

The Panic of 1873: A Free Market Perspective

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Abstract –

This paper, which is a portion of a larger independent study, discusses the causes and effects of the American Panic of 1873 from a free market perspective. The goal is to explore and evaluate the extent to which government intervention into the financial and monetary systems affected the American economy. My research suggests that the Panic of 1873 was the result of cheap money being funneled into an unsustainable and heavily subsidized railroad boom in the 1860s and 70s. The origin of the panic can be found in the War of Southern Independence during which the North drastically increased the money supply via the printing of greenback currency and the creation of the National Banking System in order to finance the war effort. Rather than experiencing a powerful liquidation phase after the war, the state redirected credit into the growing railroad industry by providing speculators with huge land grants, direct subsidies, and other forms of implicit support. In 1873, the financial system ran out of cheap money and a series of defaults on railroad bonds ensued to cause the Panic of 1873. Despite some modest attempts by the Treasury Secretary to assist the troubled banks, the economy was largely left to its own devices during the downturn, thereby ensuring a swift recovery and strong growth throughout the rest of the 1870s.

I. The Build Up

A. The War of Southern Independence

The crash of 1873 was primarily caused by the funneling of cheap credit into the economy as a result of the War of Southern Independence, both in the form of greenbacks and pyramiding from the National Banking System, into the state-fueled boom in western railroad expansion. Both components of cheap credit were established during the war to pay for the conflict, but as with all artificial credit, the money had to be purged from the economy in order to reestablish a capital structure which accurately reflected consumer demand. This process should have occurred in the late 1860s during the brief post-war bust when American factories were being dismantled and re-fitted for non-military purposes and the US government was rapidly paying off its enormous sovereign debt. Unfortunately, the propping up of the railroad sector provided an alternative outlet for newly freed credit which created a new artificial economic boom, which finally busted in 1873.

The second half of the 1860s and early 1870s in American economic history was primarily a period of recuperation from the effects of the War of Southern Independence. Like all wars, the WSI had a jarring and overwhelmingly negative effect on the economy of its participants. Despite the claims of modern Keynesians, wars do not add beneficial “stimulus” to demand and production but on the contrary, create artificial demand for products which are utterly useless in the long run. Savings are drained in order to erect and modify factories for the construction of heavy war equipment which will likely be rendered obsolete in the aftermath of the conflict. The result is very similar to an Austrian business cycle except the disruption of proper capital formation is driven by short term war production (which, during war time, is

always supported by government spending) rather than long term capital production. At first, war produces “boom”-like qualities as new jobs are created and profits rise at the expense of savings, but inevitably the savings will run out and the state will resort to borrowing and inflation to keep the war effort going at the expense of consumption (eroded by inflation) and future prosperity (due to repayment of debt). Once the war ends, re-adjustments must occur in order to return the economy’s capital structure back to a normal form which necessarily results in liquidation and economic downturn.

The United States during the WSI followed the general war economy pattern with the added twist of undergoing some substantial reforms in its economic structure. Taking advantage of the absence of the classical liberal Democratic Party, the Radical Republicans in Congress passed The National Banking Acts of 1863 and 1864 which established the new financial/monetary system of the United States. Additionally, Republicans raised tariffs to their highest point in American history¹ while greatly expanding the US government’s budget and ability to affect infrastructure expansion which was partially financed by the implementation of the US’s first federal income tax (which would end after the war). However, the most ambitious and ultimately disastrous scheme launched by the Republican Congress was the revival of fiat currency, an economic tool not seen in America since 1690 (except for a brief stint from 1814-1817)² when the colonial settlers of Massachusetts began printing paper money backed only by the vague promise of future repayment at a later date which never came. The new fiat currency was called “greenbacks” and was brought into production to finance the Northern war effort.

Fiat currency is a treacherous concept which has allured literally every functioning government on earth into its deceptive folds over the past hundred years. It is a tool which appears to offer great power to those who wield it by turning nothing into something. Any

government which can establish a fiat currency standard can suddenly convert worthless bits of paper into products and services for their own use; it is truly the modern form of alchemy.

No free market economy in history has ever accepted a fiat currency into circulation unless its use has been legally mandated by the state (and even plenty of those ended up collapsing under a lack of confidence). This is because no individual would ever willingly accept something of no value for something of value: ie. a grocer will not accept an index card with “MATT FAHERTY DINAR” written on it in exchange for a loaf of bread because the grocer will not expect anyone else to accept the currency in exchange for their products. Thus legal tender laws are necessarily implemented in conjunction with fiat currency in order to enforce the usage of its currency so that the state may spend further and gain a greater control of its economy’s money supply. Legal tender laws not only permit the state to print fiat money in the first place, but literally make the act of rejecting payments of said currency illegal, thereby coercively enforcing its use.

While money can possess value in and of itself, it is primarily used as a representation of wealth. The specific economic problem with fiat currency is that it unhinges money from the market mechanism of “supply” and instead its production is placed in the hands of the state. Even if the state does intend to use its money production powers to simply keep the economy steady, such plans are doomed to failure because of the “knowledge problem.” However, in the case of the greenback, the fiat currency was created for the explicit purpose of funding government operations. While the market may not be able to stop the state from establishing a fiat currency when it utilizes legal tender laws, the market will realize the true value of the currency (it has none) and depreciation will occur.

In 1862, the Northern Congress passed the Legal Tender Act which called for the issuance of \$150 million worth of greenbacks. Senator John Sherman of Ohio, the future author of the anti-trust act, rallied his supporters by declaring:

*“Nationalize as much as possible, even the currency, so as to make men love their country before their states. All private interests, all local interests, all banking interests, the interests of individuals, everything, should be subordinate now to the interest of the government.”*³

Once Pandora’s Box of infinite phony wealth was opened, Congress soon began to gorge itself on seemingly consequence-free money printing. Six months after the initial binge, \$150 million more greenbacks were released into circulation, and then another \$150 million were printed the following year. By 1864, the grand total of worthless pieces of paper masquerading as money in the American economy came to \$415.1 million⁴ out of only a little over \$1 billion dollars in the entire US economy.⁵

Seemingly the instant the greenbacks entered the market place, their value began to plummet in terms of gold, thus diminishing their worth and requiring further issuance by the state. At the start of issuance in February of 1862, one greenback dollar was trading at 59 cents of gold value, but by April it had fallen by 3.4% to 57 cents, and by May it was worth 56 cents.⁶ The initial stipulation that greenbacks could be directly converted into government bonds was revoked after the third binge because people were overwhelmingly dumping the unbaked greenbacks for government bonds which were backed by specie and thus were received as an equivalent to gold on the market. Congress thought the measure would increase the value of greenbacks since holders would be forced to hold onto the fiat currency and use it in circulation; however, instead it caused their price to plummet as greenbacks became even more distanced from hard currency.

