THE SEPARATION OF COMMERCIAL AND INVESTMENT BANKING: THE MORGANS VS. THE ROCKEFELLERS

ALEXANDER TABARROK

he Banking Act of 1933, sometimes referred to as the Glass-Steagall Act, separated commercial and investment banking, instituted Federal deposit insurance, prohibited interest payments on demand deposits, and reorganized the Federal Reserve. The Glass-Steagall Act is typically explained as a public-interest measure designed to rectify persistent problems in the banking system, and to combat the immediate banking crisis. I will argue, however, that important portions of the Act can be better explained through a public-choice analysis that emphasizes a struggle between rival elements in the banking industry.

The focus of this discussion will be on the separation of commercial and investment banking and on other aspects of the Glass–Steagall Act, as well as Carter Glass.¹ Public-interest rhetoric was used to justify the separation of commercial and investment banking. Recent work by White (1986), Benston (1990), Kroszner and Rajan (1991) and others have shown that this rhetoric cannot be supported in theory or in fact. Banks that combined deposit and investment banking were safer than deposit banks without affiliates, and they issued higher quality securities than did independent investment banks. I argue that the separation of commercial and investment banking can be better understood as an attempt by the Rockefeller banking group to raise the costs of their rivals, the House of Morgan.² Both the House of Morgan and the Rockefellers, during the 1930s, wielded enormous political and economic power; so as to better understand the Morgan and Rockefeller rivalry, some background is in order.

PUBLIC-INTEREST ARGUMENTS

Proponents of the Glass-Steagall Act argued that separating commercial and investment banking would increase the safety and reduce bank and customer conflicts of

ALEXANDER TABARROK is associate professor of economics at Ball State University. I wish to thank Tyler Cowan and Hugh Heclo for comments; and Murray N. Rothbard for comments on an earlier version of this paper. Any remaining errors are solely my own.

¹On deposit insurance, see Golembe (1960), Preston (1933), and Friedman and Schwartz (1963).

²On the theory of "raising rivals' costs," see Salop and Scheffman (1984) and Williamson (1968).

interest. Neither of these arguments bares close scrutiny here. At the most basic level, it is clear that many securities (stocks and bonds) are less risky than are loans. Security investments are also liquid and publicly observable. Liquidity lets banks quickly rebalance their portfolios to avoid runs, and public observability improves the efficiency of bank monitoring by depositors and bond holders. Even if all securities were riskier than all loans, forbidding banks to invest in securities could increase bank risk because of the benefits of diversification (see Macey 1991).

The Supreme Court, economists, historians, and others have uncritically referred readers to the Pecora–Glass Subcommittee Hearings and to other hearings for evidence that banks with security affiliates created an undue risk to depositors. But in an exhaustive reading of all the relevant material, Benston (1990) has found no evidence to support this conclusion. The hearings are replete with unsupported assertions and bald hypotheses, but no evidence on the risk of unified banking was ever presented. Since then, evidence has been found which strongly indicates that separated banking is riskier than unified banking. White (1986) has examined the failure rate in 1930–33 of national banks without security affiliates and national banks with security affiliates. He finds that banks without security affiliates were four times as likely to fail as were those with affiliates.

Another argument against unified banking is that a bank with security affiliates has a conflict of interest. Senator Bulkley, a strong supporter of the Glass-Steagall Act, put the argument as follows:

Obviously, the banker who has nothing to sell his depositors is much better qualified to advise disinterestedly and to regard diligently the safety of depositors than the banker who uses the list of depositors in his savings department to distribute circulars concerning the advantage of this, that, or the other investment on which the bank is to receive an originating profit or an underwriting profit or a trading profit.³

This argument might apply to a fly-by-night outfit, but once long-run profits and reputation are included in the analysis, the conclusion is reversed. The more an investment advisor has to lose by offering bad advice, the less likely this is to occur. Poor investment advice on the part of a securities affiliate is likely to lead investors to leave that affiliate and to withdraw their funds from the parent bank. Investors, therefore, are able to threaten stronger punitive action if they invest with a unified bank than if they invest with an investment bank alone.⁴

The conflict of interest argument is also contradicted by investor behavior. Unified banks (banks with affiliates or security operations) were rapidly increasing their share of the bond issuing market in the 1920s. In 1927, for example, commercial banks and their affiliates were responsible for 36.8 percent of all issues, and in 1930 for 61.2 percent of all issues (Peach 1941, p. 110). If the conflict of interest argument were true, one would expect rational investors to abandon unified banks rather than flock to them. More consistent with this evidence is the finding of Kroszner and Rajan

³Quoted in Macey (1984, p. 15).

⁴Benston (1990), Saunders (1985), and Kelly (1985) deal with the conflict-of-interest arguments in greater depth.

(1994) that unified banks issued higher quality securities (ex post) than did investment banks acting alone.⁵

The public-interest explanation is at wide variance with the facts. To explain the Glass–Steagall Act, therefore, requires either that Congress acted in great error or that the motivation behind the Act was not the public interest.^{6,7}

THE ROCKEFELLERS AND THE HOUSE OF MORGAN⁸

Aside from the Federal government, the House of Morgan and the Rockefeller family were the largest and most important economic and political entities in U.S. history. Like the pre-war lapanese zaibatsu, the House of Morgan and the Rockefellers controlled large sections of the U.S. economy. In an age of unlimited campaign funds, these groups could also easily make or break a politician's career. In 1933, the Pecora investigation revealed that J.P. Morgan's "preferred list," people who were given stock at far below market prices, included more than one ex-president, a host of treasury secretaries from both political parties, the chairman of the Republican National Committee, the chairman of the Democratic National Committee, and many other politicians and men of affairs (Chernow 1990, p. 370). From their base in Ohio, the Rockefellers also dabbled in politics. Mark Hanna, the legendary Republican operative and Ohio Senator, was a schoolmate of John D. Rockefeller, as well as a lifelong friend and business ally (Lundberg 1937, p. 58). It was through Hanna that the Rockefellers influenced the McKinley administrations. McKinley's election in 1896, for example, was supported by a \$250,000 donation from Standard Oil, a gift which was repeated in the election of 1900. Hundreds of thousands more in campaign funds were organized through Rockefeller's other firms and business interests (ibid, pp. 60-61).

Rockefeller also influenced politics through Nelson Aldrich. Aldrich was Rhode Island's Senator for thirty years, during which time his net worth increased from \$50,000 to at least \$12 million (Lundberg 1937, p. 61). As chairman of the Senate finance committee and Republican whip, Aldrich controlled the nation's largesse. In his 1905 series in *McClures* titled "Enemies of the Republic," Lincoln Steffens

⁵Benston (1990) also finds that the evidence for this assertion in the documentary record is weak to non-existent. Many of the supposed abuses of the banking industry turn out to be fabrications or misreading of the actual evidence in the record.

