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NO GOING BACK: WHY WE CANNOT RESTORE GLASS-STEAGALL'S SEGREGATION OF BANKING AND FINANCE

JAN KREGEL

Contents

3 Preface

Dimitri B. Papadimitriou

4 No Going Back

Jan Kregel

17 About the Author

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Preface

The U.S. Congress passed the Banking Act of 1933 (aka Glass-Steagall) to correct the abuses of the national banking system that stemmed from the involvement of commercial banks in securities underwriting, which allegedly contributed to the Great Depression by fueling rampant speculation. The purpose of the Act was to prevent the exposure of commercial banks to the risks of investment banking and to ensure stability of the financial system. A proposed solution to the current financial crisis is to return to the basic tenets of this New Deal legislation.

Senior Scholar Jan Kregel provides an in-depth account of the Act, including the premises leading up to its adoption, its influence on the design of the financial system (e.g., formalizing the difference between the short-term and long-term use of funds), and the subsequent collapse of the Act's restrictions on securities trading (deregulation). He concludes that a return to the Act's simple structure and strict segregation between (regulated) commercial and (unregulated) investment banking is unwarranted in light of ongoing questions about the commercial banks' ability to compete with other financial institutions. Another concern is the ability to adopt new regulations that would prevent a repeat collapse of the Act's original restrictions on securities trading. Moreover, fundamental reform—the (conflicting) relationship between state and national charters and regulation—was bypassed by the Act.

In essence, the Act provided the unregulated investment banks with a monopoly over securities market activities. Moreover, both the commercial and investment banks provide liquidity: the former by creating deposits and the latter by structuring the liabilities issued by borrowers. Thus, investment banks were functionally equivalent to the deposit and liquidity-creation business of regulated banks. While the Act provided monopoly protection for the commercial banks' business model, which was locked into issuing commercial loans, it did not give these banks a monopoly on the creation of liquidity. Over time, other financial sectors offered similar products with fewer restrictions and lower costs (e.g., through structures such as securitization, the commercial paper market, and money market mutual funds, and through the process of “riskless arbitrage”).

The regulated banks sought to compete in the marketplace by expanding their lending into longer maturities. Ultimately, the Securities and Exchange Commission allowed these banks to operate affiliates that were neither regulated nor consolidated for financial reporting purposes, while other regulators provided a level playing field that included the ability to engage in (high-risk) activities such as credit derivatives. When the liquidity crisis occurred in 2008, it resulted in a collapse of security values, an insolvency in securitized structures, and a withdrawal of short-term funding. The safety net that was created to respond to a run on bank deposits was totally inadequate to address a capital market liquidity crisis.

Kregel observes that an alternative source of revenue has to be found for the regulated banks without undermining their protections, and that regulators, legislators, and the judiciary have to agree on a precise definition and the powers to carry out permissible banking activities. One approach is to recognize deposit taking as a public service and to regulate it as a public utility, with a guaranteed return on regulated costs. Another approach is to treat wealth and transaction services as a public service by a regulated utility such as a national giro payments system, thus eliminating the need for deposit insurance and the lender-of-last-resort function of the Federal Reserve. Both short- and long-term finance and funding would be provided by private investment funds or trusts monitored by securities regulators, but without the need for a government guarantee.

In spite of his proposed solutions, Kregel acknowledges that the conundrum of prohibiting regulated banks from engaging in the least costly method of short-term business financing, combined with the inability of legislating monopoly deposit protections similar to the 1933 Act without prohibiting competitive innovations by nonregulated institutions, remains unresolved.

As always, I welcome your comments.

Dimitri B. Papadimitriou, *President*
January 2010

No Going Back¹

Introduction

Recently, a number of authoritative voices have called for a return to the New Deal Glass-Steagall legislation as the most appropriate response to the clear failure of the 1999 Financial Modernization Act to provide stability of the financial system. However, a clear understanding of the 1933 Banking Act, along with subsequent regulatory interpretation and legislation, suggests that this would be difficult, if not impossible. A new Glass-Steagall Act would have to be substantially different from the original, and some of the internal structural contradictions that led to its demise remedied.

What Was Glass-Steagall Trying to Do?

First, it is important to note that the legislation, produced in slightly less than three months, was considered a stopgap measure that was enacted following three years of crisis and drew extensively on reform proposals that had been under discussion since the establishment of the National Monetary Commission in 1908 and the subsequent creation of the Federal Reserve System. Indeed, the main proposal—the separation of banking and finance—had been proposed by Louis D. Brandeis (1914) in his famous condemnation of the financial system during the 1907 financial crisis. In Senate bills introduced in 1932, Carter Glass had already proposed elimination of securities dealing by national charter banks (although he seems to have reversed his opinion by the time of the Banking Act of 1935; see Edwards 1938, 297); in particular, limitations on brokers' loans (*Time* 1932a, 1932b). Deposit insurance had been introduced by several states starting in the late 1880s and was included in legislation sponsored, also in 1932, by Henry Steagall in the House of Representatives (see FDIC 1984, chapter 3). It was eventually introduced as an amendment to the draft Senate bill to form the basis for the Banking Act of 1933. Proposals to limit the interest on interbank deposits—an attempt to curtail the transfer of excess funds from country banks to Wall Street—were also under discussion (Klebaner 1974, 138), and the role of correspondent banks' securities accounts in the collapse of a number of Midwest savings banks (in the run-up to the bank holidays imposed by Roosevelt in March) gave the measure added importance. Winthrop Aldrich, head of Chase National Bank, had publicly proposed

separating national banks from their affiliates, and he later drafted the section (21) of the 1933 Act prohibiting any “person, firm, corporation, association, [or] business trust” dealing in securities from accepting deposits (Johnson 1968, 156). Aldrich's proposal brought unchartered private partnerships into the purview of the reform bill (Ferguson 1984, 82). Thus, the major elements of the 1933 legislation were readily available to an administration willing to act expeditiously.

Nonetheless, the Senate Committee on Banking and Currency Report on the Act (S. Rep. No. 77, 73rd Cong., 1st sess., 1933) emphasized “that immediate emergencies were so great that it was wise to defer the preparation of a completely comprehensive measure for the reconstruction of our banking system, such as had been urged by some responsible men. Hence, the Committee resolved to construct a bill to correct the manifest immediate abuses, and to bring our banking system back into stronger condition” (cited in Wyatt 1941, 56, note 9). What were these “immediate abuses” and “completely comprehensive” measures?

