Office of the
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MOMENTS IN HiSTORY

ECONOMIC INSIGHTS FROM THE HISTORY OF THE FEDERAL BANKING SYSTEM

Value Creation From the National Bank Charter: Historical Reflections on the Complementarity of Examinations and Market Discipline

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Throughout the history of the national banking system, the safety and soundness of national banks has been a hallmark of the banking system's success. The failure rates of national banks consistently have been lower than the failure rates of state-chartered banks; this is true in terms of absolute failure counts as well, as shown in figure 1.[2] During the early years of the national banking system, contemporary observers were keenly aware of this difference and recognized that two aspects of the national banking system produced this result: stricter regulatory standards, and credible supervision. With respect to regulation, national banks faced much stricter limits on lending collateralized by real estate (which was prohibited until 1913), and had higher minimum capital requirements, which meant that their minimum asset size was larger than the minimum required for state-chartered banks. Many empirical studies have found that larger bank size (which is associated with a more diversified loan portfolio) and less lending exposure to real estate risk both were significant contributors to banks' ability to survive during troubled times. National banks also were supervised by the Office of the Comptroller of the Currency (OCC), which established credible and consistent standards for bank examinations that typically exceeded those by state supervisory authorities. OCC examiners also enjoyed a reputation for deep professional knowledge of banking and personal integrity that has always been second to none. This meant that examinations of national banks were particularly effective at making sure that regulatory standards were enforced, and at assisting bank management at rooting out dishonest behavior by bank employees—a frequent cause of bank failure.

It may seem surprising that the national bank charter was able to compete with more permissive state charters. After all, many people might suppose that bankers would prefer to be subjected to less stringent regulation and less scrutiny from examiners. But banking history shows that this supposition is incorrect. While it is true that excessive regulation can hamper a bank's ability to

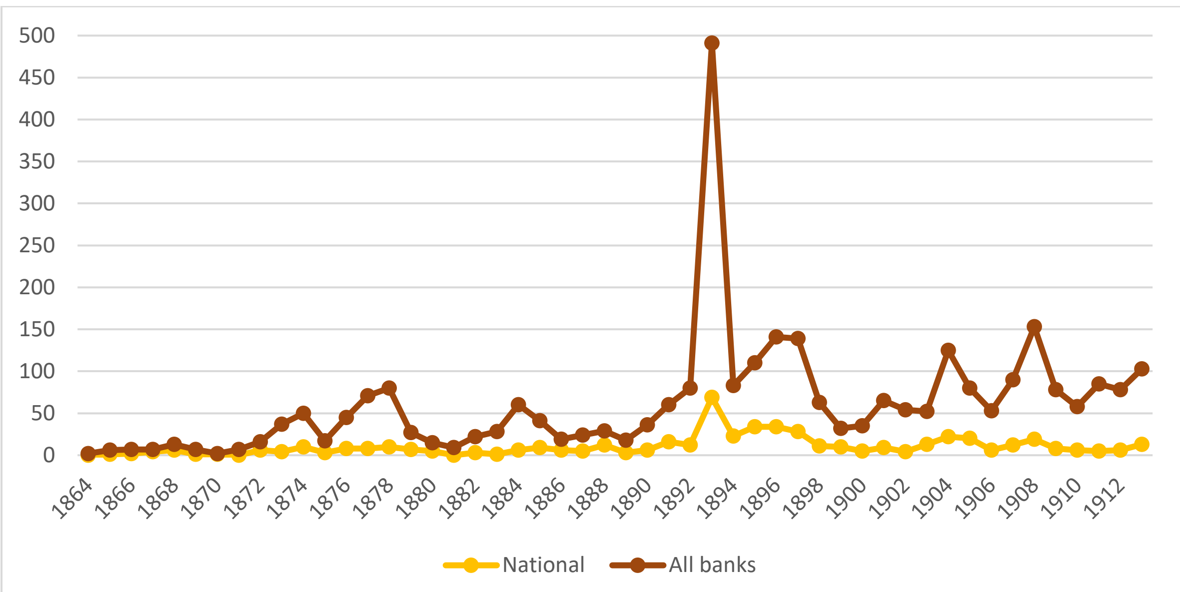
[1] Opinions expressed are those of the author and do not necessarily reflect the views of the OCC. Thanks to Roger Tufts, Mark Carlson, and James Igoe for suggestions.

