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National Banking in Knoxville, Tennessee, 1864-1913

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To the Graduate Council:

I am submitting herewith a dissertation written by James Townsend Campen entitled "National Banking in Knoxville, Tennessee, 1864-1913." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Economics.

Anne Mayhew, Major Professor

We have read this dissertation and recommend its acceptance:

Walter C. Neale, W. E. Cole, Hans S. Jensen, Leslie P. Anderson

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(Original signatures are on file with official student records.)

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NATIONAL BANKING IN KNOXVILLE, TENNESSEE, 1864-1913

A Dissertation

Presented for the

Doctor of Philosophy

Degree

The University of Tennessee, Knoxville

James Townsend Campen

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ABSTRACT

This is a study of the nine national banks which operated in Knoxville, Tennessee, from 1864 to 1913. The purpose of this study was to determine the major factors influencing the behavior of those banks as they responded to changes in the national regulatory environment and local business conditions. The local banks were compared with one another and with other groups of national banks to discover patterns of acquisition and use of funds. Information about assets and liabilities was obtained from reports made by national banks which were published in local newspapers or by the Comptroller of the Currency, from unpublished reports made by the local national banks, and from the correspondence of the local banks with the Comptroller of the Currency. Information about the national regulatory environment and about local business conditions was obtained from the work of other students of the National Banking System, from the Census, and from local histories.

The National Banking System has been the subject of much scholarly interest. There is general agreement about how that system influenced the stability of the economy, but there is less agreement about the effect that system had upon capital flows. In spite of generally accepted ideas about how banks in each of the three classes functioned, there have been few investigations of the operations of individual national banks and relatively little discussion of how local conditions affected the behavior of banks within each category. This study links change in the activities of the local banks with change in the structure

of the local financial market. Other studies of the behavior of the broad divisions of the National Banking System have tended to emphasize the importance of statutory requirements and conceal the significance of local business and financial conditions.

The major finding of this study is that the national banks of Knoxville were not greatly limited by statutory requirements. Instead, the structure of assets and liabilities changed in response to the local business and financial environment. When that environment changed, the local banks' acquisition of liabilities and employment of assets changed also. This study has also found that the laws governing national banks allowed them much more freedom to develop imaginative responses to changing business conditions than has been thought to be the case. Consequently, there was a wide range in the behavior patterns displayed by the local banks.

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CHAPTER I

INTRODUCTION

In 1863 and 1864 Congress created a new, federally supervised system of banking in the United States. The National Banking System lasted until the creation of the Federal Reserve System in 1913, and has been written about at length, with particular emphasis being given to the questions of the extent to which its structure affected capital flows and contributed to instability of the economy. The many studies directed toward these questions have been done using aggregate data for each of the three kinds of banks which existed within the system—central reserve city banks, reserve city banks, and country banks. Rather widely accepted ideas about how banks in each of these three classes functioned have emerged. It is generally agreed that the absence of a lender of last resort made the National Banking System susceptible to periodic crises, but there is less agreement about the extent to which the structure of that system affected capital flows.

In spite of the considerable scholarly interest in the National Banking System, however, there have been few investigations of the operations of individual national banks and relatively little discussion of how local conditions may have affected the performance of banks within each category. For example, Richard Sylla, one of the leading students of the System, has argued that monopolistic country banks restricted local loans, and instead lent to city banks, with the effect that capital mobilization for industry took place at the expense of the

agricultural sector. This may be a correct characterization of country bank behavior on the whole; that it was true of all country banks is more doubtful. The major theme of this dissertation is that the behavior of national banks, operating within the structure of the National Banking System, was significantly affected by conditions of the local economy and changes in that economy. Emphasis on the behavior of the three large categories of banks has tended to obscure this point.

This study links change in bank activity in Knoxville, Tennessee, with change in the structure of the local financial market. The business and financial history of Knoxville from 1864 to 1913 can be divided into three distinct periods, each with a unique combination of business activity, banking structure, and behavior patterns of financial institutions. Starting in 1864, Knoxville's national banks were undistinguished and unexceptional for approximately twenty years. During the next ten or fifteen years, beginning in the mid-1880's, national banking in Knoxville was transformed, not because of changes in the National Banking System, which were few, but because of changes in the local situation. The final period, from about 1900 on, was characterized by behavior patterns that were quite different from what had been common in the first period.

The method used to identify patterns of behavior is that of comparing the local banks to one another and to the three classes of banks with respect to their acquisition of liabilities and proportioning of assets. The research has indicated that, despite appearances to the contrary, national banks were not greatly limited by statutory requirements

prescribing proportions for assets or liabilities. Consequently, the proportions selected by the local banks primarily reflected opinions of and responses to their business environment rather than to their legal status. When that environment changed, their acquisition and employment of funds changed.

A secondary theme of this dissertation is that many provisions of the laws governing national banks did not have the effects they were intended to have. Those studies which focused upon the broad divisions of the National Banking System have not found the differences between intent and effect to be of great importance often because that difference can be observed only by examining the behavior of individual banks. In contrast to other studies of the National Banking System, this one has found that differences in the response by individual banks to particular provisions of the law governing national banks is an important element whose recognition contributes much information about the ways in which the behavior of those particular banks fit, or failed to fit, the generalizations describing the expected behavior of banks in that category.

In addition to the work of other students of the National Banking System, there are three primary sources of information about the local national banks that were employed in the research for this dissertation. Those sources are the periodic Reports of Condition, the Reports of Examination, and the banks' correspondence with the Comptroller of the Currency. Each national bank was required each year to send to the Comptroller a detailed description of its condition on five dates he

selected. (Only four Reports were required from 1864 to 1869, but five thereafter.) Each bank was also required to publish that statement in a local newspaper, and it was from the local newspapers that the Reports of the local banks were collected. The Comptroller published consolidated and condensed versions of these Reports each year in his Annual Report.

The Report of Condition was a listing of the assets and liabilities at the close of business on the dates specified. As a general rule, about twenty items were listed under assets and about fifteen under liabilities. All national banks were required to report on the same days and to use the same format, and consequently, for each year there were five days on which any national bank's proportioning of assets and liabilities could be compared with any other bank's, or with any group's.

Even though Reports of Examination were made much less frequently than Reports of Condition, they provide more detailed information about the banks' activities. Bank examinations were usually made once a year before 1894 and generally twice a year from then on. (In most cases, the local banks were examined within a few days of one another, and therefore direct comparisons between them can be useful.) The usual Report of Examination included a standard statement of condition which was followed by a more detailed discussion of each of the items listed therein. For example, the standard statement of condition listed the value of non-U.S. government securities held by a bank. The Report of Examination would identify those purchased by the bank for investment purposes and those acquired in payment of debts. Those securities paying dividends or interest would be identified and any differences between the

bank's evaluation of their market and book value would be noted. In addition, the examiner would evaluate the officers, directors, and employees of the bank. The status of the bank's reserves would be noted and its loans portfolio examined in detail. The examiner would also discuss the bank's relations with its reserve agents, other banks, and its depositors. The Report of Examination would also include a discussion of any other matters affecting the bank's solvency, profitability, or observance of legal requirements.

Because the Reports of Examination were made with the expectation that material contained there would not be made public, the Comptroller has severely limited the public's access to them. Those with a genuine interest in research may obtain permission to examine those Reports only if the bank in question has given up its national charter. If it has, then the Reports over fifty years of age may be examined. Of the national banks operating in Knoxville from 1864 to 1913, only the East Tennessee National (which has become the Park National) has retained its national charter. Consequently, the Reports of Examination for all the local banks, except one, have been made available for the research for this dissertation.

The correspondence of the local banks with the Comptroller has also been made available for this study. Unfortunately, that correspondence is entirely one-sided. It consists of letters written by the local banks or other concerned parties to the Comptroller. None of the letters from the Comptroller to the local banks remain. (As in the case with the Reports of Examination, the names of the individuals and firms mentioned in the letters to the Comptroller have been omitted.)

Together, the Reports of Condition, Reports of Examination, and correspondence with the Comptroller of the Currency reveal a detailed picture of the behavior of the local national banks. The Annual Reports of the Comptroller of the Currency and the work of other students of the National Banking System provide the background against which the picture of the local banks can be viewed. The analysis presented here makes no attempt to argue that previously developed models of the behavior of national banks are incorrect because they do not satisfactorily account for Knoxville's experience. Instead, these models have been found to be useful generalizations because they provide the perspective necessary for a reasonable judgement of the significance of various aspects of the local banks' behavior. Conversely, the analysis of Knoxville's experience is useful because it shows that the National Banking System was not a monolithic organization, but a complex one, admitting great variety in responses to statutory requirements and business environments.

CHAPTER II

THE NATIONAL BANKING SYSTEM AND ITS EVALUATION

Introduction

The National Banking System was created by the National Currency Acts of 1863 and 1864* and lasted until 1913, when it was replaced by the Federal Reserve System. The Acts were designed to accomplish several aims; some were short-term while others were long-term, and some were basically financial while others were not. The short-term aims were primarily to deal with conditions brought about by the Civil War, whereas long-term aims were more closely tied to past difficulties with the financial system of the United States.

By 1863 the Civil War had produced three related problems affecting wartime finance: a fall in bond prices, a shortage of "good" money, and inflation. The wartime deficits were financed by bond sales and paper money ("legal tenders") rather than by increased taxes. Huge expenditures soon saturated the bond market, bond prices began to fall,

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*The first of these two acts was titled "An act to provide a national currency, secured by a pledge of United States stocks, and to provide for the circulation and redemption thereof," and was enacted on February 25, 1863. This act was repealed and replaced by the Act of June 3, 1864, which was titled "An act to provide a national currency, secured by a pledge of United States bonds, and to provide for the circulation and redemption thereof." The Act of 1864 (often referred to as "The National Bank Act"), made no fundamental changes in the law, but it did correct a number of minor and technical deficiencies in the Act of 1863. The Act of 1864 and subsequent amendments to that Act have been published in a number of sources. Those used in this study appear in the Bibliography.

and bond sales became more and more difficult. Because bonds (and import fees) had to be paid with gold ("specie"), a specie shortage developed. In addition to ever-increasing amounts of legal tenders, the amount of banknotes issued by private and state-chartered banks grew, and gold rose to a premium over all forms of paper money. Wartime demand and increasing amounts of money in circulation caused a growing problem with inflation.

The National Banking System appeared to offer a solution to these and other problems. A large demand for bonds would be created and make possible easier financing of the war. National banknotes ("circulation"), convertible into specie at par, would replace other less desirable forms of paper money—inconvertible legal tenders and other banknotes. Strict provisions would make national banks commercial banks, rather than mortgage banks or investment banks. A commercial banking system, coupled with an elastic supply of banknotes, would, according to the then current belief, prevent further inflation.* Further, a National system of banks and bank regulation would strengthen the Union.

Long-term aims were mostly financial. The commercial nature of the system was expected to provide stability to a previously unstable economy. Federal control and regulation would enforce "sound" banking practices. Note holders and, to a lesser extent, depositors would be

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*This belief has been termed the real-bills doctrine and holds that "the discounting of bona-fide bills carries its 'proper' limitation with it and that in addition it makes the circulating medium expand and contract 'elastically' as production and trade expand and contract" (Schumpeter, 1954, p. 731).

better protected than ever before. Previous financial crises had been characterized by inconvertibility of banknotes, and the new system would virtually guarantee banknote redemption at par. Enforcement of good banking practices would protect depositors, shareholders, and borrowers. Altogether, it was an ambitious undertaking.

The major incentives attracting banks to the System would be the patriotism of the state banks in the North, the prestige of national affiliation, and the right to issue banknotes. For the public, the National Currency Acts established severe security measures which guaranteed banknote redemption and improved the safety of their deposits. In later years, changes in the laws governing national banks generally had the effect of making affiliation more attractive (or less burdensome), rather than directly improving protective measures for the public.

The National Currency Acts created a three-tiered arrangement with three classes of banks being established: what came to be called country banks, reserve city banks, and central reserve city banks. Banks in one class differed from banks in other classes by location, reserve requirements, and capital. Significant differences between national banks and state banks were created.

Reserve city banks were located in some of the larger cities. (There were sixteen in 1863, and the number grew to forty-eight by 1913.) New York was originally the only central reserve city and remained so until Chicago and St. Louis achieved that status in 1887. The "reserve" in "reserve city" and "central reserve city" meant that all national banks located in these cities acted as reserve and redeeming agents for

banks in lower classifications. The deposits that banks in lower classes made with these banks could act as reserves for the depositing banks, provided that the reserve agent bank was designated as an official reserve agent for the depositing bank in question. A redeeming agent collected the circulating banknotes issued by the depositing bank and forwarded them to that bank for redemption in legal tenders or specie.

Each national bank was required to hold reserves against deposits and until 1874, against banknotes issued. (After 1874 a small reserve amounting to 5 percent of banknotes issued was deposited with the U.S. Treasury.) Country banks had to hold 15 percent of their deposits in reserve, whereas the other two classes of national banks had to hold 25 percent. Country banks could hold as much as two-thirds of their 15 percent reserve in the form of deposits with their reserve agents. Reserve city banks had to hold one-half of their 25 percent reserve in cash, and the remainder could be held as deposits with approved reserve agents in a central reserve city. Central reserve city banks had to hold all reserves in cash—in legal tenders and specie. Banknotes were not legal tender and did not count as reserves.

The minimum capital requirement linked bank capitalization to community size and rose as that size increased, but at a slower rate. For places with less than six thousand people, $50 thousand in capital was required. For cities with a population between six thousand and fifty thousand, $100 thousand in capital was required, and for larger cities, a capital of $200 thousand was required. In 1900 the minimum was reduced for places with a population below three thousand to $25 thousand.

The most significant differences between national banks and other banks involved examination and public reports of condition, limits on the size and types of loans permitted, and limits on the issuance of banknotes. National banks were prohibited from making real estate loans; state banks were not. National banks were prohibited from making real estate loans; state banks were not. National banks could not lend an amount exceeding 10 percent of paid-in capital to one borrower. (There was one exception to this limitation: no limit was placed on bills on exchange discounted for goods in transit. The limit on other loans was relaxed in 1906.) State banks and private banks were not so restricted. National banks were required to publish periodic reports of their condition and to undergo periodic examination; state banks generally faced less stringent requirements for reports and examinations, and in some cases no requirements at all.

National banks were required to deposit U.S. government bonds with the Comptroller of the Currency in order to secure circulation. (The minimum bond deposit was reduced for some national banks in 1874 and for the rest in 1882.) Having made a deposit of bonds, a national bank could issue banknotes amounting to 90 percent of the value of the bonds deposited, with the lower of market or par being the figure against which the 90 percent applied. (This limit was relaxed in 1900.) Until 1866 there was no national restriction upon banknotes issued by non-national banks, but after that date such banknotes had a prohibitive 10 percent tax placed upon them, and they rapidly disappeared from circulation. Until 1874 there was an upper limit on the total amount of

banknotes that could be issued by the system as a whole, as well as a requirement governing the geographical distribution of those notes.

The Stability of the National Banking System

The success of the National Banking System has been evaluated by numerous students, participants, and observers. Generally speaking, two lines of approach have been taken. One focused upon the stability of the system as a whole while the other examined the structure, performance, and conduct of the various elements of the system. Over time, opinions have changed regarding both the stability of the system and its operation.

Interest in the stability of the system grew out of the experiences with the five major financial disturbances (and numerous minor ones) which afflicted the economy and the National Banking System from 1863 to 1913. A most thorough analysis of the history of these crises was presented by O. M. W. Sprague in 1910.* A detailed history of the operation of the system from 1863 to 1891, emphasizing bank and currency legislation and the role of the Comptroller of the Currency, was written by John Jay Knox (1903).** Margaret Myers (1931) focused attention upon

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*His History of Crises under the National Banking System, was part of the National Monetary Commission's report on the state of the financial system of the United States. The Commission's report was an important step in the process of replacing that arrangement with the Federal Reserve System. Sprague's book was a lucid and persuasive analysis of the structural weaknesses in the National Banking System.

**His book, A History of Banking in the United States, was first published in 1900, eight years after his death. Knox had served as Comptroller of the Currency from 1872 to 1884. Before that, he had been Deputy Comptroller of the Currency, from 1867 to 1872. His close relation with the National Banking System provided him with a unique vantage point and his book has become a standard source for all students of national banks.

the growth and development of New York City as the major financial center of the United States, and that city's emergence as a center of international finance and trade. Recently, students have focused more attention upon the operation and organization of the National Banking System than upon its stability (Klebaner, 1974; Sylla, 1975; West, 1974; Updike, 1977).

Crises in the United States' financial system occurred when banks outside of New York had built up large balances in banks there. When these funds were recalled to the interior of the country, and especially when it happened rapidly, the New York banks were forced to reduce loans sharply because they had no short-term source of liquidity. Concentration of funds in New York and the absence of a "lender of last resort" made the National Banking System, and indeed the American financial system, unstable.

Each crisis was marked by substantial withdrawal of funds (by interior banks) from the central reserve city banks of New York, by bank failures, and by suspension of cash payments. In New York and other cities, clearing house certificates were issued. The stock market and the foreign exchange market were violently disturbed (Sprague, 1910).

Funds concentrated in New York primarily for two reasons: the reserve structure of the National Banking System and the importance of New York in manufacturing, trade, and finance. Every country bank and reserve city bank was required to select a reserve agent. Most had more than one and most eventually selected at least one in New York. (Every national bank in Knoxville had a reserve agent in New York City and most had two.)

In addition, because it was a center of trade and manufacturing, funds would have moved toward New York from the interior. This had been the pattern prior to the creation of the National Banking System, and there was no reason for it to change afterwards. Myers wrote:

> Bankers' balances were directed toward New York City in ever-increasing volume by the course of trade, which put a premium on New York funds. The necessity for note redemption in the city, and the greater variety and superior quality of New York commercial paper were subsidiary factors in this movement. (1931, p. 124)

Once these funds had concentrated, the stage was set. West wrote:

> The word "reserve" as used in the National Banking Act is really a misnomer. Since banks tended to be "loaned up" and thus always near their minimum reserve ratio, the amounts held in bank vaults or on deposit with other banks were not available to meet sudden demands without violating the law. Banks were induced by the profit motive to approach their minimum reserves but were forbidden by law to go below them. In stringent situations, banks were forced to contract credit to gain liquidity . . . (1974, p. 24)

In his analysis of the issuance of clearing house certificates by the New York clearing house during the panic of 1890, Sprague wrote that there was

> . . . an increasing tendency to regard the 25 percent reserve as a permanent requirement not to be reduced in any circumstances. The acceptance of such a belief was certain to involve trouble in an emergency . . . (1910, p. 151)

Temporary insufficiency of reserves carried no real penalty; more persistent deficiencies carried increasing penalties (Section 31, Act of June 3, 1864).

Emergencies arose because the flow of funds to New York was not constant but highly seasonal. Economic activity outside New York and the Northeast was closely linked to agriculture. In the autumn,

relatively large amounts of both cash and credit were required to finance the harvesting and transport of crops. In addition, demand for a variety of other products was closely tied to the growing season. Merchants made most of their sales to farmers shortly after harvest and in order to meet this demand, merchants had to build up inventories shortly before harvest. ("Shortly before" because that would minimize carrying costs.)

Demand for credit reached a peak in the fall. Outstanding debts would be reduced during the winter. A small increase in demand would accompany spring planting, and then another slack period would follow in the summer. By the late summer and early fall, a steady strengthening in the demand for credit would be underway, starting the cycle over again.

The seasonal nature of the credit cycle could have caused serious problems for the banks outside New York City because old loans would have been repaid and few new loans extended during the slack periods of winter and summer. Long term commitment of funds was, by and large, barred by the prohibition against loans secured by real estate. The New York money market offered an opportunity to banks outside New York because it gave them a place to employ their excess reserves for short periods. Banks could lend directly to individuals (for example, to stockbrokers), or indirectly through the banks of that city, and this made possible the development of the call loan market.

