

11-18-2022

The Limits of Financial Equity: The Federal Reserve, the Depression of 1921, and the End of Wilsonian Progressivism

Terril Hebert

Louisiana State University and Agricultural and Mechanical College

Follow this and additional works at: https://repository.lsu.edu/gradschool_theses



Part of the [Economic History Commons](#), [Finance Commons](#), [Labor Economics Commons](#), [Macroeconomics Commons](#), and the [United States History Commons](#)

Recommended Citation

Hebert, Terril, "The Limits of Financial Equity: The Federal Reserve, the Depression of 1921, and the End of Wilsonian Progressivism" (2022). *LSU Master's Theses*. 5692.

https://repository.lsu.edu/gradschool_theses/5692

This Thesis is brought to you for free and open access by the Graduate School at LSU Scholarly Repository. It has been accepted for inclusion in LSU Master's Theses by an authorized graduate school editor of LSU Scholarly Repository. For more information, please contact gradetd@lsu.edu.

**THE LIMITS OF FINANCIAL EQUITY: THE FEDERAL
RESERVE, THE DEPRESSION OF 1921, AND THE END OF
WILSONIAN PROGRESSIVISM**

A Thesis

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Master of Arts

in

The Department of History

by
Terril Hebert
B.A., University of Houston-Downtown
December 2022

Copyright © 2022

Terril Hebert

All Rights Reserved

To Terry Paul Hebert and Alice Rose Dupre Hebert.

Children of Depression.

Knowers of Scarcity.

Lovers of Knowledge.

“If banks were to keep, in cash, all the money deposited with them, business would come to a standstill and a crisis would ensue. If banks were to lend to those who apply for loans all the money on deposit with them, a general panic and collapse would follow a short period of overstimulation. Between these two extremes lies the middle course, the finding of which is the problem, and its practice the art of banking.”

—Paul Warburg

Table of Contents

Introduction.....	1
The Crusade for Financial Equity and the Birth of the Federal Reserve.....	6
Wilsonian War Socialism and the Pitfalls of Scientific Economic Management.....	26
Money Without a Seller. The Inflationary Spiral of 1919-1920.....	54
Product Without a Buyer. The Federal Reserve’s First Worldwide Meltdown.....	88
Conclusion.....	113
Bibliography.....	119
Vita.....	131

Abstract

The Limits of Financial Equity: The Federal Reserve, the Depression of 1921, and the End of Wilsonian Progressivism is an examination of monetary policy and centralized macroeconomic planning in the American economy during the inflationary spiral of the 1910s that culminated in the Depression of 1921. Put forward for consideration is the successful populist campaign for agricultural credit equity by the burgeoning Federal Reserve System; set against a backdrop of intentional inflation, world and domestic citizens competed against as the price and supply chain distortions perpetuated by the policing of American commerce by the Food Administration, A. Mitchell Palmer's Department of Justice, and the United States Railroad Administration. Through the extensive use of state and federal financial statements, newspaper reports, and personal papers of the vested parties, the road to the forgotten Depression of 1921 is laid bare and with it the pitfalls of activist governance—from expert management of the economy toward equitable ends to the pitfalls of inflationary finance to the scapegoat of corporate greed—that would return in the crash of 1929 and distort our world view of economic and social ills in every downturn to the present.

Introduction

The *Dust Bowl Diary* chronicles the life and times of young Ann Marie Low and her family as they eked out an existence on a stock farm in North Dakota during the Great Depression. Low was sixteen when she penned her first entries in 1928. That year was during the “good times.” President Calvin Coolidge had led a quiet administration that presided over a roaring era when, at the height of his popularity, he announced his retirement from public office. His equally popular Secretary of Commerce, Herbert Hoover, stood poised to steamroll Democratic opposition in that year’s presidential election. Consumption was up, stocks were up, wages were up, and it looked as if every man, woman, and child had a stake in it. This picture of the Roaring Twenties that we have come to take for granted was unique to urban America. Annie Low knew a different reality. Life on rural farms was never more precious. Writing in April 1928, she recalled that, “in 1919, Uncle Ames mortgaged his property to buy another farming outfit. A second outfit meant hiring a man to run machinery and buy more feed for the horses. Low prices made it impossible to pay the mortgage. Last fall, the bank foreclosed.”¹

Seventy-one percent of farms in North Dakota were mortgaged and Uncle Ames was only one of countless to face ruin in the Depression of 1921.² That year, wholesale prices fell as low as fifty-six percent from their all-time highs in 1919.³ It was a correction more

¹ Ann Marie Low, *Dust Bowl Diary*, (Omaha: University of Nebraska Press, 1984),3

² Bureau of the Census, *Vol. 5: Agriculture in the Fourteenth Census of the United States taken in the Year 1920*, US Department of Commerce, (Washington: GPO, 1922), 480.

³ James Grant, *The Forgotten Depression: 1921: The Crash that Cured Itself*, (New York: Simon & Schuster, 2014.), 5.

extreme than any other in American history—including the Great Depression. Falling prices cratered wages and tanked inflated collateral values that countless farmers relied on to finance the expansion of their outfits to meet higher internal prices and wartime demands. A recent USDA report on historical farm exits reveals that between 1921 and 1924, there were over 8,000 farm bankruptcies annually—a rate that dwarfs the better-known departures of the Dust Bowl.⁴A closer look into the American economy in the Roaring Twenties show a system with millions of participants and billions of everyday decisions in a marketplace that bifurcated between a silent epidemic of farm and small bank busts masked by the opulence of industry that came to define that decade. One hundred years hence, American agriculture never fully recovered; the Great Depression and the subsequent government intervention of the New Deal in the mid-1930s failed to reset the balance but is credited with the first foray into agricultural credit and crop subsidies on which farm production relies. But such programs had long begun in earnest through policies of financial equity championed by the progressive movement before the turn of the century that were implemented to their fullest extent by the Wilson administration. The victory of progressivism coincided with massive social changes but with it massive dangers.

During Wilson’s tenure between 1913 and 1921, the United States was transformed from a debtor nation to the world’s foremost creditor while a new majority of Americans, including large numbers of women and African-Americans, flocked from the countryside to the city to take positions in the burgeoning industrial and service sectors. The fortunes

⁴ Jerome M. Stam and Bruce L. Dixon, “Farm Bankruptcies and Farm Exits in the United States, 1899-2002” US Department of Agriculture, Information Bulletin 788, (Washington: GPO, 2004),11.

of these beleaguered peoples appeared to be on the rise as were those of rural America more generally. Despite losing some of its vitality to the metropole, the agricultural economy was at its largest in the 1910s. After decades of struggling against Eastern financial capitalists, agrarian progressives that lived on the margins had secured government-funded farm credit. Their adversaries in industry earned continual scrutiny while labor won the eight-hour day and minimum wages as well as a wholesale license to organize—albeit at the expense of efficiency that would endanger all facets of the economy. The remnants of the gilded age faded to be replaced by a first-wave of stakeholder capitalism that saw unparalleled progress before unparalleled destruction.

As transformative as this era was, the Depression of 1921 is largely forgotten in the shadow of the later Great Depression. The road to 1921, the crash, and its aftermath—as well as what it entails in rich economic and political lessons—are subject to spare scholarship. The Depression is occasionally mentioned in passing as a period of readjustment between war and peace or as a brief recession caused by agricultural overproduction that quickly fell away. The little secondary scholarship available differ on the causes of the downturn, but agree that 1921 was significant in scope and the world economy made a quick recovery—one often ascribed without government intervention. In *The Forgotten Depression: 1921—The Crash That Solved Itself*, James Grant delivers a specific critique of the actions of the Wilson administration during this time but titularly suggests such a recovery. Tom Woods, writing at the time of the unpopular federal bailouts during the 2008 Great Recession, uses 1921 to justify noninterventionism by putting the blame squarely on Wilson’s tax-and-spend policies for suffocating the economy, while championing his successor, Warren Harding, with solving the crisis quickly by curtailing

the federal state and allowing bad business to liquidate.⁵ Scott Nations in *The History of the United States in Five Crashes* touches on 1921 as part of the Federal Reserve's activities before the Great Depression. Nations opined that 1921 came because of inflation driven by wartime finance during the Great War and credits Benjamin Strong, governor of the Federal Reserve Bank of New York, with choking inflation by raising interest rates on bills of credit. But there was a fine line between correction and catastrophe—with interest rates on easy money pushed so high, it nearly throttled the economy. Nations states that this close political call made the Federal Reserve learn the wrong lessons and as such, furnished the consumer boom with yet more easy credit on the road to 1929. Milton Friedman viewed 1921 as a monetary phenomenon caused and then solved by the Federal Reserve, albeit too late to avoid the damage. A survey of primary sources relating to the "business depression" show that scrutiny fell on the Federal Reserve for the crash. Throughout 1921 and 1922, Federal Reserve governors Benjamin Strong and William PG Harding, the two most prominent men in the new System, were held to account for the Federal Reserve's actions before Congress. The distinction between causing the crash and sparking a painful recovery was lost when American jobs were lost, wages were cut, and business went bust. Yet before 1921, an inflationary crisis was obvious. It came to be excused as the end-result of debt spending to finance the war and the Federal Reserve, for all its faults, ushered in credit conservatism that brought the crisis to an end.

However, a critical look at the farm economy shows a crisis born of but could not be alleviated by institutional and ideological power. The Federal Reserve—through

⁵ Thomas Woods, "Warren Harding and the Forgotten Depression of 1920", *Intercollegiate Review*, Vol. 44, No. 2, (Fall 2009), 22-24.

coercion by the Wilson administration and the Treasury department— created an inflation characterized by exuberant domestic expansion in the short run in a bid to help American farms access credit. In the long run, that expansion contributed materially to the labor strikes, race riots, and the First Red Scare that characterized the last years of the Wilson administration. Ultimately, the Federal Reserve shirked responsibility for the crisis and its collateral damage but claimed its role in the recovery when Governor Benjamin Strong of the Federal Reserve Bank of New York stood against easy credit in the summer of 1920. Strong is credited with raising market rates which curtailed the availability of money and popped the inflationary bubble that finally fell at the same time he made his stand. This work maintains that the infantile Federal Reserve, driven by ideological aims and political funding mechanisms, created an inflation toward aims of financial equity that inevitably led to the opposite of intent. The Depression of 1921 was caused by these machinations, and it was not alleviated by them. Benjamin Strong's rate hikes were a brave step in the right direction toward credit conservatism in the moment of crisis, but the inevitable breakdown of labor and transportation made further inflation impossible. It was the everyday American on the atomic level that decided against making consumption, business, and labor decisions that ended the worst inflationary period since the Civil War. Where the general will failed was in the recovery. Neither ordinary Americans nor the Federal Reserve would repair the damage of the latter's policy of gold sterilization. Missed by commentators then and now, the issue of centralizing gold from local hands to the Federal Reserve, from Western and Southern concerns to Eastern banks, created a silent epidemic of atrophy as the Roaring Twenties carried on.

The Crusade of Monetary Equity and the Birth of the Federal Reserve

At the Democratic National Convention held in St. Louis, Missouri in the record-breaking summer heat of 1916, President Woodrow Wilson reaffirmed his commitment to policies that had served his administration well during his first term and, it was hoped, would do so for a second. That first term did not go without its challenges. In the summer of 1914, the Great War broke out in Europe and Wilson struck a cautious line of neutrality. At the convention he maintained that the United States would stay out of the conflict. He also reaffirmed his commitment to expanding his New Freedom program—his platform of justice for the worker, fairness toward business, and war against the excesses of monopoly. *The New Freedom* was Wilson's political manifesto that dealt chiefly with protecting the interests of industrial labor and democratic rule from monied elites. It was an evolution of progressivism philosophy from its most academic mind and, in the context of agrarian activism, key to understanding the concrete actions that defy economic reality.

On the progressive class struggle, Wilson channeled pure Jacksonian democracy by assuming the problems of government as its inflexibility to understand the common man and the laws of the nation had grown to favor the collective of business over the individual.⁶ On the other hand, business also couldn't act individualistically in the case of monopoly. Rather than seeking their fortune abroad, American manufacturers, so he claimed, played it safe by asking for favors from Washington. For Wilson, "anything that depresses, anything that makes the organization greater than the man, anything that blocks, discourages, dismays the humble man is against the principles of progress."⁷ Wilson

⁶ Woodrow Wilson, *The New Freedom: A Call of the Emancipation of the Generous Energies of a People*, (New York: Doubleday, Page, & Co, 1913), 34.

⁷ *Ibid*, 86.

seldom mentioned agriculture specifically, but by 1916 all knew where he stood when he said of his interest in the farmer, “not because we are more interested in the farmer than in the mine worker and the men in the factories, but because, not only this nation, but so far as we can contribute to it, the nations of the world, must be fed and the foundations of physical life of every nation is found upon the farm.”⁸

Wilson’s remarks reflect how the nation’s farming life had changed in four short years, expanding to fill the needs of a world at war. For his part, Wilson had not been idle in enabling the farmer to do his job. The passage of the Federal Reserve Act in 1913 created a new banking system that allowed farmers to get credit in the tumultuous times between harvests, allowing for farms to comfortably expand operations while affording the needed equipment, elevators, and train car space for a seamless flow of goods to an ever-expanding market. Productivity was up and farm wages had risen a modest ten percent after years of stagnation since 1914.⁹ Before the election season was through, Wilson would sign the Farm Loan Act into law. The act authorizing direct taxpayer-subsidized mortgage loans and allowed for the chartering of marketing and financial co-ops— forerunners of today’s credit unions—to ensure farmers never went without. It was a meteoric rise of a trade that had silently expanded alongside the industrial monopolies that dominated the Gilded Age. By the election of 1912, the issue of farm credit had infected both Democratic and Republican parties. Some 12.7 million men and women made their living on farms, compared to only 3.3 million, thirty years previous. The number of farms

⁸ Woodrow Wilson, “A Campaign Address to Farmers at Shadow Lawn, Oct. 21, 1916,” *The Papers of Woodrow Wilson, Vol. 39* August 7-November 19, 1916, eds. Arthur S. Link, (Princeton: Princeton University Press, 1982), 503,551.

⁹ Department of Agriculture, *1924*, 1116.

had correspondingly increased in those years, as had the demand for American foodstuffs that had taken on global importance. Before the outbreak of the First World War, the United States exported \$323 million in agricultural products more than what she took in, amounting to over forty percent of all exports.¹⁰ As a debtor nation, the United States depended on those exports to balance its liabilities. But despite all the outward signs of success, American farmers in the decades leading up to the Great War faced two problems: declining farm incomes and declining land opportunities—both of which drove a nationwide campaign for centralized farm credit.

The decline in farm incomes was a measure of success. Food was now so plentiful; it was now cheaper and—when complimented by the completed Intercontinental Railroad system—more available. But declining prices in ordinary consumption were not reflected in steady costs of ever-innovative capital investments. The national attitude toward the yeoman farmer, not far removed from Jefferson’s ideal of *that* man as the building block of the republic, was his independence. The farmer could take care of himself and judging by increased food security at home, he must be. But the agricultural sector had to have more than grit to grow product from the Earth. Farmers needed seed, equipment, storage, and transport from season to season. Even new land could not be taken for granted. With the Indian Wars at an end and the most desirable parts of the West settled, new prime farmland was harder to buy and what remained was more costly to develop. Both factors squeezed farm credit that was also reaching its limits. Farming operations continually expanded after the American Civil War, outgrowing local banking houses that lacked the staying power of the large East Coast banks connected to global markets. Eastern banks inevitably favored

¹⁰ US Department of Agriculture, *Yearbook of the United States Department of Agriculture 1913*, (Washington: GPO, 1914), 507

close industrial operations that usually precluded small agriculture operations.¹¹ Even as farm prices began to appreciate again after 1899, farmers remained cash poor and relied on their investments for sustenance.¹² From a politically active Eastern industrial and urbanite perspective, the farmer was taking care of himself but that did little justice for the latter. The Northern and Southern regional rift that dominated the political sphere before the Civil War now included the West in the fight over the emerging gold standard. Gold had become the international standard of trade and, given its rarity compared silver and paper, it kept prices stable. But the gold standard did allow for the accumulation of exchange closest to international markets in the Northeast relative—an inequity that did not go unnoticed. The Free Silver movement gained prominence near to the silver mines of the Rocky Mountains. Its proponents wanted the US government to purchase and monetize the silver it controlled to inflate the currency--never mind its limited value internationally. Likewise, the Greenback movement aimed to keep paper currency, or greenbacks, that had inflated the currency supply during the Civil War, in circulation. In the backdrop of these movements was the Granger movement that agitated for federalized sway to reduce railroad rates. Farmers and industry were competing against one another for needed capital goods, both at home and with foreign buyers who increasingly flocked to American wares for their own operations. It was hoped that more money would mean more capital goods in the hands of the farmer, never mind that it would not produce more machinery but simply inflate the price for all comers.

¹¹ Peter Fearon, *War, Prosperity, and Depression: The US Economy 1917-45*, (Lawrence: University of Kansas Press, 1987), 5.

¹² Shideler notes that farm prices appreciated by 89% from 1899-1910, but the Department of Agriculture stated in 1917 that a large percentage of farmers “do not receive anything for their own wages.” James H. Shideler, *Farm Crisis: 1919-1923*, (Berkeley: University of California Press, 1957),5.

But neither bush wars on silver miners and railroad workers nor political lobbying could sway the national course. The movements' fate appeared sealed with the election of the gold-bug backed presidential candidate, William McKinley, over the silver-tongued orator William Jennings Bryan, in the election of 1896. It would be up to the gold-bugs to defeat themselves when the Panic of 1907 gripped Wall Street and the Knickerbocker Trust company went under, threatening to take other banks and global financial markets with it. A recovery was staged thanks to the personal fortune and will of the greatest financier of the age, JP Morgan.¹³ It was the second time in fourteen years that Morgan had used his personal wealth to avert financial panic. The system had withstood criticism from credit-starved Western farmers and miners whose needs had been neglected at the expense of industry for decades. The system stood ascendent over the control of the supply of money: *gold* and the credit it underpinned. American financial markets, in modern parlance, had become not only too big to fail, but too big to save. The US Treasury, whose New York field office sat across the street from Morgan's house, did not have enough cash to save banks if they went under. The Panic of 1907 also served to revivify the farm credit debate.

In the leadup to the election of 1912, Congress commissioned studies of European models of farm credit while hashing out a remodeling of the financial system more generally along bipartisan lines. During the election cycle when Wilson and his challengers, incumbent Republican President William Howard Taft and former president Theodore Roosevelt, favored a solution to the farm question. Wilson differentiated himself

¹³ George E. Putnam, "The Federal Farm Loan Act," *The American Economic Association*, Vol. 6, No. 4, (Dec. 1916), 771.

by claiming that progressive Republicans were more interested in regulating monopoly, rather than abolishing it. In an address at a farmer's picnic in his native New Jersey he stressed that "while you were feeding the world, Congress was feeding the trusts."¹⁴ Ultimately, the split in the Republican party between Taft and Roosevelt secured Woodrow Wilson's victory.

When he took office, Wilson did not find specific farm credit legislation on his desk but he was thrust into a legislative battle on banking reform that culminated in his signing of the Federal Reserve Act into law in December 1913. The act established the Federal Reserve System—the first attempt at a central bank in eighty years. It was hoped that a centralized banking system would serve as a bulwark against emergencies like in 1907. Likewise, a central bank can furnish an elastic currency during different times of need in any given year. The farm, for instance, needed more credit in anticipation of the summer planting and the subsequent fall harvest and marketing season while less credit was needed during the winter months as profits rolled in and old debts were being repaid. Farming was the economy in microcosm, with highs and lows in any given time.¹⁵ John Maynard Keynes, in his 1936 work *The General Theory of Employment, Interest, and Money*, tasked the state with evening out these curves through a combination of monetary stimulus and retraction to guide investment.¹⁶ This would be the foundational belief of the Keynesian and New Keynesian schools of economics and a stark departure from classical axioms that espoused nonintervention. To this end, the Federal Reserve pioneered such a role in the

¹⁴ "An Address at a Farmers' Picnic at Washington Park, New Jersey," in *The Papers of Woodrow Wilson*, Vol. 25, eds. Arthur Link, (Princeton: Princeton University Press, 1978), 32.

¹⁵ Milton Friedman and Anna Jacobson Schwartz, *A Monetary History of the United States 1867-1970*, (New York, Princeton University Press, 1963), 196.

¹⁶ John Maynard Keynes, *The General Theory Of Employment, Interest, and Money*, Vol. 4, (POD: 2017), 100, 109

United States over twenty years before Keynes' conclusion. Wilson christened the Federal Reserve as a "democracy of credit" and a means to elevate the businessman and the humble man above monopoly—by setting up a monopoly on the nation's money.¹⁷ Given Wilson's veneer of Jacksonianism, his support for a central bank is questionable. Andrew Jackson, concerned about the accumulation of wealth in the wrong hands, prosecuted his famed bank wars in the 1830s that culminated in the dissolution of the Second Bank of the United States—the Federal Reserve's distant predecessor. For Wilson, a monopoly bound to the progressive democratic order was needed and the creation of the Federal Reserve was bounded by an implicit commitment in law to deliver justice to those perceived to be most hurt by the market.

1.1. The Federal Reserve Act and Its Beneficiaries

On the surface, Jackson's fear of the Bank of the United States could have been projected onto the Federal Reserve. The legislation that created the Federal Reserve was written by bankers and for bankers. Although the Federal Reserve Board of Governors that nominally directed the new System were political appointees, they inevitably drew from the diverse reaches of the nation's banking class. The Board convened in Washington DC and after the Great Depression, it would be politically and financially dominated from there. But in the formative years of the Federal Reserve, the Board was dominated by Wall Street in the form of the Federal Reserve Bank of New York under Benjamin Strong—one of the ablest lieutenants of the greatest industrial capitalist of the age, J. P. Morgan.

¹⁷ Grant, 10.

From the mind of the farmer, the Federal Reserve looked like a cash grab; however, the Act specifically spelled out financial equity toward agriculture despite the elite makeup of its directors. The most immediate of these concerns is how the Act treated loans on letters of credit. Ordinarily commercial, agricultural, and livestock paper were short-term loans that had to mature at sixty days or less. The Federal Reserve Act extended commercial paper to ninety days to benefit most enterprise, but agricultural and livestock paper were favored with extensions out to six months.¹⁸ This allowed farms more time to pay down their loans and allowed the Federal Reserve Board to fulfill its mission to furnish an elastic currency more generally. The System and its new preference for the farms would soon be put to the test when panic struck the market once again after the outbreak of the Great War in July 1914.

The South harvested its largest cotton crop to date just as the Great War broke out, putting a halt to international exports and shuttering the New York and New Orleans Cotton Exchanges. Attempts to gin up domestic purchases by cooperative enterprises failed and prices fell to move seventeen million bales of cotton that sat in American harbors nationwide.¹⁹ Throughout July, additional credit dried up as European investors sold their securities and currency left circulation with them, causing the head of the New York Stock Exchange, HG Nobles, to shut down the New York Stock Exchange to stem the bleeding. In October, the Board of Governors led by WPG Harding and Paul Warburg cobbled together \$150 million in emergency funds to assist cotton farmers and dealers as the German advance on Paris stalled.²⁰ Europe had anticipated a short,

¹⁸ *The Federal Reserve Act*, (Los Angeles, CA: Security Trust and Savings Bank, 1913), 22.

¹⁹ WPG Harding, *The Formation of the Federal Reserve System*, (Cambridge: The Riverside Press, 1925), 20.

²⁰ *Annual Report of the Secretary of the Treasury on the State of the Finances For the Year Ended June 30, 1914*, (Washington: GPO, 1915), 15.

sharp war but now both sides settled into unmoving trench warfare. Money flowed back into the United States to grab at food and munitions already running dry across the Atlantic. Cotton vanished from the docks, the Federal Reserve had survived its first test. This early intervention delivered on Wilson's promise and brought both Wall Street and Main Street together and additional help appeared moot.

Governor Harding, however, seemed to have second thoughts recalling these early days of the Federal Reserve. He came to believe that farmers nationwide in 1920 expected the same treatment from the Federal Reserve as those cotton interests six years earlier.²¹ In 1914, the Federal Reserve System was novel and untrusted. The Cotton Fund was its first test to build its reputation and execute its duties in law, thereby attracting needed investments that the System no longer needed in 1920 but had been without in earlier times. The members of the Federal Reserve Board used their own banking network and Aldrich-Vreeland emergency currency from the Treasury to orchestrate the Fund without any field offices and few lendable assets.

The Federal Reserve Act gave strict protocols on mandatory funding of the new banking system, but beyond that would be expected to lend in order to perform its functions. All national banks were compelled to join as member banks and send fifteen percent of their bank reserves to one of the twelve new Federal Reserve Banks spread across earmarked districts nationwide. These reserves were still largely forthcoming during the cotton panic. More consequential to the System's functions and its actions was its reliance on the Treasury Department's deposits of cash and securities that the Federal Reserve was authorized to deal in. The Federal Reserve could earn cash from outside banks through the sale of securities and securities could be purchased to give banks needed cash. Treasury

²¹ Harding, 20.

deposits, like national bank reserves, only began to arrive with the opening of the Federal Reserve's first field offices in November 1914. But the same lending practices was applied to non-government securities like agriculture and commercial paper. To that end, the Federal Reserve offered membership to state banks and began to drop its discount rate. At the start of operations, the Federal Reserve Banks of New York and Boston lowered the discount rate on all marketed paper the Federal Reserve dealt with from an average of six-and-a-half percent down to four percent. The ten other branches followed suit independently through March 1915.²²

The discount rate is the fee by which money is lent and, in the case of the Federal Reserve, the rate by which individual reserve banks would lend overnight funds to member banks. If member banks were in a pinch, they could forward securities as collateral and get needed cash should it run low. This cash came from two destinations: first, from the borrower's own reserves—in greenbacks, certificates, or bullion, fifteen percent of which was to be deposited at their nearby Federal Reserve branch as the price for membership. Second, from newly created Federal Reserve notes. These notes were first issued in 1915 but would come to form the currency backbone of American domestic consumption. Today, Federal Reserve notes are considered cash. For all intents and purposes, the Federal Reserve note is the US Dollar. In 1915, Federal Reserve notes were a debt instrument to be bought, traded, and its face value redeemable in gold like any other. The Federal Reserve note served as an immediate benefit to the System as a

²² Through 1914, the Federal Reserve banks, through their own individual discretion, established their interest rates at 6.0-6.5 percent—higher in Western districts such as Kansas City and San Francisco and lower in districts with more assets to lend, such as New York and Boston. *First Annual Report of the Federal Reserve Board for the Year Ended Dec. 31, 1914*, (Washington: GPO, 1915), 203.

lendable instrument, an asset that retired the gamut of Greenbacks, Aldrich cash, and certificates floating across the country, and a liability as it went into the hands of banks and depositors who wished to redeem it.²³ By decreasing the penalty at which notes were loaned out, the Federal Reserve increased the supply of money while making it easy to demand. The demand for this narrow segment of lending had downstream effects of decreasing interest rates industrywide and investments beyond lendable dollars. When interest rates fall, the price of fixed-rate assets such as government bonds rise as investors flock to the investments with the higher return, while dumping unfavorable investments onto the market. Conveniently, the Federal Reserve Act bequeathed the authority of the System to deal in government securities. When investors abandoned old bonds, the Federal Reserve could engage as an actor on the market—or in open market operations—to retire those securities in exchange for cash or new securities from the Treasury. Thus, the simple use of the discount rate could be used to control the amount of currency in circulation.

Through the spring of 1915, the economy staged a recovery, wiping away a \$500 million floating debt accumulated by the cotton farmers and other enterprises caught in the lurch the previous summer.²⁴ Exports to the belligerents accelerated and assets flowed into Reserve vaults, no doubt encouraged by further lowering of interest rates on short-term paper was lowered to a range 2-3.5% and the longest-term paper, ninety-day agricultural paper, adjusted from six percent to 4.5-5%.²⁵ Agriculture loans were now cheaper to take out, but the lowering of the discount rate also forced investment cash into uncharted

²³ Silver and gold certificates, in place of and redeemable in bullion, were also in circulation.

²⁴ *Second Annual Report of the Federal Reserve Board for the Year Ended December 31, 1915*, (Washington: GPO, 1916), 3.

²⁵ *Sec. Ann.*, 6, 28.

territory. To make matters more complicated, lowering rates increased the amount of cash and created inflation. At the end of the fiscal year of 1913, the country's total money supply stood at \$3,720,070,000. By 1915, it had risen to \$3,989,456,000. By the summer of 1916, the money stock had reached nearly \$6,713,000,000.²⁶

Fig. 1.1 shows gold and silver bullion gently rising with paper, far outpaced by gold and silver certificates after 1912 before a general deflation of the latter between summer 1914 and summer 1915.²⁷ In that time, note issuance increased from \$1.056 billion to \$1.198 billion, while bullion shrank from circulation. The proliferation of paper against a relatively stagnant supply of bullion is proof of an intentional inflation by Federal Reserve policy that was masked by the upswell in war demand in the short term. But the decline of bullion in circulation, also by intentional policy, marked the beginning of an overleveraging in the long term that would deepen the damage in 1921 and the beginning of the end of the international gold standard.

