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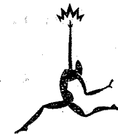
The Company

A Short History of a Revolutionary Idea



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In the 1880s, Richard Sears was the station agent for the Minneapolis and St. Louis railroad in a small Minnesota town. Short of things to do, he began to peddle wood and coal to local farmers. When a local jeweler refused to buy a consignment of watches sent by a Chicago company, the enterprising young Sears stepped in, bought them, and sold them to other agents up and down the line. In 1887, he took the year-old R. W. Sears Watch Company to Chicago, linked up with an Indiana watchmaker, Alvah Roebuck, and went into the mail-order business, specializing in watches and jewelry. Like its Chicago rival, Montgomery Ward, the Sears, Roebuck catalogue offered rural America a way around expensive local retailers. By 1895 the Sears catalogue was 532 pages long, offering everything from guns to stoves.

Sears was a copywriter of genius, but the company would never have grown so big without the organizational talents of Julius Rosenwald, who became his partner in 1901 (Roebuck had sold out in 1894 for $25,000). One of the new breed of professional managers, Rosenwald tightened up the administration of the firm, censoring some of the founder's less truthful sales pitches and establishing a "laboratory" for testing the products to check that they worked.

In 1906, the pair took the company public in order to raise more money. In the same year, the company opened a $5 million mail-order plant in Chicago, the largest business build-

ing in the world. To deal with the growing problem of fulfilling orders, Rosenwald developed a mechanical scheduling system, a sort of assembly line for customer orders. "Miles of railroad tracks run lengthwise through and around this building for the receiving, moving and forwarding of merchandise," boasted the Sears catalogue. "Elevators, mechanical conveyors, endless chains, moving sidewalks, gravity chutes, apparatus and conveyors, pneumatic tubes and every known mechanical appliance for reducing labor, for the working out of economy and dispatch is to be utilized here in our great Works."[1] One of the first people to visit this industrial marvel was reputedly Henry Ford. In 1916, Rosenwald added another innovation—a pension fund for employees in which the firm's contributions were tied to its profits and much of the fund was invested in Sears's stock.

The remarkable growth of Richard Sears's business from a hobby to a recognizably modern corporation, complete with shareholders, distinct operating units, a national network of suppliers, and professional salaried managers (not to mention management processes that would be "benchmarked" by other industries), gives some idea of the revolution that took place in America in the late nineteenth century. It was not just a question of making use of the railroads. A firm structured like Sears, Roebuck in 1916, with thousands of employees, pensioners, and shareholders, did not exist in 1840—not even in the wild imaginings of some futuristic visionary.

Back then, the bulk of economic activity was conducted through single-unit businesses, run and owned by independent traders, who would have been more familiar with the Merchant of Prato's business methods than Henry Ford's. When John Jacob Astor died in 1848, he was the country's richest man, leaving an estate valued at about $20 million. But even at the height of his business career, when he was running the American Fur Company, he never employed more than a

handful of people, the most important of whom was his son. His "headquarters" consisted of a few clerks working in a room the size of a hotel suite.

In 1840, businesspeople expected the work of coordinating their own activities with those of other businesspeople over a region as vast as the United States to be done by the market. Nobody would have thought that a single vast organization could coordinate, say, the demand for women's undergarments in Oregon with the production of cotton in New England.[2] Of course, most people throughout this period continued to work in small private businesses (such as farms). And there were also some industries, such as health care, which remained oddly resistant to economies of scale. But by the First World War, the giant corporation had become the dominant business institution in America: the gold standard by which all other enterprises were judged. It had also helped propel America to the top of the economic league. In 1851, at Queen Victoria's Great Exhibition, America failed to fill its allotted space, and the young monarch was unimpressed by "their very curious inventions."[3] By 1913, America produced 36 percent of the world's industrial output compared with Germany's 16 percent and Britain's 14 percent.[4]