[2] Figure 1 reports the raw numbers of bank failures for national banks and for the sum of national and state banks. Roughly speaking, on average for the period 1863–1913, the number of national and state banks was similar, so the raw failure numbers indicate large differences in failure rates. Early in the period, the number of national banks far exceeded the number of state banks (there were three times as many national banks as state-chartered banks in 1880). By 1913, the number of state-chartered banks was roughly double the number of national banks.

compete, some regulation can add value to the banking enterprise. Indeed, bank founders who chose the national bank charter chose it precisely because they wanted to be part of a less permissive regulatory and supervisory system. They saw two main advantages from the credible commitment to safety and soundness that came with the national bank charter: a reputation for ensuring safety that gave comfort to bank customers—particularly depositors—and a helpful external eye that served as a check on the ever-present temptation faced by bank employees to commit fraud. After all, large amounts of cash and other valuables pass through the hands of bank employees daily, and because banks' assets are largely loans it is all too easy to steal funds and cover up the theft by creating bogus loans.

The strict and thorough process employed for examining national banks has been a matter of pride emphasized by every Comptroller of the Currency since the establishment of the

Figure 1: Number of Bank Failures by Year for National Banks and All U.S. Banks, 1864–1913



national banking system under its first Comptroller, Hugh McCulloch. In an article published in *The North American Review in* November 1896, Comptroller James H. Eckels[3] described the national bank examination process in some detail. He wrote:

> The examinations of national banks are made as a rule semiannually unless the conditions are such as to require more constant supervision. Their object, while primarily to ascertain if the capital stock of the bank is impaired, is so extended as to prevent any irregularities, violations of law, misappropriation of funds, or mismanagement on the part of the officers of the bank. They design as far as possible to detect criminal violations of the law, where such have occurred, and thus prevent further loss to the depositors and stockholders.

[3] James H. Eckels, "Protection of Bank Depositors," *The North American Review*, vol. 163 (November 1896): 564–72. Indentations shown here are added for readability and do not appear in the original text. A history of the OCC, which discusses the evolution of its regulatory and supervisory procedures, can be found in Ross M. Robertson, *The Comptroller and Bank Supervision: A Historical Appraisal*, Office of the Comptroller of the Currency, 1995.

> The examiners act entirely under written instructions from the Comptroller. They are required in all cases to make examinations without any notice to the bank and as unexpectedly as possible. They commence their examinations at either the close or commencement of the business of the day, as it would be impossible to make comparison of all the assets of the bank with the books while the business was in active progress.
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> Upon entering the bank, the examiner takes possession of all of its assets and retains them until he has counted the cash and verified all of the items of stocks, bonds, loans, and discounts and collateral held therefor, notes all loans and discounts to directors and officers, and to enterprises in which they are interested. He also examines the list of all stocks, securities, etc., held by the bank and all real estate and mortgages held and owned by it. He takes off a balance of account of the individual ledger or ledgers, and verifies outstanding certificates of deposit, certified checks, and cashier's checks. He also takes off balance of stock ledger, examines stock certificate book, and profit and loss and expense accounts. He examines the minutes of directors' meetings, discount committee meetings, and shareholders' meetings.
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> He examines into the condition of the lawful money reserve of the bank for the thirty days preceding the examination and compares the bank's copy of the last report of condition with its books at the same date. He is required to send out a verification circular on blanks furnished from the Comptroller's office to all banks to which or from which balances are due, to all parties from whom money has been borrowed on bills payable, certificates of deposit, or notes and bills rediscounted; to all parties to whom items have been sent for collection, and to all officials in whose name state, county, or municipal funds are deposited.
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> Having done all this, he makes a report to the Comptroller of the Currency showing the character of the loans and discounts, the loans exceeding the 10 percent limit, the amount of overdrafts, the amounts of money borrowed by the officers and directors of the bank, the general character of the officials, the manner of the conduct of the bank, together with many other things unnecessary to be here enumerated.[4]
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> Upon the basis of this report letters of criticism are sent to the banks reported upon and an effort is made to have all matters at fault corrected. If the point is a serious one or the bank's condition a source of anxiety, letters are sent to the individual directors calling their attention to the letter of criticism sent the bank and a reply under the joint signatures of all is required.

Eckels tells us here that the examiner's mission is "primarily to ascertain if the capital stock of the bank is impaired." And he goes on to describe the detailed process of verifying interbank reserve holdings (which satisfied the legal reserve requirements against the bank's outstanding deposits) and the other account items. Clearly, the main role of the examiners was to audit the books of the bank and use their knowledge of banking to gauge the quality of banks' loan portfolios. Banks were required to publish in the local newspaper the balance sheet statement that resulted from the examiner's audit, and mail a clipping from a copy of the newspaper to the OCC. That requirement shows that the OCC charter was self-consciously a partnership between the disciplines of regulation and supervision, on the one hand, and the market for deposits, on the other hand.