²⁶ *Report of the Secretary of the Treasury on the State of the Finances for the Year Ended June 30, 1917*, (Washington: GPO, 1918), 353.

²⁷ Gold and silver certificates functioned as certificates of deposits on bullion in bank vaults that can be used as currency

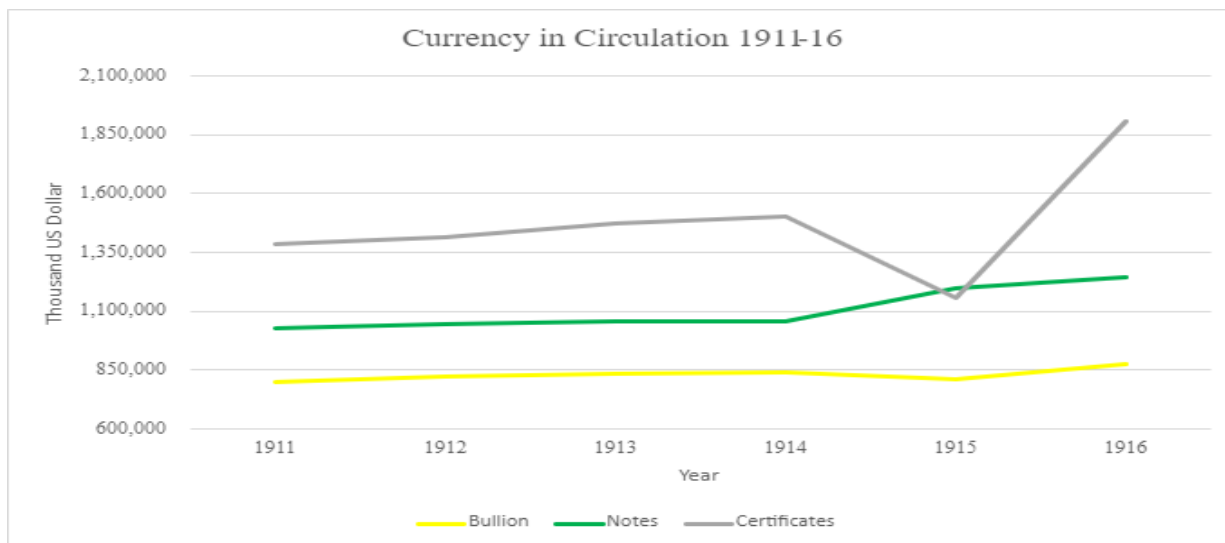


Fig 1.1.²⁸ Currency in Circulation 1911-16

1.2 The Dismantling of the Gold Standard

From May 1915 until November 1919, the Federal Reserve’s discount rates remained unchanged. Steady rates produce the image of the Federal Reserve as an inactive participant, given there were no further adjustments to meet the demands and constraints of the marketplace. Steady rates helped to democratize credit, the overarching goal of Wilson’s intent for the Federal Reserve, by bringing rates between agriculture, commerce, and industry closer together while emboldening them to make market predictions with newfound confidence as rates remained stable. Combined with this new stability and the recent intervention of the Federal Reserve in the market to help cotton interest contributed to an atmosphere that invited malinvestment with an expectation that future help could be solicited. As dedicated men of the industry, those on the Federal Reserve Board knew the

²⁸ US Secretary of the Treasury, Report of the Secretary of the Treasury on the State of the Finances for the Year Ended June 30, 1911; 1913; 1914;1916, (Washington: GPO, 1912;1914;1915;1917), 20; 214; 308; 278.

fire they were making—the mitigation of risk and reward. A balancing act was essential. As veteran financier and future vice-chair of the Federal Reserve Paul Warburg put it, “If banks were to keep, in cash, all the money deposited with them, business would come to a standstill and a crisis would ensue. If banks were to lend to those who apply for loans all the money on deposit with them, a general panic and collapse would follow a short period of overstimulation. Between these two extremes lies the middle course, the finding of which is the problem, and its practice the art of banking.”²⁹ The Federal Reserve and the national banks within its fold had seen both ends of the spectrum in the course of a few months. Credit liberalization, or stimulation, had created an inflation that had to be managed. Without easy credit, it was difficult for business to meet the foreign demands that would otherwise cannibalize domestic needs. On the other hand, easy credit is most beneficial to those closest to it.

Government actors and the largest businesses with easy access enter the market, buying before prices can adjust, resulting in shortages or higher prices of both consumer goods and assets. It is infinitely better for those already in possession, but it quickly becomes unlivable for those whose incomes had not adjusted to the new reality. Despite opening credit for more Americans, the dangers of inflation weighed heavily on the Federal Reserve. Their solution, with the cooperation of the Treasury Department, was to control the nation’s gold supply to prevent hard money from seeping into the economy, causing more inflation. But this self-defeating feign of action is an inflection point where the potential for economic harm changed from possible to probable. By continuing to expand

²⁹ Benjamin Strong, “The New Banking System: An Address at Williams College, January 14, 1915,” *Papers of Benjamin Strong, Jr.*, Federal Reserve Bank of New York, 2.

credit and denominate paper currencies while simultaneously encouraging citizens and banks alike to take paper instead of gold, the Federal Reserve's fight against inflation was marked by more inflation. Worse, the gold supplies became further centralized in Federal Reserve banks and Treasury vaults in the East, leaving hollowed interior banks vulnerable when the economy soured in 1920. The gold sterilization scheme robbed domestic users of their store of value, but it also imperiled international arrangements that relied on the scarcity of the commodity and fixed rules of trade that gave the gold standard its characteristic stability.

The world economy at the outbreak of the Great War nominally held to the so-called *gold standard*. Gold had been used for centuries as money, but it was not until the end of the nineteenth century that it was universally understood as the default money of choice, replacing silver, copper, and the litany of paper currencies and barter arrangements that complicated international exchange. Gold was universally understood as the singular measure of value due to its scarcity--a scarcity that guarded against rapid inflation and deflation. As such, prices during the classic gold standard were reliably stable. It also helped that governments throughout the world pegged their paper currencies to gold by law. The United States dollar was fixed at one-twentieth an ounce, regardless of gold's actual value in nonmonetary uses. The British pound sterling, originally minted in sterling silver, was fixed to one-quarter of an ounce.³⁰ The switch to gold was political fire in the United States in the latter quarter of that century. Gold was already the money of choice for international trade based in the East Coast, but internally, gold and silver had been minted in fixed ratios. The Coinage Act of 1873 demonetized silver to its coined face

³⁰ Murray N. Rothbard, *The Case for a 100 Percent Gold Dollar*, (Auburn: Auburn University Press, 1991,) 5

value and it immediately sparked an uproar amongst the same rural masses that labored for lack of farm credit. They wanted an inflation to challenge the gold-bugs on the East Coast and to stave off lost income. Bimetallism had effectively died as a campaign issue with President McKinley's reelection to the presidency in 1900. But the gold standard that emerged from these political feuds was only tenuous at best.

In practice, silver and paper currencies were the mode of exchange for day-to-day exchanges but were redeemable for gold on demand. As such, the stability of any bank, its ability to issue currency hinged on its reserves in specie. Likewise, gold reserves also served as the basis for credit issuance. Benjamin Strong likened the system of credit to a pyramid with gold at its base. Assuming a deposit of \$80,000 in gold, one bank could lend \$60,000 in paper while keeping \$20,000 in gold reserves. \$15,000 in gold remaining could then secure another \$45,000 in paper, and so on. A bank's gold reserves for a single loan could also back a patchwork of loans greater than the total value of all the available gold.³¹ Gold was an asset in this sense but also a liability as enough had to be in reserve to meet depositor demand. Too much gold in the country created more credit but too little to meet demand meant banks would fold, loans would be called, and customers would not get their money.

³¹ In Strong's example, \$80,000 in European gold imports ultimately support \$240,000 in loans and \$370,000 in deposits.
Strong, "Banking System," 5-9.

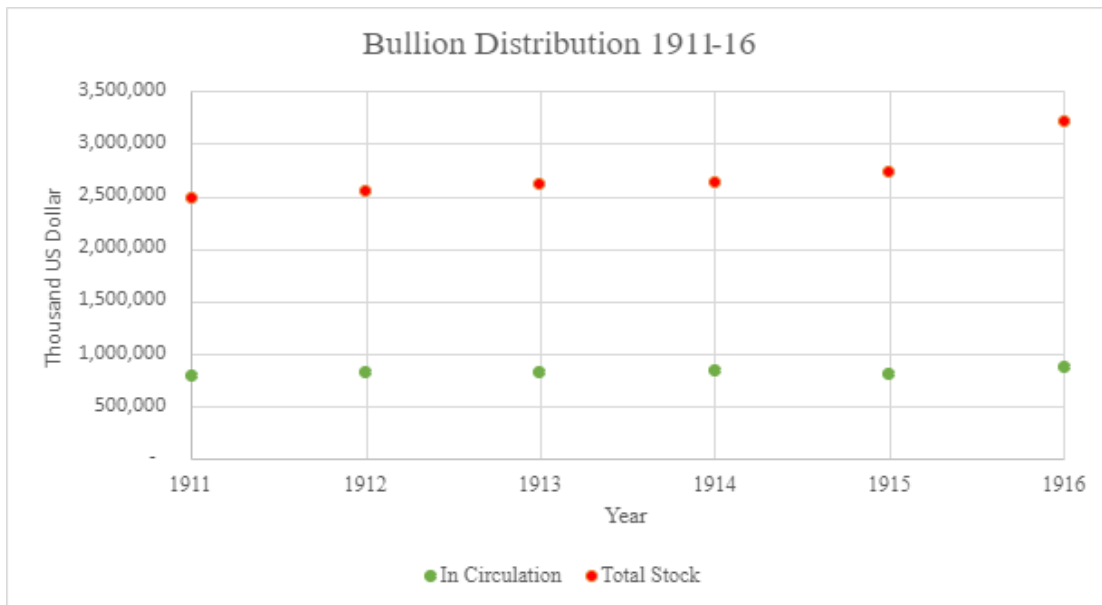


Fig. 1.2.³² Bullion Distribution 1911-16

Fig. 1.2 shows an expansion of bullion in circulation against total supply in the summer of 1914 and a contraction of the former and an expansion in the latter in by the following summer. The panic that reduced the total gold stock from the summer of 1914 bottomed out in January 1915 at \$1.806 billion. By November, inflows of gold alone from Europe, South Africa, and Australia had inflated the supply to \$2.198 billion—an increase of 21.7%.³³ That sum totaled in November 1915 was described by Treasury Secretary McAdoo as “the largest amount ever held by any country.”³⁴ But what bullion had arrived

³² US Secretary of the Treasury, *Report of the Secretary of the Treasury on the State of the Finances for the Year Ended June 30, 1911; 1913; 1914; 1916*, (Washington: GPO, 1912; 1914; 1915; 1917), 20; 214; 308; 278.

³³ *Report of the Secretary of the Treasury on the State of the Finances for the Year Ended June 30, 1915*, (Washington: GPO, 1916), 13, 190.
Report of the Secretary of the Treasury on the State of the Finances for the Year Ended June 30, 1916, (Washington: GPO, 1917), 394.

³⁴ *Ibid*, 13.

from overseas now accumulated in the vaults of the Treasury Department and the Federal Reserve Banks instead of going into circulation to be repackaged as new loans.

McAdoo, like the governors at the Federal Reserve Board, was concerned about inflation and trusted that the gold that overflowed from his vaults would serve as a bulwark against any future panics. But inflation concerns were not reflected on paper, which the Treasury issued in abundance.³⁵ In 1916, the United States finally overtook Britain as the world's leader in industrial output and her agricultural output had long held supremacy. With more to buy, prices should trend downward while business activity demanded higher wages. Instead, wages failed to keep up with skyrocketing debt borrowing and consummately higher prices on the shelves. The conservation of gold failed to check this and the need to flood the domestic market with bills show an inexperienced administration caught between cataclysmic events and a public that needed cash quickly. However, there may have been a greater aim. McAdoo was likely gearing the American government for the possibility of war. In May 1915, the Kaisermarine torpedoed the RMS Lusitania off the Irish coast with a loss of 1,200 lives, including one hundred twenty-eight Americans. Wilson calmed public outrage by referring to any further attacks on American citizens as an act of war. Not wishing to draw the United States into the war, Germany responded by moderating its submarine warfare policy. In the event of war fears, having a reserve of gold to make large domestic and international payments was a smart plan. But

³⁵ This change as noted, even as the US banks lost gold and cash after the panic of 1914. The Charlotte Observer reported that strong federal deposits into the Federal Reserve Banks from member banks in December 1914 had been a measure of confidence in the Federal Reserve discount policy, despite the loss of \$2.7 million in cash and \$3.5 million in gold. But that loss was offset by an increase of "3.7 million dollars of gold." "Federal Deposits Show Big Increase. Banks Which Show Rediscount Gains Also Display Deposit Increase," *Charlotte Daily Observer*, (Charlotte, NC), Jan. 2 1915.

the public had greater cash needs than the Federal Reserve and the Treasury Department could provide. A large sum of this paper were gold and silver certificates—redeemable in theory for bullion at the Treasury department on demand. But to prevent real money from leaving, McAdoo and the Federal Reserve Board discouraged this as a matter of policy and in short order commercial banks followed suit. The November 5, 1916 issue of the *New York Times* chronicled proposals floated by National City Bank—now Citibank—who wished to the abandon redemptions of these certificates and flock to Federal Reserve notes in order to conserve their own reserves, a trend county and city banks would follow.³⁶ Gold became scarce in face-to-face transactions. That role had been taken up by increased amounts of subsidiary silver, now-irredeemable certificates, and from 1915, in Federal Reserve notes.³⁷ Internationally, European gold flooded into the Northeast to be hoarded while hard assets and foodstuffs flooded to Europe. Instead of witnessing an exchange of gold and hard assets, American banks saw *both* draining out of the economy with greater sums of paper chasing fewer real goods. This translated to higher prices to stave off shortages of needed goods. When Congress finally declared war on Germany in April 1917, plunging the United States into the Great War, wholesale prices had risen as high as seventy- percent from prewar levels.³⁸

Wilsonian progressivism paved the way for the realization of the Federal Reserve and to the letter of the law, establishing financial equity to underserved agricultural communities in a bid to bring stability to the madness of markets. Aided by the Treasury

³⁶ “Would Stop Issuing Gold Certificates: National City Bank Suggests Plan to Conserve Supply of Yellow Metal Here,” *New York Times* (New York, NY,) Nov. 5, 1916.

³⁷ The Coinage Act of 1873 reduced the visibility of silver by reducing its exchange value against gold. From a money perspective, the Act also reduced the role of silver to coinage of \$1 or less.

³⁸ Fearon, 11.

Department headed by one of progressivism's favorite sons in William Gibbs McAdoo, the Federal Reserve succeeded in the former at the expense of the latter by creating inflation to fight inflation and upending domestic and international stability by following Europe off the gold standard in all but name. As the United States entered the Great War, her banking system and all those who now relied on it for credit, stood at the brink of collapse. The success of the farmer in the pre-war year built on the pillars of equity that endangered others would be tested as the Wilson administration doubled down on its economic program when war was declared.

Wilsonian War Socialism. An Economy Under Scientific Management

When President Woodrow Wilson asked Congress to declare war on Germany in April 1917, he arguably initiated what *Time* publisher Henry Luce would later describe as the “American century” in which the United States emerged as a preeminent world power. While her military expanded and contracted quickly with the beginning and end of hostilities, her economic muscle proved more permanent. The establishment of the United States, for the first time, as a creditor nation with a massive industrial and agricultural base, laid the groundwork for the American nation as a world arbitrator abroad and the successes and excesses of the Roaring Twenties at home. The distinction that is left unsaid is whether the American economy derived her strength from an expansion during the war or by virtue of being one of the few spaces spared the death and destruction. But the war also took on scapegoat status for the nation’s ills at the time and ever since. The Federal Reserve and Treasury Department’s emphasis on war finance justified the inflationary unrest of the war years—never mind the trend had been established in peace. Likewise, the war proved to be hill in which Wilsonian progressivism climbed to die.

From 1917, Wilson’s popularity waned with the public as symptoms of a higher cost of living became obvious. Likewise, public opposition to the war and increasingly visible advocates for greater change—such as with the ongoing women’s suffragist movement—were met with flagrant violations of civil liberties. These most famously include Wilson’s signing of the Selective Service and Sedition Acts that saw the involuntary induction of Americans into the armed services and the jailing of Wilson’s political opponents. Less well studied was Wilson’s wartime central planning of the allocation and distribution of

resources by the Food, Fuel, and Railroad Administrations; these Washington bureaus scrutinized consumption and enforced equity economics with armies of agents and the threat of jail time. These activities resulted in nationwide shortages while making the persistent inflation unlivable. The policies perpetuated by these institutions, like those of the Federal Reserve, were progressive ideological outgrowths realized in peace and legitimized in war that accelerated the conditions of collapse and a rapid bifurcation of the economy between a perpetually beleaguered agricultural sector and the continued rise of industry and consumerism that would characterize the coming decades. The war and the rise of these new war institutions did, however, expose a terrible paradox in which scientific institutions run by experts in their fields cease objective measurements of success and resorted to subjective emotion.

2.1. Infrastructure of Despotism

When modern economies enter turmoil, it begins with a pessimistic downward tendency in all industries. Rather, it begins when the credit and productivity conditions between industries become untenable. In 1917, American agriculture was ascendant, having benefitted from a string of incremental legislative victories in Washington D.C., while their enemies in the railroads and manufacturing sectors suffered from regulatory fatigue. Woodrow Wilson rode to the presidency in 1912 on a revived monopoly-breaking and monetary reform agenda against divided Republican opposition, winning forty-two percent of the popular vote. On election night 1916, Wilson—once again—barely emerged intact with less than half the vote over his challenger, Supreme Court Justice Charles Evans Hughes. But Wilson's true obstacles lay with the American public.

Wilson's preoccupation with the internal workings of the country had left him flatfooted with the prospect of war on the horizon. Hughes argued for greater preparations, but Wilson relied on his diplomatic efforts which, thus far, had kept the United States out of the conflict. Wilson was more defenseless on his conduct at home. The last four years were marked by a division of the American economy between an ascendent agricultural sector and a struggling industrial base while the ordinary hand's cost of living rose with an inflation that, by election night, burned at eleven percent for the year.¹

The separation between agriculture and industry began with the disparity in maturity rates on their respective lines of credit within the new Federal Reserve System. But paper for both industries were extended and their respective rates were stable, allowing for a monetary policy that could be claimed as neutral. Beyond this, a trickle of legislation tipped the scales. The Smith-Lever Act of 1914 benefitted land-grant universities by allocating federal funds to cooperative programs with the Department of Agriculture toward crop research and farming technology—knowledge that could be passed along to the farmer by outreach groups like the then-newfangled 4-H club. The election year saw Congress push directly on the farm credit issue with the passage of the Warehouse Act and the Federal Farm Loan Act.² The Warehouse Act allowed farmers to take Federal Reserve loans on crops stored in public granaries and warehouses. The Federal Farm Loan Act enabled farmers to borrow on as much as half the value of his land and a quarter of his buildings backed by the taxpayer.³ That credit would be facilitated through the chartering of twelve federal land banks backed by an ever-changing number of joint-stock banks and

¹ Allan H. Metzler, *A History of the Federal Reserve, Vol 1: 1913-1951*, (Chicago: University of Chicago Press, 2004),91.

² Shideler, 8.

³ Putnam, 773.

co-opts under the supervision of the newly created Federal Farm Loan Board, chaired by Treasury Secretary McAdoo under the umbrella of the Department of Agriculture in Washington DC. Wilson warned the public about the danger of government-sanctioned privilege to the progress of the new man before his election in 1912, but by now agrarian interests had prevailed under the guise of institutional neutrality at the Federal Reserve. This also pervaded in a new Wilsonian institution: the federal income tax.

Before 1913, the federal state financed its expenditures through customs duties and tariffs on imported goods. The Tariff Act of 1913 that followed the passage of the Sixteenth Amendment lowered tariffs wholesale while imposing possession of the earnings of individual citizens, noncitizens, and corporations. The subsequent Revenue Acts of 1916, 1917, and 1918 raised the top marginal tax rate and lowered the bottom brackets to encompass lower-income households. The original 1913 Act imposed a one percent tax on all income and property but no additional taxes were levied on those concerns reporting less than \$20,000.⁴ The Revenue Act of 1918 raised the blanket rate on that same tax bracket to 4-12% and an additional surtax of 10% while the highest income earners could look forward to a surtax of sixty-five percent.⁵ In addition, an estate tax, excess profits tax, and taxes on sundry items from cigars to cars were imposed. From the Revenue Act of 1916, the Treasury's stated tax receipts 433%—from approximately \$725.89 million in 1916 to \$3.87 billion in 1918.⁶

⁴ Tariff of 1913, PL 63-16, *Statutes at Large Vol. 38*, (1913), 166.

⁵ Revenue Act of 1918, PL 65-254, *Statutes at Large Vol. 40*, (1918), 1063-66.

⁶ *Report of the Secretary of the Treasury on the State of the Finances for the Year Ended June 30, 1918*, (Washington: GPO, 1919), 543.

These tax regimes had diverging effects on farm and business incomes that would further the divide and misallocate resources into an unsustainable expansion. Businesses operating under war profits taxes—taxation on profits beyond an approved amount during wartime—would be taxed upwards of 80% for 1919 and would follow firms even if they dissolved to operate as individual concerns. These taxation regimes might be lessened by redirecting profits into invested capital, shorthand for continued expansion of the business, which was not taxed.⁷ This included funneling paper profits into legitimate capital expansion such as tool and building acquisitions to expanding accounts receivable-- increasing credit transaction for product without immediate cash changing hands. This created the potential for greater return but also greater leverage than the real growth of the economy—which had only grown to 67% from prewar levels.⁸ Although both agricultural and industrial interests were beholden to these new taxes and encouraged to mal-invest, most farm operations were low-margin affairs with little excess cash to be accounted. Larger qualifying agricultural operations such as farm loan associations and marketing co-opts were exempt from taxation.⁹

The attack on industry went beyond the biased scales of finance and taxation. In 1914, the Federal Trade Commission was legislated into existence to become the executive enforcement arm over the country's existing anti-trust laws including the new Clayton

⁷ *Proceedings of the Thirteenth Annual Conference on Taxation under the Auspices of the National Tax Association, Sept. 6-10, 1920*, eds. Alfred E. Holcomb, (NY: National Tax Association, 1921), 108.

⁸ American economic growth, then measured in GNP or gross national product, includes the production of all citizens inside and outside of the United States, unlike GDP. The Department of Labor, expressed in 1958 dollars, estimated GNP in 1913 at \$131.4 billion. In 1918, GNP rose to \$151.8 billion. The CPI deflator calculates \$3 in 1958 to \$1 in 1913.

“Chapter F: National Income and Wealth,” *Historical Statistics of the United States: Colonial Times to 1970 Part 1*, (Washington: GPO, 1975).

⁹ *Revenue Act of 1916*, PL 64-271, *US Statues at Large Vol. 39*, (1916): 765-67.

Anti-Trust Act. The Clayton Act prohibited price discrimination against buyers of the same product and prohibited corporations from owning stock in competing firms, aspects that had been missed in monopoly law since the Sherman Antitrust Act of 1890.¹⁰ But the inflation that dogged the American economy blurred the line between price discrimination and needed markups to repay debts and earn a living. However, a businesses' consumers could now sue for triple the amount of damages found in any violation. As it were, thanks to the lobbying of the iconic head of the American Federation of Labor, Samuel Gompers, laborers and trade unions were exempt from the law's provisions that would have otherwise classified unions as labor monopolies. This empowered labor to push for higher wages as business liabilities mounted.

Labor successes extended to the transportation sector, particularly against the railroads whom had been long accustomed to agitation over long hours and low pay. By 1916, the ritual that had long avoided overt federal intervention came to critical mass. Railway traffic had increased markedly since 1913. In the summer of 1914, Frank Trumbull, executive chairman of the Chesapeake and Ohio railway stated that his lines had seen over 6.5 million passengers boarded, a ten percent increase from the previous year alone. The company's freight tonnage increased by five percent in that same period. But by the summer of 1916, that tonnage had increased a further thirty-one percent.¹¹ In the West,

¹⁰ Section 11 provides for the enforcement of the Act's provisions is to be carried out by the Interstate Commerce Commission in respect to railroads and public utilities, the Federal Trade Commission with other corporations. Section 6 exempts laborers and labor unions from the law.

"An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes," Public Law 212, *US Statutes at Large Vol. 38* (1914): 730-34.

¹¹ *Thirty-Sixth Annual Report of the Chesapeake and Ohio Railway Company for the Year Ended June 30, 1914*, (New York: Chesapeake and Ohio, 1915) 9-13.
Thirty-Eighth Annual Report of the Chesapeake and Ohio Railway Company for the Year Ended June 30, 1916, (New York: Chesapeake and Ohio, 1917), 9.

the Union Pacific's freight tonnage between 1913 and 1916 rose from 16.5 million to 21.6 million.¹² By the summer of 1916, an increased workload and wages that continually bought less made a nationwide strike imminent until Wilson urgently passed the Adamson Act. Using Congress' authority to regulate interstate commerce, the act gave rail workers the nation's first eight-hour workday and authorized per diem pay on top of hourly wages.¹³ These visible labor successes underscore the increasingly precarious nature of the railroads themselves and their interaction with both labor and the state that would only accelerate with the Clayton Act.

By 1916, the great railroads that crisscrossed the country after a half-century of unscrupulous growth had long ceased construction and one-eighth of all railroad lines were under the supervision of federal state receivers, unable to manage their affairs on their own.¹⁴ Despite holding the key to agricultural marketing and transportation and becoming convenient scapegoats, the railroads had suffered a parallel fate on a larger scale. Despite shouts for lower rates from farm interests, railroad expansion in the latter quarter of the nineteenth century had been accompanied by declining rates. Like farm prices, rates rose after the turn of century when the high fixed costs of building were supplanted by increasingly problematic maintenance inputs.¹⁵

The early days of the Wilson administration saw the railroad industry fending attacks from all sides. In the preceding years, state commissions were at liberty to set their own internal state rates on shipping that differed state to state, though it was not always

¹² *Twentieth-Annual Report of the Union Pacific Railroad Company Year Ended Dec. 31, 1916*, (New York: Union Pacific, 1917), 16.

¹³ *Railroad Cases and Selections*, Eds. Eliot Jones and Homer Vanderblue, (New York: MacMillan, 1925), 653.

¹⁴ *Ibid*, 539.

¹⁵ *Ibid*, 401.

reflected by distances traveled. In a decision in favor of the government, Charles Hughes' Supreme Court ruled against Houston East & West Railroad and the Texas Railroad Commission. The latter stood accused of prescribing low freight rates to hubs in Dallas from points in East Texas that were, in fact, closer to the border town of Shreveport, Louisiana, in which commerce was discouraged with higher rates. The 1914 majority decision ruled that intrastate rates, then only a quarter of rate traffic, could be regulated by the federal government if it conflicted with interstate competition.¹⁶ This empowered the ICC to intervene for blanket rates despite regional opposition, particularly from mountain agrarians who pushed for lower preferential rates on agricultural and mining products.¹⁷ As the decision came down, the Panama Canal opened and waterborne traffic that had long been confined within the Atlantic and Pacific Oceans could now transverse with ease. The ICC responded to this by compelling railroad carriers to prescribe preferential pricing toward product destined for ports while maintaining internal rates like what had been alleged in Shreveport discrimination case. The railroads effectively began to subsidize their own competition and losing margins even before the broader implications of the Clayton Act were realized. Even before the United States entered the war, the railroad industry could only maintain a dwindling operating capacity even as traffic levels increased due to business demand. In October 1916, the National Association of Railroad Commissioners, a syndicate of elected state railway authorities that served as a go-between for the states and the ICC, reported a shortage of railway cars. With the onset of winter, the Commission estimated a shortage of 108,000 cars. Coal mines in Colorado

¹⁶ Robert E. Gallamore and John R. Meyer, *American Railroads: Decline and Renaissance in the Twentieth Century*, (Cambridge: Harvard University Press, 2014), 193-4.