The behemoths that were created in this period helped found modern America. It was their jobs that lured people from all over the world to America's big cities; their abuses that hastened the development of labor unions and antitrust law; their indifference to the environment that meant that sunlight could hardly penetrate the smoky air of Pittsburgh and Chicago; and their capacity to produce wealth that posed questions about inequality and meritocracy. The robber barons excited awe and disgust in equal measure for their "conspicuous consumption" (a term that Thorstein Veblen first coined to describe their spending habits), in the form of mansions, parties, and art collections. Even the parsimonious Andrew

Carnegie, whose writings included *The Advantage of Poverty,* owned a Scottish castle, Skibo, with a staff of eighty-two and a New York mansion with sixty-four rooms.[5]

FIRST CAME THE RAILROADS

Why did these extraordinary organizations take off when they did? Alfred Chandler has provided the classic answer: "Modern business enterprise" became viable "only when the visible hand of management proved to be more efficient than the invisible hand of market forces." For that to happen, a new system of transport and communication was necessary.

The railroads were not just great enablers for modern business; they were also the first modern businesses.[6] It took gigantic quantities of capital—much of it from Britain—to build 31,000 miles of railroad, as America had in 1860 (let alone the 240,000 miles it had by 1910).[7] Railroads had equally little choice about being the first firms to employ large armies of full-time managers. Moving huge amounts of freight around the country without trains crashing into each other required an awful lot of administration. Initially borrowing from the British example (where the railways were typically run by retired army officers), the bigger railroads began to build up elaborate hierarchies, employing fifty to sixty managers by as early as 1850, and hundreds more thereafter.

These managers were new figures in an agrarian society: people who didn't own the organizations they worked for but nevertheless devoted their entire careers to them. They had a high sense of their calling (some even looked down on the mere amateurs who had founded the companies). And they pioneered many of the tools of the modern corporation. Railroad executives such as Daniel McCallum (in the 1850s) and

Albert Fink (in the 1860s) devised the accounting and information systems needed to control the movement of trains and traffic, to account for the funds they handled, and to determine profit and loss for the various operating units.

Meanwhile, the railways' voracious requirement for capital did more than anything else to create the modern New York Stock Exchange. In the 1830s, a good day on the Exchange might have seen a few hundred shares changing hands (on March 6, 1830, the worst day in its history, only thirty-one shares were traded). By the 1850s, with the railways booming, that figure ballooned to hundreds of thousands.[8] In 1886, it had its first million-share day.

From the end of the Civil War to the 1890s, Wall Street existed almost exclusively to finance the railroads, something investors often regretted. Rogues like Daniel Drew made their name manipulating the stocks of railroads like the Erie. (One song went, "When Uncle Dan'l says Up/Erie goes up/When Uncle Dan'l says Down/Erie goes down/When Uncle Dan'l says 'Wiggle waggle'/Erie bobs both ways.")[9] When another speculator, Jay Cooke, failed to sell bonds in the Northern Pacific Railroad, his bank collapsed on "Black Thursday," September 18, 1873, prompting scores of other bankruptcies and shutting the Exchange for ten days. In the last quarter of the nineteenth century, more than seven hundred railroad companies, which together controlled over half the country's rail track, went bankrupt.[10]

Yet, as in Britain, it was the railways that spawned an investor culture. The *Commercial and Financial Chronicle,* founded in 1865, and later the *Wall Street Journal,* founded in 1889, covered railroad stocks in depth. Henry Varnum Poor (Alfred Chandler's grandfather) edited the *American Railroad Journal* and then *Poor's Manual of Railroad Securities* before giving his name to the ratings agency Standard & Poor's.

Railroads accounted for 60 percent of publicly issued stock

in America in 1898, and the proportion was still above 40 percent in 1914. But most of the money the railroads raised was debt, partly because the founders wanted to retain control and partly because bonds were more easily marketed abroad than equity. In 1913, there was $11.2 billion worth of railroad bonds, versus $7.2 billion of common stock, and that ignores both the railroads' enormous bank debts and the fact that half of the common stock was corporate cross-holdings.[11] Preference shares were also enormously popular—particularly after they were used to launch the Pennsylvania Railroad in 1871.