A combination of rising prices, declining confidence in the greenback, and currency manipulation schemes by Congress (including dumping gold from the treasury vault on the market to drive down gold's market value and the implementation of severe gold transaction taxes) had caused the greenback to fall to a value of 40 cents by June of 1864. The fiat currency had experienced a value depreciation, or price inflation rate of 1.2% per month at a time when the long term depreciation of the standard commodity currency was close to 0%.

The other primary inflationary force of the time was the National Banking System which was an important component of causing every crash between 1864 and 1913. The NBS created a program by which banks would need licenses to produce currency that could be receivable as a form of taxation, thereby granting said currency a de facto legal tender monopoly. Unfortunately, these licensed banks also had a form of intertwining reserve requirements which greatly amplified the potential for credit pyramiding. One special issue of note for the NBS in relation to the crash of 1873 is the way in which it integrated the fiat greenback currency into its assets. Since greenbacks were legally mandated to be considered legal tender, both independent and licensed national banks were free to use greenbacks as reserve currency to inflate upon. This use only served to amplify the already existing issues with pyramiding bank notes on top of hard currency in the NBS by allowing banks to issue bank notes backed by non-existent value. This pyramiding resulted in the creation of notes of highly questionable value as banks were permitted to mislead the public as to the true specie value of their currency reserves.

Hard currency fractional reserve banking is a system in which savers can safely store currency in exchange for interest while bankers can use deposits as the repayment basis for giving out their own interest yielding loans. The key to the system is that the currency deposits actually have value and thus the banks must be careful in how they inflate upon them or else they

will undermine the public confidence in their reserves and trigger a panic which will deprive them of the value upon which they base their profitable ventures. By replacing the valuable specie deposits with fiat currency, the incentive for bankers to wisely pyramid on top of their reserves is greatly diminished as the bank notes lent out by the bank have essentially the same value as the greenback reserves themselves (that is to say, none). If a bank irresponsibly over-inflates on its greenback reserves, then the worst case scenario is that they only lose their greenbacks which not only hold next to no value outside of the US, but are constantly dropping in value within the US. The rapid decline in value itself added another twist to the problem by pressing downward on the value of reserves and thus the diminishing reserve ratios and capitalization viability. As a result, private banks greatly favored greenback reserves and took a large chunk of them out of circulation to augment their reserves.⁷

The combination of greenbacks and the NBS lead to an unprecedented explosion of the American money supply. In 1860, based on hard currency in circulation and bank notes pyramided on top of independent reserves, there existed \$745.5 million (in the North and South combined) in circulation. After five years of an average annual growth rate of 27.7% and a total growth rate of 137.9%, the money supply consisted of \$1.77 billion.⁸ The result was massive, across the board inflation with wholesale prices increasing by over 110% during the war.⁹ In association with the monetary increase, US federal debt rose from an almost non-existent 1.38% of GDP in 1860 (mostly left over from the Mexican-American War) to 30.79% in 1866.¹⁰

B. Post-War of Southern Independence

1. The Money Supply

As mentioned previously, the economic conditions created by war can often constitute an Austrian business cycle itself. The need for war equipment creates massive demand for a product which is only useful during the war and quickly becomes obsolete afterwards. Capital is overwhelmingly used to supply the war effort and thus the capital structure soon becomes obsolete and necessitates a “bust” to liquidate assets and restructure the economy. The War of Southern Independence saw this same pattern and caused a short recession in 1866.

However, this short recession failed to adequately realign the economy for steady and proper growth in the coming years. Rather, the floating cheap capital created by the greenbacks and excess banking inflation was only further expanded during the post-war era and funneled into a state-facilitated artificial boom in railroad production which only delayed the full economic effects of the WSI until 1873. As early as 1868, this trend was becoming apparent to the American people. An article from the *Chronicle* in the same year stated:

“The amount of capital invested in securities of one kind and another during the past five years has been very large and apparently in much excess of our legitimate savings or accumulation of capital.”¹¹

The expected trajectory of the money supply after the WSI would be decreasing or at least leveling off as credit would be contracted to realign the capital structure of the economy. Yet after a short period of monetary contraction after the end of the war, credit expansion in the United States began to increase at an unprecedented rate. The number of banks licensed as national banks in the US started at 66 in 1863. By 1865, that number had increased to 1,294, and would increase to 1,968 by 1873. Yet all of these new national banks were not merely private

banks which gained licenses, rather the number of private banks which were now relegated to a secondary financial category increased from 349 in 1865 to 1,330 in 1873. On top of this ever ballooning network in 1865 was \$835 million of bank deposits and notes. After eight years of an average growth rate of 16.9% per year and a total growth rate of 135.2%, the banking network was carrying \$1.96 billion in reserves and notes.¹² Interest rates reflected the increase in the rate of the money supply by hanging around at a low (for the time, now they would be considered shockingly high) rate of 6-8% between 1866 and 1871.¹³

By looking at the changes in the money supply, it can be inferred that the NBS heavily inflated to an unhealthy degree, which it was only able to do because of restrictions on banking competition which is described in the NBS's chapter. One potential challenge to this notion is that the change in the underlying monetary base may have risen to close to a proportionate degree. Keep in mind that during this time period, with the exception of the greenbacks, the US was on a gold and silver standard. Yet throughout this period in which bank credit expanded by nearly 17% per year, the gold and silver supply increased by its historical average rate of one to two percent¹⁴¹⁵ and therefore the increase in credit cannot be warranted simply by the natural increase in specie. (The addition of greenbacks would not be enough either.) A sporadic rise in savings also cannot account for the increase since deposits between 1865 and 1872 increased at one sixth the rate of loans throughout the United States.¹⁶ Yet the ratio of legitimate personal deposits to loans is actually even more lopsided than that figure since the number does not differentiate between more personal savings and deposits created by intertwining bank reserves.