⁶Even though the documentary record does not indicate either excessive risk or abuses, it was in the interest of Pecora and the investigating committee to suggest that it did. As a direct result of his investigation, and the publicity he generated, Pecora became a commissioner of the newly created Securities and Exchange Commission. (On the exaggerations of Pecora and others and their interests, see Carosso [1985, 1973] and Karmel [1980, p. 631].) The media uncritically adopted Pecora's story, and over time it became accepted as fact. Until Benston (1990), few researchers bothered to investigate the actual data and testimony upon which Pecora's view supposedly rested. For a model of this type of herd behavior, see Benerjee (1992) and Scharfstein and Stein (1990).

⁷I suspect, more precisely, that the majority of Congress supported the Glass-Steagall Act because of mistaken impressions as to its effects, while a minority supported the Act and guided it through Congress because of their special interests.

⁸The political and economic power of J.P. Morgan and Company and the Rockefellers is well documented in Chernow (1990), Kolko (1963), Burch (1980; 1981), Lundberg (1937), and Collier and Horowitz (1976).

⁹Collier and Horowitz (1976, p. 93) estimate Aldrich's fortune at closer to \$30 million.

called Aldrich the "boss of the United States," and David Graham Phillips's series in *Cosmopolitan*, "The Treason of the Senate," devoted an entire chapter to Aldrich titled "Aldrich, the Head of it All." Aldrich's connection with the Rockefellers began financially and politically, but became familial when his daughter Abby married John D. Rockefeller, Jr. (Abby's brother Winthrop is also a key player in the separation of commercial and investment banking; see below). Through Aldrich, the Rockefellers (and other New York bankers) had a profound influence on the creation of the Federal Reserve. Aldrich chaired the National Monetary Commission of 1910 that produced the "Aldrich Plan" which, with slight modifications due to Carter Glass and his advisor H. Parker Willis, became the foundation of the Federal Reserve System (Friedman and Schwartz 1963, p. 171). Little known at the time, Aldrich's plan was hammered out by Aldrich, Morgan, Rockefeller, and Kuhn, Loeb partners at a secret 1910 meeting held on Jekyll Island, Georgia (Chernow 1990, p. 127; Rothbard 1984; Kolko 1963, chap. 8).

The Rockefellers' wealth and power flowed from Standard Oil, but later expanded into banks and other industries. The House of Morgan's power came not from the wealth of J.P. Morgan per se, but from Morgan's strategic position in the U.S. economy. At the turn of the century, American industry underwent a series of mergers and restructurings that reshaped the economy. J.P. Morgan and his bank stood at the center of this great change. In 1901, Morgan engineered the greatest merger of all time, creating U.S. Steel with an initial capitalization of \$1.4 billion at a time when GNP was approximately \$20 billion. An equivalent merger today would be capitalized at around \$350 billion. Morgan's commissions alone were worth about \$15 billion in 1993 dollars. Morgan's influence was felt in all of the major industries of the day, especially railroads, utilities, and steel.

The 1912 Pujo hearings into the so-called "money trust" (a code word for the Morgan empire), revealed that J.P. Morgan and his partners were principal shareholders of dozens of the largest U.S. corporations and that, in total, they held 72 directorships in 112 corporations (Chernow 1990, p. 12). DeLong (1991; 1992, p. 17) estimates that Morgan-centered groups were in some way connected with 40 percent of all the industrial, financial, and commercial capital in the United States. Twenty-one years later, the Pecora hearings revealed a similar story; Morgan partners held 126 directorships in 89 corporations with a total of \$20 billion in assets, representing approximately one-third of GNP (Chernow 1990, p. 366).

Political power flowed from the House of Morgan's economic power. In 1896, William Jennings Bryan ended his speech to the Democratic convention with the famous oath "you shall not crucify mankind upon a cross of gold." Bryan was talking primarily about J.P. Morgan who, with Grover Cleveland, had saved the gold standard a year earlier. ¹⁰ Throughout this period, Morgan partners and associates were important advisors and financial backers to presidents and the political elite. In the 1904 election, for example, the Morgan bank gave \$150,000 to Theodore Roosevelt's campaign fund, in return for which George Perkins, a Morgan partner, became chief

¹⁰Bryan's speech is reprinted in Hofstadter and Ver Steeg (1969). Chernow (1990, chap. 5) deals with Morgan's rescue of the gold standard.

advisor to Roosevelt throughout his political career (Chernow 1990, p. 112). It was Perkins who pressed Roosevelt to run in 1912 and who supplied Roosevelt with over \$500,000 in campaign funds (Hofstadter 1974, p. 304).¹¹

At the 1912 Democratic Convention, Bryan again attacked the House of Morgan, thundering that no representative of J.P. Morgan should ever receive the Democratic Party's Presidential nomination. In 1924, however, at the height of Morgan's power, he had to accede to the nomination of John W. Davis, chief lawyer of the House of Morgan.

Morgan and Rockefeller power did not go unopposed. William Jennings Bryan, as already noted, was implacably opposed to the Morgans and the Rockefellers, and, as Secretary of State under Woodrow Wilson, fought against their control of the Federal Reserve. Allied with him were progressive intellectuals like Louis Brandeis, Felix Frankfurter, and Lincoln Steffens. Brandeis, in particular, attacked J.P. Morgan and Company, throughout his career as a lawyer, advisor to Wilson, and associate Justice of the Supreme Court. Politicians like Huey Long, Robert LaFollette and others found strong support for attacking the Morgans and the Rockefellers among the public, who feared the monster trusts. Perhaps more importantly, politicians played the rival coalitions against one another. The Morgans supported attacks on the Rockefellers, and the Rockefellers supported attacks on the Morgans. Indeed, a combination of public outrage and political maneuvering by the Rockfellers was responsible for the separation of commercial and investment banking.

The Morgans and the Rockfellers clashed often. The chief economic rival of the House of Morgan was a formidable combination of Rockefellers (oil, banking), Harrimans (railroads), and bankers primarily associated with Kuhn, Loeb and Lehman Brothers. ¹⁴ In the twentieth century, John D. Rockefeller, Jr., W. Averell Harriman, son of E.H. Harriman, and the second generation of bankers at Kuhn,

¹¹Perkins left the Morgan firm in 1912.

¹²Chernow (1990, p. 176) called Brandeis "the most cunning and resourceful foe the House of Morgan would ever face." During the Pujo hearings, Brandeis wrote a series of influential articles for *Harper's Weekly* under the title of "Other People's Money; and How the Bankers Use It." These articles were a direct attack on J.P. Morgan and Company and the "money trust." "Other People's Money," was reprinted during the Pecora hearings of 1933 in book form (Brandeis 1933).