Such a narrow equity base made bankruptcy a common threat, spurring consolidation. Many of the earliest railway lines did not yet connect to each other. Bullies like Cornelius Vanderbilt and then J. P. Morgan tidied up this fragmented system. Even without their prompting, many railroad tycoons decided that collusion was the only way to ensure a regular flow of traffic and avert ruinous price wars.

This consolidation meant that by the 1890s, the railways were bigger than the utility companies that brought light, heat, and water to Chicago and New York, and bigger by far than the armies that defended the United States. In 1891, the army, navy, and marines employed a total of 39,492 people. The Pennsylvania Railroad employed over 110,000. The country's total gross national debt was $997 million—only $155 million more than the Pennsylvania's capitalization of $842 million.[12]

This concentration of power caused a backlash. But these giants also helped build much of the infrastructure of a modern economy. The railroads provided the right-of-way for telegraph and telephone lines. They revolutionized the Post Office. They ended up owning most of the country's steamship lines. Above all, the railways brought a far-flung country together, making it possible to move large quantities of goods

around the country both quickly and predictably. By the 1870s, the three weeks it took to move goods from Philadelphia to Chicago had been cut to a couple of days. And for some commodities, such as grain, it was not just a case of creating national markets but (thanks to similar improvements in shipping) creating global ones. By 1914, the Americas were exporting 600 million bushels of wheat to Europe, fifteen times the figure for 1850.

THE RETAILERS BEFORE THE MANUFACTURERS

The first American companies to take advantage of the railway infrastructure were in distribution and retailing.[13] In 1840, most goods were distributed around the country through a system of wheeling and dealing. Within a generation, distribution was dominated by giant companies. The 1850s and 1860s saw the appearance of huge wholesalers who bought directly from producers and sold to retailers. Then the 1870s and 1880s saw the birth of modern mass retailers—of chain stores, department stores, and mail-order companies.

The new retailers, typified by Julius Rosenwald, mastered the trick of reducing costs while improving choice. They turned over their stock at a far greater speed than their smaller rivals (always the secret of success in retailing). They set up huge purchasing departments and introduced new technology rapidly (witness the Sears mail-order plant). The pioneering department stores remained household names in their respective cities for the next century or more: Macy's, Lord & Taylor, and B. Altman in New York; Marshall Field and Carson, Pirie, Scott in Chicago; Emporium in San Francisco. Soon they were joined by retailers who were building national brands. Frank Woolworth opened seven small de-

partment stores in southeast Pennsylvania in the early 1880s. By 1909, he had more than three hundred stores in the United States and was opening branches in Britain.

Manufacturing was slower to catch on. The Civil War gave America's factories their first big spurt: the number of manufacturing companies jumped by 80 percent in the 1860s. Thereafter, the main spur for change was new technology—particularly electricity and later the internal combustion engine. But new technology was not much good without organizational change. For instance, the pioneers of using electricity in factories simply replaced steam with electricity without reorganizing the production process; it was only when factories started using electricity to power individual machines that productivity soared—something that did not happen in many cases until the mid-1920s.[14]

One of the first industrialists to reengineer production was Andrew Carnegie (1835–1919). Carnegie, a Scottish immigrant who came to embody the ideal of the self-made man, learned about management working for the Pennsylvania Railroad, and his first company, the Keystone Bridge Works, sold rails and bridges to the railways. In his factories, Carnegie introduced the "line production" system, arranging his machines and workers into a sequence that allowed jobs to be broken down into their component parts. Where possible he tried to standardize things, and he ruthlessly exploited the advantages of scale. The more steel he could produce, the lower his costs; the lower his costs, the more he could sell. "To make ten tons of steel would cost many times as much as to make one hundred tons," he argued. "The larger the scale of the operation, the cheaper the product."[15] By 1900, a dozen men on the floor of a mill could roll three thousand tons of steel a day, as much as a Pittsburgh mill in 1850 rolled in a year. Carnegie's employees were organized in layer upon layer of managers, from foremen to direct his gangs of workers, to mill and furnace managers, to money managers, salesmen, marketing specialists, and two dozen partners with equity in his firm.

