

American Adolescence

GROWTH WITHOUT GUARDRAILS IN THE GILDED AGE

By Mark J. Higgins

“So rapid has been the change that men’s thoughts have been hardly able to adapt themselves to it; still less has the law been able to keep pace with it. The change has brought evils and dangers, previously unknown, and even now imperfectly understood.”

— Arthur T. Hadley, former President of Yale University, 1886

ON MARCH 11, 1868, Jay Gould and James “Jubilee Jim” Fisk were enjoying a celebratory feast at Delmonico’s after thwarting Cornelius Vanderbilt’s attempt to gain control of the Erie Railway. But their mood soured when they discovered that New York law enforcement was moving on warrants issued for their arrest. The action was the latest in a flurry of competing court rulings tied to the escalating battle with Vanderbilt.

In the preceding weeks, Vanderbilt had aggressively purchased Erie Railway shares in an effort to consolidate control of the railroad and remove its notorious treasurer, Daniel Drew. A newly formed alliance led by Gould, Fisk and Drew responded by authorizing a massive issuance of convertible bonds, which were then immediately converted into equity and dumped on the market. Despite spending more than \$7 million, Vanderbilt found his ownership stake in Erie effectively unchanged.

With arrest warrants issued, Vanderbilt had regained the upper hand—but only in New York. Drew fled immediately for the safety of New Jersey. Gould and Fisk delayed, but when it became clear that their arrest was imminent, they rushed to Canal Street and secured a rowboat and crew. After nearly capsizing in choppy waters with several million dollars hastily removed

from the Erie Railway’s vault, they crossed the Hudson and took refuge at the Taylor Hotel—nicknamed Fort Taylor.

The Erie Railway conflict would continue for another year, and it was ultimately resolved through a mix of court decisions and legislative intervention at the New York State Capitol. The outcome was shaped by extensive bribery—much of it paid for with the cash that Gould and Fisk smuggled to New Jersey. This was an all-too-common episode in the lawless markets of the Gilded Age.

Growth Without Governance

The battle for the Erie Railway did not officially mark the start of the Gilded Age, but it was emblematic of the era. What made episodes like this possible was not simply greed, but institutional immaturity. Stretching from the late 1860s to the turn of the 20th century, the Gilded Age was a period of extraordinary economic growth, but the maturation of the laws and institutions required to govern it failed to keep pace. As a result, financial markets operated with few formal constraints, and market manipulation and corporate malfeasance were common practice.

At the same time, the United States introduced groundbreaking technological advancements and massive industrial

expansion, which produced substantial increases in national wealth. This is an important point that many historians discount. It is especially important to highlight because the evidence overwhelmingly reveals that the force of progress proved stronger than the counterweight of corruption.

Given these dynamics, the Gilded Age is best understood as a period of adolescence. American ambition, experimentation and discovery were often offset by impulsivity, hubris and greed. This article aims to present a more comprehensive account by examining not only the excesses of the Gilded Age, but also the stronger force of progress that persisted despite them.

The Dark Forces of the Gilded Age

The excesses of the Gilded Age are well documented in congressional investigations, newspaper accounts and court records. While this article argues that the force of progress ultimately proved stronger, examining the era’s most damaging forms of corruption remains essential. It is impossible to catalog every abuse, but in securities markets the defining pathology was systematic manipulation, while in corporate boardrooms it was the scale and brazenness of self-dealing.



"The Great Race for the Western Stakes," published by Currier & Ives in 1870, depicts Cornelius Vanderbilt and James Fisk in a race for control of New York's rails.

Market Manipulation

"Cheating at cards was always disgraceful. Transactions of similar character under euphemistic names of 'operating,' 'cornering,' and the like were not so regarded."

—Charles Francis Adams, Jr., 1886

During the Gilded Age, securities markets were a dangerous place for amateur investors—or even most professional investors. Few rules existed, and those that did exist were lightly enforced. The “stock operators” who dominated Wall Street rarely bothered with extensive securities analysis. Why try to predict the future, when it was possible to create the illusion of a future you desired? This is why market manipulation was the preferred path to riches.

