

4-22-2013

Dependence, Deception and Dispute : A Study of the Distinct Relationships between the United States' Government and the Emerging Corporate Entities of the Second Industrial Revolution, 1865-1895

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Dependence, Deception and Dispute

A Study of the Distinct Relationships between the United States' Government and the Emerging Corporate Entities of the Second Industrial Revolution, 1865-1895

Joseph William Moore

A departmental senior thesis submitted to the Department of History at Trinity University in partial fulfillment of the requirements for graduation with departmental honors.

April 22nd, 2013

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Second Industrial Revolution, 1865-1895

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April 22nd 2013

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Introduction

The victory of the Union in the Civil War was not only an answer to the question of slavery and states' rights, but to the question of whose economic system was superior. The Union's triumph meant more than just the reunification of the United States, but also the success of the northern economy of urbanization, immigration, industrial capitalism and wage labor in contrast to the agrarian southern economy. The north prospered as a second wave of industrialization took effect and the south stagnated for decades as it tried to cling to its old economic system.¹ The Civil War transformed the role of the federal government in the affairs of the economy and the budding corporate community. Before the war, the federal government had only 20,000 employees and made few attempts to regulate business.

Instead, the government was seen as a promoter and protector of American interests, not a regulator. A fragmented political caught between the battles of states' rights versus a powerful government paralyzed any attempts of the government to significantly intervene or aid in the development of American economic goals. Even after the victory of the Republicans and the Union, which meant a more pro-active federal government, the movement for increased regulation was weak. The result was a federal government willing to aid financially to a developing business community, but without any serious regulation. The opportunity gave the new businesses of the 19th century an opportunity to flourish.²

The time period of the Second Industrial Revolution, also known as the Gilded Age, 1865 – 1895, witnessed the dramatic evolution of these businesses from simple partnerships or crude firms into complex corporations and companies. However, success was not a guaranteed and

¹ Ron Chernow, *Titan: The Life of John D. Rockefeller, Sr.* New York: Random House Digital, Inc, 1998, pg 98.

² Chernow, *Titan*, pg 99. Several of Chernow's books are cited in this analysis and the short hand of the title will be used to delineate his different works.

especially during the panic of 1873 and 1893, numerous businesses failed. So how did a business successfully grow into a major corporate entity during this era? The focus of this analysis is on that question.

The companies that will be examined are Union Pacific Corporation, JP Morgan Company and Standard Oil Company. Each company represents a distinct industry that flourished during the second industrial age and exerted influence on the US economy. This thesis will measure the success and viability of a company as determined by how autonomous its operations were of outside forces, both the government and other firms, while maintaining a healthy relationship with the US government. These two goals became increasingly more important during the Second Industrial Age as the US government became more actively involved in the economy through increased regulation and observation of the business community. The interactions and relationships these companies experienced with the US government during the Gilded Age developed in tangent with the major expansion of government as an overseer of the private sector. Each company occupied a different role and held a different philosophy on the role of government in their industries during the unprecedented economic growth of the second industrial revolution. The reactions of these three companies further highlighted the evolution of the business community's engagement with, philosophy of, and acceptance of a more proactive and engaged government.

The reactions of these three firms to United States' decision-making led each company on a different route through the Gilded Age and had very significant impacts on future developments to their business operations. Union Pacific was dependent on the aid and support of the US government for continual economic growth through the Gilded Age and pursued a relationship, in which it relied upon government for sustained business operations. US Standard

Oil, in contrast, held an autonomous stance toward government intervention and aid, which eventually developed into an antagonistic relationship. JP Morgan chose to act as a facilitator of credit and funds to the developing US economy and therefore aided the US government in this capacity. Each company experienced a different relationship and their successes and failures highlight what qualities ensured the survival of the company during the second industrial revolution. Therefore, the central argument of this thesis is that each company reacted in a different manner to the growing federal government and therefore experienced a different relationship. The result of these relationships yielded a different outcome for the firm's success at the end of the second industrial revolution.

Background on Key Industries

Understanding the complex relationship between the US government and these three companies requires a comprehensive background of their industries during the Antebellum period. Each industry background will focus on key details related to the respective companies and therefore will not be able to cover all of the complexities of these industries. The railroad industry background is focused on the development of the transcontinental railroad, which was the purpose for Union Pacific's creation. The financial background will focus on banking and on the US credit market, which was vital to the development of JP Morgan & Company. The Petroleum Industry background will focus explicitly on the development of oil refining, which was the focus of Standard Oil's business operations.

The Railroad Industry

The demand for a transcontinental railroad started at a grassroots level in the mid-19th century. In an effort to incentivize railroad growth through private industry, the US government provided substantial grants of land to developing railroad companies in the 1860's. The goal of the US government was to reduce a part of the barrier of entry many railroad companies experienced in the form of land costs. Furthermore, the creation of a transcontinental railroad was also intended to join various minor railways across the Western United States to maintain effective transportation of goods and products.

An early expression of this demand was in an article in the *Emigrant*, a weekly newspaper out of Michigan, on February 6th, 1832 by an unknown author. The writer expressed hope for grand transportation scheme, whether by railway or not, to unite the east and west. He elaborated his proposal by claiming that "we hope the United States will not object to conducting this national project... But if the United States would not do this... Congress would not, we

presume, object to the organization of a company and a grant of three millions of acres for this purpose.”³

Soon, the idea began to pick up in public discourse, Samuel Bancroft Barlow in the *Intelligencer*, a local Granville, Massachusetts’ newspaper, proposed that the railroad could be “accomplished by our general government at the expense of the Union.”⁴ Barlow then went into detail about a potential method of raising revenue for the project and its implementation. In 1835, Rev. Samuel Parker, a missionary from a Presbyterian church in Ithaca, New York, who was sent to Oregon to convert Indians, wrote in his journal about the idea of constructing a railroad after his journey over the Rocky Mountains. He claimed that:

“There would be no difficulty in the way of constructing a railroad from the Atlantic to the Pacific Ocean, there is no greater difficulty in the whole distance than has already been overcome in passing the Green Mountains between Boston and Albany; and probably the time may not be far distant when tours will be made across the continent, as they have been made to Niagara Falls to see Nature’s wonders.”⁵

As the idea became a larger part of public discourse, particular individuals took upon themselves to advocate and develop a plan for implementation of a railway. John Plumbe, of Dubuque, Iowa, in 1836 advocated the development of a railway from Lake Michigan to Oregon and in March 1838 brought together a meeting for the consideration of his idea. Then in 1840, Plumbe allegedly visited Washington with a proposal from the Wisconsin Legislature requesting an appropriation of alternate sections of public land on each side a proposed railway. However, this proposal was allegedly defeated by the Southern Representatives.⁶

The first proposals to create a transcontinental railroad initiated a major debate over the role of government in the US economy. The debate focused on whether government or private

³ Athearn, Robert G, *Union Pacific Country*, Lincoln: University of Nebraska Press, 1971, pg 14.

⁴ Ibid, pg 14.

⁵ Davis, John P, *The Union Pacific Railway*, Annals of the American Academy of Political and Social Science 8 (1896): pg 16.

⁶ Ibid, pg 18.

enterprise should develop a railway for the nation. It specifically centered on the constitutional power of the federal government to build the railway or to grant funds for the construction and development by a private company. Strict constructionists held that the federal government held a very limited, if no rule whatsoever, in aiding the construction and that instead that the states, the territories or private capitalists should by their own initiative develop the railway for the nation.⁷

Scholar John P. Davis notes that by 1838, the concept of a railway connecting the rail systems of the East to the Pacific had ceased to be novel, but was freely suggested, predicted, and urged in the newspapers, journals and magazines of the time. However, the major advocate for a transcontinental railroad was Asa Whitney, a merchant in New York City, whose mission and goal was the construction of a railway from Lake Michigan or the Mississippi River to the Pacific Ocean.⁸ Whitney first brought his dream to Congress in January 28, 1845, in a presentation to the Senate, through the aid of Senator Dickinson, and to the House of Representatives, through the aid of Representative Pratt. Whitney's plan was to build a railway from Lake Michigan to the mouth of the Columbia River in Oregon, though he modified the plan⁹ so that it should begin at Prairie du Chien and end at Puget's Sound and considered further modifications when California joined the Union.

Whitney presented a second proposal to Congress in 1846, citing his experience on the Liverpool and Manchester Railroad in England in 1830. Whitney claimed that in seeing the relative speed and the efficient nature with which the English railway was constructed, he foresaw a great future for railways in the United States in facilitating trade.¹⁰ However, the

⁷ Ibid, pg 47.

⁸ Ibid, pg 16-19.

⁹ He modified the plan when Wisconsin became a state

¹⁰ Ibid, 19.

proposal and resulting legislation was dismissed with no real action outside of committee meetings and then Congress adjourned without considering Whitney's scheme. Yet, Whitney did not give up and instead choose to begin a systematic bombardment of Congress directly and indirectly through every available means that could affect public opinion.¹¹ In fact, every subsequent meeting of Congress for the next several years yielded Whitney's scheme and Whitney went from city to city across the nations holding public meeting about his proposal. However, his presentations were not always well received, on January 4, 1847, Whitney addressed a large crowd in a hall in Tabernacle, New York, when a mob briefly took control of the hall and denounced the project as a swindle of the federal government. The railroad scholar John P. Davis claims that after Whitney's presentation tour, mature public opinion finally passed judgment on the project and rejected it.¹²

Whitney had a third proposal introduced to Congress in 1848, but the Senate voted against considering a bill for this proposal. Whitney elaborated on his dream in a pamphlet he published in 1849, in which he states:

“My desire and object have been to carry out and accomplish this great work for the motives, as here and everywhere else by me declared, to give my country this great thoroughfare for all nations without the cost of a dollar; to give employment to and make comfortable and happy millions who are now destitute and starving, and to bring all the world together in free intercourse as one nation.”¹³

Senator Thomas Hart Benton of Missouri became the staunch advocate for westward expansion in 1850's and the representative for the advocates of a national railway. However, he endorsed the idea that private enterprise should develop this national railway because he felt the opportunity was so great that “capital seeking investment would find this particular temptation

¹¹ Ibid, 24.

¹² Ibid, 28.

¹³ Ibid, 19-20.

irresistible.”¹⁴ He claimed that the lands beyond the Missouri River possessed a vast amount of natural resources and wealth that a national and a unified railway could provide access to and develop a civilization around its tracks. He felt that the line was necessary for the:

“Emigrants of America would flock upon it as pigeons to their roosts, tear open the bosom of the virgin soil, and spring into existence of the long line of farms and houses, of towns and villages ... and all that civilization affords ... to give protection and employment to the road, and to balance the populous communities in the eastern half of the Union by equal populations on its western half.”¹⁵

A bill was salvaged out of Whitney’s proposal and presented to the 32nd Congress on April 1, 1852, which permitted the sale of public lands to Whitney to build the railroad, however the bill was defeated due to growing sectionalism in the United States.¹⁶ The sectionalism held two major dimensions in this context; the first dimension was a political battle between the Northern and Southern states over where the railroad was to be established and battles between different cities over the trail of the railroad.¹⁷ However, other concerns with Whitney’s proposal focused on Whitney himself and his qualifications to pursue such a grand project. The *American Railroad Journal* on April 5, 1851 claimed that:

“We freely admit that Mr. Whitney possesses some qualities which eminently fit him to head a great enterprise... But here his qualifications for conducting to a successful issue a work of such magnitude as that of a railroad from the Atlantic to the Pacific end. He is self-confident without experience or training, arrogant in his opinions, and overbearing toward all who differ from him. He has a hearty contempt for the whole engineering profession and loses his temper the moment one of that class talks about tunneling, bridging, excavation, etc., which are certainly great annoyances in railroad construction and which have made others beside Mr. Whitney lose their temper... We are sorry for his disappointments and heartily wish he would adapt his scheme to the practical ideas of the present day of which he appears to have not the least appreciation.”¹⁸

¹⁴ Athearn, 22-23.

¹⁵ Ibid, 22-23.

¹⁶ Galloway, John Debo, *The First Transcontinental Railroad*, New York: Simmons-Boardman, 1950, pg 34.

¹⁷ Davis, 37.

¹⁸ Galloway, 34-35.

The journalist community took on the idea as well as seen in Horace Greeley's book *An Overland Journey*, in which Greeley argues for the implementation of a national railroad. Greeley's argument highlights key ideas and potential facts about the economic potential surrounding a national railroad. He estimates that an average of 50 million dollars' worth of gold from San Francisco¹⁹ and that the government spends an average of 6 million dollars on transportation of its men, munitions and materials to the West Coast.²⁰ Overall, Greeley's text highlights the unlimited potential for cost savings and additional revenues or resources a national railroad could yield and the public perception of this idea.²¹

However, key elements of the political community remained skeptical of the ability of private enterprise to fund the development of the railroad. In particular, John W. Dawson, Governor of the Utah Territory of 1861, who made the crossing in the early 1860's, told the legislative assembly of Utah, that as necessary as the railroad was to the nation, he was skeptical of its creation through private capital. He claimed that "the intervening country was such that private capital could not undertake the work... to this staunch Unionist the railroad was a national undertaking, and 'it is right that it should be made by the nation.'"²² Representative Justin Morrill, of Vermont and Representative James Campbell, of Pennsylvania held a similar view and that the desert and plains posed a challenge too great for even the most bold of investors and claimed that no capitalist would invest a single dollar in a project that ran any

¹⁹ Horace Greeley, "An Overland Journey from New York to San Francisco in the Summer of 1859," *Yosemite Online*, last modified 2005, <http://www.yosemite.ca.us/library/greeley/greeley.pdf>.

²⁰ *Ibid*, 127.

²¹ Greeley on page 127 highlights how "the Federal government is now paying some twenty-five millions per annum for military service, mainly west of the Mississippi. Nearly half of this heavy sum is paid for transportation in its various shapes—for the conveyance of provisions, munitions, etc., to the army in Utah, and to the various posts scattered through the Indian country; for horses, mules, and wagons, required to facilitate the conveyance of soldiers, arms, munitions, and baggage from post to post, etc., etc. Every regiment employed in the Indian country, or on the Pacific, costs the treasury at least one thousand dollars per man per annum, of which I estimate that nearly half would be saved by a Pacific railroad. Certainly, the saving from this source could not fall short of five millions per annum."

²² Athearn, 26.

distance across the plains. Congressmen Morrill feared that any bill with only land grants and no financial subsidies opened the flood gate for speculators to abuse the system.²³ Eventually, the concept that private enterprise or private investment would not, in the foreseeable future, be attracted to invest significantly in the West on projects such as the railroad, was ingrained in Congressional minds.

Right up to the onset of the Civil War, the major proponents for the construction of the national railroad with government cooperation or assistance, argued on the grounds of public necessity. William Seward, then US Senator of New York, promoted this logic and claimed “that a railroad is necessary, and ought to be built; and I think it has been scientifically demonstrated ... that not only one such road is feasible, but that at least three, four, or five routes offer the necessary facilities for the security of this great object.”²⁴ The result of these different sets of arguments was the ultimate conclusion by many legislators that government aid was a presupposed condition for the construction of the national railroad. Furthermore, the alleged harshness and desolate nature of parts of the plains encourage Senators that the Congress in providing land grants was giving away nothing for some “miserable acres.”²⁵ The Civil War exacerbated the need for the railroad and gave the necessary political momentum for the creation and implementation of a transcontinental railroad.

Proponents for federal government involvement argued for the need of enhanced communication between the eastern and western United States and the federal government could expedite the process. Furthermore, the debate focused on whether the United States might need to transport an army to any disputed territory more quickly than current methods over water.²⁶

²³ Ibid, 26.

²⁴ Ibid, 27-28.

²⁵ Athearn, 28.

²⁶ Davis, 47.

The intensive interactions with different tribes of western Native Americans further intensified the problem and proponents argued that unified railways allowed for more efficient deployment of troops across the plains. The Mormon Rebellion of 1857-1858 reinforced the argument for a military need for an expedient development of a national railway. The acquisition of California from Mexico in 1848, which introduced a vast amount of territory and by the 1850's, a large population and an increased demand for a railway to the East and the increased communication associated with the railroad with the East.²⁷ Eventually, the intrusion of the Civil War brought the danger of national disruption and Congress was left with any doubt of the public necessity of a unified national railway, which required federal government assistance.²⁸

The constitutional power of Congress to create a corporation for building a railway was doubted. But the Civil War had its effect on this question and the increased activity of the federal government during the war necessitated a unified means of transportation. Furthermore, the removal from Congress of its state rights and strict construction members, made many things possible, such as the incorporation of the Union Pacific Railroad Company.²⁹ Eventually, the construction of national railroad found its way to the platform of the 1860 Republican Party Convention and the Baltimore platform of the Democratic Party that had withdrawn from the Charleston convention.³⁰

Financial Industry

In 1811 the charter of the First Bank of the United States expired and Congress refused to renew it due constitutional concerns. The result of this decision was that the United States was without a central banking institution. The immediate consequence of the expiration of the First

²⁷ Telegraph lines built with railroad

²⁸ Davis, 48.

²⁹ Ibid, 49.

³⁰ Ibid, 96

Bank was financial confusion as the young financial system of the United States had to learn to deal with the newly formed power vacuum with the departure of the First Bank. However, the interregnum between the tenure of the First Bank of the United States and the Second Bank was brief and largely due to the financial difficulties created by the War of 1812.