[4] A review of examination reports of banks for the 1890s, shows that the OCC did not always enforce small or temporary violations of the law strictly, such as minimum reserve requirements, especially for smaller banks in rural areas. It may have been that concerns about competition with the state charter, which was especially relevant in rural areas, may have influenced the strictness of enforcement. In contrast, it appears that reserve requirements and other rules were enforced much more strictly for large banks located in major cities.

The role of the examiner and the depositor were intertwined and mutually reinforcing. The examiner's actions were designed to "prevent…loss to the depositors and the stockholders." At the same time, depositors were able to respond to the audited accounts—published in the local newspaper—knowing that they had been verified (which meant, in particular, that the loan portfolio's likely future performance had also been confirmed). The stated amounts of cash holdings, and capital and surplus, relative to the size of deposits and loans, could then be used by the depositors to exercise discipline on the bank. In other words, depositors could react to the banks' financial statements to determine the amount of deposits the bank was able to maintain (through depositors' decisions either to deposit or withdraw funds), presumably targeting the default risk of the bank when doing so (that is, withdrawing when depositors perceived that the bank's risk was too high). There is substantial evidence that depositors behaved in precisely this manner.[5] Depositors could assess risk because risk is a function of the ratios of capital to risky assets and cash to risky assets, which the audited balance sheet reported. The Comptroller did not set lower bounds on the ratio of capital to deposits (as regulators do today, in a setting where deposit insurance has substantially reduced the incentives for depositors to withdraw from risky banks), but instead left that determination to depositor discipline, knowing that depositor actions would reflect the information the OCC ensured was provided to the public in the local newspaper.

It is important to remember that in 1896, at the time Eckels was writing his description of the examination process, there was no prospect of any government assistance to banks. In fact, not even a lender of last resort facility existed at that time (the Federal Reserve System was founded in 1913), and a government bailout of a national bank was practically inconceivable. This means that the opinions of the Comptroller and the OCC field examiners only mattered to depositors insofar as they provided assessments of honest accounting and business practices; not as signals of any prospective government assistance.

It is also interesting to note that, as part of the examiners' obligation to calculate whether capital was impaired, they made private estimates of expected loss, which were included in their reports to the Comptroller, but not released to the public. In a recent article, Calomiris and Carlson (2020a)[6] showed that examiners' estimates were quite accurate as predictors of bank weakness, and that the estimates were informed by a combination of hard public information (publicly available data about the banks), hard private information (data reported in the examination report that were not publicly available), and soft private information obtained during the examination (information that affected the examiners' loss estimates that was not captured by quantitative information reported publicly or in the examination report).

Calomiris and Carlson (2020b)[7] studied the role of the OCC in assisting solvent banks that had suspended during the Panic of 1893—the most severe nationwide banking crisis to occur

[5] See Charles W. Calomiris and Berry Wilson, "Bank Capital and Portfolio Management: The 1930s 'Capital Crunch and Scramble to Shed Risk,'" *Journal of Business*, vol. 77, 2004, pp. 421–455, and Charles W. Calomiris and Matthew Jaremski, "Stealing Deposits: Deposit Insurance, Risk-Taking, and the Removal of Discipline in Early 20th-Century Banks," *Journal of Finance*, vol. 74, 2019, pp. 711–754.

[6] Charles W. Calomiris and Mark Carlson, "Bank Examiners' Information and Expertise and Their Role in Monitoring and Disciplining Banks During the Panic of 1893," *Journal of Money, Credit and Banking*, forthcoming. See also Calomiris and Carlson (2017a), "Corporate Governance and Risk Management at Unprotected Banks: National Banks in the 1890s," *Journal of Financial Economics*, vol. 119, pp. 512–32.

[7] Charles W. Calomiris and Mark Carlson, "Restoring Confidence in Troubled Financial Institutions After a Financial Crisis," Working paper.

between the Panic of 1837 and the Great Depression. They found that the estimates of loss, and the implied calculations of capital accounts, were a central input into the Comptroller's thinking about which banks were solvent and which were not. If a bank was suspended during the Panic, but enjoyed the confidence of its examiner, the Comptroller not only permitted it to reopen; he often publicly expressed his confidence in the bank and encouraged the depositors to maintain their deposits in the bank. Calomiris and Carlson (2020b) found that speeches by the Comptroller on behalf of a bank contributed to its successful reopening, while speeches by bankers generally had no effect.