Therefore, the following reasons can be given for the concentration of funds in New York: the reserve structure of the National Banking

System, the importance of New York as a center for manufacturing and trade, and the presence of markets for various financial instruments— the New York Money Market. One other factor has often been cited as playing a decisive role in the movement of funds to New York from the rest of the country: the payment of interest on bankers' balances. Sprague wrote

> The payment of interest upon deposits had two undesirable consequences. Its most obvious result was to cause money to be sent to New York in larger quantities than would otherwise have been the case, though how much more was sent on this account can not be determined. Had no interest been offered by the New York banks, the outside banks would doubtless have lent more largely directly to borrowers in New York when the demand for loans was slight at home, but it is not reasonable to think that money thus invested would have by any means equalled balances deposited in New York in excess of legal reserve requirements. But the chief evil of interest upon bankers' deposits was of a different character. The interest paying banks were unable to maintain large reserves and at the same time realize a profit from the use of the funds thus attracted. Particularly was this the case when the accumulation of such funds was only temporary. The extra supply of money to be lent forced down rates, and as rates fell, more and more had to be lent by the banks in order even to equal the interest which they had contracted to pay. (1910, p. 21)

Both points should be questioned. Sprague's first point seems to be based on the argument that <u>only</u> New York banks paid interest on deposits. This is incorrect because the payment of interest on bankers' balances was not a practice confined to the central reserve city banks of New York. Had New York banks been the only ones to pay interest on bankers' balances, then of course such payments would "cause money to be sent to New York in larger quantities than would otherwise have been the case." But many banks paid interest on bankers' balances. His argument would still be correct if the New

York banks had paid higher rates than did other banks, but the available examiners' reports of the local national banks indicate that interest rates paid to Knoxville banks by their reserve agents in New York were as low as and sometimes lower than interest rates paid by their other reserve agents. Interest payments indicate no advantage (or at times, a marginal disadvantage) to reserve deposits in New York City. Had no interest been paid on any reserve or bankers' balance, it would appear that Knoxville would have transferred about the same amount of deposits to New York.

Second, Sprague's argument about the "chief evil" is also flawed. He seems to imply that the New York banks had little or no control over their acquisition of bankers' balances, and that while rates on loans by New York banks were variable (varying inversely with the volume of loans), rates on bankers' balances were not. This is incorrect. Interest rates on both bankers' balances and loans were variable, and the New York banks did have some control over the volume of bankers' balances acquired and loans made. Rates of interest on bankers' balances, certificates of deposit, rediscounted paper paid by and to local banks show they generally had to pay significantly more for money borrowed from other banks than they received from other banks for money lent. This will be more fully discussed below. Of course, Knoxville's experience may have been atypical, but Myers' analysis seems to confirm the above findings.

The passage cited above from Myers (1931, p. 124) continued:

> The payment of interest on balances had less to do with bringing funds to New York than with determining in which of the banks in New York they were deposited.

The concentration of funds in New York created a system which was potentially unstable because changes in the demand for credit could not be met without serious disturbances to previously existing credit arrangements. When banks in New York regarded their 25 percent reserve as irreducible minimum, increased demands for cash and credit could only be satisfied by a reduction of loans, because there was no other way in which the New York banks could gain liquidity. Large and rapid reductions in loans then brought on the crisis.

Structure and Operation: An Evaluation

The National Currency Acts were an experiment in the regulation of an important industry, and while that experiment cannot be considered an unqualified success, it was sufficiently effective to serve as a model for later regulatory systems. The System's efficiency in mobilizing and directing the employment of money and credit has become one of the problems that students of the system have studied, and much of the recent analysis has approached evaluation of the System from this perspective. Prior to the National Currency Acts, regulation of banking had been mainly the province of the states, and the variety of the states was mirrored by the variety and complexity of the regulations enacted and enforced by each. The National Currency Acts altered this condition by creating, in one sense, a two-tiered system. On one level, the national banks operated under one set of regulations, and on another level, the state banks continued to operate under a bewildering variety of rules.

Initially, the creation of the National Banking System was to accomplish three specific goals: federal control of all banking,

elimination of state banknotes (the substitution of good money for bad), and as a war measure, the creation of a better market for federal bonds. The first two of these were means to be employed in the achievement of more general goals. Federal control of banking was thought to be more desirable than state control (Knox, 1903, p. 97). A more desirable medium of exchange (national banknotes) would replace the old, uncertain medium of banknotes issued by state banks. It was thought necessary to accomplish these and other specific goals in order to serve the larger public interest. Over the fifty years the National Banking System operated, some of these specific goals were accomplished, and some were not. In some respects, the public interest was well served, and in others it was not. The evaluation of the National Banking System from this perspective is a topic in which much interest has recently been shown.

There has been considerable change since 1863-1864 in the theory and practice of banking, and it would be unfair to criticize those who drafted the National Currency Acts for failure to understand banking in today's terms. Their definition of good behavior by those who operate and regulate banks would not be completely agreed to now. Their belief in the "real bills" doctrine was responsible for several provisions in the National Currency Acts. One prohibited banks from making loans secured by real estate. Another was the absence of limits on the volume of discounted bills of exchange. Section 29 of the 1864 Act reads:

> That the total liabilities to any association [National Bank] . . . for money borrowed [by one borrower] shall at no time exceed one-tenth part of the amount of the capital stock [of that bank]: <u>Provided</u>, That the discount of bona

> fide bills of exchange drawn against actually existing values, and the discount of commercial or business paper actually owned by the person or persons, corporation, or firm negotiating the same shall not be considered as money borrowed.

Klebaner has evaluated the role of the real bills doctrine in influencing both regulations and bank operation. He wrote:

> In the venerable British ideal, . . . only short-term, self-liquidating loans were proper for commercial banks to make . . . [because] the means of repayment would be obtained before maturity in the course of producing and marketing the goods. . . . Comptroller Hepburn's claim that "national banks do a purely commercial business" was more accurate as a description of the 1864 acts' conception than of the reality of 1892. (1974, p. 75)

Because the real bills doctrine influenced the content of the 1864 Act, it also affected bank formation and the geographical distribution of national banks. The structure of banking in turn affected the conduct of individual firms, and their conduct determined the performance of the system as a whole.

Whether the National Banking System fostered competition or not has been debated at some length. Some contemporary critics, for example the populists and greenbackers, viewed the system as having encouraged and protected monopolistic behavior by New York City (or Eastern Establishment) banks. More recently, two alternative arguments have been advanced to deal with the operational characteristics of the National Banking System.

Richard Sylla (1975) has argued that the National Currency Acts contained provisions which created barriers to entry that gave national banks more market power in some locations than in others. Differences in market power (differences in conduct depending upon differences in

opportunities allowed and opportunities denied) produced differences in behavior linked to location. Differences in behavior linked to location meant that performance would differ, depending upon location. Helen Updike (1977) has argued that it was not barriers to entry created by federal regulation, but rather risks associated with particular locations, which were the important factor. Both arguments merit consideration.

Sylla has argued that barriers to entry were created that made national bank formation in small communities and rural areas more difficult than national bank formation in the urban areas of the industrial Northeast. While fewer national banks would in any case have been founded in the less densely populated South, West, and rural regions than would have been founded in the more densely populated Northeast, there was, Sylla argues, a greater disparity in banking services between regions caused by the particular barriers to entry embodied in the National Currency Acts.

Prior to the Civil War,

> . . . the banking structure was responding to the geographic distribution of population as well as to population shifts, and presumably, therefore, to the distribution of demand for banking services. The growth of private banking played a key role in this response, though it is likely that the liberalization of state banking laws toward free banking was working in the same direction until interrupted by events during the Civil War. (Sylla, 1975, p. 46)

The distribution of banking services* was radically altered in the decade of the 1860's and in 1870 the inequality far exceeded what it

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*The distribution of banking services was based on a comparison of the relation of deposits to population between regions (Sylla, 1975, p. 44).

had been in 1860. After 1870 the disparity diminished slowly, but even by 1910 the distribution of banking services was somewhat less equal than it had been in 1860 (Sylla, 1975, pp. 25-47, especially pp. 44-47).

Sylla argues that the cause of the greater inequality in banking services can be found in National Currency Act provisions that created barriers to entry in certain locations but not in others. Relatively free entry into national banking in the Northeast tended to make banks there more competitive, while the relatively more restricted entry outside the Northeast tended to give the national banks in those regions market power which was protected from potential competition.

Two barriers to entry tended to restrict national bank formation outside the Northeast, whereas two other barriers to entry tended to give the few banks which were formed in those regions substantial advantages over their local, nonnational bank competition. The two major restrictions limiting entry were minimum capital requirements and the prohibition against real estate loans (Sylla, 1975, pp. 50-56). The two factors restricting competition from nonnational banks were a tax on state banknotes and limits on the total circulation of national banknotes permitted the system as a whole (Sylla, 1975, pp. 56-70).

Minimum capital requirements (see pages 3 and 4) were more burdensome for small communities than for large, and therefore made bank formation more difficult outside the Northeast. The minimum capital was reduced in 1900, and a large number of small national banks were formed.* The prohibition against loans secured by real estate made

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*From the first Report of Condition of 1900 (February 13), to the Last Report of 1904 (November 10), the number of country banks rose

affiliation with the national system less desirable in the South, the West, and rural areas, where the demand for short term commercial finance should have been relatively small and the demand for long term agricultural loans relatively large. Because national banks were prohibited from competing for real estate loans, a potentially attractive market was denied them. These provisions were not nearly so burdensome to banks which might have decided to locate in the urban areas of the Northeast.

Had this been all, the structure of late nineteenth century banking might have been much different from what it was. National banks would have predominated in the urban Northeast, and state chartered and private banks would have predominated elsewhere. The minimum capital requirements and prohibitions against real estate loans would have placed national banks at a decided disadvantage relative to state and private banks in the South, West, and rural areas. However, national banks were given substantial advantages over these potential competitors by limitations on banknote circulation. In 1866 a prohibitive tax on banknotes issued by state banks, coupled with the right of national banks to issue notes, gave considerable market power to national banks at the expense of state banks. Checks were not widely used outside the Northeast. National banknotes were especially advantageous because the severe security measures taken to assure their redemption gave the public a

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from 3,285 to 5,128. (Annual Report of the Comptroller of the Currency, 1900 and 1905.)

confidence in their worth and eventual redemption that had not been possible for state banknotes.

Note issue was an important element in the success of many national banks and served to attract many into the national system. However, an additional aspect of the limitation on banknote issues must be recognized. The National Currency Acts set an upper limit upon the amount of banknotes which could be issued by the banks of the system. That limit was approached at the end of 1866, when the tax on state banknotes went into effect, and new entrants into the national system could not issue as many notes as they might otherwise have been willing to issue. One of the strongest attractions to entry ceased to exist, and those banks which had already obtained a national charter were left in a protected position, insulated from potential competitors, both state and national. In the Northeast and in other large urban areas, banknote issues had little effect on entry and did not serve to protect banks there from new competition.

The likely effect of the ceiling on the total amount of banknotes, together with the 1866 tax on banknotes issued by state banks, was immediately recognized, as is indicated in the following item:

> No More National Banks
>
> We are to have no more National Banks. The full amount of bonds upon which, by the limitation of the Law, currency can be issued, has been received at the office of the Comptroller of the Currency. Three hundred millions of dollars is the sum specified and in order to prevent parties ambitious of starting new banks from procuring disappointment for themselves, it is announced that no further deposit of bonds will be received. . . . (Brownlow's Knoxville Whig, November 28, 1866, p. 2)

Actually, there is a mistatement of the law here. National banks were always required to deposit bonds to secure their banknotes, but they were not required to issue such notes. The requirement for deposit of bonds was independent of banknotes issued; deposit of bonds was mandatory, issuance of banknotes was optional. However, the item quoted above is substantially correct. While the ceiling on banknotes was never actually reached, the total issued approached that ceiling nearly enough to prevent new banks from issuing as much as they might have wished. New banks could expect to issue only a small amount of banknotes, and as a consequence, formation of new national banks and conversion of state chartered banks to national charters slowed greatly. The total number of national banks did not change very much until 1870.

In that year, the ceiling on banknotes was increased by $54 million, and there was an associated increase in the number of national banks. Five years later, the ceiling was repealed entirely, yet the response was quite different from what it had been in 1870. The repeal of the ceiling in 1875 did not spur a large increase in the number of national banks, because the attractiveness of issuing banknotes had diminished substantially.

The issuance of banknotes was a desirable privilege for national banks because it was profitable and also because it provided a means of advertising. Banknotes were profitable because the issuing bank continued to receive interest paid on the government bonds deposited to secure the banknotes, as well as receiving interest from loans made with banknotes. In the early years of the System, government bonds

sold at a substantial discount from par, meaning that they earned a high return, especially considering the capital gain due when the bonds matured. The high return from simply owning bonds, coupled with the interest earned on loans made with banknotes, made banknote issues quite profitable, at least until the mid-1870's.

By 1875 (two years after the commencement of the depression of 1873) banknotes were no longer quite so profitable. Interest rates had fallen sharply, and bonds which had been trading below par now traded above par. While the interest return on bonds fell, and the capital gain turned into a capital loss, the cost of issuing banknotes changed little, if at all (Sylla, 1975, pp. 60-61). Among the costs was a federal tax of 1 percent on banknotes outstanding. This was not regarded as especially onerous when bonds sold much below par, but by 1875 it substantially reduced the profitability of note issues. With the decline in the profitability of banknote issuance, the removal of the ceiling on the total did not stimulate a significant increase in the number of national banks (Sylla, 1975, pp. 60-61).

Substantial numbers of new national banks were not created until 1900, when the minimum capital requirement was reduced to $25 thousand. Therefore, between 1875 and 1900, few new national banks were created to compete with those already operating in 1875. There was, of course, some increase in the total number of banks between 1875 and 1900, but most of the increase in banking activity came because of an increase in the number of state and private banks, rather than national ones (Sylla, 1975, pp. 68-70). From 1875 to 1900, then, national banks were

not subjected to greater competition from other, newly formed national banks. They were faced with more competition from state banks, yet even here, the national banks continued to have some advantages. The profitability of note issues to national banks may have declined, yet it still was a significant advantage for national banks competing with state banks.

There are some additional points, not emphasized by Sylla, which bolster his argument about the presence of barriers to entry created by the National Currency Acts. First, underlying the argument with regard to the South in particular, and to a lesser extent those areas bordering the South, is a recognition that bank formation in those areas was for some time retarded by the destruction of land, labor, and capital attendant on the War itself. This effect was exacerbated by the imposition of aggregate limits on national banknote circulation. As the South and the border areas recovered, demand for banking facilities would have grown. That national banks played a small role in that growth is indicative of the barriers to entry which Sylla has identified. (It may also be indicative of Southern prejudice against anything related to the National government, at least for some of the first years following the War.)

Further, while high minimum capital requirements clearly made national bank formation more difficult, there was another provision of the National Currency Acts which restricted the purchase of capital stock in national banks, and therefore restricted national bank formation. In part, Section 12 of the 1864 Act reads: "That the capital stock of an association formed under this act shall be divided

into shares of one hundred dollars each . . ." That is, the minimum investment per shareholder was set at a relatively high level. The number of farmers in a small community in the Midwest or the South who were both willing and able to purchase shares of $100 was certainly less than the number who might have been willing and able to buy a few (say two or three) shares if the par value of a share had been $10. Finally, the general bias toward commercial banking, as opposed to mortgage banking, embodied in the National Currency Acts made national banks less suitable to less urbanized regions of the country. This favored growth of national banks in the Northeast and retarded growth of national banks outside that region.

In summary, the barriers to entry tended to protect the relatively few national banks that were formed outside the urban areas of the Northeast from the competition they would have faced had more national banks been formed in those regions. At the same time, the restrictions and limitations on the issuance of banknotes gave existing national banks in those regions extensive advantages over banks which were not affiliated with the national system. These structural characteristics (the geographical and locational biases) of the national system permit Sylla to argue that they caused important differences between the conduct of banks in those regions and the urbanized Northeast.

Differences in competitiveness between regions should be reflected by differences in bank operation and success. The advantages given to country banks outside the urban Northeast should be reflected in both lower output and higher prices for their services, as well as higher

profits than city banks. Good information is not available regarding prices charged by country banks. (It was only after 1894 that the examiners' reports contained information on interest rates, and those figures are only approximate.) Sylla used net income as a percentage of earning assets as a proxy for interest rates. Comparisons of these rates of return for the three classes of banks generally support the argument that country banks had an advantage over city banks (Sylla, 1975, pp. 101-107). Further, country banks should have exhibited lower rates of output than city banks. Sylla (1975, pp. 107-111) selected loan-asset ratios as a measure of output, and again found that his argument was supported. He also compared profit rates between bank classes and regions, and again found that country banks had higher returns on shareholder investment (Sylla, 1975, pp. 111-117). Also, the higher returns enjoyed by country banks support his argument that country banks were less competitive than city banks.

Finally, Sylla (1975, pp. 117-129) argued that because bankers' balances often earned interest, country banks were in a doubly desirable position. Not only could they discriminate between their local customers, they could also discriminate between local customers and customers in the urban Northeast, and this discrimination could be done directly (e.g., through loans to stockbrokers) or indirectly (e.g., through loans to banks). Country banks as a general rule tended to keep more cash on hand than was needed to satisfy the reserve requirement. These same banks also tended to hold large balances in excees of required reserves with their reserve agents. These

> excess reserves . . . could have been recalled had the banks chosen to lend the funds at home. That they did not indicates that the banks regarded their balances in the cities at least as profitable, after taking account of the risks involved, as local loans. (Sylla, 1975, p. 121)

There was a gradual reduction over the period in excess reserves held with reserve agents (Myers, 1931, p. 236). Sylla explains this by arguing that state banks staged a resurgence toward the end of the period. In 1900 some of the barriers to entry were sharply relaxed. The increase in the number of state banks and national banks tended to force existing national banks to act in a more competitive manner.

Updike's view of the National Banking System is quite different from Sylla's. Her basic thesis is that entry was relatively free and country banks were fairly competitive. She argues that country banks could enter the national system without undue difficulty, and so there was a highly competitive environment. High failure rates were symptomatic of the high risks associated with this competitive environment, as well as the problems associated with operating a large bank in a small community. Furthermore, she interprets the relatively high profits earned by country banks as being a risk premium.

> It was found that country banks faced sharply higher probabilities of bankruptcy than did city banks. Thus, higher money rates of return to the subset of banks that survived reflected risk premiums. . . . (Updike, p. iv)

That is, the country banks in the national system faced a competitive and risky situation which produced both high failure rates and high profits for the remaining banks.

The difficulty with Updike's argument is that high failure rates and high profits can just as easily be associated with monopoly as with

competition. Not every monopolistic will survive and prosper. A single, large bank in a small town with a one-dimensional economy is particularly susceptible to changes in that economy, regardless of whether that bank has been conducting its affairs in a monopolistic or competitive manner. Consequently, high failure rates are not necessarily indicative of the nature of the competitive environment.

The real difficulty seems to be that, while in theory, competition and monopoly represent polar extremes in the behavior of firms, in practice conservatism and aggressiveness are the actual extremes. It may, in some cases, be more fruitful to distinguish between conservative behavior and aggressive pursuit of business than between monopoly and competition. Certainly, a particular arrangement of inputs and outputs, of prices paid and received, could be understood to be either conservative or monopolistic, either competitive or risky.

For example, while it is probably correct to say that country banks were less competitive than city banks, it is questionable if the practice of keeping high cash reserves and large bankers' balances can be explained only, or primarily, by the monopoly position held by country banks. The monopoly position of country banks may have contributed to this practice, but one must also remember that this behavior was viewed as a sound, conservative policy. The key here is the emphasis one wishes to give to the import of Sylla's phrase, "after taking account of the relative risks involved." That country banks did not extend more local loans and employ more of their resources at home, rather than in New York or other reserve cities, is not necessarily evidence of monopoly power

used to curtail output and raise prices. It can be explained in part by the estimation of high risks and costs for local loans. Monopoly power is not the only condition which would lead to this type of behavior. Low loan-asset ratios could be consistent with either monopoly (as a result of restricting output to raise prices) or competition (as a result of risk avoiding behavior).

In the same vein one must remember that published statements of condition were, to say the least, a novelty for much of the country, and especially for rural banks and banks outside the Northeast. The National Currency Acts required a country bank to keep on hand in cash a minimum of 6 percent of their deposits. An additional 9 percent could be held as bankers' balances. For a public unaccustomed to the details of bank operation, 6 percent may have seemed quite small. In the early years of the National Banking System, the memories of bank failures with unredeemable banknotes must have been quite strong, and banks may have kept an unusually high (by modern standards) ratio of cash reserves to deposits in order to allay fears of insufficiency of reserves. Myers presents evidence that excess reserves diminished slowly over time. This is what one would expect if both banks and the public were learning that a fractional cash reserve was relatively safe.

Summary

The National Currency Acts and the Civil War altered both the structure of banking and the behavior of banks in the United States.

All students of the National Banking System agree that changes in structure and behavior took place; they disagree about the effects. Some would have it that competition was encouraged, but others argue that the reverse was the case. This dissertation will add little to this debate. Instead, the focus here will be upon the structure of banking and the behavior of banks in one small market, rather than on broad aggregates.