The Immediate Abuses

A good summary² of these immediate abuses is contained in the 1982 decision of the District of Columbia Circuit Court of Appeals, *A.G. Becker, Inc. v. Board of Governors of the Federal Reserve System*:

Congress passed the Glass-Steagall Act in 1933, in response to what it perceived to be the abuses which resulted from the involvement of commercial banks in securities underwriting. Congress considered that commercial banks, by underwriting stocks, had fueled the rampant speculation that preceded the Great Depression. Congress' principal concern in amending the banking laws, however, was to protect the solvency and integrity of the banks themselves. . . . Throughout its debates on the causes of the imperiled state of the banking industry, Congress . . . focused its attention on the commercial banks' participation in “speculative” securities markets: their extensive underwriting of long-term holdings of high risk stocks and bonds.

For example, the Senate Report on the Act notes that “[t]he outstanding development in the commercial banking system during the prepanic period was the appearance of excessive security loans, and of over-investment in securities. . . . [A] very fruitful cause of bank failures . . . has been

the fact that the funds of various institutions have been so extensively 'tied up' in long-term investments." Congress condemned "the excessive use of bank credit in making loans for the purpose of stock speculation. . . ." In short, the purpose of the Act was to reverse "a loose banking policy which had turned from the making of loans on commercial paper to the making of loans on security."

Congress passed the Glass-Steagall Act to correct these abuses. The Act is a prophylactic measure designed to prevent commercial banks from being exposed to the dangers which inevitably followed upon their participation in investment banking. "Congress acted to keep commercial banks out of the investment banking business largely because it believed that the promotional incentives of investment banking and the investment banker's pecuniary stake in the success of particular investment opportunities was destructive of prudent and disinterested commercial banking and of public confidence in the commercial banking system."

Congress accomplished the separation of commercial and investment banking in sections 16 and 21 of the Glass-Steagall Act. . . . Section 16 provides that a bank "shall not underwrite any issue of securities or stock" and shall not "purchase . . . for its own account . . . any shares of stock of any corporation." . . . Section 21 of the Act . . . forbids banks from underwriting "stocks, bonds, debentures, notes, or other securities."

The basic abuses were deposit-taking banks' underwriting of and investment in securities, lending to finance the acquisition of securities (through money center banks' use of correspondent deposits to fund brokers' loans), and margin lending to retail clients. The integrity of the public's holding of deposits in banks was to be insured by prohibiting deposit takers from these activities, and by preventing banks engaged in these activities from taking deposits.

The Comprehensive Measures

Competition between the states and the federal government has existed since the ratification of the Constitution, which forbids states the right to issue debt or currency, and Alexander Hamilton's assumption of the colonies' defaulted debt as federal government liabilities. The 1836 decision to allow the Bank of the United States to lapse left the provision of a fiduciary currency to the states,

which maintained the right to charter banks. The federal government attempted to reassert its control over the circulating currency with the creation of national banknotes under the National Bank Act of 1863, but the state banks responded quickly, offering deposits subject to check as an alternative means of payment and credit creation. By the turn of the century, state banks had once again become dominant.

This was partly due to a 1902 ruling by the comptroller of the currency limiting investments by national banks to any single borrower and curtailing the right of the large New York national banks to deal in and underwrite securities. State banks were not subject to these restrictions and national charter banks formed state-chartered affiliates to evade them. The use of such affiliates was dealt with in section 20 of the 1933 Act, which specified that "no member bank shall be affiliated in any manner . . . with any corporation, association, business trust, or other similar organization engaged principally in the issue, flotation, underwriting, public sale, or distribution at wholesale or retail or through syndicate participation of stocks, bonds, debentures, notes, or other securities" (FRB 1933, 398). And section 32 provided that "no officer or director of any member bank shall be an officer, director, or manager of any corporation, partnership, or unincorporated association engaged primarily in the business of purchasing, selling or negotiating securities, and no member bank shall perform the functions of a correspondent bank on behalf of any such individual, partnership, corporation, or unincorporated association and no such individual, partnership, corporation, or unincorporated association shall perform the functions of a correspondent for any member bank or hold on deposit any funds on behalf of any member bank" (ibid., 401).

Thus, the problem of conflicting federal and state regulations had existed since the colonial period. It became acute for the national banking system in other areas besides securities trading, particularly in the creation of bank branches and, after 1914, in the asymmetry created by the government's allowing state banks to be members of the Federal Reserve System while enjoying the benefits of more lenient state charters. The existence in many states of free charters, leading to a predominance of small unit banks, also created what was presumed to be a weakness in the U.S. banking system, since a small unit system was thought to be less stable than one comprising a lesser number of larger banks, as in Canada. The more "comprehensive measures" referred to by the Senate committee involved the unification of regulation at the federal level, possibly involving "a constitutional

amendment or some equally far-reaching measure necessitating a long postponement of action” (*A.G. Becker* 1982).

Correcting the Manifest Abuses Produces a Financial Structure

Although considered stopgap measures, the restrictions on the immediate abuses had very clear consequences for the design of the financial system. One set of financial institutions would be responsible for taking deposits and making short-term loans to commercial and industrial clients through the creation of credit in the form of new deposits. This simply reaffirmed the belief in the applicability of the “real bills” doctrine that had been the basis of the discussions that led to the creation of the Federal Reserve System. A second set of institutions would be responsible for the long-term financing of capital investment through the underwriting and initial and secondary distribution of securities: bonds and equity.

A 1921 text on American banking by H. Parker Willis, a former secretary of the Federal Reserve Board and professor of banking at Columbia University, reflects the desired financial structure. It stresses the need

to make plain the difference between the investment bank or banking house and the commercial bank. . . . In the case of the commercial bank, we have an institution which tests and analyzes credit, guarantees it, and undertakes to redeem on demand the obligations which it has incurred on behalf of its own customers. . . . The underlying thought in banking in the commercial sense of the term is thus intimately associated with the idea of short term, or power to liquidate, and is the direct antithesis of investment, or long-term use of funds. Whenever a commercial bank begins to allow its funds to be “tied up,” that is to say, closely involved or absorbed in long-term operations, it has started upon the road to disaster. . . . The whole object and purpose of investment is thus very different from that of banking. An investment house or investment bank underwrites issues of stocks and bonds by reputable concerns, and sells them to its investing customers. (Willis 1921, 108 ff.)