It wasn't long after the reunification of Congress that the resumption of greenbacks became a hot button issue. The problem was that the market was fully aware of the absurdity of maintaining a currency which had close to no real value when there was plenty of specie and

specie-backed currency floating around. As a result, the greenbacks became a very popular speculation currency, especially in the purchase of risky railroad bonds¹⁷ since the notes were pretty much guaranteed to keep losing value and were next to worthless abroad. Additionally, they were still used as a reserve basis on which banks could pyramid and unlike bank notes which could be redeemed and destroyed at any time by issuing banks, greenbacks would always exist in the economy unless someone was willing to purchase the notes and destroy them at a 100% loss. The Democratic Party intended that someone to be the United States government; thus the issue of greenback redemption became a major political goal until 1879 when the state finally offered to purchase back notes at original par value.

Fortunately, Democratic President Andrew Johnson and Treasury Secretary Andrew McCulloch demonstrated some foresight on the greenback issue immediately after the end of the war. In 1866, Congress approved McCulloch's proposed Funding Act which enabled the Secretary to retire \$10 million in greenbacks with gold redemptions over the next six months, and \$6 million every month after that point. This measure was a little moderate for my taste as it would be more preferable to allow a much higher and faster degree of redemption for gold even if it meant purchasing more debt in the short run. Given the extremely high surpluses of the time, the Treasury was more than capable of taking on additional debt and was already in the process of converting inflation into debt through the Funding Act.¹⁸

Due to McCulloch's initiative, the amount of greenbacks in the economy declined from a high of \$447.3 million to \$356 million in February of 1868. If the policy continued, the Panic of 1873 may have been lessened or even averted entirely due to deflationary pressure, but instead George Boutwell was appointed to the Treasury Secretary position by President Grant in 1869. Boutwell lacked the restraint and principled outlook of McCulloch who had reasoned that

greenbacks were an action permissible during war time emergencies and not during peace. Rather Boutwell not only ceased the redemption process, but also declared its current \$356 million level to be the legal minimum for greenbacks in circulation. Thus the greenbacks continued to be a significant menace to economic stability due to their declining market value and perceived inferiority to specie. In 1870, greenbacks constituted almost 46% of all money in circulation.¹⁹

However, the Republican Party still maintained a slipping majority in Congress until 1874 and was able to exacerbate the greenback issue. Despite the obvious economic instability caused by the greenbacks during the WSI, quite a few Republicans still believed fiat currency was the best invention since sliced bread and eagerly pressed Congress to declare more pieces of paper to be legal tender. Even with the lack of formalized monetary thought at the time, their rationales were remarkably similar to those of modern Keynesians: free money for the state, free money to improve the economy, and a depreciation of the currency would help domestic businesses increase their exports. In one brilliant scheme concocted in 1874, Congressman Richard Schell of New York proposed digging a canal from New York to San Francisco financed entirely by the issuance of new greenbacks.²⁰ To the Republicans' credit, in 1869, President Grant did promise to redeem all greenbacks at some point in the future (he did not specify when) which likely stabilized values and changed greenbacks from a 100% fiat currency to only a quasi-fiat currency.

Between 1865 and 1873, the Republicans attempted to pass numerous bills through Congress to further issue greenbacks, but all were defeated by a coalition of Democrats and some hard money Republicans. Yet the Republican majority did manage to continually drag its feet on the redemption issue even after Grant's promise and thereby prolong the destabilizing effects

that the greenbacks had on the US economy. In addition, the Republican Secretary of the Treasury, Hugh McCulloch, was able to issue millions of more greenbacks which were printed during the war but held in reserves during times of supposed economic slowdowns (the knowledge problem at work: presumption that the Secretary of the Treasury knows more about the market than the market itself). On top of that, the Secretary issued \$20 million worth of stamps which could not be redeemed and were declared legal tender, thus making them an alternative form of greenback currency.²¹

Inflation is a product of the money supply expanding at a faster rate than the productiveness of the economy it occupies. The Austrian business cycle theory stipulates that generally an artificial increase in the money supply will result in inflation as the new money is allocated into inefficient sectors of the economy whereas a natural increase in the money supply should result in little to no inflation as new credit is well allocated. One tricky component of this principle is that assuming an economy is productive, prices should often be *decreasing* in the long run and thus the level of productivity relative to the change in prices must be accounted for. The price indexes available from the time period demonstrate a text book example of price volatility during an Austrian business cycle.

Taking a price index level of 100 in 1860, prices in 1865 had increased to 125 (after accounting for changes in the gold price which is relevant here). The liquidation of 1866 brought the index down to 120 by 1867. From there, the index rises steadily to 127 in 1872 until it crashes in 1873 to 123.²² This may not seem like a very extreme change in price level by modern standards, but the CPI of the United States between 1800 and 1900 actually managed to decrease by 50%, thus indicating that the norm during this time period was decreasing prices due to

increasing productivity. Between 1870 and 1873 (data before that is unavailable) the US GDP grew by more than 4.5% annually.²³

It must be noted that while most credit expansion at the time occurred due to artificial pyramiding in the NBS (that is, pyramiding which would not have occurred in a free market) and greenbacks, one legitimate route of credit expansion was the redemption of government debt. After the end of the war, the state wisely decided to begin a massive repayment of its own federal debt which freed up capital to be reinvested into the economy in a healthy manner. Unfortunately, much of that capital would end up being pulled into new malinvestment in the form of railroad bonds.