CHAPTER III

ECONOMIC ACTIVITY AND THE STRUCTURE OF BANKING IN KNOXVILLE

Knoxville is an interesting community for the student of the National Banking System because it represents both country and city banking and the transition from the one to the other. Knoxville also underwent a transition from being a small Southern town to a relatively large Southern industrial center. Prior to the mid-1880's, banking in Knoxville was much like that described by Sylla for country banks located outside the urban Northeast. Between the mid-1880's and the late 1890's, the banking industry in Knoxville was transformed, and by the later date (for convenience put at 1900) the national banks operated much more like reserve city banks. Roughly, the same periods apply to the economy of Knoxville and Knox County. Before 1880, Knoxville was very much like other small Southern towns, but by 1900 such was no longer the case.

Four banks were in business in Knoxville by 1867, and only one had a national charter. There were still four banks in 1886 but the composition had been changed. Two (or perhaps three) new banks had appeared and two (or perhaps three) old ones had disappeared. Of the four remaining in 1886, two had national charters. Between 1887 and 1900, ten new banks were founded, four of which had obtained national charters. During this same period, one national bank failed, two private banks closed, and two merged. This left ten banks operating in 1899, five of which were national banks. By the end of 1913, there

were still ten banks. One of the older national banks had given up its national charter for a state charter, but two other banks had joined the national system. (One had been a state bank, whereas the other was newly founded.) One state bank had failed.

In summary, three distinct periods for banking in Knoxville can be identified. The total number of banks did not change in the periods 1867-1886 and 1899-1913, but the total number of banks more than doubled in the period between 1887-1899. There was one national bank in 1867, two in 1886, five by 1899, and six in 1913.

It is more difficult to precisely identify the turning points for the economy of Knoxville and Knox County, but the census figures for 1850-1910 indicate that a similar division into periods is warranted. Table III-1 shows population in Knoxville, Knox County, and the United States (in millions) on the census dates for 1850 to 1910. The figures in parentheses show the percentage change from the previous census.

Table III-1

Population of Knoxville, Knox County and the United States
(Percentage Change Shown in Parentheses)

Year	Knoxville	Knox County	United States (in Millions)
1850	2,076	18,807	23
1860	3,704 (78)	22,813 (21)	31 (36)
1870	8,682 (134)	28,990 (27)	40 (27)
1880	9,693 (12)	39,124 (35)	50 (26)
1890	22,535 (132)	59,557 (52)	63 (26)
1900	32,637 (45)	74,302 (25)	76 (21)
1910	36,346 (11)	94,187 (27)	93 (22)

Source: Census of the United States, 1850-1910.

The figures for Knoxville are to some extent misleading indicators of the population served by the local banking community, especially because some of the increase was due to annexation of additional areas by the City. Significant additions to Knoxville affected the censuses of 1860, 1870, 1890, and 1910 (MacArthur, 1976). Knox County's figures give a much better indication of the population served by the local banks, yet even here, it must be recognized that the market for banking services extended beyond the County's borders.

Through 1870, Knox County grew more slowly than did the country as a whole, but from 1870 to 1890, county growth was much more rapid than the national average. After 1890, Knox County grew only slightly more rapidly than did the country as a whole.

More striking than the change in population was the change in the proportion of the population employed in manufacturing. Table III-2 presents the number of persons employed in manufacturing industries per one thousand of population.

There was a large increase for the United States from 42 per thousand in 1860 to 50 in 1870, whereas little change occurred in Knox County during the same periods. The next period, 1870 to 1880 saw little change for the United States but a large increase for Knox County. But the ten years between 1880 and 1890 produced extraordinary changes for both the United States and Knox County. In that period the proportion of the population employed in manufacturing in Knox County almost trebled and increased by 39 percent for the United States. (As will be seen, the characteristics of manufacturing in Knox County also changed.) By 1890, Knox County and the United States were on a par,

Table III-2

Number of Persons Employed in Manufacturing Industries
per One Thousand of Population

Year	Knox County	United States
1860	13	42
1870	15	52
1880	25	54
1890	74	75
1900	83	77

Sources: United States Census:
1860, Volume 3, pp. 567-568, 729;
1870, Volume 3, pp. 392, 733.
1880, Volume 2, pp. 5, 175, 357;
1890, Volume 6, Part 1, pp. 9, 594-595,
Part 2, pp. 280-281;
1900, Volume 7, Part 1, p. 3,
Part 2, pp. 857-858.

and Knox County's proportion grew more than that for the United States in the next decade.

In addition, firm size, as measured by employment per firm, showed the same pattern of change. Table III-3 shows employment per firm in manufacturing companies. Knox County had smaller firms than did the United States from 1860 to 1880. After 1880, the local firms were larger than the U.S. average, and once again the shift came mostly in the decade of the 1880's. In 1860 and 1870, the average Knox County firm employed about one-half as many employees as did the average firm in the United States. The year 1880 saw Knox County firms still below average, but a slight gain had been made. During the next ten years substantial gains occurred, and employment per firm more than doubled.*

Table III-3

Employment per Firm in Manufacturing Companies

Year	Knox County	United States
1860	3	9
1870	5	8
1880	7	11
1890	17	13
1900	18	11

Source: United States Census, 1860-1900. See Sources, Table III-2, page 37.

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*The decline in employment per firm in manufacturing companies from 1890 to 1900 was caused by an inadequate definition of manufacturing companies. That definition was revised for the census of 1910 and later censuses, and therefore census data for 1910 are not comparable with the census data for earlier years and have not been presented here. For the same reason, census data for the value of products produced per manufacturing firm in 1910 have not been presented in Table III-4.

These conclusions are reinforced by a second measure of firm size, the value of products per firm. Table III-4 presents the average of the value of products of manufacturing firms from 1860 to 1900. Knox County firms produced about one-half as much on the average as the United States in 1860. By 1870, both had grown and the difference had narrowed—Knox County firms now produced about two-thirds as much as the average U.S. firm. There was virtually no change in Knox County in the period from 1870 to 1880, while the average for the United States continued to grow. But between 1880 and 1890, the average for Knox County manufacturing firms doubled, to about the U.S. average. The average for both fell slightly by 1900. (The figures are in nominal—not real—terms, and given the price deflation during the 1890's, real output per firm probably rose.)

Table III-4

Value of Products Produced per Manufacturing Firm

Year	Knox County	United States
1860	$ 6,375	$13,429
1870	11,259	16,785
1880	11,978	21,152
1890	25,206	26,370
1900	24,591	25,402

Source: United States Census, 1860-1900. See Sources, Table III-2, page 37.

The censuses of 1870 to 1900 presented data for employment, value of produce, and the number of firms for various political subdivisions

of each state. Unfortunately, the censuses did not always report for the same political subdivisions. The censuses of 1870 and 1880 reported for Knox County, but the next two censuses, 1890 and 1900, reported for Knoxville. Furthermore, the censuses of 1890 and 1900 were not as detailed as the earlier two. Approximately one-half of the manufacturing industries in Knoxville in 1890 and 1900 were aggregated in the catch-all category "other." Table III-5 presents data for some of the more important industries in Knox County in 1870 and 1880 for which comparable figures are available for Knoxville in 1890 and 1900. (Both employment and total product for each industry are given as a percentage for the county or city totals.)

The following industries were clearly more important by 1900 than they were in 1870: textiles and clothing, flour products, manufactured wood products, and bakeries. Metal products, paper products, and leather products either fell in importance or remained about the same. Marble and stone products and lumber appear to have been less important, but other evidence about these industries leads to the opposite conclusion.

There were no marble or stone works listed for Knox County in either 1870 or 1880. By 1890 and 1900, according to the census figures, they contributed a small amount to Knoxville's economy, but here the census is misleading. First, most of these products would have been produced at the quarry. Raw marble blocks would not have been transported to the city to be worked into building stone or monuments. The work would have been done at the quarry. There were very few marble quarries within the corporate limits, but by 1890-1900, marble quarries were

Table III-5

Employment, Total Product, and the Number of Firms in Various Manufacturing Industries in Knox County (1870 and 1880) and Knoxville (1890 and 1900)

Industry	Year	Employment (As a Percentage of the Total)	Total Product (As a Percentage of the Total)	Number of Firms
Textiles and Clothing	1870	2.8	3.8	4
	1880	---	---	--
	1890	5.9	4.5	23
	1900	12.3	9.0	33
Metal Products	1870	41.5	32.0	8
	1880	37.0	29.7	9
	1890	13.0	13.0	25
	1900	5.2	14.7	20
Flour	1870	0.5	4.1	1
	1880	5.0	27.3	32
	1890	---	---	--
	1900	1.7	16.5	3
Lumber	1870	11.2	6.2	4
	1880	5.4	3.5	16
	1890	3.0	3.9	5
	1900	0.9	1.5	3
Wood Products	1870	2.8	1.2	1
	1880	12.2	14.9	8
	1890	5.1	3.4	13
	1900	6.6	5.2	12
Paper Products	1870	3.4	3.3	1
	1880	4.2	2.4	3
	1890	6.2	4.7	12
	1900	3.6	3.2	10
Marble and Stone	1870	---	---	--
	1880	---	---	--
	1890	2.1	1.4	6
	1900	0.7	0.7	5
Leather and Leather Products	1870	11.0	12.9	5
	1880	12.7	8.9	10
	1890	5.6	8.0	18
	1900	1.9	1.8	22

Table III-5 (Cont'd)

Industry	Year	Employment (As a Percentage of the Total	Total Product (As a Percentage of the Total)	Number of Firms
Baking and Confec- tionary	1870	---	---	--
	1880	2.1	3.4	2
	1890	3.3	4.8	9
	1900	2.8	3.5	8

Source: Census of the United States, 1870-1900. See Sources, Table III-2, page 37.

ubiquitous in Knox County and surrounding areas. Second, reports by bank examiners indicate that starting in the eighties, the local national banks increased both the volume and number of loans to local marble companies. Not only were the marble companies borrowing more, there were more of them. Similarly, lumber companies were mentioned more frequently in the examiners' reports after 1880, yet most of the ones doing business with local banks were located outside Knox County. That is, lumber became increasingly important to East Tennessee, and through the links between the lumber companies and the local banks, to Knox County, even though that linkage did not show up in the census. Much the same can be said for coal mining, but because there were no coal mines in Knox County or Knoxville, coal mining's contribution to the growth of Knoxville is hidden. Also, the examiners' reports show that many of the principals of the local banks were deeply interested in coal mines, marble quarries, and timber companies. The evidence is, then, that marble, timber, and coal were more important to the economy of Knoxville and Knox County in 1900 than they had been in 1870.

The topography of the region and the relatively high rainfall affected both manufacturing and agriculture. East Tennessee is bordered on the east and west by mountain ranges running northeast to southwest. Between the mountains are numerous small valleys which duplicate the broad pattern in miniature. Steep, but not overly tall ridges run northeast and southwest. Descending from the top of the ridge line, one encounters rolling hills, which diminish in height and steepness, until a narrow strip of rich, and flat, bottomland lying along a small

stream or river is reached. The bottomland was cleared and planted in corn and wheat. The rolling hills were cleared up to the bottom of the ridge, but because they were too steep for row crops, they were turned into pasture for cattle and horses. The ridge itself was left uncut for it was too steep for pasture land, and because it was covered by a dense hardwood forest containing many oaks and chestnuts, it provided forage for hogs.

East Tennessee agriculture had developed along lines that were different from much of the South. Few large plantations existed, and cotton and other staple crops were not as extensively cultivated here as in the rest of the South. Most farms were relatively small and worked by the owner, rather than by slaves (prior to the War), or tenants or sharecroppers (after the War). The topography of the land, native flora, rainfall, and patterns of ownership directed agriculture toward corn, wheat, cattle and hogs. The topography of the land and the relatively high rainfall made extensive employment of water powered mills possible, hence the growth and development of textile and flour mills and, although the census does not show it, a modest meatpacking industry (East Tennessee National Bank, July 27, 1881.)*

Throughout the period, Knoxville had a good and improving transportation system. The centerpiece was the rail line which connected Knoxville to the northeast with Virginia and the eastern seaboard, and

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*Throughout, citations and references from the correspondence of the local banks with the Comptroller will be identified by the particular bank's name and the date on which the letter was written. Citations and references from <u>Reports of Examination</u> will be so identified.

to the south with Chattanooga. From Chattanooga, lines ran south to Atlanta and north to Nashville. (Longstreet attacked Knoxville in November of 1863 with the intent of recapturing this important railway. Had he done so, direct rail service between Richmond and Atlanta would have been restored through an area that was recognized as an important and rich source of the necessities of war.) A direct link between Knoxville and Asheville, N. C., was completed in 1881. Two years later, a direct line to Louisville was opened. A direct link between Knoxville and Cincinnati was opened in 1888 (Patton, 1976, pp. 194-199.)

Thus, by 1883, Knoxville had good rail connections with the Northeast, East, South, and Midwest, and numerous small feeder lines connecting various points in East Tennessee. Further improvements were made throughout the period. The links to the Midwest and eastern seaboard were completed in the early years of the decade in which the greatest growth occurred, and probably explain much of the very rapid increase in economic activity. Because much of Knoxville and Knox County's industrial development depended upon shipment of heavy, bulky materials—coal, marble, timber, etc.—a good transportation system was crucial.

Numerous turnpikes were built shortly after the War and did much to improve local movement of persons and goods (Patton, 1976, pp. 186-188). Finally, the Tennessee River was a useful means of transport during most of the year.

With the end of the War and the completion of the rail network in the early 1880's, Knoxville's retail and especially its wholesale trade

boomed. "In its heyday . . . Knoxville was the fourth or possibly the third largest jobbing center below the Ohio River . . ." (Briscoe, 1976, p. 411). Briscoe does not identify the period for which this was true (if it was), but it probably was close to the truth from 1890 to 1910.

Prior to about 1880, Knoxville/Knox County's manufacturing industries were about what one could expect to find in almost every other Southern city (or town) of its size: blacksmiths, saddle and harness makers, small handicrafts (coppersmiths, tinsmiths, etc.), carriage and wagon makers, coopers, newspapers, repair shops of various kinds, and other small firms. The one apparent exception to this was the large iron-foundry industry associated with the railroads. As the railroads consolidated, local production and repair of equipment for railroads diminished. On the other hand, manufacturing of iron and steel products employed in coal mining, marble quarrying, and textile mills grew (Briscoe, 1976, pp. 412-413). By 1900, iron foundries were still quite important to Knoxville and Knox County, yet their relative position had fallen due to the rapid growth of other industries. At the turn of the century, Knoxville was the center of an economically active region making extensive use of the available natural resources. Primarily, these resources were coal, marble (and some other, less intensively mined minerals and ores), timber, and water.

A History of Banking in Knoxville

The First National Bank of Knoxville received its charter, number 391, on April 19, 1864.* It was one of the first national banks founded in a Southern state, and the date of its formation bears some discussion. In November of 1863, General Longstreet had beseiged the Union General Burnside in Knoxville, but the Confederate campaign failed. The Union kept its hold on Knoxville and the Tennessee and Virginia Railroad. The threat of a renewed Confederate campaign in the spring of 1864 lay over East Tennessee and increased the determination, even in the face of considerable risk, of the Unionist element in this region to found a National bank in a state which had left the Union.

East Tennessee was more sharply divided over the War than any other region in the South. By 1864 it was clear to all those living here that the enmity stirred by the War would last for a long time, whichever side won. And, while the Union cause in early 1864 was in better shape than it had been, its success was not assured. A number of serious obstacles to the success of any bank in Knoxville loomed dangerously on the near horizon. At that time, Knoxville had not suffered extensive physical damage from the War, but because of its railroad, it was an inviting target. Because Knoxville's sympathies were divided, both sides had refrained from ravaging it, but had Knoxville been caught in the midst of a really large battle, it could have been destroyed.

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*The First National gave up its charter and closed in 1872. Immediately upon its liquidation a new bank, The East Tennessee National, was opened.

Further, the divided sympathies meant that almost any bank founded then would have to "write off" a large portion of its potential customers. A National bank could not expect to do much business with Southern supporters. A bank founded by Southern supporters could not expect to attract Unionists as depositors or borrowers. In fact, the situation had been made even worse by the breakup of the Unionist party into those who supported Lincoln and emancipation and those who supported the McClellan Democrats who were opposed to emancipation.

And above all, no one knew which side would win or what form or degree of retribution would follow the end of the War regardless of who won. No one could know when the War would end, nor could anyone foresee how much subsequent violence would occur. A civil war always carries with it the potential for protracted guerrilla warfare and no one in Knoxville could have ignored that threat. All in all, those individuals who formed banks in this period were taking a considerable risk.

Nine individuals bought stock in the First National Bank. Of the nine, seven were from Knoxville. The two nonresidents moved to Knoxville from Cincinnati and were the dominant shareholders. The president of the bank was William Perkins, owner of 830 shares (83 percent), or $83,000.00 of the $100,000 in capital stock. W. R. Patterson, the cashier, had invested $10,000. The remaining $7,000 in stock had been subscribed equally by W. G. Brownlow, S. P. Carter, G. M. Hazen, P. Dickenson, S. R. Rodgers, O. P. Temple, and W. Heiskell (Organization Certificate of the First National Bank of Knoxville,

Tennessee, filed with the Comptroller of the Currency, April 6, 1864.) To a man, the local shareholders were stout Unionists (Temple, 1912, 1899). Perkins and Patterson left within two years and local residents took control.

The circumstances of Patterson's leaving are not particularly significant, but the explanation of his departure given by Brownlow reveals much about the East Tennessee Unionists and their determination to support the Unionist cause, by then identified with the Radical Republicans, as well as their strong defense against real or imagined attacks on <u>their</u> region. Brownlow wrote:

> Bankrupt Seeking Notoriety
>
> W. R. Patterson, late Cashier of the National Bank of this place, said recently to E. T. Carson, a citizen of Cincinnati, that he "had left Knoxville because a Northern man could not live in the South." This we learn from the most reliable source. It will be news to the people of Knoxville and East Tennessee, and is a reflection upon our people wholly false and discreditable. Such a statement might be made justly in regard to the rebel Cotton States, but it is not true of East Tennessee. The utterance of such a slander upon the people of East Tennessee compels us to give the reasons why he left Knoxville. By the President and Directors he was required to resign his position as Cashier of the National Bank, because his management of the Bank was not acceptable. He discounted paper for the benefit of a mercantile house <u>in which he had an interest</u>, after a style which did not suit the purpose of the Board of Directors. To favor him as much as possible, and save his feelings, he was allowed to resign. He ought, therefore, to assign no such reason for leaving Knoxville. Up to the hour of his departure from this place, he was ardent in support of the so-called policy of the President, and unsparing in denunciation of radicals.
>
> This was his course in Knoxville. Because we said through this paper that in the sections of the South where the <u>majority</u> of the people had rebelled there was a feeling of hostility toward Northern men, Mr. Patterson was of that class who denounced us as "a libeller of the integrity and loyalty of the South." Now he goes further and puts East Tennessee in the same boat with South Carolina.

> Old Thad Stevens ought to have Patterson summoned as a witness before the Reconstruction Committee. We have heard of no testimony that East Tennessee is so disloyal that a Northern man can't live here, until W. R. Patterson gave it.
>
> The truth is, Patterson "played out" here more effectually than any man we know in the place. He is of the class of Northern men who are nothing for any platform of principles, and in politics take the course *which they think will pay best*. In Maine or Massachusetts they are bitter in denunciation of rebels. In a few days in Knoxville, to curry favor with a *pinch-back*, broken down slave aristocracy, they denounce the majority in Congress as traitors, and all who defend them.
>
> Finally, it is this lying class of Northern men who create all the prejudice which exists against Northern men in this section. They are the worst representatives of the meanest class of men at the North. For their bread and meat they change their principles, and creep after the disloyal, who use them for their dirty work.
>
> A large majority of the Northern men who have settled in East Tennessee, are of an entirely different class, and are as good citizens and honorable men as Tennessee or any other State can boast. (*Brownlow's Knoxville Whig*, April 11, 1866, p. 2. Spelling, syntax, and italics his.)