Willis lists American institutions that have to do with the investment function as (1) savings banks, (2) building loan associations, (3) land or mortgage banks, (4) investment houses or

investment banks, and (5) trust companies. “For the most part,” he writes, “the development of investment banking has been in the charge of the state governments, the national government taking no interest in it until very recently. . . . It is therefore broadly true that nearly all the legislation relating to investments and investment banking is the product of the several states” (*ibid.*, 106–08).

Section 21 of the 1933 Act simply formalized this difference between the short-term and long-term use of funds by making it unlawful for any type of business enterprise dealing in securities “to engage at the same time to any extent whatever in the business of receiving deposits subject to check or to repayment upon presentation of a passbook, certificate of deposit, or other evidence of debt, or upon request of the depositor” (FRB 1933, 398). It thus provided member banks with a monopoly on such deposit business, subject “to periodic examination by the Comptroller of the Currency or by the Federal reserve bank of the district” and to the requirement that each bank “make and publish periodic reports of its condition” (*ibid.*).

Following Brandeis’s admonition, the intention was to shield public deposits from exposure to or use in any capital market activities, and, in particular, to prevent member banks from owning or dealing in equity. To reinforce the point, section 13 of the Banking Act states: “No member bank shall (1) make any loan or any extension of credit to, or purchase securities under repurchase agreement from, any of its affiliates, or (2) invest any of its funds in the capital stock, bonds, debentures, or other such obligations of any such affiliate, or (3) accept the capital stock, bonds, debentures, or other such obligations of any such affiliate as collateral security for advances made to any person, partnership, association, or corporation, if, in the case of any such affiliate, the aggregate amount of these loans, extensions of credit, repurchase agreements, investments, and advances against such collateral security will exceed 10 per centum of the capital stock and surplus of such member bank, or if, in the case of all such affiliates, the aggregate amount of such loans, extensions of credits, repurchase agreements, investments, and advances against such collateral security will exceed 20 per centum of the capital stock and surplus of such member bank,” with an overcollateralization of 20 percent on the value of all such operations (FRB 1933, 395). Thus, the difference in operation between commercial and investment banks is based on the former’s ability to receive deposits and a limitation on the nature of their investments to short-term, self-liquidating business loans.

However, Willis's analysis of the activity of commercial banks goes beyond receiving deposits and stresses a more important function of banks, viz: "supplying purchasing power in some form to persons who need it. Or, to state the thought in another way, it is that of guaranteeing the limited or individual purchasing power represented by the obligation of each individual, by accepting it and substituting in lieu thereof the bank's own obligation" (Willis 1921, 3). That is, the individual borrower "has simply substituted the bank's obligation of more general acceptability for his own obligation of limited acceptability" (ibid.). This corresponds to Hyman P. Minsky's observation that "the fundamental banking activity is accepting, that is, guaranteeing that some party is creditworthy. . . . A bank loan is equivalent to a bank's buying a note that it has accepted" (2008 [1986], 256). Minsky also notes that a bank's ability to do this depends on its liabilities' carrying a higher liquidity premium than its investment assets (277). Banks therefore have two quite separate functions: the receipt and safekeeping of deposits, and the creation of liquidity for its borrowers through the acceptance function, earning income for this service to its clients in the form of a net interest margin, less charge-offs. "The bank thus appears as an institution for the study of individual solvency and liquidating power and for guaranteeing its judgment on the subject. This process of study and guarantee is called the extension of credit, and the bank is properly defined as a credit institution" (Willis 1921, 4).

Willis stresses this dual nature of a bank's deposit business, noting "the clear meaning of the term 'deposit'—something deposited or left. As a matter of fact, it must be regarded as a totally erroneous conception of the bank 'deposit' when viewed from the general standpoint of credit. . . . Suppose a would-be borrower, A, who has property or is known to be in a thoroughly solvent condition, goes to a bank and negotiates a loan. That loan may be allowed him, not in the form of actual coin currency, but simply in the form of an entry in a passbook. In return for this entry, the borrower leaves with the bank his own note secured or unsecured by collateral" (23–24). Thus, banks are institutions that create liquidity through leverage and are recompensed for this by the premium on their deposits relative to their assets and on their ability to avoid losses by appropriate study of the solvency of borrowers (i.e., the liquidity premium on the assets).

It is this ability to "create" deposits in the act of lending that provides bank income. A Federal Reserve analysis of "Commercial Bank Operations," written after the passage of the 1933 Act, notes that it is "considered desirable for [a bank's] income producing

assets to hold some promise of ready convertibility into cash. The paramount consideration in connection with such assets, however, is how to get the most interest income with the least risk. Loans are the traditional employment for bank funds. . . . The form of a loan most favored by tradition is the short-term commercial loan; that is, a credit based on a productive or distributive process, which, in its fruition, provides the funds with which to repay the loan. . . . It is usually for short periods of time and the transaction it covers supplies security for the loan. The appraisal of credit risk in such a loan is comparatively easy. . . . Credit analysis, as practiced by banks, is a highly developed art. Its practitioners have devised elaborate statistical measures involving balance sheet and income statement ratios. Large banks have specially trained staffs for this sort of work. Small banks, particularly those in compact and more or less self-contained communities, are in a position to depend largely upon intimate knowledge of local conditions and borrowers" (Robinson 1941, 179–80).

Thus, while the Act limits the "receipt of deposits" to member banks, it also limits the way banks can use deposits to create liquidity for its clients to particular types of investments—what are generally called commercial and industrial (C&I) loans. However, commercial banks are not unique in the creation of liquidity. Even without the ability to receive or create deposits, investment banks also create liquidity by underwriting and primary distribution of a borrower's obligations, and by providing secondary distribution through the market-maker broker-dealer function in organized securities markets. In this way, they render investments in long-term capital assets into what may be considered "liquid" investment securities. This has been recognized as both a benefit and a drawback. As John Maynard Keynes observes in his *General Theory* (1936), "with the development of organised investment markets, a new factor of great importance has entered in, which sometimes facilitates investment but sometimes adds greatly to the instability of the system. In the absence of security markets, there is no object in frequently attempting to revalue an investment to which we are committed. But the Stock Exchange revalues many investments every day and the revaluations give a frequent opportunity to the individual (though not to the community as a whole) to revise his commitments" (150–51). As a result, "investment becomes reasonably 'safe' for the individual investor over short periods," and "investments which are 'fixed' for the community are thus made 'liquid' for the individual." By acting as broker-dealers making liquid markets in securities, investment banks support the role of organized securities

markets in transforming long-term fixed assets into short-term liquid assets (153).

