# LESSONS FROM THE HISTORY OF BANK EXAMINATION AND SUPERVISION IN THE UNITED STATES, 1863-2008

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As the recent banking crisis in the United States has reminded us, effective supervision is an important instrument guaranteeing bank safety and integrity. Major reforms to bank supervision were engineered in 1990s in response to the crises of the 1980s, but these proved largely inadequate in the current crisis, raising many basic issues. What are the appropriate and effective instruments for bank supervision? Should supervision focus on re-enforcing market discipline or should it rely on regulators discretion and their independent evaluations? What is the trade-off between the costs of supervision and bank efficiency? Where should supervision be conducted: in an independent agency or within the central? This paper compares the five distinctive policy regimes governing American banking from 1863 to the present to provide some answers to these fundamental questions.

Examination and supervision by government agencies appeared very early in the United States because of the guarantees provided to banknotes and the fostering of single-office banks. The fundamentals of bank supervision were established with the National Banking System in 1863-1864. In contrast, countries with branch banking systems, like Canada and Britain, relied on internal bank audits rather than a government regulator until late in the twentieth century. Consequently, the U.S.'s long experience provides an opportunity to study several distinct supervisory regimes.

As the regulatory regimes have changed, the needs for supervision have been altered. In the first section, I lay out a taxonomy of regulation and supervision of the key elements of a policy regime and their theoretical justifications. I use this framework to examine the five major regimes that the United States has experienced in the last 150 years. The National Banking Era (1863-1913), is followed by the early years of the Federal Reserve System (1914-1932), the New Deal Era (1933-1970), the post-New Deal period (1970-1990), and the Contemporary Era (1991-2008).

Supervision was initially designed to reinforce market discipline and that remained its focus until the 1930s when faith in the market was largely abandoned. The regulations and supervision of the New Deal attempted to produce a profitable, stable banking industry with deposit insurance where competition and risk-taking were limited under the watchful eyes of regulators who were granted considerable discretionary authority. The internal contradictions of the New Deal regulations complemented by a rise in deposit insurance produced the massive savings and loan and bank disaster that led to a dismantling of much of the regulatory regime. Yet the supervisory apparatus was retained and there was no return to market discipline. Instead, discretion was partly withdrawn, rules were tightened and enforcement enhanced but without any change in the insurance of financial institutions. Misdiagnosis of the problems produced a new regulatory regime that again failed to provide early warnings of the most recent banking crisis, leading to the most costly of all American banking disasters.

## I. THE ROLE OF BANK SUPERVISION

While regulation and supervision of banking is often driven by political economy with firms vying for advantage, its justification arises chiefly from the very

basic problem that the financial industry seeks to solve, the asymmetry of information.[1] Put simply, the lender in a financial contract has less accurate information than the borrower. Financial markets and institutions developed, in part, because the costs of making and monitoring loans between individuals is very high; and firms specializing in the collection of information can reduce the information asymmetry at a much lower cost, thereby increasing the flow of funds to productive investments and spurring economic growth.

As is well-known, asymmetric information poses two specific problems, adverse selection and moral hazard. The former arises at the signing of a contract because higher risk borrowers are more eager to seek credit at a given rate of interest. Consequently, when a lender cannot easily distinguish between more and less risky borrowers, there is the danger that riskier firms will be adversely selected. After credit is granted, moral hazard arises because the recipient of the funds has incentives to take more risk or misappropriate funds that the lender finds difficult to observe because monitoring is costly. The presence of these problems will reduce the willingness of lenders to provide funds, thereby lowering investment in the economy. By specializing in the collection of information on potential borrowers and gaining economies of scale and scope, financial institutions can reduce the information asymmetries, better selecting and monitoring borrowers.

While banks help to solve the asymmetric information problems vis-à-vis lenders, the problem reappears because they act as delegated monitors for their depositors. Instead of facing the problem of monitoring borrowers to whom they have directly lent, depositors are confronted by an asymmetry of information vis-à-vis bank mangers who may take higher risks or misuse funds. The incentive for depositors to monitor managers is sharply reduced by the free rider problem because they are numerous and collection of information is costly.

The depositor-banker asymmetric information problem may be mitigated by the ability of depositors to punish banks by rapidly withdrawing funds if they believe that risks have increased, that is, the threat of a bank run. Yet, bank runs can multiply and become a panic because the public cannot distinguish between solvent and insolvent banks. Prevention of panics, which impose general costs on the economy, has been one factor convincing many countries to adopt explicit or implicit government deposit insurance. However, once the public's deposits are insured, the government or its insurance fund is then faced with the problem of moral hazard and must monitor insured financial institutions to limit excess risk-taking and misappropriation of funds.

These problems have contributed to policy interventions that that take nine basic forms:[2] (1) controls on entry, (2) capital requirements, (3) limits on economies of scale, (4) limits on economies of scope or diversification, (5) limits on pricing, (6) liability insurance, (7) disclosure requirements, (8) bank examination, and (9) bank supervision. Although many of these interventions are imposed as anti-competitive measures at the behest of an economic interest group, they may also be considered as responses to asymmetric information problems between depositors and their banks. The first six regulate the operation of the market, while the last three can be thought of as re-

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[1] For further discussion of these issues see, Mishkin (2001), and Crocker, Harris, Mishkin, and White (2003).

[2] This categorization is derived but differs from Mishkin (2001), p. 8ff.

enforcing the first six and improving information flows so that market discipline will be more effective. Typical justifications for these interventions are as follows:

(1) Entry is controlled by regulations governing bank chartering, which aims to screen out entrepreneurs who may be excessive risk takers. Its objective is to solve the selection problem faced by depositors who must choose a bank and cannot easily evaluate its riskiness.
(2) Capital requirements attempt to control moral hazard by limiting the degree to which a bank may be leveraged, thus exposing depositors to losses from risk-taking by the management.
(3) Limits on economies of scale take the form of restrictions on branch banking and horizontal mergers. Although these regulations were often imposed at the behest of competitors, the original justification in the U.S. focused on the difficulty of monitoring multi-office banks.
(4) Limits on economies of scope and diversification may constrain banks' portfolio choices or the types of business or subsidiaries they may acquire. These limits are imposed to prevent mangers from taking on more risk or exploiting conflicts of interest between different customers.
(5) Limits on pricing. Usury laws and other interest rate restrictions are often justified on the grounds that consumer need protection from predatory lenders who conceal information.
(6) Liability insurance's objective is to free the depositor from the difficult task of monitoring banks and the anxiety that may lead to banking panics. Deposit insurance premiums may eliminate the moral hazard problem if the premiums are priced to reflect the risk taken by the bank.
(7) Disclosure requirements are address the free rider problem that reduces the incentive for individuals to collect information. By setting accounting rules and requiring disclosure of specific information, the public will be better able to monitor banks' risk, reinforcing market discipline.
(8) Bank examinations provide government-supplied auditing. If they are disclosed to the public, examinations reinforce market discipline. If they are kept secret (usually on the grounds that they contain proprietary information) discipline is then devolved to the government supervisors.
(9) Bank supervision and enforcement focuses on an assessment of management's exposure to risk. It may be discretionary or rules-based and it is enforced by the imposition of penalties. Supervision recognizes that managers can make quick changes in a bank's portfolio between reports and examinations to avoid disclosing information.

How these interventions should be implemented raises important issues for the general architecture of the financial system.[3] A central question is the degree to which the market can be relied upon to solve the problems of asymmetric information. If the problems are not severe, the need for regulations---interventions 1 to 6, will be minimal and interventions 7 and 8 should provide the additional information required for the market to monitor and discipline banks. If the problems are severe, regulations and bank

[3] Mishkin (2001).

supervision may be needed. How restrictive they should be will have to be weighed against how much they reduce the efficiency of the banking system.

Another major issue is where should bank supervision be conducted? Should it be in a single independent agency or in multiple specialized agencies or in the central bank? Those who argue in favor of a separate agency (or agencies) claim that the incentives of a central bank engaged in bank supervision and monetary policy may not be well aligned with depositors' interests. The central bank might try to prevent a potential insolvency or financial crisis, deploying monetary policy at the expense of its macroeconomic objectives. On the other hand, it might use its supervisory authority to pressure banks to assist its macroeconomic goals. Those who are in favor of combining supervision and central banking argue that supervision should be located in the central bank because this arrangement will enable it to carry out more effectively its role as lender of last resort.[4] The history of American bank supervision over the past century and a half offers a laboratory to examine how various solutions to the asymmetric information problems have succeeded. Five bank regulatory regimes are examined, reflecting choices about the relative importance of efficiency and asymmetric information, as well as the role of the monetary authorities.

## II. BANK SUPERVISION IN THE NATIONAL BANKING ERA 1863-1913

The foundations of the American supervisory system were laid down in the second half of the nineteenth century. This period is important not only because it determined the future structure of the banking, but also because it provides us with an significant example of a lightly regulated, highly competitive regime where regulation and supervision were primarily aimed at reinforcing market discipline.

Building on the states' experimentation with free banking system in the antebellum era, the National Currency Act of 1863 and the National Banking Act of 1864 established a federally regulated banking system. These acts marked the return of the federal government to banking regulation after President Andrew Jackson's veto of the charter of the Second Bank of the United States in 1832 and the loss of its charter in 1836. During the intervening years, banking regulation was left entirely in the hands of the states, which experimented with a variety of regulatory regimes. The Civil War caused the collapse of some state banking systems; and the departure of Southern opponents to federal banking enabled the U.S. Congress to pass these two acts. The newly formed national banking system shrank but did not eliminate the systems of state-chartered banking. Henceforth, the U.S. had a "dual" banking system where regulation and supervision was controlled by both federal and state authorities, more often in competition than in cooperation with one another.

The Acts of 1863 and 1864 set up a system that changed little over the next fifty years. To supervise the new "national banking system," the legislation created the Office of the Comptroller of the Currency (OCC), nominally under the U.S. Treasury. The head of this independent agency, the Comptroller, was appointed by the President.

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[4] See Bernanke (2001) for some of these arguments.