Political organization was a prominent part of bank formation in the last years of the War and for a short while afterwards. The founders of the First National were Whigs before the War. Two other banks were founded shortly before the First National by men with different political ties. The oldest was what eventually became known as the Peoples Bank. It was owned by C. M. McGhee, J. R. Mitchell, John R. Branner, and T. R. Calloway. These individuals were old-line Democrats and supported the Confederacy, although their commitment was moderated by strong attachment to their community. C. M. McGhee was a Colonel in the Confederate Army, and yet he appealed in late 1861 or early 1862 for the release from prison of a James S. Bradford, who had been arrested because of his strong support of the Union cause (Temple, 1899, pp. 415-416). Friendship and a desire to protect the community seem to have

motivated McGhee's action. More striking was the behavior of John R. Branner, President of the East Tennessee and Virginia Railroad. In early June of 1861, a conference of Southern sympathizers was held in Knoxville at which it was decided to arrest Andrew Johnson and possibly T. A. R. Nelson, who were speaking at Rodgersville. Temple wrote:

> At this conference there was present a man who had been a personal and political friend of Johnson from boyhood. Though a warm friend of Southern independence, he disapproved of his [Johnson's] arrest. He therefore informed John R. Branner, president of the railroad which [was to have been used] in order to reach Rodgersville, of the . . . purpose [of arresting Johnson]. Branner was also a friend of the South, but he feared the Union men would be indignant with him for furnishing an extra train to be used in arresting one of their favorite leaders, and in revenge would destroy railroad property . . . [Branner] sent every engine he had out on the road. . . . [Upon the request for a train] Mr. Branner was bland, polite, wished to accommodate [the Southerners] and help the Southern cause by every means within his power, but he was very sorry that every engine he had in the world was out on duty, and none of them would be in before that evening. (1912, pp. 402-403)

Certainly, Branner wanted to protect his investment. But that was not his only motive. His action must also be understood as an attempt by an <u>East Tennessean</u> to protect his community from the disintegration which was likely to accompany a civil war. Union men, in their turn, took similar actions for similar reasons. They were remembered by both sides in time, and reconciliation eventually came. But until some time had passed, it was impossible for business relationships to ignore political ones.

By and large, the owners of the Peoples Bank were Democrats before and after the War, yet it is clear that they had gotten on relatively well with their political opponents prior to the War as well as

afterwards. (The sharpest differences in politics grew from the split in the Republican party in 1864.) The Peoples Bank was variously called the Knoxville Depository and the J. R. Mitchell Co. It closed in 1892.

The most bitter disputes arose between the two branches of Unionists: those who supported the Republican party throughout the War and Reconstruction (the Radical Republicans) and those who broke with the Republican party as a result of Emancipation (the McClellan Democrats). In East Tennessee, the McClellan Democrats were a mixture of old-line Democrats who opposed secession and Whigs who opposed emancipation. Temple (1912) wrote:

> [John M. Fleming] remained true to the Union and the administration of Mr. Lincoln until the spring of 1864, when he joined Nelson, Baxter, and other Union leaders in support of General McClellan. . . . He opposed the administration of William G. Brownlow as Governor, and also the Reconstruction measures of the Republican Party. He finally became a full-fledged Democrat, remaining so to the end of his life. (p. 120)

> After [John] Baxter came to Tennessee he took no active part in political affairs until the threatening aspect of the secession movement aroused him in November 1860. He was a Whig, a Southern man, and a slave-holder. . . . He believed at that time the Union could be preserved by wise, conservative councils, and by the united action of all good men in the South. Accordingly, . . . help proposed and advocated a Conference . . . for the purpose of devising some plan. . . . But as his proposition was advocated by the known friends of secession, the Union men voted it down. (p. 68)

When the governor proposed a state convention to vote on secession, Baxter took to the stump to argue against such a convention. In that campaign, "I doubt if any man in the State, not even Andrew Johnson, was so bitter in denunciation of secession and its leaders"

(Temple, 1912, p. 69). Yet in 1864, Baxter supported McClellan and the Democrats. He continued his support of that party for a few years after the War as well. "Some time between 1872 and 1875, Mr. Baxter ceased his wanderings, and came back to his old party, where he remained with more or less steadiness until his death" (Temple, 1912, p. 73). Andrew Johnson is the most notable Tennessee Democrat who supported the Union through the War, but nevertheless, he eventually broke with the Republican party over Reconstruction.

A Republican-turned-Democrat founded the third bank, which was called the Exchange and Deposit Bank. He was John Baxter, a lawyer and judge. He may have been assisted in this business by John Fleming, although no direct evicence linking the two in partnership has been found. This bank went under during the crisis of 1873. The East Tennessee National Bank of Knoxville, wrote to the Comptroller of the Currency, October 14, 1873:

> From Bristol on the Virginia and Tennessee line to Cleveland, Tennessee, a distance of two hundred and ten miles the entire banking capital as reported by the five banks (four private and one national) is $161,050.00. Three of these banks have suspended in the past two weeks with an aggregate capital of $41,050.00 leaving but 120,000$ capital in the two banks still open. (The bank's punctuation is followed.)

That is, the East Tennessee National Bank and one private bank remained open. That private bank was probably the Peoples Bank, for it survived that crisis and remained open until 1892.

Further, because the East Tennessee National Bank had a capital of $100 thousand, the capital of the Peoples Bank can be placed at $20 thousand. This would mean that the Exchange and Deposit Bank probably

had a capital in the neighborhood of $10 thousand to $20 thousand. One of the other suspended banks was probably the Knoxville Bank. It probably had a capital that was below that of the Exchange and Deposit Bank because it was owned by only one individual. See the following discussion of that bank.) All told, the Peoples Bank and the Exchange and Deposit Bank (with the possible inclusion of the Knoxville Bank) probably had a total capital on the order of $30 thousand to $50 thousand. This was not far from the amount necessary to form another national bank, and that they chose not to do so was probably because they had no desire to affiliate themselves with the National system. Later in the period, the hard feelings created by the War diminished and had little to do with business relationships (Temple, 1912, pp. 72-73). However, in the last year of the War and the first years of Reconstruction, loyalty and political affiliation were important determinants of business association.

The Knoxville Bank, mentioned above, was founded by J. S. Van Gilder, a local bootmaker and insurance salesman whose politics are not known. He eventually obtained a state charter and opened the Merchants Bank in 1881 (White, 1976, pp. 367,373).

The Merchants Bank closed in 1915. Judging from the letter quoted above from R. C. Jackson to the Comptroller, it is likely that Van Gilder's bank suspended in 1873. It may have remained closed for awhile, but he probably reopened it some time before 1881. None of the ads for this bank which appeared in the local newspapers listed any other owners besides Van Gilder. This means that it probably had a

relatively small capital. None of the correspondence by the local national banks with the Comptroller, nor any of the examiners' reports mention any dealings with the Knoxville Bank. Every indication is that this was a very small operation until Van Gilder obtained a state charter for the Merchants Bank.

The First National Bank closed in October of 1872 and was immediately succeeded by the East Tennessee National. By and large, the shareholders and officers of the East Tennessee had been shareholders and officers of the First National. The East Tennessee is the oldest bank in Knoxville. It was reorganized in the 1930's as the Park National. (A further discussion of the closing of the First National and the opening of the East Tennessee National will be found in Chapter IV.)

The next bank to obtain a national charter in Knoxville was the Mechanics National in early 1882. This bank was formed on March 22, 1875, by Thomas O'Conner (Moulder, 1977). O'Conner was a Democrat and had served in the Confederate Army.

The Mechanics Bank operated with a state charter until 1882 when it was converted to a national bank. In October of that year, President O'Conner fought a duel outside the bank with two of his political opponents. All three were killed but the bank continued in business. What is interesting is that both he and his two opponents had been ardent supporters of the Confederacy, and that by 1882, the old political divisions (Radical Republicans opposing McClellan Democrats) were much less important and had lost most of their significance with respect to

business affairs. When old comrades-in-arms cease to support one another, and turn to dueling, then conditions have clearly changed. The Mechanics National gave up its national charter in 1907 and became the Mechanics Bank and Trust Company. It was absorbed by another bank in 1922.

By 1886, four local banks were in business: the East Tennessee National, the Mechanics National, the Merchants Bank, and the Peoples Bank. Throughout most of the period from 1867 to 1886, four banks were in business. The number may (depending on what happened to the Knoxville Bank) have fallen to two from late 1873 to early 1875. After 1875 there were always three and possibly four, again depending on what Van Gilder did in banking between 1873 and 1881. It is likely that his bank did not stay "suspended" for long. If his bank had failed (and there is no evidence that it did) it is unlikely that he would have opened a new bank in 1881. What is more likely is that he continued to operate his bank in a small way until he decided to get a state charter. Therefore, Knoxville can be said to have had four banks (with minor exceptions) from 1867 to 1886.

In 1887, the Third National Bank of Knoxville was formed. The following year the City National obtained its charter and the Knoxville Banking Company opened. The State National opened the next year (but failed in 1893). In 1890, two new banks were created: the Holston Banking and Trust Company and Knox County Bank and Trust Company. The Holston Banking and Trust Company obtained a national charter in 1891, which was also the year in which the Farmers and Traders Bank, Safe

Deposit and Trust Company was formed. This bank merged with the Associated Banking and Trust Company (1892) in 1895 to form the Union Bank. The Union Bank operated with a state charter until 1913 when it converted to national status. Two other small state banks were formed before 1900: the Market Bank (1893-1895) and the Marble City Bank (1898-1904) (White, 1976, pp. 367-369).

By 1900 there were ten banks in Knoxville: five national, and five state chartered. The National Banks were the East Tennessee, the Mechanics, the Third, the City, and the Holston. The state banks were the Merchants, the Knoxville Banking Company, the Knox County Bank and Trust Company, the Union, and the Marble City. Between 1900 and 1913, one bank failed (the Marble City, 1904), one bank gave up its national charter for a state charter (the Mechanics, 1907), one state bank converted to a national bank (the Union, 1913), and one bank was founded (the American National, 1913), leaving Knoxville still with ten banks in 1913. Six had national charters and four had state charters.

While politics remained important to the individuals associated with Knoxville banks after Reconstruction, political affiliation did not determine bank creation or operation. For example, John Baxter of the Exchange and Deposit Bank recommended to the Comptroller of the Currency that the East Tennessee National be given a charter (June 29, 1872). In the late eighties, C. M. McGhee, one of the original owners of the Peoples Bank, became a shareholder in and director of the East Tennessee National. In the mid-60's neither of these individuals would

have considered joining in a national bank, nor would Thomas O'Conner have done so. By 1880 certainly, national banking was no longer confined to those who had strongly and consistently supported the Union in the War.

The great increase in banking activity occurred in the late eighties and early nineties. At least one new bank was formed in each year from 1887 to 1893. The great increase in the number of banks and economic activity in the late 1880's and early 1890's caused a similar alteration in the manner in which the banks operated. Banks which could (and did) operate as small, conservative country banks were forced, more and more strongly after the mid-80's, to become larger, more aggressive city banks. Most of the change in behavior followed the increase in the numbers of banks. That is, much of the change in the way in which these banks did business occurred between 1890 and 1900, yet even by the late 80's the signs were there. After 1900, little change occurred either in the structure of banking or in the operation of the banks themselves.

CHAPTER IV

NATIONAL BANKING IN KNOXVILLE, 1864-1886

Introduction

The national banks of Knoxville were, for about twenty years, conventional country banks, operating in ways that were significantly different from the ways in which city banks operated. This condition was the result of their particular environment rather than their status as country banks. When the local environment changed (the change began in earnest in the mid-1880's), the behavior of the local national banks changed also. It is not possible to know with certainty why the local banks acted as they did, because the minutes of the meetings of the boards of directors no longer exist. However, records of the results of their decisions do exist in the form of reports of condition and examination, and these reveal the actual, although not necessarily the intended, arrangement of assets and liabilities.

It is the actual arrangement of assets and liabilities, which will provide clues to the operation of these banks. They, like all other banks, had some control over the acquisition of their funds and the manner in which those funds were employed, but of course, that control was not absolute. There were statutory requirements affecting reserves, banknote issues, bond purchases, and capital, to mention a few of the more important limitations. A minimum reserve was specified. Both a minimum and a maximum applied to banknotes issued. There was a minimum

bond deposit and a minimum capital requirement, but no maximums. There were no limits on the proportion of liabilities which could be acquired from private depositors or bankers' balances.

What is important here is that these statutory requirements were few and that national banks of whatever class had a wide range of options within which they could choose. The local national banks chose to act much like other country banks for about twenty years, but then their behavior changed, reflecting changes in the local environment, not changes in their legal status. Because they could choose between and among various proportions for their assets and liabilities, the actual choices they made will reveal much about their environment and their strategies and tactics for dealing with that environment.

In examining the records of the classes of banks and of the various regions of the country, Sylla was interested in demonstrating that certain banks could choose to operate in a monopolistic way. If they did, he argued that choice should be apparent. Sylla wrote:

> The theory of monopoly . . . predicts that a bank monopolist will charge higher average interest rates, produce less local loan output, and earn higher profits than a competitively-situated producer operating under the same cost conditions. (1975, p. 101)

For each of these three predictions he devised an empirical test. Loan-asset ratios tested relative output, the ratio of earnings to earning assets tested relative prices, and the ratio of net earnings to shareholder investment tested relative profitability. We are in a position to use more tests. Additional tests will examine relative costs of production as well as relative prices, and output.

The costs of obtaining and managing funds cannot be assumed to be the same for the different classes of banks. If Sylla's argument that country banks were monopolistic is correct, then those banks were in the enviable position of being both monopolists and monopsonists. If this seems a rash statement, let the reader remember that nonbank financial intermediaries (saving and loan associations, credit unions, savings banks, and the like) were relatively rare and unimportant prior to the twentieth century, especially in small communities outside the urban Northeast. A large national bank in a small community might face some competition from state chartered institutions or private banks, but because it was much larger, and because it would have relatively extensive connections with the national financial marketplace, it would have substantial advantages over its smaller state chartered competitors in attracting depositors as well as borrowers. And, if it had advantages, it probably exploited them. Therefore, the sources, as well as uses, of funds must be investigated. It may then be possible to distinguish between monopolistic and competitive responses to the local environment, although it is probable that the local financial market can best be explained in terms of the conservatism or the aggressiveness of the participants.

Definitions

Funds were obtained from shareholder investment, deposits, banknotes issued, and borrowings. They were primarily employed in loans, in purchases of securities, and held as reserves. Each of these broad categories can be further divided and some occasionally overlap.

Deposit liabilities were of three types: private deposits, bank deposits, and deposits of the United States government. The reports of condition published in the local newspapers usually divided private deposits into individual deposits (which were equivalent to demand deposits), demand certificates of deposit (which were interest bearing deposits left for a specific period of time, payable on demand, but which would be assessed a penalty if redeemed prior to maturity), time deposits (which were interest bearing deposits made for a specific period of time but which were not payable on demand), cashiers' checks, and certified checks. The Annual Reports of the Comptroller of the Currency did not distinguish between the various forms of private deposits until after 1910, but the reports of condition published in the local newspapers began to do so after 1870-71. The last three of the separate categories of private deposits listed above were generally an insignificant portion of all private deposits.

Bank deposits were divided into deposits due to national banks and deposits due to other banks. (It was not until 1900 that the reports distinguished between deposits due to reserve agents, other national banks, other banks, and trust companies.) Banknotes issued were divided into national banknotes and state banknotes, although the latter were always insignificant. Shareholder investment was the total of the capital paid in, the surplus account, and undivided profits. Borrowed funds were notes and bills rediscounted, bills payable, and bonds borrowed. Other items also occasionally appeared in the list of liabilities, but their importance was usually quite small.

A simple division of assets into categories is much more difficult. The major difficulties arise in trying to define reserves and earning assets. Legal reserves were legal tenders, specie, and deposits with reserve agents, and after 1874, the redemption fund which was deposited with the U.S. Treasury and which amounted to 5 percent of national banknotes issued. There were, however, other items which could generally satisfy the operational, if not legal, needs for reserves. These were other bank deposits (especially those in other national banks), national banknotes (because the public had no objection to accepting them in lieu of legal tenders), coins ("fractional currency"), cash items (checks and other items in the process of collection and redemption), and balances with clearing houses. In a sense, this expanded list of reserves indicates the banks' preference for liquid assets, and therefore in some cases will be a more useful indicator of bank behavior than legal reserves would be. Legal reserves did not include many assets that were just as liquid and just as good at satisfying customer demands as legal reserves were and, therefore the amount of legal reserves did not reflect a bank's preference for liquid as opposed to nonliquid assets.

Primary reserves will be defined to be those assets which a bank could immediately employ to satisfy depositor demands for payment, or which the bank could reasonably expect to convert in a short time into an acceptable form to satisfy depositor demands for payment. That is, primary reserves are defined to be composed of three types of asset: bank deposits, cash, and items in the process of being converted into

one or both of the above categories. Bank deposits include deposits with reserve agents, deposits with other national banks, deposits with nonnational banks, and certificates of deposit issued by a clearing house. Cash includes legal tenders, specie, national banknotes, and fractional currency. The final category includes balances with clearing houses and cash items.

Only one item of legal reserves, the 5 percent redemption fund, has been excluded from the definition of primary reserves. The redemption fund was excluded because it was not a liquid asset; a bank had no control over when or by how much it might be reduced. That depended upon the presentation of banknotes to the U.S. Treasury, and a bank never knew when that would occur. Further, a bank could not draw down its redemption fund account during a brief period of monetary stringency, and consequently its size at any time did not reflect a bank's preference for liquidity. The redemption fund depended entirely upon the amount of circulation outstanding, and because circulation outstanding did not represent choices made between liquid and illiquid assets, except in the most general sense, the redemption fund has been excluded from primary reserves.

Secondary reserves are defined to be those assets which a bank could reasonably expect to convert into liquid assets given a moderate amount of time. They include U.S. government bonds, premiums on those bonds, and other securities owned by a bank. By far and away, the most important item in this category was U.S. government bonds.

Earning assets are defined to include loans and discounts, U.S. government bonds, other securites, and bank deposits. U.S. bonds were

purchased to secure banknotes issued, to secure U.S. government deposits, and for investment purposes. Some, but not all, bank deposits paid interest. Some, but not all, of the items in the category "other stocks, bonds, and securities" were income producers, and so were some of the items listed under "real estate owned." These last items—bank deposits, other securities, and real estate—can be included, in whole or in part, in earning assets, but only by making an arbitrary selection. The reports of bank examination indicate that bank deposits and other securities generally paid interest or dividends, while real estate did not. Therefore, bank deposits and other securities are included in earning assets and real estate is not.

Acquisition of Liabilities, 1864-1886

National banking in Knoxville during the early period had a distinctly conservative (and possibly monopolistic) cast which can be demonstrated by examination of the proportioning of assets and liabilities. The analysis of liabilities will show that the local national banks did not aggressively pursue funds, and that once funds were obtained, the banks allocated them in a conservative manner.

The relative importance of two categories of liabilities—private deposits and borrowed funds—can indicate much about a bank's environment. If a bank can rely upon its private depositors to supply an increasing proportion of its liabilities without having to pay those depositors interest, it is clearly in a strong position. Conversely, if the bank had to pay interest upon a large proportion of its private

deposits, or if it had to rely upon bank deposits (for which interest often had to be paid), and upon other borrowed funds (for which interest always had to be paid) in order to increase its liabilities, then aggressive, competitive behavior by that bank was required.

By and large, the local banks during the first period were not subject to strong competition for liabilities. The ratio of private deposits to all liabilities for the First National Bank (see Table IV-1) immediately appears to contradict this statement. The First National obtained about one-quarter to one-third of its liabilities from private deposits, and the proportion declined rather than rose over time. At the same time, its ratio of private deposits to liabilities was below that of all reserve city banks, and in some years (1870-1872) was below that of the average country bank. However, the low ratio of private deposits to liabilities was not offset by a high ratio of borrowed funds to all liabilities (see Table IV-2), but a very high proportion of liabilities coming from United States government deposits, upon which no interest was paid. (See Table IV-3.) When private deposits and government deposits are added together, the result shows that an increasing proportion of the First National's liabilities were derived from noninterest bearing sources, and that in its last three years of operation (1870-1872) the total of the two exceeded the same total for each of the three classes of national banks.

For the three years 1867-1869, the total of private deposits and government deposits for the First National generally fell between the totals for central reserve city and reserve city banks, while it

Table IV-1

Average Ratio of Private Deposits to All Liabilities, in Percent[a]

Year[b]	First	East Tennessee	Mechanics	Central Reserve Cities	Reserve Cities	Country Banks
1867 (3)	33.8			51.3	35.7	28.1
1868 (1)	32.2			51.8	36.8	28.8
1869 (4)	32.4			51.7	35.0	27.2
1870 (4)	26.9			46.4	34.6	27.6
1871 (3)	23.3			46.9	36.0	28.5
1872	27.0 (4)	34.1 (1)		46.0	36.0	29.1
1873		38.3		44.5	35.5	28.9
1874		35.4		45.3	36.5	29.2
1875		41.0		45.5	37.4	30.2
1876		43.5		44.8	37.4	29.7
1877 (4)		48.1		47.8	37.9	30.0
1878		51.6		46.8	36.8	29.9
1879 (2)		55.9		49.1	38.0	31.8
1880 (3)		61.2		55.8	41.7	38.4
1881		71.0		56.0	42.8	41.3
1882		69.1	53.8 (4)	54.4	43.5	42.6
1883		66.1	62.9	50.1	43.9	43.0
1884 (3)		63.9	62.3	49.2	43.6	41.9
1885		63.2	57.7	51.9	44.8	42.2
1886		66.4	58.2	50.8	46.1	44.9

[a]Private deposits are individual deposits, demand certificates of deposit, time deposits, cashiers checks, certified checks, and unpaid dividends.