The line production system was perfected by Henry Ford (1863–1947). Ford's engineers borrowed particularly from the "stopwatch" ideas of the first great management guru, Frederick Taylor, whose *Principles of Scientific Management* was published in 1911. They designed improved machinery, such as conveyors, rollways, and gravity slides, to assure the regular flow of materials. Their stroke of genius was to introduce conveyor belts to move parts past the workers on the assembly line. This reduced the time it took to make a Model T from twelve hours to two and a half hours. By the spring of 1914, Ford's Highland Park plant had reduced the time to one and a half hours, and it was turning out a thousand cars a day.[16] The frenetic world that was parodied in Charlie Chaplin's *Modern Times* had arrived.

ALL UNDER ONE ROOF

Ford's success was not just about building cars more swiftly, but also about bringing both mass production and mass distribution under the roof of a single organization. An "integrated" industrial firm could find economies of scale in everything from purchasing to advertising—and thus pump an endless supply of cigarettes, matches, breakfast cereals, film, cameras, canned milk, and soup around the country. The key was to own as much of the process as possible. Ford even owned the land on which grazed the sheep that produced the wool that went into his seat covers.

Integrated companies, which did not really exist in the 1860s, dominated America's most vital industries by the turn of the century.[17] Typically, like Ford, they combined techno-

logical innovation with market clout. In 1881, James Buchanan Duke, who had a tobacco business in Durham, North Carolina, decided to get into the cigarette business—at the time regarded as something of a dead end. But Duke found a secret weapon—the Bonsack cigarette machine, which could turn out 125,000 cigarettes a day, at a time when the fastest worker could produce no more than 3,000. Duke's machines were soon producing far more cigarettes than the then-undeveloped market could absorb, so he created a huge marketing organization to pump up demand. Duke himself invented a crush-proof packet to make the smoker's life (or what remained of it) more convenient. He built his own purchasing, curing, and storing facilities to ensure a regular supply of raw materials. In 1890, he merged with four competitors to form the giant American Tobacco Company.

Duke's story was repeated in several other industries. George Eastman invented not only a cheap camera but also the idea of the amateur photographer to find a market for his photographic film. But the most distinctive feature of all the integrated firms was a desire to grow as big as possible. That inevitably led to mergers.

Cornelius Vanderbilt had already shown the benefits of consolidation in the railway industry. Between 1890 and 1904, huge waves of consolidation left most of the country's industrial base in the hands of around fifty organizations—usually (if sometimes unfairly) referred to as trusts. The merger era produced some of the most powerful companies of their time, including U.S. Steel, American Cotton, National Biscuit, American Tobacco, General Electric, International Harvester, AT&T, and United Fruit. Two people are synonymous with the trust era: John D. Rockefeller (1839–1937) and J. P. Morgan (1837–1913).

Right from the beginning, Rockefeller realized the importance of scale. In his first few years as an Ohio refiner, he

bought fifty refineries in Cleveland and eighty in Pittsburgh, adding warehouses and timber yards (to make his own barrels) and ships (to transport them). In 1870, hoping to take advantage of a recession to expand further, he formed a joint-stock company, Standard Oil, distributing shares mainly among his original partners, and admitting a handful of new investors. He also set up the South Improvement Company, a cartel of refiners and railroads in Pennsylvania and Ohio, which squeezed out his competitors, effectively leaving him in charge of all Cleveland's refineries.

The South Improvement Company, which was chartered in Pennsylvania, was one of the first trust companies. Trusts, which separate the holding and control of assets from their beneficial ownership, were an old legal concept dating back to the Crusades (when knights left their possessions in the "trust" of others, to be administered on their behalf in their absence). For the robber barons, they were a way of getting around primitive antitrust laws prohibiting companies from owning shares in each other. Shareholders in a number of competing companies gave their voting shares to a central trust company in return for tradable trust certificates bearing the right to receive income but not to vote. This gave the central body the ability to determine common prices for the entire group.