¹⁷ Jones and Vanderblue, 95.

were forced to suspend operations while grain sat uncollected in the railway stations of Iowa, Nebraska, and Kansas, for lack of transport. The Commission knew quite well that there was not a material shortage of cars. Both Union Pacific and Chesapeake and Ohio continued to purchase thousands to add to their fleets year after year, although at increasingly inflationary costs. The shortage was blamed on the failure of carriers to return existing equipment on time.¹⁸ Demurrage, or late fees on the keeping of equipment past allowable free time, was the usual solution. But in the atmosphere of the Shreveport Case and the Clayton Act's prosecution of price discrimination, no one in the state commissions could agree on these rates even as cars seemed to disappear while traffic peaked to all-time highs. By the time the Commission's suggested demurrage rules were approved by the ICC in January 1916, the damage appeared to be done.¹⁹ Such was the state of the railroads that there was question that the nation's transportation infrastructure could continue to function in private hands. Even as Wilson and the Democratic party campaigned on keeping America out of Europe's war, their Congress passed the Army Appropriations Act of 1916. While the Act provided routine allocations for the armed forces, it also provided for the President to nationalize the railroads should an emergency

¹⁸ Between the 1913 and 1916 annual reports of the respective firms, Chesapeake and Ohio added 2,265 cars. Union and Pacific added 6,539. However, the latter lost cars on their asset statement for the first time in the sample size, with a total of 41,185 freight cars in inventory in 1915, declining to 39,153 in 1916. *National Association of Railway Commissioners: Proceedings of the Twenty-Eighth Annual Convention Held at Washington DC November 14-17, 1916*, (Washington: GPO, 1917), 361

¹⁹ The ICC approved the National Commissions' freight car recommendations of a forty-eight-hour free time period followed by a penalty of \$1 per car per day. Additional penalties of up to \$5 per day were added on top of the demurrage penalty for refrigerated cars. However, loading and unloading were considered two separate transactions so the time would start over. This indicates a labor issue at the terminals, one that needed to be pushed and penalized in order to offload cars but one not pushed onerously to force the unloading of a car in too short of a time.

Interstate Commerce Commission, National Car Demurrage Rules and Explanations: As Accepted by the American Railway Association and Tentatively Received by the Interstate Commerce Commission, January 1916, (Washington: GPO, 1916) 6-11.

come to pass. It also provided for the creation of the Council of National Defense, a team of industry experts and cabinet members that would coordinate material and labor in coordination with the executive.

The management of the economy that reached its fever pitch during the Great War had been building through popular support for decades as the United States transformed from an agrarian to an industrial power; This change left a vital center of Americans uncontented with the old ways that failed to alleviate ever magnified issues—what Robert Wiebe called “a search for order.” Americans left their island communities to collect in urban centers and the problems of habitation multiplied. Scientific inquiry became a preoccupation in the years after the Civil War—especially in fields that defied science, such as the understanding of economics and labor. Carroll D. Wright conducted the first study of labor statistics in the 1870s. The collection of large amounts of information mandated a bureaucracy to collect, analyze, then disseminate information and implement solutions. This was typified by scientific management principles laid out by mechanical engineer and business consultant Fredrick Winslow Taylor.

Taylor, who was best known for turning around Bethlehem Steel at the turn of the century, emphasized a keen division of labor by task with an emphasis on timeliness.²⁰ Wage by the hour, time per unit, and shifts measured in a never-ending twenty-four-hour cycle was overseen by a dedicated managerial class. This subordination increased production, lowered shelf costs, and motivated uniform labor performance where idleness was punished. The move toward scientific management sharpened the division between

²⁰ Robert H. Wiebe, *The Search for Order: 1877-1920*, (New York: Hill and Wang, 1967), 147.

labor and management and furthered the notion of the parasitic capitalist. But Taylorism was symptomatic of large societal trends that sought answers to complex problems. For Wright, it was the problem of unemployment during the Long Depression. For Taylorists, it was a company's effort to both increase profit margins now while lowering costs in times of limited market availability and decades' long deflation to ensure future sales. Taylorism strongly emphasized scientific management, but it was an attitude that strongly pervaded American society and those who sought to use it toward progress. Robert Wiebe in *A Search for Order* called progressivism "the ambition of the new middle class to fulfill its destiny through bureaucratic means."²¹ In this context, the founding of the Federal Reserve was the culmination of this movement and a test-run of bureaucratic management of the economy toward targeted ends. The creation of the Council for National Defense signaled how that management would be extended to encompass greater spheres of daily life with war as the justification. Scientific management would ultimately bring the economy to its knees, but many of its highest-level practitioners like Herbert Hoover and William Gibbs McAdoo would free-wheel the political landscape in the next decade.

2.2. Market Panic and the Founding of the Food Administration

Even before Congress declared war on Germany, the fallout of the Zimmerman telegram and the resumption of unrestricted submarine warfare had convinced the Europeans that the US would soon enter the war. As 1917 wore on, the prices on agricultural goods—particularly wheat—shot skyward. In Minneapolis, the flour capital of the world, the September wheat crop was selling as high as \$2.42 a bushel despite more

²¹ Ibid, 166.

resilient production on the farm than in the previous year when that same bushel fetched upwards of \$0.93.²²

The farmer was getting his due but the ordinary consumer was priced out of bare necessities. Reports of speculative activity, particularly amongst merchants and brokers, after the declaration of war had long mounted. Within weeks of the nation entering the war, *the Day Book* recorded mass food destruction in Chicago amongst the merchants of South Water Street, claiming that hundreds of residents “have seen cartloads of good vegetables allowed to rot on a siding because if they were allowed to come onto the market they would bring prices down and the merchants would lose.”²³ With these stories and the ever-increasing bids going into print with every passing newspaper issue, rumors of shortages gained credibility. These fears combined with the federal government’s entrance into the food market to supply the war effort and keep her new war allies fed led to the establishment of the Food Administration in August 1917 through the Lever Food Act. Although the act bears the name of Democratic congressman Ashbury Lever, its chief architect was Herbert Hoover.

A dapper, stiff-collared man of forty-three when he came to national fame, Herbert Hoover’s rise was a typical up-by-the-bootstraps tale seemingly at odds with agriculture. Born in Iowa in 1874, Hoover was orphaned at age ten before relocating to the Oregon frontier, where he overcame a spotty educational and personal life to become one of the first graduates of Stanford University. By 1914, Hoover’s career as a mining engineer in the remote corners of the Sierra Nevadas, Australia, and China had made him a

²² *Annual Report of the Minneapolis Chamber of Commerce 1923*, (Minneapolis: Minneapolis Chamber of Commerce, 1924), 89.

²³ “South Water Street Merchants Hit as Price Jugglers,” *The Day Book*, (Chicago, IL,) April 21, 1917.

multimillionaire; but the unforgiving working conditions he witnessed in the mines and refineries had made him into a progressive without a political outlet.

That opportunity came in summer 1914. Hoover had transitioned from field work to consulting in London when war broke out in Europe. Hoover used his prominence and his own personal fortune to establish the Committee of American Residents in London for the Assistance of American Travelers. Through 1914, the organization helped some 40,000 Americans flee the Continent for home. As the German army marched through Belgium and northern France, tales of violence and food seizures perpetrated against civilians floated in London. On hearing what the English press were calling “the rape of Belgium,” the engineer from Iowa sprung into action by establishing the Committee for the Relief of Belgium. He and a close group of wealthy benefactors and volunteers raised over a million dollars in its first week of operation. These donations were thrown at purchasing rapidly dwindling stocks of wheat from shuttering world markets and funneled through neutral Holland into the hands of Belgian and French civilians.²⁴ Their German overlords, relieved of the responsibility to their new subjects, did little to hinder this neutral party that continued to be the lifeline for millions as the war dragged on. Hoover later wrote that his switch from private to public life was unexpected and reluctant, but when he returned to Washington DC just as President Wilson broke diplomatic relations with Germany in January 1917, he was a man on the hunt for an office. He congratulated Wilson on the latter’s move to finally bring peace, but urged that it is “desirable, as a matter of preparedness, to take early steps for the formation of a great national

²⁴ William E. Leuchtenburg, *Herbert Hoover*, ed. Arthur M. Schlesinger and Sean Wilentz, (New York: Henry Holt and Co, 2009), 25.

relief fund to meet the present crisis at home.”²⁵ Hoover had a dark appraisal of the food situation. In a secret telegram from London in April, shortly after Congress declared war on Germany, Hoover concluded that there would be a worldwide food shortage by the next harvest and America’s new allies in Europe had little more than one month’s supply of corn and wheat. Germany’s resumption of unrestricted submarine warfare meant that neutral food shipments were once again legitimate targets.²⁶ This likely fed the fears of foreign purchasing agents seeking to buy as much as possible to offset inevitable shipping losses and before the American government’s own war demand cannibalized supply. These fears were confirmed by Sir Richard Crawford, Britain’s former Commissioner of Customs and an advisor to the British embassy in Washington DC. In a June 1917 letter to President Wilson, he appraised the shipping situation. Since the beginning of the war, Britain lost 4.3 million tons of shipping—1.8 million tons in only the previous four months.²⁷ To make matters worse, the February Revolution had broken out in Russia and the world’s largest exporter of grain teetered on collapse.

²⁵ Hoover, in his capacity as chairman of the Belgian Relief Commission, sent his congratulations via telegram after a conference of relief organizations on the 7th of February. He prefaces the establishment of a relief fund “primarily for the American Red Cross and secondarily for other relief organizations both at home and abroad.” He does not elaborate on what he perceived to be a crisis. “Telegram” in *The Papers of Woodrow Wilson Vol. 41, Feb. 7-Apr. 6, 1917*, eds. Arthur S. Link, (Princeton: Princeton University Press, 1983,)113.

²⁶ In previous correspondence, Hoover cautioned the vetting of exporters as he observed American foodstuffs trickling into Germany through neutral countries, whom would then resell those goods to Germany, bypassing the British naval blockade. Now, Hoover insisted that all neutral exports end at once. Hoover recommended a three month’s supply of grain to the Entente, calculating a need of 110 million bushels of wheat and corn. He estimates that Argentina and India can supply ten million bushels, leaving a deficit need of at least 100 million bushels. The resumption of Germany’s policy of unrestricted submarine warfare had the effect of stalling food shipments.

Australia had ample grain supplies for export but a lack of shipping prevented its use.

“Hoover to Woodrow Wilson, April 19, 1917,” in *The Papers of Woodrow Wilson Vol. 42, April 7-June 23, 1917*, eds. Arthur S. Link, (Princeton: Princeton University Press, 1983), 109.

²⁷ “Sir Richard Fredrick Crawford to Woodrow Wilson June 20, 1917,” *Woodrow Wilson Papers Vol. 43, 45*.

In this atmosphere, the Food and Fuel Act was passed. The Act vested the executive branch with a broad authority to “maintain the supply” of food, feed, and fuel. The President was specifically charged with directing compensation to these industries and fixing prices on both wheat and coal.²⁸ More generally, attempting to hoard or tamper with supply was now a federal crime punishable by a fine and up to two years in prison. On Hoover’s frantic urging, President Wilson declare a price of \$2.20 per bushel and formally establish Uncle Sam as the primary buyer by executive order. The rate was middling given the fluctuations of a speculating market. Some have suggested that farmers protested that the rate was too low, never mind that the guaranteed price was a minimum rather than a maximum price—a price floor similar to a minimum wage. Hoover warned of prices reaching over \$3 a bushel but the guarantee did nothing to prevent this. The wheat man could expect a bare minimum of \$2.20 or higher, depending on his crop demand. By executive order, he could not undersell. This would encourage the farmer to produce more to take advantage of the price, thus ensuring a surplus that would weather the war. The farmer stood to benefit from the Food Act, but it was all too easy to run afoul of its provisions should demand fall. Hoarding food to await better prices was punishable.

In this atmosphere, the Food and Fuel Act was passed. The Act vested the executive branch with a broad authority to “maintain the supply” of food, feed, and fuel. The President was specifically charged with directing compensation to these industries and fixing prices on both wheat and coal.²⁹ More generally, attempting to hoard or tamper with supply was now a federal crime punishable by a fine and up to two years in prison. On

²⁸Hoover noted that wheat bushel prices on the market were nominally between \$2.00 and \$2.25 and claimed it would be \$3 within a month. He blamed purchasing agents from neutral countries and speculation for the rapid increase in prices.

²⁹ *Food and Fuel Control Act*, PL 65-41, *US Statutes at Large* 40, 276-78

Hoover's frantic urging, President Wilson declare a price of \$2.20 per bushel and formally establish Uncle Sam as the primary buyer by executive order. The rate was middling given the fluctuations of a speculating market. Some have suggested that farmers protested that the rate was too low, never mind that the guaranteed price was a minimum rather than a maximum price—a price floor similar to a minimum wage.³⁰ Hoover warned of prices reaching over \$3 a bushel but the guarantee did nothing to prevent this. The wheat man could expect a bare minimum of \$2.20 or higher, depending on his crop demand. By executive order, he could not undersell. This would encourage the farmer to produce more to take advantage of the price, thus ensuring a surplus that would weather the war. The farmer stood to benefit from the Food Act, but it was all too easy to run afoul of its provisions should demand fall. Hoarding food to await better prices was punishable.

The presidential order stabilized wheat, but to tend to the agricultural economy, more minds were needed. Hoover was asked by President Wilson to head the Food Administration that would enforce the Lever Act's provisions. He accepted on the condition that he and his advisors receive no pay; he also qualified his acceptance on the condition that he could make final decisions. Neither Congress nor his appointed surrogates within the Administration could overrule him. For Hoover's part, he was answerable only to the President.³¹ This made Hoover the final authority over what food was sown,

³⁰ Shideler, 13.

³¹ Hoover admitted in his later years that he preferred to run an organization as a single, responsible executive, having come to hate the nagging of boards and commissions that dominated food issues in Europe. Hebert Hoover, *An American Epic: Famine in Forty-Five Nations*, (Chicago: Henry Regnery Co., 1959), 30. In a statement on the then unpassed Lever Bill nominating Hoover to undertake his task, Wilson implored Congress to pass legislation that "it is only in the way that we can prove it is absolutely unnecessary to resort to the miserable and drastic measures whom have proven to be necessary in some of the European countries." *Wilson Papers*, Vol. 42, 344.

harvested, transported, refined, and distributed, and at what price each workman in the supply chain was entitled to earn. Hoover's Food Administration was the sole distributor of new government licenses that authorized private businesses to sell, broker, and export food stuffs, as well as the authority to turn violators over for prosecution. The Espionage Act, passed along with the Trading with the Enemy Act, also gave Hoover unilateral authority to approve or embargo unapproved food shipments nationwide. Likewise, Hoover had a vote in the staff of an ever-increasing bureaucracy centering in Washington DC. He nominated the Ohio law professor and railroad syndicate manager Harry A. Garfield to join the new War Industries Board's Price Fixing Committee. Garfield would ultimately chair the new Fuel Administration that worked in lockstep with the Food Administration to enforce the Lever Act's provisions across all industries with controls on electricity, fuel oil, and coal. One Senator remarking on Hoover's meteoric rise as having a power "such as no Caesar ever employed over a conquered province in the bloodiest days of Rome's bloody despotism."³²

2.3. Traffic at a Standstill and the Creation of the Railroad Administration

The market frenzy that saw commodities funneled to the highest bidder also played havoc with railroad companies already on the edge of collapse. Inflexible rates subject to ICC approval could not be adjusted to regulate traffic that now flooded the rails in the spring of 1917. Further, rail companies were burdened by increasing wage expenses set in place by the Clayton Act and inflationary pressures that ate at maintenance expenses. By June 1917, Union Pacific noted a twelve-percent increase in operating revenue but a seventeen percent increase in operating expenses over the previous year, partly through

³² Leuchtenburg, *Hoover*, 34-38.

retirement of worn equipment and partly through the expansion of its car fleet even as the latter became preciously few out West. ³³Those cars could readily be found unmoving and loaded the closer the rail lines got to the Atlantic. Professor Albro Martin, in *Enterprise Denied: The Origins of the Decline of the Railroads*, recalled mass congestion of the rail lines in the East in which “boxcars loaded with goods of low priority and with no early prospect of ocean shipment blocked the piers while high-priority goods for which ships were waiting in the harbor sat in the yard or were sidetracked miles from the coast.”³⁴

³³ *Twenty-First Annual Report of the Union Pacific Railroad Company Year Ended Dec. 31, 1917*, (New York: Union Pacific, 1918), 7.

³⁴ Gallamore, 58.

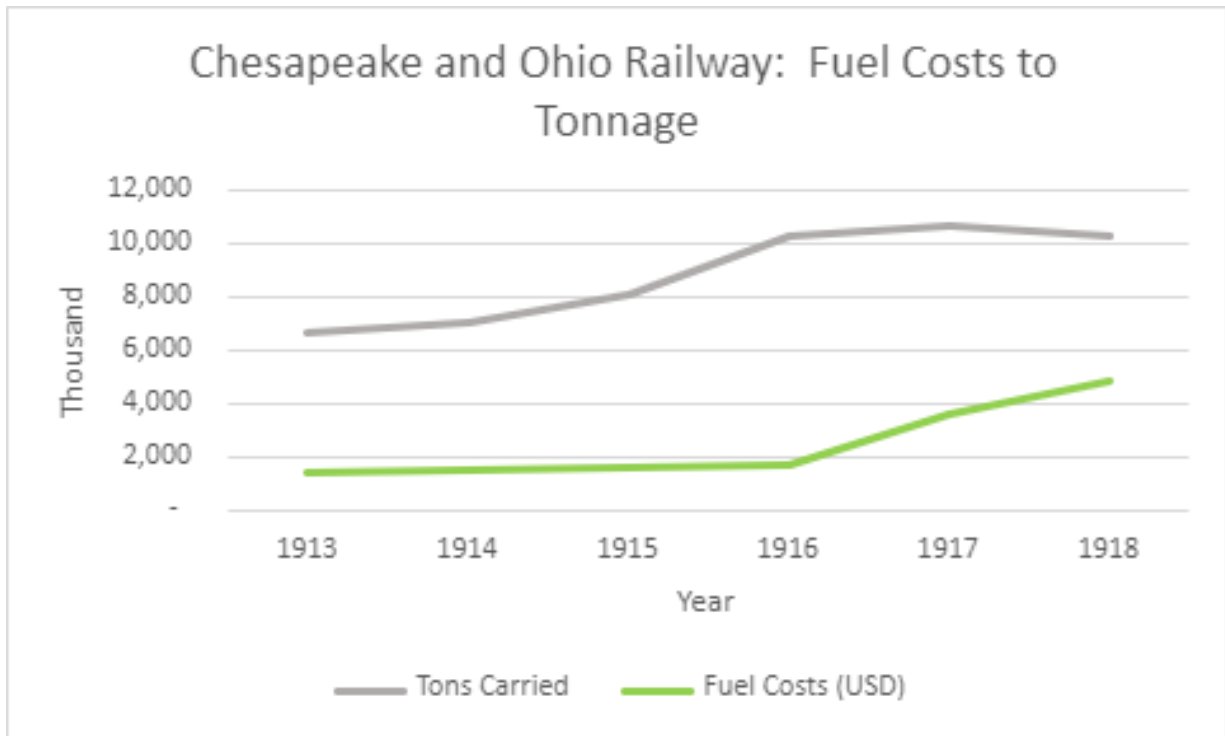


Fig. 2.1.³⁵ Chesapeake and Ohio Railway: Fuel Costs to Tonnage

Fig. 2.1 shows the Chesapeake and Ohio’s long struggle with this congestion. Rail fuel costs had increased marginally over the boon in tonnage in 1916, indicating mass sluggishness with loaded freight and passenger cars. In December 1917, the company reported that its yard and locomotive fuel costs had doubled over the previous year over a marginal increase in tonnage. This correlates with a doubling of steam coal spot prices from increased mining labor costs in the summer of 1916 and January 1917.³⁶

³⁵ Annual Report of the Chesapeake and Ohio Railway for the Year Ended June 30, 1914, 13; June 30, 1916, 9; December 31, 1918, 21.

³⁶ After the tumult of strike fears of 1916, wage demands translated to increased spot prices on anthracite coal. New York spot prices for steam coal rose from \$1.31 to \$2.48 per ton by January 1917. W. Jett Lauch, *Wholesale and Retail Prices of Anthracite Coal 1913 to 1920: Before the United States Anthracite Coal Commission*, (Washington: GPO, 1921),7.

Given that the rail industry chiefly relied on contracted deliveries, these increased fuel costs reflected perceived future conditions. Water usage gives a more accurate indication of operations given the need for steam power and the resources insulation from outside forces through water infrastructure rights often built by the firms themselves. Rail water costs increased tepidly from 1915 onward, in line with increased traffic. But yard locomotive water costs skyrocketed from a year-to-year increase of 6.4% from 1915 to 1916. In 1917, yard water use increased by 40%.³⁷ Massive fuel costs hikes due to far-off labor demand trickled down to increased passenger and freight costs leading to higher paper profits. Those profits kept pace with trains that ran at full speed; only when the wheels stopped did the real losses begin. The jobbers and dock workers needed to offload freight cars were overextended and intermittently on strike. The port states of New York, Pennsylvania, and Massachusetts saw 1,558 strikes from all labor classes in 1917. That was a year that saw a record 4,450 strikes nationwide. In the skilled trades, the transportation industry was in increasing peril as anxiety amongst the other trades such as construction, coal, and textiles, had fallen. In 1915, there were fifty-two transport strikes. In 1916, 228. In 1917, it had risen to 343.³⁸ Most of these disputes stemmed from demands for better pay to offset inflation. Caught between inflationary wage demands on both ends of the supply chain, the railroads teetered on the edge of collapse and with it access and maintenance of the nation's railways and a diverse array of infrastructure on their books including grain elevators and water lines.

³⁷ *Fortieth Ann. Rep. Chesapeake and Ohio*, 20.

³⁸ Florence Peterson, "Strikes in the United States 1880-1936," *Bureau of Labor Statistics*, (Aug. 1937), 35-38.

Reacting to the situation with characteristic ruthlessness, President Wilson nationalized the railroads on December 26, 1917 and established the Railroad Administration to manage the logistical nightmare that now faced the nation. In an act of comedy in any other context but war, President Wilson appointed the man perhaps most responsible for the transportation calamity in the first place, Treasury Secretary William Gibbs McAdoo as his new Director General of the Railroad Administration.

Like his father-in-law, McAdoo was a wiry southern Democrat whose youth had been spent bearing witness to a Reconstruction that imparted in him a characteristically Jacksonian view of common men. Like Jackson, McAdoo made his early career in Tennessee law but quickly fell on hard times after squandering his funds in a failed bid to electrify Knoxville's railways. In 1892, McAdoo and his family moved to New York City.³⁹ After a few years of scrapping by, McAdoo found new success in bond sales and corporate law working with the Hazleton and Wilkes-Barre railroads. This experience enabled him to raise the capital to construct the first railway tunnels under the Hudson River to link New Jersey with Manhattan Island. The "McAdoo tubes" were finished with great fanfare in February 1908 and came to save millions of travelers and endless cargo commuting time that would otherwise be done by ferry.⁴⁰ This great leap of progress catapulted McAdoo to national prominence and to the attention of New Jersey governor Woodrow Wilson. McAdoo served as a key advisor to Wilson in the election of 1912. A short twenty years after fleeing financial ruin in Knoxville, Tennessee, McAdoo was put in

³⁹ Douglas B. Craig, *Progressives at War: William G. McAdoo and Newton D. Baker, 1863-1941*, (Washington: Johns Hopkins University Press, 2013), 14.

⁴⁰ *Ibid*, 28.

charge of the nation's finances when Wilson tapped him as Secretary of the Treasury. McAdoo was the key figure in financing the Federal Reserve's inflationary policies. All government securities, all gold and silver certificates, all greenbacks, and all new Federal Reserve notes—even the offices of the Federal Reserve Board—originated in McAdoo's Treasury department, while the latter centralized real money in its own hands.

The inflation crisis now threatened the nation's transportation system and McAdoo, himself responsible for those events, was tasked with saving the situation. McAdoo delegated responsibility for rail management to the Railroad War Board, a panel of five railroad CEOs including Chesapeake's Frank Turnbull, to manage the nation's rails until Congress passed the Federal Control Act in March 1918. The Act left corporate boards to their day-to-day operations while the financial burden of running the nation's rails fell on McAdoo's Treasury. The railroads would be compensated with a "standard return" calculated through an average of net profits from a test period that began in 1914. The Act authorized an across-the-board rate increase to compensate for expenses, but any excess profits over the standard return became the property of the federal government.⁴¹ It also legitimized the Railroad Administration, a select group of experts who had the final say in all matters and were answerable only to President Wilson.

Profits would now come under government control, but so did the burden of financing maintenance and pacifying labor agitation through a rail network that now spanned 300,000 miles nationwide—problems that progressive ideologues had, until now, encouraged. In mid- 1918, McAdoo raised freight and passenger rates to offset the burden

⁴¹ *Fourth-First Annual Report of the Chesapeake and Ohio Railway for the Year Ended December 31, 1918*, (New York: Chesapeake and Ohio, 1919), 8-10.

with discriminatory pricing to discourage commerce he deemed wasteful. Long-haul shipping was prioritized over town-to-town transport and traffic was dampened while yielding theoretical increases in revenues. But this was not enough to soften the depreciation of equipment and the funding of betterments to keep the system running at capacity. McAdoo, in his capacity as Secretary of the Treasury, had two options: taxation or inflation.

2.4. The Liberty Loan and the Nationalization of Savings

The spring panic that struck American markets in 1917 that led to the nationalization of the nation's food, fuel, and transportation systems was not for the lack of those goods and services but the perceived inability to buy them. The disquiet was a monetary issue and it was silenced by monetary nationalization. Treasury Secretary McAdoo and the governors of the Federal Reserve Board's incoherent campaign to stamp out inflation by creating credit inflation had been made untenable by the price spiral that hit markets in spring 1917. President Wilson personally appealed to a world audience that was desperate to listen. He provided carefully worded assurances that all comers would be served and facilitated this image by approving a Congressional appropriation of \$10 billion in credit to the Entente that would be borne at the expense of the US government.

It was an amount that was nearly double the currency then in circulation in the American economy. It was hoped that any inflation this would cause would be amortized through government securities available to the public that would be repaid over time. To ensure the success of this financing effort, he charged the Federal Reserve to discourage bullion exports abroad while declaring an embargo on specie imports. President Wilson deferred control over international money to the Federal Reserve, who would approve or

disapprove shipments via a paper application before forwarding it to the Treasury for final approval. In a practical sense, Wilson was only acknowledging the reality of his son-in-law's gold hoarding scheme, but this move had massive public implications. It was the final break from the American banking system's attachment to hard money. Although gold and silver continued to be used in commerce, and token amounts were allowed into the economy by the Treasury in 1917 and 1918, the gold standard had become an act of faith. Bullion was not freely dispersed on demand and the free exchange of bullion, first through hoarding and now through embargo, had been undone. The end of the gold standard had all but been assured during the 1916 campaign season when the Federal Reserve Act was amended to allow Federal Reserve notes, which had previously been backed in gold, to be backed by government securities instead.⁴² This continued the upward march of the cost of labor, living, and the debt to afford it—this time through currency backed government securities.

The mass-monetization of government debt was through by Wilson to be an indirect means of giving Europe and the American government needed transaction power without directly resulting in an excess of currency in circulation. Government credit, in a sense, would delay an inflation by securitizing repayment over longer periods of time. It appeared to be the only sustainable option. Paul Warburg warned of mass inflation if the government proceeded to create new currency and enter the market against its own citizens, while Benjamin Strong cautioned that getting the needed cash via taxation was

⁴² Executive Order 2697, issued on September 7, 1917.