While a commercial bank creates liquidity by insuring that its liabilities have a higher liquidity premium than its assets and thus can always be exchanged for currency, investment banks provide liquidity by insuring that the liabilities they underwrite have a higher liquidity premium than the capital assets they finance and thus can be bought or sold in organized markets without a great variation in price. Both provide liquidity; they just do it in different ways: the former by creating deposits, the latter by structuring the liabilities issued by borrowers. The Act granted commercial banks monopoly protection over this type of liquidity creation, but that protection also meant that their business model was locked in to the issuing of commercial loans. Or, to put it another way, the Act provided monopoly protection for a particular means of providing liquidity, but it did not give banks a monopoly on the creation of liquidity.

The Viability of the Commercial-bank Business Model under the 1933 Act

As pointed out in the Federal Reserve study cited above, “Although highly regarded, the commercial loan has come to be a progressively smaller proportion of bank assets. For one thing, business enterprise has been centralized more in corporations that are able to get favorable financing from the long-term securities market. In addition, improvement in transportation and changes in inventory practices have reduced the requirements for short-term commercial credit. As a result, banks have had to seek employment for their funds elsewhere” (Robinson 1941, 179). As noted in Klebaner 1974, “A far-reaching ‘technical revolution in debt financing’ began in the 1920s and accelerated after 1933,” expanding the range of acceptable collateral on small and medium firms and extending the term loan—changes that were “far more significant quantitatively than those innovations in collateral” (147).

Thus, national banks had already suffered from competition from alternative forms of liquidity creation even before their operations were restricted to short-term commercial and industrial loans—and had already begun to expand their lending into longer maturities. Just as regulators soon reconsidered the applicability of “real bills,” the financial system also moved beyond the simple structure envisaged by the Banking Act of 1933 as a result of a process of competition between regulated and unreg-

ulated banks. In any event, both the protected deposit business and the creation of liquidity based on deposit creation were eroded by competition from nonmember investment banks that were not restricted to a particular business model. Indeed, it was not the receipt of customer deposits of currency that had to be protected but rather liquidity creation, or the acceptance function, if the separation of commercial and investment banks was to be sustainable. Once investment banks could provide these liquidity-creating services more cheaply than regulated banks, the latter’s business model became untenable, and with it the logic of the Glass-Steagall separation of commercial and investment banks.

Glass-Steagall Created a Monopoly That Was Bound to Fail

For supporters of free-market liberalism, the decline of member banks as the providers of liquidity through insured deposit creation was simply an expression of the inefficiencies of a de facto cartel. For example, Kenneth E. Scott (1981) notes that “the Banking Act, in a manner consistent with the economic thinking that characterized that period, sought to deal with the problems of the depression by creating an industry cartel to divide markets and fix prices, in the name of preventing that excessive competition which was seen as the major cause of business failure and economic depression. In essence, the Banking Act of 1933 undertook to create a buyers’ cartel among banks, restraining competition among them for demand deposits and for time and savings deposits” (40).

According to George G. Kaufman (1988), “most of the individual proposals focused on increasing bank safety by decreasing competition in a particular area. . . . [Thus] the Act, taken as a whole, was blatantly anticompetitive. . . . The commercial banking sector became progressively disadvantaged relative to other sectors that could offer similar products with fewer restrictions. . . . Today, there is general agreement among economists that most, if not all, of the restrictions imposed by the Banking Act no longer are necessary, if they ever were, at least for restricting risk” (184–85).

However, the disintegration of the protection of member banks’ deposit business was as much due to the conscious decisions of regulators and legislators to weaken and suspend the protections of the Act, and to provide explicit support for the competitive innovations of nonmembers banks, as it was to the triumph of market forces over monopoly. Indeed, it would be possible to

argue that Glass-Steagall provided the unregulated investment banks with a monopoly over securities market activities that were functionally equivalent to the deposit business and liquidity creation of regulated banks.

Challenges to Monopoly Protection: Thrifts and Asset Securitization

An initial challenge to member banks' monopoly on the receipt of deposits came from savings and loan banks. Savings banks were considered investment banks because of the long-term nature of their assets and the limitations placed on deposit withdrawals. As a result, they were excluded from the 1933 Act and the Regulation Q limits on deposit interest rates for insured member banks. When interest rates started to climb with inflation, this provided thrifts a means of competing with member banks for insured deposits. Deregulation in 1980 and subsequent decisions lifted restrictions on their investments, making them look more and more like member banks—but with more lenient regulation. The end result was the savings-and-loan crisis, which led to the collapse of the industry.

But the real challenge to member banks' monopoly on liquidity creation came from the extension of asset securitization to provide loans to businesses at lower financing spreads through risk reduction and redistribution. As noted above, the first step in this process was the use by corporations of the commercial paper market as a substitute for traditional short-term bank loans. The emergence and growth of money market mutual funds (MMMFs) provided a growing demand for these assets, which further encouraged the expansion of sources of nonbank short-term paper. Finally, asset securitization provided even greater reductions in financing costs, since MMMFs and other investors could purchase asset-backed commercial paper through commercial borrowing conduits. Commercial paper thus displaced commercial bank loans, while the liabilities of money market funds provided a substitute for member bank deposits.

The money market mutual fund, which first appeared in 1971, was considered a short-term investment pool subject to registration requirements under the 1940 Investment Company Act. In 1983, Securities and Exchange Commission (SEC) Rule 2a-7 was promulgated to ensure that the underlying net asset value of a fund's assets would support the advertised guarantee of a one-dollar-per-share net asset value that allowed it to com-

pete with insured member bank deposits. Just as drafters of the National Bank Act had not foreseen the competition for national banknotes from state banks' deposits subject to check, legislators in 1933 could not have foreseen the rise of commercial paper as a substitute for C&I loans or MMMFs as a substitute for retail deposits. At the same time, since these structures were considered capital market transactions, member banks could not respond by entering those markets.