Following the example of the state free bank systems, incorporation was "free," that is, subject to the minimum regulations, a charter was given to the organizers of a new bank. Although early comptrollers requested information on the economic prospects of the community where a bank wanted to open, existing banking facilities, and the character of the organizers, discretionary authority was abandoned the early 1870s. Comptroller John J. Knox who wrote in his 1881 Annual Report: "..the Comptroller has no discretionary power….but must necessarily sanction the organization, or reorganization, of such associations as shall have conformed in all respects to the legal requirements."[5] Free entry was given an additional fillip because the federal regulators had to contend with competition from state regulators who might offer the organizers a state charter if a federal one was not forthcoming.[6]

The regulatory regime imposed on national banks produced a distinctive nationwide system of unit or single office banks at a time when large branching systems were beginning to develop in Canada and Europe. This industrial organization was the product of a combination of low minimum capital requirements and strong barriers to branching that severely constrained many banks from gaining economies of scale. Minimum capital requirements were scaled according to local population with an eye to ensuring that even small towns might have a bank. Initially in 1864, a bank was required to have a minimum capital of $50,000 for town with a population under 6,000, where the population was between 6,000 and 50,000, $100,000 was needed, and in cities larger than 50,000, $200,000 was the minimum capital.[7] These capital requirements were not scaled according to assets or risk, as are modern regulations, but the imposition of double liability on shareholders aimed at increasing incentives to monitor management and ensure the soundness of the bank.

The second Comptroller of the Currency's interpretation that national banks could not establish branches ensured that every new town or suburb, would have a de novo bank, not a branch of an existing institution. The result was by 1880, there were 2,076 national banks. However, the antebellum state banking systems, while battered by the Civil War had not disappeared. Slowly in the 1880s, the state legislatures began revising their banking statutes setting new banking regulations and organizing their own supervisory bank agencies. Faced with the well-developed national banking system, they set regulations that were equal to or more often weaker than federal bank regulations. State capital requirements were lower for small towns, enabling state-chartered banks to establish themselves ahead of national banks. In response, Congress lowered the minimum required capital for towns with a population under 3,000 to $25,000 in 1900; some states countered by further reducing their requirements. Combined with the rapid growth of the American economy, this "competition in laxity" between federal and state regulators gave the nation 7,514 national banks and 14,512 state banks in 1914.[8] Although the American banking industry was very competitive, this fragmentation severely constrained the formation of larger institutions that might have been more

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[5] Comptroller of the Currency, Annual Report (1881), p. 11.

[6] Entry was temporarily tightened after the panic of 1907. One telling fact about the ease of entry was Comptroller Murray's insistence that charter applications should be executed in person rather than by correspondence. Robertson, The Comptroller, pp. 59-61, 66-69.

[7] A minimum capital of $50,000 in 1864 would approximately be $681,000 in 2008 adjusted for inflation.

[8] In addition, trust companies and mutual savings banks closely competed with banks to provide the public with banking services.

efficient, if they could have gained economies of scale, and sounder, if they had been allowed greater geographic diversification.

Restrictions on assets and liabilities made American commercial banks relatively narrowly defined institutions, limiting potential economies of scope. The founders of the national banking system were concerned that banks would be exposed to excessive risk if they made long-term loans.[9] Many states imposed similarly tough restrictions, and hence real estate formed only a small portion of bank portfolios. American banks were also prohibited from holding equities because these were not evidences of debt. Consequently, commercial banks had little role in the expanding equity markets, although they did offer "call loans" to brokers that were collateralized by bonds and stocks. The dominance of the real bills doctrine, emphasizing that banks would only be safe if they made short-term "self-liquidating" loans induced most banks to have portfolios with relatively short average maturities. The narrow definition of commercial banks removed them from other lines of commerce and from operating in most other types of financial services.

Usury laws were the most important restrictions on pricing. The National Currency Act and National Bank Act subjected all national banks to the same usury limits that states applied to their state-chartered banks. Although state usury rates ranged from six to ten percent with maximum penalties of forfeiture of the principal and interest, regulations were rapidly weakened about 1870. Many states repealed their usury laws and those which kept them reduced their penalties. By the end of the period, most transactions appear to have been largely unaffected by the usury laws.[10]

For the public, perhaps the greatest concern of the antebellum banking system was the riskiness of bank-produced currency, which led to experiments to insure the public's bank liabilities. While a large literature has shown that many state banking system produced banknotes that usually retained their par value for long periods of time, panics and unsound regulation made this less than certain. By permitting bank to issue banknotes equal only to 90% of the par value of the U.S. government bonds that the bank had purchased and deposited, the national banking system guaranteed the value of the banknotes.[11] State banknotes were driven out of existence by a 10% federal tax. These safeguards were sufficient to ensure that no national banknote holder received anything less than the par value of the note.

Deposits, which over the course of the late nineteenth century became an increasingly important liability for banks, had no guarantee but their expansion was limited by the imposition of reserve requirement. Country banks were required to hold reserves equal to 15% of their total deposits, three-fifths of which could be held on deposit in a national bank in a designated reserve city. Reserve city banks were ordered by law to hold 25% reserves, half of which could be held in national banks in one of the designed three central reserve cities---New York, Chicago and St. Louis, which were

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[9] The rules for most national banks set a maximum maturity of five years, for half the value of the appraised land, and real estate loans could not exceed 25% of a banks' capital.

[10] See Rockoff, "Prodigals and Projectors."

[11] Note issued was also limited to 90% of paid-in capital. In 1900, this regulation was eased so that banks could issue banknotes equal to 100% of the value or market value of the bonds up to 100% of their paid-in capital.

required to hold all 25% of their reserves in vault cash.[12] As in the case of capital requirements, the revitalized state banking systems often adopted lower reserve requirements to gain a competitive advantage vis-à-vis national banks. The national banking system did not insure bank deposits, but after the panic of 1907, seven states established their own mutual guarantee funds for their state-chartered banks. Before their demise, these systems created incentives for moral hazard that proved disastrous for the guarantee funds and produced widespread failures.

The OCC was established to ensure compliance with federal regulations.[13] But, penalties for violations were limited and the primary purpose of disclosure and examination were to reinforce the discipline of the market. Initially, national banks were required to provide a detailed quarterly report and a very limited monthly statement. The fixed dates and absence of auditing permitted banks to easily engage in "window dressing." In 1869, Congress responded to Comptrollers complaints and instituted call reports of condition to improve disclosure. National banks were required to provide the Comptroller with five call reports per year with information on their balance sheets, with three of these made on dates randomly chosen by the Comptroller to limit opportunities for "window dressing" of the banks' books. Every day's delay in delivery of the call report was subject to $100 fine, and banks were required to report the payment of a dividend within ten days or face a similar penalty.[14]

The Comptroller of the Currency was charged with performing a minimum of two examinations per year for all national banks. National bank examiners were not paid a salary but instead a fee for examining a bank, based on the bank's capital and paid by the bank.[15] Out of these fees, examiners had to pay for expenses and their assistants. Although examinations were supposed to be unannounced, the surprise was often compromised by the predictability of an examiner's travel plans given his efforts to minimize cost, enabling banks to prepare for a visit if forewarned. Comptrollers regularly complained about the incentive effects of these legislated fees.[16] Each state retained the right to examine its state-chartered banks. Although little is known about how state bank examiners carried out their tasks, the general belief was that state bank examinations were more lax than national bank examinations. The initial purpose behind the examinations was to ensure that banks would be able to redeem their banknotes upon presentation. Examinations were conducted from the "bottom up" where examiners scrutinized the cash, assets and accounts of the bank to ensure that they complied with the

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[12] These regulations came into effect in 1874, which also abolished reserve requirements on banknotes. See White, Regulation, pp. 26-8.

[13] Regular examinations first appeared in the United States before the Civil War when six states, New York, Vermont, Indiana, Michigan, Ohio and Iowa created mutual guarantee funds to protect holders of the banknotes and sometimes depositors. Recognizing the moral hazard problems from such a system, all of these states created supervisory agencies. In Indiana, Ohio and Iowa, there were salaried examiners who carried out regular inspections and had the discretionary authorities to set a variety of penalties. Robertson, Comptroller, pp. 25-6.

[14] Robertson, The Comptroller pp. 79-81.

[15] For banks outside of the established reserve cities, the examination fee ranged from $20 for a bank with capital under $100,000 to $75 for a bank with a capital over $600,000. Compensation for examiners of banks in reserve cities was set by the Secretary of the Treasury upon recommendation of the Comptroller.

[16] Before the 1875 amendment to the National Bank Act, examiners were paid $5 for each day of examination and $2 for every 25 miles he traveled by the examined bank. Robertson, The Comptroller, pp. 76-79.

letter of the law.[17] Although Comptrollers sent examiners instructions for examination, they emphasized that there cold be no "cast-iron rules, covering minute details."[18]

Prudential supervision was circumscribed. Although many Comptrollers emphasized the importance of discussing the principles of good management with bank officials and requesting correction of problems, the Office of the Comptroller did not accept responsibility for a bank's mistakes. Comptroller Knox wrote "It is scarcely to be expected, if a robber or a forger is placed in control of all its assets, that a national bank can be saved from disaster by the occasional visits of an examiner."[19] The only penalty available to the Comptroller of the Currency was the revocation of a bank's charter for serious violations. Consequently, the Comptroller relied on the cooperation of the directors and officers of a bank to correct violations.[20]

Prohibiting branching and setting very low minimum capital requirements profoundly affected the structure of the industry. The over twenty thousand federal and state banks at the end of the period could scarcely have been thoroughly monitored and disciplined with the modest examination forces at the disposal of the Comptroller of the Currency and the state bank authorities. Their task may be viewed as attempting to reinforce market discipline. Double liability imposed on national banks and most state banks placed additional liability on shareholders and increased their monitoring of bank officers. Disclosure requirements, especially the surprise call reports, aimed at producing accurate reports of the condition of the banks; while unannounced examinations audited the bank books. The Comptroller and other bank authorities did not exercise much discretionary authority but instead made it clear to the public that their primary function was to ensure that banks complied with the letter of the law. The "insurance" of banknotes backed by U.S. government bonds did not induce any moral hazard as they were fully guaranteed with bonds.

