Aldrich established and chaired a commission to investigate this and another crisis involving another large brokerage firm and to propose future solutions, leading to the creation of a new, central, national bank, in the form of the Federal Reserve System, in 1913.

So, after all this background, we can understand that the Federal Reserve ***System*** (Yes, System, not just a single entity) was a response to the wake-up call of the 1907 panic, that the regional system of National Banks was no longer sufficiently resilient to absorb the blows of regional bank runs and failures. No single bank could ever be big enough on its own to step in again like Morgan did, and save the economy. It was time for an entity, too large to fail, to be created to stabilize the now-enormous economy of an industrializing nation.

The essential roles of the Federal Reserve System, as initially envisioned, were to restore function as a central bank, but with decentralized regional banks, to allow it to issue the nation's money and to foster economic stability. It was to do this by maximizing employment and minimizing inflation. This balancing act, by controlling the amount of money in circulation, is how the Fed was to smooth out the wild economic cycles experienced earlier.

The Federal Reserve System was created as (and still is) a network of those 12 regional Federal Reserve banks, overseen by a Board of Governors, in which National Banks and participating State Banks deposit reserves, and to receive loans when liquidity demands on member banks exceed available liquid resources of those member institutions. This allows member banks to avoid calling in loans and collapsing businesses when there are short-term high demands for cash and currency transactions. The risk of banks in a region failing is greatly reduced by the resiliency of healthy institutions throughout the rest of the system, and not just within that region. In other words, risk of an overly strong demand for cash in one region can be buffered by other regions not experiencing the same demands, through one central system, led by the central bank, in the form of the Federal Reserve.

From the Federal Reserve's website, they describe their present day structure and duties as follows:

The primary functions of the Fed are to:

- Conduct the nation's monetary policy
- Promote the stability of the financial system
- Promote the safety and soundness of individual financial institutions
- Foster payment and settlement system safety and efficiency
- Promote consumer protection and community development

The Federal Reserve System is currently independently governed by a 7-member Board of Governors, each appointed to a 14 year term by the President of the United States, and confirmed by the Senate. These members also serve on the Federal Open Market Committee, the body within the Federal Reserve which sets national monetary policy. The Chair and Vice-Chair are also appointed by the President and confirmed by the Senate, but serve only 4 year terms. They are drawn from Board members. Once appointed, Board members and their officers cannot be removed during their appointed term. They can only be removed or reappointed at the end of their term. This structure is purposely set to bridge political swings in Federal government leadership.

The Board oversees the operations of the 12 Reserve Banks and shares with them the responsibility for supervising and regulating certain financial institutions and activities. The Board also provides general guidance, direction, and oversight when the Reserve Banks lend to depository institutions (what we generally call banks, thrifts and credit unions) and the federal government. The Board has broad oversight responsibility for the operations and activities of the Federal Reserve Banks. This authority includes oversight of the Reserve Banks' services to depository institutions, and to the U.S. Treasury, and of the Reserve Banks' examination and supervision of various financial institutions. As part of this oversight, the Board reviews and approves the budgets of each of the 12 Reserve Banks.

The Board also helps to ensure that the voices and concerns of consumers and communities are heard at the central bank by conducting consumer-focused supervision, research, and policy analysis, and, more generally, by promoting a fair and transparent consumer financial services market.

The Federal Open Market Committee, in its role of setting national monetary policy, receives research and guidance from the banking and other industries, researches and advises on regulatory standards and processes, watches out for low and moderate income populations' financial interests, and advises on international insurance capital standards. It is a significant force in establishing economic policy through the Fed's Board. That's the important part. The Federal Open Market Committee is essentially the research and development part of the Federal Reserve, and their investigations and research provide the valuable insights needed for Board members and the leadership to make highly informed decisions for the nation's economy.

In its essence, the Federal Reserve is there to buffer swings in economic cycles, to minimize inflation and support fair and transparent economic activity.