2. Non-Monetary Policy

The extent and severity of the railroad boom in the United States between 1865 and 1873 was the most excessive creation of malinvestment seen in the United States up until that point. Railroad expansion reached an untenable mania in which companies made promises which no sober investor could possibly believe. The iron horse was believed to be the key to everlasting prosperity and speculators flocked to throw their cash (borrowed at low interest rates) into the hands of any entrepreneur who believed he could traverse thousands of uncharted miles of Indian territory with a crew of rough necks and war veterans. Between 1865 and 1870, 20,000 miles of track were built (compared to 18,000 in all of Europe)²⁴ while only about 40,500 miles of rail existed in the US in 1865.²⁵ From 1870 to 1873, about another 22,000 miles of rail was added²⁶ while another 44,000 miles was still under construction during the crash of 1873.²⁷ Despite a

population increase of over five million people,²⁸ the amount of people in the US per mile of railroad increased from 908 in 1868 to 591 in 1875.²⁹ Finally, by 1872, the United States had 152.08% as much railway mileage as all of Europe combined.³⁰

Fitting with the Austrian business cycle theory, the vast majority of railroad construction was funded *purely* by bond issuance,³¹ as opposed to partially by credit extensions or by invested shareholders. In 1860, about \$1.5 billion was invested in railroad construction throughout the United States; by 1870, that number had increased to \$2.7 billion³² (the entire War of Southern Independence had cost the North about \$7 billion³³). About \$725 million of those investments came directly from Americans investors, \$250 million of which was borrowed from Britain (which was also engaged in its own credit expansion schemes). The rest of the investments came from abroad, primarily from Germany and Britain.

In addition to these sizeable investments, plenty of American capital was dumped into complementary industries like iron, steel, coal, and lumber production. Between 1865 and 1870, pig iron and petroleum production doubled while coal production increased by 240%.³⁴ 1871 through 1873 were the greatest years of American iron and steel production in the country's history up until that point (the Franco-Prussian War helped).³⁵ Untold sums were also used to facilitate the needs of railroad workers in small "boom towns" which were often dismantled or abandoned soon after construction moved on, leaving behind nothing but a trail of "ghost towns."

Stock prices lay out the trajectory perfectly. In June of 1867, the index of railroad stock prices was at 83. The next year it had increased to 106, and by 1870 the index was at 120. The index would reach its height in May of 1871 until it took a significant dive down to 114 in October. After a recovery to 120 over the next nine months, the index dwindled down to 110 in

in August of 1873, before falling to 100 in September (the official bust) and then 85 in October. After a brief recovery in 1874, the railroad stock index would languish below 100 until late 1879.³⁶

A boom in an industry does not constitute a component of an Austrian business cycle unless it is facilitated by “meta-market” government intervention. While railroads were indeed a burgeoning technology at the time, the entire industry, especially in the United States, was pushed along by state-sponsorship from the beginning. The US government, primarily at the federal, but also at the state and local level subsidized railroads to a tremendous degree by guaranteeing railroad bonds, granting the land upon which railroads were built, and erecting tariffs to protect complimentary industries. In a way, I dislike having to attack the railroad tycoons of the 19th century. Railroads were one of the most important inventions of all time, and their development in the United States and the Western world would act as an important catalyst of the industrial revolution. Yet the fact cannot be avoided: the majority of railroads companies during the boom period between 1865 and 1873 were lousy with fraudulent activity, wildly overoptimistic estimates, and cronyistic dealings.

The post-war period was characterized by a number of railroad companies competing to build the first transcontinental line in the United States. Such a lofty goal may look good in newspapers but the practical use of such a line was highly dubious at best. The implied line of thought seemed to be that if a railroad was put somewhere, economic activity would magically spring up around it, when in reality, the costs of railroads were only justified by the commercial activity generated by their existence (primarily freight, but to a lesser degree, passengers). In the late 1860s, the American West was still sparsely populated (only one Homestead Act had been passed, back in 1862), and the few relatively large population centers were all on the Pacific

Coast which had the option of shipping its products by sea around South America. Construction was enormously expensive as entire towns of workers had to be transported and accommodated across the vast wilderness, much of which was still unmapped. Heavy steel, tools, and lumber (there aren't many trees on the Great Plains) had to be transported as well. Indians were rampant and many of them hostile to any whites they came across, resulting in a number of shoot outs between workers and Natives. Luckily for the railroads, the US army was happy to step in by sending soldiers into the middle of nowhere to battle Native bands on the dime of the American tax payer.

It would be absurd to suggest that the early transcontinental railroads even had a chance of being completed without state-assistance (libertarian hero, JJ Hill didn't enter the industry until after 1873). The fact that these railroads asked for, received, and needed any state-assistance whatsoever, begs the question of how they could have been considered financially viable in the first place. That is to say that if building a transcontinental railroad was such a great financial venture, then why weren't there enough private investors to finance it. Lobbying was so rampant that many Congressmen received nicknames based on their railroad company of choice (Abraham Lincoln was one of the most notoriously cronyistic members of Congress as demonstrated in John Starr's *Lincoln and the Railroads*). The Union Pacific was probably the worst of the bunch as it received colossal federal subsidies of \$16 to \$48 thousand per mile³⁷ (depending upon the terrain) totaling to \$27,236,512³⁸ over about eight years. Shockingly, the average cost for a mile of track was \$49,492!³⁹ This equates in 2010 dollars to \$276,000 to \$827,000 per mile and a total cost of \$470,000,000 at a time when the GDP per capita was about \$4,170.⁴⁰ The line was even purposefully built in a zig-zagging manner to increase the mileage of track laid to receive more subsidies from the government. Not content with being a legal drain

on the American tax payer, the Union Pacific was also an illegal drain as revealed by the infamous Credit Mobile scandal in which the owners of the Union Pacific created a dummy contracting corporation called the Credit Mobile of America which distributed stocks with extremely high dividend yields to well-placed Congressman in exchange for absurdly over-bid contracts from the government to build the first transcontinental Union Pacific line. The Credit Mobile's total contract cost (which does not include federal subsidies) to the United States government was \$79,000,000 when a free market estimate of the market rate of the contract was a mere \$44,000,000.⁴¹

Somehow this scam managed to repeat itself numerous times with other railroad companies to smaller degrees.⁴² The Central Pacific Railroad surprisingly did not receive any federal subsidies (it must have had terrible lobbyists) but did run a Credit Mobile-type scam which netted \$79,000,000 for contracts estimated at a market value of \$36,000,000.⁴³ Such scams lend evidence to the notion that these railroads were never even *intended* to be economically viable but rather to simply capitalize on the American obsession with western expansion and the federal willingness to serve corporate interests.