Failures were not uncommon, especially during economic downturns; and bank customers responded to bad news with local bank runs, the ultimate market sanction. Assessing this regime is hampered by incomplete information on state banks and so much of the analysis must be confined to national banks that have relatively consistent data for the century and half. As seen in Figure 3 and Table 2, national failures averaged annually under half a percent of all national banks, rising to over one percent in severe crises. Perhaps not surprisingly banks kept fairly high capital to asset ratios, as seen in Figure 1. Depicted in Figure 2, bank returns oscillated considerably. During major economic downturns, bank runs escalated into full-fledged panics that challenged the liquidity of the whole banking system. The market responded to these crises to create additional liquidity, in the absence of a central bank, through the agency of the clearing houses; and if that failed a general suspension of payment by temporarily closing the banks. While less than sufficient to prevent crises, market discipline—reinforced by the supervisory regime---was relied upon to ensure the banking system's liquidity, solvency, and viability.

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[17] Officers and directors must be "complying with the requirements of the law and whether they are in any way violating any of its provisions."Comptroller of the Currency, Annual Report (1881), p. 35-6.

[18] Comptroller of the Currency, Annual Report (1891), p. 26.

[19] Comptroller of the Currency, Annual Report (1881), pp. 38.

[20] Robertson, The Comptroller, p. 71, note 13.

## III. THE EARLY YEARS OF THE FEDERAL RESERVE
## 1914-1932

The panic of 1907 and the recession of 1907-1908 were particularly severe and made apparent the dangers to the economy of the absence of a lender of last resort. However, the arrival of the Federal Reserve did little to alter the essential regulatory and supervisory regimes established by the National Bank Act, even as there was a rising tide of bank failures in the 1920s, as seen in Figure 2. To gain access to the discount window, banks had to become members of the Federal Reserve System, subscribing to the stock of their regional Federal Reserve Bank. National banks were compelled to join and state banks had the option to become members, if they could meet the regulatory requirements of national banks. The result was that there were now three classes of banks: national banks, state member banks, and state non-member banks---and a new bank regulator, the Federal Reserve.

During World War I and the years immediately afterwards, banking prospered and the number of banks continued to grow rapidly, reaching a high water mark of 29,417 in 1921. However, the deep postwar recession marked the beginning two new challenges to banks. First depressed prices for agricultural products induced a persistently high level of bank failures that gradually reduced the number national and state banks. Secondly, the provision of funds by banks to manufacturing and commerce was challenged by financial markets and institutions, especially investment banks. Commercial banks had been the dominant provider of funds during the nineteenth century because of their special role in obtaining information to select and monitor borrowers. However, markets for information had been developing, thanks in part to the rating agencies, that enabled firms to directly borrow by issuing bonds and stocks. Furthermore, the merger movement in American industry beginning in the 1890s had created giant corporations which had immense financing needs. Because of the restrictions on branching, banks remained relatively small compared to these potential clients and could not provide sufficient funding. Investment banks filled the gap, assisting the new corporate entities with their securities issues.

The liberal chartering regime of the National Banking Era persisted in the early years of the Federal Reserve System, driven in part by the anxiety of Comptrollers that national banks would lose role as the dominant members of the Federal Reserve. But, frightened by rising bank failures, Comptrollers exercised their discretionary authority to limit the entry of new banks beginning in 1924.[21] By the second half of the 1920s less than half of the new charter applications were approved. The primary justification for this shift in policy was that many communities were already adequately served and that the viability of institutions might be threatened by new entry. Comptroller Joseph McIntosh wrote that "there is too often a desire to organized banks in localities where the communities are amply served and which would not support new institutions with a likelihood of any fair measure of success."[22] Tighter chartering policies combined with persistently high numbers of failures and some mergers, slowly reduced the number of all

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[21] Robertson, Comptroller, p. 95-6.

[22] Comptroller, Annual Report, 1927, pp. 13. We have very little information on the chartering practices of states, although the decline in the number of banks suggests that they took became more restrictive.

commercial banks that fell from 29,417 in 1921 to 24,258 in 1929---an 18% drop in just eight years.

Statutory capital requirements at the federal level were unchanged, and were for the most part unaltered by the states. Inflation effectively reduced the minimum capital requirements, more than halving them. Instead of competition from new single office banks, competition began to appear in the form of branching. Branch banking had been very limited before the First World War. In this period, only state-chartered banks could open branches and in 1909 nine states permitted state-wide branching and another four limited branching. Consequently, only 292 banks operated 548 branches in 1910. In spite of a desire by large banks to expand, state laws remained relatively restrictive and by 1924 there was only one more state that permitted state-wide branching and another five that allowed limited branching. The National Bank Consolidation Act of 1918 gave very limited branching rights to national banks by allowing them to acquire another bank and maintain its office. Later the McFadden Act of 1927 permitted some limited branching to national banks in states that already permitted their state-chartered banks to branch. In spite of these impediments, there were 751 banks operating 3,522 branches by 1930. While branching banks provided only 16% of total bank offices, highly concentrated in California.[23] This glacial pace of change prevented banks from gaining economies of scope and diversification of their deposit bases and loan portfolios.

Banking remained narrowly defined, and the Federal Reserve Act of 1913 did little to change the powers of national banks, with the exception that they were authorized to conduct a trust business. Consequently, during the 1920s, commercial banks gradually lost ground in the provision of funds to business, most notably to investment banks that could float new issues of bonds and stocks. Barred by law from handling equities, larger banks shifted their corporate finance to separate securities affiliates that enable them to act as full-fledged investment banks and brokerages. Banks and their affiliates effectively formed universal banks that could offer their business and individual customers an array of financial services and gain significant economies of scope. Although commercial banks had experimented with how to combine a variety of financial services since the turn of the century, the booming stock market of the late 1920s spurred many larger banks to form securities affiliates. These institutions grew in number from 10 to 114 between 1922 and 1931 enabling commercial banks to claimed 45% of the market for bond originations by 1929.[24] The affiliates were mostly commonly linked to their parent bank by making each shareholder of the bank become a pro rate shareholder of the affiliate or placing the stock of the affiliate in a holding company that also owned the commercial bank. However, as such bank affiliates were outside of examination and supervision process, essentially unregulated subsidiaries, creating the potential conflicts of interest and for concealing or misrepresent information as assets could be easily moved between a bank and its affiliate.[25]

While usury laws continued to slowly fade, there were major changes in the regulation and protection of liabilities. As the Federal Reserve took over the provision of currency, printing Federal Reserve notes and the bond-secured banknotes of national banks, waned in importance. The Federal Reserve Act reduced reserve requirements,

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[23] White, Regulation and Reform, pp. 156-65.
[24] See Peach, Security Affiliates.
[25] Crockett, et.al., Conflicts of Interest, Ch. 5.

differentiating requirements for demand and time deposits, and eliminated the right for correspondent bank balances to be counted as legal reserves. All legal reserves of member banks had to be in the form of deposits with their Federal Reserve banks. By the time of the 1917 Amendment to the Act, the requirements stood at 7% for demand deposits and 3% for time deposits held by country banks, 10% and 3% respectively for reserve-city banks and 13% and 3% for central reserve city banks.[26] While these reduced the pyramiding of deposits that had contributed to banking panics, these new requirements effectively removed their justification for protecting the redemption of deposits. At the state level, the state deposit insurance schemes withered into insignificance.

The most important change in disclosure was the shift away from surprise call reports. In 1916, the last year-end surprise call was made; the result was a gradually weakening of the discipline that these demands had made, although examinations were still conducted by surprise. Otherwise, there were no significant changes in the basic rules of disclosure. The Federal Reserve Act attempted to improve bank examination. Payment of national bank examiners was switched to fixed salaries with expenses rather than compensating them for the number of banks visited; and banks were assessed for the costs of examination in proportion to their assets. In addition to the OCC and the state bank authorities, the twelve Federal Reserve Banks were empowered to make special examinations of both national and state-chartered members in their districts and the Federal Reserve Board could examine any bank at its discretion. Banks now faced the possibility that they could be examined by several different agencies, each with its own standards, providing multiple reports. Nevertheless, the Comptroller remained the primary supervisory authority for national banks and the state authorities for state banks.

There was little uniformity of examination practice across the country. Some Federal Reserve banks assessed member banks for examinations, while others absorbed the charges. The Board ordered that every state member bank would be subject to examination by the Board except if it found the state examination to be sufficiently rigorous. Rivalry between the agencies surfaced quickly. Initially, the Comptroller instructed his examiners to send the Federal Reserve banks member banks' reports of condition but to omit certain schedules on the grounds that the Federal Reserve's officials were not legally authorized to see the confidential portions of examination reports.[27] The Comptroller maintained that the only information need by the Reserve banks was for making discount loans, which it contended were not "hazardous" and posed little risk.[28] Although later Comptrollers shared more information with the Federal Reserve, the Comptroller's office thus maintained that there was a clear and well defined line between supervision and monetary policy.

Although the evolution of the federal bank supervisory agencies is well known, the history of the 51 state agencies is very limited. However, one study of the Great Depression bank failures, highlighted the importance of setting the right incentives for

[26] White, Regulation and Reform, p. 144.

[27] The Comptroller's position was sustained by the chief legal counsel of the Federal Reserve Board in 1915 who determined that the examination records were under control of the Comptroller had he had the authority to refuse to deliver them to the Fed. Robertson, Comptroller, pp. 107-12.