The mechanics of market manipulation were quite simple. They were usually conducted by a stock pool, in which many investors would combine their resources and appoint a single manager to execute

the strategy. A bull pool sought to increase the price of a stock, while a bear pool sought to depress it. Almost anything was possible beyond this point. Stock pools would plant false stories in newspapers or execute fictitious trades to create the perception of large-scale interest in a security—whatever would move the stock in the preferred direction. Once the desired price target was achieved, the pool would slowly exit their position, take their profit and leave the unfortunate traders caught on the other side holding the bag.

The specific objectives of stock pools were well hidden while in motion, but public awareness of the concept was no secret. Newspapers regularly reported on rumored stock pools, market corners and bear raids. Journalists were often complicit—whether through direct bribery or editorial pressure from owners involved in such schemes. Only after the catastrophic losses of the Great Depression did public outrage finally generate enough pressure to outlaw practices that had long operated in plain sight.

Corporate Self-Dealing

"The only high roads [Thomas] Durant preferred were those on his railroad. He never took an ethical high road. He betrayed partners, and he betrayed strangers. When there was no low road, he blazed one."

—Richard White, author of *Railroaded*

Corporate corruption is a problem that will never disappear entirely in the United States. But those who claim it is worse today than in the past have not immersed themselves in the Gilded Age. During this time, no industry revealed the scale and creativity of corporate corruption more thoroughly than railroads. These enterprises required enormous amounts of capital, depended heavily on the issuance of government charters and land grants and promised profits that often lay far in the future. This combination rendered them uniquely vulnerable to self-dealing—and there were plenty of tools available to those who sought to engage in it.

The Battle of the Belden Hill Tunnel

"Considering the number of men involved and, in all likelihood, the amount of alcohol consumed, the casualty list was astonishingly small; only eight or ten men had been shot, some others suffered 'bruises, more or less severe' and one man had fractured his skull. No one had been killed."

—John Steele Gordon, author of *The Scarlet Woman of Wall Street*

For more than a year, Cornelius Vanderbilt battled Jay Gould, Jim Fisk and Daniel Drew for control of the Erie Railway. Ultimately, the duplicitous Drew was removed as treasurer, and Vanderbilt retreated after receiving a large cash settlement for the illegally issued stock he was duped into buying. But the payout left the Erie short on funds and vulnerable to competitive pressure. In 1869, Gould and Fisk concluded that absorbing the newly completed Albany and Susquehanna Railroad, which linked Albany to Binghamton, was essential to the Erie's survival.

The obstacle was Joseph H. Ramsey, president of the Albany and Susquehanna, who had no interest in surrendering control. What followed was a bitter struggle for legal authority over the railroad. Tactics included bribery, forged documents and even the burial of stock subscription books in a cemetery to prevent the completion of share sales. During the week ending August 9, 1869, the dispute culminated in dueling court orders appointing rival receivers—one aligned with Ramsey, the other with Erie interests.

Each side claimed the law was on its side and set out to secure the railroad.

In the earliest stages of development, securing charters and land grants was existential to railroad ventures. As a result, political bribery was rampant. In one infamous episode, financier Henry Cooke attempted to bribe Speaker of the House James G. Blaine with securities in the Northern Pacific Railroad—only to be met with Blaine's counteroffer to sell Cooke his own inventory of railroad securities, which he had accumulated from previous bribes.

A Ramsey-controlled train departed from Binghamton, while an Erie-backed train left Albany. Both were packed with company employees hastily assembled for a mission few fully understood. Some men carried revolvers; others fashioned clubs from nearby forests. But most were armed only with their fists. As the trains advanced, their occupants seized stations along the route, each attempting to assert physical control of the line.

On August 10, 1869, the two trains collided at the Belden Hill Tunnel. A few shots were fired, skirmishes broke out and one prisoner was taken. Disaster was only avoided because of a fortuitous combination of widespread inebriation among the combatants, timely intervention by the Fourth Regiment of the New York State Militia and the fact that many of the combatants had little idea what, precisely, they were fighting over.

The legal battle for control of the Erie continued for another eight months. Ultimately, the Albany and Susquehanna was absorbed by a competing railroad, denying victory to Fisk and Gould. But if there was ever a moment of peak absurdity in the Gilded Age, it may well have occurred at Belden Hill.