Aside from financing, the Union Pacific received 12,000,000 acres of land from state and federal governments⁴⁴ (about the size of Vermont and New Hampshire combined). I would not normally have a problem with a company claiming unoccupied land, yet the territory given to the railroads was specifically taken off of the homesteading block available to all other Americans and allocated based on bureaucratic whim. The Central Pacific received slightly more land than the Union Pacific, but apparently the best lobbyists worked for the Atlantic and Pacific Railroad (one company) and the Northern Pacific Railroad which received 42,000,000 and 47,000,000 acres of land respectively, the latter of which is larger than the state of Oklahoma.

While those land sums are enormous enough, there were still other grants of note which combined add up to another 24,181,600 acres. All told, the US government delegated 137,281,600 acres to railroad companies between 1850 and 1881 (most of it between 1865 and 1873).⁴⁵ This land area, which was not much less than twice the size of California, was not attained by standard market means, but by appropriation from the state. Ordinarily, under the Homestead Act and its successors, this land would have had to have been claimed and then put into demonstrable use by the claimant. Instead the state simply drew lines on a map and assigned special privileges to railroads with political connections and lobbying dollars, thereby stimulating an artificial boom and setting up the inevitable crash of the entire American railroad industry.

In order to channel even more malinvestment into the railroad industry, tariffs were kept at one of the highest rates in the western world. In 1870, the American tariff rate on industrial materials was 32% while the tariff rate on capital goods was 44%.⁴⁶ Meanwhile, in Europe most industrial nations had tariffs below 10% and even the most aggressively protectionist states like Russia and Spain had tariffs near 25%.

These subsidies, grants, and tariffs do not even take into account the intangible impacts of state assistance. Normally a company must stand or fall on its own efforts, but when the state intervenes, potential investors see that the company has the backing of an organization of nearly limitless funding. Who knows how many millions of European and American dollars were funneled into doomed railroad projects simply because the investors saw the US government was supporting these companies?

Do not make the mistake of believing that all of this industry support and the eventual railroad collapse was mere causeless correlation. The inside view of these railroads showed them

to be inherently unstable and often irredeemably broken. The railroad companies chronically underestimated costs and held bond holders hostage with the threat that a failure to procure more financing would result in default.⁴⁷ But at the end of the day, the most important factor was simply that these railroads were not profitable. While abundant statistics are not available, the *1882 American Almanac* has data which gives a clue as to the profitability of the railroad companies.

In 1872, there were 57,523 miles of operating track in the United States owned by companies whose combined net profit for the year was \$165,800,000. This means the average profit per mile of rail was \$2,882. But, it should be noted that this figure includes not just the new Western lines, but also the older, more financially sound tracks in the East. Also, in 1872, the average cost of a mile of rail was \$49,492, though a large portion of the track was made at higher costs in the past. If we round down to estimate the profit-per-mile figure to somewhere between \$2,000 and \$2,500 and round up the cost figure to an even \$50,000, then it would take the railroad companies 20 to 25 years to pay back just the costs of construction.⁴⁸ This does not even account for future competition, extraordinary events (ie. Natives), and the fact that these railroads were constructed almost entirely with bonds yielding interest rates of six to ten percent.⁴⁹ Probably the best example was the Northern Pacific which spent \$15.8 million catering to a land which had a total population of 600,000 people spread over 519 square miles.⁵⁰ Such was the financial savvy of those in bed with the state.

II. Crash

1. Panic

The Northern Pacific Railroad was founded and headed by none other than Jay Cooke, the creator and primary individual responsible for the National Banking System. After its founding in 1864, the Northern Pacific quickly became known as one of the shadiest railroad companies in operation and faced numerous allegations of fraud, extortion, and tax evasion. In early 1873, western state governments finally began to crack down on the Northern Pacific, probably because it was the most obviously corrupt of the whole bunch. Unsurprisingly the company was nearly out of money by that point despite sitting on top of its shiny, new transcontinental line. Soon the railroad revealed itself to be something of a Ponzi scheme as old bond holders could only be paid off by new bondholders since the lines themselves certainly weren't making any money. As bondholders panicked, demand plummeted and bond rates for the Northern Pacific skyrocketed. Soon the fear spread throughout the market and it was quickly realized that pretty much every other railroad was in the same financial state as the Northern Pacific. In the summer of 1873, a wave of railroad defaults and bankruptcies swept the nation.⁵¹

During the prior months, the fountainhead of cheap credit had begun to run dry. Interest rates on prime commercial paper (short term debt, usually corporate) in New York had wavered between six and nine percent for years, only to suddenly spike up to 10% in September of 1872. Rates rose slightly until the summer when they dropped as they had always historically done, albeit to a lesser extent than usual. But in September of 1873, rates spiked again to 12.5% and topped out at 17% in October.⁵² Contrary to what is said by modern Keynesians, this rise in interest rates was a naturally, and profoundly beneficial response to the crisis. At this point the

economy was full of malinvestment and it would have been unwise for banks to continue low interest lending to permit these malinvestments to stay afloat. High interest rates not only make loans extremely difficult to get but also incentivize the deposits of new reserves so that after the inevitable liquidation phase occurs to break down the malinvestments, there will be capital available to begin healthy economic expansion.

At the same time, bank deposits declined precipitously as already existing floating capital had dried up as well. American gold was flooding to overseas markets as higher prices had destroyed American export capabilities.⁵³ The credit wall was hit as banks ran out of ways to pyramid on top of their reserves when they reached the state-mandated maximum level of note expansion in early 1873. As a result, the insolvent railroad industry was unable to continue enticing investors to borrow money with which to purchase bonds or to convince banks to use their own wealth for investments. Thus the railroad industry began to rapidly default on their obligations.