[28] This point of view was informed by the real bills doctrine and the operation of the early Federal Reserve where its primary role was seen as providing discounts on the basis of secure collateral for which it required relatively little information.

bank supervision. The terms of the chief state bank supervision, usually appointed by the governor, varied from state to state. The longer the supervisor's term the greater the number of state-chartered bank failures in the depression, suggesting that the beneficial effects from a longer term, insulating the regulator from political influences was overwhelmed by the greater ability of the industry to lobby him. Some benefit was gained from granting the state bank supervisor sole authority to liquidate banks, which reduced the number of bank failures. Perhaps most shocking was that when supervisors were granted the sole authority to issue new charters, failure rates were higher. These disturbing findings were attributed to the ability of state bankers and politicians to corrupt state bank regulators.[29] Contemporaries were well aware of these problems and some of them attributed them to the fragmentation of supervisory authority, pointing out that banks could play regulators off against one another.[30]

In the first two decades of the Federal Reserve era, there were only modest changes in the practice of bank supervision. Although there had been some restraint on the issues of new charters, it remained a system based on market discipline. The new Federal Reserve Board and banks created additional layers of supervision, with a potential for complicated overlap. Banks were, however slipping beyond the narrow definition of a commercial bank and out of the oversight of bank examiners as they formed affiliates, not subject to disclosure, examination or supervision by federal or state authorities. As seen in Figure 1, the declining ratio of capital to assets suggests an increase in potential risk from an adverse macroeconomic shock. Although returns were not significantly higher, as seen in Figure 2, failures were. Furthermore, the system of undiversified unit banks, which was extreme in the rural areas, was contracting with numerous failures.

## IV. THE NEW DEAL FOR BANKING 1933-1970

The financial collapse of the Great Depression prompted the imposition of a new regulatory regime and a shift in bank supervision away from market discipline towards a supervisory regime with considerable discretion. Aggravated by the Federal Reserve's unexpected and continuing contractionary monetary policy, the economic downturn of 1929-1933 brought the financial system to the brink of collapse. The rising tide of bank failures was accelerated by full-scale panics, which only halted when President Franklin D. Roosevelt declared a national bank holiday on March 6, 1933. In June 1929, the 24,504 commercial banks had held $49 billion of deposits; but by the time that banks were reopened after the 1933 holiday, there were only 14,440 banks with $33 billion of deposits. Losses from failed banks totaled $2.5 billion, half of which was borne by depositors and half by stockholders and other creditors.[31] The end of the bank holiday presented bank regulators with a huge task. For banks that were not obviously solvent, conservators were appointed. These banks were reorganized under new charters, absorbed by other banks, a few were voluntarily liquidated and the rest were placed into

[29] Michener, "Prudential Supervision."
[30] Bach, "Bank Supervision," p. 274.
[31] See Friedman and Schwartz, Monetary History, Chapter 7 and White, "Banking and Finance."

receivership. This winnowing of the banks and general economic uncertainty induced banks to expand their bond holdings at their expense of loans and raise their reserves to historic levels. The result was a very conservative industry where failures all but vanished for the next four decades.

Out of this disaster a new regulatory regime, the New Deal, was forged by the Banking Acts of 1933 and 1935 and subsequent legislation. While the New Deal radically altered many parts of the financial system, the legislation governing commercial banking was relatively conservative. The structure of the banking system was not altered. Innovations introduced by larger banks were prohibited, unit banks were protected, barriers to entry were raised and limits on pricing were set. The Banking Act of 1933 created the Federal Deposit Insurance Corporation (FDIC), and all of the Federal Reserve's member banks were required to join. Nonmember banks were allowed to join, subject to the approval of the FDIC. Insurance was provided for depositors by a mutual guarantee fund, supported by the premiums paid by the insured banks, which were calculated as a percentage of their deposits. Virtually all banks joined, and in 1935 depositors were protected up to a limit of $5,000, which meant that 43% of the nation's deposits were insured. The government placed little faith in market discipline that had been the guiding principle before 1929, and the authorities were granted considerable discretion in carrying out examination and supervision.

The era of easy entry was brought to an end. The collapse of the banking system convinced most policy makers and bank regulators that the country had been "overbanked" and that entry of new banks had to be controlled. Although competition between the Comptroller and state authorities had helped to fuel the growth of small banks, the FDIC gained the ultimate authority over chartering decisions because it had the power to withhold deposit insurance.[32] Yet, there was also considerable caution exercised by the chartering authorities. Following on the massive bank failures, Comptrollers J.F.T. O'Connor and Preston Delano emphasized the primacy of preserving existing banks. The Banking Act of 1935 gave federal authorities broad discretionary authority over the decision whether to grant a bank charter. They were obliged to examine a prospective bank's capital structure, its potential earnings, its management, and the convenience and needs of the community. For national banks, the Comptroller emphasized that a charter would not be granted "unless there is a need for additional banking facilities in the location chosen, and a reasonable prospect that the bank will operate successfully."[33] Competition in the industry was a low priority. The OCC or state banking authority decided whether there was already sufficient competition in a community; "for excessive competition can result in such a weakening of existing banking institutions as to bring consequences so injurious to the welfare of the community as to outweigh any benefits to be anticipated from increasing the intensity of competition."[34] Thus, in contrast, to the pre-depression era, far fewer banks were chartered. Change only came when Comptroller James J. Saxon eased constraints on national banks in 1961 and granted many more charters, inducing state authorities to follow suit.

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[32] Robertson, The Comptroller, p. 126.
[33] Comptroller, Annual Report, 1934, p. 14.
[34] Comptroller, Annual Report, 1951, p. 3.

Not only was free entry abandoned but double liability that had served as an extra incentive to increase the monitoring of bank managers was removed, weakening market discipline. Eventually, the regulatory agencies developed their own instruments to monitor capital adequacy. Beginning in 1962, the OCC and the Federal Reserve used an eight factor system to measure adequacy for purposes of a bank examination, taking into account the quality of management, liquidity of assets, history of earnings, quality and character of ownership, burden of occupancy expenses, volatility of deposit structure, internal controls and local economic conditions.[35] However, financial ratios were regarded only as guidelines and the agency emphasized the need for discretion because "a well-managed bank, free of asset problems, is entitled to operate on a higher leveraged capital base than one which has asset problems."[36]

Constraints on geographic expansion by banks that could create larger institutions only eased slightly, adding little to potential economies of scale and diversification. The narrow limits on branching imposed on national banks by the McFadden Act of 1927 were lifted and they were allowed to branch under the same rules as state-chartered banks in their states. For the forty years after the New Deal, changes in the legal status of branching moved at a glacial speed, as anti-branching lobbies foiled new state legislation. In 1951, 17 states permitted statewide branching and 14 allowd limited branching---where the number or location of branches could be highly restrictive---with 17 firmly committed to unit banking. By 1967, only two more states permitted statewide branching and three more limited branching. Even as late as 1978, only 21 states allowed statewide branching and 16 limited branching.[37] When banks sought grow to increase by mergers and acquisitions, Congress responded by passing the Bank Merger Act of 1960. Federal bank regulators were given the authority to block mergers with the same criteria as were used to restrict other types of entry. Competition was very narrowly defined in a key ruling by the Supreme Court in 1963, *U.S. v. Philadelphia National Bank,* that distinguished commercial banking as a "relevant line of commerce."

The possibilities for banks gaining economies of scope were rolled back by the New Deal, decreasing competition in the financial industry. After banks had wiggled out of the narrow banking definitions of the National Bank Act in the 1920s, the New Deal placed new constraints on them. A virtually complete divorce of commercial banking and investment banking was engineered by the section of the 1933 Banking Act, known as the Glass-Steagall Act that forced banks to separate from or liquidate their security affiliates. The general argument behind this legislation was that combining investment and commercial banking exposed commercial banks to increased risk and problems from the exploitation of conflicts of interest.[38]

Although mixing commercial and investment banking was prohibited, there were potential economies of scope and diversification from combining banking with other types of financial services, which banks attempted to exploit in the post-World War II period. Expanding the scope of activities within a banks were frustrated when the Federal Reserve and Congress blocked Comptroller Saxon's proposals in the early 1960s

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[35] Comptroller, National Banks, pp. 66-7.
[36] Comptroller, Annual Report (1974), p. 281.
[37] White, The Comptroller, p. 88.
[38] Crockett, Conflicts of Interest, Ch. 5.

to expand the bank powers, leaving the New Deal regime largely unchanged.[39] When banks attempted to expand by subsidiaries into investment advising, insurance, data processing and other activities through the device of bank holding companies, Congress responded to complaints from their competitors by passing the Bank Holding Company Act of 1956. This act placed multiple bank holding companies under the supervision of the Federal Reserve that could regulate their acquisition of new banks and their entry into new lines of business. Again when banks sought to circumvent this by forming one-bank holding companies, Congress passed the Banking Holding Company Act of 1970, subjecting them to control by the Fed.[40]

While commercial banks were excluded from some lines of business they had sought out, regulations were changed to induce them move into long-term lending to households and business. The Great Depression had been devastating for the mortgage industry and investment banking; and the New Deal regulators sought to encourage commercial banks to move beyond their short-term lending tradition by legal and supervisory changes. First, the Banking Acts revised the powers of banks to make real estate loans. Secondly, examination practices were altered. The standard acceptable maximum maturity for a loan had been six months, after which examiners had usually classified loans exceeding this term as "slow" and banks were pressured to liquidate them. Examiners were informed now that a loan should not be classified as "slow" simply because of the length of its maturity. The long-term result of this policy was an increase in the maturity mismatch of banks' assets and liabilities, with the potential for increased exposure to risk from interest rate changes.

While economies of scale and scope were large thwarted, the potential profitability of established banks was improved by the prohibition of paying interest on demand deposits and the delegation of power to the Board of Governors to set maximum time deposit rates, a power which was exercised under Regulation Q. Not surprisingly economic studies of the industry found that substantial rents were earned by banks in the New Deal era. Ignoring the culpability of the Federal Reserve in failing to mitigate the shocks of the early 1930s and thereby driving many more banks to the wall, policy makers and regulators took the system of unit banking as a given and saw the restriction of competition as a means to ensuring the solvency and profitability of banks.