The Report of the Secretary of the Treasury for 1917 states the number of Federal Reserve notes in circulation for 1916 at \$173,100,785. By the end of the fiscal year in June 1917, it had already risen to \$544,412,775.

also counterproductive. Tax policy had reached its most draconian in the Revenue Act of 1917 and it would be followed up by the harsher Revenue Act of 1918, which would remain the de facto code for the next three years. Although the Treasury collected ever greater receipts, the number of taxable high-income earners dropped in 1917. The wealthy continued their capital investments, rather than draw a paycheck themselves while ordinary workers continued to struggle with inflationary woes. Seeing the obvious, Treasury Secretary McAdoo thought taxation and inflation would be counterproductive. Instead, they opted to talk Americans out of their money by marketing—the Liberty and Victory Loans. The *New York Times* propagated the benefits of war bonds by laying out the differences between taxes and loans. Taxes took long periods to collect, a loan could be made quickly. Further, unlike taxes, “when a loan is floated the citizen is appealed to for subscriptions and he may invest or refrain from investing his money in government bonds as he wishes.” For that matter, taxes were not refundable with interest.⁴³

Such assertions were technically true, but effectively false as the debts accumulated would need to be repaid with interest through taxes or additional inflation in the future while already-cash strapped Americans struggled in the present. The propaganda campaign for the Liberty Loan was immense. The Federal Reserve’s Liberty Loan committees organized bond drives nationwide with famous names such as Douglas Fairbanks and Charlie Chaplin taking to the soapbox to sell subscriptions. The four issues of Liberty Loans of 1917 and 1918 and the Victory Loan of 1919 were a wild success—

⁴³ “Federal Reserve’s Place on Government Financing: How the First Year of War Was Financed,” *New York Times*, Jan. 6, 1918.

raking in over \$31.06 billion and turning tens of millions of Americans into investors for the first time.⁴⁴

The Liberty Loan has been celebrated as a hallmark in investment history. The everyday occurrence of investing in stocks, bonds, and other assets to protect savings and hedge against the future began when millions of Americans traded for the very first time and became true stakeholders of republican governance with the Liberty and Victory loans. But that \$31 billion sum raised to “make the world safe for democracy” pillaged savings that had managed to survive inflation and presented the dangers of leverage in financial institutions. Unknown to previous scholarship, some twenty percent of Liberty Loan subscriptions were taken out by banks and the remainder was of questionable quality.⁴⁵ Benjamin Strong, in his capacity as chairman of New York’s Liberty Loan committee, warned his colleagues in a memo placing potential investors into a tier system, ranked from most favorable to least. The “least desirable buyer” was one who would buy on installment through her bank.⁴⁶ Congress established a system of war finance below the \$50 minimum for a Liberty bond through a war-savings stamp that could be bought for \$1 and an aggregate of fifty stamps could be transferred into a bond. But it may have been more

⁴⁴ A total of \$31,061,304,550 in subscriptions were collected on the government’s credit by the Treasury’s accounting for 1918, 1918, and 1919 respectively. The Fourth Liberty Loan raised nearly \$7 billion alone with 22,777,680 subscribers—thirteen million of which pitched in the minimum amount of \$50. *Report of the Secretary of the Treasury on the State of the Finances for the Year ended June 30, 1919*, (Washington, GPO: 1920), 225,253.

Sec. Of Treasury 1918, 7,18.

Sec. Of Treasury 1917, 6, 10

⁴⁵ Benjamin Strong, “Government Loans, “*Liberty Loan Committee: New York*, (July, 16, 1917.), 3.

⁴⁶ Banks were discouraged from carrying out a “subscribe and borrow policy” for the Victory Loan and instead Americans were encouraged to use a government endorsed installment plan. The Federal Reserve Board maintained through 1919 that there were few defaults on these subscriptions and commercial banks did not hold a significant amount of Liberty bonds. However, this coincides with the liquidation of Liberty bonds already underway that reduced the \$31 billion in floating debt to \$26.6 billion in total debt by the conclusion of the Victory Loan.

Fed. Reserve Board 1919, 108, 449.

convenient to finance the minimum. This sort of investor, patriotic as they might be, was likely to be leveraged and forced to economize to begin with. Enough of them might default and put their banks into peril. But by that same token, the bank could borrow from the Federal Reserve to meet subscription demands. As such, financed bonds and bonds held outright by banks as investments, were themselves being financed by the Federal Reserve. Despite all the claims of voluntarism and the chill of monetary conservatism the Liberty loans promised, they were little more than additional inflation and a mass redistribution of wealth from the American people to the administrative federal state by a Federal Reserve that was essentially paying itself. This chicanery masked inflation in the short term but created unbearable burdens for the future. The inflation rate slowed in 1917 and 1918, but the bubble had not been dealt with. Worse, the government interest-bearing debt had stood just over \$1 billion in April 1917 ballooned to over \$26.6 billion in August 1919 as the Victory Loan was solidified, the repayment of which could only be made by inflation or taxation.⁴⁷

The Food and Fuel Administrations leveraged previous legislation to control the production, storage, and distribution of necessary commodities—and thus their pricing and availability to the consumer. The Railroad Administration followed by assuming responsibility of the infrastructure that made transportation and storage possible. Finally, in one of the nation’s most celebrated moments—the funding of the Liberty Loan—the Federal Reserve formally entered open market operations to nationalize the country’s savings. The American people, already stretched by the Federal Reserve’s inflationary equity policy, now had to contend with the nationalization of their own government bidding

⁴⁷ *Sec. of Treasury 1919*, 30.

at their expense and, finally, expropriating the remaining savings that managed to survive the inflationary frenzy. The stage was set for an intense inflationary spiral where endless capital chased nonexistent product.

Money Without a Seller: The Inflationary Spiral of 1919-1920

The Armistice brought both relief and anxiety to Benjamin Strong. The Great War ceased on November 11, 1918 and his eldest son, Benjamin Strong III, could count himself lucky to have survived his time as a young officer serving in France.¹ The war his father helped to finance, on the other hand, had left the world on an economic precipice. Central Europe and Russia collapsed into inflation, famine, and revolution—removing them from the world economic system almost entirely. Those fortunate enough to be spared direct involvement were little better off, having to unfreeze diplomatic and trade arteries that had frozen for the last four years. The United States may have emerged as the world's foremost power in 1918, but it may have been only in comparison to severity elsewhere. American enterprise, despite experiencing massive corporate profits, high wages, and record low unemployment, was in danger due to the dramatic expansion. Benjamin Strong, governor of the Federal Reserve Bank of New York, knew that the financial consequences of the years of gold hoarding and credit expansion could no longer be put off now that the war was over. It was the start of a relative conservatism that would follow him throughout the remainder of his tenure and seal his historical reputation as a defender of sound money—vis a vis—the gold standard. Certainly, Strong's steadfast belief in the market calm of gold reflected to his time as a younger man assisting the great champion of calm, JP Morgan, through the Panic of 1907. But there is little evidence of this conservatism in the decade long interlude that marked Strong's ascendance—a rise that would be tested when he broke with the Treasury that he had long enabled.

¹ Benjamin Strong, "From Benjamin Strong to President Woodrow Wilson, March 30, 1919," *Papers of Benjamin Strong Jr.*, Federal Reserve Bank of New York.

Despite never obtaining a seat on the Federal Reserve Board, Strong wielded unique power by virtue of his experience within and proximity to New York City's financial district. His branch was home to more capital than all other Reserve districts combined. From the start Benjamin Strong supported Treasury Secretary McAdoo's gold centralization plan for both political and practical reasons. Trade in money and what it could buy had political power of its own. Given his branch's proximity to the Treasury department and Wall Street, Strong was perfectly situated to make a name for himself and ensure that the Federal Reserve System, one designed by the banker class, stayed in capable hands in New York—in effect allowing Strong an invisible hand on both the market and the Board of Governors. But more practically, Strong through centralization would allow gold to be rushed to wherever it was needed to meet flexing regional demands.² For Strong, the war had justified his position. Imports and exports of gold had to hazard U-boat infested waters and insurance companies had to risk high payouts.

Internally, insurance and timeliness were also in question. The railroads necessary for speedy transport were increasingly bogged down by strikes, traffic jams, and car shortages that had begun in previous years. To these ends, gold was collected in New York and inside the Treasury vaults in Washington, and differentials noted on the accounts of member banks through a Gold Redemption Fund without the physical transaction of gold. But inevitably, transfers did occur in the favor of New York at the expense of Southern and Western banks whose reserves were increasingly unavailable for their depositors. By the time of the Armistice, Strong proposed before the Board that international payments could

² Naclerio, 79.

be made the same way.³ Throughout the war years, Strong expanded his bank's gold portfolio and was the main recipient and distributor of all paper. In 1917, the Federal Reserve Bank of New York spearheaded the System's plunge into the acceptance market. No longer would the Federal Reserve deal in domestic securities to smooth out the business cycle, it would carry credit contracts to the far corners of the world.⁴

In his position as governor, Strong was also the chairman of New York's Liberty Loan Committee that siphoned off the lion's share of the cash raised from the Liberty and Victory bond drives that succeeded in financing the prosecution of the war. But the successes of his professional life were foiled by immense tragedy at home that would ultimately prove consequential to the world order he framed. The stresses of Strong's presidency at the Banker's Trust on Wall Street had proven taxing for his family. In 1905, his first wife Margaret committed suicide. In 1916, Strong contracted tuberculosis. It was an ailment that would claim his life, but the disease had driven his second wife, Katherine, to abandon him and take their children with her to start a new life in California.⁵ Strong could do little but head for dry mountain air—then the only known means of postponing the disease. Telegrams from picturesque Estes Park, Colorado and Hot Springs, Arizona show a man in a state of fluctuating health, wasting away one day, bulking up the next, and summoning just enough strength to return East to occasionally revisit a war economy

³ Clay J. Anderson, *A Half Century of Federal Reserve Policymaking 1914-1964*, (Philadelphia: Federal Reserve Bank of Philadelphia, 1965), 10-14.

⁴ By Congressional act in 1915, member banks were authorized to deal in the acceptance market. Acceptances for sale included bank and trade acceptances--i.e. letters of credit carried pending the shipping and arrival of physical goods to be redeemed by the merchant's financial institution. In 1916, a further act allowed member banks to invest in acceptances up to 100% of their capital and surplus. *Annual Report of Federal Reserve Board for the Year Ended June 31, 1918*, (Washington: GPO, 1919), 18.

⁵ Scott Nations, *A History of the United States in Five Crashes: Stock Market Meltdowns that Defined a Nation*, (New York: Harper Collins, 2017), 61.

he set in motion.⁶ Now the war was over and when it became clear that the US government fully intended to raise yet another loan in the spring of 1919 without unanimous Board approval, Strong was forced to confront the fact his policies of inflation control had failed and a codependence with the Treasury Department had enabled it. Now the Victory Loan, as it became called, threatened to deepen the problems of readjustment by increasing the debt burden and depriving American citizens of their funds when it was now abundantly clear that efforts to stop inflation had failed. Through 1919, inflating out of trouble became counterproductive as the strain on higher costs of living invited violence and apathy.

3.1. Patriotism at an End: The Failed Marketing of the Victory Loan

The cracks began to show with the marketing of the Liberty Loan in February 1919 as industries began to slow production and war contracts wound down. The government shifted from prosecuting a war to prosecuting a peace that looked all too uncertain. The costs of transitioning from war to peace, to shore up Europe, and to get American servicemen home and back to work, were problems for which the Victory Loan was meant to solve. But for the first time since the First Liberty Loan, the public was less than enthusiastic and less willing to give up their increasingly precious cash. Despite a generous 4.25% interest rate, the assurances of redeemability in gold, and a relentless public campaign that reached ever-more isolated tracts of the country, contributions were wanting as the dulled pain of economic life returned.

⁶ “Strong to William McAdoo,” Nov. 25, 1918, *Papers*.
“Strong to Carter Glass,” April 3, 1919; Jan. 14, 1920, *Papers*.

The final report of the National Women’s Liberty Loan Committee, an organization that accounted for a quarter of all bond subscriptions, shows a nation divided in equal measures of resolve and angst. Loudon County, Tennessee echoed its wartime zeal and readily oversubscribed to the loan; one resident claimed all they needed in exchange were “two German helmets as trophies; the war is over.” Perkins County, South Dakota—a territory without paved roads and highways in 1919—hosted men and women that drove seventy miles to cheer parading tanks and deliver their subscriptions. But sometimes cash was not forthcoming. The committee scarcely mentions the use of peanuts as currency in Virginia.⁷ The picture was darker elsewhere. One fundraiser plying copper mining towns of Arizona stated companies “took practically no share of this loan. Many of the mines were closed down and all operations had greatly reduced prices. In previous campaigns, these corporations were generous subscribers and those mining employees bought to a man.”⁸ Such a statement echoed the painful transition from inflation and war to normalcy in real time. Wartime contracts that had propped up such industries had finally contracted and the prices previously fetched could no longer be sustained. From January to March 1919, consumer prices slumped for the first time in four years as factories and mines began to lay off workers. But as quickly as the downturn began, it reversed. Employment remained consistent and prices resumed their climb as the Victory Loan campaign was underway. The fear of a painful adjustment to peace faded away as demand to rebuild a shattered world overtook war demand. There was still business to be had, products to be exchanged, and customers at home and abroad eager to break from a lifestyle of rationing. But that

⁷ US Treasury Department, *Report of the National Women’s Liberty Loan Committee for the Victory Loan Campaign: April 23-May 20, 1919*, (Washington: GPO: 1920), 80-86.

⁸ *Ibid*, 14.

transaction had long been done at the expense of both the worker and the businessman. The worker's wages grew but no further than the liabilities of the businessman as both became priced out of the market. The Victory Loan netted a total of \$4.4 billion in subscriptions—a modest sum by prewar standards, but nothing approaching the \$6.6 billion raised during last Liberty Loan the previous fall.⁹

While raising additional funds may have been a wise backup plan to fund unexpected costs of the transition, the apathetic response was both a statement of futility and a measure of how much damage the war had done to American spending power. The consumer was tightening his belt still further, saving his money—or perhaps in language Strong could understand-- hoarding his cash.¹⁰ It had long been a slur on saving Americans during the inflationary hike, though the Treasury and the Federal Reserve were themselves the true hoarders. Benjamin Strong had done what he could to get cash for the war effort, but he also tempered it by stressing the economization of credit during the war. In an April 1918 column in the *North American Review*, Strong called to fight inflationary expansion by reducing luxury consumption, economize both credit and labor, and bring women into the work force.¹¹ The American consumer was a problem that needed to be solved and Strong availed himself of the cash- hoarding idea while pointing to what the Federal Reserve Board's 1919 Annual Report called “unprecedented extravagance.”¹²

⁹ *Sec. Of Treasury 1919*, 30.

¹⁰ Friedman's analysis of bank deposits hints at both the deflation intended through the Victory Loan and the want of Americans to save. Between November 1918 to June 1919, public currency (money in circulation) fell in the same time frame as the spring slump from \$4.11 bil. To \$3.91 bil, while demand deposits (cash that can be withdrawn from the bank on demand) rose from \$15.82 bil to \$17.70 bil. Likewise, mutual savings banks saw an increase from \$4.47 bil to \$4.72 bil.

Friedman and Schwartz, *Statistics*, 16.

¹¹ Benjamin Strong, “War Loans vs. Business as Usual,” *North American Review*, April 1918, 2.

¹² *Fed. Reserve Board 1919*, 1.

Strong warned of this extravagance in a letter to Russel Leffingwell, the long-time assistant Secretary of the Treasury, on his examination of the fall in prices in men's clothing.

Immediately after the war, there were layoffs and price deflation in the woolen market. It was a glimpse at an opportunity for cheap clothing, but one salesman in Strong's district who lamented at day laborers' newfound fascination with silk shirts. For Strong, the workmen's' unusual wages were the problem, never mind the practical comfort of silk and the fact that cotton and woolen prices had risen so that what was once a luxury was now a cheap good.¹³ These were both responses to inflation and now the Federal Reserve was having a serious discussion on the issue for further action, even though they misdiagnosed the symptoms.

To determine the credit needs for essential businesses, Congress chartered the War Finance Corporation on April 5, 1918, but in the context of the war economy essential was a fluid determination. The Corporation was tasked to use taxpayer dollars and marketable bonds to inject banking capital to any wartime industry or affiliated bank that served those industries. Eugene Meyer, a longtime friend of McAdoo and future chair of the Federal Reserve, was selected as the first director of the Corporation. At his disposal was a Treasury purse amounting to \$500 million dollars and an authorization to issue loans and bonds to double that amount to any entity vital to the war effort that could not otherwise get credit.¹⁴The War Finance Corporation made few financial moves that year, but its

¹³ "Benjamin Strong to Leffingwell, Feb. 6, 1919," *The Papers of Benjamin Strong Jr.*, 5.

¹⁴ The Act was amended several times over the course of its life, but the original provisions of importance were as follows:

Section 7 authorized advances to any bank contributing to the war effort or purchasing bonds in that effort. Section 9 gave the Corporation full power to loan to any person or firm that otherwise cannot get needed capital. "War Finance Corporation Act," PL 65-121, *US Statues at Large 40* (1919): 506-7.

creation was the latest in a series of executive and legislative dictates seemingly at odds with the Federal Reserve. Strong and the Federal Reserve Board preached moral suasion to stem the inflationary tide. Their Board's reports and public statements consistently urged banks and businesses to limit their credit transactions rather than use their own authority to force change. They had given themselves to hope; hoping that milquetoast borrowing suggestions and talk of changing credit conditions would somehow stem speculative borrowing brought about by those same policies. Before the Wall Street Crash of 1929, the Federal Reserve relied on similar posturing to quash stock market speculation. That only led to greater speculation when no action was taken. In 1919, the Federal Reserve's marketing of more debt while preaching debt conservation did nothing but embolden speculation and drive legitimate consumers out of the market. While credit continued to flow to businesses, returns began to slow as Americans grew increasingly cash-strapped. Indeed, credit and cash could not hope to reduce goods prices nor ensure their arrival.

3.2. Dinner Awry: The Success and Excess of the Food Administration

If production was the sole object of the Food and Fuel Administration, the war years were a boom for the great grain producers—those who farmed wheat and corn. On the farm, the Food Administration had a subtle hand. The Department of Agriculture, whose inflated budget had funded agribusiness research—long thought by President Wilson to be key to the farmer's future economic vitality—now cultivated a portfolio of experts who scoured the countryside advising farms on such matters as soil nutrition and seeding

techniques. Likewise, the tractor and literature on its use proliferated.¹⁵ It was no coincidence that the emphasis on the tractor came about during the war years as young men were pulled from the farms to fight and young women pulled into industrial jobs in the city. For the farmer's shrinking demographic, the tractor proved to be the answer though harnessing this recent technology was not as self-explanatory as one would think in the present. In 1918, the New York State Food Commission instructed tractor schools that taught the proper use and maintenance of these machines in an era where the horse still reigned.¹⁶ In terms of cash flow, the Administration was encountered mostly at the end of its production chain. Once harvested and boxed, these nationalized food stuffs were transported to nationalized grain elevators where Hoover's purchasing agents were waiting.

With every subsequent step in the supply chain from elevator to miller to broker to consumer, the Food Administration's touch was visibly harsh. Throughout 1918, Hoover publicly pled for the public to cut their wheat consumption by half, a narrative pushed by the organization's propaganda that stressed that "food will win the war" and recommended that Wheatless and Meatless days be observed to conserve food. The Administration also published pamphlet-bound recipes to conserve flour and sugar and stress the use of potato, oat, and barley flour and sweeteners such as maple syrup and honey.¹⁷ Such presentations bely the unpleasant business of depriving Americans of their

¹⁵ At this time, the Department of Agriculture's budget had expanded rapidly not only to accommodate research subsidies to agricultural universities, but as the funding window for the War Finance Corporation, the Food Administration, and the Federal Land Bank system that now underpinned the farm.

¹⁶ State of New York, *New York State Food Commission for the Period Oct. 18, 1917 to July 1, 1918*, (Albany: J.B. Lyon Company Printers, 1919), 21.

¹⁷ The Natchitoches Enterprise, long accustomed to dealing with sugar issues in Louisiana, reported on Hoover's statement to the public in May 1918 that American wheat consumption needed to be cut from 42

food. The Administration's annual report in 1918 admitted to a program of flour adulteration that would have been a violation of the Food Act had it been any other organization. When adulteration failed to free up adequate supplies, the Administration turned to seizures. That year, government agents seized over one million barrels of wheat flour that was "voluntarily" turned in by patriotic citizens and small businesses to aid in the war effort. Hoover's Enforcement Division agents ensured compliance in the public sphere by ensuring grocers, millers, hotels, and restaurants abided by price controls, food grades, and rationing mandates. New York City's Food Commission's inspectors spied on the public to ensure Meatless Mondays and Wheatless Wednesdays were indeed observed, much to the annoyance to the city's vibrant immigrant community. Italian housewives angrily dumped oatmeal pasta substitutes while Bohemians along the East River moaned at going without meat.¹⁸

Having to do without was a patriotic aggravation to workers and wives, but it was a threatening financial concern for eateries that had to find new and creative ways to feed their customers and stay supplied by the Commission. The milling and brokering business—long thought to be dens of speculation—faced less of a supply and regulatory barrier but traded it for a dictation of profits regardless of real costs. One article from *the Country Gentleman* in January 1918 detailed the cost of wheat production: from seed to elevator—\$1.82 per bushel; Illinois millers were allowed 25 cents per barrel—or eight

million bushels to 21 million per month. Rye and barley were suggested as alternatives, though they had already run out in the local area.

"Ration of 1 ½ lbs. Of wheat per person weekly," *The Natchitoches Enterprise*, (Natchitoches, LA), Thursday, May 2, 1918, 1.

US Food Administration, *To Finish the Work We Are In*, (Washington: GPO, 1918),8.

¹⁸ *Annual Report of the United States Food Administration For the Year 1918*, (Washington: GPO, 1919), 9
New York, *Food Commission*, 44, 63.

cents per bushel.¹⁹ In this anecdote, \$1.90 of the \$2.20 price guarantee was spent even before it headed for the broker. In such a situation, the miller needed to take on more product to turn a profit—accelerating depreciation and forcing workmen to demand higher wages for the trouble. Food handlers, often without the benefit of unionized voices to moderate government demands, had to fight for allocations and any misstep could mean the revoking of allowances and ration cards and potential bankruptcy.

Taken together with the years long struggle to maintain the cost of living and remain open, the watchful eye of the agents also bred an environment of retribution that set neighbor against neighbor. Such a fate befell the brothers Rafe and Louis Mayer, heirs of a German Jewish mercantile family that helped build Baton Rouge, Louisiana. Keen to show themselves as patriotic Americans, the proprietors of the Mayer Hotel were among the first in the city to adopt Wheatless Wednesdays. But in June 1918, they were raided by Food Administration agents. *The Times Picayune* reported that over the past ninety-six days, the Mayer Hotel had purchased 4,700 pounds of sugar—three times the amount allowed by the Food Administration. Much of that was now gone, but the agents confiscated 1,900 pounds of sugar remaining on site. The next day, the agents returned and arrested the Mayers for food hoarding in violation of the Food Control Act.²⁰ The brothers faced the prospect of losing their food cards—the permits that enabled them to do business under the food regime. They also faced the prospect of fines and a term in federal prison. In short, they faced ruin. Rafe pled ignorance of the law before none less than the state governor and

¹⁹ Charles Holmes, “Doubling the Wheat Dollar” in *The Country Gentleman*, (Albany, NY), Jan. 26, 1918.

²⁰ “Mayers to Face Parker and May Lose Food Cards: Proprietors of Baton Rouge Hotel to be Tried for Hoarding,” *The Times Picayune*, July 30, 1918, 4.

head of the Louisiana Food Administration John Parker. But given his previous compliance, he *had* to have known. But as quickly as the Meyer brothers were in jail, by August 1st, they were free. The cost was a \$1000 donation and the forfeiture of the seized sugar to charity.²¹ How the brothers came under suspicion remain a mystery, but their ultimate treatment was the preferred method. The Enforcement Division described violators of the law as patriotic and ignorant of the law. As punishment, the agency preferred to take refunds and so-called contributions in lieu of jail. Temporary suspensions of licensing and supplies were less common; seventy-two violators were criminally charged.²²

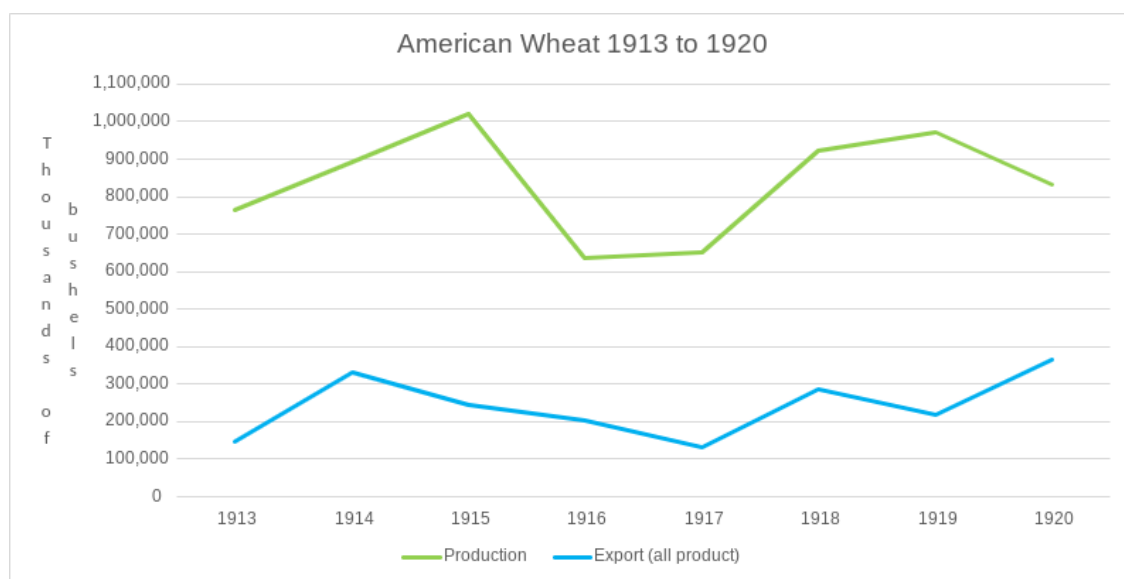


Fig. 3.1.²³ American Wheat 1913 to 1920

²¹ “Charity to Get Sugar Hoarded by Hotel Men,” *The Times Picayune*, Aug. 1, 1918, 5

²² Roland Bogden of the Chief Enforcement Division indicated that penalties included: 4,123 refunds and fines, 3,658 temporary suspensions, and 72 criminal cases. Food Administration, 1918, 44.

²³ US Department of Agriculture, *Agricultural Yearbook 1924*, (Washington: GPO, 1925), 85.

Under Hoover's administration, exports were sliced. Out of the 650.8 million bushels worth of all wheat products brought to market in 1917, 132.6 million was bought on the export market. In 1916, in the face of less production, the wheat industry was still able to export 203.6 million bushels. With price guarantees and export markets left largely out of the hands of private exporters, the American public should have enjoyed a surplus. Despite the Administration's monopoly, its scrutiny from seed to store, the nation was cursed with shortages. That year, the country had to import 24.1 million bushels of wheat from Canada—the first noticeable grain transfer since Europe went to war. In 1918, that had grown to 28.1 million.²⁴ Corn farmers, who enjoyed far more success in crop yields and declining import competition, were themselves cropped in by the flagging fortunes of hog farmers that relied on corn for cheap, nutritious feed for their pigs. Despite record level of corn production, the number of hogs available for pork markets fell by ten million animals.²⁵

The end of the war saw the American economy in shambles Hoover's Belgian Relief Commission, who fed as many as ten million Belgians and French during wartime continued operations into 1919. His efforts there and in the American Relief Corporation were merged with the US Grain Corporation to deal in food relief in the shattered remnants of the Hapsburg, Russian, and Ottoman empires from Czechoslovakia and Poland to Armenia and Azerbaijan. These new states, long weakened by the war, now struggled for

²⁴ Department of Agriculture, *1924*, 560, 1075.

²⁵ The prices of hogs, per one hundred pounds, was fixed in 1917 to \$15.50. The Department of Agriculture stated the average price in Chicago for the same weight in 1916 was \$9.60, reflecting a similar scramble for contracts that affected wheat and corn. But the increase in price also more fairly reflects the amount of meat coming to market. In 1916, 43,084,000 animals were slaughtered. In 1917, only 33,960,000. *Ibid*, 918.

want of food, let alone recognition, with Bolshevik Russia at their borders. By Hoover's big-picture estimate in 1918, these "little Allies" constituted seventy-five million mouths to feed, along with 125 million of the "big allies" -- Britain, France, and Italy.²⁶ The Entente, for their part, could get food, but dire starvation was much closer than the frontiers of Bolshevik Russia in the East. Suffering from years of inflationary and nationalization mismanagement of their economy under the administration of Prime Minister Karl Renner, the territories of the former Austro-Hungarian empire existed in a state of famine.²⁷ Germany hemorrhaged from the same problems engineered by the military dictatorship that ran the country under Paul von Hindenburg and Erich Ludendorff. Britain, France, and the rest of the Entente embarked on similar economic engineering schemes undertaken by the Central Powers and the United States but had the luxury of being an unblockaded captive market. Almost immediately after the end of the war, both the Americans and the Entente knew that captive market no longer existed. The fate of the world's food circulation grew ever more precarious as Europe, despite all measures of dependence on the United States, leverage their status as viable markets that the United States herself was now dependent on.

The first signs of Europe's soft power returning occurred when Hoover chaired a conference of the Inter-Allied Blockade Council on Christmas Eve, 1918. The body, made up of representatives of the Entente powers, oversaw trade policies between them, but now the time had come for the embargos to fall and for the British navy to lift their years-long

²⁶ This pamphlet also states some 50 million in Northern Russia depended on the success of his administration. This is likely a blanket statement to drive higher sacrifices to help anti-Bolshevik White Russian forces then in control in the far North. The extent of the famine that Lenin's Red Army helped to perpetuate was not yet widely known.