An article in the *Chronicle* in February of 1873, right at the start of this domino-like collapse of the railroad industry, identified four signs of an impending economic crash: excessive expansion of credit in the past, an inability of the banking sector to stabilize after even a minor amount of defaults on their assets, a possibility of specie redemption (at overleveraged banks), and a decline in demand for railroad bonds from foreigners (it is too much to go into here, but a similar style panic was occurring in Europe at the same time and facilitated the American crash to some degree).⁵⁴ Thus, with 44,000 miles of rail in the middle of construction, the railroad industry began to collapse, and through its debtors who attained their credit through pyramided notes, the banking industry began to collapse along with it.

As individuals who had lost fortunes in defaulted railroad bonds went to banks to pull out their specie savings, those banks called in their specie deposits from other banks. Deposits within the economy had been sharply declining ever since the credit expansion began to slow in 1872. In 1871, the combined deposits in American banks equated to \$141 million. In the following year, the number fell to \$117 million, and then to \$111 million by the end of 1873 even after a significant recovery in the winter.⁵⁵ Unfortunately, reserve ratios were at their lowest point in the NBS's history due to excessive credit production. Reserve city banks were permitted to go down to a ratio of 25% and most were hugging that line by early 1873. As the railroads began to collapse, many banks dipped into technically illegal territory under 25%. In the summer the reserves had risen to around 30% due to calls for redemption from other banks, but as the panic formally hit in the fall, the ratios re-plummeted to illegal levels. High interest rates over the coming months would prove instrumental in returning the reserve ratios to stable levels.

In 1868, Jay Cooke, the founder of the National Banking System and the Northern Pacific Railroad had declared:

*“Why should this Grand and Glorious Country be stunted and dwarfed—its activities chilled and its very life blood curdled by these miserable “hard coin” theories—the musty theories of a by gone age—These men who are urging on premature resumption know nothing of the great growing west which would grow twice as fast if it was not cramped for the means necessary to build railroads and improve farms and convey the produce to market.”*⁵⁶

On September 18th, 1873, justice was served as not just Jay Cooke's Northern Pacific Railroad Company collapsed, but his entire banking network crashed along with it. The man who was once one of the richest individuals in all of the United States declared bankruptcy. The railroad stock index fell by 10% despite the market closing at 11 AM,⁵⁷ while Western Union Telegraph, one of the biggest companies in America, lost almost one third of its value. Eight banks failed in Philadelphia and the Union Trust Company of New York (one of the largest

banks) would be so overwhelmed by redemptions that it closed its doors two days later. At that point, the panic had officially begun.

I don't believe that a genuine bank panic like the one in 1873 has occurred since the early 1900s due to the nature of the modern economy (the Federal Reserve, infinite fiat currency, bailouts). When in the midst of an actual mass-bank run, the financial sector tends to act strangely. During the panic, it was reported that officially recorded interest rates were meaningless as individuals or companies outside of the financial sector could not get a loan at any interest rate. Within the financial sector, loans were given out on a "character" basis by which reliable individuals were able to contact associates for emergency funding and disreputable individuals would not be catered to at all. The rates of the few loans that were successfully obtained were outrageous, even going as high as 1.5% per day (547.5% annually).⁵⁸ Everyone wanted gold to balance their sheets but almost nobody was willing to diminish their reserves despite the potential to gain tremendous profits.

In 1873, thirty seven banks were permitted to suspend specie payments to their depositors. In comparison, the previous year incurred sixteen suspensions, 1871 had eight suspensions, and 1870 had only two suspensions.⁵⁹ Since specie redemption suspension was not permitted by the contracts signed between individual depositors and banks, for the states to permit it was to endorse blatant fraud. The vast majority of specie in any given bank's reserves was given to the bank as a "demand deposit," meaning that the depositor has the contractual right to withdraw his money at any time during the bank's operating hours. When banks engage in pyramiding, they are risking their ability to repay their depositors; this is permissible as long as both the bank and its customers are aware of this fact. For a bank to arbitrarily declare the right to reject redemptions of their bank notes is to violate their contract with all bank note holders. On

top of that, bank suspensions enabled malinvestment to stay lodged within the economy as banks with broken capital structures were permitted to continue to exist even though they were legally obligated to default. Unfortunately, the American government was far too willing to allow such activity in the financial sector throughout the Gilded Age.

(In the same Ben Bernanke lecture that was referred to in the introduction, Bernanke falsely attributed the ability of banks to suspend deposit redemptions to the workings of the free market rather than state intervention. This is blatantly false as suspension was periodically permitted by state decree going all the way back to the early 1800s. Though it was never codified in law, the [fraudulently] legal ability of banks to suspend redemptions was implicitly understood by the financial system and its customers.)

2. Response

While the NBS was set up in a way that stunted its ability to wisely pyramid and create credit, its recovery and liquidation abilities were mostly left untouched, and therefore the US banking system was able to rapidly recover from the panic through market mechanisms alone. On September 20, the New York Clearinghouse (which did not have quite the same role as it did prior to the establishment of the NBS, but still was useful to some degree) convened to establish a response protocol. Since the panic was based in the financial sector and Wall Street was the center of the financial sector, most of the “panicking” occurred in New York City. The clearinghouse organized a slush fund in which members could voluntarily deposit specie at interest which could then be doled out to member banks which needed to keep their balances

intact. This was a perfect example of a free market response to a crisis; a voluntary agreement between competitors in which all banks act in their own self-interest to keep the system alive rather than allowing it to collapse and thereby drag everyone into insolvency. Eventually \$26,565,000 was raised to be distributed based on the recommendations of a clearinghouse committee.⁶⁰ There is plenty to say about the specific operations of the clearinghouse, but I will go into more detail about it in the “1907” chapter where the response was more elaborate.