Previously liabilities had been regulated because of concern for ability of a bank to meet liquidity demands. The pyramiding of reserves for national banks, where reserve city banks had higher cash to deposit ratios reflected the fact that banks in those cities had served as bankers' correspondent banks channeling funds from banks to the nation's money markets and were subject to greater declines in reserves during a liquidity crisis. Now reserve requirements became a tool of monetary policy. Before the New Deal, reserve requirements were determined by statute, now they were determined by the discretion of the Federal Reserve, which could employ them as an instrument of monetary policy. The Fed would presumably handle the liquidity problems of the banks

[39] The vice president of the Federal Reserve Bank of Philadelphia, Robert N. Hilkert commented: "The Federal Reserve's basic disagreement with the Comptroller seems to boil down to whether bank supervision should be substantially relaxed at this time. Mr. Saxon seems to be saying it should, and the System is saying that it shouln't." quoted in Robertson, Comptroller, pp. 147-54, 161.
[40] White, "Banking and Finance," pp. 779-80.

as a lender of last resort.[41] Insurance of liabilities was now solely the task of the FDIC for commercial banks with the Federal Savings Loan and Insurance Corporation insuring savings and loan associations. Maximum coverage per account slowly rose from $5,000 in 1934 to $20,000 in 1969. Although most increases just kept pace with inflation, they gradually raised the real maximum coverage. Combined with customers shifts in deposits to gain coverage, the percentage of bank deposited insured by the FDIC climbed from 45% in 1934 to over 60% by 1969.[42]

Formally, little had changed in terms of disclosure since the National Banking era. Information on national banks was obtained by four reports of condition, an annual report of income and the bank examinations. But, disclosure requirements lost the element of surprise for nearly three decades. Between 1945 and 1960, calls for reports of condition had been made 21 times on the last business day of June and 24 times on the last business day of December. When the first surprise year-end call was made the OCC, the Federal Reserve and the FDIC on December 28, 1962, deposits were 2.6% lower than on December 31, 1962; a fact that confirmed regulators beliefs that there was considerable window-dressing of accounts. As a result, the surprise call reports were reinstated.[43] Government discretion did not completely eliminate the role of the market, and more information for market discipline was provided in 1964 when Congress required banks to supply information that had long been required of non-financial corporations to their stockholders, notably proxy statements, annual financial reports and notices of major changes in ownership.[44]

More information was also compelled to help consumer make informed choices. Responding to complaints about banks misleading customers, Congress passed the Consumer Credit Protection Act in 1968 or the Truth-in-Lending Act. The act compelled banks to clearly state the annual percentage rate of interest and include non-interest charges for consumer loans. However, this act still relied on market discipline to a large degree because it was aimed at ensuring a clear disclosure of the terms of a loan so that customers would be able to easily form a judgment. In 1970, Congress passed the Fair Credit Reporting Act that required makes to give individuals and firms information from their credit files to errors could be corrected. The federal agencies implemented new examination procedures for consumer protection but resented the burden of consumer protection and complained that it stretched their narrow resources.[45] The Community Reinvestment Act of 1977 was more interventionist. Banks were accused of "redlining" or depriving certain urban areas of credit. Under the new legislation banks were required to provide evidence that they served communities and the bank agencies developed examination procedures to search for redlining. One unintended consequence of these new unfunded mandates from Congress for the agencies was that they forced them to shift their increasingly limited resources away from safety and soundness examinations.[46]

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[41] The bond-back national bank notes were converted into an obligation of the Treasury and were eventually removed from circulation. See, Friedman and Schwartz, Monetary History.

[42] White, "Legacy."

[43] White, The Comptroller, p. 18.

[44] White, The Comptroller, p. 20.

[45] White, The Comptroller, pp. 21-2.

[46] White, The Comptroller, pp. 41-3.

Under the New Deal, examination procedures were drastically revised and the objectives substantially modified, reflecting the absence of faith in the market. The bank regulatory agencies were pushed in an even more radical direction with the objective of making examination reinforce monetary policy. The creation of the FDIC added a new examination agency. Banks insured by the FDIC were required, if not members of the Federal Reserve, to submit to examination by the FDIC. But, initially the FDIC could only examine national and state member banks if it obtained written consent from the Comptroller, Board of Governors, or state supervisors. Only in 1950 was the FDIC given the authority to make special examinations at its own discretion of member banks. The potential regulatory overlap was substantial. National banks could be examined by the Fed, the Comptroller and the FDIC. State member banks were subject to examinations from the Fed, the FDIC and their state authorities, while non-member state banks could be examined by the FDIC and the state agencies.[47]

This overlap of responsibilities created duplication and conflict between the agencies that often behaved as rivals. To address the problem of each agency developing its own examination criteria, the Secretary of the Treasury convened in 1938 a conference consisting of representatives of the Comptroller, the Federal Reserve, and the FDIC to cooperate on examination policies. The result was a revision of the classification of loans and investments and a move away from the established practice of market valuation of assets to one that gave discretion to examiners. The standard practice for bank examiners had been to classify weak loans as "slow," "doubtful," and "estimated loss." Loans were now designated I, II, III, and IV. Loans assured of repayment were Class I, loans with a substantial risk of loss were assigned to Class II. If there were strong doubts about repayment, a loan was placed in Class III, while Class IV was reserved for loans where there were losses. Fifty percent of Class III and all of Class IV loans were deducted in the computation of the "net sound capital of a bank." Securities of investment grade were in Group I; those that were "speculative were put in Group II. Defaulted bonds were listed in Group III and stocks in Group IV. Fifty percent the net depreciation of Group II and all of the depreciation in Groups III and IV were deducted from "net sound capital." Whereas classification had previously depended on the market value of securities and banks were pressed to sell depreciated securities, examiners were instructed to consider other factors. The conference reported that "bank investments should be considered in light of inherent soundness rather than on a basis of day to day market fluctuations."[48] The collapse of the securities markets had left many concerned that the market could not provide proper valuations and this was now enshrined in examination policy. In essence it gave examiners considerable latitude for forbearance in determining whether to reduce a bank's net sound capital.

More generally, this move away from market valuation reflected an attempt to subordinate bank supervision to monetary policy. The underlying assumption was that examination policy would reinforce monetary policy by taking into consideration general economic conditions. Examination officials were relieved of duty of forcing the sale of "intrinsically sound" assets in periods of recession or deflation, while they would

[47] Friedman and Schwartz, Monetary History, p. 436.
[48] Board of Governors, Federal Reserve Bulletin (July 1938).

presumably take a tougher view of what was a correctly valued assets in a boom.[49] One contemporary expert called this change "a striking advance over previous examination practice in the direction of avoiding examination pressure to liquidate instrinsically sound assets in time of delation."[50] In his memoirs, Marriner Eccles, who served as chairman of the Board of Governors from 1934 to 1948, proudly to the coordination of bank examination among the different agencies and the adoption of an examination policy that would exert countercyclical influence as one of his major accomplishments.[51] While there was no formal policy, the federal agencies jointly called for banks to exercise restraint in the extension of "inflationary loans" in 1947, and bank examiners who viewed their job too narrowly were criticized.[52] However, there were dissidents who opposed making supervision complement monetary policy. In 1950, Clark Warburton argued that the Board of Governors should not be involved in the examination of member banks, but focus on monetary policy, leaving the former to the FDIC, the Comptroller and state authorities.[53] Furthermore, implementation was difficult because the FDIC and the Comptroller did not share the view that supervision should be subordinate to monetary policy.[54]

Since the National Bank Act, the only enforcement tool available to bank regulators was the revocation of a bank's charter, which obviously was reserved for only the worst problem cases. Consequently, for the enforcement of the Truth in Lending Act and the Fair Credit Reporting Act was left to the Department of Justice, to which "willful" violations were reported. The regulatory agencies enforcement powers were finally in 1966, when Congress passed the Financial Institutions Supervisory Act that gave regulators the powers to issue cease-and-desist orders to banks and to suspend or remove directors, officers and other bank officials.[55]

Given the relatively stable macroeconomic environment and tight regulatory regime imposed on banks, these examination and supervision procedures proved adequate to the task. As seen in Figure 3, few banks failed; and they were only the smallest institutions. Most failures involved fraud that examiners sometimes unearthed. One study found that fraud was the primary cause for 66% of bank failures between 1959 and 1971.[56] The narrowly defined banks of the New Deal era gradually let their capital decline relative to assets as seen in Figure 1, and this increased leverage plus anti-competitive measures like Regulation Q increased their returns in Figure 2. Congress fretted about even the smallest failures, but on the whole the corseted industry was very stable.

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[49]An the early historian of the OCC, Ross Robertson observed, how this would be put into practice was given little attention as no guidelines for this inherently countercyclical examination policy Robertson, The Comptroller, pp. 136-8.

[50] Bach, "Bank Supervision," p. 276.

[51] Friedman and Schwartz, Monetary History, p. 534.

[52] Bach, "Bank Supervision."

[53] Warburton, "Co-ordination."

[54] Friedman and Schwartz, Monetary History.

[55] White, The Comptroller, p. 19.

[56] Benson, "Bank Examination."

## V. THE DEMISE OF THE NEW DEAL, 1970-1990

The New Deal regulatory system for banking was destroyed by the rapid inflation of the 1970s that accelerated the competitive pressures that had been building up for several decades. Narrowly defined commercial banking, restrained from competition by barriers to entry, branching, merger, diversification and pricing, gradually saw its position as the dominant intermediary erode in the booming post-World War II economy. Whereas, commercial banks had held 51% of all financial intermediaries' assets in 1950, they had only 37% in 1970 and 27% by 1990. Less regulated intermediaries, including pension funds, finance companies and mutual funds seized most of the banks' losses. Perverse regulatory incentives, notably the moral hazard induced by deposit insurance, led to risk-taking and then the largest bank failures since the Great Depression, as seen in Figure 3. Responding to the evolving crisis, Congress removed many of the restrictive barriers that had defined the New Deal. Even examination and supervision were substantially reduced. Shocked by bank failures of the 1980s, supervision was strengthened in the 1990s but de-regulation continued. The result was an industry that grew in scale, scope and complexity, which authorities scrambled to supervise.