Indeed, the initial attempt to enter the commercial paper market—made in 1979 by Bankers Trust—was opposed in the courts by representatives of investment banks. The litigation turned on whether commercial paper should be considered equivalent to a bank loan or to a security. Despite overwhelming evidence to the contrary, and a positive ruling by the District of Columbia Court of Appeals, the Supreme Court eventually ruled that it was a security and thus an activity forbidden under the 1933 Act's preclusion of underwriting and dealing in securities. However, in 1984 the Supreme Court ruled that the Federal Reserve had the authority to allow regulated banks to acquire brokers as a subsidiary in a bank holding company (see *Securities Industry Association* 1984), and in 1985 the Fed ruled that bank holding companies could acquire as subsidiaries firms that offered both brokerage and investment advice to institutional customers. Interpretations issued in 1986 and 1987 further relaxed section 20 restrictions, and then expressly allowed regulated banks to engage in securitization via affiliation with companies underwriting commercial paper, municipal revenue bonds, and securities backed by mortgages and consumer debts—as long as the affiliate did not principally engage in those activities. The decision interpreted “principally engaged” as contributing more than 5 percent (subsequently raised to 10 percent) of gross revenues. Both rulings were subject to legal appeal by investment banks seeking to protect themselves from encroachment from regulated commercial banks, but both decisions were approved by the relevant legal jurisdictions.³

The basic concept used by MMMFs was generalized in asset-backed securitization.⁴ In securitized lending, in contrast to deposit creation, liquidity is created by the structure of the balance sheet of a separate institution, such as a trust or a special purpose entity (or vehicle). Through the magic of diversification and aggregation, higher-risk, longer-term assets are transformed into lower-risk, shorter-term assets, and thus, lower-liquidity assets into higher-liquidity assets. The remuneration to liquidity creation comes not from the net interest margin and the reduction

of charge-offs from the effective assessment of the credit of borrowers but from a process that focuses on the identification of market mispricing of risk.

This process has been described as “riskless arbitrage”:

When one looks at any class of properly structured loans as a national aggregate, they will perform in line with national economic trends. If properly underwritten to statistically significant standards, and appropriately assured against default, variance in performance of properly pooled and valued loans will be determined by national trends in interest rates and national economic success or failure. At various times since 1987, loans underwritten and sold in financial markets have sometimes lived up to these underwriting standards and have sometimes failed them miserably. For riskless arbitrages to work appropriately, markets must produce loans worthy of reliable and predictable arbitrage. . . . In loan arbitrage transactions, the price to arbitrage versus the gain created by spread determines profit or loss. The higher the “spread” the more profitable it is to pool loans and fund them in high-grade bond markets (the arbitrage process), assuming the ability to freely arbitrage on a consistent basis. (Feldkamp 2009, 1, note 1)

However, this type of arbitrage involves the financial institution in the evaluation of a series of issues very different from the traditional spread implicit in net margin lending. Instead of a spread between borrowing and lending rates determined by the bank’s ability to assess credit risk and to ensure the liquidity of its liabilities, riskless arbitrage requires just the opposite process:

A “riskless arbitrage” arises whenever a market participant can acquire a commodity at a lower price in one market than the price at which it can sell that same commodity in another market and lock in a price differential that guarantees a profit. . . . In financial market “riskless arbitrages,” participants: (1) originate or acquire loans at a rate on the “high” side of a rate spread and (2) “pool” them in a manner that either properly diversifies and moderates individual loan loss risk or insures against default, provides assured servicing and collection for pool investors and, ultimately, justifies a superior rating for securities backed by the pool. The arbitrageur then sells securities priced at the “low” side of a rate spread in amounts that lock in a differential which guarantees profit. (Ibid.)

Here, it is the pooling, diversification, and structuring of the special purpose entity’s assets that reduces risk, along with the distribution of the assets into a large and active market that increases liquidity and converts high-rate, risky assets into lower-rate, less risky assets. The process has nothing to do with the creditworthiness of the borrower or the ability of the bank to assess it. In addition to the income generated from the interest spread between long-term assets and shorter-term liabilities, fees and commissions result from the origination of the loan, the underwriting of the securities, and the servicing of the structure itself.

As in the case of MMMFs, these structures could only compete with traditional commercial bank lending with the help of regulatory support. As noted, securitization involves the creation of an independent legal entity that issues liabilities that, considered as securities, should be subject to normal registration and reporting under SEC regulations. In short, the entity should also be considered an investment company as defined under the 1940 Investment Company Act. However, application of these regulations would have largely offset the benefits of “riskless arbitrage” noted above, and SEC Rule 3a-7, adopted in 1992, excluded virtually all structured financing arrangements from being defined as an investment company (Siclari 2001). The SEC decision allowing shelf registration for such structures opened the way for the generalization of “riskless arbitrage.”⁵

Since this process involves the creation of affiliate structures, the underwriting of securities, and other capital market activities that member banks could not engage in under the 1933 Act, they were forced to seek exemptions from their monopoly protections in order to offer similarly competitive loans to businesses. This required the creation of special entities that could engage in such capital market and other underwriting activities, just as the state-chartered affiliates had done in the 1920s. And this is precisely what insured banks sought to do with the aid of regulators through the section 20 exemption. The SEC decision to exempt securitization structures opened an alternative pathway for member banks to organize and operate affiliates that were neither regulated nor consolidated for financial reporting purposes. Again, regulators could have halted the development of asset-backed securities, but instead chose to suspend regulations in order to allow member banks to participate in their origination and sale.

The Response to Challenges from Nonmember Banks

The challenges to the monopoly held by member banks had two common characteristics. First, they all required what were considered securities activities, which were forbidden to regulated banks. Second, regulatory authorities adapted existing regulations to facilitate these structures and thus the ability of nonmember banks to compete with member banks as creators of liquidity and providers of lending to business. Finally, to remedy the competitive disadvantages, member banks were allowed more and more extensive exemptions from the section 20 and 21 interdictions against dealing in securities and with security affiliates, eroding the strict segregation provided by the original 1933 legislation.

The response to competition from nonmember banks also impacted the development of the structure of the financial system. The section 20 exemption that allowed commercial banks to engage in securitization through association with affiliates placed a limit on earnings from activities specifically linked to securities that was equal to a share of the affiliate's gross income. Thus, in order to expand their securities activities, banks had to expand their gross non-securities-related income produced in the affiliates. This was done by expanding their gross repurchase business by matching purchases and reverse repurchases in order to reduce risks, earning a small bid-ask spread.⁶ This "matched book" activity provided a large and growing market for short-term collateralized lending that was eventually extended to all securities, and supported increasing leverage for other nonmember financial institutions and hedge funds. This provided another alternative channel for the creation of liquidity by nonmember banks in the system.