A second, far more lucrative phase of corruption emerged during the construction phase. Before breaking ground, a small group of insiders would create separately managed "construction and finance" companies. These entities then subcontracted with the railroad itself, charging inflated fees for labor and materials. It was not uncommon for such companies to bill more than double prevailing market rates. The profits then flowed to a select group

of insiders, while the losses were borne by investors in the railroad.

The final phase of corruption was often the most visible—and may be more familiar to modern readers—but was ironically less significant in financial terms. Tactics included the misuse of investor funds, price fixing and stock watering through excessive share issuance. While such practices drew public outrage, they were not the primary source of value extraction. By the time these abuses surfaced, much of the damage had already been done.

The Overwhelming Force of Progress

"In the midst of all this speculation, whilst some enrich and some ruin themselves, banks spring up and diffuse credit; railroads and canals extend themselves over the country; steamboats are launched into the rivers, lakes, and the sea; the career of speculators is ever enlarging, the field for railroads, canals, steamers, and banks goes on expanding. Some individuals lose, but the country is a gainer."

—Michel Chevalier, 1835

Corruption in boardrooms and securities markets created a dark cloud over the Gilded Age. But contrary to many recollections, it was also a time of tremendous economic advancement. Evidence clearly shows that the force of progress outweighed the damage of corruption. By the turn of the 20th century, the cumulative effects of advancement enabled the nation to rise as a rival to the British Empire. Some of the key drivers included manufacturing innovation, natural resource extraction and development of an expansive transportation and communication network.

Manufacturing Innovation

On May 1, 1851, Queen Victoria opened a five-month event called the Great Exhibition of Works of Industry of All Nations in London. For nearly 100 years, the British were at the forefront of the Industrial Revolution, and British entrepreneurs were excited to display their latest innovations.

The British welcomed their American cousins even though resentment remained due to recent debt defaults of many US states in the early 1840s and the persistent lawlessness of US securities markets. The



Erie Railway Company stock certificate signed by Jay Gould, 1869.

British were impressed with several American inventions—such as Cyrus McCormick's mechanical reaper and Samuel Colt's revolver—but they overlooked the radical advancements in the manufacturing process that produced them. The Americans had quietly achieved the holy grail of manufacturing by creating machinery and processes that enabled manufacturers to produce machine-made products with fully interchangeable parts.

Prior to the Great Exhibition of 1851, the world was largely unaware of American advancements in precision manufacturing. After the exhibition, the innovations were collectively referred to as the "American System of Manufactures." Soon thereafter America became the leading innovator in manufacturing technology, and the American System of Manufactures became the cornerstone of the growth of US manufacturing in the Gilded Age.

In contrast to Americans, European

industrialists expressed a bias toward manufacturing products at a relatively small scale and with a higher degree of customization. This philosophical difference enabled the US manufacturing sector to prevail over foreign competitors and accelerate the nation's transition from a proto-industrial economy into a mass production industrial economy.

Natural Resource Extraction

The sheer volume of natural resources scattered throughout the United States is often underappreciated. Successful extraction—especially during the late 1800s—was a major contributor to America's cost advantage in industrial production. Cheap energy in the form of coal and petroleum enabled manufacturers to reduce operating and transportation costs. The discovery of rich and easily accessible iron ore deposits provided cheap input for

steel producers. Noteworthy discoveries included iron ore deposits in the Mesabi range in Minnesota; crude oil in Titusville, Pennsylvania; and multiple coal discoveries throughout the land. Extraction of these resources provided industry with inexpensive inputs to the manufacturing process and facilitated affordable transportation of finished goods to end market.

Transportation and Communication

"The fact that railroads had so irrationally spread themselves over the empty plains, in stark defiance of every tenet of conventional economics and common sense, was a major factor in the explosive rate of American growth."

—Charles Morris, author of *Tycoons*

Ironically, the same speculative excesses that plagued Gilded Age finance produced

The Understated Impact of the American System of Manufactures

"I have succeeded in an object that has hitherto completely baffled the endeavors of those who have heretofore attempted it—I have succeeded in establishing the methods for fabricating arms [rifles] exactly alike and with economy."