The banking disasters of the 1980s brought an end to the limits on competition imposed by the New Deal. The OCC and other agencies no longer demanded that banks seeking charters prove that a community could sustain a new bank and rejections became infrequent. Failures of banks and S&Ls forced many states to repeal their anti-branching statutes as they sought to enable stronger banks to take over weak or failing institutions. For these reasons, beginning in 1975, states became to offer each other banks reciprocal entry privileges, first as bank holding companies and as branching banks. In addition, barriers to geographic competition were weakened when the Department of Justice under the Reagan administration eased opposition to horizontal mergers. By 1990, 35 states permitted statewide branching and only 3 continued to adhere to unit banking. The result was an irregular breakdown of the anti-branching statutes with states and banks vying for strategic advantage to build nationwide institutions. Only in 1994, did the Riegle-Neal Interstate Banking and Branching Efficiency Act begin the process of eliminating all barriers to nation-wide branching, which became effective in 1997. Barriers erected by the Glass-Steagall Act and state laws that separated commercial banking, investment banking and insurance were also slowly eroded in the 1980s as the Federal Reserve gradually granted more powers to subsidiaries in bank holding companies. Finally, the Gramm-Leach-Bliley Financial Services Moderization Act of 1999 permitted universal banking within the structure of a financial holding company. These holding companies are permitted to engage in financial activities that are prohibited to banks. For example, while Federal Reserve member banks may only invest in investment grade bonds (rated Baa or better), the holding company subsidiaries are not similarly constrained.[57]

The success of the New Deal interest rate regulations rested on general price stability and a low and stable interest rate environment. In the 1950s, these conditions were met, but rising inflation and interest rates in the sixties slowly undermined Regulation Q. When inflation spiked in the 1970s and the Fed responded in 1979 by driving up interest rates to control inflation, the commercial banks and S&Ls saw both

[57] Spong, Bank Regulation, pp. 81-4.

their profits and net worth drop. Given regulatory constraints, they found it difficult to pay market rates on deposits, leading to disintermediation. The most severely affected were the S&Ls, which had the greatest maturity mismatch, their portfolios filled with long-term fixed rate mortgages. The percentage of unprofitable insured S&Ls rose from 7% in 1979 to 85% by 1981; and it is estimated that the whole industry was insolvent by $100 billion.[58] Commercial banks, pressured by competition and disintermediation and protected by rising levels of deposit insurance, similarly took on more risk.

Congress responded to this crisis by easing some of the New Deal's restrictions to allow financial institutions to adjust to the market and prevent depositors from fleeing. In 1980, the Depository Institutions Deregulation and Monetary Control Act enacted a six-year phase out of interest rate ceilings and raised the deposit insurance maximum to $100,000.[59] The Garn-St. Germain Act of 1982 then authorized banks and S&Ls to offer money market instruments that would pay market rates of interest and allowed the S&Ls into consumer loans, commercial real estate and business loans. The insolvent S&L industry took advantage of the moral hazard of this situation to increase its risk in the hope of a higher return to move it back into solvency. This gamble failed when interest rates remained high. Massive closures wiped out most of the industry at a cost that exceeded the disaster of the 1930s. The separate status of the S&Ls was effectively terminated. The Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA) imposed the commercial bank capital standards on S&Ls, the FSLIC was terminated, and deposit insurance for the remaining firms was transferred the FDIC.

Greater risk taking led banks' capital to asset ratios to fall. In response, the first capital ratio requirement of 5%, later raised to 6%, was set in 1981. Measured as a flat percentage of all balance sheet items, it did not take into account the riskiness of a bank's portfolio. Given the international scope of banking and concerns that banks might elude their national regulators, twelve countries of the Basel Committee on Bank Supervision signed the Basel Accord in 1988 to set new rules for risk-based capital requirements that would come into effect in 1993. The Accord set a minimum of capital asset ratio of 8%, of which at least 4% was Tier 1 capital from bank's capital accounts with Tier 2 capital coming from subordinated debt and other reserves. The banks on balance sheet and off balance sheet assets were risk-adjusted by a weighting scheme. Off-balance sheet business grew considerably, and it included standby letters of credit, loan commitments, loan sales, securitization and provision of derivatives. By 1990, the credit equivalents of these off-balance sheet positions stood at 50% of the value of commercial and industrial loans. Above the requirements set by the Basel Accord, the Federal Deposit Insurance Corporation Improvement Act of 1991 required a well-capitalized bank to have a 6% Tier 1 capital asset ratio and 10% total risk capital asset ratio. Dissatisfaction with the Basel Accord focused its failure to take into account credit risk and the market value of assets. The latter was addressed in 1996, but a new Basel II

[58] S&Ls were separated insured by their own mutual guarantee fund the Federal Savings and Loan Insurance Corporation (FSLIC).

[59] Backed by the "full faith and credit" guarantee of the federal government, the FSLIC prevented a panic for its insured members, but banks outside its insurance net that relied on state guarantee funds were hit by bank runs in 1985.

Accord was reached in 1999 that allowed banks to use internal risk assessment as inputs to their capital calculations and which would be implemented beginning in 2006-2007.[60]

Under the New Deal regime, regulators grew complacent as there were only a small number of bank failures. The rising number of closures followed by the massive collapse of banks in the early 1980s upset the traditional practices of bank supervision that had developed over the course of the nineteenth century and had been modified by the New Deal. Increasingly sophisticated financial practices and organization made the "bottom up" approach to examination outdated and forced the agencies to shift to a "top down" approach, focusing the management and risk exposure. To handle the new challenges, banks were forced to disclose more information to regulators who were equipped with new enforcement tools. However, the New Deal had given the bank agencies considerable discretion to treat troubled or failing institutions. During the crises of the 1980s, this discretion led to forbearance towards failing banks that allowed them to take more risks and towards bailouts of large banks with the adoption of the "too big to fail" doctrine at a vast cost. The winnowing of the banking industry in the 1980s, like that in the 1930s, plus a stable macroeconomic environment in the 1990s, produced a profitable and stable banking industry for the remainder of the twentieth century.

The bank regulators were rudely awakened when the United States Bank of San Diego failed in 1973, the eighty-sixth largest bank in the country, first large bank failure since the Great Depression. Although the failure was fourteen times larger than previous post-New Deal failures, it resembled smaller failures in that its collapse was brought about one insider's diversion of lending to his many enterprises that OCC examinations had missed. The United States Bank failure was followed by one that did not resemble the small bank insolvencies that the agencies had easily managed. The 1974 failure of the Franklin National Bank of New York, the country's twentieth largest bank, reflected sophisticated risk-taking. Funding its expansion with short-term deposits, Franklin had tried to jump into the New York market by make prime-rate loans to less than prime-rate firms. When earnings of the bank plummeted the bank unsuccessfully gambled on speculation in foreign exchange to revive its fortunes.[61] Although the bank regulatory agencies were aware of the bank severe problems, they showed considerable forbearance. The Federal Reserve provided a large loan, the OCC resisted closing the bank, and the FDIC was slow to arrange an assumption package. The federal regulators justified their actions on the grounds that the demise of Franklin might have sparked a more general liquidity crisis. Problems were much more widespread than these headline banks. The rising interest rates and depreciation of the dollar that had foiled Franklin National's bold expansion plans produced major difficulties for many banks. At the end of 1970, there were 104 "problem" national banks---banks whose classified loans exceeded 40% of their capital---but they held only one percent of national bank assets. By 1974, "problem banks" accounted for 39 percent of all bank's assets.[62]

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[60] Unfortunately, there is little evidence to show that capital regulation has succeeded in the prevention of bank failures. One study found that between 1989-1993, of the 159 banks requiring regulatory action in New England, only 5 had capital asset ratios below 5% and 77 had ratios above 8%. Peek and Rosengreen, "How Well Capitalized."

[61] Sinkey, Problem and Failed Institutions.

[62] The OCC graded banks on a scale of 1 to 4, based primarily on loans and management but including other factors such as liquidity and earnings, as dictated by discretion. Banks with classified loans totaling

In 1980, the First Pennsylvania Bank became the first major federal bank bailout. The bank had expanded rapidly by offering high-risk loans and buying securities with the expectation that interest rates would fall. When interest rates jumped in 1979, the bank lost access to the certificate of deposit market on which had depended for funding. Given the size of the bank, federal regulators concerned that its failure would provoke a crisis. The FDIC seized upon a relatively unused provision in the law and declared the bank to be "essential to provide adequate banking service to the community," justifying a bailout of the bank with a capital infusion. This "Too Big To Fail" doctrine became a model for later FDIC actions during the massive bank failures that followed the collapse of the oil and real estate booms of the early 1980s. Figure 3 shows the jump in the number of bank closings. The biggest bailout out was the Continental Illinois National Bank and Trust Company of Chicago, the nation's sixth largest bank. When it was discovered that Continental had acquired a portfolio of worthless loan participations generated by the Penn Square Bank of Oklahoma City, it was declared "too big to fail" and all depositors not just insured depositors were protected. The FDIC purchased $4.5 billion of the bank's bad loans, assumed $3.5 billion of its debt to the Federal Reserve, and then recapitalized Continental by buying 80% of its shares for $1 billion.

The resolution of failed banks occupied bank regulatory agencies attention through the 1980s until the early 1990s. The number of insured banks closed by the FDIC peaked in 1989 at 206 with $24 billion of deposits, although the largest closures occurred in 1991 when 124 banks with $54 billion of deposits were shut. Only in 1995 did the number of closures fall to single digits.[63] All totaled the FDIC disbursed $98 billion between 1980 and 1995 to cover the losses of closed banks.[64]

The banking crises and collapse that begin in the 1970s and was finally wound up in the early 1990s forced major changes on bank supervision. Although traditional reports of condition are still the mainstay of disclosure, banks have been compelled to report additional information, including compliance with consumer protection, red-lining, and currency transfers. Concerned that federal agencies might not adequately have scrutinized banks, they were obliged in 1991 to submit annual reports that have been audited by independent public accounts to the FDIC.[65] In addition to this information, federal bank supervisors have deployed various computer based early warning systems to monitor banks condition, based on more frequent disclosure of information.

The shift in examination procedures began after the failure of the United States Bank of San Diego when OCC to engaged the consulting firm of Haskins & Sells in 1974 to carry out an external review of the OCC operations and examination procedures. This review prompted the most complete and thorough changes in the examination process since the establishment of the OCC in 1864.[66] The report criticized the traditional approach to bank examination that was from the "bottom up" where compliance with regulations and the nearly complete auditing of the banks operations was the focus. The

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40 to 80% of capital and over 80% of capital were in the four lowest categories for capital. Banks rated 3 and 4 were considered "problem banks," requiring special attention. White, Comptroller, pp. 29-31.