The War of 1812 left the young United States with a blooming debt that by late 1814 had grown from \$45 million to \$100 million.³¹ Congress was inclined to accept a government-sponsored bank as a means of absorbing present and future debt. A bank bill went to President James Madison in 1815 that proposed the capitalization of the Bank of the United States for \$30 million.³² However, Madison vetoed the bill because he felt that government bonds held by the Bank were about to realize an appreciation, thus shouldering the government with a capital loss. A new bank bill was written and being reconsidered in Congress, which met Madison's objections. On the other hand, Alexander James Dallas, then Secretary of the Treasury, argued for the recreation of a national bank that issued notes and should take the place of the Treasury notes. Dallas felt that state bank issues had to be curtailed in order for resumption of specie payments, which had been suspended during the war, to be considered genuine and since the outstanding Treasury notes were being retired during the next year and therefore not suffice as a national currency.³³

A primary problem of the economic situation of the time was that the country was left without any common medium of exchange because there was no central bank. Therefore, the government was forced to receive its revenues in state-bank paper and treasury notes. The

³¹ Richard H. Timberlake Jr., *The Origins of Central Banking in the United States* (Cambridge: Harvard University Press, 1976), pg 325-326.

³² *Ibid*, 326. The act specified that \$5 million was to be in specie, \$10 million in specie or the public debt authorized by Congress in March of 1812, and \$15 million in specie or the Treasury notes authorized in June of 1812, or those which would be issued by any subsequent acts of Congress.

³³ *Ibid*, 326

national bank would soak them up as capital and maybe "issue notes of a similar character, for a limited time, but then allow the Treasury notes to be refinanced as long- term debt until such debt could ultimately be redeemed."³⁴ Dallas argued for a national bank that would solve all problems at no cost. He also saw the bank responsible to Congress, but also independent" of Congress while in active competition with state banks. Dallas claimed that:

“The National Bank ought not to be regarded simply as a commercial bank. . . . It will operate... upon the funds of the nation. . . . In fine, it is not an institution created for the purposes of commerce and profit alone, but much more for the purposes of national policy, as an auxiliary in the exercise of some of the highest powers of the Government.”³⁵

Treasury notes, otherwise known as paper money, had been printed to finance the War of 1812 and were used as bank reserves. The result was an increase in the stock of money and forced the market price of specie beyond the reach of the mint price. In December 1815, Secretary Dallas stated in response that “it is essential that the quantity of bank paper in circulation should be reduced.” Dallas argued that a national bank helped in this process because “it would not have to resume, only commence, and it would have the advantage of the public deposits in coin to help it do the job.”³⁶

The next Secretary of the Treasury, William Crawford, who took office in 1816 also actively promoted banking policy. After he assumed the office, he stated that the government shall take upon itself the principal burden of restoring the circulating medium to specie value by withholding “from circulation as much of their [banks'] paper now in the Treasury . . . as the demands upon the Treasury during the ensuing year will permit.”³⁷ In February of 1817, after extensive debate, negotiation and numerous amendments, a bill passed through Congress and

³⁴ Timberlake Jr., 326.

³⁵ Ibid, 327. It would be re-quoted in 1834 by the Whigs in their efforts to keep the Second Bank alive.

³⁶ Ibid, 329.

³⁷ Ibid, 329.

was signed by James Madison. The Second Bank of the United States was established as a private corporation with public duties. The Bank was in charge of all fiscal transactions for the US Government and was accountable to Congress and the US Treasury department. Twenty percent of its capital was owned by the United States' federal government, which was the Bank's single largest stockholder. Thousands of private investors held 80% of the Bank's capital, which a significant portion including foreign persons.

The Bank's power stemmed from its depository relationship with the government and other banks, which provided control over the extension of credit by banks throughout the US financial system. The government's receipts arose principally from taxes and tariffs, which came in the form bank notes. These bank notes usually originated from private banks, which provided the bulk of the money in circulation and the Bank received these notes on deposit from the government. Therefore, the Bank became the creditor of the private banks that issued them and presented them for payment.³⁸ The Bank strictly observed and enforced its credit standards upon the private banks with the effect of restricting lending and private issuance of notes. In essence, the Bank's regulatory powers were contingent on a private bank falling into debt to it.³⁹

During the postwar boom of 1817-1818, the Bank functioned in a similar fashion as any other bank with several unique aspects. It acted as a lender of last resort and it did not restrain the private banks by forcing them to redeem their notes.⁴⁰ However, the public perception of the Bank was strained and public officials became increasingly critical of its financial operations. The Bank still faced challenges concerning its constitutional and operations; however the US Supreme Court affirmed the constitutionality of the Bank in 1819 case *McCulloch v. Maryland*.

³⁸ Bray Hammond, "Jackson, Biddle, and the Bank of the United States," *Journal of Economic History*, VIII (May 1947), 2.

³⁹ *Ibid*, 2.

⁴⁰ Bray Hammond, *Banks and Politics in America: From the Revolution to the Civil War*, (Princeton: Princeton University Press, 1957), pg 328.

In 1820, Crawford made an address to the House of Representatives, in which he attempted to absolve the Second Bank of the evils ascribed to it in transferring the currency for the government. The Bank, he wrote "was only a passive agent in the hands of the Government."⁴¹ The Bank continued in this role for the next few years until, in 1823, Nicholas Biddle was made President of the Second Bank. In 1829, the Bank encountered a major political threat, the newly elected President of the United States, Andrew Jackson. Jackson had been skeptical of not only the national bank, but all paper money banks and was considered a "hard money" man.⁴² Furthermore, he considered the Second United States Bank as a monopoly with a corrupting influence upon the nation.

"The restoration of the gold currency was effected under Gen. Jackson's administration; the establishment of the hard money currency for the federal government, and the keeping of its own money in its own treasuries, was accomplished under Mr. Van Buren, both of which Presidents took the full responsibility of recommending these three measures, and also the two others—the two for the imposition of a stamp duty on all paper money' under twenty dollars, and for a bankrupt act against defaulting banks. Bills were repeatedly brought into Congress for both purposes, but were always (defeated by the defection of the paper money wing of the democratic party."⁴³

Jackson's actions highlighted a growing philosophical divide in the United States over banking into several groups of thoughts, pro-banking, anti-banking and no-banking. The anti-banking idea, as the scholar Leonard Helderman claims, was rooted in a general fear that large corporations were in some way obstructionist to the idea of American individualism.⁴⁴ In 1835 Governor Mason of Michigan vetoed a steamboat charter because he felt that "acts of

⁴¹ Timberlake Jr., 330.

⁴² Leonard Clinton Helderman, *National and State banks: A Study Of Their Origins*, (Boston, Houghton Mifflin, 1931) pg 1. The hard money vs the paper money was a long standing argument in US monetary policy up through the 20th century. Helderman on page 102 describes the difference as such "the hard-money school maintain that nothing but precious metals can afford absolute security for the transfer value." The paper money or credit-money idea held that "a national bank-note...convertible in specie on demand, is as good a security in public belief as specie itself."

⁴³ Thomas Benton, "Col. Benton on Banks and Currency," *Bankers' Magazine* 12 (1857): pg 560.

⁴⁴ Helderman, pg 101.

incorporation are aristocratic in their tendencies.”⁴⁵ A New York Assembly committee reported it was “a palpable fraud for bankers to pretend that they are democrats, or that any man is a democrat who contends for bank paper.”⁴⁶

In his first annual address, Jackson stated that

“both the constitutionality and the expediency of the law creating the bank were well questioned by a large portion of our fellow-citizens, and it must be admitted by all that it has failed in the great end of establishing a uniform and sound currency.”⁴⁷

On July 10, 1832, President Andrew Jackson vetoed a bill that sought to renew the corporate charter of the Second Bank of the United States.⁴⁸ The Senate voted on overturning his veto, but failed, the attempted had been largely fueled by the National Republicans. Jackson, also fearful of the connection between the bank and the national republicans, openly questioned whether the bank was still a safe depository of the people’s money.⁴⁹ The Democratic-controlled House of Representatives eventually rejected a bill from pro-Jackson forces that proposed to sell the government’s shares in the bank.

Jackson then moved by issuing an executive order, which mandated the removal of all federal deposits in the bank. In 1833, federal revenue was diverted into selected private banks, which ended the regulatory role of the Second Bank of the United States. The Bank expired on March 3, 1836 because of its charter and the will of President Andrew Jackson. The Bank therefore became a private corporation and was eventually liquidated in 1841.⁵⁰ However, the expiration of the Second Bank had a major impact upon the financial system and the general economy of the United States. The panic of 1837 was devastating on the American banking

⁴⁵ Ibid, pg 101.

⁴⁶ Ibid, pg 101-102.

⁴⁷ Hammond, “Jackson, Biddle, and the Bank of the United States,” pg 5.

⁴⁸ Sean Wilentz, “*The Rise of American Democracy: Jefferson to Lincoln*,” (Norton, New York, 2005) pg 371-372.

⁴⁹ Ibid, pg 393. He feared that since the bank might squeeze credit prior to the 1836 election, which might trigger a panic that would help elect a pro-bank candidate, who would reverse Jackson’s veto.

⁵⁰ Ibid, pg 157.

system and led to two growing domestic movements, a reform crusade and anti-bank reaction. The anti-bank reaction solidified around a hard money movement in the West and to abolish banks.⁵¹ The hard money idea was rooted, at the time, in economic theory rather than simple belief and had long before the panic of 1837 and existed long throughout the economic history of the United States.⁵² The economy did not fully recover until 1843.

An underlying political trend associated the development of national banking in the United States was highlighted by two factions. The first faction, who were the champions of banking development in the United States were the Federalists, Whigs, Republicans, conservatives, strongly focused on the need for banking. The other faction consisted of the “anti-Bullionist” populists, Southern Democrats and the banking schools of monetary thought.⁵³ During Jackson’s tenure as President, hard money economic belief was a central tenet of the left wing of the Democratic party. In the minds of the Democratic politicians, hard money resonated with an ideal of America that “was still a land of refuge and freedom rather than a place to make money.”⁵⁴ These two factions varied in their belief in the role of government as an overseer of the US financial network. Republicans advocated an approach through the private sector, such as the previous US national banks, whereas the Democrats advocated for a public banking institution.

The next major development occurred in the last 1850’s with the panic of 1857. In the early 1850s, the United States experienced an economic boom, but in 1857, the European market for American goods declined. The decline in European consumption of American goods scared the financial community and eastern banks became cautious with their loans to the west because

⁵¹ Helderman, pg 9.

⁵² Hammond, *Banks and Politics in America: From the Revolution to the Civil War*, pg 102.

⁵³ Timberlake Jr., pg 318.

⁵⁴ Hammond, “Jackson, Biddle, and the Bank of the United States,” pg 5.

the goods from the west experienced the biggest drop in consumption.⁵⁵ However, the market finally entered a panic when Ohio Life Insurance and Trust Company failed on August 24th.⁵⁶

The impact of the panic was so great that even by President Lincoln's accession to office, federal finances had not recovered. The lack of funds presented a problem to President Lincoln as the Civil War broke out with the beginning of hostilities at Fort Sumner in April 1861. A war was going to cost a lot of money and so Congress reacted with the Act of July 17, 1861. The act allowed for \$250,000,000 to be borrowed on the credit of the United States. \$50,000,000 was authorized as non-interest bearing Treasury Notes, payable upon demand, in denominations less than \$50 dollars and not less than \$10 dollars. The notes were called Demand Notes to distinguish them from the interest-bearing Treasury Notes in existence at the time. The promise to pay specie "on demand" was a new obligation for Treasury Notes, although a common practice seen with private bank notes. The important fact here was that the federal government issuing a currency like financial note. Eventually, these notes functioned as a means of accounting for firms, rather than hard currency. The federal government was now issuing a paper currency as a means of raising funds. Over the coming years, the government's need for additional funds through bonds or notes brought about the American financial system.

Following the civil war, the financial industry in the US experienced not only significant growth, but a major change in business practice over the course of the Second Industrial Revolution. A result of these changes was the development of the investment banking sub-industry. The new banking sub-industry reinforced and pushed forward the growth of the second industrial revolution by reducing barriers to entry to the equity markets for developing

⁵⁵ Charles W. Calomiris; Larry Schweikart, "The Panic of 1857: Origins, Transmission, and Containment," *The Journal of Economic History* (1991) pg 808-810.

⁵⁶ *Ibid*, 808-810. Ohio Life was an Ohio based bank with another main office in New York City. The company had large mortgage holdings and was the liaison to other Ohio investment banks. Ohio Life failed due to fraudulent activities by the company's management.

companies. Traditionally, banks had operated as a source of loans for budding companies, but the new investment banks focused on facilitating the distribution or investment in the Initial Public Offering (IPO) of companies. In the beginning, these banks functioned as the middlemen for financing options for the US companies and different levels of government to available sources of funds. The funds originated in Europe for most of the second industrial revolution until the shift of the financial world to New York City in the twentieth century. However, the development of a more professionalized and skill financing sector within the United States had the effect of reducing the cost of capital and other financing options for US companies. The significance of this action cannot be understated. The fragmented nature of the US banking system and credit markets caused a high cost of capital for US companies. The effective result was the growth was diminished because companies could not use debt or equity to further grow their business operations.

In a general sense, the US credit market as developed through the American banking and securities market was fragmented and disjointed after the end of the Civil War. As US businesses began to grow and the concurrent development of the US equity market created a new opportunity for banking and finance in the United States. The fragmented nature of America's banking network had developed a dependence on foreign capital. The access to foreign capital was through a new banking industry, investment banking, such as JP Morgan, Kuhn, or Loeb & Co.. One of the major functions of these firms was to serve as the middle man for the sale of US government and private corporate on European markets. The effect of this relationship caused a complicated maze of banking relations, in which American investment banks held a large amount of power over the American companies dependent on foreign markets to maintain short-term and long-term financing.

New York investment banks had to work through an array of specialized institutions, such as trust companies or syndicates of banks and private investors.⁵⁷ The fragmented nature of American banking, along with the directorship arrangements made by banks like JP Morgan, gave rise to a “shadowy, dense network of cross-directorships and financial ties.”⁵⁸ The extents of some of these financial abuses were investigated in the Congressional Pujo Committee of 1912/13. The president of New York First National Bank, George F. Baker, once claimed that

“four investment banks (JP Morgan; Kuhn, Loeb & Co.; Kidder, Peabody; and Lee, Higginson) were involved in every securities issue that exceeded more than \$10 million, which brought the total value of securities issued each year to well over \$500 million.”⁵⁹

Concurrent to all of these developments was a major trend during the 19th century in the financial industry to adhere to the Gentleman Banker’s Code. The code was an informal style that bankers adopted in matters concerning their lending practices. The elite banks did not try to scout out a business or actively seek new clients, but instead awaited their arrival for a request for a loan or bond purchases. The banks made informal agreements to not openly compete and therefore push the clients into an almost subservient role. There was not a cartel, as the clients perceived, but instead a silent competition that masked the vicious relations among the banks.⁶⁰

The developing role of American investment banks during the second industrial revolution began to take shape under the practices of JP Morgan & Co.. In a basic sense, these new “investment” banks operated in a high-profile role by providing or facilitating the private financing options for the major corporate entities of the United States. In particular, investment

⁵⁷ Jeffrey Fear and Christopher Kobrak, *Banks on Board: German and American Corporate Governance, 1870–1914*, *Business History Review* 84, no. 04 (2010): pg 709.

⁵⁸ *Ibid*, pg 709.

⁵⁹ *Ibid*, pg 709.

⁶⁰ Chernow, *The House of Morgan: An American Banking Dynasty and the Rise of Modern Finance*. New York: Macmillan Publishing Company, 1990, pg 24.

banks focused on infrastructural & massive public service corporations, such as railroads and utilities, which were perceived to be growth areas of the second industrial revolution.⁶¹

Yet, despite these tremendous needs for capital, financial markets were provincial and limited in scope. The banker allocated the economy's scarce credit. His imprimatur alone reassured investors that unknown companies were sound—there were no government agencies to regulate security issues or prospectuses—and he became integral to their operation. Companies become associated with their bankers, such as the New York Central Railroad, which was later called a Morgan road. In this phase of the second industrial revolution, companies were dynamic but extremely unstable. In an atmosphere of feverish growth, many businesses fell into the hands of unscrupulous promoters, charlatans, and stock manipulators. Even visionary entrepreneurs often lacked the managerial skills necessary to convert their inspirations into national industries, and no cadre of professional managers yet existed. The bankers vouched for securities and often ended up running companies if they defaulted. As the Gilded Age progressed, the line between finance and commerce increasingly began to blur until much of industry passed under the control of the bankers.⁶²

The result was that bankers dictated terms to sovereign states, countries and major companies. It was said that "the mighty loan-mongers on whose fiat the fate of kings and empires sometimes depended."⁶³ The bankers acquired this degree of power because countries engaged in war lacked the financial resources or effective tax systems to sustain. The biggest banks, through large scale operations involving numerous smaller banks and wealthy investors, functioned as their defunct treasury departments or central banks to the major governments. The Morgan's

⁶¹ Fear and Kobrak, pg 709.

⁶² Chernow, *House of Morgan*, pg 33.

⁶³ *Ibid*, pg 24.

would later claim this status and effectively utilized the ideas of the Gentleman's Banker Code as a means of reducing or eliminating any substantial risk for losses.⁶⁴

Furthermore, due to the fragmented nature of the banking system in the United States because of the lack of a central bank, the task of a unified monetary and fiscal policy was indirectly left to the private banking sector. JP Morgan & Co. in cooperation with other key investment banks functioned as a proxy central banking entity to stabilize financial crises, crises of faith in the value of the dollar and the soundness of the banking system.⁶⁵ The role of investment banks a quasi-central bank ensured their survival from a governmental perspective. Since the bank's operations ensured the continual flow of commerce and credit through the US the government had to maintain the presence of these firms.