[b]Numbers in parentheses refer to the number of reports of condition used to calculate the ratios. If for a given year, no number in parentheses is given, then all reports made by each bank and each group of banks was used. National banks made four reports of condition through 1869; thereafter, five reports were made. Numbers in parenthesis next to a year apply to the three classes of banks, and unless otherwise noted, to the individual banks.

Source: For the individual banks, reports published in local newspapers were the source. The Comptroller's Annual Report provided information on the three classes. See also the discussion in Appendix A.

Table IV-2

Average Ratio of Borrowed Money to All Liabilities, in Percent[a]

Year	First	East Tennessee	Mechanics	Central Reserve Cities	Reserve Cities	Country Banks
1867 (3)	1.8			15.4	9.2	2.2
1868 (1)	4.7			15.8	9.9	2.0
1869 (4)	3.2			16.0	10.0	2.6
1870 (4)	1.4			19.8	10.9	2.9
1871 (3)	3.5			21.9	12.1	2.9
1872	2.6 (4)	0.8 (1)		21.5	11.8	3.2
1873		1.2		22.2	12.7	3.2
1874		1.0		23.6	13.5	2.9
1875		1.8		23.9	13.8	2.9
1876		1.6		25.2	14.1	3.0
1877 (4)		1.1		23.9	13.7	2.9
1878		1.3		22.7	13.2	2.6
1879 (2)		1.3		22.4	14.4	2.8
1880 (2)		1.5		25.4	18.1	3.4
1881		1.5		25.2	18.4	3.5
1882		0.8	2.7 (4)	25.3	16.9	3.7
1883		0.8	2.1	28.4	16.1	3.8
1884 (3)		1.4	1.0	29.4	16.5	4.0
1885		3.2	8.3	29.0	17.6	3.9
1886		3.9	11.1	29.7	18.1	4.3

[a]Borrowed money is bank deposits and borrowed funds. Bank deposits are deposits with reserve agents, other national banks, other banks, trust companies, and clearing house loan certificates issued. Borrowed funds are rediscounts, bills payable, and borrowed bonds.

Source: Reports of Condition. See also note b, Table IV-1, page 67, and Appendix A.

Table IV-3

Average Ratio of Government Deposits to All Liabilities, in Percent[a]

Year	First	East Tennessee	Mechanics	Central Reserve Cities	Reserve Cities	Country Banks
1867 (3)	9.1			0.6	2.7	2.5
1868 (1)	4.2			0.6	1.7	1.7
1879 (4)	9.7			0.1	0.8	1.4
1870 (4)	24.0			0.4	0.5	1.2
1871 (3)	24.0			0.4	1.0	1.2
1872	27.9 (4)	19.0 (1)		0.1	0.5	1.0
1873		11.2		0.1	0.6	1.1
1874		7.6		0.1	0.4	0.9
1875		6.7		0.1	0.5	0.8
1876		7.4		0.1	0.5	0.9
1877 (4)		9.5		0.1	0.6	0.8
1878		8.2		3.8	1.3	0.8
1879 (2)		7.5		5.5	1.4	0.9
1880 (2)		5.7		0.1	0.5	0.7
1881		3.8		0.1	0.6	0.7
1882		4.1	0	0.1	0.6	0.7
1883		4.9	0	0.1	0.6	0.7
1884 (3)		4.9	0	0.1	0.7	0.7
1885		5.1	0	0.1	0.7	0.7
1886		4.9	0	0.2	0.7	0.8

[a]Government deposits are United States government deposits and deposits of U.S. disbursing officers.

Source: Reports of Condition. See also note b, Table IV-1, page 67, and Appendix A.

exceeded the total for country banks. Because the First National rarely paid interest on its private deposits, especially after 1870, its proportion of noninterest bearing deposits probably exceeded the proportion of noninterest bearing deposits for the three classes of banks. It was not until 1870 that the reports of examination distinguished between various categories of private deposits. In that year, the examination of the First National showed it had demand certificates of deposit (which paid interest) amounting to 27 percent of all private deposits. The following year, the examination found no demand certificates of deposit. (See Table IV-4.) The reports of condition published in the local newspapers in 1871 and 1872 did not list any demand certificates of deposit, and therefore it appears that after 1870 the First National did not pay interest on deposits.

The First National may have had to pay interest on some deposits in years before 1870. In 1867 two of the smaller, nonnational banks located in Knoxville advertised that they would pay interest on some accounts. One advertisement read:

> A Savings Bank in Knoxville. The Exchange and Deposit Bank having made arrangements to carry on a Savings Bank in connection with their present business are now ready to receive deposits of one dollar and upwards, allowing interest at the rate of six per cent. per annum. To those especially whose savings are not large enough to enable them to invest in bonds and other securities, none of which are under the denomination of fifty dollars, this plan will recommend itself. Not only is a <u>safe</u> place offered, which in these unsettled times is of great importance, but the amount deposited is constantly increasing. To the laboring man, the mechanic, the small dealer, this instution will be especially beneficial. Small earnings saved from day to day, or week to week, will be made much safer to the owner when locked up in

Table IV-4

Average Ratio of Individual Deposits to Private Deposits, in Percent[a]

Year	First	East Tennessee	Mechanics
1867			
1868	N.D.		
1869	N.D.		
1870 (1)	73		
1871 (1)	100		
1872	N.D.	N.D.	
1873		42.7	
1874		46.1	
1875		63.5	
1876		73.5	
1877 (4)		83.3	
1878		86.9	
1879 (2)		85.1	
1880 (2)		91.0	
1881		84.3	
1882		91.8	92.6 (4)
1883		93.9	90.5
1884 (3)		95.0	86.9
1885		97.8	85.3
1886		94.7	84.8

[a]Source: See notes a and b, Table IV-1, page 67, and Appendix A, for both the East Tennessee National and the Mechanics National. For the First National, the source was the reports of bank examination on December 6, 1870, and December 19, 1871. N.D. stands for No Data.

> the safe of this trustworthy Bank than when wadded about in the breeches pocket, or left with those who increase it nothing. The institution is a common one in large cities. Further information can be obtained by calling at the Bank, corner of Main and Gay, until December 1st, at which time it will be moved to the New Bank Building on Gay Street. (The Knoxville Daily Free Press, November 9, 1867, p. 3)

This advertisement is quite informative. First, the notion that the creation of a separate institution—"a Savings Bank"—paying interest on deposits was required, indicates that the payment of interest on deposits was not common practice. Second, the implication of the sentence ending with "those who increase it nothing" is also that payment of interest on deposits was unusual. In fact, the whole ad seems to imply that no other local bank paid interest on deposits. However, another local bank placed an advertisement which appeared in the same newspaper on the following day, also offering to pay interest on deposits. The advertisement read:

> Knoxville Bank
> and
> Savings Institution
>
> All sums of five dollars and over received on deposit and interest paid by special contract. Separate accounts kept in this Bank—for Deposits drawing interest—to accomodate all who desire to put in small amounts at a time, for accumulation. (The Knoxville Daily Free Press, November 10, 1867, p. 2)

Here again, a separate institution was involved and the appeal was directed toward the small depositor. But what about the other two banks, the First National and the Peoples Bank? They never explicitly stated that they paid interest on deposits, although their occasional references to their savings departments and certificates of deposit may have implied the payment of interest. Instead, they emphasized other aspects of

their business, primarily the safety of deposits and their willingness to buy and sell various monies, claims, coupons, bounty certificates, stocks, bonds, government vouchers, etc. In the early years, the First National emphasized deposit safety in its advertisements and in articles in a local newspaper written by shareholder and director W. G. Brownlow. For example, Brownlow wrote:

> The officers of this bank will have occupied the fine Banking House of the Ocoee Bank by the time this paper reaches subscribers. It is one of the Government Banks, and is a safe depository for soldiers and citizens, who are liable to be robbed of their money every day. Many of our farmers have money, and the gurrilla thieves know it, and are liable to dash in upon them any night. Many of the soldiers and officers of the army have some money, and are desirous of saving it until a future time. We assure them that they can find no safer place than Knoxville to deposit, for it is the best fortified town inside of the Federal lines, and can and will be held against any force that may come. (Brownlow's Knoxville Whig, and Rebel Ventilator, August 10, 1864, p. 2. His spelling.)

The following week there was another recommendation for the First National, with the emphasis also upon safety.

By 1865 "gurrilla thieves" were less of a problem, and promises of the safety of deposits appeared less frequently in bank advertisements. Instead, the First National and the Peoples Bank emphasized the other services they were able to provide. The Peoples Bank advertised that it would "transact General Banking and Brokerage Business, receive deposits, issue certificates of deposit, deal in Exchange, buy Gold, Silver, Bank Notes, Bonds and Stocks" (Brownlow's Knoxville Whig, and Rebel Ventilator, July 25, 1865, p. 1). In the same issue, J. R. Mitchell offered to buy soldiers' bounty certificates at the Peoples Bank, then called the Knoxville Depository. Most of the First National's

advertisements after 1865 simply listed the names of the President and Cashier, and the Bank's location. Mention of services occurred on the few occasions when the First National had something special to sell. No ads were found which would show that the First National actively sought and paid interest to attract deposits. The Peoples Bank paid interest on some accounts, but this fact was not constantly kept before the public by advertisements to that effect. The First National does not appear to have employed the payment of interest as a means to attract private deposits; the other local banks did. In fact, the First National seems to have done little to attract customers; the other local banks seem to have been much more active. A hint of this is given in the examiner's report on the First National in 1866, where he wrote: "The present cashier does not desire to run any risks and is doing very little except to the best of the parties" (First National Bank, Report of Examination, October 25, 1866).

The examiner was writing about the loan policies of the First National, and his comments cannot be considered proof that the bank behaved in this fashion towards its depositors, but it does support the argument. Good records of the activities of the local private banks do not exist, but it appears that a growing proportion of local private deposits was going to them rather than to the First National. They actively sought such deposits, but the First National did not and its private deposits did not grow in proportion to its liabilities. Of the local banks, the First National had sole access to U.S. government deposits and these mitigated the First National's need to acquire bank

deposits or other borrowed funds as well as the need to compete actively with the other local banks for private deposits. In fact, it appears that by the late 1860's and early 1870's, there was a tendency for a rebirth of state banking in Knoxville in response to the uncompetitive attitude displayed by the First National. Had this tendency continued, it may be that the First National would have had to change its strategy. This trend (if it actually existed), was however cut short by the Crisis of 1873, the effects of that crisis on the local nonnational banks, and by the voluntary liquidation of the First National and the subsequent formation of the East Tennessee National. As early as April of 1871, the owners of the First National were considering liquidating that bank, and the anticipation of that liquidation may have been responsible for the bank's behavior toward potential depositors in 1872 and in the last part of 1871. However, it does not explain the bank's behavior in prior years.

Because the First National was able to acquire a large and growing proportion of its liabilities from noninterest bearing deposits, it did not have to rely upon borrowed money. The proportion of its liabilities coming from bank deposits and borrowed funds was usually about as low as the proportion for country banks, and both were much lower than the proportion for either class of city banks. Both classes of city banks increased the proportion of their liabilities obtained from borrowed money from 1867 to 1872. Because most of these funds earned interest, the growth in the significance of borrowed money for city banks (but not for the First National) indicate substantial differences in their

respective environments. Of course, not all city banks sought out bankers' balances nor did they all participate extensively in rediscounting loans, but those who did had to pay for the privilege. The

> . . . payment of interest on deposits was often held accountable for the concentration of bankers' balances in New York. It seems to have been true rather that interest on deposits was a device which banks used in their competition with each other. Not all of the banks paid interest on balances. . . . As a matter of fact, many interior banks paid interest on deposits too. (Myers, 1931, pp. 249-250)

From 1867 to 1872 the First National obtained a large and growing proportion of its liabilities from noninterest bearing deposits. The First National's position as the only local national bank with the advantages of banknote issue, close connection with the national financial market, and large government deposits, as well as a natural constituency among the East Tennessee Unionists, enabled it to acquire large deposits at low cost. Because the other local banks lacked these advantages, they had to employ the payment of interest to attract deposits. The evidence also suggests that the First National was more successful in acquiring low cost deposits than the average city bank or the average country bank. Furthermore, the successor to the First National, the East Tennessee National, was just as successful after a few years, if not more so.

The only report of condition of 1872 for the East Tennessee Nation indicates that about one-third of its liabilities came from private deposits. In the following years, the average proportion of its liabilities derived from private deposits grew steadily until 1881 when

the ratio reached 71 percent.* From 1882 to 1886 the East Tennessee National obtained an average of two-thirds of its liabilities from private deposits. In its first year with a national charter, the Mechanics National had slightly over one-half of its liabilities coming from private deposits, and in the next years, 1883 to 1886, it averaged close to 60 percent of its liabilities from private deposits, a slightly lower ratio than that for the East Tennessee National. These two banks did at least as well as the average city or country bank, and in most cases they did much better than the average national bank in any class. When account is taken of the contribution to liabilities made by government deposits, it is clear that government and private deposits supplied the East Tennessee with a high proportion (compared to other banks) of its liabilities, at least through 1880. After 1880, government deposits were less important to the East Tennessee than they had been, even though that bank almost always obtained a higher proportion of its liabilities from the federal government than did the average national bank. (There were a few years after 1900 in which the East Tennessee's ratio fell slightly below the ratio for city banks, but at

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*The sharp increase in the East Tennessee National's ratio of private deposits to all liabilities (from 61 percent in 1880 to 71 percent in 1881) seems to have been a delayed reaction to the same cause which produced a sharp increase in that ratio for the three classes of banks in 1880. The ratio rose for central reserve city banks (49 percent to 56 percent), for reserve city banks (38 percent to 42 percent), and for country banks (32 percent to 38 percent) from 1879 to 1880. The most likely source for the cause of this sharp increase was the resumption of specie payments in 1879. Resumption meant that gold no longer would trade at a premium over other forms of money (paper money and bank deposits). Conversely, paper money and bank deposits would no longer trade at a discount relative to gold. Consequently, the relative value of paper money and deposits rose, and the volume of deposits increased.

that time the ratios were quite low.) The Mechanics National did not report any government deposits until much later (1900-1907), and consequently that bank's noninterest bearing deposits were entirely in the form of private deposits.

However, the proportion of liabilities coming from private deposits is only an approximation of noninterest bearing deposits. When private deposits are examined, there is, for the East Tennessee, a clear deviation from the usual pattern. No division of private deposits into interest bearing and noninterest bearing deposits was given in the East Tennessee's one published report of condition in 1872, but in the following two years, a large volume of demand certificates was reported. (See Table IV-4, page 71.) In fact, for 1873 and 1874 such certificates made up more than one-half of all private deposits. Even when account is taken of the noninterest bearing deposits of the federal government, it is clear that the cost of obtaining deposits for the East Tennessee was unusually high compared to the cost for the First National and for the East Tennessee in subsequent years. After 1874, interest bearing deposits fell sharply. In two years, noninterest bearing deposits amounted to about three-quarters of private deposits, and in later years were usually 85 percent or more of private deposits. In fact, from 1881 to 1886, the ratio rose over 90 percent. (It peaked in 1887-1889 at 98 percent.)

If the East Tennessee could attract a large, growing volume (and proportion) of noninterest bearing private deposits from 1875 to 1886, why did it fail to do so from 1872 to 1874? There are, I think, two

related explanations. First, the East Tennessee may have issued certificates of deposit to the depositors of the First National as part of the process of liquidation of that bank and the formation of the East Tennessee. Unfortunately, the examiners' reports for the East Tennessee for those years are not available to the public for inspection. It is likely that the examiner would have commented on such an arrangement, but so long as those reports are withheld, no proof can be obtained. Second, in 1873 a sharp and long recession commenced, and the East Tennessee may have issued the certificates in large quantities to assure the stability of its deposits. This explanation may be more satisfactory than the first, because the crisis of 1873 commenced in the autumn, and no demand certificates of deposit were reported until the report of condition on September 12, 1873. However, the bank may have simply failed to distinguish between individual deposits and demand certificates of deposit in its published reports of condition prior to September 12. From that date through October 2, 1874, demand certificates of deposit constituted more than one-half of private deposits, but by December 31, 1874, demand certificates represented less than one-half of all private deposits, and the proportion fell steadily thereafter.

The fall in the proportion may have been due to two causes. First, the East Tennessee did manage to survive the crisis of 1873 and prosper. Many banks across the country did not. A proven ability to avoid bankruptcy when many banks failed may have persuaded depositors to trust the East Tennessee with their deposits, even though that bank was reluctant to pay interest on those deposits. Second, the East Tennessee

may have been able to convert many of its interest paying deposits into noninterest bearing accounts because of the absence of strong local competition.

The Peoples Bank had survived the crisis of 1873, but what condition it was in is not known. The Exchange and Deposit Bank failed, and it is possible that the Knoxville Bank closed for a time. The Mechanics National had been founded in 1875 as a private bank, but it was much smaller than the East Tennessee when it converted to national status in 1882. (At its first report of condition on May 19, 1882, the Mechanics National reported assets of $181,484.91. At that date, the East Tennessee had assets equaling $887,453.07.) The Mechanics was not in a strong position between 1875 and 1882 to challenge the East Tennessee. Further, it is not likely that the Merchants Bank, which obtained a state charter in 1881 (and which may have operated without a charter until then as the Knoxville Bank), was large enough to be an effective competitor with the East Tennessee. That is, the East Tennessee probably used both its reputation as a successful, safe bank and its relatively monopolistic position in the local market to lower its costs of acquiring deposits.

When the relation of interest bearing to noninterest bearing deposits is examined for the Mechanics National, the first hint of the transition to come is seen. This bank was initially able to acquire deposits without paying interest on many of them. But the proportion of private deposits on which no interest was paid declined steadily through 1886, even though it was still relatively high in that year.

The following chapter will detail the sharp reversal for this and other banks in the proportion of private deposits paying interest.

Borrowed money did not contribute a sizable portion of the East Tennessee's liabilities. The ratio of borrowed money to liabilities was always lower than the average for any of the three classes of banks, and appears to have been held to the minimum necessary to conduct business with other banks. Until 1885 the Mechanics National also had a lower ratio of borrowed money to liabilities than did the average bank in any of the three classes. In that year, the ratio grew sharply, and in the following year it increased again. This too is an indication of the transition which had its major impact during the years 1887 to 1900.

To sum up, both the East Tennessee and the Mechanics National were able to acquire a large and growing proportion of their liabilities at low cost. This condition was dramatically reversed during the next period, 1887 to 1900, when both these banks faced increasingly strong competition in the local market. But so long as their local competitors were small and not numerous, low cost liabilities were the general rule. Once those competitors increased in both number and size, acquisition of liabilities became more and more costly.

Deposits and borrowed money generally accounted for about two-thirds to three-quarters of all liabilities of the local national banks during the first period. At the beginning of the period, the percentage was a bit lower, and it increased slowly. The other one-third to one-quarter of liabilities was obtained from shareholder investment and banknotes

issued (circulation). Although an analysis of shareholder investment and circulation will shed little light on the competitive nature of the local environment, it will clarify other important aspects of the behavior of the local banks.

As a general rule, the proportion of liabilities coming from shareholder investment declined slowly from the relatively high levels of the first years of operation as the new bank developed and extended its relations with customers and other banks. (See Table IV-5.) There were many small variations from the long-run trend, but significant deviations almost always were associated with changes in the banks' capital. Changes in capital were infrequent, owing largely to the requirements that each share of capital stock have a par value of $100 and that each increase in capital be approved by the Comptroller of the Currency. The Comptroller might never have refused permission to increase a bank's capital, but the process was cumbersome and banks tended to go through it only if a relatively large change was to be made. Instead, they found it far easier to increase shareholders' investment by adding to the surplus fund. The National Currency Acts required banks to add 10 percent of earnings to their surplus account until their surplus equaled 20 percent of capital (Section 33, the Act of June 3, 1864). In the second and third periods, some banks increased their surplus much more rapidly than required by law as a means to prepare for an increase in capital, but it was not part of the local banks' operations in the first period.