[63] Historical Statistics Vol. 3, pp. 697-8.

[64] Historical Statistics Vol. 3, pp. 699-700.

[65] Spong, Bank Regulation, p. 142.

[66] White, The Comptroller, 27.

report emphasized the bank examiners would be more effective if they approached their task from the "top down," focusing on the quality of bank management, internal controls and the interpretation of financial data. No longer were surprise examinations at the heart of the examination process. Instead of attempting to examine all assets with limited agency resources, examiners reviewed internal loan reviews. The number of on-site examinations was drastically reduced and there was increased dialog between examiners and bank managers and board members.[67] Federal law now requires that banks have a minimum of one on-site examination every twelve months, though this can be extended to eighteen months for well-capitalized institutions. All federal agencies must coordinate their examination schedules and in 1996, Congress charged the agencies to set up framework to decide which agency will lead examinations.[68]

All bank agencies came under fire in a General Accounting Office study in 1977 that criticized the OCC, the Fed and the FDIC for their differing approaches to examination. In the 1978, Federal Financial Institutions and Regulatory Control Act Congress created the Federal Financial Institutions Examination Council, whose membership included the Comptroller, a governor of the Federal Reserve, the chairman of the FDIC. It also established a liaison with the state regulatory agencies.[69] Its task was to establish uniform standards and principles for examination and make recommendations for supervision. One of its first accomplishments was the adoption of the Uniform Interagency Bank Rating System in 1978. The new uniform system of rating banks was given the acronym CAMEL, where banks were rated on a scale from 1 to 5 on the basis of their capital adequacy, asset quality, management, earnings, and liquidity. Later the system was amended to include sensitivity to market risk and renamed CAMELS. Banks in Group 3 showed signs of weakness that could expose a bank to failure. Group 4 had severe problems that required immediate supervisory attention, while group 5 required attention and immediate assistance. Uniform examination report forms were devised and common training for examiners was established, and there were increased liaisons with state agencies.[70]

Enforcement powers for supervision were increased as banking problems emerged. The agencies complained that their enforcement powers were too limited, being restricted to civil fines, cease-and-desist orders, and a charter revocation with bank officials being only removable for personal dishonesty, not incompetence. In response, the Financial Institutions Regulatory and Interest Rate Control Act of 1978 gave regulators the power to dismiss or fine directors officers and employees and fine.[71] These powers were enhanced by the 1989 Federal Institutions Reform, Recovery and Enforcement Act (FIRREA) that increased discretionary enforcement powers and fines against banks and their officers to compel compliance. However, as already discussed one of the principle concerns that emerged during the banking and savings and loan crises of 1980s was that bank supervisors had used their discretionary authority to delay prompt

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[67] White, Comptroller, pp. 37-8.

[68] In 1994, Congress passed the Community Development Banking and Financial Institutions Act (CRA) to promote economic recovery of communities "under-served" by banks. Compliance with these act led to the institution of CRA examinations. Spong, Bank Regulation, p. 122.

[69] Spong, Bank Regulation, p. 57.

[70] White, The Comptroller, p.44.

[71] White, Comptroller, p. 40.

action against troubled banks. This forbearance in the hope of recovery rarely showed an benefit.

Forbearance towards failing banks also had a political dimension. Although bank supervisory agencies were independently funded, they came under increased pressure from several administrations, most notably the Nixon and Reagan administrations that sought reductions in regulation. In 1969, the OCC was placed under an employment ceiling, leaving the Comptroller to complain that he had an inadequate staff to conduct examinations.[72] Pressure became more intense under the Reagan administration that sought to reduce the size and scope of the federal government in the early 1980s, just as bank failures were beginning to rise. The OCC saw a decline in its expenditures and its workforce shrank. From 3,282 employees, of whom 2,282 were examiners in 1979, the OCC shrank to 2,702 employees and 1,835 examiners by 1982. Staff at the OCC turnover reached 15% in 1984. The decline in supervision was particularly acute in Texas where the median exam interval in 1986 was 700 days for banks that subsequently failed or needed assistance.[73] After cost of the banking crisis became apparent, the agencies were permitted to expand again. Total real expenditures by the FDIC rose by 50% between 1982 and 1989.

## VI. THE CONTEMPORARY ERA 1991-2008

The banking and savings and loan disaster of the early 1980s winnowed the financial industry. Paralleling the disaster of the 1930s, the weakest institutions disappeared and the surviving banks sought to strengthen their balance sheet positions. For nearly a decade after 1990, the banking industry looked strong and robust, with few problem or failing banks. All the banking agencies were able to report up until 2007 that the institutions subject to their oversight met or exceeded their targets for capitalization and risk-taking. The suddenness of the collapse is thus all the more surprising, but the genesis of this most recent collapse has part of its roots in an important change in the nature of American bank supervision after the disaster of the 1980s.

In reaction to the agencies exercise of forbearance for banks and other financial institutions, their discretionary authority was substantially circumscribed by the Federal Deposit Insurance Corporation Improvement Act of 1991 that established a new supervisory framework to protect a bank's capital. Known as "prompt corrective action," the supervisory procedure sets non-discretionary triggers for ensuring that problems are resolved early. Banks are assigned to one of five categories based on three capital ratios based on their capital to risk-weighted assets, where assets are assigned explicit weights. When a bank crossed specific certain set thresholds of these three ratios, mandatory supervisory actions are taken. These range from increased monitoring by federal agencies to an array of restrictions and remedies.[74]

Forbearance that characterized the crisis of the 1980s was thus effectively ruled out. However, by ruling out discretion, banks were able to develop new complex financial instruments that are not subject to the statutory standards and allow them to

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[72] White, The Comptroller, p. 25.
[73] White, Comptroller, p. 61.
[74] Spong, Bank Regulation, pp. 85-95.

assume more risk with existing capital. The most notorious of these were of course, the mortgage-backed securities that were held off-balance sheet in Structured Investment Vehicles (SIVs) that skirted the rules based control system that was sufficiently rigid that it was difficult to quickly adjust to innovations. Banks were able to increase their risk and hence their return, while regulators appeared to be faithfully executing their mandates. Some of these problems were addressed; for example, in 1997 capital standards were adjusted to take into account bank's trading activities.[75] Nevertheless, these problems highlight the difficulty of shifting to a less discretionary regime.

Perhaps, the most important feature of the regulatory system that did not change was the insurance of deposits. While the maximum insurance of an account remained unchanged at $100,000, the Too Big To Fail Doctrine that had emerged in the previous era was widely believed to make deposit insurance effectively 100 percent. The constancy of this feature may have lulled the public and regulators to forget the moral hazard implications. But banks certainly exploited it by taking increased risks just beyond the pale of bank supervision.

In this more rules-based regime, the Ratings Agencies played an increasingly important role. The bank regulators had budgetary and human resources constraints that limited their ability to monitor the quality of assets that institutions acquired. Thus, over time they came to rely more heavily on the ratings provided by the Ratings Agencies to determine risk exposure. The conflict of interest for the Ratings Agencies between rating securities and offering advice on how to structure them undermined their usefulness and thereby weakened the ability of the bank regulatory agencies to adequately monitor banks.

While the failure of bank supervision obviously played a role in the banking collapse of 2007-2008, it is less clear how other regulatory changes contributed. The disappearance of the constraints on branching and the abandonment of the last vestiges of the Glass-Steagall Act increased the freedom of entry, branching, and merger and banks could enter new lines of business that allowed them to gain new economies of scale and scope. Whether they used their opportunities to increase risk-taking is less clear at the moment. Some critics have blamed the abandonment of the Glass-Steagall Act for the crisis, yet stand-alone commercial banks and stand-alone investment banks appear to have been as troubled as the financial holding companies that formed the new "universal banks." Nevertheless, the fast changing character of the financial system increased the challenge to federal bank supervisors, who had a relatively rigid rules-based statutory supervisory regime who faced an increasingly complex and evolving banking system, adept at increasing risk.

## VI. IN CONCLUSION: WHITHER SUPERVISION

The National Banking Era provides an unusual episode where bank supervision's principal objective was to reinforce the discipline of the market. Although banks were narrowly defined to offer short-term business loans, entry was easy and they were lightly regulated. Perhaps the most important constraint was the prohibition on branch banking that prevented them from gaining economies of scale and sufficient diversification. Their

[75] Spong, Bank Regulation, p. 96.

bank notes were guaranteed by being back by U.S. government bonds, but deposits were not insured. Market discipline was enhanced by the imposition of double liability of shareholders. Surprise call reports of condition sought to ensure the accuracy of reporting and surprise bank examinations, conducted from the "bottom up" ensured an effective audit and compliance with regulations. With his only instrument for enforcement being the revocation of a bank's charter, the chief federal supervisory agency was emphatic that its job was not the prevention of bank failures. Judged by the capital ratio, banks were conservative by modern standards. Although the capital to asset ratio declined overtime to approximately 18% by 1913, it averaged well over 25%. The return to capital varied with the business cycle but exhibited no trend around the mean of 7.5%. Banking failures were an ever-present feature of the banking system, never absent from any year and sometimes rising to upwards of one percent of all banks. For the years where data is available 1907-1913, the 69 national banks (out of over 7,000 national banks) that failed paid out approximately 65 cents on the dollars of deposits to their customers within three years.[76] Although not the worst years under the national banking system, these figures suggest that losses to depositors were very modest. Yet, failures under the national banking system may have been the consequence of the prohibition on branch banking. There were no bank failures in this period in Canada, a country where large branching banks were dominant.[77] Nevertheless, the National Banking Era presents a strong case for supervision focusing on the reinforcement of market discipline.