In 1882, the Standard Oil alliance, a loose federation of forty companies, each with its own legal and administrative identity (to satisfy individual state laws), metamorphosed into the Standard Oil Trust. The new trust acquired a single headquarters—at 26 Broadway in New York City—and immediately set about rationalizing the oil industry. The company's costs fell dramatically, from 1.5 cents for refining a gallon of oil to 0.5 cents. "The Standard was an angel of mercy," Rockefeller argued, "reaching down from the sky, and saying, 'Get into the ark. Put in your old junk. We'll take all

the risks!' "[18] Soon a quarter of the world's production of kerosene came from just three giant refineries.

Things then took an odd turn. One evening in 1889, Ohio's attorney general, David Watson, found a book in a Columbus bookstore called *Trusts: The Recent Combinations in Trade,* which included Standard Oil's trust deed as an appendix. Watson realized that Standard Oil of Ohio had been violating its state charter by handing over control to out-of-state trustees. Ignoring a series of heavy-handed threats and, it is said, fulsome bribes, he sued, and in 1892, the Ohio Supreme Court ruled in his favor, renouncing the trust agreement and saying that the trust had created a monopoly.

Standard's bold response—that the only effect "will be to inconvenience us a little"—was partly true.[19] Rockefeller now had an excuse to begin moving his empire to New Jersey, which in 1889 had created the most liberal incorporation law in the country, with politicians even setting up a company to handle the paperwork. The New Jersey law allowed for holding companies—umbrella companies that own a controlling proportion of the voting shares of subsidiary companies. In 1899, after a number of legal feints, Standard Oil of New Jersey became the oil giant's formal holding company, controlling stock in nineteen large and twenty-one smaller companies.[20] Big companies have used this device ever since (indeed, lawyers will doubtless point out that many of the huge companies that we mention henceforth are technically no more than legal shells).

Standard was only one of many trusts and big businesses to move to New Jersey. By 1901, two-thirds of all American firms with $10 million or more of capital were incorporated in the state, allowing New Jersey to run a budget surplus of almost $3 million by 1905 and paying for a rash of new public works. Inevitably, other states fought back. Virginia turned itself into what one legal treatise called a "snug harbour for roaming and

piratical corporations." The New York legislature was forced to enact a special charter for the General Electric Company to prevent it from absconding to New Jersey. But the big winner of this particular "race to the bottom" would be Delaware. By the time the Great Depression struck, the state had become home to more than a third of the industrial corporations on the New York Stock Exchange: twelve thousand companies claimed legal residence in a single office in downtown Wilmington.[21]

Most of the other industrial trusts converted to holding companies, too. They, unlike Rockefeller, often did so at the instigation of the most powerful trust of them all, the "money trust," as Congressman Charles Lindbergh dubbed the masters of Wall Street. Since the United States had no central bank, J. P. Morgan and a few other bankers wielded enormous power. The bankers made use of the new holding companies themselves to get around rules preventing them from investing in shares (Morgan, for instance, controlled a Philadelphia broker, Drexel and Company). Whereas most of the earlier industrial mergers were the work of company founders (Vanderbilt in railways, Charles Pillsbury in flour), the turn-of-the-century merger boom was, if anything, the work of "stock promoters."

This marked a turning point, because it tied industrial companies to the stock market. In 1890, fewer than ten manufacturing shares were traded on the main exchanges—and most of those, like Pullman's Palace Car Company, were closely associated with railroads. Investors regarded industrial firms as risky. Industrialists hung on to the equity in their companies themselves, raising money through family connections and commercial loans rather than the capital markets.

Morgan engineered an extraordinary change. The total amount of capital in publicly traded manufacturing compa-

nies increased from $33 million in 1890 to more than $7 billion in 1903. The new giants included industrial combines such as General Electric and International Harvester, but most emblematic was the metamorphosis of the world's largest manufacturer, Carnegie Steel, into the still more gargantuan U.S. Steel.