¹³Morgan-Rockefeller rivalry as well as the ultimate power of the Federal government meant that the Morgans and the Rockefellers were by no means always the controlling powers. The fact that money flowed from Wall Street to Washington alone cannot tell us in which direction power flowed. The dominant public-choice theories of regulation emphasized the demand for regulation by organized special-interest groups (Peltzman 1976; Becker 1985). Politicians, however, are active players in the regulatory and redistributive process, and not mere passive suppliers reacting to private interest-group demand. The relationship between J.P. Morgan and Company and Theodore Roosevelt, for example, was at times ambivalent and even hostile. It was Roosevelt who launched the first trust-busting attack on the Morgan empire with the Northern Securities Case of 1902. Payments to Roosevelt and other politicians should therefore be seen as partly a response to threats of regulation and control. See McChesney (1991) for a model of this type of behavior.

¹⁴Although Morgan and Kuhn, Loeb and sometimes Lehman Brothers would often cooperate on issues, there was always an underlying economic rivalry to which was added J.P. Morgan's anti-Semitism. See Chernow (1990, p. 90 and passim).

Loeb, and Lehman Brothers were the main instigators of the attack on the House of Morgan, of which the 1933 separation of commercial and investment banking was the most important aspect of the struggle. The attack was led and organized by Winthrop Aldrich of Chase National Bank.

GENESIS OF THE BANKING ACT

John D. Rockefeller, Sr., had moved into banking by investing the cash reserves of Standard Oil in the National City Bank. James Stillman was the president of National City, and two of Stillman's sons married daughters of William Rockefeller (brother to John D. Rockefeller, Sr.), making this a family alliance (Lundberg 1937, p. 10). The cash reserves of Standard Oil were so great that this single source made National City one of the largest banks in New York. The Rockefellers, especially John D. Rockefeller, Jr., wanted to dominate banking as they did oil, and around 1911, Rockefeller, Sr., made substantial investments in Equitable Trust. Using Equitable as a base, the Rockefellers rapidly expanded their bank holdings through a series of mergers (see Johnson 1968, pp. 80–110). By 1920, Equitable, which had started out as a small bank, was the eighth largest bank in the country, and it continued to grow through merger and expansion throughout the 1920s.

In 1929, Winthrop Aldrich became president of Equitable Trust. Winthrop Aldrich was John D. Rockefeller, Jr.'s brother-in-law, and was the son of the famous Senator Nelson Aldrich (a key player in the formation of the Federal Reserve). ¹⁵ A lawyer by training, he was reluctant to enter banking, but did so at the urging of John D. Rockefeller, Jr., who had guided his career from its inception (see Johnson 1968, p. 93; and Collier and Horowitz 1976, p. 159). Under Aldrich, Equitable merged with the Morgan-dominated Chase National Bank. Chase's director was then Albert H. Wiggin. Wiggin had been a protégé of George F. Baker and Henry P. Davison of First National Bank, both of whom were prominent within the Morgan group (Johnson 1968, p. 101). Aldrich then become president of the newly formed Chase Bank, and Wiggin became chairman of its Governing Board.

The position of president at Chase was initially not a powerful one. From 1920 to 1929, of the five men who had been president of Chase only Wiggin lasted more than two years. The lack of continuity meant that power rested with Wiggin. Aldrich, however, moved quickly to establish his own power by promoting his own men and cutting the number of bank directors. An unpleasant corporate battle ensued in which Aldrich was opposed by Wiggin, Thomas Lamont, and other executives allied with the House of Morgan. ¹⁶ By 1931, Aldrich held the dominant position, and Wiggin went into retirement with a suspiciously large pension. ¹⁷

¹⁵The Aldrich and Rockefeller families were very close. Two of Rockefeller's sons were named Nelson R. and Winthrop, Aldrich family names. Nelson Rockefeller worked at Chase during this period (Johnson 1968, p. 187).

¹⁶On Lamont's attempts to block Aldrich, see Ferguson (1984, p. 81).

¹⁷Wiggin retired with an astounding pension of \$100,000 a year. This became the subject of embarrassment during the Pecora hearings as neither Wiggin nor Aldrich could adequately explain why Wiggin's pension was so large. Aldrich and Wiggin were barely on speaking terms by 1932 and, according to Aldrich, the differences between them were such that both of them could not

As Roosevelt took office in 1933 the great depression was at its trough, 15 million workers were unemployed, real gross national product had fallen by nearly 30 percent since its peak in 1929, and gross investment was virtually nil (Temin 1976). The public looked back at the financial boom of the twenties and deemed this the original sin. Bankers and financiers, feared and admired in the twenties, were feared and reviled in the thirties. Politicians fueled the public's animosity. In his inauguration speech, Roosevelt attacked the "money changers" as "callous," "unscrupulous," and "selfish," at the same time as he called for unprecedented power for himself and "a trained and loyal army willing to sacrifice for the good of a common discipline." In Congress, the Pecora hearings and later the Nye hearings fueled the same fire. The Nye hearings of 1936 accused Morgan of being a "merchant of death" responsible for America's entry into World War I, and the Pecora hearings purported to show a banking history of "profits, greed, expansion, power, and domination."

Without the great depression and the outrage that was generated by the Pecora hearings, the separation of commercial and investment banking would probably not have occurred. As it was, the Pecora hearings revealed that Jack Morgan had paid no income tax since 1930, and that none of the twenty Morgan partners had paid income tax in 1931 or 1932 (Chernow 1990, p. 366). Other members of the Morgan group, most particularly Albert Wiggin, were also accused of income tax evasion. Although all of the "evasion" was legal and due mostly to huge stock losses, the public was infuriated. Seligman (1982, p. 29) reports that bankers "became the object of near-hysterical rage." The public demanded that some action be taken, but it was left to the insiders, like Winthrop Aldrich, to determine the direction of change.

Aldrich and the Rockefeller banking group were initially ill served by the Pecora hearings. Wiggin still represented Chase National in the minds of many, and his disgrace reflected on the bank. The other Rockefeller bank, National City, was also being investigated, and its Chairman, Charles Mitchell, and its President, Hugh Baker, were forced to resign in late February of 1933. Aldrich had to find some way to protect the Rockefeller banks.

remain at the bank (see U.S. Congress, Senate 1934.4018). The solution was evidently to pay off Wiggin so he would exit gracefully. Wiggin's pension was what we today would call a "golden parachute" paid to Wiggin so that he would leave Chase rather than continue to fight the Aldrich–Rockefeller takeover. On the information in this note, see Johnson (1968, pp. 107–38); my interpretation differs significantly from his. On golden parachutes as an incentive device to lower the costs of takeovers, see Knoeber (1986).

¹⁸ Roosevelt's speech can be found in Peterson (1954).

¹⁹The list is from a rhetorical question by Senator Bulkley: "Did not professional pride become diverted from the pride of safe and honest banking service to that of profits, greed, expansion, power, and domination?" Quoted in Benston (1990, p. 124).

The public-choice school of political science and economics has emphasized the special interest nature of most regulation, but has left unexamined the techniques of power which politicians use to mobilize political support from a diffuse and rationally ignorant public. A study of the link between hearings and regulation could be very valuable.