—John Hall, 1822

Beginning in the 1820s, US mechanics and entrepreneurs introduced multiple innovations that enabled manufacturers to use precision machinery to craft products with interchangeable parts. This achievement may seem relatively inconsequential in the 2020s, but it was groundbreaking in the 1800s.

Before that time, mechanics had failed for decades to establish a level of precision to manufacture parts that were interchangeable. As a result, manufacturing during the first half of the 1800s was labor intensive and heavily reliant on the use of skilled craftsmen. Finished products consisted of parts that appeared identical to the naked eye but were not interchangeable. This

limitation was especially problematic in the United States because of the chronic scarcity of skilled labor.

Thomas Blanchard is often regarded as the founder of precision manufacturing. In 1818, he began designing a series of machines to build muskets. Many American engineers subsequently expanded on Blanchard's innovations. John Hall and Samuel Colt are among the more notable.

Precision manufacturing and interchangeable parts proved to be a critically important factor in the rise of the American economy during the 19th century. But more importantly, it created an infrastructure that would repel an existential threat in the next century.

a powerful and unintended benefit: the construction of a vast railroad network. The network dramatically reduced the cost of transporting raw materials and manufactured goods across the expansive mainland.

By the turn of the 20th century, the era of Jay Gould, Collis Huntington and Daniel Drew had given way to a new generation of railroad leaders and financiers, including Edward Harriman, J. Pierpont Morgan and James J. Hill. These men were more disciplined, more operationally competent and ethical. They improved efficiency and integrated railroads into a coherent national system.

In 1902, financier Frank Vanderlip noted with astonishment that freight costs in the United States averaged just 0.75 cents per ton-mile, compared with 1.6 cents in France and 2.4 cents in Great Britain. American railroads were built not merely for transport, but to serve mass manufacturing at scale. Their efficiency

lowered prices across the economy and created a durable competitive advantage.

Railroads also provided natural corridors for the construction of telegraph and telephone lines, binding together a vast nation with unprecedented speed. By the early 20th century, the United States had become one of the most economically integrated societies in the world.

The Legacy of the Gilded Age

"We shall never surrender, and even if, which I do not for a moment believe, this Island or a large part of it were subjugated and starving, then our Empire beyond the seas, armed and guarded by the British Fleet, would carry on the struggle, until, in God's good time, the New World, with all its power and might, steps forth to the rescue and the liberation of the old."

—Winston Churchill, June 4, 1940

On December 7, 1941, the Empire of Japan struck a devastating blow on the US Pacific Fleet, stationed at Pearl Harbor on the Hawaiian island of Oahu. On the very next day, the United States declared war on Japan. The Americans then joined the British in the war against Nazi Germany when Hitler foolishly declared war on the United States three days later. Over the next four years, nearly the entire world was embroiled in the deadliest conflict in human history. An estimated 100 million people perished before World War II ended on September 2, 1945, with the formal surrender of Japan.

Many factors explained the victory of the Allied powers in World War II, but among the most important was the ability of the United States to outproduce the Axis powers. The Nazis and the Japanese simply could not match the massive industrial output of the United States. Dubbed the Arsenal of Democracy, this unique American capability is what enabled the New World to liberate the Old.

But the US Arsenal of Democracy would not exist if not for hundreds of thousands of miles of railroad track, massive manufacturing production facilities, bottomless reserves of natural resources and innovation that was the envy of the world. The foundation of this arsenal was poured during the Gilded Age.

History offers no shortage of examples in which corruption ultimately short circuits a nation's progress, causing it to fall short of its full potential. The American experience tells a different story. Even during an era of peak corruption, the underlying force of progress was impossible to suppress. The compounding power of American innovation and the insatiable desire of its people to improve in the face of perennial imperfection ensured that corruption neither defined the nation's character nor prevented its maturation toward adulthood. \$

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The Arsenal of Democracy was a critical component of the D-Day invasion by the Allied Powers on June 6, 1944. This photograph by the U.S. Maritime Commission shows landing craft and American troops coming ashore in Normandy, France, on D-Day.

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