Depository institutions, those banks, thrifts, and credit unions, are the businesses that consumers most often encounter with savings and checking accounts. These institutions can maintain accounts with the Federal Reserve, keeping a certain minimum required percentage of their overall holdings as deposits with their region's Federal Reserve Bank. When an institution has more deposited with the Fed than their minimum required deposit, they may lend that surplus to another institution that may be short in meeting their required reserve deposit. They may also borrow money from the Federal Reserve to increase the funds they can make available to their own borrowers. In a way, the Federal Reserve serves as a wholesaler of capital, selling it to banks at an interest rate called the discount rate. That is the number you hear about in the news. It is not the rate of interest a consuming borrower is charged, nor a rate received by a consumer borrower. Think of the Fed as the wholesale producer/provider of money, and the depository institutions as the retailers of money, lending it to consuming borrowers. By accepting deposits from customers, other banks, or the Federal Reserve, as suppliers, retail banking institutions bump up those wholesale borrowing rates (or interest rates given to depositors) to a retail interest rate they can charge to their borrowers. The difference between these wholesale and retail rates covers an institution's overhead costs and creates the profit margin for the banks. Money is a commodity, just like any other product in the marketplace, bought at wholesale and sold at retail.

In order to participate in this arrangement, member banks must maintain good business practices and show their responsibility. Earlier in the 20th century, 15% of a bank's demand deposits, that is, money

that could be withdrawn at any time, was required to be deposited to the Federal Reserve. This allowed the remaining 85% of deposits to be available for lending.

In March, 2020, this requirement was dropped to 0% in order to jump start the economy due to the covid-19 pandemic. Combined with historically low interest rates, this allowed more capital to freely flow into the economy. The downside to this cash infusion into the economy has been a spike in the inflation rate starting in mid-2021. The Federal Reserve is currently trying to slow the rate of inflation by raising their wholesale interest rates, to make borrowing less attractive, and to retain more capital in savings institutions and their own coffers. The Fed strives to keep ebbs and flows of capital more stable than this, by aiming for an annual inflation rate of 2%. It historically has raised and lowered the wholesale interest rate in tiny increments, and over long periods of time, as their mission is to prevent big economic swings. The covid pandemic has rewritten the book, and we are now in a period of recovery from one of the biggest economic swings in history. As the Fed also aims to have full employment, considered to be 95-96% employed, it is also contending with higher employment rates, which is pushing up wages, as employers compete for workers. They are competing for workers, because their products are in high demand because of the low interest rates, high spending capacity, and high availability of money.

As I mentioned earlier, the Federal Reserve doesn't use precious metals as the backing for the US dollar any more. When the US government needs more money to pay its bills than it takes in, it issues Treasury bonds, essentially a form of IOU to the bearer, which the US government promises it will pay back, plus some interest, at a future date. These bonds are constantly being issued and maturing, sometimes increasing overall government debt and sometimes reducing it. The open market buys and trades these bonds, but the Federal Reserve also buys up these bonds, using funds deposited by member banks. In this way, the Federal Reserve generates revenue for its operations and the resoures to pay interest on funds deposited by member banks. This allows the Fed to leverage the capital it holds in its own reserve, well beyond what member banks have deposited. As Treasury bonds are considered very safe investments, our currency's value is really based on shared faith that the US government will never default in paying off its debt bonds when payments are due. It is upon this notion that your dollar bill will continue to provide a dollar in value as a unit of exchange in the marketplace. Should the US government default on paying its debts, and on time, the whole world's faith in the value of the dollar will drop, undermining not just the US, but other nations' currency systems, who have currencies indexed to the value of the dollar.

The Fed has weathered some pretty interesting economic cycles in the past century.

Having been formed just prior to WWI, the Fed oversaw the financial operations associated with financing the war, including the sale of Liberty Bonds.

Following the stock market crash of 1929, the Fed lowered interest rates to stimulate the depressed economy. But with worsened international business conditions, and, in 1931, England abandoning the gold standard, the Fed raised rates again to slow the flight of gold (needed to back the dollar currency) from the US.

The economic panic peaked in 1933, when Congress passed the Emergency Banking Act, declaring a bank holiday for 4 days, so banks could receive regulatory examination. Only solvent banks were allowed to reopen, but 4000 banks remained closed. The Fed was unable to head off the catastrophe it was established to prevent. The Glass-Steagall Act, in June, 1933, established the Federal Deposit Insurance Corporation (FDIC) which now protected depositor's interests, but allowed the Fed more ability to ensure that member banks had stronger assets to back their operations.