²⁰See on this point Willis and Chapman (1934, p. 101), Seligman (1982, pp. 2, 29), and Kennedy (1973, p. 212).

On March 7, National City Bank's new Chairman James Perkin announced that the bank would divorce its security affiliate. On March 8, Aldrich followed Perkin's surprise announcement with a sweeping plan for bank reform that many in the banking community called a "betrayal."²¹ Aldrich denounced the connection of investment banking and commercial banking as "almost inevitably leading to abuses." He threw his support behind the Glass bill to separate commercial banks and their security affiliates, but he argued that the bill did not go far enough. In addition to the current provisions, Aldrich argued that (1) private banks should be regulated as heavily as commercial banks; (2) private banks should be forced to separate their commercial and investment divisions; and (3) no interlocking directorates between any type of bank and securities firm should be allowed.²²

The purpose of Aldrich's strategy is obvious to contemporary observers. The New York Times made Aldrich's announcement front page news on March 9 with the headline "Aldrich Hits at Private Bankers in Sweeping Plan for Reforms." The Times noted that Aldrich, "who is a representative of the John D. Rockefeller interests," was attacking "some of Wall Street's most powerful figures and their particular interests." More than anyone else, the Aldrich program "strikes directly at the position of J.P. Morgan and Company." "W. W. Aldrich, First Challenger to House of Morgan" was a profile of Aldrich published several days later in the World Telegram.²³ The Wall Street Journal was more circumspect, but also alluded darkly to a Rockefeller conspiracy to vanquish J.P. Morgan and Company.

Most devastating to the House of Morgan was Aldrich's third point, the ban on interlocking directorates. More than any other aspect of the Glass–Steagall Act, it was the ban on interlocking directorates that separated commercial from investment banking; of the twenty Morgan partners, ten were directors of at least one commercial bank (*New York Times*, March 9, 1933). Moreover, the officers of Morgan-controlled banks, such as George F. Baker of the First National Bank, were also often directors of other banks. The extent of the connection between banks in the Morgan group was probably best illustrated by the finding of the Pecora committee that J.P. Morgan and Company had given "loans" to sixty officers and directors of other banks. As Jack Morgan noted "They are friends of ours, and we know that they are good, sound, straight fellows."²⁴

The interlocking directorates of the Morgan group, which extended to many corporations as well as to other banks, meant that Morgan could economize on transaction and information costs as well as overcome problems of adverse selection and moral hazard. The Morgan bank was not large, but because of its ties to commercial

²¹Aldrich's announcement was widely publicized the following day, March 9. Surely not coincidentally, this coincided with the convening of the new Congress.

²²See Aldrich's statement in the *New York Times* (March 9, 1933, pp. 1, 2). Aldrich also wanted to limit the number of directors a bank could have (point four in this statement). A new statute limiting directors would save Aldrich the trouble of an unpleasant fight to terminate or eliminate through attrition excess Chase directors; Aldrich's own bank, Chase National, was top heavy with directors because it had grown through mergers.

²³New York World Telegram (March 13, 1933), quoted in Johnson (1968, p. 152).

²⁴Quoted in Chernow (1990, p. 364).

banks, J.P. Morgan and Company could finance huge security issues with very low reserve requirements. If U.S. Steel, for example, wanted to issue new securities, they would be bought by J.P. Morgan and Company, which financed the purchase through a loan from a large—and related—commercial bank like First National. U.S. Steel would not need the entire proceeds immediately and would simply deposit the funds from Morgan into another Morgan bank, perhaps even First National. (And when the money was spent it might go to a firm like General Electric, which also banked with Morgan). J.P. Morgan and Company would then market the securities and deposit the proceeds. Other investment houses could not finance large security issues because they lacked extensive connections with the large commercial banks who alone could advance the enormous sums needed in the intermediate process. If information were free, any investment bank could borrow money on a good issue. But in a world of high transaction costs and moral hazard, investment banks without close ties to commercial banks were credit rationed. The essence of Glass-Steagall was not the ban on deposit banks issuing securities but the ban on interlocking directorates. Aldrich alone pushed this through Congress.

The separation of commercial and investment banking was costly to Chase National and the other Rockefeller banks as well as to Morgan. Indeed, Wiggin and chairman of the Chase board, Charles McCain, had been among the most vociferous critics of separation.²⁵ Aldrich's actions, therefore, cannot be understood simply as an attempt to increase profits through government entry restrictions.²⁶ Instead, Aldrich's actions must be understood as an attempt to raise his rivals' costs. The theory of "raising-rivals' costs" shows that it is possible for a firm to increase its profits by raising industry costs so long as the costs to its rivals increase more than its own costs (and demand is not too elastic). Consider a regulation that raises industry costs but, because of heterogeneity among firms, raises the costs of firm B more than the costs of firm A. There are two effects: the industry as a whole will shrink when costs and prices rise, and firm A will lose some proportion of these customers. Firm A, however, will gain some of the customers who leave firm B because firm A's prices do not rise as much as do those of firm B. Loosely speaking, if the second effect outweighs the first, firm A can benefit from the regulation.²⁷ A

²⁵During Wiggin's testimony to the Pecora investigation, Aldrich stood close by and repeatedly indicated that Chase was no longer following the policies of the Wiggin regime. McCain, too, was disgraced by Aldrich's renunciation of his policies, and resigned as chairman of the board in 1934. Aldrich replaced him shortly thereafter, thus cementing the Rockefeller takeover.

²⁶Shughart (1988), Macey (1984), and Benston (1982) speculate that the Glass-Steagall Act was passed in order to benefit commercial and/or investment bankers with entry restrictions. Although this is a possible motive for supporting the Act, none of these authors demonstrate that the special interests they discuss had (and used) the political power necessary to push the act through Congress. The micro-history approach of this article is able to pinpoint which groups had and used the requisite political power.

²⁷More technically, to increase profits the initiating firm's residual demand curve must rise more than its average costs. The size of the residual demand increase depends upon the increase in rival-firm costs and the elasticity of total demand. The more inelastic total demand is the more an increase in rival-firm costs leads to an increase in the initiating firm's residual demand. See Salop and Scheffman (1983). Raising the costs of one's rival can also work in a perfectly competitive industry if firms earn rents, and costs hit disproportionately so as to reduce the elasticity of the

classic case of this type of behavior is a capital-intensive firm with labor-intensive rivals supporting unionization (Williamson 1968).

The raising-rivals' cost theory fits the evidence of the House of Morgan and the Rockefeller banking group. The House of Morgan's strength was built on interlocking directorates and unified banking to a much greater extent than were the banks of the Rockefeller group. Chase's security affiliate was not making money during the depression, and it was about to be investigated by the Pecora committee. This explains why Aldrich lobbied for the separation of commercial and investment banking, even though it meant that Chase would be split along with J.P. Morgan and Company. The Rockefeller group had less to lose from separation than did the Morgans, and they had more to gain from supporting the administration. Significantly, after Aldrich came out for separation, the administration's investigation of Chase was quickly dropped.