Changes in capital during the first period were primarily related to taxes and banknotes. (During the second and third periods, changes

TABLE IV-5

Average Ratio of Shareholder Investment to All Liabilities, in Percent[a]

Year	First	East Tennessee	Mechanics	Central Reserve Cities	Reserve Cities	Country Banks
1867 (3)	33.9			24.2	34.3	39.9
1868 (1)	37.4			23.6	34.0	40.8
1869 (4)	33.5			24.0	36.2	42.2
1870 (4)	29.7			25.3	36.6	42.3
1871 (3)	31.0			23.6	34.6	41.7
1872	26.8 (4)	25.6 (1)		25.3	35.0	41.2
1873		28.0		26.2	35.0	41.6
1874		30.5		24.7	34.4	42.1
1875		34.0		25.5	34.6	42.3
1876		37.6		25.6	35.6	43.3
1877 (4)		30.6		23.5	35.2	43.0
1878		28.1		21.3	35.0	42.7
1879 (2)		25.9		17.9	32.4	40.8
1880 (2)		24.2		15.1	27.3	36.3
1881		18.4		15.1	26.7	34.9
1882		20.4	32.9 (4)	16.5	27.6	34.2
1883		22.0	25.4	18.0	28.5	34.7
1884 (3)		23.7	28.6	18.3	29.4	36.4
1885		22.9	29.2	16.7	28.2	37.1
1886		21.8	26.6	17.6	28.5	36.5

[a]Shareholder investment is capital, surplus, and undivided profits.

Source: Reports of Condition. See also note b, Table IV-1, page 67, and Appendix A.

in capital were more closely tied to the 10 percent loan limit and the overall growth of economic activity in Knoxville.) Taxes on capital stock were cited as the reason for the liquidation of the First National Bank, and led the cashier of that bank to appeal to the Comptroller of the Currency for permission to form a smaller organization. He wrote:

> I am informed that this Bank of which I have been Cashier for some five years will go into liquidation very soon. The only object in winding up the Bank will be the profits to be derived from the sale of the Bonds & the dividing of its surplus.
>
> In consequence of the onerous taxes imposed upon the stock of National Banks by the State, County & Corporation, it is not regarded as renumerative stock & the lower the Capital, the better, for this reason. . . . (First National Bank, April 25, 1871)

The cashier went on to ask for permission to form a new bank with a capital of $50 thousand. The permission was denied because Knoxville's population was large enough to require national banks founded there to have a capital of at least $100 thousand, and when the East Tennessee National opened, it opened with a capital of $100 thousand. By late April or early May of 1871, the owners of the First National were informed that they would not be given permission to open a new national bank with a capital which was below the amount specified by law. Why then did they proceed with the liquidation? I have found no definitive answer to this, but the following conjecture can be advanced.

The First National originally had nine shareholders, but the dominant shareholder (W. Perkins) sold out within two years, after having inquired of the Comptroller about the correct procedure for closing a national bank and about the residency requirements for directors. In the same letter, he also asked that the Comptroller's

response be sent to a business house in Cincinnati. The letter made it clear that he did not want a response sent to Knoxville, but it was not clear why he wanted to close the bank (First National, November 15, 1864). Perkins sold out a short time later.

Perez Dickinson was elected president of the bank, replacing Perkins, but in a short while, R. R. Swepson replaced Dickinson. In early 1867 Swepson also wrote to the Comptroller and asked if a national bank could be moved to another state and its name changed without either going into liquidation or changing its charter (First National Bank, March 16, 1867). Evidently, the Comptroller replied in the negative and the subject was not discussed again in the correspondence until spring of 1871, when the cashier wrote the letter cited above (The First National's letter of April 25, 1871). Relatively high taxes on national banks located in Knoxville seem to have motivated Perkins' and Swepson's inquiries, and the eventual liquidation of the First National. Perkins had come to Knoxville from Ohio, and it appears that he sold his stock in the First National in order to return there. Swepson too appears to have been interested in moving away from Knoxville. In order to do so, he probably felt he had to sell his stock in the First National. Liquidating the bank would enable him to receive the profits from the bonds purchased to secure both the circulation issued and the U.S. government deposits, as well as enabling him to avoid the relatively high local taxes.

Bonds with a par value of $89,900 had been purchased to secure circulation, and bonds with a par value of $50 thousand had been

purchased to secure government deposits. All of these bonds had been purchased at a substantial discount from par. Reports of Condition for the First National never showed an entry for premiums paid for U.S. bonds; they always showed premiums received. (Some of the premiums were added to profits, although the amount added varied from year to year.) The bonds had been purchased during the last year of the War, when interest rates were high, and by 1871 they sold much closer to par. Consequently, there was a profit to be had by selling the bonds, redeeming the circulation, and liquidating the bank.

But liquidating the bank did not have to be the final step. The shareholders of the First National could have sold their shares at a price which reflected the initial investment as well as the subsequent capital gains and profits from operation which had not been distributed. (The net worth per share on October 3, 1872, was about $135.) Why was this step not taken? I do not know. The correspondence with the Comptroller and the Reports of Examination are mute. Some of the owners of the First National may simply have wanted much more than the net worth per share as compensation for the value of a continuing operation, and the potential buyers offered less. In any case, the East Tennessee National had no difficulty in attracting investors, either then (in 1872) or later in 1873 when an additional $50 thousand worth of capital was sold, bringing the total to $150 thousand.

The correspondence with the Comptroller indicates that the $50 thousand increase in capital was made in order to enable the bank to increase its circulation from $90 thousand to $135 thousand. The first

request for an increase in capital was made in late 1872, shortly after the bank opened. (East Tennessee National Bank, November 8, 1872.) The Comptroller's response to the request for additional circulation was negative, and the president of the bank responded by writing to Congressman Horace Maynard, asking if it would be possible to have the banknotes retired by the First National and reissued under the name of the East Tennessee National. Maynard forwarded this letter to the Comptroller (East Tennessee National Bank, January 7, 1873). Again the response was negative, but he tried again later in the year:

> I am directed by the Board of Directors East Tennessee National Bank of Knoxville most respectfully to ask your attention to applications for increases of Capital Stock of our association made last winter through Hon Horace Maynard. We feel that both the producing and commercial interests of our section is suffering at present for want of more banking capital. From Bristol on the Virginia & Tennessee line to Cleveland Tennessee a distance of two hundred and ten miles the entire banking capital as reported by the five banks (four private and one national) is $161,050.00. Three of these banks have suspended in the past two weeks with an aggregate capital of $41,050.00 leaving but 120,000$ capital in the two banks still open.
>
> We would most respectfully refer you to Hon W. G. Brownlow U.S. Senator and Mess Maynard and Thornburg Representatives elected to the next Congress as to character of Stockholders Officers and Directors of our Association as well as to the financial wants of our Country. (East Tennessee National Bank, October 14, 1873. The bank's punctuation is followed.)

This time the appeal succeeded, and permission to increase capital by $50 thousand and circulation by $45 thousand was granted. The Comptroller responded on October 21, 1873, and the bank wrote back immediately, saying that it would increase its capital stock by $50 thousand "in the next sixty days and if advised that they can get circulation may desire to increase an additional Fifty thousand in the

first half of the coming year" (East Tennessee National Bank, November 24, 1873).

The bank's request to increase capital to $200 thousand and circulation to $180 thousand was not approved. The increase in capital to $150 thousand and circulation to $135 thousand was probably approved because of the crisis of 1873 and its effects on East Tennessee as illustrated in the bank's letter of November 14, 1873, quoted above. The request to increase both capital and circulation the second time was probably denied because of the aggregate limit on circulation.

By early 1874 the East Tennessee was taking full advantage of the note issue privilege, with circulation issued equaling 90 percent of capital, the maximum allowed by law. Its predecessor, the First National, had also issued about as much circulation as was allowed by law. The First National issued circulation amounting to 76 percent of its capital, a slightly lower percentage than other country banks issued, but a higher percentage than was issued by either of the reserve city classes. These percentages (see Table IV-6) are about what one would expect, given the provisions of an 1865 amendment to the National Banking Act.

> That upon the transfer and delivery of bonds to the Treasurer . . . the association making the same shall be entitled to receive from the Comptroller of the Currency circulating notes . . . in proportion to its capital as follows, and no more: To each association whose capital shall not exceed five hundred thousand dollars, ninety per centum of such capital; to each association whose capital exceeds five hundred thousand dollars, but does not exceed one million dollars, eighty per centum of such capital; to each association whose capital exceeds one million dollars, but does not exceed three millions of dollars, seventy-five per centum of such capital; to each association whose

Table IV-6

Average Ratio of Circulation Issued to Capital, in Percent[a]

Year	First	East Tennessee	Mechanics	Central Reserve Cities	Reserve Cities	Country Banks
1867 (3)	76.3			46.3	64.5	79.3
1868 (1)	76.3			47.0	66.2	79.4
1869 (4)	76.3			47.1	64.0	78.8
1870 (4)	76.3			46.2	61.8	77.9
1871 (3)	76.3			42.9	61.7	78.7
1872	76.3 (4)	81.0 (1)		39.6	62.7	80.2
1873		81.8		39.3	61.7	79.8
1874		90.0		38.1	59.6	79.1
1875		54.0		29.3	54.1	75.6
1876		30.0		23.7	47.5	72.1
1877 (4)		40.0		28.6	48.1	72.3
1878		45.0		36.8	51.8	74.4
1879 (2)		45.0		41.6	56.2	76.4
1880 (2)		45.0		36.6	61.1	77.9
1881		45.0		37.0	60.4	76.3
1882		45.0	33.8 (4)	37.4	56.6	74.8
1883		45.0	45.0	31.9	52.7	70.5
1884 (3)		45.0	37.5	28.4	46.5	64.1
1885		45.0	22.5	22.6	41.4	59.2
1886		27.0	22.5	17.7	31.8	50.8

[a]Source: Reports of Condition. See also note b, Table IV-1, page 67, and Appendix A.

> capital exceeds three millions of dollars, sixty per centum of such capital. (Act of March 3, 1865)

Table IV-7 shows that most country banks were well under the $500 thousand limit, and consequently most could issue circulation up to 90 percent of capital. That they generally issued about 80 percent from 1867 to 1872 is a reflection of the effects of the aggregate limit on circulation. The First National was not significantly different from the average country bank.

A change in the law regarding banknote issue in 1870 requires that an examination of the other two classes of banks be divided into two periods—1867 to 1869 and 1870 to 1872. From 1867 through 1869, the average reserve city bank fell into the 80 percent category. Some of these banks were, of course, larger (in the 75 or even 60 percent category) and some were smaller. That they generally issued banknotes amounting to 65 percent of capital is again an indication that they too were taking close to full advantage of the note issue privilege, with due recognition being given to the aggregate limit on circulation. The average central reserve city bank at this time was in the 75 percent category, with some in the 60 percent range. Because the very largest of these banks had the greatest influence on average issue rates, it is not surprising that the banks of New York City issued banknotes amounting to, on average, just under 50 percent of capital.

The situation was altered significantly by the Act of July 12, 1870. That Act increased the aggregate limit on circulation by $54 million, to $354 million. This made it possible for newly chartered national banks to obtain circulation, whereas with the previous limit they could not. "The number of national banks and their circulation began to

Table IV-7

Average Capital per Bank, in Thousands[a]

Year	First	East Tennessee	Mechanics	Central Reserve Cities	Reserve Cities	Country Banks
1867 (3)	100			1,300	633	169
1868 (1)	100			1,331	632	169
1869 (4)	100			1,336	661	171
1870 (4)	100			1,353	688	174
1871 (3)	100			1,359	681	174
1872	100 (4)	100 (1)		1,415	690	169
1873		110		1,446	700	168
1874		150		1,430	702	168
1875		150		1,426	695	166
1876		150		1,410	678	165
1877 (4)		112.5		1,247	665	163
1878		100		1,170	652	161
1879 (2)		100		1,085	643	159
1880 (2)		100		1,078	634	156
1881		100		1,061	633	155
1882		100	100 (4)	1,034	642	151
1883		100	100	1,051	653	147
1884 (3)		100	100	1,058	658	143
1885		100	100	1,035	670	141
1886		100	100	1,007	660	139

[a]Source: Reports of Condition. See also note b, Table IV-1, page 67, and Appendix A.

increase immediately" (Sylla, 1975, p. 60). While it is true that the total amount of circulation increased, it is more important to note that issue rates did not increase. In fact, issue rates for central reserve city banks fell sharply, from 47 percent to 40 percent. Issue rates for reserve city banks fell somewhat less, from 65 percent to 60 percent. Country bank issue rates changed little, remaining right at 80 percent.

The sharp decline in issue rates for the central reserve city banks, and the more moderate decline for reserve city banks, was caused by other provisions in the Act of July 12, 1870, which gave the Comptroller specific instructions for a banknote redistribution based on the 1870 Census of population. The last proviso of section 1 of that Act provided that "no banking association hereafter organized shall have a circulation in excess of five hundred thousand dollars." The Comptroller was further empowered to reduce the circulation of the largest national banks (first, those with a circulation in excess of $1 million and second, those with a circulation in excess of $300 thousand) if the redistribution scheme required it. These proposals did not greatly affect the total of banknotes issued by the banks of New York, but it did discourage the large national banks from expanding their circulation as their capital grew.

Of greater impact was the effect of the decline in interest rates and the passage of the Act of June 20, 1874. Interest rates had fallen steadily after 1869.

> The Resumption Act of 1875 eliminated all restrictions on the amount of national bank circulation. . . . By this time, however, freedom of note issue under the national banking

> laws was a dead letter because . . . prices of United States government bonds had risen well above par while national bank notes could be issued only up to ninety percent of the par value of such bonds. National banks thus began to find it more profitable to retire circulation and sell their government bonds than to buy bonds at, say 15-20 percent above par and issue circulation in amounts 10 percent less than the par value of the bonds. (Sylla, 1975, pp. 60-61)

The Act of 1875 eliminated the ceiling on the total of banknotes which could be issued by the system as a whole. The provisions dealing with the distribution of banknotes between regions was also repealed. The Act did not, however, repeal the maximums applicable to individual banks of different sizes embodied in the Act of March 3, 1865. The failure to repeal the provisions of the Act of March 3, 1865, cited above had little effect; issue rates were falling and falling rapidly.

Issue rates fell because the Act of June 20, 1874, allowed banks with a capital in excess of $150 thousand to reduce their deposit of bonds to $50 thousand. (This meant that the circulation for such banks was set at a minimum of $45 thousand.) Prior to this Act, the minimum bond deposit had been set at the greater of either $30 thousand or one-third of capital for all national banks. For national banks with a capital between $50 thousand and $150 thousand, the old minimum ($30 thousand or one-third of capital, whichever was larger) remained in effect. That is, this Act allowed large banks to reduce their deposit of bonds, and the fall in interest rates made it profitable for them to do so.

Issue rates fell sharply for both classes of city banks, less so for country banks. Table IV-7, page 91, indicates that many country banks fell into the category that was unaffected by the Act of June 20,

1874. From 1872 through 1874, the East Tennessee endeavored to issue as much circulation as it could. A dramatic reversal in this pattern occurred in mid-1875. Between May 1 and June 30 of that year, the East Tennessee ceased to issue the maximum circulation allowed by law and instead reduced its issue of banknotes to a minimum. Because it had a capital of $150 thousand at that time, it was required to deposit $50 thousand in bonds with the Comptroller. Actually, the law never specified a minimum issue of banknotes. A bank could have fulfilled its legal obligation by depositing the required bonds; it was not required to take the next step of actually issuing banknotes. But, because the additional costs associated with that next step were small, banks generally took it. (There was a 1 percent federal tax on national banknotes outstanding, plus the relatively small charges associated with engraving and shipping the banknotes to the bank.) The additional costs associated with circulation issued in excess of the minimum required by law were not, however, negligible. Those costs were primarily due to the relatively high premiums which the bank would have to pay to acquire bonds.

On May 1, 1875, the East Tennessee's report of condition showed that it had deposited $200 thousand worth of bonds with the Comptroller that it had paid premiums on these bonds amounting to $15 thousand. The next report of condition on June 30, 1875, showed $100 thousand in bonds deposited with the Comptroller, with <u>no</u> premiums paid on these bonds. By reducing its bond deposit by $100 thousand, the bank had eliminated premiums paid. In fact, the East Tennessee had been slowly

writing off the premiums it had paid for bonds since early 1873. At that time (February 28, 1873), it owned $200 thousand in U.S. bonds. The premiums paid on those bonds exceeded $19 thousand, which was just over 9½ percent. By early 1875 the bank had written off just over $4 thousand of these premiums. By selling $100 thousand of its banks in 1875, the bank was able to write off all the remaining premiums paid. Therefore, the $100 thousand in bonds had been sold for at least 15 percent over par (and possibly more), clearly reflecting the continuing decline in interest rates from 1873 to 1875. Had the bank been allowed to, it might have reduced its circulating notes even further. The cost of maintaining the $100 thousand in bonds and issuing $90 thousand in circulation was almost certainly in excees of 16 percent (the 15 percent premium plus the 1 percent tax on banknotes plus the other incidental expenses). No bank could expect to match that return with the interest on the bonds plus the interest earned on loans made with the banknotes.

The force of this argument is strengthened by recognition of the sharp reduction in part of the costs associated with issuing banknotes—the cost of maintaining reserves. The Act of June 20, 1874, established a 5 percent reserve fund for all national banks. Prior to that Act, national banks were required to hold reserves against banknotes outstanding in the same proportion as they held reserves against deposits—15 percent for country banks and 25 percent for city banks. With the passage of the Act of 1874, all banks had the reserve requirement for banknotes outstanding reduced to 5 percent. In spite of this reduction

in costs, issue rates dropped, and they dropped most where the reductions in cost were greatest—among city banks. Issue rates did not fall sharply for country banks with the passage of the Act of 1874, because the remaining high minimum bond deposit requirements primarily applied to them.

After 1875 the East Tennessee did not alter the amount of banknotes it issued until mid-1886. At that time, its old bonds matured and new ones had to be purchased. On March 1, 1886, the East Tennessee had $100 thousand in bonds and no premiums paid. On June 3 of that year, the bank listed $25 thousand in bonds securing circulation, $50 thousand securing deposits, and premiums paid of $6,615.62. The premiums paid increased to $18,940.62 by the next report of condition on August 27, 1886. At that time premiums paid amounted to 25.3 percent of the par value of U.S. bonds owned, indicating the high cost of issuing circulation. The bank at this time had a capital of $100 thousand, having reduced it to that point by June 22, 1877, in order to reduce taxes. (East Tennessee National Bank, March 3, 1877.) From mid-1877 through March 1, 1886, the East Tennessee issued circulation amounting to 45 percent of its capital. It was able to reduce its circulation to $22.5 thousand in 1886 because of the passage of the Act of July 12, 1882. This Act allowed banks with a capital $150 thousand or less to reduce their deposit of bonds to one-fourth of capital. It resulted in a steady fall in issue rates for country banks. In 1881, country banks were issuing circulation at about the same rate that they did in 1867. In 1882 the rate started to fall and it fell until 1891, at which time it was at 24.8 percent of capital for the average country bank.

The East Tennessee National issued circulation at a 22.5 percent rate (the minimum allowed by law) for the rest of 1886 through mid-1887. It then increased its capital to $175 thousand. (The increase was completed by May 13, 1887.) Its circulation was increased to $45 thousand by August 31 of that year. At that point, it was again issuing the minimum amount. The minimum bond deposit for the East Tennessee after its capital increase was $50 thousand, and it made that deposit and no more until the law regarding circulation was changed in 1900.

After its first six months of operation, the Mechanics National had the option of depositing bonds equal to one-quarter of capital. Initially, this bank chose not to issue the minimum circulation. Instead, it issued 45 percent as much in banknotes as it had in capital. Its premiums amounted to just under 3 percent. It maintained its circulation at $45 thousand for two and one-half years, but then reduced its bond deposit to the minimum required by law. By December 20, 1884, it had $25 thousand in bonds on deposit and premiums paid of $400 (about 1.6 percent). The Mechanics National did not alter its circulation again until 1900, and it made no increase in its capital until 1905. That is, after a relatively short period in which it issued one-half as much circulation as it was allowed by law to issue, the Mechanics National, like the East Tennessee, reduced its circulation to the minimum required by law. (Again, the minimum required was actually set by the minimum bond deposit, but once bonds were deposited, the additional costs of issuing banknotes were quite small.)

