they stifled productivity (through monopolies and pools), corrupted business and politics, and dulled America's competitive edge. Market entrepreneurs, by contrast, often made decisive and unpredictable contributions to American economic development.[3]

I

Every schoolchild is taught that Robert Fulton was the first American to build and operate a steamboat on New York waters. When his *Clermont* sauntered four miles per hour upstream on the Hudson River in 1807, Fulton opened up new possibilities in transportation, marketing, and city building. What is not often taught about Fulton is that he had a monopoly enforced by the state. The New York legislature gave Fulton the privilege of carrying *all* steamboat traffic in New York for thirty years.[4] It was this monopoly that Thomas Gibbons, a New Jersey steamboat man, tried to crack when he hired young Cornelius Vanderbilt in 1817 to run steamboats in New York by charging less than the monopoly rates.[5]

Vanderbilt was a classic market entrepreneur, and he was intrigued by the challenge of breaking the Fulton monopoly. On the mast of Gibbon's ship Vanderbilt hoisted a flag that read: "New Jersey must be free." For sixty days in 1817, Vanderbilt defied capture as he raced passengers cheaply from Elizabeth, New Jersey, to New York City. He became a popular figure on the Atlantic as he lowered the fares and eluded the law. Finally, in 1824, in the landmark case of *Gibbons v. Ogden*, the Supreme Court struck down the Fulton monopoly. Chief Justice John Marshall ruled that only the federal government, not the states, could regulate interstate commerce. This extremely popular decision opened the waters of America to complete competition. A jubilant Vanderbilt was greeted in New Brunswick, New Jersey, by cannon salutes fired by "citizens desirous of testifying in a public manner their good will." Ecstatic New Yorkers immediately launched two steamboats named for John Marshall. On the Ohio River, steamboat traffic doubled in the first year after *Gibbons v. Ogden* and quadrupled after the second year.[6]

The triumph of market entrepreneurs in steamboating led to improvements in technology. As one man observed, "The boat builders, freed from the domination of the Fulton-Livingston interests, were quick to develop new ideas that before had no encouragement from capital." These new ideas included tubular boilers to replace the heavy and expensive copper boilers Fulton used. Cordwood for fuel was also a major cost for Fulton, but innovators soon found that anthracite coal worked well under the new tubular boilers, so "the expense of fuel was cut down one-half."[7]

The real value of removing the Fulton monopoly was that the costs of steamboating dropped. Passenger traffic, for example, from New York City to Albany immediately dropped from seven to three dollars after *Gibbons v. Ogden*. Fulton's group couldn't meet the new rates and soon went bankrupt. Gibbons and Vanderbilt, meanwhile, adopted the new technology, cut their costs, and earned $40,000 profit each year during the late 1820s.[8]

With such an open environment for market entrepreneurs, Vanderbilt decided to quit his pleasant association with Gibbons, buy two steamboats, and go into business for himself. During the 1830s, Vanderbilt would establish trade routes all over the northeast. He offered fast and reliable service at low rates. He first tried the New York to Philadelphia route and forced the "standard" three-dollar fare down to one dollar. On the New Brunswick to New York City run, Vanderbilt charged six cents a trip and provided free meals. As *Niles' Register* said, the "times must be hard indeed when a traveller who wishes to save money cannot afford to walk."[9]

Moving to New York, Vanderbilt decided to compete against the Hudson River Steamboat Association, whose ten ships probably made it the largest steamboat line in America in 1830. It tried to informally fix prices to guarantee regular profits. Vanderbilt challenged it with two boats (which he called the "People's Line") and cut the standard New York to Albany fare from three dollars to one dollar, then to ten cents, and finally to nothing. He figured it cost him $200 per day to operate his boats; if he could fill them with 100 passengers, he could take them free if they would each eat and drink two dollars worth of food (Vanderbilt later helped to invent the potato chip). Even if his passengers didn't eat that much, he was putting enormous pressure on his wealthier competitors. Finally, the exasperated Steamboat Association literally bought Vanderbilt out: they gave him $100,000 plus $5,000 a year for ten years if he would promise to leave the Hudson River for the next ten years. Vanderbilt accepted, and the Association raised the Albany fare back to three dollars. Such bribery may be wrong in theory, but it had little effect in practice. With no barriers to entry, other steamboaters came along and quickly cut the fare. They saw that it could be done for less, and they saw what had happened to Vanderbilt for doing it. So almost immediately