The combined impact of money market funds and structured securitization is to convert less-liquid, higher-risk securities into securities that *appear* to be more liquid and lower risk: "riskless arbitrage." Or, in Minsky's terms, they provide liabilities with a higher liquidity premium than assets. However, the benefits that accrue to business borrowers in the form of lower financing costs are made possible only by the creation of additional liquidity for the liabilities of the entities. The impact of these structures was to allow noninsured institutions to challenge the ability of banks to make their liabilities more liquid than assets through deposit insurance and balance sheet regulation. They also increased system liquidity without the same regulatory prudential measures imposed on banks to ensure the liquidity and

price of deposit liabilities. Under the U.S. regulatory system, money market deposit accounts and regulated bank deposits are considered equivalent, yet the former are regulated by the SEC and issued by investment banks, while the latter are regulated by the Fed and the Office of the Comptroller of the Currency (OCC) and issued by commercial banks.

The Liberalizing Impact of "Incidental Powers"

Although competitive innovation played an important role, it was the legal and administrative interpretations of section 16 that ultimately eviscerated Glass-Steagall and the protections it provided to the business model envisaged for commercial banks. Section 16 accorded regulated banks "all such incidental powers ... necessary to carry on the business of banking" (FRB 1933, 396). Most of the exceptions that enabled commercial banks to meet the competition from noninsured banks and led to the progressive erosion of Glass-Steagall came in later interpretations of the phrase "incidental powers." Already in 1981, a Supreme Court decision affirmed that sections 16 and 21 applied only to banks and not to bank holding companies. The FDIC thus decided that the prohibitions of section 21 should not extend to the subsidiaries of insured nonmember banks.⁷ But it was the OCC that was most active in extending the operation of member banks through the liberal interpretation of "incidental powers" to cover activities that are not specifically mentioned in section 16 as being compatible with the "business of banking."⁸

The OCC had originally applied the "look-through" principle, which allowed dealings in any financial instrument that referred to an underlying instrument permissible under section 16. Thus, derivatives based on government securities were permitted because dealings in government securities were allowed under the 1933 Act. The OCC then shifted to the "functional equivalence" principle. On this basis, the agency argued that, since derivatives contracts written on instruments classified as permissible activities had been approved, this should apply to similar functions of derivatives. Thus, the approval of derivatives based on government securities was extended to virtually all assets, including commodities and equities (see Omarova 2009).

The overall impact of these rulings was the complete reversal of the original intention of preventing banks from dealing in securities on their own account. The rulings laid the basis for the creation of proprietary trading by banks for their own account, as well as derivatives dealing and the provision of structured

derivatives lending—both of which led to the rapid growth of the over-the-counter market in credit derivatives. The justification was to provide regulated institutions a level playing field with investment banks.

As the 1990s progressed, the only area that remained technically outside the purview of the liberalization of activities for member banks appeared to be insurance, which had been the regulatory preserve of state insurance regulators. However, many of the innovations that had occurred in the insurance industry (e.g., guaranteed investment contracts) were readily identified as financial rather than actuarial activities and thus considered permissible for regulated banks. Indeed, one commentator argued that regulated banks were already allowed to engage in all of the securities and insurance activities eventually granted by the 1999 Financial Modernization Act, courtesy of administrative interpretations that eased the limitations imposed by the 1933 Act (Fisher 2001).

The Regulatory Dynamic of Innovation and Protection

The regulatory dynamic in the postwar period was one in which nonregulated investment banks devised innovations that used capital market activities to create products that allowed the creation of liquidity and lending accommodation to business borrowers that were more competitive than could be offered by regulated commercial banks. Rather than restraining these innovations, regulators made decisions that enhanced their competitiveness, placing regulated commercial banks at an even greater disadvantage. The monopoly protections placed on deposit business by the 1933 Act thus became a hindrance to their survival. This growing competitive disadvantage was then used by regulated institutions to argue for the elimination of the regulations that prevented them from duplicating these structures. These requests were invariably accepted by regulators, until there was virtually no difference in the activities of FDIC-insured commercial banks and investment banks. Since most of these innovations involved what the Act considered securities activities, this meant a slow erosion of the prohibition on dealing and investment in securities, often through a loosening of the regulations involving affiliates. As a result, the basic principles of the 1933 Act were eviscerated even before the Financial Modernization Act formally suspended Glass-Steagall's protections in 1999. Indeed, the disadvantage suffered by commercial banks due to

their monopoly protection had been largely reversed, and they could now use their retail deposit bases to finance capital market activities, in competition with investment banks. Having lost the battle to preserve Glass-Steagall, the investment banks responded by seeking an alternative source of funding, using “other peoples’ money” raised in equity markets and converting from partnerships to publicly quoted limited liability corporations.

This de facto suspension of Glass-Steagall had another consequence for the stability of the financial system. Liquidity creation was increasingly transferred from deposit taking by commercial banks subject to prudential regulation, to securitized structures that were exempt from reporting and regulation because they were considered capital market activities and (usually) exempt from even SEC oversight. As noted above, this process of liquidity creation was one in which longer-term, higher-risk, lower-liquidity assets were funded through the issue of shorter-term, lower-risk, higher-liquidity assets via special purpose entities or the use of over-the-counter derivative loan structures that did not require formal margining—what has come to be known as the “shadow” banking system. In this system, the prudential supports—legal reserves, secondary reserves, liquidity of the C&I loan book, and access to federal lender-of-last-resort support through the discount window—were all absent. Thus, a liquidity crisis, such as broke out in the summer of 1998 and again in 2008, produced, not a run on banks, but a collapse of security values and insolvency in the securitized structures and a withdrawal of short-term funding. The safety net created to respond to a run on bank deposits was totally inadequate to respond to a capital market liquidity crisis.

The challenge that this new system of liquidity creation raises for those who would restore Glass-Steagall's segregation of deposit banking and securities market institutions is how deposit banks can be barred from the competitive innovations in lending that are inherently linked to the securities activities prohibited under the original Act. How can commercial banks compete with investment banks in providing finance for business borrowers if they cannot deal in securities? Such segregation would mean preventing the former from offering the most efficient means of providing commercial finance through activities such as commercial paper and asset securitization. Are these innovations to be prohibited to all financial institutions?

Further, given the historical experience of regulators aiding and abetting the development of these innovations, and the relaxation of Glass-Steagall restrictions on banks in order to

allow these institutions to operate within them, how can regulations be written to prevent a repeat of the collapse of the restrictions on securities trading? In particular, the question of “incidental powers,” the Achilles heel of the 1933 Act, must be resolved. And even if these problems could be resolved, it would still leave open the fundamental reform that was bypassed by the original Act—the relation between state and national charters and regulations.

If There Is No Way Back, Is There a Way Forward?