Petroleum Industry

The first major discovery of oil was in August of 1859 by the American oil driller, Edwin L. Drake, in northwestern Pennsylvania along the Allegheny River, in an area that later would be known as the Oil Regions. The discovery unleashed a wave of speculators upon the region and began an intense competition to buy or lease land in Pennsylvania to secure oil rights. The discovery caused an immediate boom in oil drilling throughout the nation, from Manitoulin Island to Alabama and from Missouri to Central New York. The petroleum product created a new industry and many businessmen and merchants, some locally, but mostly newcomers became oilmen. The rural regions of Pennsylvania were suddenly swamped with new settlers, mostly of an urban origin and began a gradual change from rural to urban as the oil industry grew. For nearly 30 years essentially all U.S. oil production came from this area. Shortly, the region would be covered in derricks and lead to the development oil drilling practices and

⁶⁴ Ibid, pg 24-25.

⁶⁵ Fear and Kobra, pg 721.

equipment. John D. Rockefeller, the famous oil man and refiner, years after the establishment and success of his business, would claim how the discovery revealed the “vast stores of wealth... the gifts of the great Creator.”⁶⁶

When Drake first discovered oil in Pennsylvania, the only major method of transportation available to transport the oil was by the wagon, operated by the Teamsters, who charged very high fees for transportation due to the lack of available railways. Since oil was a cheap, standardized commodity, transportation costs were incredibly important to the profitability and success in the infant industry.⁶⁷ The oil industry’s solution was an extensive network of pipelines, which received intensive resistance from the Teamsters and in many cases physical confrontation. Before these networks of pipelines could be installed, the next solution was to utilize the expanding railway networks. The result was better and faster access across the nation for oil, although it supplemented the Teamster’s influence with that of the railroad companies.

Although, the main drilling operations and activities of the oil boom were restrained to Pennsylvania the hysteria and belief and oil were extended throughout the nation. In 1865, then Congressman James Garfield describes this phenomenon in a letter to a former staff office:

“I have conversed on the general question of oil with a number of members who are in the business, for you know the fever has assailed Congress in no mild form... Oil, not cotton, is King now, in the world of commerce.”⁶⁸

As oil became more profitable, refineries began to centralize in 6 competing centers, the 3 inland centers and 3 seaboard centers. The inland centers were the Oil Regions, which included West Virginia, rural Pennsylvania and rural Ohio,⁶⁹ Pittsburgh and Cleveland. The seaboard centers were New York, Philadelphia and Baltimore. Soon, the oil boom became a popular topic

⁶⁶ Chernow, *Titan*, 76.

⁶⁷ *Ibid*, 110.

⁶⁸ *Ibid*, 99-100.

⁶⁹“The Oil Regions,” *The New York Times*, December 20, 1864, <<http://www.nytimes.com/1864/12/20/news/the-oil-regions.html>>.

among writers as a sign of a new economic era, it was proclaimed as “The Wonder of the 19th Century.”⁷⁰ The oil boom in Pennsylvania was compared to the gold rush to California and this became the image of quick wealth and treasure to the American people.⁷¹ The oil industry was seen to be transforming the agrarian economy of Pennsylvania into a more industrialized one. B. Franklin of *Harper’s New Monthly* describes this effect:

“Rich farms are laid waste. The plow turns no more furrows. The scythe cuts no more bending grain. The farmer's barns are no more loaded down with the fruitful harvest. The farmer himself, with his homespun clothes, is seen no more in the fields. All is changed! The farm is sold! The old man and his grown-up sons are worth millions, and the old homestead is deserted forever.”⁷²

Furthermore, the oil industry was perceived to be and to the credit of the journalists of the time, was very speculative and risky. A special *New York Times* report highlights this belief when the reporter states how “we find that speculation runs to an excess which would do no discredit to the richest mining placers of California or Nevada.”⁷³ Numerous stories highlighted the great wealth to be made, such as Orange Noble and George Delameter in 1863, whom invested \$4,000,000 and earned more than \$5 million.⁷⁴ The reality, much like the California gold rush, was that few ventures ever matched their initial investments and most failed. Morris provides a superb description of the public’s perception of the corruption and manipulation intertwined with early oil industry:

“There are wild-cat lands in out-of-the-way places, on the summits of hills and mountains, and in vicinities where oil was never heard of, which have obtained a

⁷⁰ Olien and Olien, 21.

⁷¹ Ibid, 21.

⁷² B. Franklin, “The Petroluem Regions of America,” *Harper’s New Monthly Magazine* 30, no. 179 (April 1865): 569.

⁷³ The report provides this example: “A speculator looks at a farm -- still in an undeveloped condition as to oil -- asks the unsuspecting owner what is his price; finds that it is about six times the price of farming land in districts similarly situated for marketing purposes; pays the farmer \$50 or \$100 for the privilege of refusing the property within fifteen days; runs it, meanwhile, into the oil-stock market, and endeavors to double the real owner's price on it before the fifteen days have expired. This operation then, is repeated again and again, on a purely speculative basis, until probably the one-hundred-acre lot comes to figure in the market for \$100,000.”

⁷⁴ Olien and Olien 25.

fictitious value, and forced a sale through the representations and efforts of unscrupulous and irresponsible parties. Taking opportunity by the forelock, when the public mind has been unduly excited by some new oil-discovery, these parties have effected sales of property so utterly worthless, except as the basis of a swindle, that the craziest lunatic in Oil City would never think of boring on it.”⁷⁵

During this period oil was used primarily to make kerosene, an inexpensive yet high-quality illuminating product. The Civil War aided in the growth in the drilling operations for oil because of the cutoff of southern turpentine and the disruption of the whaling and whale-oil industry. Kerosene, a particular petroleum product, became an economic staple by functioning as a burning liquid for lamps, which became very popular for illuminating cities and other urban areas. The petroleum products also yielded the lubricants the grease the cylinders, wheels and machines of the factories of the manufacturing industry.⁷⁶ The demand for petroleum products escalated to such a degree that even by 1864, existing refineries in the United States were inadequate in handling and refining the immense quantities of oil being produced and demand.⁷⁷

In the early 1860's, the industry experienced significant technological improvements in transportation and refining procedure, which required significant funds for refineries to remain competitive.⁷⁸ The companies had the decision of either raise capital through debt or equity, or consolidate their operations with another firm. However, the developing drilling and refining industry brought questions of regulation due the hazardous and particularly flammable nature of petroleum products. A *New York Times* article states how:

“Persons who have not spent some time in the off regions can scarcely form an idea of the frightful effects of such a conflagration in localities where producing wells are

⁷⁵ Edmund Norris, *Derrick and Drill, or An Insight into the Discovery, Development, and Present Condition and Future Prospects of Petroleum, in New York, Pennsylvania, Ohio, West Virginia, &c*, (New York: J. Miller, 1865) 253-254.

⁷⁶ Chernow, *Titan*, 99.

⁷⁷ Montague, 5.

⁷⁸ *Ibid*, 6. Montague describes how developing pipelines, water travel and the use of tank cars for railroad, which were more efficient in carrying oil than the clumsy flat cars. Furthermore, in 1866 “a more efficient cylinder refining-still was invested, casing and torpedoes were coming to be used in drilling,” which meant a higher level of refined oil production.

numerous. The ground is apt to be forested with derricks, shanties, tanks, &c., all saturated with petroleum, and only awaiting the falling of a spark or the scratch of a match, to blaze up with fury. Added to this, many parts of the surface are creamy with the all-pervading liquid, which settles on a thousand little pools of water or trickles lazily toward the nearest creek.”⁷⁹

Since the United States was the only source of kerosene, and because the United States was a much smaller fraction of the world economy than today, most kerosene production was exported, primarily to Europe.' In fact, shortly after's Drake's discovery, his business associates were marketing oil in London and Paris, and Europe soon became the major market for kerosene, importing hundreds of thousands of barrels yearly during the Civil War.⁸⁰ However, before being shipped to Europe from Atlantic seaboard ports the crude oil first had to be gathered in the Oil Regions fields and transported to refineries, where it was processed into kerosene.⁸¹

Union Pacific Corporation

The Union Pacific Railroad Corporation was created by the combined will of the private and public sector. But, more explicitly, the Union Pacific was reliant on the land subsidies of the

⁷⁹“Fires in the Oil Regions,” *The New York Times*, August 8, 1865.

<<http://www.nytimes.com/1865/08/08/news/fires-in-the-oil-regions.html>>. The article goes into more detail about the danger and implications of these fires upon the region and its people.

⁸⁰ Chernow, *Titan*, pg 102.

⁸¹ Klein, Benjamin, and Elizabeth Granitz. "Monopolization by "Raising Rivals' Costs": The Standard Oil Case." *Journal of Law and Economics*, 1996: pg 3-5.

US government. Therefore at its inception, the Union Pacific was a government supported enterprise. The growth and sustainability of the Union Pacific was largely subsidized by the US government both directly or indirectly. The relationship between the government and the Union Pacific was a connection in which the railroad company was dependent upon and overly reliant on the government.

The Creation of the Union Pacific Railroad Company

On July 1, 1862, Congress passed the Union Pacific Act, which created the Union Pacific Railroad with the express intention to function as a transcontinental railroad and provide additional transportation capacity for military and supply distribution for the Civil War. The act, with an amendatory act on the following day, explicated stated that the allocated funds provided by the federal government shall "aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the government the use of the same for postal, military and other purposes."⁸²

The passage of the act was relatively speedy with broad consensus by the members of Congress towards passing the bill. Congressman Justin Morrill⁸³ made this statement during the deliberations in the House:

"I have been somewhat astonished that a matter of so great importance as this bill should claim so small a share of the attention of the House. . . . Here is a measure in which the Government is about to embark, involving the expenditure of hundreds of millions of dollars, and yet amendments are offered and voted in, according to the will of the gentlemen having charge of the measure, without the slightest apparent interest or attention upon the part of a majority of the House as to their character or effect."⁸⁴

⁸² Davis, John P, *The Union Pacific Railway*, Annals of the American Academy of Political and Social Science 8 (1896): pg 47.

⁸³ Congress Justin Morrill was a Republican Representative of Vermont, who famously sponsored the Morrill Land Grant Act.

⁸⁴ Wallace D. Farnham, "The Weakened Spring of Government: A Study in Nineteenth-Century American History," *The American Historical Review*, Vol. 68, No. 3 (Apr., 1963), pp. 663.

The urgency of the war motivated Congress to expedite the act through the different channels of the legislative process to ensure that transportation was effective and efficient on the Western Front of the Civil War. Furthermore, the absence of the southern states due their secession the element of sectionalism was absent. The passage of the bill marked a shift change in US domestic policy in a direction towards the pro-industrial forces of the north. The realities of the mobilizing a massive war effort, especially a civil war forced many politicians to abandon ideology for the sake of practicality. In the context of the civil war, a railroad network must have appeared to be a necessity for the war effort.

The Act set out to the Union Pacific Railroad Company with a capital stock of 100 million dollars, which was not being increased beyond the actual cost of its lines; its board of directors was to consist of fifteen directors elected annually by the stockholders, and five government directors appointed by the President of the United States. Annual reports to the Secretary of the Treasury (afterward to the Secretary of the Interior) were required of all the companies participating in the construction of the Pacific Railway. The establishment of a private corporation through public means was by no means a new concept in US history, but the scale of this project was revolutionary. The means of regulating this railroad and the corporation developing the railroad required an active federal government to ensure no excess or abuse was conducted.

The federal government granted to the construction companies “a right of way through the public lands four hundred feet wide, the right to take material for construction from adjacent public land, and twenty sections of public land for each mile of railway constructed.”⁸⁵ Furthermore, the act stipulated that for every 20 mile section completed, the government would issue 30 year bond with 6 percent interest rates to the companies with certain modifications for

⁸⁵ Davis 53

amounts dependent on geographical location of construction.⁸⁶ The use of subsidies on this scale further entrenched the federal government into the US economy. Railroads transported the most basic and vital resources for public and private need. A nuanced approach was necessary to ensure that the government could promote, but not hinder the development of the Union Pacific and other railroad projects.

As security for the repayment of the bonds at their maturity, the United States, according to the Act of 1862, retained a first lien on the subsidized railways. Additionally, at least 5 percent of the net earnings of each bond-aided company would be annually to its debt to the United States and one-half the compensation for services rendered to the government should be likewise applied. The companies were required at all times to transmit dispatches and transport mails, troops, munitions of war and supplies for the government at a reasonable compensation; and the government should at all times be preferred to private persons in the rendering of services.⁸⁷

Additional Governmental Subsidies

A major development in the construction of the railway began in 1864, when the various companies building the Pacific railroad requested from Congress a larger subsidy for construction and other minor changes in the law.⁸⁸ The Union Pacific was controlled by the former Wall Street operator, Thomas C. Durant.⁸⁹ Durant and his associates J. Edgar Thomson and William Ogden sent up fake storm warnings to leading congressmen that the project was in danger. The increased requests had serious implications as to the legitimacy of the Union Pacific

⁸⁶ In Davis 53. “\$16,000 for each mile east of the eastern base of the Rocky Mountains and west of the western base of the Sierra Nevada, \$48,000 for each of the one hundred and fifty miles west of the eastern base of the Rocky Mountains and one hundred and fifty miles east of the western base of the Sierra Nevada, and \$32,000 for each mile intervening between the two mountain sections of one hundred and fifty miles, the total issue of bonds for the main line not to exceed \$50,000,000; no bonds were to be issued, however, in aid of the construction of the Leavenworth branch, or of the Platte River branch, and the St. Joseph (or Atchison) branch was to be subsidized only to the extent of one hundred miles of its line.”

⁸⁷ Davis, 53.

⁸⁸ Farnham, 663.

⁸⁹ Durant was vice president of the railroad, and, until 1867, president of the Crédit Mobilier of America, the construction company that built the road. http://www.cr.nps.gov/history/online_books/hh/40/hh40f.htm

project. The reality was the railroad had not made much progress, since it had broken ground at Omaha on December 2, 1863.⁹⁰ The Civil War caused the price of materials to spike and forced much of the capable labor to the war effort. The question was whether or not Durant's request for additional resources were for the sake of further inflating the profit of the private investors in Union Pacific or were the railroad's concerns legitimate?

Congress agreed that the Union Pacific project need the additional resources. Now whether or not Congress believed Durant and his associates or if they were influenced or lobbied is another question. Congress approved a series of changes in the form of the Pacific Railway Act of 1864, which doubled the resources available to the railroad. Although reducing the right-of-way from 400 to 200 feet, the 1864 Act doubled the land grants for the Union Pacific and Central Pacific railroads. The companies would receive 20 sections of land per mile, which was divided into 10 alternate sections on each side of the track. Furthermore, Congress granted the companies additional funds raising abilities. Before this act, these railroad companies were dependent on government subsidy bonds, but the 1864 act allowed the firms to issue equal amounts of their own 6-percent, 30-year bonds. So, the company bonds constituted a first mortgage on the railroads, the U.S. bonds a second mortgage. The remainder of the act contained a number of minor changes that made compliance with government regulations easier. The 1864 Act made the United States "virtually an endorser of the company's bonds for the full amount of its own subsidy," and now both the U.P. and the C.P. could draw on double the amount of subsidy granted for each mile of completed road.⁹¹

The companies were bound to construct a "first class railroad," however the bill was vague and did not define a "first class railroad." A board of government commissioners, would

⁹⁰ "The Railroad Act of 1864," *Golden Spike Historic Park*, Last Modified September 28 2002, <http://www.cr.nps.gov/history/online_books/hh/40/hh40f.htm>.

⁹¹ "The Railroad Act of 1864" *Golden Spike Historic Park*.

have to approve each section of the road before the subsidies were released, but this safeguard was as futile as a government director said it was: "Even if the Commissioners have nerve enough to reject an imperfectly built Road, yet, the work being done it cannot be undone to any great extent.... If you wish a building erected in substantial and perfect manner you must control the materials and workmanship as it progresses, rather than rely upon a condemnation of the work and a legal controversy after it is finished."⁹² The government held a second mortgage to secure its loan, but many congressmen regarded the loan as, a gift. A strong complaint was issued during the Congressional debates that "we are asked to confer everything upon this company and to receive nothing at their hands."⁹³ The quote highlights a growing concern that the railroads were merely an outlet for abuse by the financial elites, like Thomas Durant. Union Pacific was far behind its deadlines and was asking for additional subsidies. The appearance of this request, especially given the background of the men running the project, displayed the dishonest nature of the construction.

The reality of Union Pacific's construction highlighted how the business was more focused on short-run success rather than its long-run viability. The land distribution system that the government was providing to Union Pacific incentivized excessive building and construction and not necessarily the quality of the railways. Furthermore, the operators, such as Thomas Durant, did not have a long-term stake in the project. These were former Wall Street investors, who saw the railroads as a potential for short-term profits. Excessive building of railroads and operators with short-term prospects meant that Union Pacific was designed for consistent maintenance of existing railways. The business was so focused on building additional tracks that

⁹² Farnham, 664.

⁹³ Ibid, 663-664. When the House passed the bill, 41 per cent of the members were absent; the Senate accepted the second mortgage without debate and without a roll call vote

it shifted investments from acquiring high quality materials, developing processes for maintaining the track or a proper system of fees for transporting goods or individuals.

Completion & Growth Period

The year 1866 marked a resumption of rapid railroad construction. The fever of expansion which possessed the railroad industry had lasting effects in some regions. Progress was especially rapid in the West. The first transcontinental railway, the joint Central Pacific-Union Pacific, was completed in 1869.⁹⁴ The completion of the main line in May, 1869, was appropriately celebrated as a national achievement in all the large cities in the country.⁹⁵ The completion of the main line in May, 1869, was appropriately celebrated as a national achievement in all the large cities in the country.⁹⁶

The advent of investment banking facilitated growth in not only Union Pacific, but the general railroad industry. The investment bankers involved included famous banking firms such as Jay Cooke and Company.⁹⁷ The new investors did not guide the railroads into a direction of sustain, but instead fueled wild speculation. The results were two different periods of rapid growth that ended when the speculative bubbles popped in 1873 and 1893. Each time left the railroad in disarray and without a strategy for longevity. Railroads were still the focus of manipulative investors, who still only purposes short-term profits at the cost of the firm's health. Running parallel with these booms and busts in the railroad industry was the growth of Union Pacific as a corporation. Union Pacific, either in an attempt to spread its control and facilitate

⁹⁴ Wilson, G. Lloyd and Ellwood H. Spencer, Growth of the Railroad Network in the United States, *Land Economics* 4 (1950): 340.