In his book, *The Romance and Tragedy of Banking*, Thomas P. Kane[8] credits Comptroller Eckels with recognizing that a large percentage of the banks that were compelled to close their doors during the Panic of 1893 were unquestionably solvent. Kane also notes that the OCC's policy was that "no bank was permitted to resume business whose assets were not believed [by its examiner] to be sufficient to pay its liabilities to depositors and other creditors in full over and above an unimpaired capital." Eckels explained in his annual report that year that the most practical demonstration of the solvency of the national banks he was permitting to reopen had been their ability to convert their non-cash assets into cash. In other words, the Comptroller was able to provide credible information to depositors about reopening banks because depositors trusted that the examiners of national banks were capable and honest in their assessments of banks. In turn, the Comptroller's views about banks were determined, in part, by the banks' ability to respond to the discipline of the market. The fact that the suspended banks had passed the market "test" by rapidly converting many of their assets into cash further bolstered his confidence. Clearly, depositors and examiners relied upon each other in assessing and disciplining banks. The evidence in Calomiris and Carlson (2020b) of the importance of the Comptroller's assessments for restoring deposit confidence also illustrates the value creation for banks that came from the credible examinations that accompanied a national bank charter. Indeed, for many banks, the national bank charter (and the market confidence that it provided) was essential to their survival in 1893–1894.

Eckles was also mindful that improvements in the rigor and accuracy of examinations were also possible, and his proposals for improvement were supported by bankers. In the 1896 *North American Review* article, Eckels suggests that "… Better results would be obtained in the examination of banks if examiners were paid a fixed yearly salary with an allowance for expenses. The model of payment now in vogue is in most places, outside of reserve cities, an allowance of a fee of twenty dollars for each bank examination. Out of this sum, the examiner is required to pay both his traveling and his living expenses. In order to meet such expenses and leave a suitable compensation for his labor, he must of necessity examine a bank with more rapidity than in many instances he ought. … If, however, he was employed under a fixed salary paid out of a fund to be contributed by all the banks together with the payment of his necessary expenses, each bank with which he had to do could receive the attention which it demanded."

Roughly a decade later, in the responses of national bank presidents, who were surveyed and asked to recommend improvements to the examination process, many suggested precisely this reform (Calomiris and Carlson 2017b).[9] Those suggestions are further evidence of the value

[8] Published in 1922 by the Bankers Publishing Co. of New York. Chapter XI is devoted to Eckels' tenure as Comptroller.

[9] Charles W. Calomiris and Mark Carlson, "Rediscovering Macro-Prudential Regulation: The National Banking Era from the Perspective of 2015," ***Financial Systems and Economic Growth: Credit, Crises, and Regulation from the 19th Century to the Present***, edited by Peter L. Rousseau and Paul Wachtel, Cambridge University Press.

creation from the examination process, which bankers clearly recognized. National banks' presidents wanted longer, not shorter exams. Bankers clearly understood that the advantages of longer examinations were twofold: first, to increase the information bank management received about its own employees and practices; and second, to bolster confidence on the part of depositors in the examination process, which translated into depositors' confidence in national banks' safety and soundness.

The market discipline of depositors did not *always* reward national banks' safety and soundness. Generally, national banks were chosen by depositors that preferred safety and were willing to forgo the slightly higher interest on their deposits that riskier banks could afford to pay. But sometimes even erstwhile conservative national bank depositors were fooled by risky state-chartered banks that promised higher returns with no prospect of loss – a combination that no bank can ever achieve.

In the early 20th century, several states experimented with deposit insurance schemes, which were designed to promote entry by state-chartered banks, especially in developing agricultural areas. The promise of deposit insurance protection also was intended to help state-chartered banks compete for the deposits of national banks. This worked initially. Calomiris and Jaremski (2019) showed that, because the insured state banks were not regulated or supervised strictly, deposit insurance encouraged them to pursue high-risk lending.[10] As figure 2 shows, insured state-chartered banks were successful prior to 1920 in competing away deposits from national banks because they offered higher rates of interest, combined with the promised protection of deposit insurance. Figure 2 shows especially rapid growth in states that created deposit insurance schemes for state-chartered banks, in comparison with other states, and this was particularly visible during the agricultural boom years of World War I. After 1920, as agricultural prices declined, the high lending risks of the insured state banks soon led to a collapse of these systems. The deposit insurance backing state-chartered banks was funded by surviving member banks, and not guaranteed by the state governments. But surviving members of these state-chartered deposit insurance schemes turned out to be a vanishing group! As system-wide bank distress deepened, deposit insurance funded by fees charged to the dwindling number of survivors could not cover losses. The depositors who had left the safety and soundness of national banks in pursuit of higher returns offered by insured banks suffered severe losses. After 1920, the deposit share of national banks grew rapidly in the states with deposit insurance, reversing the pattern of the prior years.