The first years of the Federal Reserve System did not mark an abrupt shift in supervisory regime, but it set the stage for the dramatic change of the New Deal. There were three notable features of the period from 1914 to the Great Depression. First, the larger banks began to escape some of the strictures of the National Banking System. As conventional commercial banking remained narrowly definition and its relative share of the financial system shrank, the biggest banks moved aggressively to form securities affiliates, grabbing a large share of investment banking. Secondly, the bank regulators pulled slightly back from reinforcing market discipline, but reducing surprise call reports and limiting some entry. The third feature was a general weakening of the banking sector, focused in the agricultural areas. Returns and capital to assets both slumped in the immediate postwar recession, although they both recovered somewhat. But these averages hide the fact that declining primary product prices caused defaults on loans and farm foreclosures, leading to higher than ever bank failures. The bank failure rate in Figure 3 moved well above the average of the previous era and stayed high even during the boom years of the 1920s. Again, these problems may be largely laid at the door of the lack of branch banking. But, even in Canada there was one bank failure in 1923.

The problems of the regulatory but not the supervisory regime were coming home to roost. The 766 national banks (out of about 8,000 banks) that failed had a poorer record, paying out approximately an average of 40 cents on the dollar from 1921 to 1929, which entailed a loss of $217 million at a time when total deposits at national banks totaled $16 billion.[78] Nevertheless it was not a heavy burden on the economy, the $216

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[76] Calomiris and White, "Origins," p. 171 and Board of Governors, Banking and Monetary Statistics, p. 283.

[77] Bordo, Redish and Rockoff, "The U.S. Banking System."

[78] Total losses to depositors from all bank failures, national and state banks, were estimated a $565 million. Board of Governors, Banking, p. 283.

million represents the equivalent of $2.6 billion in 2008 dollars or 0.2 percent of GDP in 1925. The banking collapse during the Great Depression stands out in the mind as the greatest disaster. Certainly it towers over the previous regimes' experience. Depositors and stockholders collectively lost $2.5 billion. This represented 2.4 percent of current GDP or $38.7 billion in 2008.

Market discipline was nearly completely jettisoned with the onset of the New Deal banking laws. Regulation re-imposed a very narrow definition of banking, although banks were encouraged to offer longer term loans to business, increasing their maturity mismatch. Barriers to competition were raised and reinforced by limiting entry, mergers and branching. Protected from competition within the industry and from outside and fixing a maximum of interest payable on deposits, the banking industry became profitable after its collapse during the depression. The return on capital, depicted in Figure 2, was higher on average than during the early years of the Federal Reserve and the National Banking period, driven perhaps by the increased leverage from a lower capital to asset ratio. Furthermore, returns appear to have been more stable. The basic examination procedures had not change, but the philosophy of supervision favored the regulators discretion, not the mood of the market, permitting forbearance for troubled institutions. Even more radical, was the effort by the Federal Reserve in the first half of this period to make supervision subordinate to monetary policy. This tight regulatory and supervisory regime helped to prevent bank failures, which as a percentage of all banks or deposits, fail to show up on the radar, as seen in Figure 3 and Table 2. The low failure rate and high return was, nonetheless, a consequence of a restrictive regime where competitive pressures were slowly building up.

The unexpected inflation of the 1970s undermined the weakening pillars of the New Deal regime. Although labeled the post-New Deal in the figures, the surge in bank failures and decline in profitability in the middle of this last period mark the death knell of the New Deal. When the system collapsed, not only were the New Deal's barriers to competition swept away so were restrictions that had been in place since the National Banking period. Entry was free again, but more importantly branching was eventually permitted nationwide; and universal banking was allowed within a holding company. Interest rate and other pricing limits were abandoned. Helping to drive the rate of return to an historic high was a decline in the capital ratio, both of which are glimpsed in the figures and Table 2. Supervision did not follow so clear a path. When bank failures erupted, depositors were given increased protection from the market by higher levels of deposit insurance for accounts and the adoption of the Too Big to Fail doctrine. Attempting the give banks another chance, the federal agencies used their discretionary authority for forbearance, leading to even larger failures. The increased incentives to risk-taking and supervisory policy produced an even more costly disaster than the Great Depression. During the 1980s, losses to the savings and loans totaled $74 billion and commercial banks $52 billion, excluding the losses of shareholders. The total, $126 billion was the equivalent of 3.4 percent of GDP or $200 billion in 2008 dollars.

The reaction of Congress to the disasters of the 1980s was to remove much of the regulators' discretion by setting statutory rules and added considerable enforcement powers to back them up. Given that there was no change in the insurance regime, the financial institutions had the incentive and the ability to circumvent the limitations on risk-taking. The overall cost of this disaster now far exceeds all previous experience.

One common estimate of the losses to the banks is $1.7 trillion, although we will only know the true losses later. This sum represents a 11.6% of 2008 GDP.

Looking over a century of bank supervision, one cannot but be dismayed by its failure to constrain risk-taking induced by deposit insurance and its rising cost. The resources of the regulatory agencies are finite and both discretion and rules based supervision offer different perils. The least costly system was the National Banking Era but it is politically unlikely that we would revert to an uninsured bank regime, but the inability supervision to control risk-taking in any of the insured regimes suggests that deposit insurance must be limited to make supervision more effective by reintroducing more market discipline.

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**Figure 1**
**National Banks' Capital to Asset Ratio**
**1864-1998**

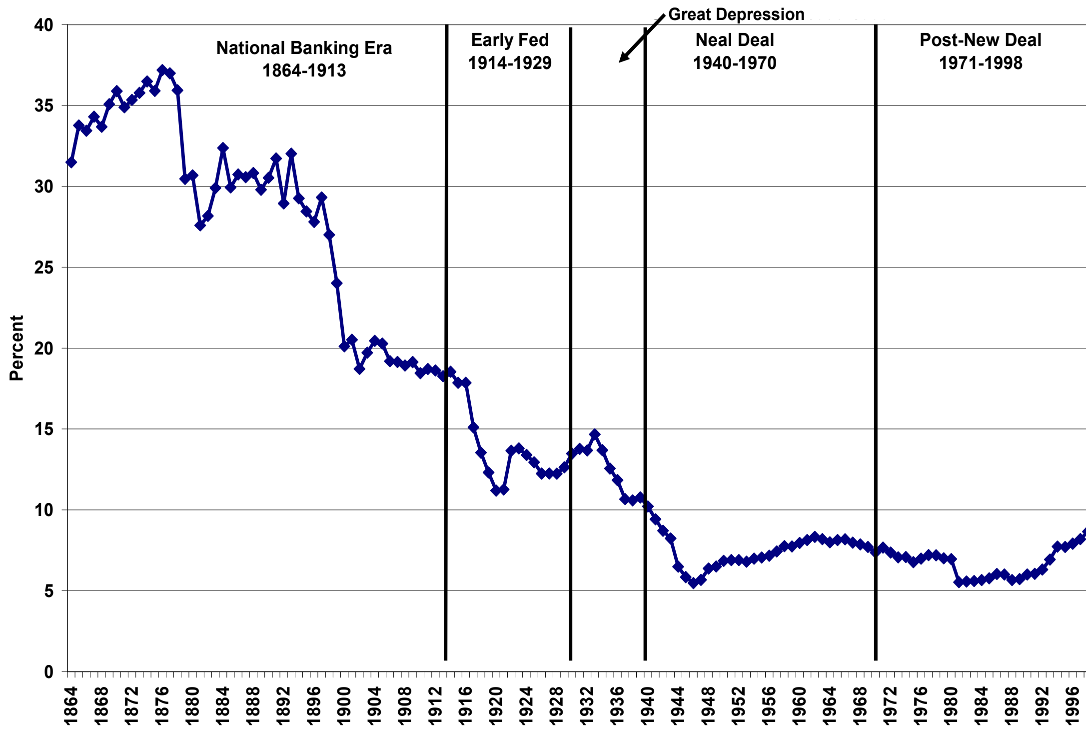
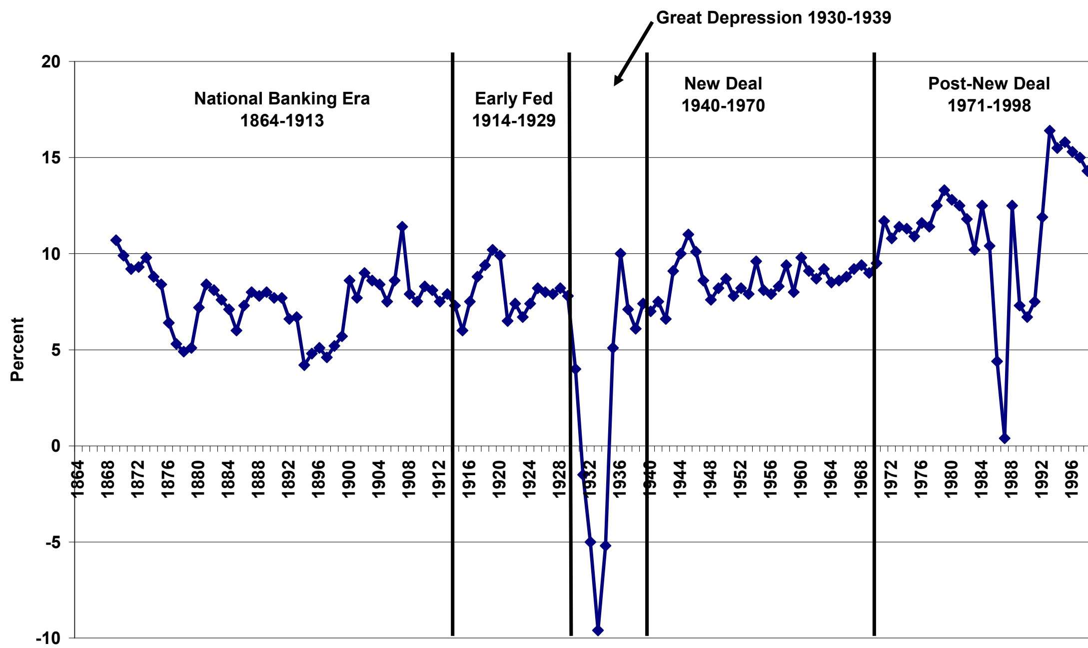


**Figure 2**
**National Banks' Returns to Capital**
**1869-1998**




Note: Returns are measure as the ratio of profits to capital.

**Figure 3**
**Percentage of National Banks Closed to Total National Banks**
**1864-1998**