⁹⁵ Davis, 53.

⁹⁶ *Ibid*, 53.

⁹⁷ Davis, John P, *The Union Pacific Railway*, Annals of the American Academy of Political and Social Science 8 (1896): pg 47-91.

further economic growth or as a result of bankruptcy proceedings, began a series of mergers and acquisitions with competitor railroad firms.⁹⁸

Railroad bubble due to railroad speculation and tarnished image from Crédit Mobilier Scandal, but UP recovered with investment from Jay Gould. The panic of 1873 came in the fall of the year and was marked by a rapid falling off in business activity and in railroad earnings. The depression was due partly to the construction of railroads at a pace far in excess of the economic needs of the country, to the overcapitalization of many railroads, and to the over-expansion of credit. The end of the postwar boom found some railroads over-expanded with respect to their investments, over-built in respect to traffic and over-strained with respect to their obligations. The expansion of the railroad network again was hindered for a few years as the five years from 1874 to 1879 were marked by a protracted depression.

In 1880, the Union Pacific, Kansas Pacific and Denver Pacific Companies were consolidated under the name of the Union Pacific Railway Company. Furthermore, the Central Branch Union Pacific became a part of the Union Pacific system in the consolidation of 1880.⁹⁹ Then by reason of the competition of new lines of railway west of the Missouri River, the policy of building branch lines and absorbing other lines was followed until, in 1893, the Union Pacific system contained 8167 miles, of which only 1823 miles were owned directly by the Union Pacific Railway Company, the remaining 6344 miles being controlled through ownership of stock, leases, contracts and a variety of other relations.¹⁰⁰

However, Union Pacific was not alone in its efforts to expand. Numerous railway companies appeared over the course of the second industrial revolution. The introduction of

⁹⁸ Davis, John P, *The Union Pacific Railway: A Study in Railway Politics, History, and Economics*, Chicago: S.C. Griggs and Company, 1894.

⁹⁹ Davis, pg 60-61.

¹⁰⁰ Davis, pg 59.

many new firms along with the increasing construction efforts of existing railroads bred a railroad war. The war was over prices as railroads lay tracks parallel to each other. Eventually, dramatic price cutting battles dominated the industry and bankrupted numerous firms. The failed investments resulting from these firms fueled the panic of 1873 and 1893. The unintentional consequence of the government's subsidies of the early entrants into the railroad industry was massive speculative bubbles that devastated the US economy in 1873 and 1893. The initial investors, who had primarily profited off construction paid by the government, appeared to have earned their wealth from the actual railroad company. The initial success of these investors fueled additional investor, which in turn increased the value of railroad stocks.

Starting in 1889 and through 1892, the company enjoyed a surplus of earnings as follows: 1889, \$2,492,440.57, 1890, \$1,886,692.22; 1891, \$1,910,390.34; 1892, \$2,649,518.07. The disastrous year 1893, however, resulted in a deficit of \$432,451.68.¹⁰¹ The year 1893 was marked by another financial panic which depressed business for the subsequent five years. When default on interest obligations became inevitable, the property of the company was placed in the hands of receivers in October, 1893. Several parts of the system, such as the Kansas Pacific, the Union Pacific, Denver and Gulf, and the Oregon Railway and Navigation Lines, were placed in the hands of separate receivers to rebuild their business operations before being unified as a singular company again. The deficit for the year ending June 30, 1894, was \$6,503,004.66 and for 1895 the deficit was \$1,907,054.82.¹⁰² In 1896, Union Pacific was affected by a depression touched off by domestic monetary concerns, which caused freight rates fell to their all-time lowest. These conditions were responsible for there being only about 30,000 miles of road

¹⁰¹ Davis, pg 60.

¹⁰² Ibid, pg 60

constructed from 1894 to 1903, which was considered to be considerably less than the expected miles of track.¹⁰³

Crédit Mobilier of America Scandal

A key incident in the history of Union Pacific and shall be examined separate from the chronological history of the company was the Crédit Mobilier of America scandal. Crédit Mobilier was one of the construction companies of the Union Pacific railroad. Instead of paying for the direct construction of the railroad, the stockholders of the budding Union Pacific formed a separate corporation for the purpose of building the railroad. George Francis Train and Thomas C. Durant formed the Crédit Mobilier in 1864. The creation of this different company allowed the investors to hire themselves to construct the railroad while simultaneously shielding them from the accusation that they were using the construction phase of the Union Pacific project to attain excessive profits. The investors were essentially creating a company to charge the government additional fees and expenses during construction.

Disputes between key factions in the two corporations led to the decision to concentrate all control of the two companies to 7 prominent stockholders as trustees.¹⁰⁴ All the securities of the Union Pacific Railroad Company, all government subsidy bonds, first mortgage bonds, land grant bonds, income bonds and stock, were given to the 7 trustees to pay for railway construction. The trustees then distributed all of these list securities to the stockholders. It was an attempt to mislead the US government and the public of the appearance that Crédit Mobilier was independent of the Union Pacific Railroad. Furthermore, it was an attempt to portray Crédit Mobilier as a company that had been impartially chosen chief construction contractor and construction management firm for the Union Pacific Railroad project.

¹⁰³ Ibid, pg 342.

¹⁰⁴ Davis, pg 54-55

The Union Pacific established contracts with Crédit Mobilier to build the Union Pacific railway. The Crédit Mobilier used these funds to buy stock and bonds in the Union Pacific at par value and then sold the bonds on the open market for a large profit. The result was that the U.S. Congress paid \$94,650,287 and \$50,720,959 to the Union Pacific and Crédit Mobilier. The deal generated \$43,929,328 in profits, counting at par value the shares and bonds that Crédit Mobilier paid itself. The Crédit Mobilier directors reported this as a cash profit of only \$23,366,319.81.¹⁰⁵

Union Pacific's corporate officers did not directly pay for the construction of the railroad because the expenses for the construction would have been exposed to public scrutiny. Investors would have been unable to yield large profits immediately through construction. So, the intermediary company allowed for the Union Pacific railroad company to present genuine invoices to the US government for construction costs. These invoices were generated by Crédit Mobilier and given to the Union Pacific Railroad for payment. The railroad then requested payment for these bills with a small fee for the Union Pacific's overhead expenses.

From an external perspective, Crédit Mobilier appeared to be a great corporation because of its major contract with the Union Pacific. Crédit Mobilier was the exclusive construction and management agent for the building of the Pacific Railroad. Crédit Mobilier's corporate balance sheet regularly showed high revenues well above its expenses and therefore large profits in every quarter that it was constructing the Union Pacific railroad.¹⁰⁶

The profits that Crédit Mobilier offered were essentially the subsidies allocated by the US government. These investors were considering or managing with hopes of future success for Union Pacific as a business enterprise. The scandal highlighted the reality that many involved in the railroad business were focused on the profits of the construction of the railways rather than

¹⁰⁵ Stephen E Ambrose, *Nothing Like It in the World: The Men Who Built the Transcontinental Railroad 1863-1869*, (New York: Simon & Schuster, 2001) pg 93.

¹⁰⁶ Logan Douglas Trent, *The Crédit Mobilier*, (New York: Arno Press Inc., 1981), pg 6.

from its future operation. The Crédit Mobilier was a means for the Union Pacific investors to ensure themselves the profits of construction without dealing with the risk of future operation. The reality of the time was that similar construction companies were used on many other railroads, especially the Pacific railroads.¹⁰⁷

Several key congressional members were implicated in the resulting scandal associated with Crédit Mobilier. In 1867, Congressman Oakes Ames offered his fellow congressional members' shares of the Crédit Mobilier at a discounted value much lower than the market value.¹⁰⁸ The individual allowed to purchase shares at a discount could attain enormous capital gains by selling their discounted shares in the open market. These members of Congress voted to appropriate government funds to cover the costs of Union Pacific. *The Sun*, a New York City newspaper, broke the story during the 1872 election. The paper opposed the re-election of Ulysses S. Grant and several members of his administration were involved. After an investigation by a congressional committee, Oakes Ames and James Brooks were expelled from their seats in the House.¹⁰⁹ Furthermore, Congress attempted to bring suit against numerous defendants, including stockholders in the Union Pacific and Crédit Mobilier, but it was dismissed.¹¹⁰

Government Oversight & the Interstate Commerce Act

The Union Pacific stood in more intimate relation to the government than almost any other private person or group in the nineteenth century. During the tumultuous years of 1862 to 1873, as seen in the Crédit Mobilier scandal, the actions of the federal government were more

¹⁰⁷ Davis, pg 55.

¹⁰⁸ Trent, pg 6.

¹⁰⁹ Davis, pg 56.

¹¹⁰ Ibid, pg 56.

focused on curing the troubles of the company rather than governing rules of the company. Union Pacific appeared to have a preferential status with the federal government.¹¹¹

In both the Senate and the House of Representatives, a special or standing “Committees on Pacific Railroads” existed, whose focus was devoted to mostly bond-aided lines. Over the course of the standing committee’s existence, the Attorney-General's Department pursued expensive investigations into the railroad companies, such as the Crédit Mobilier scandal.

The Interstate Commerce Act was established in 1887 as a reaction by the federal government to increasing monopolistic activities in the US economy. It established the Interstate Commerce Commission. However, it was ineffective at first, as seen through cases such as *ICC v. Cincinnati, New Orleans and Texas Pacific Railway Co.*¹¹² The Interstate Commerce Act established the first comprehensive regulation of interstate railroad rates and traffic. Although individual state governments had attempted similar regulations in their respective jurisdictions, railroads were still able to set rates indiscriminately and they could alter those rates to meet competition. Railroad traffic had become increasingly competitive and was subject to drastic price cutting in times of economic distress or intense competition. Once a rate was cut the competitors had to meet it and the result was a price cutting war.¹¹³

The supplemental Act of 1888 to regulate interstate commerce was enacted to strengthen the commission’s authority, but the Interstate Commerce Commission's power was inadequate to enforce rate regulation effectively and it had no power to make rates. After the depression of 1873 railroad construction was again resumed. From 1874 to 1893 approximately 120,000 miles of rail were laid and the railroad mileage in the United States increased to 176,000 miles in

¹¹¹ Farnham, pg 663.

¹¹² U.S. Supreme Court, *Interstate Commerce Commission v. Cincinnati, New Orleans and Texas Pacific Railway Co.*, 167 U.S. 479 (1897).

¹¹³ Llyod and Spencer, pg 341.

1893.¹¹⁴ Congress expanded the commission's powers through the 1893 Railroad Safety Appliance Act, which gave the ICC jurisdiction over railroad safety a traditional authority allocated to the states.

Concluding Remarks

The Union Pacific Railroad Corporation represents the problems of unsupervised government intervention in the US economy. A financial elite, as seen in Thomas Durant, abused the subsidies of the US government for short-term profits. The relationship between the US government and the Union Pacific was tumultuous over the Second Industrial Revolution. The Congress, when corrupted by the influences of the corporate executives, showed contempt for the subsidies that they provided to the railroad industry. However, the necessity for a unified means for transportation triumphed the excess that resulted from the government's endorsement of it. The result of this relationship was a weak railroad system that experienced diminishing revenues towards the end of the second industrial revolution. It is a classic problem of moral hazard. The initial investors focused on the short-run life of the corporation rather than maintaining a strong and growing stream of revenue. Although, the Union Pacific succeeded in maintaining an amicable relationship with the US government, although usually through corruption, the company lacked substantive leadership to guide it through the second industrial revolution.

JP Morgan & Company

After the Civil War, the United States' government expanded its operations to an unprecedented level. The new level of growth of government required additional funding and

¹¹⁴ Ibid, pg 341-342.

even during the Civil War, the government distributed a series of bonds and notes to raise additional funds for the war effort. The growth of financing and government bonds in the US economy required a more proactive banking network in the United States. However, in the late nineteenth century, the center of the banking market was London. Yet, over the course of the second industrial revolution a new banking entity emerged, in the form of JP Morgan & Co., and facilitated credit, cheaper financing and a stable banking network in the United States.

The key focus is therefore on the critical strategic decisions made by the early incarnations of JP Morgan & Co that lead to the company's eventual dominance of the American financial market. Furthermore, the growth of the company through this time period was accompanied with important decisions and events that would strengthen the company's ties with the US federal government. JP Morgan Co and its earlier incarnations as a company achieved its market position by developing investment banking in the US. The company maintained its position by ensuring a stable and semi-amicable relationship with the United States government throughout the Gilded Age.

Junius Morgan and the first incarnations of JP Morgan & Company

The origins of JP Morgan & Co began in 1854 when Junius S. Morgan joined the London-based banking business George Peabody & Co., which was headed by George Peabody. The company was eventually renamed Peabody, Morgan & Co. as Junius took control of the firm. Soon the firm changed its name again to JS Morgan & Co.. The story of JP Morgan & Co. during the second industrial revolution is about the buildup of a company just as it became a giant.

Junius' partnership with Peabody allowed for the Morgan name to develop in the banking world and enter the adolescent investment banking community. The entrance of Junius Morgan into the financial world with the backing of Peabody created a strong banking environment for

his son JP Morgan. Junius' activities and enterprises were located in the financial hubs of the second industrial revolution, such as London and New York City. These locations inserted JP Morgan into the situations and venues in which the key financial players interacted. JP Morgan's proximity to the developing financial world in the US and the well-established markets in Europe allowed him to develop key relationships and experiences in these different markets.¹¹⁵ The eventually firm of JP Morgan & Co. developed from Junius' firms and the partnerships that Junius and son created.

In 1861, JP Morgan formed JP Morgan and Company at 54 Exchange Place with his cousin James J. Goodwin, the company functioned as a New York agent for George Peabody and Company.¹¹⁶ Beside his basic job duties, JP functioned as intermediary for his father and supplied Junius Morgan with political and financial intelligence. Junius placed significant trust in his son because the job of gathering intelligence was vital for banks, which required news about government financings or the credit of client companies and placed a premium on such information.¹¹⁷ Furthermore, the job allowed for JP Morgan to develop a sense of autonomy as a business executive in one of the key financial centers of the world. Essential to his job, Pierpont generated intelligence briefs for his father, usually in the forms of lengthy letters, outlining political and economic conditions in America and posting them on Nassau Street. He reserved Tuesday and Friday evenings for these reports.¹¹⁸ The most important idea to glean from all of these initial experiences was the role that Junius occupied in his firm. Junius was the central director of the firm, which allowed for his different partnerships to work together in unison. Union Pacific lacked that sustained directorship, the firm had been manipulated for short-term

¹¹⁵ Fear and Kobrak, pg 705.

¹¹⁶ Chernow, *House of Morgan*, pg 30. This JP Morgan and Company would be short-lived. The name would be revived in 1895.

¹¹⁷ Ibid, pg 31.

¹¹⁸ Ibid, pg 31

periods and the overall health of the firm was not connected to the success of the investors. On the other hand, Junius' wealth was inherently bound to the success of his partnerships. Therefore, the core of his partnerships and firms was designed to develop in the long-run. He invested in key locations and growing an intelligence network for financial information. But most importantly, he ensured that his legacy, the basic framework of his different investments was sustained by a singular force, his greatest investment, his son JP Morgan.

However, JP Morgan was not the perfect investor or manager at first. Junius believed his son to be rash and sought to teach his son to patient. However, Junius' attempts to temper his son took considerable time. Amid a mad rush of Wall Street profiteering of the civil war, Pierpont financed a deal in 1861 that brought on legal woes to the firm and increased tensions with the federal government. During the early stages of the civil war, the government sold off obsolete weapons to raise funds for the war effort and Arthur M. Eastman purchased five thousand obsolete Hall carbines for \$3.50 apiece. JP Morgan saw an opportunity to profit from these activities and he loaned \$20,000 to Simon Stevens, who bought the carbines for \$11.50 each. Stevens then "rifled" these smooth-bore weapons, which increased their range and accuracy.¹¹⁹ He resold them to Major General John C. Fremont, commander of the Union forces in Missouri, for \$22 apiece. Over the course of a three-month period, the government had bought back its own, now altered, rifles at six times their original price. The appearance of this transaction displayed JP Morgan as a manipulator who put financial gain over allegiance to the United States. It yielded any unfavorable reaction from those who knew of the transaction. Many questioned how JP Morgan viewed the war? Was he pro-Union, pro-Confederate or for whoever won? From this incident, it appears that he valued profit over any sense of patriotism. In fact, JP

¹¹⁹ A smoothbore weapon is one which has a barrel without rifling. Rifling is a process, in which helical grooves are bore into the barrel of a firearm, which changes the spin to a projectile. The result is increased accuracy and distance.

Morgan had paid a stand-in \$300 to take his place when he was drafted after Gettysburg, a common practice among the wealthy of the time. The young JP Morgan displayed a reckless behavior that concerned his father and soured the image of the Morgan family to the public.