Carnegie had founded his company with his own money, amassed speculating on the railroads. Claiming a profound distrust of public ownership ("Where stock is held by a great number, what is anybody's business is nobody's business"), he structured his corporation into a series of partnerships, each controlled by Carnegie himself, and subject to an overall "Iron Clad Agreement" that forced any partner who wanted to get out to sell his stake back to the company at book value.[22] But in 1901, after a brief conversation on a golf course, he sold the company to J. P. Morgan and Elbert Gary for $480 million. They then combined it with another two hundred or so smaller firms and offered the United States Steel Corporation to the public at a valuation of $1.4 billion. A similar deal done today, expressed as the same proportion of GNP, would approach half a trillion dollars. [23] U.S. Steel accounted for two-thirds of America's steel production and employed a quarter of a million men. The company's value was equivalent to two-thirds of all the money then in circulation in the United States.[24]

The U.S. Steel issue was another turning point in the development of the American company. Henceforth, the privately held industrial firm would be the exception—the main one being the Ford Motor Company. That did not mean that a recognizably modern equity market emerged immediately. Equity trading remained a clubbish affair until at least the end of the First World War.[25] Most investors still found it difficult to value shares, often focusing on dividend yields: even relatively sophisticated people talked about buying 5 per-

cent shares till the Second World War. Auditing was also lax: in 1914, an attempt to force all industrial companies to produce uniform accounts was defeated in Congress.

THE BACKLASH

Were these new companies making America a better place? The robber barons themselves found heartwarming justification for their doings in the Social Darwinism of Herbert Spencer, an English thinker who won a huge following in America for his doctrine of "the survival of the fittest" and his opposition to state intervention of all sorts, from tariffs to public education. "Light came in as a flood, and all was clear" was Carnegie's reaction to Spencer. Rockefeller likened laissez-faire capitalism to breeding an American Beauty rose "by sacrificing the early buds which grew up around it. This is not an evil tendency in business. It is merely the working out of a law of nature and a law of God."[26]

Others saw this pruning from the other side. In 1869, the historian Charles Francis Adams wondered whether the joint-stock corporation wasn't a dangerous idea. Society had "created a class of artificial beings who bid fair soon to be masters of their creator. It is but a few years since the existence of a corporation controlling a few millions of dollars was regarded as a subject of grave apprehension, and now this country already contains single organizations which wield a power represented by thousands of millions . . . they are already establishing despotisms which no spasmodic popular effort will be able to shake off."[27]

In fact, a considerable popular effort was amassing. As the new companies changed society, so society changed the companies. One example was the growth of labor unions. The earliest American unions were fairly small affairs, most of

them based on particular crafts and concentrated among skilled workers. But the consolidation of capital prompted a consolidation of labor. The National Labor Union appeared in 1866. Another organization, the Knights of Labor, boasted 700,000 workers at its peak in 1886. The 1890s marked a maturing of the unions as well as a maturing of big business—and a series of bloody confrontations between the two.

The bloodiest standoff came at Andrew Carnegie's steel plant in the quaintly named Homestead, Pennsylvania. Carnegie claimed to be a friend of workingmen, even encouraging his employees to call him "Andy." But in 1892, he and his plant manager, Henry Clay Frick, engineered a confrontation with the Amalgamated Association of Iron, Steel and Tin Workers, then the strongest union in the American Federation of Labor, with 24,000 members across the country. In the past, the union had served Carnegie's purpose by imposing equal labor costs on his competitors. Now that those competitors had been beaten, it was an inconvenience. Carnegie cut the men's wages—a decision that precipitated a strike and then a lockout. Frick duly built a three-mile-long stockade around the factory, complete with barbed wire, searchlights, and two hundred shooting holes for rifles. He also employed three hundred men from the Pinkerton detective agency to protect his strikebreakers. The workers won the first round, with the Pinkertons surrendering after a pitched battle, which claimed sixteen lives. But they lost the war. The governor sent in eight thousand state militia. Frick brought in strikebreakers, many of them blacks who were banned from joining the union, and smashed the strike.