Carter Glass, the nominal author of the separation legislation, never wanted to regulate the private bankers. Prior to Aldrich's lobbying, drafts of the Glass Bill specified only that national banks would be separated. Glass's reluctance to regulate the private bankers may have been in part because of constitutional qualms, but Glass was also close to the House of Morgan. Glass was a good friend of Morgan partner Russell Leffingwell. Leffingwell, on leave from Morgan, had been one of Glass's chief assistants when Glass was Secretary of the Treasury under Wilson. Leffingwell and Glass became quite close during this time, and after Leffingwell returned to Morgan they communicated often. Leffingwell used his contacts to organize donations to Glass's political campaigns, and Glass took note of Leffingwell's comments on banking policy.²⁸ When Roosevelt asked Glass to be Secretary of the Treasury, Glass indicated he wanted Leffingwell and another Morgan man, Parker Gilbert, as under secretaries. Roosevelt, however, refused any connection with the House of Morgan and vetoed Glass's choices. Roosevelt's veto was one of the reasons Glass ultimately rejected the Treasury position.²⁹ When Aldrich's proposals were drafted into the Glass-Steagall Bill, Glass wrote to Leffingwell that he had been against the provision attacking Morgan but that Roosevelt had foisted it upon him.30

supply curve, thereby increasing price and infra-marginal rents. Coate and Kleit (1994) and Boudreaux (1990) provide useful introductions to the raising rivals cost literature as well as a critique of the idea that a firm can raise its rivals' costs without government involvement.

²⁸On the proceeding two sentences, see the Leffingwell–Glass correspondence, Box 283 in the Carter Glass Papers at the University of Virginia. Leffingwell wrote to Glass at one point saying he felt their relationship was closer to that of son and father than that of boss to subordinate; see letter to Glass of April 23, 1929. Leffingwell and Glass disagreed strongly about the Glass–Steagall bill, and their correspondence became somewhat testy during the 1932 period. See, for example, letters of April 22, 25, 26, 1932, and February 9, 1932. On Leffingwell's campaign funding, see Glass's letter of November 19, 1929.

²⁹See *Business Week* (March 15, 1933, pp. 4–5) and Chernow (1990, pp. 355, 374–75).

³⁰This is reported in Chernow (1990, p. 375), who cites a letter from Glass to Leffingwell. The Leffingwell personal papers are located at Yale University. See also Glass's comments in the U.S. Senate (1934, p. 4032), where he indicates that he thought the provision "extremely severe" and went along with its inclusion only after Aldrich's request and after being pressured by the administration (p. 4016).

Glass's connections with the House of Morgan should not be over emphasized. Glass had an

Aldrich followed up his surprise announcement with intense lobbying. Throughout March he traveled between New York and Washington, D.C., frequently meeting with Roosevelt, Carter Glass, Secretary of Commerce Daniel Roper, and other high officials in the Roosevelt administration (Johnson 1968, p. 156; Ferguson 1984, p. 82).31 Secretary of Commerce Roper was particularly helpful. Roper sent Glass and the banking committee a letter expressing the administration's support for Aldrich's position. Roper's intervention into an area in which Glass believed his committee had exclusive jurisdiction annoyed Glass, but the administration was able to signal its views nonetheless.³² Aldrich was also aided by Colonel House, the famous advisor to Woodrow Wilson and then Franklin D. Roosevelt. House's daughter was married to Gordon Auchincloss, Aldrich's best friend and a member of the Chase board, and Aldrich used this connection to lobby House (Ferguson 1984, p. 82). House, in turn, contacted Roper and later Roosevelt, urging them to meet with Aldrich.³³ Vincent Astor, Roosevelt's cousin and good friend. was also on the board of Chase, and he too served as a conduit to bring the two groups together (Ferguson 1989, p. 15; Burch 1980, p. 21). Aldrich's lobbying paid off when Glass—reluctantly—allowed him to draft the key sections of the Glass-Steagall Act that separated commercial and investment banking. These sections were section 21, which forbade deposit taking institutions from issuing or underwriting securities, and section 32, which forbade interlocking directorates.34

independent power base in Virginia and did not need the New York bankers to any great extent. Moreover, Glass was a devotee of the real-bills doctrine, especially as espounded by his long-time aide Professor H. Parker Willis. According to Willis, all commercial bank credit should be based upon short-term self-liquidating loans—all bank purchases of securities were therefore suspect in his view. Glass, therefore, had ideological or public-interest reasons to support the separation of commercial and investment banking, although it seems clear that he was reluctant to apply separation to private bankers.

Winthrop Aldrich . . . got in touch with me yesterday through Gordon Auchincloss. I found Aldrich sympathetic to the last degree of what the President is trying to do, and I advised him to tell the Banking Committee the whole story. He is prepared to do this, and has gone to the country today to write his proposed testimony in the form of a memorandum, a copy of which he is to send to me tomorrow morning. He intimated that if there was any part of it that I thought should be changed he would consider doing so. (quoted in Ferguson 1984, p. 83)

Ferguson implies Aldrich's contact with House helped to bring the Glass–Steagall Act to "fruition." This must be qualified. House's letter was written in October of 1933, several months after the Glass–Steagall Act had been signed into law (June 13, 1933). The letter concerns Aldrich's testimony in November of 1933, which was in favor of strengthening the Glass–Steagall Act. There was a movement to repeal Glass–Steagall before separation went into effect, so in this sense Aldrich's lobbying after June 13 was in support of Glass–Steagall. Furthermore, Aldrich was also influential in the Banking Act of 1935, which continued the anti-Morgan elements of the Banking Act of 1933. House's letter is therefore an important indication of Aldrich's lobbying efforts.

Roosevelt's letter to House of December 20, 1933, in Roosevelt (1947) illustrates that House contacted Roosevelt and encouraged him to see Aldrich.

³¹Ferguson (1984) is a critical paper for understanding of the political-business nexus of the New Deal.

³²See Glass's comments in the U.S. Senate (1934, p. 4016).

³³Writing to Secretary of Commerce Roper, Colonel House noted,

³⁴The fact that Aldrich wrote these sections came out in Aldrich's testimony in the Pecora hearings in December of 1993 (see U.S. Senate, 1934, p. 4032).

Aldrich also moved to turn the attention of the Pecora investigation away from Chase and toward Morgan. The *New York Times*, for example, concluded its March 9, 1933, article on Aldrich's reform plan with the following insight into his motivation.

Although the plans of the Senate investigating committee have not formally been disclosed, it has been reported that the affairs of the Chase National Bank's security affiliate and the affiliates of the other important banks were to have been gone into shortly with a thoroughness equal to that displayed in the National City Company investigation.