A return to Glass-Steagall thus presents a conundrum. Since the activities that currently provide the least costly method of short-term business financing are fundamentally linked to securities market activities, they would be prohibited to regulated banks. In addition, it would appear impossible to legislate monopoly protections similar to those of 1933 for deposits without active monitoring and the prohibition of competitive innovations by nonregulated institutions. Similarly, a separation of short-term bank financing activity from long-term funding in securities markets would require prohibiting the structured financing and derivatives that have largely eliminated this distinction by converting long-term assets into liquid, short-term liabilities. Thus, an alternative source of revenue would have to be found for regulated banks, requiring regulators, legislators, and the judiciary to agree on the precise definition of permissible banking activities and the incidental powers required to carry them out. This seems no more likely today than it was in the 1980s. Simple reference to deposit taking or to dealing in securities would no longer appear to suffice.

Failing the elimination of securitization and structured derivative products, an alternative source of revenue would have to be found that would be sufficient to prevent the regulated banks from themselves seeking to undermine their protections. One approach would be to recognize the activity of deposit taking as a public service and to regulate it as a public utility, with a guaranteed return on regulated costs. This approach would probably involve increased costs for transaction services or some form of government subsidy. (The “narrow banks” proposal is one version of this approach.) But, just as deposits replaced notes, this would always leave open the possibility of a more cost-effective innovation, providing a substitute from a nonregulated institution.

Resolving this problem will not be easy. Neither a restoration of the current system, with better regulation, nor a return to 1933 will suffice. However, past reactions to crisis may provide a clue. In 1863, the response to the instability of notes issued by “wildcat” banks (and the need for war financing) was the issuance of a national banknote backed by government securities. The response to the instability of that system in 1907 was the creation of the Federal Reserve note. The logical progression would appear to have been the creation of a federal deposit in response to the use of deposits to fund speculation in securities. Instead, the response was a federally insured deposit. However, given the commitment of the Treasury to financing the insurance fund, there is little difference between a federal deposit and a deposit that is federally insured. This solved the problem of the activity of “receiving” deposits, but it left behind the problem of deposit creation—that is, the creation of liquidity within the private financial system. Under Glass-Steagall, it was the separation of activities and the presumption that bank assets would be limited to short-term self-liquidating assets that was supposed to provide for the stability of the deposits “created” by the financial system. It was this aspect that failed, since banks had already started to expand into alternative investments, and the liquidity creation function was usurped by other financial institutions using innovations in securities markets that were exempt from regulations applied to the deposit-creation acceptance function that allowed regulated banks to create liquidity. Instead of seeking alternative regulation of this means of liquidity creation, the response was to allow all financial institutions to engage in effectively unregulated liquidity creation through securitization and structured derivative products. The result was the loss of control over not only liquidity creation but also the asset composition of bank balance sheets.

Was there an alternative? One possibility would have been to define the business of banking as the creation of liquidity through the acceptance function of client liabilities. The expertise of banking would then be returned to minimizing charge-offs by improving the credit assessment of borrowers. All other forms of liquidity creation—including market making, derivatives, structured lending, and credit-enhanced special purpose entities—would fall within the realm of investment banking. Here, expertise would be in arbitraging market imperfections; that is, risk, interest rates, exchange rates, and so forth. Under such a division, money market mutual funds, which effectively replicated the acceptance activities of banks, would have been a

permissible commercial bank activity rather than creating competitive pressure. The point of departure would seem to be the Supreme Court's misinterpretation of a "note" as a securities market instrument rather than as equivalent to a bank loan—an interpretation that might have been avoided if liquidity creation had been the defining principle. A strict initial application of the functional equivalence principle to the 1933 definition of commercial banking would have been the appropriate response. On the other hand, asset-backed commercial paper could not have been approved under the functional equivalence principle, since it involves liquidity creation that is not produced by the acceptance function of the financial institution. Similarly, proprietary trading by banks would not have been permitted, as it does not produce any support for the acceptance function of liquidity creation for the bank's liabilities (although it may do so for other assets). Derivatives provision and trading would also be prohibited, since they provide an alternative form of liquidity creation that does not rely on the acceptance function but rather on the creation of an unfunded liability. Similarly, other forms of asset-backed securities would have been underwritten by a noninsured entity such as an investment trust and regulated as an investment company like any other.

Another alternative would be to recognize that the Constitution reserves the provision of currency to the government, and there is no reason for the major part of this obligation to be outsourced to the private sector.⁹ The safekeeping of wealth and transaction services could thus be provided as a public service by a regulated utility—say, through a national giro payments system—eliminating the need for deposit insurance and the lender-of-last-resort function of the Federal Reserve. Both short- and long-term finance and funding would then be provided by private investment funds or trusts monitored by securities regulations, but without the need for a government guarantee. Private savings would then limit investment financing and the benefits of the banks' acceptance function would be lost. The conundrum noted above remains unresolved.

Notes

1. This brief should be read in conjunction with Policy Note 2009/11 (Kregel 2009), which argues that the main problem facing the U.S. financial system is banks that are not only too big to fail but also multifunctional. This brief analyzes the possibility of a restoration of Glass-Steagall separation as a solution to multifunctional banks. Comments from Thomas Ferguson, Rainer Kattel, and Mario Tonveronachi, not all of which could be incorporated, are gratefully acknowledged, without implicating them in the final result.
2. This source has been chosen not because it is considered correct but rather because it is representative of what the courts have considered to be the essence of the New Deal legislation and thus the basis for legal interpretation.
3. Chairman Paul Volcker had initially voted against the liberalization of section 20 but lost the vote; he resigned shortly thereafter. Alan Greenspan took a very different view on the issue. The Fed was under strong pressure from commercial banks to allow them to increase their revenues from what were increasingly lucrative securities activities; see Prins 204, 35.
4. This is an issue that Minsky considered crucial but did not discuss at great length in his published work; see Minsky 2008.
5. Most of the legislative changes required to complete the process were accomplished with the help of the government agencies in the securitization of mortgages; see Ranieri 1996, 31ff.
6. On the original development of this practice of writing matched-book repos, as well as the various frauds due to lack of regulation, see Stigum 1978. On the role in the current crisis, see Gorton 2009. The early developments of this market drew Minsky's attention in Minsky 1957.
7. It is the opinion of the board of directors of the FDIC that the Banking Act of 1933, popularly known as the Glass-Steagall Act and codified in various sections of Title 12 of the United States Code, did not, by its terms, prohibit an insured nonmember bank from establishing an affiliate relationship with, or organizing or acquiring, a subsidiary corporation that engages in the business of issuing, underwriting, selling or distributing at wholesale or retail, or through syndicate participation, stocks, bonds, debentures, notes, or other securities. While the Glass-Steagall Act was intended to protect banks from certain of the risks inherent in particular securities activities, it did not reach the securities activities of a

bona fide subsidiary of an insured nonmember bank; see www.fdic.gov/regulations/laws/rules/5000-1900.html.