The three national banks operating in Knoxville from 1867 to 1886 responded, insofar as they were permitted to respond, to changes in the costs of issuing banknotes. When those costs changed, the banks altered their note issue, again by as much as the law allowed. The First National would probably have increased its circulation had the Comptroller agreed, but the aggregate limit on circulation did not permit his approval. The East Tennessee obviously was willing to increase its circulation (in fact, to double what it had been through most of 1873), until the rise in bond prices made banknotes less and less economical compared to other sources of liabilities. The Mechanics National also responded to the increasing cost of bonds by reducing its circulation.

Throughout the early period, the local national banks demonstrated a strong sensitivity to the relative costs of liabilities. For the First National, low cost liabilities were banknotes and U.S. government deposits, rather than private deposits and borrowed money. The aggregate ceiling on banknotes, however, strictly limited banknotes as a source of liabilities. The First National responded by acquiring a large volume of government deposits and by reducing the amount of private deposits upon which interest was paid, even though this strategy meant that its private deposits would grow slowly.

The East Tennessee in its first full year of operation was faced with the Crisis of 1873 and relatively high costs for all liabilities. The effects of that crisis on the local competitive environment (the evident weakness of nonnational bank competitors and the failure of some of them) enabled the East Tennessee to reduce the costs of a large source of liabilities—private deposits. When its efforts in that

direction began to provide more and more low cost private deposits, the East Tennessee responded by reducing the other source of high cost liabilities—national banknotes.

The Mechanics National was less successful in acquiring low cost liabilities. Instead, it had to pay for a larger and larger share of its liabilities at the same time that the East Tennessee's cost of liabilities was declining. In competing with the East Tennessee, the Mechanics National was at a disadvantage for several reasons. First, the East Tennessee was a successful, solvent bank, and it had managed to survive a serious depression in 1873, when many other banks did not. The Mechanics did not have so long a history; it had not proved that it could survive. Second, because the East Tennessee was viewed as the successor of the First National, the "proven reliability" of the East Tennessee extended beyond its actual existence. By and large, the local community seems to have regarded the East Tennessee and the First National as one and the same bank, and therefore the First National's survival during the turbulent last year of the War and the painful years of reconstruction was accepted as further proof that this bank was sensibly managed. Experience, then, was all on the side of the East Tennessee rather than on the side of the Mechanics. Third, customer faith in the reliability of the Mechanics must have been sorely tested by the death of its president in a duel less than one year after it obtained its national charter. This handicap plus the advantages enjoyed by its competitor compelled the Mechanics National to adopt a different strategy from that followed by the East Tennessee National.

Employment of Assets: 1867-1886

The local banks employed their assets in the first period in a more conservative fashion than did other banks. The Knoxville banks may have had a comprehensive strategy directing the acquisition of their liabilities, but they did not have such a plan for the management of their assets. The relative importance of several significant categories of assets changed sharply from year to year, with no discernible pattern. Throughout most of the first period, the local banks had lower and more variable ratios of earning assets to all assets than did other banks because they generally lent less and held higher reserves than did other banks. (They usually held most of their reserves in cash rather than in deposits with other banks.) During the next period, this conservative pattern altered and the local banks came to hold higher and more stable ratios of earning assets to all assets. Loans grew and reserves fell, with bank deposits becoming more important and cash reserves less. During the first period, the local banks emphasized the quality of their assets whereas in the next period, they paid more attention to the quantity and proportioning of those assets.

The ratios of earning assets to all assets for both reserve city and country banks were usually higher and more stable than the same ratios were for the local banks. (See Table IV-8.) (The Mechanics' ratio of earning assets to all assets was stable but low.) The relative instability of the local banks' ratios was due to the instability of both their loans and their reserves. The relative smallness of the ratios was due to low ratios of loans to assets and to low ratios of

Table IV-8

Average Ratio of Earning Assets to All Assets, in Percent[a]

Year	First	East Tennessee	Mechanics	Central Reserve Cities	Reserve Cities	Country Banks
1867 (3)	73.3			57.0	77.5	87.6
1868 (1)	82.3			55.9	78.5	89.3
1869 (4)	79.9			55.7	80.0	89.9
1870 (4)	76.8			60.6	80.8	90.0
1871 (3)	64.8			60.9	81.0	90.5
1872	74.2 (4)	64.4 (1)		62.6	83.1	90.7
1873		79.3		63.9	83.0	90.6
1874		81.3		63.5	82.1	90.1
1875		80.6		65.2	82.6	90.1
1876		75.9		66.2	83.0	90.2
1877 (4)		74.0		65.1	82.5	89.7
1878		72.7		64.4	82.4	89.3
1879 (2)		76.9		62.7	81.8	88.9
1880 (2)		73.3		56.2	81.4	89.1
1881		57.5		56.5	82.1	89.4
1882		62.2	75.9 (4)	58.6	82.1	89.6
1883		65.2	81.9	63.4	82.5	89.7
1884 (3)		69.0	79.2	65.0	82.7	89.4
1885		79.0	80.6	59.5	80.5	88.9
1886		72.9	80.5	66.0	82.0	88.7

[a]Earning assets are loans, securities, and bank deposits.

Source: Reports of Condition. See also note b, Table IV-1, page 67, and Appendix A.

bank deposits to reserves. The failure of the three local banks to maintain high and stable ratios indicates that they did not plan the overall employment of their assets in this period as carefully as they did later. While the local banks preferred to lend less and hold more in reserve than did other national banks in the same class, their reserve policies do not reflect a tendency to discriminate between local and distant customers. Had they done so, low loan-asset ratios would have been coupled with high ratios of bank deposits to primary reserves. Such was not the case. Low loan-asset ratios were paired with high cost to reserve ratios. The behavior of the local banks during the first period is therefore best described as having been conservative, not monopolistic.

Table IV-9 shows that the local banks were more conservative than other banks, although that conservatism diminished somewhat by late in the period. The First National generally had a loan-asset ratio only about one-half as high as the loan-asset ratio for the average country bank. The East Tennessee also had a relatively low loan-asset ratio, although not quite so low as the First National. The Mechanics National after its first year of operation, lent at about the same rates as did most other banks through the end of 1886.

It is also apparent that the local banks did not settle on a fixed percentage of their assets which should be lent out. In later years, the loan-asset ratios for the banks continued to fluctuate, but not by as much as they did in the first period. Furthermore, in later years, differences in loan-asset ratios between the local banks and

Table IV-9

Average Ratio of Loans to Assets, in Percent[a]

Year	First	East Tennessee	Mechanics	Central Reserve Cities	Reserve Cities	Country Banks
1867 (3)	19.4			37.1	42.4	40.6
1868 (1)	34.7			37.9	44.8	43.3
1869 (4)	21.1			38.8	47.0	44.9
1870 (4)	22.4			43.0	48.6	46.4
1871 (3)	17.0			44.6	48.9	47.4
1872	22.4 (4)	7.9 (1)		46.6	51.7	39.8
1873		24.6		48.8	52.6	49.7
1874		34.1		48.6	52.3	49.5
1875		15.3		49.8	54.0	51.1
1876		47.4		48.9	54.6	51.2
1877 (4)		37.9		48.1	54.3	50.2
1878		29.8		44.5	53.3	47.9
1879 (2)		38.6		43.1	49.7	46.2
1880 (2)		45.0		45.4	52.1	48.2
1881		33.0		44.5	53.3	49.4
1882		42.9	47.0 (4)	46.5	54.7	52.5
1883		44.1	57.5	51.2	55.8	54.4
1884 (3)		46.0	58.7	52.1	56.9	54.9
1885		52.9	60.1	47.6	55.4	54.3
1886		54.0	54.0	54.9	59.3	56.8

[a]Source: Reports of Condition. See also note b, Table IV-1, page 67, and Appendix A.

other banks diminished. The wide swings in loan-asset ratios for the East Tennessee National from one year to the next were not a permanent characteristic of this bank's behavior. By the end of the transition period, the large fluctuations in its loan-asset ratio had disappeared.

The Mechanics National did not have large variations in its loan-asset ratio (compared to the East Tennessee or First National). This bank had had considerable difficulty in acquiring a large and growing volume of low cost liabilities. Because it had to pay for so many of its liabilities, it was obliged to manage its assets more carefully than either the First National or the East Tennessee National. The examiners' reports for 1884-1886 indicate that the Mechanics was paying 3 to 4 percent for demand certificates of deposit and 3 percent for bank deposits. (At the same time, the East Tennessee was paying interest on a rapidly diminishing portion of its private deposits.) During those years, the Mechanic's volume of both demand certificates of deposit and bank deposits was increasing, and increasing relative to other liabilities. The Mechanics could not afford to be as conservative towards its borrowers as was the East Tennessee, nor could it afford to hold as high a proportion of nonearning assets as did the East Tennessee. A more aggressive policy in the acquisition of liabilities led to a more aggressive policy towards making loans.

On its first examination, 48 percent of the Mechanics loans were demand loans secured by collateral, while 41 percent were time loans secured by two or more endorsements. Four percent were time loans secured by collaterals (Mechanics National Bank, Report of Examination, May 18, 1882). When this bank's loan-asset ratio rose (1884-1886), it also became more accomodating towards its borrowers. Demand loans

(loans payable at the bank's demand) fell and time loans increased. (Time loans were loans which were made for a specific period of time, and which could not be called before maturity.) Loans secured by two or more endorsements grew and a growing portion of those endorsements were made by directors of the bank. That is, the directors demonstrated a growing willingness to add their personal endorsement to loans which were not made for their personal benefit. Even though these changes in loan policy represented a more aggressive approach to lending, the loan policy of this bank was not as aggressive in these years as it was in later years, because the Mechanics did not systematically and blatantly violate the rule that no more than 10 percent of paid in capital could be lent to any one borrower. From 1882 to 1886, the Mechanics did violate the 10 percent loan limit, but the violations in these years were infrequent and small. In later years, the number of violations increased, and the extent to which overloans exceeded the limit grew dramatically both for this and for other banks.

The Mechanics altered the loan policy it had in 1882 in order to make it easier for its customers to obtain loans, but it did not make it easier for them to obtain large loans. In later years, the bank took the further steps of increasing its time loans endorsed by one individual (rather than by two or more individuals), and increasing the size of its loans. From 1882 to 1886, the examiner reported that overloans and limit loans were 4 to 11 percent of all loans, whereas from 1891 to 1895, for example, overloans and limit loans were 15 to 26 percent of all loans.

It would, of course, be quite interesting to compare the loan policies of the East Tennessee National with those of the Mechanics National during the first period, but the examiners' reports for the East Tennessee have not been made public. Any comparison must then rely upon the correspondence between the local banks and the Comptroller of the Currency. The correspondence does not make any mention of the types of loans granted by the East Tennessee, but overloans were an occasional subject. The letters indicate that there were no significant differences between the East Tennessee and the Mechanics in respect to the sanctity with which they held the 10 percent loan limit. Both banks occasionally violated the limit, but when they did, the violations were small. Frequent and flagrant violations of the 10 percent loan limit were not part of the strategies of these two banks during the first period. Such violations did become an important part of their activities late in the transition period.

The First National did not habitually grant excessive loans. The few that were granted were relatively small violations. (The examiner's reports for the First National were not very extensive, and consequently a detailed analysis of the types of loans made by this bank is not possible.)

In summary, the loan policies of both the First National and the East Tennessee National seem to have focused more upon the quality of the individual loans rather than upon the total volume. In contrast, the Mechanics National was forced to pay more attention to the quantity of its loans, and did so by relaxing the requirements that potential

borrowers had to meet. As a consequence of these policies, both the First National and the East Tennessee National had loan-asset ratios which fluctuated a great deal from year to year, whereas the Mechanics National had a more stable loan-asset ratio.

The obverse of loan policy was reverse policy. Wide variations in loan-asset ratios from one year to the next had a mirror image effect on reserve-asset ratios; movements in one were accompanied by movements in the opposite direction by the other.

The First National's primary reserve ratio was always higher than the same ratio for country banks, and in most years higher than the ratio for reserve city banks. (See Table IV-10.)

In fact, in the four years of 1867 and 1869-1871, the First National's primary reserve ratio was about the same as that of central reserve city banks. Given the legal reserve requirement, it is not surprising that central reserve city banks had a higher primary reserve ratio than the other two classes, or that reserve city banks had a higher ratio than did country banks. The unexpectedly high ratio for the First National bespeaks that bank's strong preference for a conservatively arranged balance sheet. In addition to a high primary reserve ratio, the First National also held a secondary reserve ratio which was higher than that held by the average bank in each of the three classes, although the difference between the First National and the average country bank was smaller here than for primary reserves. (See Table IV-11.) That is, the First National held a much higher proportion of its assets in liquid and near-liquid form than did other banks.

Table IV-10

Average Ratio of Primary Reserves to Assets, in Percent[a]

Year	First	East Tennessee	Mechanics	Central Reserve Cities	Reserve Cities	Country Banks
1867 (3)	40.3			44.5	28.2	19.6
1868 (1)	22.2			45.2	27.5	18.0
1869 (4)	36.6			45.6	25.5	16.6
1870 (4)	41.7			40.6	25.7	17.0
1871 (3)	42.5			40.6	26.5	16.9
1872	25.8 (4)	58.2 (1)		39.2	24.3	15.8
1873		18.2		37.8	24.4	15.8
1874		16.8		37.5	25.2	15.4
1875		17.3		35.7	23.6	14.0
1876		22.7		35.0	23.6	14.2
1877 (4)		21.7		36.1	23.0	14.3
1878		24.3		36.4	23.2	14.6
1879 (2)		22.2		38.0	24.7	16.0
1880 (2)		33.0		45.1	27.6	18.7
1881		50.2		44.7	26.5	18.6
1882		41.4	34.7 (4)	43.0	25.6	17.0
1883		40.6	27.5	38.3	25.6	16.5
1884 (3)		38.5	25.1	36.6	25.6	16.8
1885		31.1	23.6	42.6	28.3	18.1
1886		33.2	28.7	36.0	26.9	18.4

[a]Primary reserves are bank deposits, cash item, clearing house balances, and cash.

Source: Reports of Condition. See also note b, Table IV-1, page page 67, and Appendix A.

Table IV-11

Average Ratio of Secondary Reserves to Assets, in Percent[a]

Year	First	East Tennessee	Mechanics	Central Reserves Cities	Reserve Cities	Country Banks
1867 (3)	39.0			16.9	27.8	38.1
1868 (1)	39.5			15.1	26.0	36.9
1869 (4)	38.8			13.6	25.5	36.6
1870 (4)	32.9			14.1	23.7	34.6
1871 (3)	36.7			12.8	22.5	33.6
1872	44.8 (4)	27.5 (1)		11.7	21.9	42.2
1873		50.2		10.9	20.9	32.1
1874		43.2		11.3	20.0	32.0
1875		30.5		11.5	19.0	30.0
1876		22.8		13.1	18.3	30.5
1877 (4)		32.9		12.4	19.1	31.3
1878		38.3		15.9	21.7	33.0
1879 (2)		32.7		16.0	22.0	33.5
1880 (2)		16.8		7.2	17.4	29.2
1881		11.8		8.3	17.5	28.4
1882		12.7	16.3 (4)	7.9	16.9	27.0
1883		13.8	11.1	7.7	16.0	25.6
1884 (3)		13.7	11.3	8.3	14.9	24.8
1885		12.6	11.5	7.2	13.8	24.1
1886		11.5	12.6	6.5	11.4	21.4

[a]Secondary reserves are U.S. bonds, premiums, and other securities.

Source: Reports of Condition. See also note b, Table IV-1, page 67, and Appendix A.

The East Tennessee National, while not quite so conservative as the First National, held a relatively high primary reserve ratio for most of the first period. The years 1873-1879 were an apparent exception to this conservative arrangement of assets. The relatively low primary reserve ratios for the East Tennessee during those years were, however, offset by very high secondary reserve ratios. On balance during that period, the East Tennessee had a more conservative arrangement of assets than did other banks. From 1880 to 1886, the East Tennessee was somewhat less conservative than previously. Whereas its primary reserve ratio was relatively high, its secondary reserve ratio fell below the ratio held by other country banks and was about the same as that held by reserve city banks. Even then, total reserves for the East Tennessee constituted a larger portion of its assets than did total reserves for the average bank of any class.

The Mechanics National generally had a less conservative arrangement of its assets than did the East Tennessee National or the average country bank. The Mechanics generally held a higher primary reserve ratio but a lower secondary reserve ratio than did the average country bank. The net effect was a somewhat less conservative or more aggressive arrangement than that of the average country bank. However, the composition of primary reserves for the Mechanics National was more conservative than the composition for the average country bank.

The local banks generally held a higher proportion of their primary reserves in cash and a lower proportion in bank deposits than did reserve city or country banks. (See Tables IV-12 and IV-13.) Further, the

Table IV-12

Average Ratio of Cash to Primary Reserves, in Percent

Year	First	East Tennessee	Mechanics	Central Reserve Cities	Reserve Cities	Country Banks
1867 (3)	59.1			39.8	59.2	48.6
1868 (1)	43.5			35.5	50.9	44.0
1869 (4)	38.8			34.3	49.5	43.4
1870 (4)	41.2			47.5	50.6	40.6
1871 (3)	65.9			39.3	43.8	37.6
1872	69.4 (4)	42.4 (1)		37.4	42.4	39.3
1873		68.5		37.8	42.4	39.8
1874		73.9		46.2	43.8	38.8
1875		69.1		43.1	39.4	35.2
1876		72.9		46.5	40.7	35.1
1877 (4)		82.2		45.3	43.9	36.7
1878		78.1		41.9	42.7	37.5
1879 (2)		69.9		34.4	41.1	36.5
1880 (2)		60.7		30.0	36.4	32.8
1881		72.8		29.9	37.2	33.2
1882		82.1	59.4 (4)	31.4	39.2	35.6
1883		80.3	49.3	39.9	39.4	36.9
1864 (3)		73.4	59.4	54.0	43.7	37.8
1885		50.0	58.0	59.2	45.6	37.5
1886		74.2	47.3	52.9	43.9	38.2

[a]Source: Reports of Condition. See also note b, Table IV-1, page 67, and Appendix A.

Table IV-13

Average Ratio of Bank Deposits to Primary Reserves, in Percent[a]

Year	First	East Tennessee	Mechanics	Central Reserve Cities	Reserve Cities	Country Banks
1867 (3)	36.9			7.0	26.0	45.0
1868 (1)	36.3			6.5	28.0	50.6
1869 (4)	54.4			7.1	29.6	50.5
1870 (4)	51.7			8.4	33.2	53.2
1871 (3)	26.5			8.5	36.3	56.3
1872	27.4 (4)	49.8 (1)		10.5	39.1	54.6
1873		24.8		11.2	38.8	55.3
1874		23.3		9.6	39.4	55.8
1875		27.9		11.1	40.6	58.5
1876		25.3		12.2	42.7	59.5
1877 (4)		14.9		12.7	39.6	57.6
1878		19.3		11.0	40.2	57.1
1879 (2)		25.4		9.5	40.8	58.1
1880 (2)		34.8		8.0	43.2	62.4
1881		25.4		8.3	42.9	62.3
1882		15.9	36.3 (4)	9.6	40.7	59.0
1883		17.9	48.5	11.4	41.9	58.0
1884 (3)		24.0	36.7	12.0	42.8	57.9
1885		43.4	37.9	10.8	39.9	58.0
1886		22.3	48.5	12.9	42.0	57.5

[a]Bank deposits are amounts due from reserve agents, other national banks, and other banks and clearing house certificates of deposit held.

Source: Reports of Condition. See also note b, Table IV-1, page IV-9, and Appendix A.

relative importance of these two categories of primary reserves was not especially stable from one year to the next for the local banks in the first period. In later years (toward the end of the transition period) there was more stability in their relative importance.

The First National almost always had a higher percentage of its primary reserves in cash than did the average country bank. In some years, its cash-primary reserve ratio exceeded the ratio for reserve city banks. At the same time, the First National usually held a smaller percentage of its primary reserves in bank deposits than did reserve city banks or country banks. (Comparison with the Central Reserve Ctiy banks is difficult because those banks often held more than one-half of their primary reserves in cash items. There were primarily certified checks drawn to facilitate stock and bond trading, but which had not been presented for payment. The lack of detail in the reports of condition published in the Comptroller's Annual Report makes it impossible to determine the proportion of cash items derived from certified checks, and therefore it is impossible to produce a useful comparison between central reserve city banks and other classes.) Further, the range over which the First National's cash to primary reserve ratio varied was quite large.

The same pattern was followed by the First National's successor, the East Tennessee. In fact, the East Tennessee had a slightly stronger preference for cash than did the First National. From 1872 to 1886, cash made up more than 60 percent of primary reserves in all but two years. Bank deposits were usually one-quarter or less. Both percentages varied over a wide range. However, by the end of the transition period,

bank deposits accounted for better than 70 percent of primary reserves, cash for less than one-quarter, and the range over which both percentages varied had been sharply reduced.