Unfortunately, President Grant saw fit to go directly to New York City and bestow the financial industry with government assistance in the form of \$13 million worth of poisonous greenbacks which were deposited in a few national banks. Wisely the recipients saw the greenbacks for what they were and squirrelled them away into perfectly safe accounts rather than risk infecting their legitimate reserves with more worthless fiat money. As a result, the greenbacks had essentially no effect on the economy and a continuance of the Austrian business cycle was averted (though admittedly the amount was too small to cause any significant damage anyway).⁶¹

Fiscally, it is always important for a government to contract its size during an economic downturn so that more wealth can be freed up to be used for productive private interests rather than be trapped in unproductive government activities (which in and of itself is usually a form of malinvestment). The more the state can shrink itself, the better, but at the very least the state should refrain from growing during a downturn to avoid crowding out private wealth. President Grant and the Republican Congress’s fiscal response to the crisis was mediocre but not terrible.

With the continued maintenance of sky high tariffs and a massive decrease in military spending after the WSI, the federal government had been running a sizeable surplus in the early 1870s. In 1870, the government ran a \$101.6 million surplus, which declined into the mid-90’s

during the next two years. Normally such outrageous surpluses would be highly destructive to the economy, but the Republicans were fortunately using most of the surplus to pay off federal debt from the war. Between 1870 and 1872, expenses slowly fell from \$309.7 to \$277.5 million due to demilitarization in the South and slightly declining interest costs on the national debt. More importantly, during the economic downturn in 1873 and the aftermath in 1874, total federal expenditure increased to \$290.3 and \$302.6 million due to a minor increase in military spending.

President Grant and the Republican Congress's decision to increase expenditure was ill advised, but ultimately I cannot condemn their actions to a great degree. As of 1873, interest payments on the nation debt constituted 36.1% of the entire federal budget while the War and Navy department combined consisted of 24.1%. The former was completely inflexible and could only be decreased in the long run by paying off the national debt. The army was still occupying the South and couldn't incur any rapid reduction. Meanwhile, the navy was already in the process of reducing its forces and to its credit, the US government had reduced naval expenditure to pre-war levels by the early 1880s. Thus, given the budgetary circumstances of 1873, Congress simply did not have much leeway to make cuts.

On September 24, New York banks stopped redeeming specie directly and cut out the middle man by directing customers straight to the clearing houses. The next day, Philadelphia, Baltimore, New Orleans, Boston, Cincinnati, and St. Louis embraced the same process. This transition represented the worst of the ordeal as the remaining banks could no longer pay out specie without folding and had to rely upon the clearinghouses for solvency. However, by November 1st, specie redemption resumed in banks throughout the country and the crash itself was over. The railroad stock index had lost 22.73% of its value and 5,183 businesses had

collapsed across the country (as opposed to half that number in 1871).⁶² Yet more malinvestment still existed in the economy.

III. Recovery

1. Post-Crash Recovery

By 1874, the economy had largely returned to stability. Reserve ratios in New York City banks had recovered to stable levels and with a new abundance of legitimate capital brought into the market through the liquidation of banking and industrial malinvestment, interest rates on prime commercial paper fell to 6% by February of 1874. Liquidations continued across the country as remaining malinvestment was cleaned from the economy and the number of business failures per year actually increased each until 1877. Yet the economy was roaring to life once more as GDP increased by over 5% in 1874.

In response to the crisis, early in 1874 the Republicans in Congress engaged in an enormous effort to inflate the money supply. A grand total of sixty bills were introduced between both houses which hoped to increase the amount of greenbacks in the economy to provide liquid relief to the National Banking System. Such an action would indeed help the economy stabilize in the short run but would ultimately cease the liquidation of malinvestment and merely push back the inevitable crash while the economy continued its phony growth. Fifty-nine of the bills were defeated in Congress by the resurgent Democratic Party and its few hard money allies in

the Republican Party. However, with enough political wrangling, the Legal Tender Act of 1874 was passed in the House by a tremendous 105-64 margin by the Republicans against the disappointing 35-37 Democratic margin. After surviving the Senate, the bill was placed before President Grant for final passage.

By this point the act was popularly known as the “Inflation Bill” and was virulently opposed by hard-money politicians on both sides of the aisle. If passed, the Inflation Bill would authorize the printing of \$44 million worth of greenbacks⁶³ to be distributed into circulation at the Treasury’s discretion (meaning all of it would be immediately placed into the hand of a few major national banks of Wall Street). However, the tricky part of the bill came with the provision for the Treasury to declare an immediate redemption of all existing greenback in the economy for gold or government bonds on demand. This would be an excellent action for the state to make on its own, but it was undercut by a further provision which allowed for the Treasury to infinitely reissue greenbacks after redemption, thereby legally solidifying a permanent fiat currency in the US economy. The mixture of a single good deflationary policy, with two, highly inflationary and therefore terrible policies was a deliberate political maneuver by the Republicans to entice Democrats to abandon their principles and support a proto-Keynesian support operation.

President Grant is not historically known for having been proactive, or for his ability to stay sober, but in 1874, upon extensive deliberation, President Grant made what I consider to be the greatest accomplishment of his entire public life when he rejected the Inflation Bill. Republicans in Congress were shocked as Grant turned against his party and supported the Confederate Democrats! He reasoned that the legislation would help the economy in the short run, but in the long run it would destroy the credit-worthiness of the entire government and economy through currency inflation and instability.

Grant's libertarian streak surprisingly persisted after 1874. Grant rapidly expanded his pre-war emphasis on debt reduction to bring the total amount paid off by 1878 to \$435 million. He further annoyed his former Republican allies by strongly pushing for and passing the Resumption Act of 1875 to plan for the 1879 redemption of all greenbacks in circulation.⁶⁴ Perhaps most impressively of all, with support from a resurgent Democratic Party in Congress, the federal budget declined by 25.4% between 1874 and the end of his second term in 1887.⁶⁵ These measures had a tremendously beneficial effect on the economy and encouraged the strong growth in the post-73 1870s.