Several weeks later the results of Aldrich's maneuvering were evident. In a lively article titled "Next, Morgan and Company," Business Week noted that "Commercial bankers with investment affiliates get a chance to breathe and mop their brows as the Senate's stock market investigators turn from them to . . . the lordly private banking House of J.P. Morgan and Company." For their reprieve, commercial bankers must doff their hats to

Winthrop Williams Aldrich, head of Rockefeller's world-largest Chase National Bank, who is credited with having maneuvered so cunningly that Morgan and Company now occupy an uncomfortable eminence between him and the government's guns.³⁵

W. Averell Harriman's Bank, Brown Brothers, Harriman, was also notably absent from Pecora's investigation (Schlesinger 1958, p. 441). Harriman was a long-time friend of Franklin and Eleanor Roosevelt, and he used his connections to become a powerful and important figure in the Roosevelt administrations (Burch 1989, p. 55). Over the four administrations, he held a variety of diplomatic and administrative posts, including chairmanship of the Department of Commerce's Business Advisory Council, an administrative post at the National Recovery Administration (first at the New York Division and then nationally), and Secretary of Commerce (Kouwenhoven 1968, p. 202).³⁶

The Business Advisory Council (BAC) was essentially a lobby group for big-business, but was made more powerful by its official designation as part of the Department of Commerce. The BAC was established in June of 1933, probably to provide a forum for discussions between the new administration and the nation's top economic interests (Burch 1980, p. 18). Although initially open to small businesses, and to both the Morgans and the Rockefellers, it quickly came to be dominated by the

There is some confusion over exactly what Aldrich wrote. In the hearings, Glass maintained that Aldrich wrote section 32, and Aldrich initially agreed but suggested that the final form was somewhat different than what he wrote originally. A few minutes later, however, Aldrich denied that he wrote section 32 but claimed that he had assisted in writing section 21.

Section 32 actually contains two clauses, the ban on interlocking directorates and then a weaker version of section 21. It is the second clause over which Aldrich and Glass dispute. Once this is understood, the Glass–Aldrich exchange makes sense. Aldrich, in my judgment, wrote the first clause of section 32 as Glass says (recall that the ban was first proposed by Aldrich at his newspaper conference), but the second unrelated clause I believe was added later (as Aldrich argues). Glass does not dispute that Aldrich aided in the draft of section 21.

³⁵ Business Week (April 12, 1933), pp. 12, 14.

³⁶Harriman's brother Roland was also an influential supporter of the New Deal, as were other partners of Brown Brothers, Harriman, like Prescott Bush and Robert Lovell (see Kouwenhoven, 1968, p. 203).

Rockefeller group. Harriman, who was associated with the Rockefellers in a number of business enterprises, served first as the BAC's vice-chairman, then as chairman. Aldrich was also a member of the BAC and, appropriately enough, was made chairman of the BAC's committee on banking legislation in November of 1934 (Johnson 1968, p. 198). Other prominent members associated with the Rockefellers included Gerald Swope, President of General Electric and a director of National City Bank, and Walter C. Teagle, president of Standard Oil, in which the Rockefellers still maintained a large stake (Burch 1980, p. 19).

Harriman's bank, Brown Brothers, Harriman, was created in 1931 when the recently formed Harriman Brothers and Company merged with Brown Brothers and Company. Brown Brothers had originally been involved in both deposit banking and investment banking, but they had taken huge losses in the 1929 crash and, under Harriman's guidance, they began to focus on commercial banking. By 1933, the new bank was doing the great majority of its business in commercial banking. Brown Brothers, Harriman, therefore, would also gain from an attack on the House of Morgan. Harriman's interests were allied with those of the Rockefellers and, with Harriman's close ties to Roosevelt, he and his partners were clearly in an excellent position to influence banking legislation.³⁷

Section 8 of the Banking Act took the control of open-market operations away from the New York Fed and placed it with the Federal Reserve Board. The House of Morgan had dominated Federal Reserve policy throughout the 1920s through Benjamin Strong, the legendary governor of the Federal Reserve Bank of New York.³⁸ Section 8 was the response from several groups that had not benefited under Strong's regime.

Strong was closely associated with the House of Morgan throughout his career. As Chernow (1990, p. 182) puts it, Strong "had Morgan written all over his resume." This was literally true. In 1904 Harry Davison, later a Morgan partner, hired Strong as secretary of the Bankers Trust Company (succeeding another Morgan partner, Thomas Lamont). Bankers Trust, which stood opposite J.P. Morgan and Company at Broad and Wall Street, had been created by Morgan as a funnel for trust business that the Morgan bank could not legally handle. During the Panic of 1907, Strong became

³⁷Harriman was also closely connected with the banking houses of Kuhn, Loeb and Lehman Brothers; see Burch (1980, pp. 21–24).

It is interesting to note that when Brown Brothers, Harriman, was split, its investment bankers formed a new investment bank with former bankers of National City.

³⁸The legend of Benjamin Strong is told by monetarists and economists of the Chicago school, who claim that had Strong lived, the Great Depression could have been avoided. Irving Fisher, who originated the Strong legend, stated that "Governor Strong died in 1928. I thoroughly believe that if he had lived and his policies had been continued, we might have had the stock market crash in a milder form, but after the crash there would not have been the great industrial depression." Quoted in Friedman and Schwartz (1963, p. 413, see also pp. 411–19) who defend the Strong legend at length.

The essence of the Strong legend is that Strong used open-market operations to avert liquidity crises in 1924 and in 1927 and would have done so again in 1929–30. Research by Wheelock (1991), Wicker (1966), and Rothbard (1980, 1984) shows, however, that Strong's open-market operations were aimed at supporting Britain, and not at controlling the domestic economy.

one of Morgan's trusted lieutenants and his personal auditor. By 1914, he was president of Banker's Trust, and was in that year asked to become the Governor of the newly created New York Federal Reserve Bank.

Strong initially decided to turn down the position of Governor; but, over a long weekend in the country, Harry Davison and Paul Warburg convinced him to accept. Strong was particularly close to Morgan partner Harry Davison. Strong's life was beset by several tragedies; his first wife committed suicide in 1905, and a daughter died a year later. During this period, he felt unable to look after his remaining three children properly, and his friend, Davison, took them into his home.³⁹

Strong's close connections to the House of Morgan are not brought forward as evidence that Strong was controlled by the House of Morgan—this would be a facile interpretation and, given Strong's legendary willpower, an unlikely one. Strong, however, came from the same milieu as the Morgans: he lived in the same neighborhoods and joined the same country clubs. As we have seen, his career was guided by Morgan partners, and his best friends were Morgan partners. Strong's biographer, Lester Chandler (1958, p. 25), notes: "three men who were to have a great influence on his thinking and his future were Henry P. Davison [Harry], Thomas W. Lamont, and Dwight W. Morrow." Each of these men worked for J. P. Morgan and eventually became partners of the House of Morgan.