In 1864, as a response to this JP Morgan's reckless, Junius orchestrated an alliance between the young Pierpont and Charles H. Dabney, thirty years older than Pierpont, to form the new firm of Dabney, Morgan and Company. Supplemented with capital from Junius, the firm served as Junius' primary New York agent. Although, JP Morgan experienced an elevation in his authority and discretion in making decisions, Junius retained final control over its funds and its clientele. Dabney was expected to watch over and teach Pierpont to temper his rash nature.¹²⁰

JP Morgan's business career was elevated with the incorporation of JP Morgan & Co. in New York in 1871 and of Drexel, Morgan & Co. with the Philadelphia banker Anthony J. Drexel. The new banking partnership functioned as an outlet to Europeans seeking to invest in the United States. The explicit focus of these funds was targeted on railroad and government finance. Their investing strategy focused on railroad and treasury bonds. The new incorporated business and the partnership with Drexel represented a new and more importantly an independent venture by JP Morgan into the world of finance. Furthermore, the partnership brought JP Morgan explicitly into the world of government financing. The entrance of Pierpont into the government financing world intertwined the Morgan's into a strong relationship with the US government. Junius played a large role in the creation of this new business venture of his son by not only encouraging JP Morgan to pursue the negotiations with Drexel, but also loaning his son \$5 million for an equity stake.¹²¹ Now as an active lender to the US government and the railroads that the government was subsidizing, JP Morgan further interwove his position with the

¹²⁰ Chernow, *House of Morgan*, pg 32-33.

¹²¹ Chernow, *House of Morgan*, pg 34.

US government. He was no longer just a manipulator of US government goods, but instead he was becoming one of the leading suppliers and manipulators of government debt.

The first defining moment of JP Morgan's career came in the Panic of 1873 as his firm successfully challenged the main financial firm of the time, Jay Cooke & Company. In 1873, Washington decided to refund, at lower interest rates, the \$300 million in bonded debt remaining from the Civil War. Drexel, Morgan & Co. & Junius Morgan & Company in a bid to unseat the monopolistic grip of Jay Cooke over federal bonds challenged Cooke for the new issue of bonds. The Drexel and Morgan spread rumors that Cooke desperately needed a victory in the contest over the federal bonds to recoup losses incurred by the Northern Pacific fiasco. After intense pressure from both groups, the secretary of the treasury awarded half of the issue to each of the groups.¹²² The two most important lessons from this clash of the financial firms was, first the establishment of Junius and JP Morgan in the highest circles of the financial elite that influenced the US economy and government. The conflict shifted influence to Morgans and gave them additional access to government bonds. Second, this clash and its results display the growing influence of the Morgan's over the US government and the extent of their influence over key government personal.

The year of 1873 was characterized by unstable financial markets unsettled by the *Crédit Mobilier* scandal, which tarnished reputation the reputation of numerous Congressional members and officials in the Grant Administration and risky speculation in the railroad industry. London investors grew increasing cautious and skeptical of American bonds, both private and public, to the point that one reporter said that investors wouldn't invest in the bonds "even if signed by an angel of Heaven."¹²³ The instability was further exacerbated by the failure of the financial firm

¹²² Chernow, *House of Morgan*, pg 36.

¹²³ *Ibid*, pg 36.

Jay Cooke & Company on Black Thursday, September 18th, 1873. The result was a Wall Street panic and the closure of the New York Stock Exchange for ten days. Eventually, five thousand commercial firms and fifty-seven Stock Exchange firms failed in the panic of 1873. Pierpont and his partners weathered the financial storm with a stable profit. The failure of Jay Cooke's firm meant that a power vacuum had formed in the business world and JP Morgan's firm was prepared to fill that void. In the development of the relationship between the US government and the Morgans, this stage represents the final part of their dramatic entrance into the US financial market. Junius had set the stage with his strategic partnerships, but it took a direct challenge and conflict with Jay Cooke to establish the power of the Morgans. The failure of numerous firms left the Morgans, whom had already established key relationships in Europe, as the life-line for many powerful foreign investors. The influence associated with this power and the exodus of many powerful financial firms left the Morgans in a powerful position to dominate not only the financial industry, but most of the US economy.

The Morgans' relationship with European Investors

JP and Junius Morgan used the devastation of the panic of 1873 to elevate the status of their firms. The panic had ruined the fortunes of numerous European investors, who loss an estimated \$600 million in just American railroad stocks. Many of investors looked for a firm to stabilize the industry or at least ensure stability in their investments. The failure of the speculative railroad companies greatly influence JP Morgan, who saw their failures as lesson to invest in only financially secure firms. He claimed that

“The kind of Bond which I want to be connected with are those which can recommended without a shadow of doubt, and without the least subsequent anxiety, as to the payment of interest, as it matures.”¹²⁴

¹²⁴ Chernow, pg 37.

Eventually, JP Morgan attempted to stabilize the railroad industry, but following the panic of 1873, he first sought to reassure investors in investing with his firm. Soon after the panic, the Morgans became major players in the financial industry. Their major advantage was their strong connection to European creditors and investors. As a youth, JP Morgan had spent extensive time in London, the banking capital of the world, working on banking and finance. During his time there, he extensively studied the European financial industry and the banking community. On behalf of his father, he developed strategic relationships with the major financial institutions of Europe, especially Britain and Germany.¹²⁵ JP Morgan became the link between the United States' business community, the US government and international financial community after the crisis of 1873.¹²⁶

Following the panic of 1873, European investors demanded that investment bankers, such as JP Morgan would not only ensure the safety of their investment, but also tasked them “with shoring up periodic crises of faith in the value of the dollar and the soundness of the banking system.” JP Morgan became famous among the European investment community because “within twelve years, JP Morgan spearheaded three efforts to save the American currency and banking system.”¹²⁷ Near the end of the 1870's, JP Morgan had established himself as a financier in his own right. Although he worked for his father and his father's firm, JP Morgan was considered a brilliant financier and well-respected by his peers. The coming sections will focus on the parts of the business that JP Morgan devoted a majority of his time and efforts on until his father's death in 1890. These key segments, government and railroads, significantly influenced the tactics and methods of JP Morgan & Co.

¹²⁵ Fear and Kobrak, pg 721.

¹²⁶ Carosso, Vincent P, *American Private Banks in International Banking and Industrial Finance, 1870-1914*, Business and Economic History, 1985: pg 19-26.

¹²⁷ Fear and Kobrak, pg 721.

JP Morgan and Railroads

The panic of 1873 further stressed to Morgan's the importance of adherence to the Gentleman Banker's Code and the role of the lender as not only an active observer, but manager. The 1880's marked a shift in the investing patterns of JP Morgan and his associates. Although they had traditionally invested in government securities, the group now set its focus on railroads. Morgan had two primary reasons for his entry into the railroad industry. First, he earned large profits and commissions through his firms' underwriting and facilitating of business deals. Secondly, Morgan eventually provided stability and assurance to potential investors for a very unstable railroad market.¹²⁸ The combination of increased profits and reputation significantly elevated his status as a financier and the power of his firms.

The mid-1880's were marked by sharply declining freight rates due to frequent price wars. The price cutting was the result of the proliferation of competing railway lines. During the 1880's, railroad companies were continuously established by investors hoping to secure a major share of the industry. On the one hand, new investors or existing firms would establish a railway parallel to an existing line. The goal of pressuring preexisting railway lines was to force the existing line's firm to "buy out" the newly formed railway as to avoid pricing cutting wars. These railways were called "extortion lines" and frequently undermined the stability of the railroad market.¹²⁹

In 1885, a dispute arose between the Pennsylvania Railroad and the New York Central over a railroad called the West Shore. The West Shore was a railway covertly financed by Jay Gould, General Horace Porter and other associates. These men were primarily associated with the Pennsylvania Railroad as major equity holders. The line ran parallel with the New York

¹²⁸ Ibid, pg 720.

¹²⁹ Adam H. Grohman, "In Our Waters: J.P. Morgan's Corsair Compact," *LIBW* (October 2010) pg 31. <http://www.liboatingworld.com/archive/2010/10/LIBW/LIBW_30.pdf>.

Central. The result was a fierce price cutting war between the West Shore and the New York Central, which hammered down stock and bond prices for both companies. William H. Vanderbilt, owner of the New York Central, reacted with the idea of establishing the South Pennsylvania Railroad that would parallel to the Pennsylvania Railroad.¹³⁰

The timing of this feud was ill-timed because the US stock market took a plunge in 1883, which caused a near-panic in American rail stocks in London. New York Central was especially hurt by this decline as its stock value fell below par for the first time and its dividend was halved. By 1885, the Western Shore was in the hands of a receiver in bankruptcy court and New York Central was deferring critical maintenance to remain solvent.¹³¹ Eventually, the international financial community began to demand that someone step in to stabilize the US railroad industry, JP Morgan, who held significant interests in New York Central, took up the cause. He personally reached out to and invited Chauncey Depew, New York Central's President and George H. Roberts, Pennsylvania Railroad's President, to meeting to reconcile the feud.

On July 20, 1885, JP Morgan told the men of the displeasure of European investors with American railroads and then facilitated the discussion of the men. Slowly, JP Morgan guided the men towards a compromise, later called the Corsair Compact¹³² or the Great Railroad Treaty of 1885. The agreement was that the South Pennsylvania Railroad was sold to the Pennsylvania Railroad for \$3.5 million dollars and the New York Central Railroad purchased the West Shore Railroad for \$22 million dollars. As the arbitrator, Morgan profited \$3 million dollars.

The actual transfer of railways was done in a dubious manner and was challenged in the courts. The sale was conducted through JP Morgan, who functioned as an intermediary and then sold the line onto the other firm. In 1892, the state supreme court of Pennsylvania ruled that the

¹³⁰ Ibid, pg 31.

¹³¹ Chernow, *Titan*, pg 54.

¹³² Corsair was the name of JP Morgan's yacht

Pennsylvania Railroad could not acquire control of its rival line through an intermediary sale to JP Morgan. But the ruling came far too late as deal had already been a profit for the competing railroad financier.¹³³

Following his famous Corsair Compact, JP Morgan began his intervention into the railroad industry. Morgan's firm provided an array of financial expertise and skill to many of the troubled railroad companies. Morgan's firms provided two major benefits to the railroad industry, first it function as a facilitator of credit from Europe and the smaller American market. The railroad industry was in the growth phase of its industry life, which meant fast-growth, but that these companies often experienced significant liquidity and asset management problems. However, the key service that Morgan's firm provided was active management.

The demand for more stability in the US economy changed the role of banks in the operations of the major US corporations and forced the bankers, such as JP Morgan, to "invent elaborate schemes to reassure investors of their ability to maintain control."¹³⁴ However, the initial result of these complex schemes, which were intended foster investor trust, instead created deep distrust among the broader public. The reaction forced JP Morgan to use the voting-trust agreement to operate businesses. The agreement stipulated that shareholders who benefited from his financial engineering had to assign the voting rights for their shares to bankers for a period that Morgan deemed sufficient to ensure the future health of the company involved.¹³⁵

The financial firm gave financial advice, hired and fired managers, engineered or fended off takeovers, and monitored investment.¹³⁶ A key technique utilized by JP Morgan & Co, to maintain corporate policy cohesion, was the placement of key representatives on corporate

¹³³ Grohman, pg 33.

¹³⁴ Fear and Kobrak, pg 729.

¹³⁵ Ibid, pg 729.

¹³⁶ Ibid, pg 720-721.

boards to maintain business governance in its interests.¹³⁷ Morgan's ability to infuse his people into the companies helped stabilize the return on the investments that his firm made into these companies. However, the ethical implications of Morgan's actions were far-reaching and challenged the role of banks in the US economy.¹³⁸

In this role, Morgan's firm could ensure the proper economic return that it desired from the firm, even if to the firm's detriment. The installation of key people in this firm with JP Morgan connections further ensured that JP Morgan & Co kept a major advantage in the market. However, the effect of the this insider status was that Morgan's firm need to ensure that this firms were running successful while JP Morgan & Co. held a vested interest in the firm. Therefore, the firm needed to be financial successful or at least appear to be successful. From the perspective of the key figures in the US Congress at the time, JP Morgan & Co was propping up the railroad industry. This perception is key because it feed into the idea that JP Morgan was cooperating with the US Federal Government to maintain the solvency, effectiveness and viability of a key US industry, railway transportation. Although, there is much debate as to whether or not JP Morgan & Co. activities truly helped or hindered the railroad industry, the result was favorable or at least a neutral perception from Congress. Cooperation was Morgan's mantra, and strict fiduciary responsibility his game; he had little patience for interference in his rule setting. Morgan's high-handed treatment of businessmen on both sides of the Atlantic was increasingly resented. Even some prominent American businessmen joined the public chorus against the evils of Wall Street. One railroad company promoter called investment bankers 'cannibals of finance.'"¹³⁹

¹³⁷ Ibid, pg 716.

¹³⁸ Ibid, pg 709.

¹³⁹ Ibid, pg 720-721.

Concurrently, the federal government, after witnessing the instability and excesses of the railroad industry and its investors, intervened. The Interstate Commerce Act was established in 1887 as a reaction by the federal government to increasing monopolistic activities among railroad companies. In general sense, the federal government created a unified policy on transportation and the general regulation of the railroad corporations in the United States. The act established the Interstate Commerce Commission, which in turn was focused on implementing the policies laid out in the Interstate Commerce Act. The supporters of the law ranged from farmers, investors, small shippers to the railroads, who saw the regulation as a source of stability.¹⁴⁰ However, within six months of the creation of the Interstate Commission, many of the excesses and monopolistic tendencies to sought regulate reappeared after initially dissipating.¹⁴¹

In attempt to create industry wide change, Morgan focused on a top-down approach by looking to the industry leaders to create a unified policy and standardized practices. In one such effort, JP Morgan brought together several of the major railroad company Presidents in a special conference. Inside his home, Pierpont opened a discussion with the men with these simple words:

“The purpose of this meeting is to cause the members of this association to no longer take the law into their own hands when they suspect they have been wronged, as has been too much the practice heretofore... This is not elsewhere customary in civilized communities, and no good reason exists why such practice should continue among railroads.”¹⁴²

The conference was focused on developing new laws for the industry and get corporate leaders to write agreements for the maintenance of stable rates.¹⁴³ Pierpont offered the railroad presidents a deal: if they refrained from rate-cutting and cutthroat competition, the financiers

¹⁴⁰ Chernow, *House of Morgan*, pg 56.

¹⁴¹ The major excess was an exclusive rebate offered by railroad companies and was considered a monopolistic tendency by the federal government. *Ibid*, pg 56.

¹⁴² *Ibid*, pg 57.

¹⁴³ Fear and Kobrak, pg 720-721.

would stop underwriting competing railways. In December 1888 meeting, Morgan produced a gentleman's agreement among the executives to maintain rates for sixty days and then the group would reassemble to negotiate additional terms. Another meeting took place in January 1889, which yielded plans for a huge centralized group to regulate the entire rail system. The name of the group was called the Interstate Commerce Railway Association. It would set rates, arbitrate disputes, assign fines to offenders and JP Morgan was to lead the cartel. However, the group quickly fell apart due to the pressures of western rate wars among the railroads.¹⁴⁴

JP Morgan made another attempt at establishing railroad stability in a meeting on December 15, 1890. He presented a plan for a Western Traffic Association, which was to run by a board with one director from each railroad. The association set uniform rates and any railroad that cheated was discharged. In a rare comment to a reporter, JP Morgan excitedly stated “Think of it—all the competing traffic of the roads west of Chicago and Saint Louis placed in control of about 30 men.” The public reaction was harsh as newspapers across the nation identified the group an attempt to monopolize the industry or as the *New York Herald* stated “RAILROAD KINGS FORM GIGANTIC TRUST.”¹⁴⁵ The reaction eventually caused the plan to crumble as various executives withdrew from the negotiations.

JP Morgan the Investment Banker

The underwriting capacities of JP Morgan's firms were best seen in the development and incorporation of General Electric in 1892. JP Morgan and Co spearheaded the financial end of the creation and introduction of General Electric in the US economy. The significance of JP Morgan Co.'s actions was the scale of GE's operations and of the equity that was being underwritten. In a general sense, the introduction of GE as a publicly traded company was one of

¹⁴⁴ Chernow, *House of Morgan*, pg 57.

¹⁴⁵ Chernow, *House of Morgan*, pg 57.

the largest public incorporated companies at the time and held numerous implications for the entire US economy. The deal held numerous benefits for JP Morgan Co.. First, the image of the deal to the federal Government was the unification of several companies and Thomas Edison's flagship company.

The fundamental goal of amassing such a large company was as to more effectively utilize a larger corporate structure to reduce collective costs, increase collective revenues and potentially increase net employment. Therefore, from a corporate perspective the unification was perceived to be an extraordinary and potentially successful business venture that helped grow the US economy. The public policy perspective was positive as well because Congressional members and the executive branch saw the larger company as increasing overall employment. The belief was that a more monopolistic firm was a tolerable trade-off for increased employment at a perceived level of adequate wages.

On April 8, 1890, Junius Morgan died, however Junius' death did not mark the beginning of JP Morgan's takeover. The reality was that by 1880's as Junius began to experience health problems, he slowly conceded control of his firms to his son. Then in June 1893, Anthony Drexel died and in October 1893, his son Anthony Drexel chose to retire. The removal of these key players enabled JP Morgan to strengthen his hold over the interlocking partnerships in New York, Philadelphia, Paris and London.

It is a partner in the London banking of JS Morgan & Co. and the Paris house of Morgan, Harjes & Co. In a general sense, JP Morgan's firms played a unique banking role through the development of the second industrial revolution. In the general banking market, JP Morgan's banks held the important role of accepting consumer and business deposits and paying interest

upon those deposits in a similar fashion to any other commercial bank.¹⁴⁶ The commercial like function of JP Morgan's firm highlights the key fact that the development of investment banks during the second industrial revolution created a gray area in terms of the capabilities and reach of these banking entities. In Morgan's case, his firm operated in various forms of banking and with a variety of customers, from corporate entities to particular individuals.

Furthermore, JP Morgan's businesses functioned as a large lender of money on the NYSE and were therefore a major issuing house for US securities.¹⁴⁷ This issuance of debt financing was key especially during the second industrial revolution because it allowed for major corporations to maintain solid liquidity figures and ensure that their operations could be maintained daily. The impact of this continuous operation would further enhance and strengthen the economic growth of this time period.