To Finish the Work We Are In, 1.

²⁷ Hoover, *Epic*, 303-304

blockade of the German coast. Hoover's European constituents agreed to lift the blockade on Germany and neutral nations. Six days later after a frenzy of ordering on American markets by neutral nations, the Council met again without Hoover and determined to reinstate the blockade. The indebted Entente proceeded to order the distribution of American foodstuffs without American input while withholding those desperately needed goods from their former enemies. Hoover's loud protests to President Wilson and the British admiralty finally bore results and the blockade was lifted in June. The German mainland had suffered privation and starvation in the latter part of the war and the blockade, itself an act of war after the end of hostilities, may have resulted in additional 200,000 civilian deaths.²⁸ Hoover's fight with the Council mirrored Wilson's fight with his war allies at the Paris Peace Conference. Wilson arrived with his Fourteen Points that advocated for, among other things, open diplomacy, freedom of the seas, self-determination, and the creation of a League of Nations to arbitrate future conflicts. To the President's surprise, his partners rejected him and opted for a harder peace that they could not enforce.

Beyond the peace, Europe also held American credit and would use it against the American productive class to win an economic war that had been written off as lost. This was especially apparent in the farm economy—particularly in the vital global wheat commodity. With worldwide food shortages and the sudden lifting of trade restrictions,

²⁸ Hildebrand indicated that over 800,000 civilians died due to the blockade, with 215,000 dying between the Armistice and July 1919. This pessimistic death toll is skewed by the ongoing Spanish Flu pandemic that burned worldwide. The death toll from the blockade is likely higher as the flu was ravishing a population on the brink of starvation without the immune strength to resist. Bruno Hildebrand und Johannes Conrad, *Jahrbücher Für Nationalökonomie und Statistik*, (Jena: Dr. Ludwig Elster, Wirkl. Geh. Ober-Regierungstrat, 1919,)156-158.

wheat exports should have soared. Wheat production was set to match with farms producing over 970 million bushels in 1919—a quantity not seen since the 1915 harvest. Instead, the wheat crop of 1919 sat unattended in grain elevators and dock facilities as exports fell from a peak of 287 million bushels in the last year of the war down to 220 million.²⁹ The same mass production and wanting demand that befell wheat farmers that year was mirrored by other food commodities such as some meat products, rice, corn, and oats.

The fall in demand for agricultural goods could not have come at a worse time. Like his compatriots in industry, farmers had to offset costs and compensate ever-increasing wages. Without large scale unionization, workers and farmers minimized their compensation conflicts and easy credit made it an easy pill to swallow. But by the end of the war, farms were plagued with a lack of labor—rather than the cost of it. The removal of roughly two million rural men from the farm to serve in the Armed Forces was a worry of the Food Administration. It became the job of the US Employment Service, a new division of the Department of Labor, to seek out idle labor. They solicited young women and “Boy’s Working Reserves”—a 250,000 strong army of children under the age of sixteen—to fill the labor gap.³⁰ The return of those men from the war, often blamed for the downturn to come, was not an immediate flood of the newly demobilized ready to take waiting jobs. And those who did so did not flock wholesale back to the farm. In July 1919, the War Department announced the discharge of three-million men, only 1.8 million of which had arrived home.³¹ They found high paying

²⁹ Fig 3.1.

³⁰ *Annual Report of the Director General: US Employment Service to the Secretary of Labor Fiscal Year Ended June 30, 1918*, (Washington: GPO, 1919) 10-11.

³¹ “3,028,487 Are Discharged: War Department Announces Progress in Demobilizing United States Army,” *The Richmond Times Dispatch*, (Richmond, VA), July 27, 1919.

employment and more comfortable circumstances in the urban centers far from isolated homesteads, contributing to a growing migration of rural workers to cities that had been ongoing. The 1920 Census would be the first in which more American citizens lived in cities and towns instead of the country, countless demobilized servicemen among them. The demobilization created renewed competition for employment between servicemen and those who filled the gap in the interim— women and minorities who flocked to Northern factories. Despite the anecdotes of race riots in cities such as Chicago, Detroit, and Washington DC that pitted new black arrivals against white servicemen, most industries were able to absorb the influx into a tight labor market that still ran on the assumption that Europe's industrial capacity, like its agricultural output, would be slow to return. Despite the challenges of making room for American veterans and persistent strikes across all industries, most sectors of the economy had work including those in the textile industries that suffered with the termination of government demands.

Table 3.1.³² Estimated Employment and Pay 1918-1921

Estimated Employment and Pay 1918-1921				
	1918	1919	1920	1921
Employees				
Iron/Steel	181,126	156,918	180,797	102,787
Automotive	108,058	140,714	129,194	82,946
Wool	46,456	49,761	23,613	50,523
Cotton	56,376	57,017	59,336	60,355
Pay				
Iron/Steel	11,302	10,222	13,880	4,362
Automotive	2,917	3,559	4,549	2,765
Wool	941	1,081	620	1,003
Cotton	905	1,026	1,386	1,133

Lost in the gender and racial dynamics of this post-war conflict is a fight to fit back into a bifurcated economy—one for good paying industrial and service work in the relative comfort of the city now trounced rural work that now prospered only with the benefit of government subsidies. Manufacturing jobs and the burgeoning of the service industry to feed, entertain, and maintain an ever-larger urban population enjoyed a tight labor market, but farm concerns nationwide struggled to find workers despite no shortage of funds. The Kansas State Board of Agriculture detailed both 1919 and 1920 as best-paid times for farm workers in the state, harvesting the largest wheat crop to date, year after year, but farmers were resorting to advertising free train fare to lure out-of-staters to work.

³² The following are snapshots of employment and payroll (in thousands of USD) for a collection of firms in major industries taken in August of their respective year. Note the peak in employment and pay continue into August 1920.

. “Bureau of Labor Statistics Monthly Labor Review,” Vol. IX No. 2, *US Department of Labor*, (July-December 1919), 169.

“Bureau of Labor Statistics Monthly Labor Review, “Vol. 11 No. 4, *US Department of Labor*, (October 1920), 176.

“Bureau of Labor Statistics Monthly Labor Review, “Vol. 13 No. 4, *US Department of Labor*, (October 1921), 133.

Failing this, companies such as Ford and John Deere began to fill the gap and farmers flocked to the tractor to replace field hands. The Ford Motor Company marketed its first, the Fordson, in 1917. That year saw 254 units roll off the assembly line. By 1919, nearly 100,000 were produced.³³

The mechanization of farm labor was a response to labor shortages but also evidence of an expansion at any cost as farms became more reliant on forms of emergency credit, particularly in mortgage loans through the Federal Land Banks. In 1918, the Federal Land Banks closed 108.6 million in farm mortgage loans—a 216% increase from the previous year. The system also doled out \$141 million in special land bonds—short term investments to be bought by banks and private citizens in exchange for cash. For 1919, the operation closed \$142 million in loans and issued \$286 million in bonds to the public.³⁴ Borrower disclosures indicate that two-thirds of those loans over this period were taken with a fully-owned home or buildings as collateral. The farm economy had effectively overleveraged themselves in response to production incentives of easy credit, legislative carveouts, and finally, in price and production subsidies. The inevitable outcome, with or without the war, was a vast glut of products marked at prices neither domestic nor foreign buyers could stand. With state price controls serving as a baseline from which merchants could not undersell, prices could only amplify with every painful move through supply chain stations crippled by the same policy prescriptions.

³³ Mira Wilkens, *American Business Abroad: Ford on Six Continents*, (Detroit: Wayne State University Press, 1964), 438.

³⁴ *The Second Annual Report of the Federal Farm Loan Board Covering the Period from November 30, 1917 to November 30, 1918*, (Washington: GPO, 1919), 22-28.
The Third Annual Report of the Federal Farm Loan Board Covering the Period from November 30, 1918 to November 30, 1919, (Washington: GPO, 1919), 21-28.

For some in the Wilson fold, like Harry Garfield, chairman of the disbanding Fuel Administration that regulated the prices and distribution of coal, oil, and the public utilities during the war, urged the end to price controls. Likewise, Walker Hines, vice-chair of the Railroad Administration, gave President Wilson the same appraisal. Julius Barnes, head of the US Grain Corporation, blamed the same price controls as inflexible in the face of cheaper overseas competition. For Wilson, the ending of price controls on certain goods would only invite uncontrolled price bidding. Unwilling to hold neither the farm nor his own bureaucratic interests to account, Wilson blamed the vague center of the supply chain between farm and table. He accused the middlemen of hoarding product and waiting higher prices by restricting supply. Those millers, brokers, and grocers responsible for taking raw goods and turning them into useable and distributable products—and those who had chafed under the inflationary pressures from the farm and the magnifying glass of the bureaucracy—became an even-easier mark with every dollar-increase. On inaugurating the creation of the Food Administration, Wilson was confident that there would be “only in the few cases where some small and selfish minority proves unwilling to put the nation's interests above personal advantage.”³⁵ By 1919, the profiteer had become the domestic phantom of a Wilson administration now geared toward foreign peace. As Wilson’s time became dominated by the Paris Peace Conference, domestic papers regaled audiences with accusations and punishments against Bolshevik profiteers, both in business and in labor. But price rises had less to do with greed than necessity. The liberal use of the printing press in Washington DC created more money chasing fewer goods and prices had to adjust to

³⁵ Woodrow, Wilson, “Food Control and Administration,” May 20, 1917, Woodrow Wilson Press Statements, *Woodrow Wilson Presidential Library & Museum, Staunton, Virginia*.

prevent shortages. The entry of the government into the market further siphoned off resources from the market. In such an environment, consumers were forced to buy more now in anticipation of higher prices later. This created an increased run on goods that only grew worse when price controls were implemented, resulting in acute shortages in some regions with plenty in others. But there was a limit to inflationary consumption and demand as that year both foreign *and* domestic consumers refused to buy despite an environment nominally rich in cash.

The problem of the profiteer as the problem of inflation and of the farmer was one that Wilson had to take head-on with only his executive privileges from the Food Control Act available to forge his initiatives in real-time. In February 1919, the Food Administration became the American Relief Organization and the US Grain Corporation, their priorities shifting from domestic production to helping the European situation. Meanwhile, the now-obsolete War Industries Board allowed its Price Fixing Committee to die, leaving supply and demand to a market that Wilson may as well have chalked up to a speculative heaven.³⁶ But the Food Act still allowed for controls on a limited range of vital commodities including wheat. These provisions were due to expire six months after the end of hostilities, both Herbert Hoover and the congressional farm interests led by South Carolina Senator Ashbury France Lever lobbied for its continuation. For his US Grain Corporation, Hoover needed a large amount of grain to fight world shortages that, by his own estimation, was to fall by a half-billion bushels in 1920. Fully aware of competing surpluses from other countries and the need to keep farmers producing at home, Hoover

³⁶ Lewis Haney, "Price Fixing in the United States During the War," *Political Science Quarterly*, Vol. XXXIV, No. 1,2,3 (March, June, September 1919), 9.

called for government agents to buy at \$3-4 a bushel at home and sell overseas at a loss. Instead, the Wheat Guarantee Act that came at his insistence earmarked the 1919 crop at \$2.26. To stabilize wheat prices, Congress approved a \$1 billion appropriation to subsidize the farmers.³⁷ In an act of executive profiteering, President Wilson signed on to enrich wheat farmers over all others. But even this bailout was not enough. The farm lobby pushed for a new tariff to protect their products and punish domestic consumption of foreign competing products. The Underwood Tariff that ushered in the income tax in 1913 also lowered tariff rates across the board. Tariff reduction was of little consequence during the war. In 1916, the export to import ratio peaked at 2.29:1. But in 1919, it had fallen to 2.02:1. By the summer of 1920, exports fell further to 1.56:1.³⁸ The passage of the Wheat Guarantee Act and the renewed push for tariff legislation was a tactic admission that agriculture could not compete for both foreign and domestic business. Even before the shoe dropped, Julius Barnes warned President Wilson of this reality by pointing out the untapped potential of Canada and Argentina, whose surplus wheat now competed with the American exports, reaching Britain at prices as low as \$2.28 at its destination, eight cents higher than what the government paid for wheat sitting in American elevators.³⁹ The Argentines, were particularly worrisome, having minimized her trade during the war only to explode onto the international market post war. Textile interests joined in the clammer for a tariff when Argentine wool flooding American markets drove down the price at home

³⁷ *The Story of the United States Grain Corporation: August 5, 1920*, (Washington: GPO, 1920), 10.

³⁸ In 1916, there was approximately 5.483 billion in exports to 2.392 billion in imports. In 1919, there were 7.920 billion in exports to 3.904 billion in imports. In 1920, exports peaked at 8.228 billion as did imports at 5.278 billion.

³⁹ "Barnes to Woodrow Wilson, July 29, 1919," *The Papers of Woodrow Wilson, Vol. 62 July 26-Sept. 3, 1919*, (Princeton: Princeton University Press, 1990), 52

as American woolen textile factories, facing the closing of government uniform contracts and serious shortages of sheep from Western ranges, laid off workers who could ill-afford a pay cut.⁴⁰ Argentine wheat threatened to do the same to the American farmer on the global market.

Argentina had no shortage of wheat. In 1918, her industrious farmers had produced six-million bushels and exported half its crop.⁴¹ In 1919, production fell to 4.7 million bushels, but exports increased further still to 3.3 million. Britain, as a conduit of trade into the Continent, saw a steep decline in Argentine grain shipments through the war years only to return with authority in 1919. Although much of the raw wheat was turned over to her partners in Europe, Britain retained large stocks of wheat flour exported in quantity from Buenos Aires, rising from 1,200 barrels in 1918 to 68,100 in 1919, nearly to the stock that it had been before the war.⁴² With price controls forcing the sale of American wheat at higher prices, American farmers could not compete with the Argentines on the global market in which Europe, keenly aware of their situation opted to make every American dollar count by spending it elsewhere. Likewise, American agriculture had grown so distorted that farms were losing domestic consumption as well. The cash-strapped public that had now become accustomed to war rationing sought other options. This is particularly reflected in the consumption of corn, a quantifiable substitute for wheat. Internally, nearly eight million bushels of wheat flowed in from overseas, primarily from Canada. In 1919, corn farmers produced over 2.8 billion bushels—an all-time high at the time. Like wheat,

⁴⁰ US Department of Agriculture, *Yearbook 1919*, (Washington: GPO, 1919), 717.

⁴¹ Alejandro E. Bunge, *Revista de Economía de Argentina: Tomo VI*, (Enero de 1921), 47.

⁴² United Kingdom Board of Trade, *Annual Statement of the Trade of the United Kingdom with Foreign Countries and British Possessions: 1919*, (London: His Majesty's Stationary Office, 1920),325.

corn exports fell to a mere 16.73 million from their 1918 highs, but corn imports saw a fivefold increase.⁴³

American consumers were seeking affordable substitutes and, failing that, forsook homegrown products for cheaper foreign goods while farm interests ran at cross purposes with their fellow Americans by demanding tariff protections. This dynamic was obscured from popular media while the most extreme acts against the costs of living dominated the headlines: tales of nationwide strikes, race riots, and Bolshevik agitators seeking to take advantage. Paired with this was the distinct silence projected upon President Wilson. Throughout 1919 and into 1920, the President—even after suffering from the paralysis of a near-fatal stroke—held public attention to his fight to get the Senate to ratify the Treaty of Versailles and consent to the United States joining his new League of Nations while all else was falling apart. He appeared obsessed with obtaining victory for an idealistic foreign policy program with his domestic agenda a failure. But, so long as the Versailles Treaty went unsigned, a state of war existed. So long as the state of war existed, he retained his emergency economic and police powers through the Food Act and could use them to effect change. He did this by decreeing the continuation of price controls on essential goods such as the wheat crop and by rooting out those he deemed responsible for rising prices and shortages on the shelves. To take on the profiteers, Wilson turned to his Attorney General, A. Mitchell Palmer to be his tool against inflation while he lobbied to make his powers of the Food Act permanent.

⁴³ Corn imports rose from 1.99 million bushels in 1918 to 11.22 million in 1919. Department of Agriculture, *1920*, 765. Department of Agriculture, *1924*, 606.

Palmer was a Quaker and former congressman from Pennsylvania, whose pacifist leanings slowly unraveled in the latter years of the Wilson administration. During the war, Palmer oversaw the confiscation of property owned by German nationals as Wilson's Alien Property Custodian. Shortly after his appointment as Attorney General in June 1919, Palmer and his family were nearly killed when an anarchist bomb exploded outside their Washington home. The Palmer Raids, that saw agents of the Department of Justice raid immigrant homes and workplaces and netting thousands of real and imagined Bolshevik and anarchist plants, also targeted businesses and workmen of all stripes in the food and fuel industries. Palmer was keenly aware that higher prices and shortages would play into the hands of Reds at home as they did in Russia. Increased world demand for American coal and food stuffs was carefully ignored as prices rises and strikes had become the new normal in post war America. In November 1919, Palmer went before Congress to strengthen the provisions of the Food and Fuel Act. *The New York Times* reported that Palmer called for an increase in fines to \$10,000 an offense and up to twenty-years imprisonment.⁴⁴ Wilson called for extending the Food Act during his State of the Union Address in January 1920 and encouraged Congress to make its provisions permanent by using the government's authority over interstate commerce. But the Department of Justice and their allies in statehouses nationwide were not waiting for an extension. Throughout August 1919, as Palmer lobbied to make the Lever Act permanent, Ohio governor James Cox issued forty arrest warrants and asked Palmer's Department of Justice to seize two million pounds of meat and poultry held in cold storage facilities held by so-called

⁴⁴ Joseph Tumulty to Edith Bolling Galt Wilson, "Proposed Message To Congress," *Woodrow Wilson Vol. 64*, eds. Arthur Link, (Princeton: Princeton University Press, 1992),72.

profiteers.⁴⁵Cox's activities were part of the Department of Justice's larger suit against Chicago's meatpacking giants Swift and Armour & Company that had begun in March. The proceedings netted 135 corporate and fifty individual defendants who lost their business interests before a Federal grand jury.⁴⁶ Once committed, both state and federal authorities turned their attention from corporate bodies to small businesses. The dragnet resulted in a handful of prosecutions but escape from jailtime had other consequences. Only two suspects out of forty-nine cases of alleged hoarding that made it to Federal courts attention in 1919 resulted in trial, but there were large disclosed seizures in eighteen states: 4.8 million dozens of eggs, 1.7 million pounds of butter, 2.5 million pounds of meat, and 20,000 cases of canned goods. However, the amounts were likely much larger as it was "the policy of the department, whenever possible, to force hoarded goods into normal channels of trade."⁴⁷ In other words, the product seized were to go onto the market whether it was through forced donation, like what became of the Mayers' sugar reserve, or by compelling the offender to sell at a lower cost in a crude way to drive down prices across the board by increasing the supply amid shortages.

The loss of dearly gotten inventory meant the potential death of livelihoods and it was ultimately placed in the hands of those with vested interests. James Cox was keen to carry on Wilsonian policy to the letter in hopes of grasping the Democratic presidential nomination in 1920. When the inflationary bubble finally popped in the summer of 1920, causing prices to fall and cotton to pile uselessly in warehouses, Louisiana governor John M. Parker promoted the smashing of cotton gins to prevent further production in the hopes

⁴⁵ "Drive On Profiteers and Higher Prices Continue Throughout Land," *The Rock Island Argus*, (Rock Island, IL), August 15, 1919.

⁴⁶ *Annual Report of the Attorney General of the United States for the Year 1920*, (Washington: GPO, 1920), 36.

⁴⁷ *Annual Report of the Attorney General of the United States for the Year 1919*, (Washington: GPO, 1919), 18-19.

of driving prices up.⁴⁸ Parker previously headed Louisiana's Food Administration during the war and in the summer of 1919, he called on Palmer to investigate profiteers with the novel solution of appointing parish committees comprised of grocers, wholesalers, labor representatives, and private citizens to investigate reports of profiteering.⁴⁹ In such an environment, the crusade against profiteering produced champions of the people among men like these and gave neighbors and business rivals the capacity to remove their competition.

Throughout 1920, with the Food Act back in full force, the number of arrests rose from forty-nine in 1919 to 2,016 in 1920. By year's end there were 1,641 indictments, 296 of which were brought on over sugar violations. 184 were sentenced.⁵⁰ The amounts seized that year were left unspecified, but no amount could hope to drive prices down. The Department of Justice even went so far as to import commodities from the depressed Caribbean markets. This includes one mysterious shipment of 14,000 tons of sugar that arrived in New Orleans in June, only to be claimed by Howard Figg, the special assistant to the Attorney General's office.⁵¹ These moves helped to bail out Cuban exporters who had seen falling prices and excess supply, while the department aimed for a similar outcome at home. Similarly, Hoover's Grain Corporation continued to purchase wheat at taxpayer expense to give to the world market. By August 1919, the Corporation had distributed nearly five million tons of food and nearly \$750 million in cash.⁵²

⁴⁸ Shideler, 51.

⁴⁹ *Attorney General 1920*, 183-4.

⁵⁰ *Attorney General 1920*, 183-4

⁵¹ "Big Purchase of Sugar Explained," *The Concordia Sentinel*, (Vidalia, LA), July 3, 1920.

⁵² *Grain Corporation*, 17.

The altruism of expert managers further penalized the taxpayer and only helped to undercut the farmer who needed to be rid of his product. Both public and secret shipments underline conflicting visions of solving an inflationary food shortage, one at home and another abroad—with a domestic agricultural sector that had become too big to fail and a global market too big to capture. In 1919, wheat farmers produced 970 million bushels—a crop never seen before save for the unusual 1915 harvest. Yet even in the absence of government agents, the crop that made it to market was now fetching upward of \$3.45 a bushel at the Chicago Mercantile Exchange. From there, the crop seemed to disappear, failing to make on store shelves and export. The hike in prices and inability to move product might very well be chalked up to speculation and foreign competition, especially in the face of increased production that, in a healthy economy, would keep prices down, but prices also indicate scarcity. The implication is that less product was making it to market in the first place. Wilson’s specter of the profiteer is a convenient scapegoat, but the global implications point to a more systemic problem of inflation and nationalization of the nation’s railroads.

3.3. Out of Steam: The Cost of Nationalization and the Decline of the Railroad

In March 1919, William McAdoo resigned as Secretary of the Treasury and Director- General of the Railroad Administration.⁵³ He returned to New York City to co-found McAdoo, Cotton & Franklin, a law firm specializing in financial investments that would later grow into the prestigious Cahill, Gordon, & Reindel. President Wilson and the

⁵³ Walker Duncan Hines, previously vice-chair of the Railroad Administration, assumed the directorship for the remainder of the year.

members of the Federal Reserve Board sent accolades that made McAdoo's sudden departure appear as a voluntary abdication from tireless and patriotic wartime work that was now finished. But perhaps his departure was political. With an eye on the presidency, McAdoo needed to distance himself from his father-in-law and the large monetary inflation, record government debts, and a broken railroad system that he left behind. With McAdoo's departure, the greatest single obstacle to economic normalcy had been removed but the damage, particularly to the nation's railways, had reached the point of no return.

The nationalization of the railroads under the US Railroad Administration gave the same guarantee of security to both company men and workers in the same manner that price controls did for the farmer. The railroads before nationalization in December 1917 were plagued with chronic car shortages and increasing material and personnel costs initiated by inflationary monetary policies targeted toward other sectors of the economy. The primary task for the Railroad Administration was to increase tonnage and ensure minimal slowdowns. On the surface, the mission was a success. For 1918, American railroads had handled over 404 billion tons of freight, nearly double the 277 billion hauled in the first full year of the war in 1915 with an addition of only ten thousand more cars to company fleets.⁵⁴ Likewise, strikes and lockouts inside the transportation and mining industries fell from their peak in 1917 at 760 to 410 in 1918.⁵⁵ The trade-offs for heroics of the railroads to carry the United States through the war came first with an inflexible accounting bureaucracy and high rates to cope with the accelerated need for improvements and repairs. Those costs were passed onto to their laborers, who previously negotiated from a position of strength thanks to the Adamson Act and the Clayton

⁵⁴ *Grain Corporation*, 14-15.

⁵⁵ Edson L. Whitney, "Strikes and Lockouts", *Monthly Labor Review*, Vol. 10, No. 6 (June 1920), 205.

Act and now saw their bargaining power hemmed in by the Food Control Act that made striking a jailable offense. It cannot be ascertained whether it was the threat of federal prison or patriotic zeal of a nation at war that minimized work differences in 1918 and allowed the railroads to carry a record amount of tonnage, which in turn only exacerbated the problem of rail repair that in turn penalized workers in all industries resulting in a clamor for higher wages that required government arbitration to avoid shutdowns.

Inadequate rates, labor squabbles, and the shortage of cars that pestered the railroad industry before American entry into the Great War magnified almost immediately with nationalization amid disputes over standard returns stipulated in the Railroad Control Act. The standard returns were government payments to individual railroad companies whose amounts were an average of the three previous years before December 29, 1917 when nationalization was declared. Like net income, the standard return functioned to maintain corporate organization and equity toward reinvestment. But the distorted amount of traffic and revenue in 1917 skewed what would ultimately be disbursed. Western railroad outfits like the Union Pacific, whose returns in 1915 and 1916 were strong, received adequate compensation packages while Eastern lines flooded the courts with legal challenges to appeal inadequate returns. Chesapeake and Ohio's fiscal year 1917 saw a shrinkage of tonnage and a shortfall in their income over the previous year. That year, the company brought in \$16.5 million in net operating income but a weak fiscal year 1915 and increasing tax burdens resulted in an initial \$13.2 million standard return available to the company in periodic installments through the year.⁵⁶

⁵⁶ There was a 1.5 ton increase per loaded car, but tonnage that year decreased from 10.44 billion in 1916 to 10.26 billion in 1917 with a shortfall of nearly \$700,000. Cars were being loaded more efficiently but there were fewer available.

To stifle these challenges, McAdoo authorized across-the-board interstate increases in March 1918 and empowered his agents to coordinate with state railroad commissions to fix intrastate rates. Some like the Illinois Railroad Commission filed suits to stop the intrusion, but most fell in line for the sake of winning the war. Uniform rates allowed for uniform cost predictions and minimized issues in transport. Higher rates overall would pad the expense accounts and bring the US government a sizeable profit—as any profits above the stated rate of return was forfeited. In theory, these receipts could be reinvested into company coffers with betterments requests. In reality, betterments were funded through a Treasury curated sinking fund that bore little resemblance to those excess profits. For 1919, the maintenance of the railroads came at a cost of \$359 million—the largest line item in the federal budget. But even sums like these were not enough and betterments, particularly those around new military installations, were often done informally and without immediate reimbursement. In March 1920, the Transportation Act formally relinquished control of the railroads back to private ownership. Although there were some calls to keep the railroad under state control, President Wilson insisted on letting them go. By then, the government had agreed to set up a revolving credit fund to the railroad industry to refund the damages to a system that was not left as it was found—at the cost of \$1.04 billion for that year alone.⁵⁷ To undo some of that new debt to the railroads, the disbanding Railroad Commission and the ICC authorized new rate hikes on goods as high as an additional thirty-five percent.

Chesapeake and Ohio 1917, 7.

⁵⁷ *Sec. of Treasury 1919*, 182.

Report of the Secretary of the Treasury on the State of the Finances for the Year Ended June 30, 1920, (Washington: GPO, 1921), 256.

But the rate increases undertaken only served to perpetuate the inflationary cycle in the worker's daily lives as those same rate increases were passed onto them with every product they consumed, resulting in an endless cycle of renegotiation, striking, and price hikes to compensate. The news media denounced the situation of labor, especially after the Bolshevik Revolution in Russia. For them, labor was corrupted by socialist ideology and wanted to collapse the nation by pointing out the perceived absurdity of a demanding labor front whose members earned more than ever. During the war, organized labor oriented itself in a compact with the federal state for the sake of prosecuting the war. Labor retained the honored right to organize and negotiate but new laws such as the anti-striking provisions of the Food Act created a situation in which the federal government was called in to arbitrate. In 1919 prices continued to rise even as production and the requisite labor burden increased. To insulate themselves from mediation, labor chose safety in numbers. Although there were only 3,374 strikes and lockouts that year—far lower than their peak in 1917—the number of participants soared. Small-scale strikes of under one hundred workers, which had been the bulk of the statistic until 1918, fell in 1919. But those involved in larger demonstrations markedly increased. In 1918, the number of strikes that pulled over 1,000 workers off the line were 216. In 1919, that number had grown to 365.⁵⁸ February ushered in the nation's first general strike that brought Seattle to a standstill with a minimum of 60,000 of the city's workers walking off the job in solidarity with shipyard workers striking in Tacoma over the cancelation of government contracts that afforded their pay. From September until the new year, the Great Steel Strike gripped the nation. 365,000 men in fifty cities from the Chicago industrial belt to New York State struck for higher

⁵⁸ Whitney, 204.

wages, an eight- hour day, and the abolition of company unions.⁵⁹ The strike would ultimately involve solidarity movements, often stirred by the agitation of the IWW, that saw two million unionized workers walk off the job. The strike also took an estimated 400,000 miners, particularly those in the coal industry, off the line during the onset of winter.