The House of Morgan was solidly internationalist, as was Benjamin Strong. The New York branch of the House of Morgan, J.P. Morgan and Company, was matched by Morgan Grenfell and Company in London, and of Morgan et Compagnie in Paris. Edward Grenfell (later Lord St. Just) was senior partner of Morgan Grenfell and Company, a director of the Bank of England, and Morgan's main contact with the British political class. At the beginning of World War I, Davison went to Britain and, with Grenfell's help, had J.P. Morgan and Company appointed Britain's purchasing agent in America. ⁴⁰ France also made Morgan their financier and purchasing agent. In return for a one percent commission (and the implicit opportunity to direct purchases to Morgan firms like U.S. Steel), Morgan used their monopsony power to buy over \$3 billion worth of supplies for the British alone, about half of Britain's total purchases.

To finance their purchases, Britain and France needed massive loans, and, over the course of the war, Morgan arranged \$1.5 billion in Allied credits. To help with the financing of the loans, Morgan enlisted Strong. Strong, who was virtually in complete control of the Fed, lent huge sums to the commercial banks, created a market in acceptances to finance trade, and timed gold inflows and open-market purchases to ease the money market as the Allied loans were floated. After the war, Strong and the House of Morgan worked closely to maintain international trade, and in particular, to bring Britain back on to the gold standard. For his part, Strong engaged in open-market purchases to keep U.S. interest rates below British rates, so gold would

³⁹On these points, see the biography of Strong by Chandler (1958, pp. 20, 31, 39, and passim) and Chernow (1990, p. 123, 182).

⁴⁰The theory behind this was to make Morgan give monopsony powers so they could keep prices low.

not flow out of Britain. Strong also continued to keep credit conditions easy in the United States so that reconstruction loans for Europe could be floated in the U.S. (e.g., Chandler 1958, pp. 271–71 and note 42). The House of Morgan cooperated by keeping open a \$100 million line of credit to the British Treasury to defend against speculative attacks.⁴¹

Strong's actions aroused the ire of at least three groups: Chicago Bankers, Californian A.P. Giannini, and Carter Glass. The isolationist and pro-German mid-West attacked Morgan's financing of Britain as warmongering. In Chicago, pro-German depositors threatened to boycott any banks that participated in the British loans (Chernow 1990, p. 200). Furthermore, in the late 1920s, Chicago banks were heavily invested in short-term government securities; Strong's open-market operations to lower interest rates, thus cut directly into their earnings (see Epstein and Ferguson 1984, and Chandler 1958, pp. 439–53, on the ire of the Chicago bankers). By 1928, Chicago banks were in open opposition to Strong's control, and Chicago papers were calling for Strong's resignation (Time, July 30, 1928).

California banker A.P. Giannini (of Transamerica) also felt locked out of the New York clique. Giannini strongly supported the New Deal banking reforms and, as a result, became the unofficial ambassador of California big business to Washington. Giannini was responsible for several small clauses of the Glass–Steagall Act, especially section 5114, which required that minority stockholders of a national bank be given the right to elect representatives to the board in proportion to their stock holdings. Giannini had recently gained a tenth interest in National City Bank but was frozen out of power due, he believed, to Morgan opposition. Giannini felt that he would be better served by a Washington-controlled Federal Reserve Board than by a Morgan-controlled New York Fed and, accordingly, in discussions with Roosevelt and the administration, especially Marriner Eccles, he lobbied for the shift of power to the Board.⁴³

Carter Glass was also against Strong's control of open-market operations. Glass, along with many others, believed that Strong had too much power and that his expansionist policies were the cause of the stock market boom as well as the excessive speculation of the 1920s (see Chandler 1958, pp. 163–64, 449–50). Although he had not always approved of the Board's actions, he chose the board over the unregulated control of the New York Fed (Chandler 1958, p. 449).

With these three forces against them, and with the death of the charismatic Benjamin Strong in 1928, the Morgans had little chance of retaining control of the Fed; section 8 was the logical result.

⁴¹On the events in this paragraph, see Tansill (1938, pp. 32–134, esp. 86–88), Rothbard (1980, 1984), Chernow (1990, chap. 10 and pp. 274–77), Anderson (1979, pp. 38, 47), Chandler (1958, chap. 6, esp. pp. 117–24, and chap. 8, esp. pp. 316–19), and Wheelock (1992).

⁴²Since the Chicago banks were holding short-term securities, any capital gains on their portfolio were small and fleeting.

⁴³Giannini also benefited from the extension of branch banking.

CONCLUSION

The public-interest arguments for the separation of commercial and investment banking are weak and appear unable to explain the passage of the Banking Act. The separation of commercial and investment banking is better explained by private-interest politics. Shughart (1988), Macey (1984), and Benston (1982) argue that private interests, like investment bankers, benefited from the Banking Act, and they speculate that these interests supported the Act, but they provide no direct evidence.

The micro-history approach of this article has pinpointed the specific individuals who were responsible for the Glass-Steagall Act's provisions separating commercial and investment banking. More than anyone else, Winthrop Aldrich, representative of the Rockefeller banking interests, was responsible for the separation of commercial and investment banking. With the help of other well-connected anti-Morgan bankers like W. Averell Harriman, Aldrich drove the separation of commercial and investment banking through Congress. Although separation raised the costs of banking to the Rockefeller group, separation hurt the House of Morgan disproportionately and gave the Rockefeller group a decisive advantage in their battle with the Morgans.

REFERENCES

- Alexander, J.L. 1975. "Prologue to Reform: Carter Glass and the Origins of the Federal Reserve Act." Masters Thesis. University of Virginia.
- Anderson, B.M. 1979. Economics and the Public Welfare. 2nd ed. Indianapolis, Ind.: Liberty Press.
- Benerjee, A.V. 1992. "A Simple Model of Herd Behavior." Quarterly Journal of Economics 107 (August): 797–817.
- Becker, G.S. 1985. "Public Policies, Pressure Groups, and Dead Weight Costs." *Journal of Public Economics* 28:329–47.
- Benston, G. J. 1990. The Separation of Commercial and Investment Banking. London: Macmillan Press.
- Boudreaux, D.J. 1990. "Turning Back the Anti-Trust Clock." Regulation 13, no. 3:45–52.
- Brandeis, L.D. 1933. Other People's Money. Washington, D.C.: National Home Library Foundation.
- Burch, P.H. 1980. Elites in American History. Vol. 1. New York: Holmes and Meier.
- _____. 1981. Elites in American History. Vol. 2. New York: Holmes and Meier.
- Burns, H.M. 1974. The American Banking Community and New Deal Banking Reforms: 1933–1935. Westport, Conn.: Greenwood Press.
- Carosso, V. 1970. "Washington and Wall Street: The New Deal and Investment Bankers, 1933–1940." *Business History Review* 44 (Winter): 425–45.
- Chandler, L.V. 1958. Benjamin Strong, Central Banker. Washington, D.C.: Brookings Institution.
- Chernow, R. 1990. The House of Morgan. New York: Simon and Schuster.
- Coate, M.B., and A.N. Kleit. 1994. "Exclusion, Collusion, or Confusion? The Underpinnings of Raising Rivals' Costs." Research in Law and Economics 16:78–93.
- Collier, P., and D. Horowitz. 1976. The Rockefellers. New York: Holt, Rinehart, and Winston.
- Delong, J.B. 1991. "Did J.P. Morgan's Men Add Value?" In *Inside the Business Enterprise*. P. Temin, ed. Chicago: University of Chicago Press. Pp. 205–36.
- . 1991. "What Morgan Wrought." Wilson Quarterly (Autumn): 17–30.
- Ferguson, T. 1984. "From Normalcy to New Deal: Industrial Structure, Party Competition, and American Public Policy in the Great Depression." *International Organization* 38, no. 1:41–94.