The Panic of 1893 & The Infamous Deal of 1895

The intervening power of JP Morgan, through his various partnerships and firms, was best displayed through the panic of 1893. Primarily due to excessive speculation in railroad industry, the US plunged into a recession in 1893, which caused major bank runs and European investors to shift significant portions of capital away from the US. Now, the head of the various partnerships, JP Morgan faced the panic of 1893. The panic of 1893 led to the failure of almost 15,000 commercial firms and the collapse of over 600 banks. The failure of numerous businesses led to extraordinary opportunity for JP Morgan and other key financial agents to reorganize these businesses to exert additional control. A key company that JP Morgan rescued from failure

¹⁴⁶ United States House of Representatives, 1918, *Report of the Committee Appointed Pursuant to House Resolutions 429 and 504 to Investigate the Concentration of Control Of Money and Credit*, Washington, D.C.: GPO, pg 57.

¹⁴⁷ Ibid, pg 57. As an issuing house, Morgan's firms acted as a purchaser or underwriter or fiscal agent, its takes from the greater corporations their issue of securities and finds a market for them either amongst other banking houses, banks and trust companies, or insurance companies, or the general public"

during the panic was General Electric and thus insured the large company's loyalty to Morgan and his firms.

Over a third of US railroad companies fell into receivership and bankruptcy proceedings due to the panic. Excessive debt, overbuilding and price cutting wars set during a major economic recession doomed many of these firms. Yet again, European and American investors pleaded with JP Morgan to stabilize the railroad industry.¹⁴⁸ JP Morgan accepted the task; however in reaction to his previous failures, he chose an alternative method of controlling the industry. He, through his various partnerships and firms, reorganized the railroads in bankruptcy and designed their corporate structure to his advantage. During the reorganization process, the majority of the company's stock was transferred to special voting trusts, which were usually controlled by JP Morgan or one of his associates. In fact, investors scrambled to give up their stocks in return for the trust certificates that Morgan and his associates offered.¹⁴⁹

Numerous firms underwent his reorganization, such as Erie, Chesapeake and Ohio, Philadelphia and Reading, Santa Fe, Northern Pacific, Great Northern, New York Central, Lehigh Valley, Jersey Central and the Southern Railway. JP Morgan placed himself as a giant of the US stock market because railroads compromised 60 percent of all issues on the New York Stock Exchange at the time. JP Morgan made sure no intervention from the government was all but guaranteed by issuing free passes to key politicians. The reality at the end of the crisis was best put by Sereno S. Pratt, an editor for the *Wall Street Journal*, who claimed that JP Morgan's "power is not to be found in the number of his own millions, but in the billions he was the

¹⁴⁸ Chernow, *House of Morgan*, pg 67.

¹⁴⁹ The investors were so willing to exchange because of the nature of the finance laws surrounding equity holdings of the 19th century. Shareholders in bankrupt companies could be held liable for losses for a company they invested in and have to make payments to recoup a company's losses. The investors viewed Morgan's offer as a means to avoid covering a company's losses. Ibid, pg 68.

trustee.”¹⁵⁰ In 1895, while dealing with all of these events, JP Morgan reorganized all of the partnerships and firms that Junius and he had established under the control of his renamed New York branch, JP Morgan and Company.¹⁵¹

However, while JP Morgan was reorganizing the railroad industry and his firms, the panic was acutely affecting the US Treasury when it ran low on gold reserves. Since 1879, the US government had pledged to redeem dollars for gold in an effort to maintain the gold standard. In order to reassure investors and back up this claim, the US Treasury had a policy of maintaining at least \$100 million in gold coin and bullion. A major conflict running parallel with JP Morgan’s development in the banking industry was battle between the use of gold and silver for the US currency standard.

A major political crisis concerning gold versus silver arose in the early 1870’s. Congress in 1873 passed the controversial Coinage Act, which was also called the Fourth Coinage Act or Mint Act. The act embraced the gold standard and de-monetized silver. It further instigated a battle between pro-gold and pro-silver forces. Silver advocates called the act the "Crime of '73" and demanded restoration of free coinage. Congress also passed the Specie Payment Resumption Act of January 14, 1875, which restored the nation to the gold standard through the redemption of previously issue US financial notes. The act contracted the nation's money supply.

In 1877, Congressman Richard P. Bland and Senator William B. Allison proposed a bill that would bring back silver coinage. Major banks and companies pressured the president, Rutherford B. Hayes to veto the proposal, which he did on the final version of the bill, but

¹⁵⁰ Ibid, *House of Morgan*, pg 67- 68.

¹⁵¹ The branches still retained their basic structures and branch offices. The New York branch’s name was changed to JP Morgan and Company from Drexel, Morgan and Company. The Paris office became Morgan, Harjes. The Philadelphia house remained Drexel and Company. The London branch retained the name, JS Morgan and Company, but went through a major reorganization of personal. The essential change was the further elevated role of the New York in relation to the other branches due to JP Morgan’s presence there.

Congress overrode his veto. The Bland-Allison Act, passed in 1878 required that the government purchase from \$2 to \$4 million worth of silver bullion each month and to coin silver dollars. However, most of the minted money was not placed in circulation, but was instead retained in government vaults. Later, Congress passed the Sherman Silver Purchase Act of 1890, which require that the US Treasury had to buy 4.5 million ounces of silver monthly and issue certificates redeemable in gold or silver.¹⁵² It was repealed by Congress in 1893.

During 1894, the US gold reserve dipped below the \$100 million floor as the inflow of silver drove out gold out the US. It was described as a flight of capital as gold bullion fled the US government and in many cases back to Europe.¹⁵³ Investors began to speculate as to when the government would declare its inability to redeem dollars for gold. The low gold reserves further exacerbated the financial crisis and with no central bank to unify American monetary policy many in the business and economic community were uncertain and pessimistic about investing in the US market. President Grover Cleveland faced a congress that favored free coinage instead of gold and refused to replenish the gold reserve through a public bond offering. By January 24, 1895, the US treasury's gold reserves declined to \$68 million.

The crisis became prompted President Grover Cleveland, in a move that would hurt his public image, to accept an offer from JP Morgan & Co. to facilitate a new distribution of US treasury notes. JP Morgan laid out a bold plan that involved Morgan and Rothschild firms 3.5 million ounces of gold, at least half from Europe, in exchange for about \$65 million worth of 30 year bonds. There were questions as to the legality of the actions by the government, but JP Morgan used an 1862 statute that had granted the Lincoln Administration emergency powers to buy gold during the Civil War. However, as controlling as JP Morgan appeared in this situation,

¹⁵² Homer E. Socolofsky and Allen B. Spetter, *The Presidency of Benjamin Harrison*, (Lawrence: University Press of Kansas, 2007) pg 59.

¹⁵³ Chernow, *House of Morgan*, pg 73.

the reality was far from this appearance. He wired his London house this statement “We consider situation critical; politicians appear to have absolute control. If fail & European negotiations abandoned, it is impossible overestimates what will be result U.S.”¹⁵⁴

Although, JP Morgan & Co held an unfavorable public image, the professionalism and skill of the firm were widely recognized by the government and banking professionals. However, JP Morgan & Co. did not provide its services to the government for free, and earned roughly \$6 to \$7 million to underwrite the bond issue.¹⁵⁵ JP Morgan & Co. was chosen because of its professional connections to the wealth European credit markets that many businesses and governments were unable to reach. The public reaction was fierce. William Jennings Bryan denounced the sale on the floor of the House. The *New York World* declared that the syndicate had been composed of “bloodsucking Jew and aliens.” President Cleveland was denounced as a tool “of Jewish bankers and British gold.” A less racial declaration made by a major house organ of the Farmers’ alliance stated that “the great bunco game played in Washington by which the people have been defrauded of over \$8 million.” In the eyes of the public, Cleveland had sold the nation’s credit to the Morgans and Rothschilds and then amplified the evil deed by sharing in the profits.¹⁵⁶

Morgan’s actions were not atypical, in fact between 1884 and 1907, he led three efforts to preserve the American financial system and from which his firms earned large financial rewards and public outrage each time.¹⁵⁷ However, the significance of this event was how it publically displayed the dependence of the United States’ economy on the actions of a key industry, the financial sector. Furthermore, that the viability of the financial sector was interconnected with

¹⁵⁴ Ibid, pg 75.

¹⁵⁵ Fear and Kobrak, pg 721. The syndicate purchased the bond from the government at 104 ½ and sold them at the opening price of 112 ¼.

¹⁵⁶ Alyn Brodsky, *Grover Cleveland: A Study in Character*, (New York: St. Martin’s Press, 2000) pg 365.

¹⁵⁷ Fear and Kobrak, pg 721.

the government's operations and continual maintenance. The actions of JP Morgan & Co highlight the unique relationship that this firm held with the federal government during the second industrial revolution. A reality that is frequently ignored in this situation was that although JP Morgan & Co was one of the more established investment banks of the United States, it was not the only one. The relationship that JP Morgan & Co. maintained with the Federal Government and the influence that the firm could exerted over certain policy makers allowed for it to be chosen. The key idea is that Morgan's firm was able to facilitate this necessary transaction and further increase its reputation as a reliable, although not necessarily a ethical banking institution was because of the healthy relationship it had developed with the Federal government.

However, the downside of the JP Morgan & Co's actions, such as the pricing of equity issues and the resulting profits was negative reaction by the general public. A significant and underlying idea during the second industrial revolution was the public opinion of JP Morgan & Co. and the JP Morgan, the man, was negative. However, the firm focused on maintaining a healthy and positive opinion among their limited regulators, the US Federal Government and the particular state governments its business operations were in. So the developing power and influence of JP Morgan became to be perceived as a detriment to the public good of the United States by the public, key members of Congress and even key bankers whom recognized the need for more public control of the financial system."¹⁵⁸

Concluding Remarks

The significant factor that allowed Morgan to maintain these arrangements was the healthy relationship that his firm maintained with the government. In contrast, to Rockefeller and

¹⁵⁸ Fear and Kobrak, pg 722-723.

Standard Oil, JP Morgan & Co choose a more diplomatic route in interacting with the federal and state governments. The result was that Morgan's operations were better able to function under the minimal government supervision applied to it. But even more importantly, the relationship would be important when investigations into these activities were initiated and the relationship between the two entities was key to JP Morgan's survival.

JP Morgan & Company, its affiliates and the predecessor organizations that made up the history of the financial institutions survived the basic litmus test established in this argument. Through the specified time period, JP Morgan & Co. passed the first tenant of the test by retaining and actually growing its operations. The firms maintained its based operations, officers and guiding mission. Unlike many of its peers both within and outside of the banking industry, the firm was broken up or dissolved. Instead, it thrived and grew its operations nationally and internationally. On the second tenant, JP Morgan & Co. maintained its market dominance and relative share in the banking industry. Although, the company was subject to numerous investigations and was at the center of numerous public outcries, it did not lose its competitive edge or placement. The firm maintained its position and the wholeness of its operations, which became an increasingly difficult task, especially through the Progressive Era immediately following the Gilded Age.

These two objectives were achieved through the stable and mutual beneficial relationship that JP Morgan enjoyed with the US Federal government. Although there existed a great asymmetry between the results that both parties received, with JP Morgan & Co receiving a more generous return than the US Federal government, there existed a neutral tone between both parties. But this neutrality was of perception of each other because other entities cooperated with each other in many instances to mutually benefit each other. However, the tone of neutrality was

maintained due the negative public perception of JP Morgan & Co and the banking industry as a whole. Yet, the success of JP Morgan was seen through its ability to generate significant return through its interactions with the government without seceding its autonomy as a business.

Standard Oil Company

In examining Standard Oil and its relationship with the US federal government, it is impossible to ignore the actions and words of John D Rockefeller. In many senses, Rockefeller was Standard Oil or at least during the Gilded Age. In contrast to the Union Pacific, Standard Oil maintained a high degree of autonomy from the US government and from most levels of government in general. The business philosophy Rockefeller chose to pursue and his beliefs on

the role of government in the economy or at least in regulating private enterprise, specifically his company, was similar to *laissez faire*. However, as the US government decided to slowly grow its control and regulation of the economy, the two organizations began to clash. The relationship during the Gilded Age was one of friction, as Standard Oil attempted to maintain its market share and its autonomy of the US government.

Standard Oil's Origins

John D. Rockefeller began his venture into the oil industry in 1863 by providing capital for the new refining company, Andrews, Clark and Co. John Rockefeller and Maurice Clark, a family friend and business partner, pledged \$4,000 for half the working capital of the new company with Samuel Andrews to create the refining company. At the time the men considered it a small side business to supplement their jobs and investments as they expressed how their refining business was “a little side issue, we retaining our interest in our business as produce commission merchants.”¹⁵⁹

Andrews was the refining expert of the group due to his experience in the lard-oil refining business and used a special technique using sulfuric acid, which at the time was highly secretive and sought after by numerous business interests.¹⁶⁰ The new refining business was a part of a new breed of business people that developed during the second industrial revolution, “the middleman.” The new “middleman” group functioned as an intermediary between the raw-material producers and the consumers or retailers.¹⁶¹ In the case of petroleum products, refining became a dominant industry that functioned as the “middleman” from the drilling stage to the actual consumption.

¹⁵⁹ Chernow, Ron. *Titan*, pg 76-77.

¹⁶⁰ *Ibid*, pg 77.

¹⁶¹ *Ibid*, pg 78.

Rockefeller's strategy focused on transportation outlets and paths as way of gaining advantages over his rivals. His choice for an initial refinery displays his strategic tendencies; Rockefeller exercised an option for a three-acre piece of land on the banks of a waterway called Kingsbury Run, which flowed into the Cuyahoga River and into Lake Erie. A mile and a half away from downtown Cleveland, the refinery's location appeared inconvenient and possibly hindering to the company's success because of the plant's distance from the city. However, Rockefeller realized the inconvenience was greatly outweighed by the fact that it was near newly established railroad tracks, which were completed by November of 1863. The result was that Rockefeller's company was able to travel by water or land, which gave him critical leverage when negotiating for preferential rates on transportation.¹⁶²

The refining business was wildly profitable for Rockefeller and his associates, oil had been put to a wide variety of uses during the Civil, such as treating wounds or functioning as a substitute for turpentine, so demand was high. During these early years, Rockefeller discovered his passion for detail and organization and the application of these skills to a business environment. Rockefeller's influence on the oil industry and the general business community stemmed from his ability to able this stability to a turbulent and young industry.¹⁶³

Rockefeller's joint ownership was about to end. Rockefeller, Clark and Andrews held drastically divergent views about the future of oil and the appropriate pace of expansion for their business. The firm had banked solid profits in refining every year of the Civil War,¹⁶⁴ yet at the same time prices were incredibly volatile due the war, increasing competitive pressures and

¹⁶² Chernow, *Titan*, pg 78. Chernow also claims this lesson in transportation costs and the potential saving associated became the reason for why Rockefeller would agonize over plants locations throughout the rest of his life.

¹⁶³ *Ibid*, pg 78-80.

¹⁶⁴ Even with the ongoing military conflict during the Civil War, the drills and production never stopped in Pennsylvania, except briefly when General Robert E. Lee invaded the state and the oil men had to defend their company's operations. *Ibid*, pg 84.

additional discoveries in oil wells. The price fluctuations in a year would veer between \$.10 and \$10 a barrel in 1861 and \$4 and \$12 in 1864. However, Andrews and Rockefeller wanted to borrow more intensively and expand the firm's operations, while Clark was wary of this ambitious approach.¹⁶⁵ Furthermore, due to the growing operations and need for capital, two other members of the Clark family had joined the business, however the result was that the three Clarks effectively decided the policy of the firm and could override Rockefeller's decisions. So, in 1865, Rockefeller and Andrews dissolved their partnership with the Clarks and Rockefeller paid \$72,500 in an auction for the business.¹⁶⁶

At the age of 25, Rockefeller now owned the largest refinery in Cleveland, which could refine 500 barrels of crude oil a day, twice the production capacities of his nearest local rival. The new business was named Rockefeller & Andrews. In December 1865, Rockefeller & Andrews opened a second refinery, the Standard Works. By 1866, two-thirds of the Cleveland kerosene was flowing overseas and was usually routed through New York. So in the same year, in an attempt to develop trade in the international oil market, Rockefeller & Andrews set up a new firm called Rockefeller and Company in New York to oversee the exports of the Cleveland Refineries. The firm's goal was to use the international market to consume the excess production of the refineries. Rockefeller himself stated that "it seemed absolutely necessary to extend the market for oil by exporting to foreign countries, which required a large and most difficult development."¹⁶⁷ The significance of this decision was Rockefeller's recognition of the international market's importance and ability to affect price movement.

¹⁶⁵ Ibid, pg 85.

¹⁶⁶ Ibid, pg 85-88. The partners agreed upon the dissolution of their partnership that the business would be sold to the highest bidder.

¹⁶⁷ Ibid, pg 102.

Due the increasing growth in the oil market and increasing number of drilling operations, the prices for oil were in constant flux. When the announcement of a new oil well reached New York, international buyers, expecting lower prices, could simply stop buying and wait until the price drop, which of course gave them significant power in negotiations. Rockefeller described them as “vultures,” who would not “buy until the price of refined had fallen very low on account of the flood crude oil in the market.”¹⁶⁸ The new firm in New York would apprise the buyers in the Oil Regions of sudden drops in export prices so they could temporarily curtail crude oil purchases and the proximity to Wall Street was critical as well.