While the streets flooded with workers and factories went idle, so did the railroad; they were now hamstrung for a steady supply of coal and cars remained at congested terminals, depriving them of their remaining operating capacity. For over a week, New York City was deprived of fresh produce and corridors of armed Army trucks ran needed supplies to hospitals. Across the Hudson River in New Jersey, over eight hundred refrigerated cars sat disconnected, their contents left to rot.⁶⁰ The backlog of goods had become so acute that private businesses took novel means to get their supplies. Dayton's Dry Goods of Minneapolis, the immediate forerunner of the Target Corporation, broke ground by initiating some of the first air shipments that year.⁶¹ The strikes infected seamen and engineers who cracked under pressure—many of whom fled to seek better paid work at inland farms—forcing the government to impose an embargo on all outgoing and incoming sea traffic.⁶²

In this context of mass shortages of food and fuel, the realities that brought Lenin to power in Russia, that A. Mitchell Palmer launched his raids to regain control of

⁵⁹ Walter Adams, *The Steel Strike of 1919*, ed. Colston E. Warne, (Lexington, Mass.: D.C. Heath and Co, 1963,) 20.

⁶⁰ "New York Menaced by Food Shortage," *The Oregonian*, (Portland, OR), June 26, 1919.

⁶¹ "Shoppers of 24 Towns Will Get Packages By Airplane: Dayton's Store Pioneer Concern of Northwest to Inaugurate Air Parcel Delivery," *The Minneapolis Morning Tribune*, September 4, 1919, 18.

⁶² "Freight Embargo in the East," *The Oregonian*, July 15, 1919.

commodities, suppress both real and imagined radicals, and lobby for the strengthening of the Food Control Act in November. In that moment, President Wilson hesitated. Grappling with the paralysis of his left side after suffering the first of a series of strokes that would eventually take his life, Woodrow Wilson began to walk a fine line between the continuity of control and the realization that his policy prescriptions had gone too far. Wilson's State of the Union Address, the first that he did not deliver in person, urged Congress to keep the Food Control Act and use its interstate commerce powers to regulate more greatly but he adopted none of the draconian input of his Attorney General. He also gave instructions to simplify the tax burden and reduce spending immediately.⁶³ As of yet, Wilson did not know about the raids, but even his addled mind grasped the scale of the problem. Labor had struck in such numbers so large that the federal state, even within the letter of the law, was powerless to enforce. Taxation, like the tax of inflation, could be changed to diffuse the situation. Congress obliged, but they, like the President, were overtaken by events. The fact of the matter was that the good elements of inflationary monetary spending in the short term had long been replaced by the onerous cycle of hiking prices to meet wages. Now, in the winter of the Red Scare, the cycle had grown to affect real production and distribution despite no shortage of currency.

⁶³ "An Annual Message on the State of the Union: Dec 2, 1919," *Woodrow Wilson Papers*, Vol. 64, 107-112.

Product Without a Buyer. The Federal Reserve's First Worldwide Meltdown

When he first arrived in Topeka, Kansas, V.O. Johnson established himself as a banker when he bought the assets of the floundering Aurine State Bank in June 1913. Johnson did right by his depositors by issuing credit to the bustling cattle industry outside of town. He even established his own farm, the Fashionable Stock Place, that would host hundreds of head of some of the finest cattle in the state. With the success of both of his ventures, Johnson became one of the foremost experts on fine cattle in a time when quantity had a quality of its own.

During the war years, cattle were bred, fed, and slaughtered in such numbers, that new investment in quality beef became more attractive as prices of ordinary cattle doubled in price.¹ In 1920, the wheat crop that dominated Kansas wealth promised to be the largest on record and the world, facing massive food shortages at the end of the war, sorely needed it. The same was the case for good American beef. But before the wheat could be threshed and the fattest cattle could be put onto cars bound for Chicago slaughterhouses, the bottom fell out. Agricultural prices fell through the summer of 1920 and Topeka's residents rushed to the bank to find the doors closed. Although Johnson had established himself during the boom years in the cattle industry, his Fashionable Stock Place never turned a profit. In fact, Johnson had embezzled \$86,000 of his depositors' money to save his venture--\$1.1 million in 2019 dollars. On May 18th, the *Kansas City Star* broke the story that the State Attorney General had issued a warrant for Johnson's

¹ The US Department of Agriculture's 1924 Yearbook indicated the farm price of milk cows rose from \$45 in 1913 to \$85.86 in 1920. Breeder bulls fetched less but at a corresponding increase.

arrest, while the State Banking Commissioner Walter Wilson, countermanded the order saying that such an arrest would “hinder the working out of the details into the settlement of the bank’s affairs.” Wilson, for his part, was covering his own tracks. Between May 26th and July 2nd, the *Star* reported that V.O. Johnson was given fifteen years in the state penitentiary and Governor Henry Allen opened an investigation into his banking commissioner after it became known that the latter had advanced knowledge of the theft and was remaining silent on other bank failures throughout the state. Despite attesting to the financial health of the Aurine State Bank and its half-a-million dollars in assets in May, by July, the bank had gone under, taking V.O. Johnson and Walter Wilson with it.² Between 1916 and 1919, there were an average of fifty bank failures in the United States. The Aurine State Bank was one of two hundred in 1920. In 1921, over five hundred more financial institutions would collapse—taking their credit lines and the remaining savings that survived years of inflationary growth with them.³

The American economy teetered on the edge in 1920 but the signs of failure had become apparent. An untold number of Americans to held onto their cash and refrained from investing. Likewise, in the context of inflationary pricing and crippling strikes, they sought substitutes and doubled down on the necessities knowing that such goods might not be available later. The industrious spirit was drying up from the bottom floor and it had consequential affects for the banks and businesses American consumers did business with. But inflationary pricing and tax regimes had boxed those concerns into unsustainable liabilities that could not be repaid with lower prices and lower incomes. Like consumers

² “Halts Arrest of Banker,” *Kansas City Star*, (Kansas City, KS), May 18, 1920. “Nobody Has Been Punished: Gov. Allen Investigating Wilson,” *Star*, May, 26, 1920. “V.O. Johnson Sentenced”, *Star*, July, 3, 1920.

³ Fearon, 17.

who gambled on getting product before prices could continue to rise, business was forced to engage in the same strategy. V.O. Johnson was not so dissimilar from this economic whole whose members shared interchanging and co-mingling roles as capitalists, entrepreneurs, and workers who were often one-in-the-same. The lack of takers in Johnson's cattle and his fall from prominence to criminality in a bid to buy his enterprise time highlights the next stage of the inflationary cycle—the gamble of a turnaround. Through the first half of 1920, prices and production continued to soar in the face of all other metrics of collapse as businesses engaged in mindless action in the hopes that the symptoms manifested through the previous year would somehow reverse. Instead, there was luxurious excess and little demand—endless product without a buyer.

The inflationary cycle appeared to end when Benjamin Strong, governor of the Federal Reserve Bank of New York, oversaw draconian discount rate increases that corresponded with a collapse in commodity prices in the summer of 1920. The Federal Reserve's role in creating the crisis is undeniable, but the institution also gets the credit for ending the crisis as well as the blame for the damage inflicted to bring inflation to an end. Strong's actions allowed for an easy scapegoat to be found at the time, as well as an inflection point in hindsight.

Easy credit from the Federal Reserve for political prerogatives is nothing new in the present. Keeping credit too easy for too long occurred in the leadup to the Great Depression, the 2008 Great Recession, and the 2020 inflation. Strong's stand in 1920 thus placed in stark relief with an indecisiveness of a later era. In truth, there was no better time nor better Federal Reserve. 1920 was simply a correction of mistakes that would inevitably be repeated. Worse, assigning too much credit to Strong and the Federal Reserve ascribes

myths to a singularity with the power to manage countless transactions in finite lives in which institutional speculation, rather than meaningful value, drive decision making. In 1920, the Federal Reserve's actions did compel banks to curtail lending and call-in loans, but the economy was long-symptomatic of collapse and the American people, through their lack of buying and demand for greater wages against inflation, already initiated the deflation.

Where blame is duly assigned is by making the deflation more exaggerated. Milton Friedman came to believe that the Federal Reserve, who had the knowledge of what was to come, should have acted earlier—despite the political impossibility of doing so. Others criticize the Federal Reserve's passiveness after rate increases ceased in 1920. There would be no wholesale rescue packages and legitimate enterprises died along with bad business. However, the Federal Reserve did not have oversight power over individual bank's lending habits nor could large injections of cash be made, lest it fuel new expectations and rallying prices. Rather, if the Federal Reserve erred beyond creating inflation in the first place, it was their monopoly on hard money that would make the collapse worse and stagnated the recovery. With gold reserves increasingly held by Federal Reserve and Treasury vaults in the East, banks in the interior were left with scant reserves to create new loans and guarantee their depositors. Taken together with all the harbingers of collapse, the lack of adequate reserves killed bona fide business from bad business and caused a spate of Western bank failures throughout the 1920s that ensured that agriculture would never recover.

4.1. A Political Dilemma?

From the end of the Great War in November 1918 until Benjamin Strong's first rate increases in November 1919, the Federal Reserve appeared idle in the inflationary spiral. *If* the Federal Reserve had the financial power to intervene before the collateral damage of deflation could be realized, those months represent a missed opportunity. Framed differently, the Federal Reserve made the deflation more severe by waiting. Milton Friedman and Anna Schwartz in *A Monetary History of the United States* laud Strong's rate stand but concluded it was belated at the end of 1919 and argued that raising rates between January and March 1919 during the immediate post-war slump could have been enough of a brake-pump to extricate the Wilson economy from its inflation. Writing in the 1960s, Friedman projects a more independent Federal Reserve in that time onto a more-timid institution in the past and assumes the Federal Reserve had financial and moral strength to do so. At the time, pumping the brakes had been tried to no avail and drastic actions were out of reach during most of this window of opportunity.

The ever-present challenge of the Federal Reserve is to deliver economic stability while negotiating political guardrails that are often at cross purposes with best practices. The privilege of dealing and marketing government securities on the open market afforded to the Federal Reserve from the outset has created a massive portfolio which allows it nominal independence to pursue its directives. On the other hand, Congressional and executive actions since the Great Depression increasingly defined the makeup of the Board of Governors and included policy changes often at contradictory ends—such as controlling inflation paired with ensuring full employment in the 1970s. In its earliest days, the

Federal Reserve struggled with the same dilemma. From its creation in 1913, the Federal Reserve was politically beholden to ideologues in Washington—from the stone of congressional legislation and the directives of President Wilson channeled financially through McAdoo's Treasury Department that embarked on inequitable credit and monetary inflations and embargos through the war years. Although the Federal Reserve System and the Treasury appeared to be working in lockstep on these issues, it was an institution on thin ice with the public. The newness of this central bank had to be tested in the courts with every bold move and subject to the review of a Congress that had created it and from a business perspective, the System relied on Congressional coercion to compel national and state banks into the System and on the Treasury for securities to lend. The Federal Reserve was made to perpetrate an inflation its directors, themselves raised from the banking class, knew would lead to distortions.

Inflation had been a concern of the Federal Reserve Board from the start of the American involvement, with Paul Warburg and WPG Harding pushing for a voluntary war bond instead of money creation to fund the war effort. The minds of the Federal Reserve Board toiled to make the Liberty Loan a success under the presumption that it was better than taxation and continued inflation to achieve the goal of winning the war; but the larger issue that occupied them at the start was the inevitable pain of transitioning from war to peace. The Liberty Loan and the various credit rationing schemes of the Federal Reserve and the War Finance Corporation were meant to soften the blow for when, inevitably, four years of war demand would end and with it the economy built around it. Although some industries such as the armaments and textile industries wound down, foreign demand remained high and domestic production remained tepid. Europe's devastation had bought

the American economy time to engage in a transition that the Victory Loan, marketed in the year of strikes, threatened to undo. But to stand against the Loan meant taking a stand against the new Treasury Secretary Carter Glass—one of the men most responsible for the creation of the Federal Reserve in the first place.

A Virginia Democrat, Glass followed the same vein of fiscal progressivism channeled by McAdoo and Wilson. As chair of the House Committee on Banking, Glass worked with President Wilson and Oklahoma Senator Robert Latham Owen to craft the Owens-Glass bill that provided for a central bank that would neither be under complete private ownership nor under complete government control. That bill would go on to pass as the Federal Reserve Act. Glass had believed that the best compromise was to create a banking system that could operate privately but the government could have a controlling interest through a presidentially appointed board of experts that would become the Federal Reserve Board. Born of a compromise, the Federal Reserve made no one happy and its deficiencies were readily apparent with a Board that was too reliant on toxic government dictates that diluted public faith in the currency and distorted financial decisions in the private sphere. Now in the spring of 1919, the marketing of the Victory Loan had produced the first clash on policy.

In the midst of nationwide strikes and a convulsing world economy, the government had to make the Victory Loan appear to be both safe and appealing. Glass continued the policy of gold sterilization of his predecessor by instructing his cashiers to encourage Americans to take Federal Reserve notes in lieu of gold, but when pressed, the oldest and most worn coins were dispersed. But at Benjamin Strong's insistence, the gold clause was extended to this new loan. Congress and the Federal Reserve Board worked the

legislation authorizing the loan to be tax- exempt to 4.75 % with the right to convert one's bond subscription to a government bond with a higher rate of return.⁴

Despite their best efforts, the Victory Loan underperformed its predecessors but many Liberty Loan bondholders took the chance to convert their existing bonds to that higher interest rate, making the overall debt burden—sitting at an all-time high of \$26.6 billion in September 1919—increasingly expensive to repay through taxing a public that was remiss to give up more of its money.⁵ Further, the Victory Loan represented yet another redistribution of wealth that did not go to funding war-to-peace transition costs that rapidly wound down. Once committed to the Treasury, these funds were used to subsidize world demand through continued credits to Europe and food contracts marked by government agents at high prices on the farm and sold abroad at a loss—in effect a bailout for agriculture at the expense of industry that would only encourage ever higher prices and ever more acute shortages. Although the Federal Reserve was in no position to refuse to market the Victory Loan, Benjamin Strong began to clammer publicly for raising discount rates.

Raising the discount rate would also trickle to higher loan interest rates on loans discouraging easy money. On the other hand, raising the discount rate would make it harder for the Treasury to pay its debts. While raising rates would make Treasury bonds

⁴ *Report of the Secretary of the Treasury on the State of the Finances for the Year Ended June 30, 1920*, (Washington: GPO, 1921). 421-25.

The First Liberty Loan Act made its securities “payable in United States gold coin of the present standard value and shall be exempt, both as to the principal and interest, from all taxation, except estate or inheritance taxes...”

“An Act to authorize an issue of bonds to meet expenditures for the national security and defense, and for the purposes of assisting in the prosecution of the war, to extend credit to foreign governments, and for other purposes,” PL 65-3, *US Statues at Large* 40, 35.

⁵ *Sec. Of Treasury 1919*, 30.

more attractive to new buyers, existing debt would be more expensive to retire. Strong's opinion was not kept a secret. He first confided his position to Leffingwell, in February 1919, claiming it was the only way to control the “necessary evil” of inflation. He alluded to the bailout by pointing out that the government had gotten a taste of heavy taxation and high spending, much of which was funneled into overpaying for perishable goods that would lead to ever higher prices and increasing shortages. It was now reality. Worse, there were warning signs of deflation. Strong noted the contraction as early as that letter when he noted the wool industry had begun to deflate as government contracts dried up and consumers at home sought cheaper alternatives.⁶

While inflation is marked by an increase in the supply of money where prices adjust upward accordingly, deflation is a decrease in money within an economy accompanied by a fall in prices. Although inflation can occur through supply shocks and monetary creation, deflation is an entirely monetary phenomenon. In a deflationary economy, monetary value is either destroyed or otherwise taken off the market by hesitant investors and consumers. With less credit available and declining sales, businesses cut prices to entice consumers to buy and, failing that, cut operations. In an inflation, consumers are made to spend immediately before prices can rise further, generating higher profits for firms who had the luxury of easy credit.

In a deflation, consumers wait for lower prices to their benefit over now-debt-leveraged firms who now have to repay the same dollar amount in debt with declining net incomes. Those who lost in periods of inflation, gain in deflation, but the political and

⁶ “Strong to Russel Leffingwell, Feb. 8, 1919,” *The Personal Papers of Benjamin Strong Jr.*, 1-4.

economic damage possible in between the boom and bust cycle is undeniable. The Great Depression was characterized by a deflation in which up to one-third of the American money supply disappeared from circulation. Since 1921, the Federal Reserve's monetary policy has been characterized by a small year-over-year increase in inflation in the hopes of spurring continued but controlled economic growth—all in a bit to avoid deflation.

At the end of 1919, Benjamin Strong and his allies on the Federal Reserve Board hoped for a deliberate but controlled deflation to avoid collateral damage. With the war industries and the Victory Loan floundering, Glass conceded that rate increases may be needed, but asked that such talk wait until after the marketing of the Victory Loan. Sensing there was no time to waste, Strong threatened to raise rates in New York—and by virtue of his position, effectively raise rates in the entire Federal Reserve system. In response, Glass questioned the Federal Reserve's ability to move on its own and called for Strong to be ousted.⁷ Congress ultimately ruled in the Federal Reserve's favor and Strong hiked rates for the first time in December. Paper backed by government obligations—Treasury bills and Liberty Bonds— and commercial paper rose from 4.25 to 4.75%. Agriculture and livestock paper rose from five to 5.5%.⁸

Raising rates would force the government to curtail its spending, but business had long been accustomed to a race against inflation and saw this nominal rise as yet another cost of staying open. It also emboldened some to borrow big and borrow now, betting against the incremental increases on the discount rate. Allen Metzler, in *A History of the Federal Reserve*, points to a potential speculative bubble in which \$1.8 billion was lent by

⁷ Naclerio, 102.

⁸ Atlanta raised its agricultural paper rates preemptively in November 1919.

Federal Reserve banks between January and May 1920 despite these increasing restrictions.⁹

In that window, Benjamin Strong had absconded out of the country—partially to recoup from his tuberculosis and partially to assess the world economic situation. While the Europeans, seemingly at a standstill, squibbed over territorial acquisitions and ever-changing monetary figures, far-off Japan's own economy was in a tailspin. Japan had been an essential check on German possessions in east Asia and were now continuing as a bulwark against Bolshevik Russia as a supply base for white Russian forces. Japan's distance from direct combat and her motivated industrial base had left her in an enviable position comparable to the United States, but her ambitions backfired when directed toward another staunch member of the Allied powers, China. Japanese military intervention and capital investments had been key in the interactions between the two old Asian powers—with both sides using the Versailles conference table to both lobby for an end to racial discrimination by the western powers and a degree of legitimacy in this new order. When the settlement ultimately favored handing the German concessions in China at Tianjin and Qingdao to the Japanese, widespread protests against the Versailles Treaty ensued. Student demonstrations by the likes of then unknown actors such as Mao Zedong and future heirs of the CCP joined popular boycotts of Japanese industrial and textile goods that flooded the Chinese mainland.

With the world's largest populace up in arms, Strong observed the decline of Japanese textile industries, particularly the silk industry that had leveraged itself during the war. Finished wares sat in docks with nowhere to be delivered while the bills of leveraged

⁹ Metzler, 107.

companies came due, leading to mass unemployment and bankruptcy.¹⁰ Contagion was spreading beyond Europe and the Caribbean export markets. Harsher measures were needed to stave off a similar fate to the American market. In June, Strong authorized New York to raise its commercial paper rates to seven percent and encouraged his banks to use progressive rates to discourage excessive lending. This decision coincided with the leveling of consumer prices and gives the impression of an inflection point in which a bubble burst. However, the Board's 1920 report admitted that lending and rediscounting levels did not peak until November 5th and member banks could account for a decline of only \$108 million out of that year's total loans outstanding.¹¹ Businesses needed cash and they still appeared to be willing to borrow even with nominally higher interest rates tacked onto their loans even as prices leveled and then crashed in August.

But the banks that facilitated that borrowing were not so unflinching. Strong's actions to increase the discount rate was meant to make Federal Reserve funds more expensive and force banks to be more careful about lending too much against their precious reserves, but Strong's call for progressive rates reflected an underlying problem partly of his own making—some of the System's banks were dangerously low on reserves.

¹⁰ Randolph W. Burgess, *Interpretations of Federal Reserve Policy in the Speeches and Writings of Benjamin Strong*, (New York: Harper & Bros, 1930), 75-78.
Report of the Secretary of the Treasury on the State of the Finances for the Year ended June 30, 1920, (Washington: GPO, 1921,) 1175.

¹¹ *Seventh Annual Report of the Federal Reserve Board Covering Operations for the Year 1920*, (Washington: GPO, 1921), 14.

4.2. The Sins of Sterilization

The Federal Reserve's years long gold sterilization scheme made their later rate increases immaterial and turning a credit crunch into a deflationary stranglehold with banks materially unable and unwilling to lend while consumers cut their own losses. The Federal Reserve Board was particularly concerned with speculative lending that increasingly exceeded the capacity to recover from bad debts and satisfy depositor demands at a time when Americans wanted their cash. After a long-running series of legislative scratch-offs and accounting chicanery, the entire Federal Reserve System's bank reserves, particularly those in the agricultural South and West, were in a precarious state—a fact underscored by Strong tactfully admitting that discount rate increases were not sufficient when he recommended that New York impose progressive rates on other banks.

Progressive rates were a little-known mandate of the Federal Reserve Act and were authorized as a penalty against member banks to ration credit as a percentage payable to reserve banks when the member bank's reserves fell below forty percent of its outstanding notes. The reserve requirement survived a series of amendments to the Act until 1917. The 40% gold ratio against Federal Reserve notes found in Section II C was weakened by Congress to allow banks with 35% ratio of gold and "lawful money" to be retained instead. The dilution of reserve requirements was coupled by consequences of the years' long gold sterilization campaign that saw Eastern banks gain gold reserves while Western concerns were drained. A cursory look at the balance sheets of the twelve Federal Reserve district banks from 1916 to 1922 nominally shows the opposite.

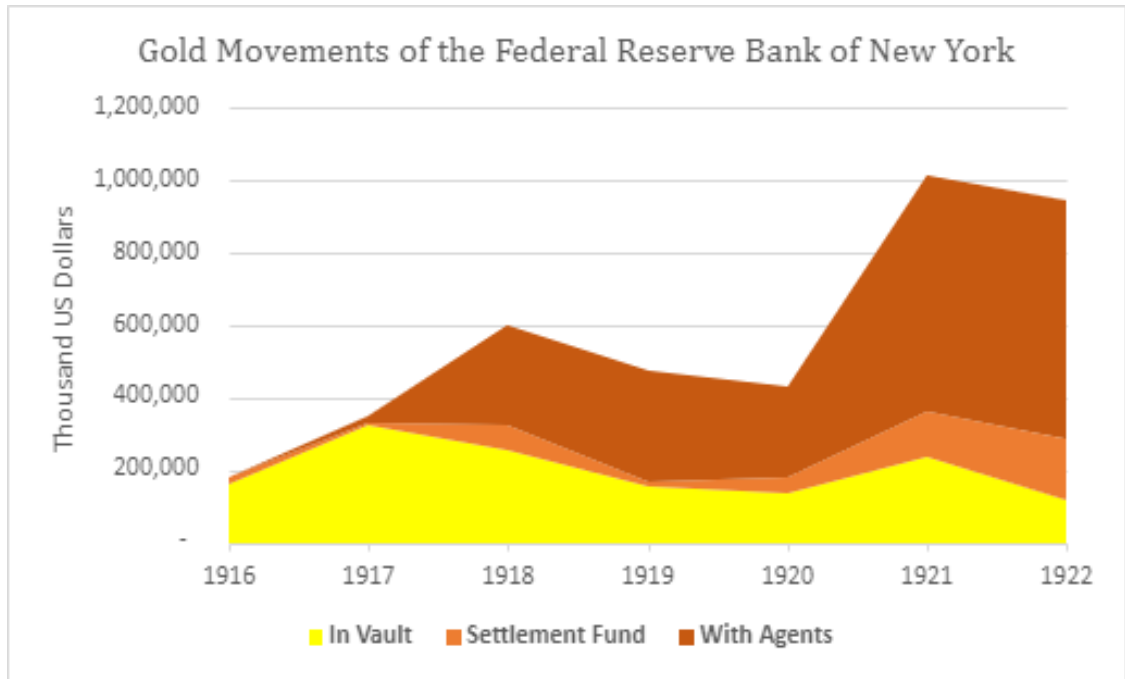


Fig 4.1. Gold Movements of the Federal Reserve Bank of New York

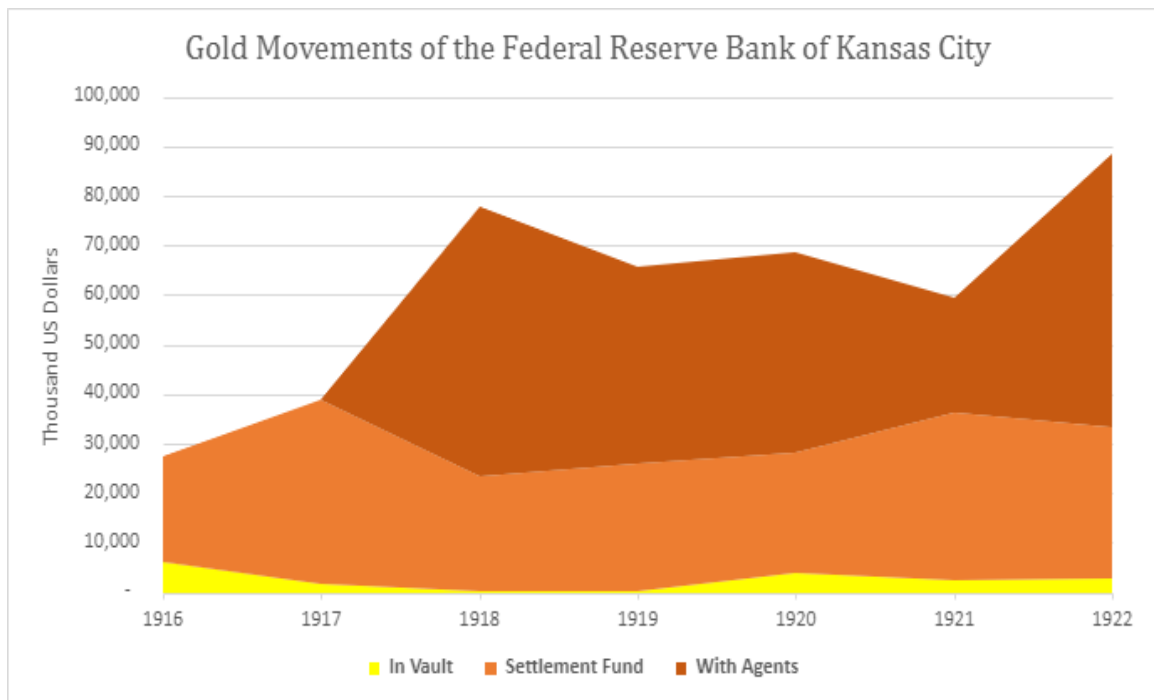


Fig. 4.2. Gold Movements of the Federal Reserve Bank of Kansas City

Fig. 4.1 illustrates the total gold reserves of Strong's Federal Reserve Bank of New York, while Fig. 4.2 represents those of Kansas City, Missouri. New York saw a marked decline in total reserves from 1918 to 1920, while Kansas City's decline was more subdued. But this is nominal gold assets that could be claimed. Gold held with agents of the Federal Reserve and earmarked for the Gold Redemption Fund to settle accounts elsewhere nominally count but were not available in-vault and on demand. Kansas City's vault gold fell off during the war years, having been allocated elsewhere. In 1920, vault gold recovered slightly from \$191,000 in 1919 to \$4.03 million but their overall gold stock fell from \$76.2 million to \$68.7 million.¹²

¹² *The Third Annual Report of the Federal Reserve Board for the Year Ended June 30, 1917*, (Washington: GPO, 1918), 13.