- ____. 1989. "Industrial Conflict and the Coming of the New Deal." In *The Rise and Fall of the New Deal Order, 1939–1989.* S. Fraser and G. Gerstle, eds. Princeton: Princeton University Press. Pp. 3–32.
- Friedman, M., and A.J. Schwartz. 1963. *A Monetary History of the United States, 1867–1960*. Princeton: Princeton University Press.
- Goldenweiser, E.A. 1951. American Monetary Policy. New York: McGraw-Hill.
- Golembe, C.H. 1969. "The Deposit Insurance Legislation of 1933." *Political Science Quarterly* 75, no 2:181–200.
- Hofstadter, R. 1974. The American Political Tradition. New York: Vintage Books.
- Hofstadter, R., and C.L. Ver Steeg, eds. 1969. *Great Issues in American History*. Vol. 3. New York: Vintage Books.
- James, M., and B.R. James. 1954. Biography of a Bank. New York: Harper Brothers.
- Johnson, A.M. 1968. Winthrop W. Aldrich: Lawyer, Banker, Diplomat. Boston: Harvard University Press.
- Karmel, R.S. 1980. "Glass–Steagall: Some Critical Reflections." The Banking Law Journal 97, no. 9:631–41.
- Kennedy, S.E. 1973. The Banking Crisis of 1933. Lexington: University Press of Kentucky.
- Knoeber, C. 1986. "Golden Parachutes, Shark Repellents, and Hostile Tender Offers." *American Economic Review* 76, no. 1:155–67.
- Kolko, G. 1963. The Triumph of Conservatism. Chicago: Quadrangle Books.
- Kouwenhoven, J.A. 1968. Partners in Banking. New York: Doubleday.
- Kroos, H.E., ed. 1983. *Documentary History of Banking and Currency in the United States*. New York: Chelsea House Publishers.
- Kroszner, R.S., and R.G. Rajan. 1994. "Is the Glass-Steagall Act Justified?" *American Economic Review* 84, no. 4:810–33.
- Lundberg, F. 1937. America's 60 Families. New York: Vanguard Press.
- Macey, J.R. 1984. "Special Interest Group Legislation and the Judicial Function: The Dilemma of Glass-Steagall." *Emory Law Journal* 33:1-40.
- Macey, J.R., M.W. Marr, and S.D. Young. 1991. "The Glass-Steagall Act and the Riskiness of Financial Intermediaries." Research in Law and Economics 14:19-30.
- McChesney, F.S. 1991. "Rent Extraction and Interest-Group Organization in a Coasean Model of Regulation." *Journal of Law and Economics* 20, no. 1:73–90.
- McLaughlin, A.C., and A.B. Hart, eds. 1963. *Cyclopedia of American Government*. Gloucester, Mass.: Peter Smith.
- Peach, W.N. 1941. *The Security Affiliates of National Banks*. Baltimore: The Johns Hopkins University Press.
- Peltzman, S. 1976. "Toward a More General Theory of Regulation." *Journal of Law and Economics* 19, no. 2:211–40.
- Perkins, E.J. 1971. "The Divorce of Commercial and Investment Banking: A History." The Banking Law Journal 88, no. 6:483–528.
- Peterson, H. ed. 1965. A Treasury of the World's Great Speeches. New York: Grolier.
- Preston, H.H. 1933. "The Banking Act of 1933." American Economic Review 23, no. 4: 585-607.
- Roosevelt, Franklin D. 1947–50. F.D.R.: His Personal Letters, 1st ed. New York: Duell, Sloan, and Pearce.
- Rothbard, M.N. 1980. "The New Deal and the Monetary System." In *The Great Depression and New Deal Monetary Policy*, G. Garrett and M. Rothboard, eds. San Francisco: Cato Institute. Pp. 79–124.

- . 1984. "The Federal Reserve as a Cartelization Device: The Early Years 1913–1930." In *Money in Crisis*, B.N. Siegel, ed. Cambridge: Mass, Ballinger. Pp. 89–136.
- Salop, S.C., and D.T. Scheffman. 1983. "Raising Rivals' Costs." American Economic Review 73 no. 2:267-71.
- Scharfstein, D., and J.C. Stein. 1990. "Herd Behavior and Investment." *American Economic Review* 80:465–479.
- Schlesinger, A.M.J. 1958. The Coming of the New Deal. Boston: Hughton Mifflin.
- Seligman, J. 1981. The Transformation of Wall Street. Boston: Houghton Mifflin.
- Shughart, W.F. 1988. "A Public-Choice Perspective of the Banking Act of 1933." Cato Journal 7, no. 3:595–614.
- Tansill, C.C. 1938. America Goes to War. Boston: Little, Brown.
- Temin, P. 1976. Did Monetary Forces Cause the Great Depression? New York: W.W. Norton.
- ____. 1989. Lessons from the Great Depression. Cambridge, Mass.: The MIT Press.
- Timberlake, R.H. 1989. "New Deal Monetary Legislation for the Welfare of the Government." *Cato Journal* 7, no. 3:615–19.
- U.S. Congress. 1934. Senate Committee Stock Exchange Practices: Hearings. Banking and Currency. 73rd Congress-2. Washington, D.C.: U.S. Government Printing Office.
- Wheelock, D.C. 1991. The Strategy and Consistency of Federal Reserve Monetary Policy, 1924–1933. Cambridge: Cambridge University Press.
- . 1992. "Monetary Policy in the Great Depression: What the Fed Did and Why." The Federal Reserve Bank of St. Louis Review 74 (March/April): 3–28.
- White, E.N. 1983. The Regulation and Reform of the American Banking System, 1900–1929. Princeton: Princeton University Press.
- _____. 1986. "Before the Glass–Steagall Act: An Analysis of the Investment Banking Activities of National Banks." Explorations in Economic History 23:33–55.
- Wicker, E. 1966. Federal Reserve Monetary Policy, 1917–1933. New York: Random House.
- Williamson, O.E. 1968. "Wage Rates as a Barrier to Entry: The Pennington Case." Quarterly Journal of Economics 82:85–117.
- Willis, H.P., and J. M. Chapman. 1934. *The Banking Situation*. New York: Columbia University Press.