The firm was need of massive capital investments for its ambitious expansion schemes. However, traditional bankers viewed the oil industry, with a good deal of justification, as very risky¹⁶⁹ and would rather invest in railroads or government projects. The firm needed credit beyond the meager resources and limits of the Cleveland banks, which ultimately meant the company had to go to Wall Street. Furthermore, the New York bankers could offer more advantageous rates. For John D. Rockefeller, this move was a major turning point in business ventures because of his outspoken suspicion of financiers. From his perspective, the company “had to the banks—almost on knees—to get money and credit” and the meeting frequently left him stressful and worrisome about the debt they were acquiring.¹⁷⁰

After buying out the remaining shares from his partner, Rockefeller expanded the business from kerosene oil to general petroleum products, such as benzene, paraffin and

¹⁶⁸ Chernow, *Titan*, pg 103.

¹⁶⁹ Chernow elaborates on the risk of refineries accidentally catching on fire on page 101, when he states how refiners were tormented by the constant fears that the vapors from the plants might catch fire. The risk was so high that the city of Cleveland banned production plants from within the city limits. Mark Hanna, a speculator in the refining business, recalled how in 1867 he woke up and discovered that his Cleveland refinery had burned to the ground and this wiped out his investment. Furthermore, there was fear of the oil wells running dry immediately after their discovery.

¹⁷⁰ *Ibid*, pg 104.

petroleum jelly.¹⁷¹ The effective result of this transaction was the unilateral control that Rockefeller was able to exert over the operations of the firm. Rockefeller initially placed headquarters in Cleveland even as production and refinement expanded to other parts of the country.

The next stage of the firm's growth was the in March of 1867, when Rockefeller established a new partnership named Rockefeller, Andrews and Flager located in Cleveland. The new partnership came as the result of a major negotiation between Rockefeller and Stephen V. Harkness for a capital investment of \$100,000, a third of the new firm's capital. Harkness made a requirement in the deal that Henry Flager,¹⁷² a business associate, who introduced Rockefeller to Harkness, be made treasurer and his personal deputy in the firm. Harkness helped integrate the firm better with the business community because he was a director of banks, railroads, mining, real estate and manufacturing companies.¹⁷³ The new firm was the combination of several existing refineries; William Rockefeller & Co., Rockefeller & Andrews, Rockefeller & Co., S.V. Harkness, and H.M. Flager.¹⁷⁴

Rockefeller maintained his operations in Cleveland because of the transportation capabilities; it was the hub of an extensive transportation, which afforded Rockefeller and his associates' significant leverage in freight negotiations. In particular, Cleveland had access to the Erie Canal, Lake Erie, the New York Central Railroad, the Erie Railroad, the Pennsylvania Railroad and the all transportation networks connected to them. Rockefeller's firm "could load their oil in the season of lake navigation and canal navigation, upon vessels at Cleveland and

¹⁷¹ Ibid, pg 100.

¹⁷² Ibid, pg 106-107. Henry Flagler knew the Harkness family through marriage and the family invested in some of business ventures. One notably venture involved a salt company in Saginaw, Michigan, where he noticed the salt companies when faced with excess production opted for cooperation over competition and joined a cartel arrangement to prop up salt prices. The arrangement provided an interesting precedent for Standard Oil.

¹⁷³ Ibid, pg 108.

¹⁷⁴ Montague, pg 7.

from Buffalo be the Erie Canal [and] could deliver the oil to warehouses in New York at a cost lower than the current rates at which the railway companies had been seeking the business.”¹⁷⁵

The different alternatives allowed for Rockefeller to negotiate advantageous railway rates by playing the different major railroad companies against each other to make up the difference for having to ship crude oil to Cleveland and then out for sale. Cleveland’s location relative to the markets of the eastern United States, but still extended from the coast line, fed railways from Chicago, Saint Louis, and Cincinnati and therefore became a gateway to West. Eventually, most of the refining community seized this competitive advantage and by 1866 the city had 50 refineries, second to Pittsburgh.¹⁷⁶

The cost saving potential realized through advantageous transportation deals eventually lead to various oil-refining hubs attempting to form tactical alliances with the different railroad networks. The New York Central and the Erie promoted Cleveland, which meant Rockefeller and his business partners became key allies for the railroad’s oil freight business. Soon a battle between railroad companies developed over the oil freight business as the Pennsylvania railroad decreed that Cleveland would “wiped out as a refining center.”¹⁷⁷ The decree caused a panic among the Cleveland refiners, whom began to prepare the transfer their operations to a location more to the favor of the Pennsylvania Railroad. However, Rockefeller was coolheaded and used the panic to his competitive advantage by starting negotiations with the New York Central and Erie for a new transportation deal. The two railroads were fearful of losing substantial oil traffic because of the upheaval that appeared to be happening after the Pennsylvania proclamation.

In 1868, Jay Gould, then owner of Erie Canal, negotiated a deal with Rockefeller that gave Rockefeller and Flagler shares in subsidiary company called Allegheny Transportation

¹⁷⁵ Chernow, *Titan*, pg 111.

¹⁷⁶ *Ibid*, pg 111.

¹⁷⁷ *Ibid*, pg 113.

Company, which owned a large pipeline network to Oil Creek, the major source of crude oil. The advantage that Rockefeller's firm received was a 75 percent rebate on oil shipped through the Erie system. Furthermore, Flagler bargained a deal with the Atlantic and Great Western, an Erie subsidiary, which gave the refining company advantageous rate on rail shipments between Cleveland and the Oil Regions. At the same time, Flagler also negotiated a deal with Lake Shore Railroad, a subsidiary of New York Central. The deal gave the refining firm railway rates that matched the discounts the Pennsylvania Railroad extended to its customers in the Oil Regions. Essentially, Flagler and Rockefeller were able convert the geographic disadvantage their firm traditionally experienced into a cost savings measure because the firm only paid \$1.45 per barrel to ship refined oil to New York rather than the officially listed price of \$2.40. In return, Rockefeller's firm assumed liability on certain shipments and promised 60 cartloads of refined oil daily. 60 cartloads a day was an ambitious production level beyond even Rockefeller's limits at the time and required extensive coordination among the different refiners in Cleveland.¹⁷⁸ Beyond the financial implications of this deal, an important result was how the railroad firms were tied into the success of the oil refining business.

“The dubiousness of this deal forced it to be done in great secrecy and rest on oral agreements as Rockefeller explained later in life: “Our people do not think it would be best for the Lake Shore Road, or, to have a contract, but with good faith between us and desire to promote each other's interest, we can serve each other better by being able to say we have no contract.”¹⁷⁹

¹⁷⁸ Ibid, pg 113. The railroads favored this large quantity of refined oil because it meant steady shipments and allowed the railroad companies to dispatch trains with only oil-tanks and no other products. The result was a consolidation of resources, a smaller fleet of trains, uniform shipments in massive quantities, reduce average trip time to New York by 2/3 thirds, from 30 to 10 days and increase their profit margin.

¹⁷⁹ Chernow, pg 114.

At this time, the firm was equal in size to the next largest Cleveland refineries combined and soon Cleveland outpaced Pittsburgh at the leading refining center. In 1870, the firm of Rockefeller, Andrews & Flagler was reorganized into the Standard Oil Company of Ohio.¹⁸⁰

Standard Oil Company of Ohio and then of New Jersey

The capital stock of the Standard Oil Company in 1870 was \$1,000,000.¹⁸¹ The major battle between refiners throughout the 1870's was for advantageous transportation rates, such as the rebates Rockefeller and Flagler secured for Standard Oil. The main strategic plans for the industry were to obtain special rates and to organize a large network of oil pipelines to facilitate oil transportation.¹⁸² Ida Tarbell, the famous critic of Standard, described these rebates and how:

“Mr. Rockefeller ... went to Mr. Vanderbilt and, by a series of arguments and threats easy enough to divine, he obtained a secret rebate on his shipments, not so sweeping as he had planned, but sufficient to give an advantage over other men; and he did not cease his efforts until he had not only a rebate on his shipments over all the oil-carrying roads but a drawback on all the oil his competitors shipped over those roads.”¹⁸³

Although there were technological advantages for the refining equipment and techniques, the cost saving associated with transportation was considered a priority.¹⁸⁴ Although, the pipelines came late due the extensive capital required for investment, Standard effectively utilized the rates it secured to dominate the refining industry. Starting in 1870, Standard Oil's advantage in this key area of cost saving helped the firm grow its refined oil output from 4 percent to 95 percent in 7 years.¹⁸⁵ At the beginning of the 1870's the refining industry consisted of hundreds of small firms with low barriers to entry into the industry. Standard Oil Company

¹⁸⁰ Montague, pg 7.

¹⁸¹ Ibid, pg 7.

¹⁸² Ibid, pg 10-11.

¹⁸³ Ibid, pg 6.

¹⁸⁴ Ibid, pg 9. In 1875, a method was devised to utilize the residuum of crude petroleum left after the production of illuminating oil and other techniques aid in a more efficient production of lubricants and paraffin wax.

¹⁸⁵ Montague, pg 12.

was located in Cleveland with several of the largest refining centers but accounted for only approximately 4 percent of total U.S. refining capacity.¹⁸⁶

Going into 1871, the rate war between the major railways was still in-effect; however the New York Central, the Erie and the Pennsylvania Railroad had completed major transportation connections to Chicago. The rate battles forced the companies, such on New York Central to rely on the traditional source of oil transportation, mostly Cleveland and its refiners. However, in 1871, additional discoveries of petroleum throughout Pennsylvania shifted a lot of the oil operations to that direction and brought in additional supply for the Pennsylvania Railroad Company. The effect of these new discoveries and the shift in business operations greatly affected the Erie and New York Central railroads because their main lines were near these newly discovered deposits.

The solution came in the form of a combination of railroad companies and refiners. The combination was a contract between the railroads and certain refiners of Pittsburg, Philadelphia, and Cleveland, which formed the South Improvement Company. On May 1, 1871, the Pennsylvania Legislature created the South Improvement Company with the authority:

“to construct and operate any work or works, public or private, designed to include, increase, facilitate, or develop trade, travel, or the transportation of freight, live-stock, passengers, or any traffic by land or water, from or to any part of the United State.”¹⁸⁷

The benefit of the scheme for refiners was not only got rebates on their shipments, but also received drawbacks, rebates from the full rates paid by nonmember refiners. Daniel Yergin describes the purpose of the South Improvement Company as another scheme to stabilize the oil industry, but would become the symbol to achieve monopoly control over the refining industry. The 1870's was characterized by an escalating level of crude oil production and although

¹⁸⁶ Klein & Granitz, pg 1.

¹⁸⁷ Montague, pg 23.

producers repeatedly tried to restrict production to maintain price stability. Over the course of the 1870s, new territories were continually being drilled and expanded production. Estimates of the number of the oil producing firms were as much as sixteen thousand and many of the producers were speculative.¹⁸⁸

The public reaction to the company and its mission was fierce; a Pittsburgh magazine claimed the company would monopolize the oil of the region, while a Titusville paper warned the company was nothing less than a threat to “dry up Titusville.”¹⁸⁹ Public protests throughout Pennsylvania became commonplace, which launched what was called the “Oil War.” The “Oil War” consisted of the railroads, Standard Oil and the other refining colluders against the producers, non-member refining companies and the public. In particular, the producers united against and boycotted the refiners. The result was disastrous for the Standard refineries in Cleveland, which normally employed twelve hundred men; however the boycott left the refineries with only crude oil to occupy seventy men.¹⁹⁰

Ida Tarbell described the company as

“And the contracts were signed — secretly of course. And when they were signed what did Mr. Rockefeller do? He swooped down on a great industry in his home town with the proof that henceforth he was not only to have rates fully one hundred per cent cheaper than his competitors, but he was to have the extra one hundred per cent they paid! And he told them they had better sell — at his price; twenty-one out of twenty-six did, and by March, 1872, young Mr. Rockefeller was practically the only oil refiner in Cleveland, Ohio, where three months before there had been twenty-six.”¹⁹¹

Mr. Rockefeller had seen the oil industry of Cleveland fall into his hands by the panic which the contracts with the South Improvement Company had caused. Tarbell argued that because Rockefeller could ship cheaper than his competitors and utilize the rebate, that his establishment of “a system of espionage on their business, the oil industry of the country would

¹⁸⁸ Daniel Yergin, *The Prize: The Epic Quest for Oil, Money and Power*, (New York: Simon & Schuster, 1991), pg 41-42.

¹⁸⁹ Ibid, pg 41.

¹⁹⁰ Ibid, pg 41.

¹⁹¹ Ida M. Tarbell, “Character Study of JDR,” *McClure’s Magazine*, (August 1906), pg 6.

be his in time.”¹⁹² Afterwards, Rockefeller allegedly began to deliberately put into effect his plans for driving all participants out of the oil business.

However, in April 1872, the South Improvement Company was dissolved. Yet, Rockefeller and his associates developed alternative ways of organizing, to effectively manage their fast growing enterprise. In 1882, they combined their disparate companies, spread across dozens of states, under a single group of trustees. The thirty-seven stockholders merged their shares into a trust of nine Trustees: John and William Rockefeller, Oliver H. Payne, Charles Pratt, Henry Flagler, John D. Archbold, William G. Warden, Jabez Bostwick, and Benjamin Brewster.¹⁹³ The development of a trust began the first of a complex web of corporate entities that Rockefeller used to control a vast array of companies. Standard's actions and secret transport deals helped its kerosene price to drop from \$.58 to \$.26 from 1865 to 1870.¹⁹⁴

In 1885, Standard Oil of Ohio moved its headquarters from Cleveland to its permanent headquarters at 26 Broadway in New York City. Concurrently, the trustees of Standard Oil of Ohio chartered the Standard Oil Company of New Jersey to take advantages of the state's lenient corporate stock ownership laws. The move from Cleveland represented the strategic maneuvers that Rockefeller made to evade a particular state's policies or regulations that he felt adversely affected him. The tension that Rockefeller experienced with the Federal government was a product of the legal battles and shifts in location that he made for his company.

Acquisitions and Mergers

Vital to the acquisition strategy of Rockefeller was his ability to maintain and gain additional credit. In the corporate mergers and acquisition environment Rockefeller was always ready with an abundant reserve of cash, usually borrowed, which allowed him to win bidding

¹⁹² Ibid, pg 6.

¹⁹³ Matthew Josephson, *The Robber Barons*, (Harcourt Trade, 1962), pg 277.

¹⁹⁴ Eliot Jones, *The Trust Problem in the United States*, (New York: Mcmillian, 1922), pg 89–90.

wars in buy other refineries. The access to funds required a sophisticated and deep trust between Rockefeller and the banks he petitioned for funds. Rockefeller himself describes the way he enlisted the necessary funds to buy up a refinery:

“It required hundreds of thousands of dollars—and in cash; securities would not answer. I received the message at about noon...I drove from bank to bank, asking each president or cashier, whomever I could find first, to get ready for me all the funds he could...I rounded up all of our banks in the city... until I recurred the necessary amount. With this I was off on the 3 o'clock train, and closed the transaction.”¹⁹⁵

In fact, Rockefeller's relationship with bankers became so well established that in 1868 he became a director of the Ohio National Bank. Starting in the 1870's, Standard Oil, in reaction to the oil price instability, developed a new strategy for growth. The strategy focused on buying leading refiners to dominate the refining industry's market share. Rockefeller's stated objective was to eliminate “that cut-throat policy of making no profits” so as to “make the oil business safe and profitable” and under Standard Oil's control. The eventual strategy developed into a carrot and stick approach to business negotiations. Standard Oil's agents approached their targets with deference, politeness and flattery and highlighted the profitability of Standard Oil. If the “carrot” did not work, then Standard Oil, as Rockefeller described it, gave targeted firms “a good sweating.”¹⁹⁶ The policy was a series of prices that Standard Oil implemented in the local dominion or market of a particular refining company therefore forcing the competitor to operate at a loss. In 1879, Standard Oil had control of, through its own and subsidiary operations, 90 to 95 percent of the US refined oil output.¹⁹⁷ Furthermore, Standard Oil controlled the pipelines and held lucrative deals with the major transportation networks in the Oil Regions.

¹⁹⁵ Chernow, *Titan*, pg 105.

¹⁹⁶ Yergin, pg 42.

¹⁹⁷ Klein & Grantitz, pg 2. Chernow in *Titan* on page 43 estimates a similar output of 90 percent of America's refining output.

The Pennsylvania producers reacted to the growth and dominance of Standard Oil with an ambitious plan, a long-distance pipeline. The Tidewater Pipeline would travel eastward 110 miles from the Oil Regions to a connection with the Pennsylvania and Reading Railroad. In May of 1879 oil was flowing in the pipeline and it was considered a significant technological advancement and function as a major competitor to railroads for oil transportation.¹⁹⁸ Standard Oil, fearing loss of market share and industry control, developed 4 long distance pipelines from the Oil Regions to Cleveland, New York, Philadelphia, and Buffalo. Furthermore, Standard acquired a minority stockholder in Tidewater and negotiated an arrangement to pool shipments with the new pipeline company to manage competition.

The other method of reaction and attack on Standard Oil began in late 1870s through the political system of the United States and the court system. The major oil producers launched a series of legal attacks against Standard Oil for discriminatory rates and sought criminal indictment of its principal officers for conspiracy. Concurrently, a series of legislative hearing began in New York on railroads with an explicit focus on Standard Oil's rebate system. These events culminated in the first major public revelation and recognition of the extent of and influence of Standard Oil's operations and its use of rebates and drawbacks. A Pennsylvania grand jury indicted Rockefeller, Flagler, and other associates for conspiracy to create a monopoly and injure competitors.¹⁹⁹

Standard Oil was soon thrown into the public's eye and the first major leveled against Standard Oil was articulated by Henry Demarest Lloyd in his article "The Story of a Great Monopoly" in the *Atlantic Monthly* in 1881.

Lloyd summarized his opinions by stating how:

¹⁹⁸ Yergin, pg 43.

¹⁹⁹ Ibid, pg 44.