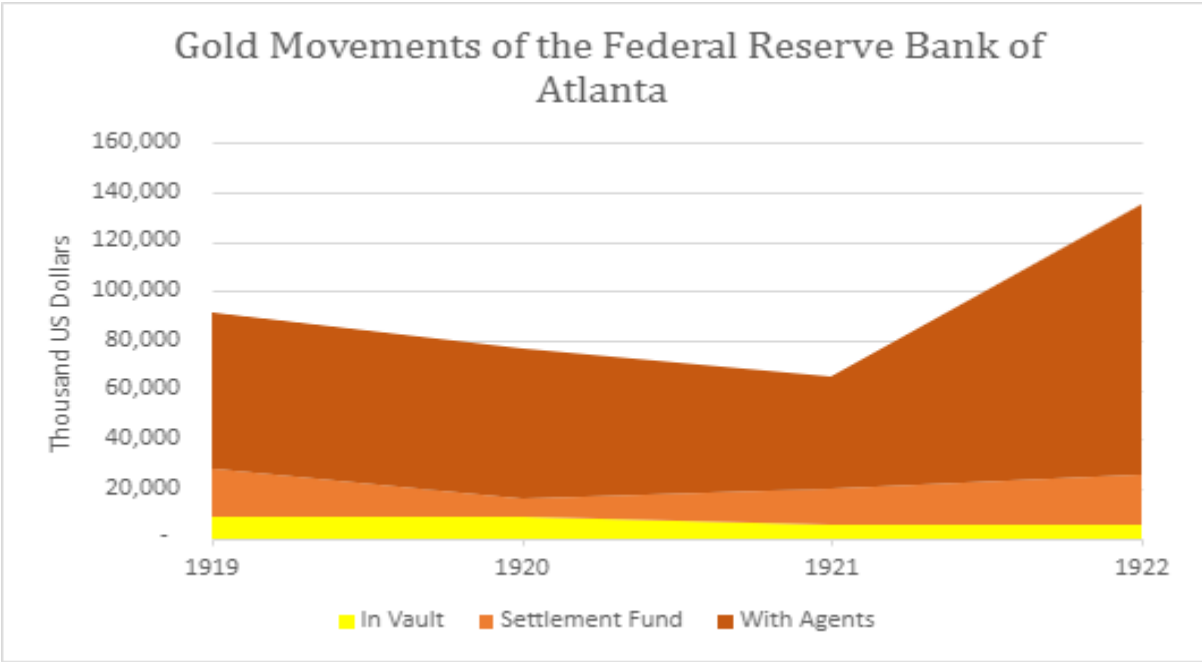


Fig. 4.3.¹³ Gold Movements of the Federal Reserve Bank of Atlanta

The Federal Reserve Bank of Atlanta, home to the Deep South’s cotton finance, suffered much the same fate—net gold outflows despite a nominal increase of in-vault gold in 1920, followed by a cratering as the Depression of 1921 set in. In every case, ratio between in-vault resources and outsourced allocations at interior banks widened while New York’s outside liabilities shrank. Even with other lawful money added, the Federal Reserve Systems reserves were dangerously low at a time where lending continued nearly unabated. In April 1917, the System’s total cash reserves sat at 84%.¹⁴ In December 1919, the

¹³ Fig. 4.1-4.3 per asset movements in the Third through Ninth Annual Reports of the Federal Reserve Board. *Third Annual Report*, 66-73. *Fourth Annual Report*, 4,50, 74, 535. *Fifth Annual Report*, 102, 132, 140, 668-74. *Sixth Annual Report*, 80-81,139-146. ¹⁴ *Seventh Annual Report*, 146-7.

System's reserve had fallen to 44.8%. At the end of 1920, the ratio had stabilized at 45.4%. But in that time frame, Northeastern banks recovered their reserves while Southern and Western concerns lost.¹⁵

The siphoning of gold reserves was mirrored by the Federal Reserve's discounting operations. Discounting—not to be confused with discount rates—is the act of marketing debt securities and bills of exchange at a selling price lower than face or par value in the hopes of enticing reluctant investors to buy. The investor is then entitled to the par value and any interest. Rediscounting is the act of discounting an already discounting bill. Unlike any other typical year, with its cyclical swing of liquidations expected due to agricultural marketing and replanting, liquidation increased steadily throughout 1920 without pause. There was no fast sale on Treasury T-Bills and Liberty Bonds that dominated bank holdings since the war, but faith in productive assets soured. Liquidation of commercial and agricultural obligations rose steadily from \$716 million in January to \$1.07 billion in May.¹⁶ Out-of-district and domestic notes flooded the Federal Reserve Banks of Cleveland, Boston, and Richmond, as they took on the bulk of discounting traffic. But rediscounting efforts had accelerated in the overleveraged districts in Atlanta, Minneapolis, Kansas City, and Dallas. In those districts, discounting failed to appeal to consumers, and they now resorted to slashing their own payout further to offload the debt in exchange for fast cash to stem the tide. Benjamin Strong's move to increase the discount rate and establish progressive rates on spendy banks was meant to prevent superfluous lending and remove

¹⁵ Adjusted for inflows and outflows from other districts, Dallas's reserve ratio fell from 77% to 17%. Atlanta's ratio fell from 55.2% to 24.9%. New York, which held and lent the most, recovered slightly from 36.3% to 39.5%. Boston rose from 24.3% to 59.2%.
Fed Reserve 1920, 48

¹⁶ *Ibid*, 14-15.

currency from circulation. Instead, currency flowed outward and lending in general ceased. Desperate to shore up their reserves to prevent failure, those banks liquidated their loans, called in those that could not be sold, and demanded additional collateral to ensure repayment. Money disappeared and businesses resorted to extreme methods to turn around their fortunes.

4.3. Production and Liquidation

In 1910, an acre of farmland could be had for \$39.10. In 1920, that price had multiplied to an average of \$99.24, a rate that more than kept up with the inflation of the war. And more coveted land was fetching far higher prices. One famed prediction came from C. E. Cameron, the Chairman of the Iowa Department of Agriculture who reminded guests at the state's agriculture conference that he had previously predicted correctly that land would sell for \$300-500 an acre and when "people ask me if I think this land will stay at that price and I say it certainly will. It may not go any higher for some time, but I do not think it will go back."¹⁷ Predictions like these underscored the fact that, with this rate of appreciation, the farmer was, at best, hedging himself against inflation. The price of his farm went up, serving as tempting collateral for a cycle of debt to fund ever rising costs in land, labor, and equipment. Faced with loan calls by commercial banks, agricultural interests turned to the War Finance Corporation and the Farm Loan Board for easier credit terms. The War Finance Corporation alone lent out \$48.7 million, the highest at that point

¹⁷ US Department of Agriculture, *Yearbook 1920*, (Washington: GPO, 1921), 272.
Iowa Department of Agriculture, *Twentieth Annual Iowa Yearbook of Agriculture*, (1919), 62.

in its existence, in the first three months of 1920 before President Wilson suspended their operations.¹⁸

As credit dried up and prices declined, business turned to a mix of speculation, production, lobbying, and legitimized hoarding. Some turned to luxuries with a niche appeal and the potential for a massive payoff. During the war years, V.O. Johnson gambled on the nurturing of prime beef in an inflationary market of cheaper alternatives that might entice only the highest buyers but was priced out of reach of most Americans; others opted for maximum production of existing goods to offset falling prices with higher overall sales. In response to hiked wages in the aftermath of the Great Steel Strike, US Steel's ingot production rose from 17.20 tons in 1919 to a peak of 19.28 million, a gross increase of twelve percent. The firm's ore mining operations increased another 6.2% over the previous year, but it came at the cost of hiring an additional twelve thousand workers and raising wages from \$6.12 to \$6.96 per day—a rate that outpaced both mining and production operations.¹⁹ Accelerated operations created high--or inflated-- profits of \$1.22 billion, but it came at the costs of higher expenses and accelerated wear that jeopardized sustainability. US Steel's depreciation, debt interest, and expense accounts rose sixteen percent from \$180 million in 1919 to \$209 million.²⁰ The net result was a glut of steel on the market

¹⁸ Likewise, the Federal Land Bank's operations were suspended for ten months in 1920, yet for year the Board reported \$65 million in loans and \$334 million in additional bonds, though much of these were based upon commitments left over from 1919.

The Fourth Annual Report of the Federal Farm Loan Board for the Period from November 30, 1919 to November 30, 1920, (Washington: GPO, 1921), 3, 11-13.

The Second Annual Report of the War Finance Corporation, (Washington: GPO, 1919),3-11.

The Third Annual Report of the War Finance Corporation, (Washington: GPO, 1920), 4-10.

¹⁹ United States Steel Corporation, *Nineteenth Annual Report of the United States Steel Corporation for the Fiscal Year Ended Dec. 31, 1920*, (Hoboken, NJ: 1921), 15,24.

²⁰ *Ibid*, 7-9.

without a demand for it at high prices that had to be passed on to the consumer.²¹

Compensatory production tendencies also mirrored onto agriculture. Cotton production, which had been relatively stable, peaked near its 1914 highs in 1920 with over 13.4 million bales put onto the market to fetch an August harvest price of \$16.55 per bale. That same time the previous year, the going rate was \$38.21. Likewise, corn production reached an all-time high of 3.2 billion bushels even as the Chicago trade prices fell from their high of \$2.71 a bushel in autumn 1919 to a low of \$0.59 in 1920. The large crop of 1921 was trading for as low as \$0.46. As prices were cut, domestic buyers still refused to buy in the belief that prices would continue to fall, farmers turned desperately to international markets.

Corn farmers were among the lucky who were able to grow their exports as foreign buyers refused wheat. In almost every aspect, American productive capacity had been overused and consumers less willing to consume. Farm interests, particularly those in the wheat industry, collectively howled for a bailout, but the out-going President Wilson refused to intervene. Over his veto, Congress reanimated the War Finance Corporation and the Federal Farm Loan Board in January 1921.²² By then, Wilson and the Democratic Party had been swept from power after the election of 1920 that saw Warren Harding crush the profiteer-hunter Ohio governor James Cox on a platform of “a return to normalcy” that included deflation, deficit reduction, and tax cuts. Harding stayed true to

²¹ US Steel stated the price of steel per ton rising from \$33.22 in 1913, \$78.84 in 1918, peaking at \$74.74 in 1920 before falling to \$42.48 by 1922.

US Steel, *United States Steel Corporation TNEC Papers Vol, II: Chart Studies*, (New York: US Steel, 1940), 180.

²² US Steel stated the price of steel per ton rising from \$33.22 in 1913, \$78.84 in 1918, peaking at \$74.74 in 1920 before falling to \$42.48 by 1922.

US Steel, *United States Steel Corporation TNEC Papers Vol, II: Chart Studies*, (New York: US Steel, 1940), 180.

these pledges even as the economy continued to free fall as commodity prices fell fifty-six percent from their mid-1920 levels by the end of 1921. In an era before compulsory unemployment benefits, it was estimated that as many as one in five Americans were thrown out of work, mostly in the inflated industries while the service industries that had suffered during the war recovered.²³ Price deflation had come on so rapidly that it outpaced wage cuts and real purchasing power of the employed, for the first time in seven years, rose.

Table 4.1.²⁴ Money Stock in Relation to Buying Power 1913-1922

Money Stock in Relation to Buying Power 1913-1922						
	Money Stock (000)	% Change	Agriculture Wages	% Change	Flour	% Change
1913	\$3,363,738		\$30.31		3.1	
1914	\$3,402,015	1.1	\$29.88	-1.4	3.5	12.9
1915	\$3,169,220	-6.8	\$30.15	0.9	4.1	17.1
1916	\$4,024,097	27	\$32.83	8.8	4.4	7.3
1917	\$4,763,576	18.4	\$40.43	23.1	7.6	72.7
1918	\$5,379,427	12.9	\$48.80	20.7	6.8	-10.5
1919	\$5,766,030	7.2	\$56.29	15.3	7.4	8.8
1920	\$6,087,555	5.6	\$64.95	15.3	8.4	13.5
1921	\$5,776,437	-5.1	\$43.32	-33.3	5.7	-32.1
1922	\$5,666,092	-2.0	\$41.79	-3.5	5.1	-10.5

Table 4.1 shows the supply of money outside the Treasury in circulation at the end of every fiscal year between 1913 and 1922 paired with average monthly agricultural wages as

²³ Grant, 5.

²⁴ *Report of the Secretary of the Treasury 1913*, 214; *1916*, 278; *1917*, 353; *1918*, 558; *1920*, 861, *1921*, 547; *1923*, 564.

Agricultural Yearbook 1924, 1116.

“Monthly Labor Review,” Vol. 13 No. 4, 45; Vol. 11 No. 4, 29-30.

“Bureau of Labor Statistics Monthly Labor Review.” Vol. 15 No. 4, *US Department of Labor*, (Oct. 1922), 25-26.

supplied by Department of Agriculture. As a reference of wages to buying power, the average August price for one pound of flour supplied by estimates from the Department of Labor is used. This simple example shows the general tendency of wages to act inelastically in comparison to rising consumer prices. American involvement in the Great War beginning in 1917 brought price spikes contributable to an increased velocity of money as the modest increase in money stock was spent at higher rates on fewer available goods on the free market. In 1919, prices began to decline only to rally once again through 1920. Between June 1920 and June 1922, the money stock fell 7.1%. Wages fell, but product prices fell faster turning ostensive wage cuts into buying power increases.

The new President, Warren Harding, did not endorse bailout schemes nor take the advice of Herbert Hoover. As the incoming Secretary of Commerce, Hoover looked at the growing droves of unemployed with alarm and advocated the creation of a public works program to create jobs—a suggestion preceding the New Deal by over a decade. Harding was more interested in empowering his Secretary of the Treasury Andrew Mellon to lower American tax burdens and bring federal spending under control. But the politically and materially vital agricultural sector proved to be too essential to merit invisible action. Harding *did* expand the Farm Loan Board's finances and signed the Agriculture Credits Act in August 1921 that expanded the War Finance Corporation's loan operations to include dealer and warehouse financing. Taken together with ordinary and export loans, disbursements from the War Corporation ballooned in 1921 with \$61.6 million in credit followed by another \$240.8 million in 1922.²⁵

²⁵ *Fourth Annual Report of the War Finance Corporation Covering Operations in 1921*, (Washington: GPO, 1922), 16-18.

Fifth Annual Report of the War Finance Corporation Covering Operations in 1922, (Washington: GPO, 1923), 17.

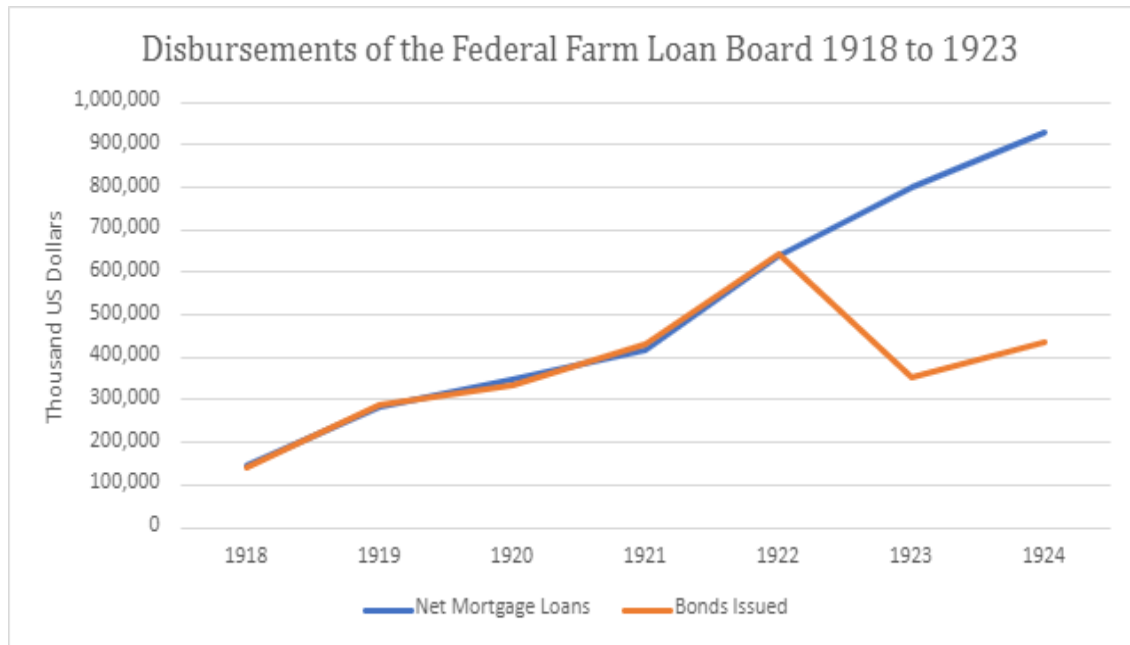


Fig 4.4.²⁶ Disbursements of the Federal Farm Loan Board 1918 to 1923

This relief was not immediate nor large enough to save farmers who had to liquidate crops nurtured at inflated prices at far lower prices than they had paid for them.

The final defiant act of business was to hold goods off the market to keep prices high.

Eugene Meyer, chairman of the War Finance Corporation, reflected with alarm at the

livestock situation. Ranchers that reared a record number of cattle and pigs in 1920

scrambled to send juvenile animals to the Chicago slaughterhouses before prices could fall

²⁶ *Second Annual Report of the Federal Farm Loan Board Covering Operations for the Year 1918*, (Washington: GPO, 1919), 22-28.

Third Annual Report of the Federal Farm Loan Board Covering from Nov. 30, 1918 to Nov. 30, 1919, (Washington: GPO, 1920), 21-28.

Fourth Annual Report of the Federal Farm Loan Board Covering Operations for the Year 1920, (Washington: GPO, 1921), 3.

Sixth Annual Report of the Federal Farm Loan Board For the Year Ended Dec. 31, 1922, (Washington: GPO, 1923), 11-28.

Seventh Annual Report of the Federal Farm Loan Board For the Year Ended Dec. 31, 1923, (Washington: GPO, 1924), 12, 14.

Eighth Annual Report of the Federal Farm Loan Board Covering Operations for the Year 1924, (Washington: GPO, 1925), 11.

further. Now in 1921, without young stock to replace the old, entire breeding herds were decimated. The Corporation had success floating a one million bale loan for cotton export out of the South, like what the Federal Reserve did in 1914. It did little to keep prices stable. Through 1921, regional refiners saw their cotton gins smashed and at least 25,000 destroyed by saboteurs.²⁷ *The Macon Daily Telegraph* reported one nighttime blaze in January 1921 near Spartanburg, South Carolina that destroyed five warehouses and over fifty tons of cottonseed and an equal amount of precious fertilizer.²⁸ The exact cause of the blaze is unknown but mysterious nighttime fires destroyed gin plants and warehouses throughout the year. Even when cotton was not destroyed, precious resources for the growth and storage of future crops were.

These crude attempts to limit supply were paired with more systemic and political approaches. Louisiana governor John Parker, once a fierce enforcer of the Food Control Act, asked ginners in his state to refuse to work in order to hold out for a living price, though waiting would ruin them.²⁹ The danger of deflation accelerated the growth of farmer cooperative firms amongst the strongest players, financed in part by Federal Land Bank and War Finance Corporation subsidies. The most influential of these coopts, the National Wheat Growers Association, attempt to hold its collective 250 million bushels off the market to increase prices in 1921 and 1922. While trying to corner the market, the farm lobby insisted on new tariffs to protect them from foreign competition, but to no avail.³⁰ Even as more Americans flocked to the city, these modern agribusiness concerns that had

²⁷ *Fourth Ann. War Finance Corp.*, 6-11.
Shideler, 50.

²⁸ "Fire Razes Five Warehouses," *The Macon Daily Telegraph*, (Macon, GA), Jan. 2, 1921, 4.

²⁹ Shideler, 51.

³⁰ Shideler, 67-73.

been fostered by regulatory policies of the federal state used inflationary and deflationary monetary policies to solidify their grip on the country by pushing out yeomen farmers. At the height of their potential in 1920, more farms were mortgaged out than there had been in the last twenty years. The 1920 Census shows a gloomy trend of centralization around agribusiness already underway. Between 1910 and 1920, mom and pop farms under twenty acres decreased from 839,166 to 796,535. Likewise, farms sized between 50-500 acres fell from 3,932,530 to 3,630,852. But farms greater than 500 acres in size grew; farms larger than 1000 acres likewise grew from 50,125 to 67,405.³¹ The deflation of 1921 would strengthen agribusiness and forced the family farm, then still the bulk of food productive capacity, into dire straits just as the Roaring Twenties were underway.

³¹ *1920 Census Vol 5*, 65.

Conclusion

Economic downturns yield useful lessons on political economy and on the everyday lives of millions who participate in an inherently social engagement of buying and selling. The Great Depression defined a generation. The Panic of 1837 undid the presidency of Martin Van Buren before it could even begin. The Panic of 1873 served as the great catalyst for union labor organization.

The 1921 Depression is completely forgotten, yet it was the most severe contraction until the Great Depression. The strikes and fall in investment that befell the American economy in 1919 was mirrored globally. Nominal unemployment rose to an unheard- of nineteen percent. Union unemployment was particularly high, with some states such as Massachusetts, noting as many as one in three union workers out of work.¹ The flight of cash off the market—the monetary deflation—was small, with a 7.1% contraction between 1920 and 1922.² But wholesale prices fell over fifty-six percent—a contraction more severe than any other thus far. The better-known downturns serves as easy anecdotes on the past madness of markets in a boom-and-bust cycle that invite present attempts at regulation and political debate to make a case that events do not represent. 1921 forces us to confront the methods of that madness in the form of institutional control and financial equity that seldom make economic sense. The 1921 Depression was the first test in American central banking, its economic damage undoing the promise of the Wilson administration and creating an agricultural class that could no longer operate without state

¹ The Commonwealth of Massachusetts, *Annual Report of the Statistics of Labor for the Year Ending Nov. 30, 1921*, (Boston: Department of Labor and Industries, 1922), 33.

² Fig. 4.1.

subsidies just as the United States rose to its peak on the global stage. Eight years before the rise of the regulatory state in response to the Great Depression, 1921 set the stage for the New Deal while the events that transpired make the case the regulatory control does more harm. The coincidental timing of the deflation to the credit of the Federal Reserve ensured those lessons would not be learned. Instead the fear of deflation, and efforts to control it, have dominated business and policymaking ever since. Keynesian-style monetary policies of consumer stimulus during periods of contraction coupled with higher taxation during the upswing also has the tendency of mitigating the worst aspects of a deflation but trading it for slow growth and inflation—such as during the prolonged Great Depression and the Great Recession. The 1921 Depression lacked the relief of a latter age and the economy had staged a recovery before 1923—a depression that seemed to cure itself and concluded so quickly few have heard of it.

In truth, reality is missed when memory is substituted for context and tangible lessons are replaced by minutia. Far from being free of political intervention, the Depression of 1921 was, in fact, the result of politicized national institutions creating national problems, trading acute and localized economic atrophy for misery that transcends class, regional, national, and even international boundaries in a pattern of policy and circumstances that would repeat. The road to 1921 was engineered by the Federal Reserve at the behest of the executive branch with an intentional monetary inflation directed out of the best possible intentions—to uplift marginalized agriculture and create an economic growth that would be beneficial to all. Both farm credit and a nationalized bank system enjoyed progressive support and a popular appeal, but their implementation together created a monetary approach that was a zero-sum game. The early years of legislative wins

and inflation were a boon to agriculture, who accumulated buying power at the expense of other sectors.

Inflation became more noticeable during the slow creep of nationalization that spread from the Federal Reserve to the monopolization of commodities and transportation infrastructure under government control through entities like the Food and Fuel Administrations and the Railroad Administration. This takeover was justified by American involvement in the Great War, but like a central bank and farm credit, it was part of a political platform that favored crop subsidies and equitable freight rates. However, the takeover brought government agents—those closest to the cash— directly into competition with her own citizens to buy at their expense with no option for refusal. Price ceilings on goods added to the distortions, creating surpluses of unwanted commodities at high prices. Increased supplies paired with rate controls increased tonnage and traffic on American railways in the short term, but resulted in both infrastructure and labor burnout in the long run as rail companies lacked the funds and the availability of equipment to keep the country supplied.

The Wilson administration had empowered agriculture to consolidate, banks to lend, and labor to organize for higher wages. This created a cycle in which agriculture was forced to continue expanding, banks to continue overleveraging, and labor forced to agitate and glance toward Bolshevik solutions in order to come out head. Faced with social and economic collapse, the executive found a scapegoat in the nation's businessmen. John Maynard Keynes in *The Economic Consequences of the Peace*, called these so-called profiteers the true active component of a capitalist economy and they "are a consequence and not a cause of rising prices. They are timid and reduced to easy victims of

intimidation.” Keynes was commenting on the then- ongoing debauchment of the ruble by the Bolsheviks, who used the resulting higher prices to support a campaign against the kulaks that produced most of Russia’s food.³ The Wilson administration did not resort to murder to target its new enemies, but public mythmaking in print and the threat of arrest and imprisonment by the Justice Department in a crude attempt to lower prices—never mind it could result in bankruptcy and the total removal of goods from the economy. The consumer and laborer joined them in their dire straits.

While the Wilson administration targeted innocent individuals for an inflation that could only be caused by institutional monopoly on the state of the finances, their faith in a face-saving deflation lay on that same institution—the Federal Reserve. The Federal Reserve’s hiking of interest rates in spring of 1920 appeared to quash inflation, but this is illusionary. Since the Armistice, the good effects of inflation—the incentives for consumers to buy and businesses to expand—had begun to turn rotten. Consumers that had rallied to fund the war through the Liberty Loan and other savings instruments withdrew their cash from the market and spent on the bare necessities, leading to lagging subscriptions for the 1919 Victory Loan, a decline in demand deposits in banks nationwide, and an increased taste in substitutes and foreign alternatives to basic staples. Wages and supply of product likewise suffered. The famed Weimar hyperinflation that gripped Germany from 1921-24 saw prices changes so rapid worker absenteeism affected production.⁴In other words, workers spent their rapidly depreciating currency rather than remain at their posts. The United States in 1919 was gripped by strikes that paralyzed the

³ John Maynard Keynes C.B., *The Economic Consequences of the Peace*, (New York: Harcourt, Brace, and Howe, 1920), 235-7.

⁴ Lewis E. Hill, Charles E. Butler, and Stephen A. Lorenzen, “Inflation and the Destruction of Democracy: The Case of the Weimar Republic,” *Journal of Economic Issues*, Vol. 11 No. 2, (June 1977), 302.

transportation of seemingly endless product, transforming a steady decline in living standards into a revolutionary tinder of shortages and a flight of cash that made further inflation impossible.

The Federal Reserve's rate approaches in 1920 prevented a false rally of prices but consumer confidence had already begun the deflation for them. But the coincidental timing would only create misplaced confidence in the Federal Reserve. The System's gold sterilization scheme removed gold from common circulation and from rural bank vaults created the K-shaped economic recovery that all commentators, even the Federal Reserve itself, wished to avoid. Scott Nations in *The History of the United States in Five Crashes* theorized that Benjamin Strong's draconian rate increases nearly throttled the economy and for the rest of the 1920s, the System was timid to act on increasing speculation in the New York Stock Exchange.

Alternatively, they may have been fooled into believing their powers were greater than what they were. The Federal Reserve arrived at the conclusion that their rate increases popped the bubble—or perhaps they used rate policy as cover for graver mismanagement. In any event, the Federal Reserve's inactivity from 1921-1928 could have been a period of lethargy in the belief that hard rate increases would—they believed—head off another crisis. But inflation had been created once again in that period, with Federal Reserve rates held low. In 1929, Benjamin Strong had succumbed to his battle with tuberculosis and the Federal Reserve he left behind drove interest rates higher, but were unable to pop a Wall Street bubble that now thrived on cheaper corporate cash.

In the years since the Great Depression, the Federal Reserve has nominally adopted inflationary manipulation out of fear of another calamity to the benefit of some over others.

Thus the Federal Reserve, born to create economic equity and monetary stability, has continuously failed. Worse, their undeserved reputation as economic problem-solvers contributes to irrationality in the market among those true drivers of economic growth and decline—the American public. In 1919, they had little regard for the Federal Reserve and its attempts at moral suasion to achieve a soft landing on inflation without subsequent bankruptcy and job losses. Indeed, some like farm interests, had ushered in the cycle in the first place. In the years since, the want for a greater money supply to solve real and perceived ills continues to enjoy political support, but the critical mass of innovation and capital has since become timid. Ordinary entrepreneurs, consumers, and investors have learned to disregard their own instincts and rely on Federal Reserve Board announcements to finance in some markets, liquidate in others, while creating new ones. In judging profit, value, utility, and sustainability, the collective wisdom of millions is sacrificed to the whims of imperfect elite control with a storied history of failure.