The Homestead strike, and the bloody Pullman strike of 1894, where the attorney general (a railroad shareholder, as it happened) intervened to declare that the American Railroad Union was "an illegal combination" under antitrust laws, showed the gulf between the power of capital and labor. In all kinds of disputes, the courts tended to uphold the notion of freedom of contract rather than workers' rights. Yet, between 1897 and 1904 union membership multiplied almost fivefold. In 1906, the AFL began to focus on electoral politics, supporting Democratic Party candidates and forming close relations with the big political machines that now dominated city politics. Union bosses seized on tragedies like the Triangle Shirtwaist Company fire in New York in 1911 to agitate for safer working conditions. In 1914, the Wilson administration granted unions immunity from antitrust suits, and in 1916, it passed a series of bills that restricted working hours and child labor.

Politicians also slowly succumbed to popular pressure to break up the empires of the "malefactors of great wealth." The 1890 Sherman Antitrust Act broke new ground by defining monopolies but failed to set out many ways of punishing or preventing them (and was used against the unions). Public opinion demanded more. In 1902, Ida Tarbell, the first great muckraking journalist, began a nineteen-part exposure of Standard Oil in *McClure's* magazine, arguing that the company's rise had been accomplished by "fraud, deceit, special privilege, gross illegality, bribery, coercion, corruption, intimidation, espionage or outright terror." Meanwhile, up in Boston, "the people's attorney," Louis Brandeis, skewered Morgan over his stewardship of the New Haven Railroad.

In 1906, Teddy Roosevelt's administration launched a successful antitrust suit against Standard Oil, and in 1911, the Supreme Court ordered it to be broken up, creating indirectly the forerunners of Exxon, Amoco, Mobil, and Chevron. The next year, Morgan was summoned to the hearings into the money trust convened by Congressman Arsène Pujo. The Pujo committee concluded that the money trust held 341 directorships in 112 companies with assets of $22 billion.[28] In 1913, after Morgan died, his directors quietly resigned at forty of

the companies. America also set up a central bank in 1913, making the money trust less powerful. In 1914, the Clayton Antitrust Act restricted interlocking directorships, but only when they restrained trade.

THE POPULARITY OF THE COMPANY

Yet, the backlash against the corporation was far less powerful than many people had hoped. By European standards, America was hesitant about reining in the corporation. The courts did strike down the most egregious examples of monopoly: for instance, American Tobacco, which by 1911 controlled 150 factories with a capitalization of $502 million, was split up that year into several separate companies. But most of the other huge combines—the Nationals, the Generals, and the Americans—discovered that, with a little diplomacy, they could hang on to most of their fiefdoms.

Most Americans were ambivalent about business. They disliked concentrations of corporate power—the United States, after all, is based on the division of power—but they admired the sheer might of business. They disliked the wealth of businessmen, but they admired the fact that so many of them came from nothing—that Rockefeller was the son of a snake-oil salesman and Carnegie began his career as a telegraph messenger. In 1867, E. L. Godkin produced an explanation of why America lacked the intense class consciousness of Europe that probably remains true to this day: "The social line between the laborer and the capitalist here is very faintly drawn. Most successful employers of labor have begun by being laborers themselves; most laborers . . . hope to become employers." Strikes, he added, were a matter of business, not sentiment.

Three things kept ambivalence about the corporation from

tipping into hostility. The first was that the big companies wised up to politics. When politicians first began to regulate business, William Vanderbilt, Cornelius's son who had inherited his empire in 1877, famously retorted that "the public could be damned." But the company became a much more active participant in politics. The Senate became known as the "millionaires' club," more representative of different economic interests than the individual states: there were lumber senators, silver senators, etc. Mark Hanna (1837–1904), a Cleveland steel magnate, became Republican National Chairman and helped to make William McKinley president. And companies began to hire public-relations advisers, notably Ivy Lee (1877–1934), who almost managed to smooth over the Rockefellers' brutal suppression of the 1913–1914 miners' strike against the Colorado Fuel and Iron Company.[29]