8. This language was originally introduced in section 8 of the National Bank Act of 1863 granting national associations “all such incidental powers as shall be necessary to carry on the business of banking” but made no reference at all to securities; see Krooss 1969, 2:1386. There has been extended debate concerning whether these powers are restricted to those expressly mentioned in the law or are subject to interpretation. In practice, the decision is left with the OCC, created in the same legislation. A 1995 Supreme Court decision (*NationsBank of North Carolina, N.A. v. Variable Annuity Life Insurance Co.*) affirmed the OCC’s full power to interpret section 8.
9. Indeed, many economists have seen this as the major source of instability in the financial system. For example, Henry Calvert Simons (1948 [1934], 54–55) notes the “usurpation by private institutions (deposit banks) of the basic state function of providing the medium of circulation (and of private ‘cash’ reserves). It is no exaggeration to say that the major proximate factor in the present crisis is commercial banking. . . . Chaos arises from reliance by the state upon competitive controls in a field (currency) where they cannot possibly work.”

References

- A.G. Becker, Inc. v. Board of Governors of the Federal Reserve System* 693 F.2d 136 (D.C. Cir. 1982).
- Brandeis, L. D. 1914. *Other People’s Money and How the Bankers Use It*. New York: Frederick A. Stokes Company.
- Edwards, George W. 1938. *The Evolution of Finance Capitalism*. London: Longmans, Green and Co.
- Federal Deposit Insurance Corporation (FDIC). 1984. *The First Fifty Years: A History of the FDIC, 1933–1983*. Washington, D.C.: FDIC.
- Federal Reserve Board (FRB). 1933. “Banking Act of 1933.” *Federal Reserve Bulletin*, Vol. 19, no. 6 (June): 385–401.
- Feldkamp, F. L. 2009. “Crises and Recoveries, 1987–2009: Myths, Rumors and Possible Truths.” Institutional Risk Analytics, September 1. www.institutionalriskanalytics.com/pdf/Article%209-1-09%20%282%29.pdf.
- Ferguson, T. 1984. “From Normalcy to New Deal: Industrial Structure, Party Competition, and American Public Policy in the Great Depression.” *International Organization*, Vol. 38, no. 1 (Winter): 41–49.
- Fisher, K. R. 2001. “Orphan of Invention: Why the Gramm-Leach-Bliley Act Was Unnecessary.” *Oregon Law Review*, Vol. 80, no. 4: 1301–422.
- Gorton, G. B. 2009. “Slapped in the Face by the Invisible Hand: Banking and the Panic of 2007.” Social Science Research Network, May 9. <http://ssrn.com/abstract-1401882>.
- Johnson, A. M. 1968. *Winthrop W. Aldrich, Lawyer, Banker, Diplomat*. Boston: Harvard University, Graduate School of Business Administration.
- Kaufman, G. G. 1988. “Securities Activities of Commercial Banks: Recent Changes in the Economic and Legal Environments.” *Journal of Financial Services Research*, Vol. 1, no. 2 (January): 183–99.
- Keynes, J. M. 1936. *The General Theory of Employment, Interest and Money*. London: Macmillan.
- Klebaner, B. J. 1974. *Commercial Banking in the United States: A History*. Hinsdale, Ill.: Dryden Press.
- Kregel, J. 2009. *Observations on the Problem of “Too Big to Fail/Save/Resolve.”* Policy Note 2009/11. Annandale-on-Hudson, N.Y.: Levy Economics Institute of Bard College. December.
- Krooss, H. E., ed. 1969. *Documentary History of Banking and Currency in the United States*. 4 vols. New York: Chelsea House Publishers.
- Minsky, H. P. 1957. “Central Banking and Money Market Changes.” *The Quarterly Journal of Economics*, Vol. 71, no. 2 (May): 171–87.
- . 2008. *Securitization*. Preface and Afterword by L. Randall Wray. Policy Note 2008/2. Annandale-on-Hudson, N.Y.: Levy Economics Institute of Bard College. June.
- . 2008 (1986). *Stabilizing an Unstable Economy*. New York: McGraw-Hill.
- Omarova, S. T. 2009. “The Quiet Metamorphosis: How Derivatives Changed the ‘Business of Banking.’” *University of Miami Law Review*, Vol. 63, no. 4 (July): 1041–110.
- Prins, N. 2004. *Other People’s Money: The Corporate Mugging of America*. New York: The New Press.
- Ranieri, L. S. 1996. “The Origins of Securitization, Sources of Its Growth, and Its Future Potential,” 31–43. In L. T. Kendall and M. J. Fishman, eds., *A Primer on Securitization*. Cambridge, Mass: The MIT Press.

- Robinson, R. I. 1941. "Commercial Bank Operations." In *Banking Studies by Members of the Staff, Board of Governors of the Federal Reserve System*, 169–88. Baltimore: The Waverly Press.
- Scott, K. E. 1981. "The Uncertain Course of Bank Deregulation." *Regulation: AEI Journal on Government and Society*, Vol. 5, no. 3 (May/June): 40–45.
- Securities Industry Association v. Board of Governors of the Federal Reserve System et al.* 1984. 468 U.S. 207, 104 S.Ct. 3003, 82 L.Ed.2d 158.
- Siclari, V. 2001. "A Tough Act to Follow: How to Deal with the Investment Company Act of 1940." *Business Law Today*, Vol. 10, no. 3 (January–February): 43 ff.
- Simons, H. C. 1948 (1934). "A Positive Program for Laissez-Faire." In H. C. Simons, *Economic Policy for a Free Society*. Chicago: University of Chicago Press.
- Stigum, M. 1978. *The Money Market: Myth, Reality, and Practice*. Homewood, Ill.: Dow Jones–Irwin.
- Time. 1932a. "National Affairs: Glass Bill." February 8.
- . 1932b. "National Affairs: New Glass Bill." April 25.
- Willis, H. P. 1921. *American Banking*. Rev. ed. Chicago: La Salle Extension University.
- Wyatt, W. 1941. "Federal Banking Legislation." In *Banking Studies by Members of the Staff, Board of Governors of the Federal Reserve System*, 39–64. Baltimore: The Waverly Press.

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