“The Standard holds it vantage-ground, and America has the proud satisfaction of having furnished the world with the greatest, wisest, and meanest monopoly known to history. To-day, in every part of the United States, people who burn kerosene are paying the Standard Oil Company a tax on every gallon amounting to several times its original cost to that concern.”²⁰⁰

Although public discontent began to brew over the perceived excesses of Standard Oil’s business operations and transportation agreements, a new arrangement was developed. The idea was a “trust,” which was focused on ensuring stability in the oil industry. A board of trustees was set up, which was given control of the stock of all entities controlled by Standard Oil. Then shares were issued in the trust to key individuals, out of the 700,000 total shares, such as Rockefeller held 191,700 and Flagler, who held 60,000. The trustees held the shares in the individual companies on behalf of the forty-one shareowners of the Standard Oil Trust and were in-trusted with the general supervision of the fourteen wholly owned and twenty-six partly owned companies. The trustees’ responsibilities included the selection of directors and officers, which often included them. The purpose of “the trust” arrangement made it possible that establishment of a central office to coordinate and justify the activities of multiple operating entities, which became increasingly necessary as the business grew.²⁰¹

The Standard Oil Trust Agreement was signed on January 2, 1882. Simultaneously, different Standard Oil organizations were set up in each state to control the entities in those states. The entire system was managed by a series of committees and sub-committees below the trustees, such as a Domestic Trade Committee, an Export Trade Committee and more. Daily reports and updates from the business operations of the trusts flowed into the committees, all of whom reported to an Executive Committee, which set the overall policies.²⁰²

²⁰⁰ Henry Demarest Lloyd, “The Story of a Great Monopoly,” *The Atlantic Monthly*, (March 1881), pg 7.

²⁰¹ Yergin, pg 45.

²⁰² Ibid, pg 45-46.

The major business strategy of 1880's for Standard Oil was a policy of low cost producing to maintain a competitive advantage over other oil refiners. Standard Oil required efficiency in its operations, control of costs, constant focus on developing technology and exploration of new markets. Furthermore, consolidation became a new avenue for cost cutting by the middle 1880s, as Standard refineries, in Cleveland, Philadelphia and Bayonne, New Jersey, produce over a quarter of the world's total output of kerosene. Standard Oil also utilized an effective communications system to take advantage of price arbitrage in the Oil Regions, Cleveland, New York, and Philadelphia and in Europe. The trust effectively utilized an extensive system of corporate intelligence and espionage to track markets condition and competitor's activities and output. The focus on scientific research became a major component to the development of Standard Oil throughout the 1880's and 1890's. Standard Oil renewed focus on the quality of the refined oil and on growing its marketing system. Rockefeller insisted on consistency and quality control to prevent impure oils, which were notorious for explosions.²⁰³

The new headquarters of the trust soon shifted to a building in lower Manhattan. The eventual legal case against Standard in *Standard Oil of NJ v US* claimed that the firm was a monopoly and established a network of collusion among 100 to 200 different sellers.²⁰⁴ The government claimed that "unquestionably the principal means used by the defendants to monopolize and restrain trade and commerce in petroleum has been the combination of previously independent concerns."²⁰⁵ The official estimate claimed that Standard acquired 123 refineries, 11 lubricating oil works, 24 pipeline concerns, and 64 exclusively marketing concerns; a total number of 223.

²⁰³ Ibid, pg 50.

²⁰⁴ John S. McGee, "Predatory Price Cutting: The Standard Oil (N. J.) Case," *Journal of Law and Economics*, Vol. 1 (Oct., 1958), pg 143.

²⁰⁵ McGee, pg 144

Rockefeller acquired a majority of petroleum refining centers in the United States through horizontal integration. Rockefeller's goals for the developing energy market were targeted at controlling access points or gauges in the system that all businesses need to go through. By controlling the refining process, Rockefeller could exert significant pressure on oil and petroleum prices and manipulate them in his favor. His targeted approach became an innovation of sorts for general business strategy.

In late 1871 Standard began acquiring other Cleveland refineries and in a little more than 3 months owned virtually all the refineries in Cleveland, or approximately one-quarter of U.S. refining capacity.²⁰⁶ Standard then began making refinery acquisitions in other cities and by 1879 controlled more than 90 percent of U.S. refining capacity. For the following 20 years, Standard maintained a dominant share of refining, in spite of the fact that entry into refining remained easy.²⁰⁷

Transportation Advantage

In contrast to the situation in refining, where there were numerous firms and entry was easy, only three railroads transported petroleum in 1870, and new entry was difficult. Therefore, in principle it was possible to establish a cartel in petroleum transportation. Standard established such a transportation cartel by collusively agreeing to stabilize individual railroad market shares and by shifting its petroleum shipments between railroads to enforce the agreement. Since effective enforcement of the collusive transportation agreement required standard to possess a large share of refining, the railroads facilitated Standard's refinery acquisitions and prevented new refiner entry by setting disadvantageously high rates to non-standard refiners. However, the

²⁰⁶ Klein & Grantitz, pg 2.

²⁰⁷ Klein & Grantitz, pg 2.

refining profit earned by Standard was only the way in which Standard received its portion of the petroleum transportation cartel profits.²⁰⁸

Klein & Grantitz analysis is “similar to Ida Tarbell's 1904 critique of Rockefeller and Standard Oil, which emphasized that "Mr. Rockefeller's great purpose had been made possible by his remarkable manipulation of the railroads." However, Tarbell and others who emphasized the role of the railroads in Standard's success do not present a consistent economic explanation of how the railroads were "manipulated" by Rockefeller, even in the early 1870s before Standard achieved its dominant position in refining.' We make economic sense of Tarbell and other commentators by demonstrating that Rockefeller, rather than "manipulating" the railroads, Cooperated with the railroads in establishing a transportation cartel and, in return for his cartel-policing efforts, shared in the monopoly profits. Our analysis, therefore, elucidates how a vertical relationship can facilitate the creation of monopoly power.

Rockefeller's Philosophy on Business and Government

Ron Chernow elaborates on this idea of Rockefeller's approach to business by stating how “as a self-made man in a new industry, Rockefeller wasn't stultified by precedent or tradition, which made it easier for him to innovate.”²⁰⁹ Concerning Rockefeller's innovate manner; one story best highlights this idea:

“At first, he paid small coopers up to \$2.50 for white barrels before he showed, in an demonstration of economies of scale, that he could manufacture dry, tight casks more cheaply himself; soon his firm made thousands of blue-painted barrels daily for less than a dollar per barrel. Other Cleveland coopers bought and shipped green timber to their shops, whereas Rockefeller had the oak sawed in the woods then dried in kilns, reducing its weight and slicing transportation costs in half.”²¹⁰

Fundamental to operations and the strategic decisions of Standard Oil was the underlying business philosophy of John D Rockefeller. The very details of Rockefeller's beliefs on the

²⁰⁸ Ibid, pg 2.

²⁰⁹ Chernow, *Titan*, pg 100.

²¹⁰ Ibid, 100.

nature of business, profits and how to operate his firm are especially detailed in Ida Tarbell's account of his life.

“As time went on, these characteristics became more conspicuous ... He gave himself to this venture, body and soul one may truthfully say, working with a persistency which put day laborers to shame. He watched details with a hawk's eye — not a cent must go astray — not a pint of oil be lost — not a rivet or bung be wasted. "Pay a profit to nobody," he began to say... A sort of mania for saving seemed to possess him.”²¹¹

John D. Rockefeller pursued his business with great passion and ferocity. However, this intensity would fuel his most dubious activities and business practices. Perhaps the most famous of all of the monopolizing techniques that Standard is supposed to have used is local price cutting. Given the bad repute in which monopoly has long been officially held in this country, and the prominence of predatory pricing in Standard Oil, it is not surprising that the practice received special attention in the law. According to most accounts, the Standard Oil Co. of New Jersey established an oil refining monopoly in the United States, in large part through the systematic use of predatory price discrimination. Standard struck down its competitors, in one market at a time, until it enjoyed a monopoly position everywhere. Similarly, it preserved its monopoly by cutting prices selectively wherever competitors dared enter. Price discrimination, so the story goes, was both the technique by which it obtained its dominance and the device with which it maintained it.²¹²

However, some scholars argued that a simpler technique did exist, and Standard used it. Unless there are legal restraints, anyone can monopolize an industry through mergers and acquisitions, paying for the acquisitions by permitting participation of the former owners in the expected monopoly gains. Since profits are thus expanded, all of the participants can be better off even after paying an innovator's share to the enterpriser who got the idea in the first place.

²¹¹ Ida Tarbell, pg 5.

²¹² Ibid, pg 137-138.

Under either competition or monopoly, the value of a firm is the present worth of its future income stream. Competitive firms can be purchased for competitive asset values or, at worst, for only a little more. Even in the case of important recalcitrants, anything up to the present value of the future monopoly profits from the property will be a worthwhile exchange to the buyer, and a bountiful windfall to the seller. It is conceivable that Standard did not merge to the full size it wanted, but did achieve whatever size was necessary to use predatory techniques to grow the rest of the way.²¹³

Rockefeller's beliefs on competition displayed a cold remorse for those he dominated over as his firm grew. Ida Tarbell claimed that Rockefeller's competitiveness pushed him into the increasingly blurry lines between unethical and illegal. She points out Standard Oil's abuse of the transportation arrangements that it had developed through its exclusive rebate deals.²¹⁴ Ida Tarbell claimed that secrecy was key element in the business operation of Standard Oil. She asserted that

“nobody in the Standard Oil Company was allowed to know any more than was necessary for him to know to do his business. Men who have been officers in the Standard Oil Company say that they have been told, when asking for information about the condition of the business, ‘You'd better not know. If you know nothing you can tell nothing.’”²¹⁵

Tarbell claimed that the primary reason for this secrecy was “as the business developed and its practices became more hostile to public good, one of its chief aims was to protect itself from publicity.”²¹⁶ Tarbell stated that John D. Rockefeller believed that secrecy was essential to carrying out his purpose and carrying out his purpose was vastly more important in his opinion than telling the truth. Tarbell claimed that Rockefeller held that “Business is the higher law;

²¹³ McGee, pg 139.

²¹⁴ Tarbel, pg 5.

²¹⁵ Ibid, pg 7.

²¹⁶ Ibid, pg 7.

success in it justifies itself!"²¹⁷ Rockefeller believed that the proper role of government in the economy was a promoter, but not as an extensive regulator. Frequently, Rockefeller put himself at odds with the limited regulators that he had to interact with all levels of government because of his strong laissez-faire beliefs. Rockefeller acted on this philosophy through evasive business tactics, such as the shifting locations of business operations, stock trusts and secret agreements on transportation costs.

Government Policy on Oil

In the 1880's, the State legislatures of Ohio and Pennsylvania introduced clauses into their constitution forbidding the infamous rebates that Standard Oil had manipulated to its advantage.²¹⁸ In 1890, Sherman Anti-Trust Act was passed as US government began to expand its control over the US economy. The primary reason for the passage of the act was to combat anticompetitive practices, reduce market domination by individual corporations and preserve unfettered competition as the rule of trade. The Sherman Antitrust Act formed the foundation and the basis for the developing federal antitrust litigation. The individual states began to adopt similar antitrust laws to prevent anticompetitive behavior within local intrastate commerce. States had to enact laws because the authority of the federal government was limited to interstate commerce and not intrastate commerce with the boundaries detailed in *United States v. E.C. Knight Co.*²¹⁹

Intervention in the oil market became increasingly more important as US government realized the important role of energy in manufacturing and transportation. The effect was an increased legal battle between Standard Oil and the Federal Government. The relationship that

²¹⁷ Ibid, pg 7.

²¹⁸ Ibid, pg 6.

²¹⁹ "Anti-Trust," *Cornell University Law School: Legal Information Institute*, <<http://www.law.cornell.edu/wex/antitrust>>.

existed between the two entities was tense and the perception that the government held of the company was negative. Rockefeller's fears of losing autonomy over his operations were fueling the tension and apprehension between his firm and the federal government.

During the 1870's and 1880's, Congress experienced a growing concern over rising energy prices. The lack of a stable and healthy relationship between Standard Oil and the Federal government allowed for this doubts to fester. The doubts eventually developed into accusations, although true, about Standard Oil's ability to manipulate energy prices and supply. Rockefeller's outspoken beliefs on the role of government and ruthless business tactics merely added to the image of Standard Oil as a corrupt monopoly. The eventual court case claimed that

“that the defendants John D. Rockefeller, William Rockefeller, and Henry M. Flagler, in or about the year 1870, and at all times since said time, together with the other individual defendants herein, who thereafter from time to time, between said time and 1882, joined said conspiracy, to wit, Henry H. Rogers, John D. Archbold, Oliver H. Payne, and Charles M. Pratt entered into and have ever since been engaged in a conspiracy with each other, and with other persons, corporations, co-partnerships and limited partnerships, as hereinafter more particularly stated, to restrain the trade and commerce in petroleum, commonly called "crude oil," in refined oil, and in the other products of petroleum, among the several States and Territories of the United States and the District of Columbia and with foreign nations, and to monopolize the said commerce.”²²⁰

The prosecutors claimed that the conspiracy extended over the entire time since about the year 1870 up through the time of the trial. The prosecution claimed that Standard Oil had been maintained for the purpose and with the effect of restraining the commerce in the refined oil market. The purpose for this restraint was for monopolization of a major portion of the entire petroleum industry.²²¹

²²⁰ “Transcript of Record: Supreme Court of the United States, Standard Oil Company ET AL. VS. The United States.” *Supreme Court of the United States*. 1910, pg 6-7.

²²¹ *Ibid*, pg 7.

Concluding Remarks

Standard Oil, under the guidance of John D. Rockefeller represents the best example of a business very independent of the influences of government on all levels. The firm sought to remove itself from the regulations and laws that the federal and state governments tried to place on it. The strategy had the consequence of developing not only a negative public image, but an antagonistic relationship with the federal government. The oil company was attempting to remove itself from public scrutiny and the perceived costs that might occur. However, this resulted in a greater cost, a hostile relationship with the federal government. During the second industrial revolution, the hostile strategy worked because the federal government had little resources or effort to enforce regulations it had set in place. But the growing discontent with the excesses of the business community grew over time and result in the populist and progressive movements of the late 1890's and early 20th century. Since the firm did not enjoy a amicable or healthy relationship with the federal government, it did not survive monopoly busting period. In 1911, the firm was dissolved by court order.

Conclusion

The period of 1865 through 1895 was marked by major economic growth in the United States. The United States transitioned from an agricultural nation into the industrialized manufacturing economy. The transition had a profound impact upon the business and

governmental interests that controlled the country. Rapidly, small regional businesses bloomed into mega corporations with reach over the entire nation and slowly creeping into the international market. The government began to take a more proactive role into economic activities of the nation and its people by inserting new regulations and establishing corporations to face the challenges the country faced. The development of these new companies in conjugation with the simultaneous growth in the US federal government formed a unique relationship between these two parties. In particular, Union Pacific Corporation, JP Morgan & Company and Standard Oil Corporation display the different dimensions of the evolving relationship between private enterprise and government.

Each of these different firms displayed a different level of autonomy of the US federal government and viability of long-term business operations. Union Pacific Corporation displayed the company fundamentally intertwined with the federal government. In its inception, it was a federally mandated venture that heavily relied on government subsidies to attract investors. However, the overreliance on land grants attracted the investors with intentions only for short-term profits. This focus on the short-term left the company with any solid leadership throughout the second industrial revolution. The result was declining revenues and a weakened position in the railroad industry. The relationship with the federal government was unsuccessful and the company, in a similar fashion to the general railroad industry, experienced bankruptcy several times. The relationship between Union Pacific and the government was one in which the railroad company was supported by the government.

Standard Oil represents is the exact opposite of Union Pacific in terms of its relationship with the US government. At its core, the firm was founded with a central figure, John D. Rockefeller, who established the firm and guided it's through the second industrial revolution.

Standard Oil succeeded in having a unified and singular leadership, which pushed the firm through the late 19th century and led to rising revenues and market dominance. However, the failure of the firm came in its hostile relationship with the US federal government. Frequently, Standard Oil exploited loop holes of the legal system or blatantly violated federal and state laws. The owner expressed incredibly agonistic views on the idea of increased regulation over his firm. The result was a tense relationship that kept Standard Oil moving from state to state and its eventual dissolution in 1911 at the hands of federal prosecutors.

JP Morgan & Co. stands alone as the victorious business by achieving both tenants of the successful business. Under the leadership of Junius and then JP Morgan, the firm developed with a clear vision and goal for success. The Morgans guided their firms and partnerships, eventually all known as JP Morgan & Co., to immense profits and success. In a similar fashion to Standard Oil, JP Morgan & Co. was successful in eliminating its competitors and dominating the market place. The critical difference between these two firms in their success was their relationship with the federal government. Both companies were despised by the public and considered the worst excesses of the second industrial revolutions. But, JP Morgan & Co. established itself as vital to the operation of the federal government. The firm conveyed the idea to the federal government that a large financial firm was necessary to the health of the US economy. Standard Oil on the other hand did not convey the idea that a monopoly over the US oil supply was necessary. Furthermore, JP Morgan & Company conveyed the image of compliance with laws of the United States, whereas Standard Oil was constantly shifting locations to avoid different state laws. Although, JP Morgan & Company did not comply with the laws, it attempted the show the image of its compliance.²²²

²²² This paper is not advocating these practices or the moral implications of such acts, but merely recognizing how effective JP Morgan & Company was at using these practices.

The successful company followed a similar route as JP Morgan & Co. It maintained a healthy, but not necessarily amicable relationship with the federal government. A healthy relationship meant not being independent of the regulations government or at least appearing to be in compliance with these laws. However at the same time, a healthy relationship meant having operational independence of the government, both in the short-run and long-run. In this context, JP Morgan & Company succeeded where Union Pacific failed. JP Morgan and Company maintained a focus on not only short-run profits, but viability in the long-run.

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