The boom cycle of World War II once again involved member reserve banks in selling bonds to finance the war effort. To ensure market stability and to avoid kicking off an inflationary cycle, the Fed pegged interest rates on Treasury bonds and pledged to buy these Treasury bonds for the duration of the war.

Interest rates continued to rise in the 1960s, responding to a need to finance the Vietnam war. Banks were paying the maximum 4% interest rate allowed for savings deposits, as rates were capped by the Fed in order to keep the economy humming. Deregulation in the 1970s and 1980s changed the nature of the Fed's role, now overseeing truth in lending and community reinvestment.

Paul Volcker, an economist with an extensive background in Federal Reserve banking and the US Treasury, was appointed by President Jimmy Carter in 1979, taking over during the double whammy of high inflation and slow growth, nicknamed "stagflation". Under Volcker, the Fed pushed interest rates to the highest in history, topping 20%. A recession quickly resulted from this shock therapy, greatly increasing unemployment and calming inflation. Many economists say this action set the stage for the economic boom of the 1980s, under President Ronald Reagan. Reagan replaced Volker at the end of two terms in 1987 with Alan Greenspan, after disagreement over rising US debt, high interest rates, and financial regulation.

Greenspan, an economist and former White House advisor was noted as an inflation hawk and skeptic of government regulation. He was often credited with leading the US economy through its long 1990s expansion during his 20 years of leadership of the Fed, under Reagan, Bush 1, Clinton, and Bush 2. His term saw the introduction of risky new financial products and of allowing a housing bubble to build, which contributed to the 2008 financial crisis.

Ben Bernanke, a tenured professor of economics at Princeton University, replaced Greenspan in 2006, appointed by Bush 2 during the worst of the 2008 financial crisis. His aggressive response was to slash interest rates to 0%, support financial institutions on the brink of collapse, and to pump trillions of dollars into financial markets, including buying trillions of dollars' worth of Treasury bonds, to support liquidity and lending. Under Obama, Bernanke was appointed to a second term, where he was credited with averting a total economic collapse.

On Bernanke's retirement in 2014, Obama appointed Janet Yellen, a Yale-trained economist as the first woman to head the Fed. Before becoming Chair, Yellen had warned about the impending housing crash and pushed for more aggressive monetary policy to reduce unemployment. Under her four year term, she oversaw a recovery in the labor market and the first rise in interest rates in nearly a decade.

Although presidents standardly reappointed sitting Fed Chairs to second terms, Donald Trump replaced Janet Yellen after a single term with Jerome Powell, a businessman, financier, and sitting Fed governor. Though Trump criticized Yellen's "easy money", low interest rate policies during his 2016 campaign, Powell initially followed Yellen's blueprint for raising interest rates slowly. Like Trump, Powell was

skeptical about some of the Fed's regulations, particularly as they applied to smaller banks that faced scrutiny in the wake of the 2008 financial crisis. Even though Trump had no authority to do so, he repeatedly threatened to fire Powell, saying he did not do enough to support the thriving economy he inherited from Obama.

Joe Biden reappointed Powell in 2022, allowing him to confront the surging inflation kickback resulting from the Pandemic economic infusion of March, 2020. Biden also brought back Janet Yellen as Secretary of the Treasury, keeping economic decisions in the hands of two well qualified leaders. So far, the Fed has raised interest rates the most rapidly ever, in order to make spending and lending less attractive, to cool an overheated economy. As of early 2023, this is beginning to show some evidence of a slowing of some areas of inflation, but a war in Ukraine has been driving inflation among some key commodities. Employment recovered very quickly after the Pandemic, remaining at very high levels, but changing the nature of work. An additional hit has been the significant number of workers of the Baby Boom generation bubble taking retirement, leaving the labor pool with fewer workers than before. This combination of inflation and high employment is unprecedented, and will require creative solutions by the Fed and the rest of the economy.

I hope you have found this romp through the nation's economy and the role the Federal Reserve plays in it. As our nation's economic needs are constantly in flux, and the Federal Reserve's response is closely watched, pay attention when you hear news of actions of this significant, but not well understood body. To paraphrase the old E. F. Hutton slogan:

When the Federal Reserve speaks, people listen.

Thank you for listening.

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