Bibliography

- “3,028,487 Are Discharged: War Department Announces Progress in Demobilizing United States Army.” *The Richmond Times Dispatch* (Richmond, VA). July 27, 1919.
- “An Act to authorize an issue of bonds to meet expenditures for the national security and defense, and for the purposes of assisting in the prosecution of the war, to extend credit to foreign governments, and for other purposes.” PL 65-3, *US Statutes at Large 40*, (1917).
- “An Act to provide revenue to defray war expenses and for other purposes.” PL 65-50. *Statutes at Large 40*, (1917).
- “An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes.” PL 64-212. *US Statutes at Large Vol. 38*, (1914).
- “Big Purchase of Sugar Explained.” *The Concordia Sentinel*. (Vidalia, LA). July 3, 1920.
- “Bureau of Labor Statistics Monthly Labor Review. “Vol. 11 No. 4. *US Department of Labor*. (October 1920).
- “Bureau of Labor Statistics Monthly Labor Review. “Vol. 13 No. 4. *US Department of Labor*. (October 1921).
- “Bureau of Labor Statistics Monthly Labor Review.” Vol. 15 No. 4. *US Department of Labor*. (October 2022).
- “Bureau of Labor Statistics Monthly Labor Review.” Vol. IX No. 2. *US Department of Labor*. (July-December 1919).
- “Charity to Get Sugar Hoarded by Hotel Men.” *The Times Picayune*. (Baton Rouge, LA) Aug. 1, 1918.
- “Drive On Profiteers and High Prices Continue Throughout Land.” *The Rock Island Argus*. (Rock Island, IL). Aug. 15, 1919.
- “Federal Deposits Show Big Increase. Banks Which Show Rediscount Gains Also Boost Deposit Increase.” *Charlotte Daily Observer* (Charlotte, NC), Jan. 2, 1915.
- “Federal Reserve’s Place on Government Financing: How the First Year of War Was Financed.” *New York Times*. (New York, NY). Jan. 6, 1918.
- “Fire Razes Five Warehouses.” *The Macon Daily Telegraph*. (Macon, GA). Jan. 2, 1921.
- “Food and Fuel Control Act.” PL 65-41. *US Statutes at Large 40*, (1917).

“Freight Embargo in the East.” *The Oregonian*. (Portland, OR). July 15, 1919.

“Halts Arrest of Banker.” *Kansas City Star*. (Kansas City, KS). May 18, 1920.

“Mayers to Face Parker and May Lose Food Cards: Proprietors of Baton Rouge Hotel to be Tried for Hoarding.” *The Times Picayune*. (Baton Rouge, LA). July 30, 1918.

“Mayor Killed in Labor Riot.” *The Liberal Democrat*. (Liberal, KS). May 20, 1920.

“New York Menaced by Food Shortage.” *The Oregonian*. (Portland, OR). June 26, 1919.

“Nobody Has Been Punished: Gov. Allen Investigating Wilson.” *Kansas City Star*. (Kansas City, KS), May 26, 1920.

“Pig Iron Up to \$55 in Rush for Steel.” *The New York Times*. (New York, NY). June 14, 1917.

“Ration of 1 ½ lbs. Of Wheat per person weekly.” *The Natchitoches Enterprise*. (Natchitoches, LA). May 2, 1918.

“Revenue Act of 1916.” PL 64-271. *US Statutes at Large Vol. 39*, (1916).

“Revenue Act of 1918.” PL 65-254. *Statues at Large 40*, (1918).

“Road Wants Federal Aid.” *The New York Times*. (New York, NY). June 14, 1917.

“Section Des Transports.” *Bulletin de la Société des Agriculteurs de France*. (Paris: Revenue Agricole, 1920).

“Shoppers of 24 Towns Will Get Packages By Airplane: Dayton’s Store Pioneer Concern of Northwest to Inaugurate Air Parcel Delivery.” *The Minneapolis Morning Tribune*. (Minneapolis, MN). September 4, 1919.

“South Water Street Merchants Hit as Price Jugglers.” *The Day Book*. (Chicago, IL), April 21, 1917.

“Sugar Control Saved Millions.” *The St. Mary Banner*. (Franklin, LA). Feb. 7, 1918.

“VO Johnson Sentenced.” *Kansas City Star*. (Kansas City, KS). July 3, 1920.

“War Finance Corporation Act.” PL 65-121. *US Statues at Large 40* (1919).

“Wheat Prices Move Upward; Corn is Firm.” *The Rock Island Argus and Daily Union*. (Rock Island, IL). Oct. 4, 1921.

“Why Purebreds Pay Big Price.” *Sugar Planter*. (Port Allen, LA). Dec. 13, 1919.

- “Would Stop Issuing Gold Certificates; National City Bank Suggest Plan to Conserve Supply of Yellow Metal Here.” *New York Times* (New York, NY), Nov. 5, 1916.
- Adams, Walter. *The Steel Strike of 1919*. Edited by Colston E. Warne. Lexington, MA: DC Heath and Co., 1963.
- American Institute for Economic Research. *What Will Deflation or More Inflation Mean for You?* Pittsfield, MA: Ben Franklin Press, 1957.
- Anderson, B.M. “Factors of Safety When Prices Drop.” *The Chase Economic Bulletin*. Vol 1, No. 2. (Dec. 15, 1920).
- Anderson, B.M. “The Return to Normal.” *The Chase Economic Bulletin*. Vol. 1, No. 3. (Feb. 28, 1921).
- Anderson, B.M. “Three and a half billion dollar floating debt in Europe to Private Creditors in America.” *The Chase Economic Bulletin*. Vol. 1, No. 1 (October 5, 1920).
- Anderson, Clay J. *A Half Century of Federal Reserve Policymaking 1914-64*. Philadelphia: Federal Reserve Bank of Philadelphia, 1965.
- Baker, Newton Dehl. “Baker to Woodrow Wilson, Nov. 9, 1918.” *The Papers of Woodrow Wilson*. Vol. 53. Edited by Arthur S. Link. Princeton: Princeton University Press, 1988.
- Barnes, Julius. “Barnes to Woodrow Wilson, July 29, 1919.” In *The Papers of Woodrow Wilson Vol. 62*. Edited by Arthur S. Link. Princeton: Princeton University Press, 1990.
- Beer, George Louis. *African Questions at the Paris Peace Conference*. New York: The Macmillan Company, 1923.
- Bethlehem Steel Corporation. *Eighteenth Annual Report of the Bethlehem Steel Corporation for the Fiscal Year ended Dec. 31, 1922*. Newark, NJ, 1922.
- Bethlehem Steel Corporation. *Fifteenth Annual Report of the Bethlehem Steel Corporation for the Fiscal Year ended Dec. 31, 1919*. Newark, NJ, 1919.
- Bethlehem Steel Corporation. *Fourteenth Annual Report of the Bethlehem Steel Corporation for the Fiscal Year ended Dec. 31, 1918*. Newark, NJ, 1918.
- Bethlehem Steel Corporation. *Seventeenth Annual Report of the Bethlehem Steel Corporation for the Fiscal Year ended Dec. 31, 1921*. Newark, NJ, 1921.
- Buedekin, Richard C.K. and Pierre L. Sikles. *Deflation: Current and Historical Perspectives*. (Cambridge: Cambridge University Press, 2004).
- Bunge, Alejandro E. *Revisista de Economía de Argentina: Tomo VI*. (Enero de 1921).

- Bureau of the Census, the US Department of Commerce, "Chapter F: National Income and Wealth," In *Historical Statistics of the United States: Colonial Times to 1970 Part 1*. Washington: GPO, 1975.
- Bureau of the Census. *Thirteenth Census of the United States Taken in the Year 1910*. Washington: Department of Commerce, 1911.
- Burgess, Randolph W. *Interpretations of Federal Reserve Policy in the Speeches and Writings of Benjamin Strong*. New York: Harper & Bros, 1930.
- Census Office. *Report on the Statistics of Agriculture in the United States at the 11th Census: 1890*. Washington: Department of the Interior, 1893.
- Chesapeake and Ohio Railway Company. *Thirty-Eighth Annual Report of the Chesapeake and Ohio Railway Company for the Year Ended June 30, 1916*. New York: Chesapeake and Ohio, 1917.
- Chesapeake and Ohio Railway Company. *Thirty-Sixth Annual Report of the Chesapeake and Ohio Railway Company for the Year Ended June 30, 1914*. New York: Chesapeake and Ohio, 1915.
- Chesapeake and Ohio Railway. *Forty-First Annual Report of the Chesapeake and Ohio Railway for the Year Ended Dec. 31, 1918*, New York: Chesapeake and Ohio, 1919.
- Chesapeake and Ohio Railway. *Thirty-Ninth Annual Report of the Chesapeake and Ohio Railway for the Year Ended Dec. 31, 1917*. New York: Chesapeake and Ohio, 1918.
- Craig, Douglas B. *Progressives at War: William G. McAdoo and Newton D. Baker, 1863-1941*. Washington: Johns Hopkins University Press, 2013.
- Crawford, Sir Richard. "Crawford to Woodrow Wilson, June 20, 1917." In *The Papers of Woodrow Wilson Vol. 43*. Edited by Arthur S. Link, 1983.
- Decker, E.W. "Industrial Conditions." *Bulletin of the American Institute of Banking*, Vol. 2, No.4. (Oct. 1920).
- Evitt, HE. *A Manual of Foreign Exchange*. London: Billing and Sons, 1966.
- Faulkner, Harold U. *From Versailles to the New Deal: A Chronicle of the Harding-Coolidge-Harding Era*. New Haven: Yale University Press, 1951.
- Fearon, Peter. *War Prosperity, and Depression: The US Economy 1917-45*. Lawrence: University of Kansas Press, 1987.

- Federal Farm Loan Board. *Eighth Annual Report of the Federal Farm Loan Board Covering Operations for the Year 1924*. Washington: GPO, 1925.
- Federal Farm Loan Board. *Fourth Annual Report of the Federal Farm Loan Board for the Period from Nov. 30, 1919 to Nov. 30, 1920*. Washington: GPO, 1921.
- Federal Farm Loan Board. *Seventh Annual Report of the Federal Farm Loan Board For the Year Ended Dec. 31, 1923*. Washington: GPO, 1924.
- Federal Farm Loan Board. *Sixth Annual Report of the Federal Farm Loan Board For the Year Ended Dec. 31, 1922*. Washington: GPO, 1923.
- Federal Reserve Board. "Federal Reserve Bulletin" Vol. 2, No. 12. (December 1916).
- Federal Reserve Board. *Annual Report of the Federal Reserve Board for the Year Ended June 31, 1919*. Washington: GPO, 1920.
- Federal Reserve Board. *Eight Annual Report of the Federal Reserve Board for the Year Ended June 30, 1922*. Washington: GPO, 1922.
- Federal Reserve Board. *First Annual Report of the Federal Reserve Board for the Year Ended Dec. 31, 1914*. Washington: GPO, 1915.
- Federal Reserve Board. *Fourth Annual Report of the Federal Reserve Board for the Year Ended June 30, 1918*. Washington: GPO, 1919.
- Federal Reserve Board. *Ninth Annual Report of the Federal Reserve Board for the Year Ended June 30, 1923*. Washington: GPO, 1923.
- Federal Reserve Board. *Second Annual Report of the Federal Reserve Board for the Year Ended Dec. 31, 1915*. Washington: GPO, 1916.
- Federal Reserve Board. *Seventh Annual Report of the Federal Reserve Board Covering Operations for the Year 1920*. Washington: GPO, 1921.
- Federal Reserve Board. *Third Annual Report of the Federal Reserve Board for the Year Ended June 30, 1917*. Washington: GPO, 1918.
- Friedman, Milton and Anna Jacobson Schwartz. *A Monetary History of the United States 1867-1970*. New York: Princeton University Press, 1963.
- Gallamore, Robert E. and John R. Meyer, *American Railroads: Decline and Renaissance in the Twentieth Century*. Cambridge: Harvard University Press, 2014.

- Garraty, John A. *Woodrow Wilson: A Great Life in Brief*. West Port, CT: Greenwood Press, 1977.
- Gary, Eldridge. *Principles and Policies of the United States Steel Corporation: Statement by Eldridge H. Gary at Annual Meeting of Stockholders, April, 18, 1921*. Hoboken, NJ, 1921.
- Glass, Carter. "Glass to Woodrow Wilson, Mar. 1, 1919." *The Papers of Woodrow Wilson*. Vol. 65 Edited by Arthur S. Link. Princeton: Princeton University Press, 1992.
- Gompers, Samuel. "A Program for Labor." *The New Republic*. (Mayersdale, PA). April 20, 1917.
- Grant, James, *The Forgotten Depression: 1921: The Crash that Cured Itself*. New York: Simon & Schuster, 2014.
- Haney, Lewis. "Price Fixing in the United States During the War." *Political Science Quarterly*. Vol. XXXIV, No 1-3. (March, June, Sept. 1919).
- Harding, WPG. *The Formation of the Federal Reserve System*. Cambridge: The Riverside Press, 1925.
- Hildebrand, Bruno und Johannes Conrad, *Jahrbücher Für Nationalökonomie und Statistik*. Jena: Dr. Ludwig Elster, Wirkl. Geh. Ober-Regierungstrat, 1919.
- Hill, Lewis E., Charles E. Butler, and Stephen A. Lorenzen. "Inflation and the Destruction of Democracy: The Case of the Weimar Republic." *Journal of Economic Issues*. Vol. 11 No. 2, (June 1977).
- Hines, Walker D. "Dispatch from Tumulty at the Request of Hines to Wilson, Mar. 15, 1919." *The Papers of Woodrow Wilson*. Vol. 55. Edited by Arthur S. Link. Princeton: Princeton University Press, 1988.
- Hines, Walker D. "From Hines to Wilson, May 28, 1919." *The Papers of Woodrow Wilson*. Vol. 65. Edited by Arthur S. Link. Princeton: Princeton University Press, 1992.
- Hines, Walker D. "Hines to Wilson, Dec. 13, 1919." *The Papers of Woodrow Wilson*. Vol. 65. Edited by Arthur S. Link. Princeton: Princeton University Press, 1992.
- Hines, Walker D. "Hines to Wilson, Feb. 12, 1920." *The Papers of Woodrow Wilson*. Vol. 67. Edited by Arthur S. Link. Princeton: Princeton University Press, 1993.
- Hines, Walker D. "Hines to Woodrow Wilson, Feb. 24, 1919." *The Papers of Woodrow Wilson*. Vol. 55. Edited by Arthur S. Link. Princeton: Princeton University Press, 1988.
- Hines, Walker D. "The Conflict Between State and Federal Regulation of Railroads." *The Annals of the American Academy of Political and Social Science*. Vol. 63. (Jan. 1916).

- Holmes, Charles. "Doubling the Wheat Dollar." *The Country Gentleman*. Albany, NY. Jan. 26, 1918.
- Hoover, Herbert. "Hoover to Woodrow Wilson, April 19, 1917." In *The Papers of Woodrow Wilson Vol. 42*. Edited by Arthur S. Link. Princeton: Princeton University Press, 1983.
- Hoover, Herbert. "Hoover to Woodrow Wilson, July 7, 1917." In *The Papers of Woodrow Wilson Vol. 43*. Edited by Arthur S. Link. Princeton: Princeton University Press, 1983.
- Hoover, Herbert. "Memorandum on the Necessity of Early Food Legislation, June 12, 1917." In *The Papers of Woodrow Wilson Vol. 42*. Edited by Arthur S. Link. Princeton: Princeton University Press, 1983.
- Hoover, Herbert. "Telegram, Feb. 7, 1917." In *The Papers of Woodrow Wilson Vol. 41*. Edited by Arthur S. Link. Princeton: Princeton University Press, 1983.
- Hoover, Herbert. *An American Epic: Famine in Forty-Five Nations*. Chicago: Henry Regnery Co., 1959.
- Hoover, Herbert. *Report of the President's Conference on Unemployment*. (Washington: GPO, 1921).
- Interstate Commerce Commission, US Department of Commerce. *Interstate Commerce Commission, National Car Demurrage Rules and Explanations: As Accepted by the American Railway Association and Tentatively Received by the Interstate Commerce Commission, January 1916*. Washington: GPO, 1916.
- Iowa Department of Agriculture. *Twentieth Annual Iowa Yearbook of Agriculture*. 1919. Low, Ann Marie. *Dust Bowl Diary*. Omaha: University of Nebraska Press, 1984.
- Keynes, John Maynard. *The Economic Consequences of the Peace*. New York: Harcourt, Brace, and Howe, 1920.
- Lauch, W. Jett. *Wholesale and Retail Prices of Anthracite Coal 1913 to 1920: Before the United States Anthracite Coal Commission*. Washington: GPO, 1921.
- Leuchtenburg, William E. *Herbert Hoover*. Edited by Arthur M. Schlesinger and Sean Wilentz. New York: Henry Holt and Co., 2009.
- Metzler, Allan H. *A History of the Federal Reserve, Vol. 1: 1913-1951*. Chicago: Chicago University Press, 2004.
- Minneapolis Chamber of Commerce. *Annual Report of the Minneapolis Chamber of Commerce 1923*. Minneapolis: Minneapolis Chamber of Commerce, 1924.

- Missouri State Board of Agriculture. *Missouri Year Book of Agriculture: 53rd Annual Report*. Jefferson City, MO, 1921.
- Naclerio, Richard A. *The Federal Reserve and Its Founders*. Newcastle upon Tyne, UK: Agenda Publishing, 2018.
- National Association of Railway Commissioners. *National Association of Railway Commissioners: Proceedings of the Twenty-Eight Annual Convention Held at Washington DC, November 14-17, 1916*. Washington: GPO, 1917.
- Nations, Scott, *A History of the United States in Five Crashes: Stock Market Meltdowns that Defined a Nation*. New York: Harper Collins, 2017.
- O'Brien, Francis William. *The Hoover-Wilson Wartime Correspondence*. Ames, IA: Iowa State University Press. 1974.
- Peterson, Florence. "Strikes in the United States 1880-1936." In *The Bureau of Labor Statistics* (Aug. 1937).
- Putnam, George E. "The Federal Farm Loan Act." In *The American Economic Association Vol. 6, No. 4*. (Dec. 1916).
- Railroad Cases and Selections*. Edited by Eliot Jones and Homer Vanderblue. New York: MacMillan, 1925.
- Railroad Commission of Georgia. *Forty-Eight Report of the Railroad Commission of Georgia*. (Dalton, GA: 1921).
- Railroad Warehouse Commission. *Thirty Second Annual Report of the Railroad Warehouse Commission of the State of Minnesota For the Year Ending Nov. 30, 1916*. Minneapolis, 1916.
- Rothbard, Murray N. *The Case for a 100 Percent Gold Dollar*. Auburn: Auburn University Press, 1991.
- Shideler, James H. *Farm Crisis: 1919-1923*. Berkley: University of California Press, 1957.
- Soule, Dr. Andrew M. "Some Factors Affecting the Economic Production of Cotton." Georgia State College of Agriculture. Vol. X, No. 8. Bulletin 247. (Athens, Georgia, 1921).
- Stam, Jerome M. and Bruce L. Dixon, US Department of Agriculture, "Farm Bankruptcies and Farm Exists in the United States, 1899-2002." Washington: GPO, 2004.
- State of New York. *New York State Food Commission for the Period Oct. 18, 1917 to July 1, 1918*. Albany: J.B. Lyon Company Printers, 1919.

- Strong, Benjamin, "Government Loans," *Liberty Loan Committee: New York*. July 16, 1917.
- Strong, Benjamin. "Strong to Carter Glass, April 3, 1919." *The Papers of Benjamin Strong Jr., Federal Reserve Bank of New York*.
- Strong, Benjamin. "Strong to Carter Glass, Jan. 14, 1920." *The Papers of Benjamin Strong Jr., Federal Reserve Bank of New York*.
- Strong, Benjamin. "Strong to President Woodrow Wilson, March 30, 1919." In *the Papers of Benjamin Strong Jr., Federal Reserve Bank of New York*.
- Strong, Benjamin. "Strong to Russell Leffingwell, Feb. 6, 1919." *The Papers of Benjamin Strong Jr., Federal Reserve Bank of New York*.
- Strong, Benjamin. "Strong to William Gibbs McAdoo, Nov. 25, 1918." *The Papers of Benjamin Strong Jr., Federal Reserve Bank of New York*.
- Strong, Benjamin. "The New Banking System: An Address at Williams College, January 14, 1915." In *Papers of Benjamin Strong Jr, Federal Reserve Bank of New York*.
- Strong, Benjamin. "War Loans vs. Business as Usual." *North American Review*. (April 1918).
- The Board of Trade and Navigation. *Accounts Relating to Trade and Navigation of the United Kingdom for Each Month During the Year 1916: April 1916*. London: Ryre and Spottisborde Ltd., 1916.
- The Commonwealth of Massachusetts. *Annual Report of the Statistics of Labor for the Year Ending Nov. 30, 1921*. Boston: Department of Labor and Industries, 1922.
- The Federal Farm Loan Board. *The Second Annual Report of the Federal Farm Loan Board Covering the Period from Nov. 30, 1917 to Nov. 30, 1918*. Washington: GPO, 1919.
- The Federal Farm Loan Board. *The Third Annual Report of the Federal Farm Loan Board Covering the Period from Nov. 30, 1918 to Nov. 30, 1919*. Washington: GPO, 1919.
- The Federal Reserve Act*. Los Angeles: Security Trust and Savings Bank, 1913.
- The National Tax Association, *Proceedings of the Thirteenth Annual Conference on Taxation under the Auspices of the National Tax Association, Sept. 6-10, 1920*. Edited by Alfred E. Holcomb. New York: National Tax Association, 1921.
- The Viscose Company. *The Story of Rayon*. New York: Rogers-Kellog-Stillgon, 1929.
- Trevthick, James Anthony and Charles Mulvey. *The Economics of Inflation*. New York: John Wiley & Sons, 1975.

- Tumulty, Joseph. "Tumulty to Edith Bolling Galt Wilson: Proposed Message to Congress." In *the Papers of Woodrow Wilson Vol. 64*. Edited by Arthur S. Link. Princeton: Princeton University Press, 1988.
- Tumulty, Joseph. "Tumulty to Edith Wilson. Feb. 10, 1920." *The Papers of Woodrow Wilson*. Vol. 64. Edited by Arthur S. Link. Princeton: Princeton University Press, 1988.
- Union Pacific System. *Twentieth Annual Report of the Union Pacific Railroad Company Year Ended Dec. 31, 1916*. New York: Union Pacific, 1917.
- Union Pacific System. *Twenty-First Annual Report of the Union Pacific Railroad Company Year Ended Dec. 31, 1917*. New York: Union Pacific, 1918.
- United Kingdom Board of Trade and Navigation. *Annual Statement of the Trade of the United Kingdom with Foreign Countries and British Possessions: 1919*. London: His Majesty's Stationary Office, 1920.
- United States Steel Corporation. *Nineteenth Annual Report of the United States Steel Corporation for the Fiscal Year Ended Dec. 31, 1920*. (Hoboken, NJ: United States Steel Corporation, 1921).
- US Department of Agriculture. *Yearbook 1919*. Washington: GPO, 1919.
- US Department of Agriculture. *Yearbook 1920*. Washington: GPO, 1921.
- US Department of Agriculture. *Yearbook 1924*. Washington: GPO, 1925.
- US Department of Agriculture. *Yearbook of the United States Department of Agriculture 1913*. Washington: GPO, 1914.
- US Department of Commerce, Bureau of the Census. *Vol. 5: Agriculture in the Fourteenth Census of the United States taken in the Year 1920*. Washington: GPO, 1922.
- US Department of Justice. *Annual Report of the Attorney General of the United States for the Year 1919*. Washington: GPO, 1919.
- US Department of Justice. *Annual Report of the Attorney General of the United States for the Year 1920*. Washington: GPO, 1920.
- US Department of Labor, US Employment Service. *Annual Report of the Director General: US Employment Service to the Secretary of Labor Fiscal Year Ended June 30, 1918*. Washington: GPO, 1919.
- US Department of the Treasury. *Report of the National Women's Liberty Loan Committee for the Victory Loan Campaign: April 23-May 20, 1919*. Washington: GPO, 1920.

- US Department of the Treasury. *Report of the Secretary of the Treasury on the State of the Finances for the Year Ended June 30, 1911*. Washington: GPO, 1912.
- US Department of the Treasury. *Report of the Secretary of the Treasury on the State of the Finances for the Year Ended June 30, 1913*. Washington: GPO, 1914.
- US Department of the Treasury. *Report of the Secretary of the Treasury on the State of the Finances for the Year Ended June 30, 1914*. Washington: GPO, 1915.
- US Department of the Treasury. *Report of the Secretary of the Treasury on the State of the Finances for the Year Ended June 30, 1915*. Washington: GPO, 1916.
- US Department of the Treasury. *Report of the Secretary of the Treasury on the State of the Finances for the Year Ended June 30, 1916*. Washington: GPO, 1917.
- US Department of the Treasury. *Report of the Secretary of the Treasury on the State of the Finances for the Year Ended June 30, 1917*. Washington: GPO, 1918.
- US Department of the Treasury. *Report of the Secretary of the Treasury on the State of the Finances for the Year Ended June 30, 1918*. Washington: GPO, 1919.
- US Department of the Treasury. *Report of the Secretary of the Treasury on the State of the Finances for the Year Ended June 30, 1919*. Washington: GPO, 1920.
- US Department of the Treasury. *Report of the Secretary of the Treasury on the State of the Finances for the Year Ended June 30, 1920*. Washington: GPO, 1921.
- US Food Administration. *Annual Report of the United States Food Administration For the Year 1918*. Washington: GPO, 1919.
- US Food Administration. *To Finish the Work We Are In*. Washington: GPO, 1918.
- US Grain Corporation. *The Story of the United States Grain Corporation: August 5, 1920*. Washington: GPO, 1920.
- US Steel. *Twentieth Annual Report of the United States Steel Corporation for the Fiscal Year Ended Dec. 31, 1921*. Hoboken, NJ, 1921.
- US Steel. *United States Steel Corporation TNEC Papers Vol. II: Chart Studies*. (New York: United States Steel Corporation, 1940).
- Vrooman, Carl Schurz. "Schurz to Wilson, Feb. 15, 1921." *The Papers of Woodrow Wilson*. Vol. 67. Edited by Arthur S. Link. Princeton: Princeton University Press, 1993.
- War Finance Corporation. *Fifth Annual Report of the War Finance Corporation Covering Operations in 1922*. Washington: GPO, 1923.

- War Finance Corporation. *Fourth Annual Report of the War Finance Corporation Covering Operations in 1921*. Washington: GPO, 1922.
- War Finance Corporation. *The Second Annual Report of the War Finance Corporation*. Washington: GPO, 1919.
- War Finance Corporation. *The Third Annual Report of the War Finance Corporation*. Washington: GPO, 1920
- Whitney Edson L. "Strikes and Lockouts." *US Department of Labor: Monthly Labor Review*. Vol. 10, No. 6. (June 1920).
- Wilkins, Mira. *American Business Abroad: Ford on Six Continents*. Detroit: Wayne State University Press, 1964.
- Wilson, Woodrow. "A Campaign Address to Farmers at Shadow Lawn, Oct. 21, 1916." In *The Papers of Woodrow Wilson Vol. 39*. Edited by Arthur S. Link, Princeton: Princeton University Press, 1982.
- Wilson, Woodrow. "A Veto Message." In *the Papers of Woodrow Wilson Vol 67*. Edited by Arthur S. Link. Princeton: Princeton University Press, 1993.
- Wilson, Woodrow. "An Address at a Farmers' Picnic at Washington Park, New Jersey." In *The Papers of Woodrow Wilson Vol. 25*. Edited by Arthur S. Link. Princeton: Princeton University Press, 1978.
- Wilson, Woodrow. "An Annual Message on the State of the Union: Dec. 2, 1919." In *the Papers of Woodrow Wilson Vol. 64*. Edited by Arthur S. Link. Princeton: Princeton University Press: 1988.
- Wilson, Woodrow. "Food Control and Administration." May 20, 1917. Woodrow Wilson Press Statements. *Woodrow Wilson Presidential Library & Museum. Staunton, Virginia*.
- Wilson, Woodrow. "Veto Message, March. 3, 1921." *The Papers of Woodrow Wilson*. Vol. 67. Edited by Arthur S. Link. Princeton: Princeton University Press, 1993.
- Wilson, Woodrow. "Wilson to BM Baruch, Nov. 30, 1918." *The Papers of Woodrow Wilson*. Vol 64. Edited by Arthur S. Link. Princeton: Princeton University Press, 1988.
- Wilson, Woodrow. *The New Freedom: A Call of the Emancipation of the Generous Energies of a People*. New York: Doubleday, Page, & Co, 1913.
- Woods, Thomas. "Warren Harding and the Forgotten Depression of 1920." *Intercollegiate Review*. Vol. 44, No. 2. (Fall 2009).

Vita

Terril Hebert spent years as a machinist before obtaining his bachelor's degree in history from the University of Houston-Downtown. With a growing interest in accounting and economics, he entered the accounting and history departments of the Louisiana State University System. He intends to receive his master's degree in December 2022. Upon completion, he will enter private practice.