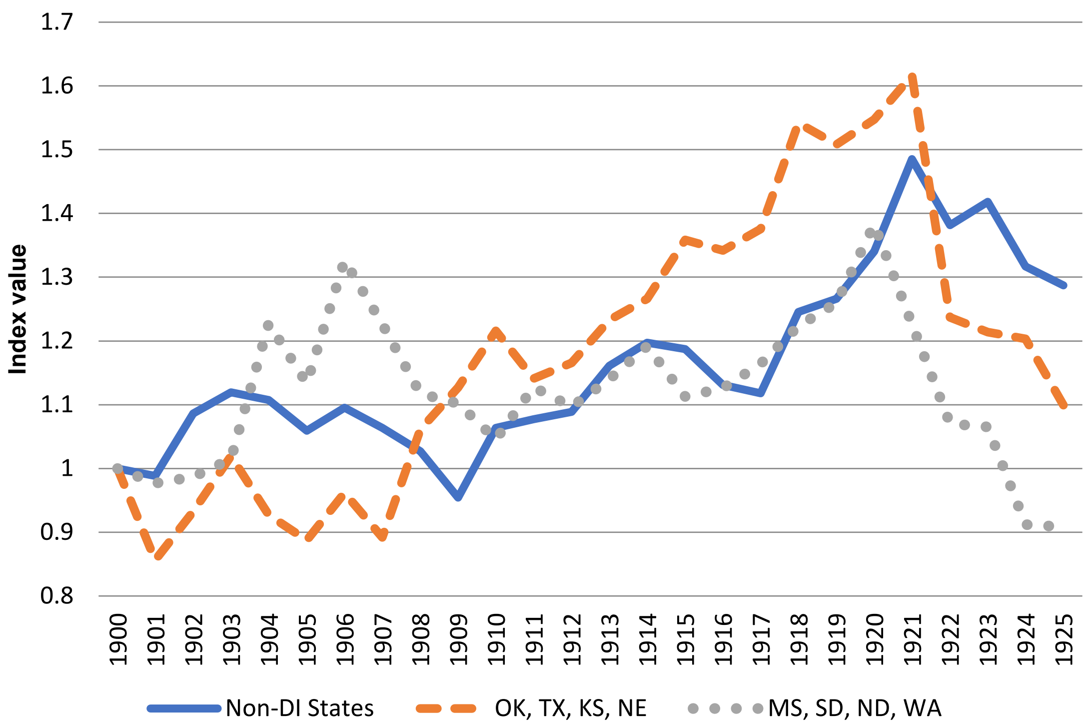
Over time, as the complexity of banking has increased, so have the length and complexity of the examination process for national banks. For very large national banks today, such as Citibank, JPMorgan Chase, Bank of America, Wells Fargo, and others, examiners are a constant presence, and examination now includes detailed quantitative assessments of the validity of their highly sophisticated models of risk.[11] But the core principles of the OCC's examinations of national banks, reflected in Comptroller Eckels' description of the examination process, have been a constant since the 1860s. The dedication of OCC examiners and the central role they play in maintaining public confidence in the banks they examine has been proven by an unsurpassed record of examiners' integrity and skill. Examiners, like bankers, are not perfect. Even when management and examiners are effective in ensuring skillful modeling of risk and honest management of bank resources, banks unavoidably will occasionally suffer

[10] Charles W. Calomiris and Matthew Jaremski, "Stealing Deposits: Deposit Insurance, Risk-Taking, and the Removal of Discipline in Early 20th-Century Banks," *Journal of Finance*, vol. 74, 2019, pp. 711–754.

[11] Beginning in the mid-1990s, the OCC became a leader in the use of experts from its Economics Department's Risk Analysis Division to analyze the efficacy of the models used by banks.

unanticipated losses that can, in extreme cases, result in systemic crises. Nevertheless, a credible process of examination substantially reduces the prospective size of unanticipated loss and the probability of crisis. And just as surveys of bankers over a century ago revealed that they recognized the value creation produced by examinations, surveys of today's national bank managers demonstrate their continuing appreciation for the value their banks receive from the OCC's examination process.

Figure 2: Ratio of State to National Bank Deposits Across State Groups (1900–1925)



Note: The figure displays the ratio of state bank aggregates to national bank aggregates by state group. The ratios are normalized to one in 1900. The line labeled "OK, TX, KS, NE" represents the set of states that installed deposit insurance before 1914. The line labeled "MS, SD, ND, WA" represents the set of states that installed deposit insurance in 1914 or after. The line labeled "Non-DI States" represents the comparison group of nearby non-deposit insurance states.