The Bettmann Archive   The Bettmann Archive

Robert Fulton (left) and Edward K. Collins. Political entrepreneurs, they were defeated by Vanderbilt's market innovations.

Daniel Drew began running steamboats on the Hudson—until the Association paid him off, too. At least five other competitors did the same thing until they, too, were bought off. It's hard to figure who got the better deal: those who ran the steamboats and were bought out, or those who traveled the steamboats at the new low rates.[10]

Meanwhile, Vanderbilt took his payoff money and bought bigger and faster ships to trim the fares on New England routes. He started with the New York City to Hartford trip and slashed the five-dollar fare to one dollar. He then knocked the New York City to Providence fare in half from eight to four dollars. When he sliced it to one dollar, the New York *Evening Post* called him "the greatest practical anti-monopolist in the country." In these rate wars, sometimes Vanderbilt's competitors bought him out, sometimes they went broke, and sometimes they matched his rates and kept going. Some people denounced Vanderbilt for engaging in extortion, blackmail, and cut-throat competition. Today, of course, he would be found "in restraint of trade" by the Sherman Anti-trust Act. Nonetheless, Vanderbilt qualifies as a market entrepreneur: he fought monopolies, he improved steamship technology, and he cut costs. *Harper's Weekly* insisted that Vanderbilt's actions "must be judged by the results; and the results, in every case, of the establishment of opposition lines by Vanderbilt has been the *permanent reduction of fares.*" The editor went on to say, "Wherever [Vanderbilt] 'laid on' an opposition line, the fares were instantly reduced; and however the contest terminated, whether he bought out his opponents, as he often did, or they bought him out, the fares were never again raised to the old standards." Vanderbilt himself later put it bluntly when he said: "If I could not run a steamship alongside of another man and do it as well as he for twenty percent less than it cost him I would leave the ship."[11]

II

In the 1840s, improving technology changed steamboats into steamships. Larger engines and economies of scale in shipbuilding led to changes in size, speed, and comfort. The new steamers of the mid-century were many times bigger and faster than Fulton's *Clermont*: they were each two decks high with a grand saloon and individual staterooms for first-class passengers. When full, some of these new steamships could hold almost 1,000 passengers, and they also had space for mail and freight. These ships were sturdy and were built to cross the Atlantic Ocean. The New York to England route would be the first to open up the steamship competition; the New York to California line (via Panama) would soon follow.[12] Rapid overseas trade was a new concept, and this reopened the debate for federal aid to eager steamboat operators. Fulton was gone, but others like him argued for government subsidies and contracts. Political and market entrepreneurs on both sides of the Atlantic would fight for control of the seas.

Actually, Englishmen, in 1838, were the first to travel the Atlantic Ocean entirely by steam. The open environment was quickly altered when Samuel Cunard, a political entrepreneur, convinced the English government to give him $275,000 a year to run a semi-monthly mail and passenger service across the ocean. Cunard charged $200 per passenger and $.24 a letter; the $.24 for the mail didn't cover the cost of Cunard's shipping, and that's one argument he had for a subsidy. He also contended that subsidized steamships gave England an advantage in world trade and were a readily available merchant marine in case of war. Parliament accepted this argument and increased government aid to the Cunard line throughout the 1840s.[13]

Soon, political entrepreneurs across the ocean began using these same arguments for federal aid to the new American steamship in-