In the aftermath of the panic until 1879, many economists and historians believe that the United States suffered through a depression. Murray Rothbard went to great lengths to disprove this falsehood by demonstrating that it was actually a remarkably productive period in American history which experienced falling prices despite a growing money supply. Rothbard referred to Friedman and Schwartz's numbers which show an increase in national production between 3% and 6.8% per year between 1873 and 1879 depending on how total production is calculated. Despite a contraction of greenbacks and an initial sharp contraction of national bank credit expansion in 1873, the entire money supply expanded by 2.7% per year between 1873 and 1878.⁶⁶ As a result of production growth outpacing money growth, the price index in the US plummeted in the post-war period with an index level of 100 in 1873 falling to 87 in 1876 and 77 in 1879⁶⁷ (Could anyone today imagine the price of gas falling by almost 25% in six year?). Angus Maddison's data concurs with Rothbard's with US GDP growing by an average of 4.8% per year between 1874 and 1879.⁶⁸

A much larger discussion would be needed to dismiss the myth of the "Great Depression" which orthodox historians claim occurred between 1873 and 1896 in the United States. For the

sake of this paper, it will suffice to point out that GDP increased immensely every year between those bookends except for 1887, 1893, and 1896 and that a downturn in prices does not equate to a downturn in profits or production. Too many historians subscribe to what Ludwig von Mises called the “inflationist view of history” which states that whenever prices are rising, the economy is prosperous and vice versa. This concept simply ignores the genuine relationship between money and production.

2. The Free Market Prescription

The Panic of 1873 could have been a lot worse and most certainly would have been if not for the actions of the Democratic minority in Congress and President Ulysses Grant. Overall, the state’s response to the crisis was bad, but restricted enough to not cause any significant damage. Most of the advice that I would have for the federal government at the time would be to stop doing everything they were doing (ie. raising spending, depositing Treasury funds into private banks, printing greenbacks). In the other chapters, I have more ideas on how the economy could have been improved through principled state action, but in the case of 1873, I have only one idea.

Greenback Redemption

This policy could have and should have been enacted any point after the War of Southern Independence. Issuing the fiat greenbacks during the war was a mistake justified by war time necessity, to keep them in circulation after the war was inexcusable and was only justified by proto-Keynesian claims about monetary “elasticity.” The eroding value of the greenbacks and their perceived inferiority in comparison to specie caused them to be a badly destabilizing feature

of the American economy. They played a key role in bank and railroad speculation to distort the capital market and feed into a classic Austrian business cycle. The sooner the poisonous currency could be removed from the economy the better.

The simplest way to accomplish this task would have been to continue and expand upon former Treasury Secretary Hugh McCullock's Funding Act of 1866. In 1873 and 1874, despite declining revenues from the downturn and Congress's bad decision to increase expenditure, the federal government was still running a \$2.3 and \$14.3 million respective budget surplus.⁶⁹ Meanwhile the US Treasury contained just under \$100 million in 1873, most of which was gold. This level is historically low, but given the large federal surpluses, the Treasury could have afforded to dip down to lower levels. Combining the federal surplus and a Treasury deficit, the US government could have collected plenty of specie to begin redemption of greenbacks from the economy at par. While I cannot advise any exact numbers without a more in depth understanding of the Treasury's obligations and the predicted surpluses, I estimate that the Treasury could have begun redeeming \$20 million worth of greenbacks per year at least, and could have accelerated that figure if surpluses grew larger.

I have two side notes worth mentioning:

First, abandoning the National Banking System *during* an economic downturn would not be beneficial. For all of its inflationary faults, the NBS at least had a legal reserve requirement ratio which ranged between 15% and 25% depending on the type of bank. To end the licensing system and regulations during an economic downturn would enable banks to inflate beyond these reserve requirements and therefore provide a monetary stimulus. While in the long run this policy would be beneficial as natural market competition would keep pyramiding in check, in the

short run the repeal of the NBS would amount to quantitative easing. Therefore I would not recommend any such policy during any of the three crashes covered in this paper.

Second, I would normally suggest shrinking the size of government as I do for the 1890s depression the panic of 1907, and virtually all other economic downturn in American history. However, as briefly stated earlier in the chapter, in the early 1870s the vast the majority of the federal budget was tied up in ways which prevented significant cuts. Interest payment on the national debt was the largest expenditure and could only be altered by debt repayments. The second largest expenditure was the military which was involved in the occupation of the South while the navy was already in the process of decommission. Thus while Grant and the Congress should not have increased federal expenditure, it is understandable why they could not achieve much of a decrease in the size of the federal government.

IV. Significance

The Panic of 1873 was the first major crisis to occur under the watch of the National Banking System, a supposedly stabilizing structure within the economy. Unfortunately, the NBS managed to escape blame for the crisis though Congress and the American people did rightly direct much of their wrath at the fiat greenbacks pumped into the economy during the War of Southern Independence. The Democrats capitalized on the opportunity to push for redemption of

all greenbacks in a series of hard fought battles against the Republicans in the 1870s. President Grant's support proved instrumental, and in 1875, the Resumption Act was passed to allow the federal government four years to build up its gold reserves so that it could begin redemption of all greenbacks by 1879. As soon as the measure was passed, the market value of greenbacks shot up and by 1879, they were trading at par to their initial issuance value. With backing for the greenbacks secure, not much of the currency was actually redeemed since it was no longer considered fiat, but merely a form of Treasury Notes.

With the collapse of the railroad industry in 1873, a tremendous amount of malinvestment was purged as economically deficient lines were put out of operation and surviving companies focused on efficiency rather than expansion. Within a few years, the railroad industry would recover and become a driving force of the American economy until the early 1900s when it would begin to become eclipsed by automobiles.

Overall, the Panic of 1873 would have a relatively neutral effect on the economy. In the short run, the relatively laissez faire response of the government beneficially allowed the market to purge malinvestment and sharpen the economy for a very prosperous two decades. However, in the long run, the results are somewhat mixed. While backlash against fiat currency managed to end the greenback problem, the NBS survived and worse yet, fears of government intervention into the economy were not enough to prevent silver agitation from becoming a major political issue over the next couple years. At the very least, President Grant and the Congressional Democrats did manage to significantly forestall the rising tides of statism in the United States.

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