But it was not all just spin. The second thing was the growth of what would now be called corporate social responsibility. As we have already seen, Rosenwald thought it was good business to set up a pension fund for Sears workers. Many other big companies made positive efforts to cement the bond between capital and labor. U.S. Steel, for instance, spent $10 million a year on employee welfare programs—"to disarm the prejudice against trusts," as the chairman of the board informed his colleagues. International Harvester established a profit-sharing plan.[30] Company towns sprang up across America. Some were brutal prison camps; many more were prompted by what Henry Mills, a Unitarian minister in Lowell, called "the sagacity of self-interest." Well-housed and well-educated workers would be more efficient than their slum-dwelling, feckless contemporaries. For instance, in 1880, George Pullman built his eponymous town on the outskirts of Chicago in the hope that a "rational and aesthetic order" would elevate the character of the workers. The town, which was later to become a battleground during the 1894 strike, was

not to everybody's liking, not least because it was largely teetotal. But it was hailed by one American newspaper "as handsome as any wealthy suburban town"; a British newspaper even dubbed it "the most perfect city in the world."

Meanwhile, the robber barons embraced philanthropy. By 1919, the Carnegie Endowment alone had spent over $350 million (more than $3 billion in current dollars) on a huge variety of projects, including 2,811 public libraries and 7,689 church organs. No doubt many philanthropists were inspired by a genuine desire to do good or to atone for past sins, but social ambition also played its part in putting businessmen on the path of civic virtue—as a glance at the history of Philadelphia demonstrates.

The City of Brotherly Love was one of the most snobbish in the country. Yet, the city's old families were not foolish enough to turn their backs on the new wealth that was being created by the Pennsylvania Railroad and the nearby coalfields.[31] Instead, an informal deal was struck with the corporate parvenus: they could enter "society" so long as they were willing to shoulder their social obligations. This transformation of red-blooded capitalists into proper Philadelphians involved buying a house in Rittenhouse Square, playing golf at the Merion Cricket Club, perhaps even fox-hunting at the Whitemarsh Valley Hunt Club, and certainly handing their daughters (and their dowries) to the sons of the more gentrified families. Above all, it involved civic involvement—organizing charities, serving on the boards of the symphony, the art museum, and the University of Pennsylvania. Charles Curtis Harrison, one of the city's great businessmen, became president of the University of Pennsylvania.[32] Wharton Business School was set up by Joseph Wharton, founder of the Bethlehem Iron Company.

This concentration of power was hardly democratic. Philadelphia's elite thought nothing of deciding the fate of the city in their oak-paneled clubs. Yet, by co-opting big business into the city's future, the old elite plainly brought much good to their city. And it was repeated across the entire country. The wealth that the new companies of the 1880s and 1890s generated was not just wasted competing to get invited to Mrs. Astor's parties or forcing robber barons into the *Social Register* (first issued in 1888), though both these things certainly happened. It also helped to establish social services where none existed. It built museums and art galleries in a country that was prone to philistinism. And it bound the classes together in a society where the income gap was widening.

The third and most important thing that provided a bedrock of support for the company came down to a simple proposition: The company was making America richer. In his essay "Why Is There No Socialism in the United States?," Werner Sombart, a German sociologist, argued that "on the reefs of roast beef and apple pie socialist utopias of every sort are sent to their doom." The new companies plainly improved the living standards of millions of ordinary people, putting the luxuries of the rich within the reach of the man in the street. When Henry Ford went into the car business, it was devoted to handcrafting toys for the super-rich; by 1917, he had sold 1.5 million Model T's. When George Eastman purchased his first camera in November 1877, it cost him $49.58, and was so difficult to use that he had to pay $5 for lessons. But, by 1900, the Brownie automatic cost $1 and was marketed under the slogan: "You push the button and we do the rest."[33]

The productivity of these companies was usually tied to gigantism, which also raised barriers to market entry. The only way to compete with one of the huge companies was to build a huge new company of your own. Even if you could

raise the cash and recruit the right managers, you risked introducing so much new capacity onto the market that the whole market would crash. This, rather than anything to do with collusion, remained the underlying reason why a handful of huge companies dominated their respective industries from the 1880s to at least the 1940s.