The Mechanics National also had a strong preference for cash during the first period, although its cash to primary reserve ratio was usually below that of the East Tennessee. Its bank deposit to primary reserve ratio was usually higher than the East Tennessee's but lower than either the average reserve city bank or the average country bank. Furthermore, the percentages of primary reserves coming from cash and from bank deposits for the Mechanics National did not vary over so wide a range as did the East Tennessee's. These two percentages also underwent the same reversal in relative importance and variability in later years as the East Tennessee's.

The relative importance of cash and bank deposits to primary reserves indicates that the local banks in the early period were more conservative than local banks were in later years. They were also more conservative than either reserve city banks or country banks during the first period. This pattern of conservative behavior by the local banks is enhanced when the bank deposit portion of primary reserves is examined. (See Table IV-14.) The local banks did not, as a general rule, spread their bank deposits between reserve agents, other national banks, and other banks. Instead, they tended to concentrate their bank deposits with their reserve agents, although there was often considerable variation in the proportioning of these deposits from one year to the next. In later years, there was a tendency for bank deposits to be

Table IV-14

Average Ratio of Deposits with Reserve Agents and Clearing House Certificates of Deposit Held to Bank Deposits, in Percent

Year	First	East Tennessee	Mechanics	Reserve Cities	Country Banks
1867					
1868					
1869 (4)	62.5 (1)			64.5	69.2
1870 (4)	29.9			67.7	72.9
1871 (3)	86.6			69.3	72.9
1872	72.6 (4)	34.3 (1)		69.2	73.0
1873		47.9		66.3	73.9
1874		85.6		65.4	72.9
1875		78.2		62.8	69.4
1876		62.4		63.9	71.3
1877 (4)		65.7		60.0	70.3
1878		72.7		61.8	70.9
1879 (2)		97.6		61.6	71.9
1880 (2)		63.0		61.4	70.3
1881		98.5		58.5	69.4
1882		97.0	51.9 (4)	56.0	68.5
1883		75.7	38.7	56.9	68.7
1884 (3)		66.6	56.4	58.2	70.4
1885		55.9	51.7	55.6	71.0
1886		52.3	51.4	53.9	69.8

[a]Source: Reports of Condition. See also note b, Table IV-1, page page 67, and Appendix A.

more widely distributed as the local banks ought to deposit their funds where the return was largest.

That tendency was most apparent in the activities of the East Tennessee National. After the first period, the ratio of deposits with reserve agents (and in clearing house certificates of deposit) to all bank deposits for this bank fell and became relatively stable. Other local banks had a more varied experience. In most years of the final period, their ratio was relatively low and stable, but not so low or stable as the East Tennessee's.

The examiner's reports rarely distinguished between interest rates paid by other banks to the local banks. In most cases, a simple range of rates was given, but the range did not identify which banks paid the highest rates. On those few occasions when an identification was made, reserve agents, especially those in New York City, generally paid lower rates than did other banks, whether they were national or nonnational. The decline in the percentage of bank deposits going to reserve agents in later years reflects the more intensive search for the higher return. The high ratios of the early years indicate that the local banks were not as aggressive then as they were later on.

Summary

During the first period, the local banks managed their assets conservatively. They generally preferred to hold more reserves and make fewer loans than did other national banks. In addition, they generally held a higher proportion of their reserves in cash and a lower proportion

in bank deposits than did other banks. Their choice of a low-risk strategy for the management of their assets was made possible by their ability to acquire low-cost liabilities. Their ability to acquire low-cost liabilities through much of the first period was linked to their status as national banks (but not their status as country banks). For two banks (the First National and the East Tennessee National), the right to issue banknotes and the right to acquire U.S. government deposits were important advantages over their state chartered competitors. Furthermore, the local national banks were larger than their state chartered competitors, and some of the disparity in size can be explained by the relatively large capital required for national banks in Knoxville.

Membership in the National Banking System does not, however, account for all the advantages enjoyed by the local banks. Their conservative approach to banking, especially during the difficult reconstruction years, probably had strong support from the public. It was only with great reluctance and under strong provocation that the local national banks abandoned their conservative habits. Furthermore, the change in behavior during the next period came because of changes in the structure of national banking in Knoxville and because of growth in Knoxville's economy. Changes in the law affecting national banks during that period were few and cannot account for changes in the banks' behavior.

CHAPTER V

THE TRANSITION PERIOD: 1887-1900

Introduction

National Banking in Knoxville was transformed between 1887 and 1900 by an increase in the number of banks in response to a quickening of economic activity that began with the integration of the local railroads into the national rail network. Knoxville had good north-south rail connections at the end of the War, but direct east-west links were not completed until the mid-1880's. Thereafter, Knoxville's economy boomed. The financial portion of the economy grew likewise, but not without undergoing changes in its conduct. As more and more banks competed for local sources of liabilities, the cost of those liabilities rose. Both demand for and supply of liabilities grew, but demand grew faster. The rising cost of liabilities, in turn, forced the banks to manage their assets more carefully. The increasingly competitive atmosphere also had the effect of producing differences between banks in the acquisition of some liabilities and the management of some assets.

Most of the increases in the number of banks occurred between 1887 and 1892. Four new banks obtained national charters: the Third (1887), the City (1888), the State (1889), and the Holston (1891). In addition, four state banks were founded. During the remainder of the transition period, two more state banks were founded, but they were small and they

closed in a few years. One old state bank, the Peoples Bank, closed in 1892, and one national bank, the State, failed in 1893. At least in terms of the number of banks, the transition period was really two periods: 1887 to 1892 saw a large increase in the number of banks, whereas 1892-1900 saw these banks attempting to adjust to the new and more competitive environment—in fact, there was a shake-out.

During most of the years from 1867 to 1886, the local banks paid interest on a relatively small portion of their liabilities. High cost deposits—demand certificates of deposit and borrowed money—rarely contributed significantly to liabilities. During the transition, however, high cost deposits grew in relative importance. Payment of interest on private deposits became widespread, and demand certificates grew in relation to private deposits. In addition, banks found that the simple payment of some interest was not sufficient to acquire a growing volume of demand certificates. As the period wore on, the banks offered a growing variety of such certificates, with the variety being characterized by differences in both the term to maturity of the certificates and their interest rates. Furthermore, the local banks showed an increased willingness to pay interest upon pure checking accounts, otherwise known as "open accounts." (At the same time, these banks continually complained to the Comptroller of the Currency, and he to them, about these practices.)

Borrowed money became an increasingly important source of liabilities, although here the record is mixed. Borrowed money was never important to the East Tennessee National, but most of the other banks did obtain

a significant portion of their liabilities from this source. One bank, the City National, appears to have decided soon after it opened to acquire about one-quarter of its liabilities from borrowed money. It met that target by using borrowed funds (rediscounts, bills payable, and bonds borrowed) to make up any difference between the target percentage and the percentage of liabilities derived from bank deposits. That is, when bank deposits fell below the target, the City National rediscounted with its reserve agents to make up the difference. The other banks generally had lower and less definite targets than did the City National. All except the East Tennessee showed an increased willingness to seek bank deposits and to rediscount with and issue certificates of deposit to other banks.

Shareholder investment generally contributed a diminishing proportion to liabilities, as did banknotes issued. The local banks generally issued the minimum amount of banknotes required by law. (They did, however, respond strongly to the Act of 1900, which made banknote issue more profitable.) Capital changes were few, and those that did occur were, unlike those in the first period, unrelated to the right to issue banknotes. Rather, capital changed in response to growth in the local economy or to taxes.

As much as the acquisition of liabilities changed during the second period, the management of assets changed even more. Part of the change in the way the banks managed their assets was caused by increasing competition for customers. Increasing cost of liabilities meant that banks had to more carefully select the uses for which their

assets were employed. Earning-assets to all-assets ratios rose slightly, and loan-asset ratios even more. Both ratios stabilized. The local banks tended to hold lower ratios of reserves to assets, and the composition of their reserves changed. They held lower ratios of cash to primary reserves and higher ratios of bank deposits to primary reserves. There was a slight tendency to distribute bank deposits more widely between reserve agents and other banks. Secondary reserves diminished in importance. (Yields on bonds were still higher than returns to be earned on bank deposits, but the difference had narrowed.)

The effect of increased competition was also felt on the size and types of loans granted. Loans grew in size and violations of the 10 percent loan limit became more frequent. In fact, deliberate violation of that limit was employed in order to retain especially favored customers. Loans secured by only one endorsement (one name paper) grew in relative importance; loans secured by more than one endorsement fell. Generally, demand loans fell in relative importance. The banks not only made it easier for their customers to borrow, they also lent them larger and larger amounts, even if that meant that the loans violated the 10 percent loan limit.

In summary, an increase in the number of banks produced greater competition for liabilities, and as the cost of liabilities rose, more efficient use of those liabilities became imperative. The broad arrangement of assets became less erratic and more sensitive to potential yields. At the same time, the more competitive atmosphere led banks to relax loan requirements. By the end of the transition, the local banks were acting less like country banks and more like city banks.

Acquisition of Liabilities: 1887-1900

During the transition period, private deposits were the primary source of liabilities for most of the local banks, but the importance of private deposits to each particular bank was by no means constant. As a general rule, the established banks (the East Tennessee National and the Mechanics National) had more success in attracting private deposits than did the newly founded banks, even though the old banks were severely challenged by the new ones. The newer banks relied more heavily on borrowed money than did the older banks, but among the newer banks, some found this source of liabilities more useful and dependable than did others. As a general rule, shareholder investment and circulation grew slowly, and therefore their relative importance to liabilities fell.

From its founding in 1872, the East Tennessee National had acquired an evergrowing proportion of its liabilities from private deposits until 1881, one year before the Mechanics received its national charter. From 1882 through 1885, the East Tennessee's ratio of private deposits to liabilities drifted downward. (The Mechanics' ratio also fell slowly after its first year of operation.) There was a small increase in 1886, but the downward drift began again in 1887 and continued through 1892, after which the ratio rose slowly from around 60 percent (1892-1895) to 65 to 70 percent (1896-1900). (See Table V-1.)

The behavior of the East Tennessee's ratio from 1881 to 1891 is explained by increasing competition from the other banks for private deposits. Initially, the East Tennessee did not respond to the growing

Table V-1

Average Ratio of Private Deposits to All Liabilities, in Percent

Year	East Tennessee	Mechanics	Third	City	State	Holston	Central Reserve Cities	Reserve Cities	Country Banks
1887	63.6	66.9	25.8 (3)				48.5	47.2	48.0
1888	55.1	63.1	29.9	50.0			47.8	47.6	47.7
1889	58.8	62.1	38.5	52.2	7.5 (1)		47.1	48.8	49.7
1890	57.6	57.2	39.7	55.3	31.7		45.9	49.7	50.8
1891	51.4	58.4	35.3 (3)	48.1	31.2 (4)	37.0 (1)	46.5	49.5	50.6
1892	61.2	62.7	42.3	50.6	41.6	39.3 (4)	45.4	50.0	52.7
1893	59.5	55.7	35.8	47.7	31.0 (3)	28.1	46.4	48.3	50.4
1894	61.7	55.4	37.0	45.3		32.7	45.6	49.5	50.5
1895	58.9	55.9	35.0 (4)	46.0		38.0	46.2	49.9	51.6
1896	63.5	53.0	36.5	49.5		42.6	46.7	49.0	50.9
1897	65.2	52.4	43.0	57.6		49.7	44.4	49.8	52.3
1898	64.3	51.9	50.8 (4)	56.3		50.8 (3)	44.5	50.8	55.3
1899	67.4	56.4 (4)	49.4	50.8		45.7	45.1	51.1	58.3
1900	68.2	53.8	45.8	49.8		43.9	41.3	48.1	58.6

Source: Reports of Condition. See Table IV-1, page 67.

competition by greater willingness to pay interest on private deposits. In fact, the noninterest-bearing portion of its private deposits rose to its highest level in 1887-1890. (See Table V-2.) The other banks, however, were willing to pay interest on a growing proportion of their private deposits and their private deposits grew (or at least did not decline) relative to their liabilities. The crisis of 1890, while a relatively mild one, also had an effect, even though it was delayed. That crisis sharply accentuated the prior trend and appears to have forced the East Tennessee to reevaluate its policy towards its depositors. (The other local banks were affected to a lesser extent.) The reevaluation led to the bank paying interest on a growing proportion of its private deposits. The East Tennessee wrote the Comptroller of the Currency in 1896:

> This bank has for the past two years been trying to get the other National Banks here to reduce the rate of interest paid on certificates of deposit, or what we would prefer, abolish it altogether; but, we have as yet been unable to get the other banks to agree to this.
>
> Years ago this bank did not pay any interest on certificates, and we tried to keep it up, but new banks were being started, and these, as well as those already in existence, were paying interest. We had to follow suit or see a large portion of our deposits leave us. We entirely agree with you, that it is not in harmony with the principles of sound commercial banking to pay interest upon deposits. Yet we feel that we must meet competition, or lose a large part of our business. We trust that some time in the future, the practice of paying interest upon deposits will be discontinued by all of the best banks in our city, and we shall use our best endeavor to bring this about. (East Tennessee National Bank, March 19, 1896)

"Years ago" refers to the period 1887 to 1890-1891. Because the East Tennessee National was losing depositors to its competitors, it

Table V-2

Average Ratio of Individual Deposits to Private Deposits, in Percent

Year	East Tennessee	Mechanics	Third	City	State	Holston
1887	98.3	82.5	90.4 (3)			
1888	98.3	80.5	94.6	N.D		
1889	98.0	79.0	90.9	89.2	N.D.	
1890	97.7	76.2	84.1	88.6	94.3	
1891	94.2	78.9	78.9 (3)	88.4	79.9 (4)	87.1 (1)
1892	87.7	82.5	78.6	90.0	89.2	86.4 (4)
1893	78.6	81.2	79.4	83.6	87.1 (3)	81.0
1894	75.9	86.2	81.4	85.9		83.3
1895	64.2	88.0	71.8 (4)	73.9		74.1
1896	64.4	81.2	66.3	74.0		63.4
1897	68.9	78.1	69.3	76.8		78.0
1898	63.6	76.8	56.4 (4)	65.0		81.4 (3)
1899	59.7	76.4 (4)	61.1	61.7		78.3
1900	59.0	76.6	66.4	60.7		77.6

Source: Reports of Condition. See Table IV-4, page 71.

N.D. is No Data.

reversed its old policy and began to pay interest on its certificates of deposit. In the following years, the ratio of noninterest-bearing deposits to private deposits fell steadily. In fact, within two years of the abandonment of the old policy, the East Tennessee National paid interest on a higher portion of its liabilities than did any of its local competitors. By doing so, the East Tennessee obtained a higher proportion of its liabilities from private deposits than did its local competitors. The East Tennessee's manifest success in attracting private deposits compelled the other local banks to rely much more heavily upon other sources of liabilities (see the discussion below on borrowed funds), while at the same time forcing them to offer a greater variety of interest paying accounts. (The bank's statement that at one time it did not pay interest on any deposits is probably an exaggeration, although a small one.)

The examiners' reports indicate that competition between the local banks was most intense during the mid-1890's. Prior to 1893, the Mechanics National rarely paid interest on its open accounts, but from 1893 through 1899 it paid interest on a few of these accounts, usually at 3 to 4 percent. (The bank examiners were not always careful to distinguish between open accounts and certificates of deposit, especially before 1890.) Starting in 1889, the Mechanics had increased the interest it paid on demand certificates from 3 and 4 percent to 4 percent on all accounts. At that time, certificates had a maturity range of 3 to 6 months, but within two years, the term to maturity was reduced simply to three months. By the late 1890's, the Mechanics was still paying

interest on open accounts as well as on certificates, but the range of interest rates paid on each indicate that competition had slackened. The rate on demand certificates was a uniform 4 percent from 1887 to 1894. In 1895, a range of 3 to 4 percent was given, but for the following two years, the rate was again uniformly 4 percent. In 1898, a range of 3 to 4 percent was again the case, and in the next two years, 3 percent was the rule.

In contrast, a more conservative bank, the Third National, did not pay interest on open accounts until 1893. (See the discussion of this bank's loan policy for an explanation of its conservativism, below.) It paid interest on such accounts (4 percent per year) through 1895, but halted interest payments on open accounts in 1896. In 1897, it resumed payment of interest on open accounts, but reduced the rate to 3 percent per year in 1898. The Third National generally paid 4 percent on demand certificates through 1899, although it did reduce the minimum term from six months to three (in 1891). That is, the Third behaved much like the Mechanics, except that the Third was about one to two years behind.

The City National was much more aggressive than either the Mechanics or the Third. It paid 4 to 6 percent on open accounts in 1891 and 1893-1894. The standard rate on open accounts was 4 percent from 1894 to 1898. Thereafter, the rate fell to 3 percent by early 1899. In 1894, the City began paying 6 percent on some demand certificates and 4 percent on others, and maintained these high rates until 1896. The range on demand certificates fell to 3 to 4 percent in 1897, but rose back to a uniform 4 percent in 1898. The range fell in the

second half of 1899 to 3 and 4 percent, and by 1900, it was a uniform 3 percent. That is, the City offered its depositors higher rates than did its competitors beginning around 1893, and continuing through 1896. This practice encouraged the bank examiner to complain: "The payment of 3 to 4 percent on deposits is a bad habit the Knoxville banks have gotten into." (City National Bank, Report of Examination, February 1, 1898.) The Comptroller took note of this remark (in the report of examination) and raised the matter with the City National. The bank replied on March 9, 1898:

> . . . [in] regard to the matter of interest on deposits, we will state that this is controlled largely by competition, and that we are guided in this matter by the supply and demand for money. We have in some cases, reduced the rate of interest to depositors to 3%, and where the demand for money fails to justify it, we decline to take money on deposit and pay interest on the same at any rate.

At that time, the City National was paying at least as much, if not more, for deposits than was paid by the other banks in Knoxville. (Of course, because the examiners' reports for the East Tennessee National Bank have not been made public, we cannot know how that bank compared to the City National.) It is clear that the City's reply to the Comptroller was not that of a conservative, reluctantly competitive bank simply reacting to the demands of the market place. Instead, the reply indicates that the City National was aggressively pursuing depositors, and in doing so, was setting market conditions for the other banks to meet, rather than passively responding to the actions of others.

The other two national banks were less successful in attracting a solid base of depositor support, although the reasons differ. The State National paid high rates on demand certificates of deposit (4 to 6

percent) from 1891 to 1893. In the last year, it also paid 3 percent on at least one open account. But in spite of its competitive posture this bank never did succeed in attracting a large and growing volume of private deposits, and it failed in 1893. It failed to attract depositors because it was a badly managed bank, touched in its early years with corruption. (The reasons for its demise are discussed in Appendix B.)

The Holston National, on the other hand, was more successful—eventually. It had a difficult time surviving the strong competition from the other, older banks. On the Holston National's first examination, November 24, 1891 (just after it obtained its national charter), the examiner wrote:

> Knoxville is a good banking town and there is, perhaps, business enough to support all the banks now here. The managers and promoters of this institution have influence and acquaintance which can secure a fair share of the business doing at this point. A good indication is that they do not start with an idea of sudden riches, but that they are to build up a business for a living.

The cautious optimism of that first examination was replaced by a more pessimistic evaluation appearing just over two years later. The examiner wrote at that time:

> In my opinion the general condition of this bank is fairly good, its management appears good & expenses reasonable, its business is very small and with sharp competition its chances for success are not flattering. (Holston National Bank, Report of Examination, January 29, 1894)

By the examination of September 28, 1896, conditions had once more altered. The economy was recovering steadily from the crisis of 1893 and the examiner was more hopeful about the Holston's chances for success. He wrote:

> I find nothing in bank's condition to justify apprehension as to its condition or ability to meet its obligations. Bank sustained heavy losses under former administration and during the panic of 1893 but these have been gotten rid of and bank is getting in good shape and has encouraging prospects ahead.

The major difficulty faced by this bank continued to be the competition from the other local banks, not poor management. On the examination of July 1, 1897, the examiner wrote:

> Condition of bank has improved since last examination. . . . Bank is weak & has a difficult matter to make headway against the older and larger banks in this City, but it is doing a safe and improving business.

Throughout the 1890's, the Holston National generally paid the same rates on demand certificates as did the other banks, but it paid interest on open accounts less frequently. When interest was paid on such accounts, the Holston often paid a lower rate than did other banks. That is, this bank made no effort to challenge its competition, and instead it settled for slower, but at least steady, growth of private deposits. By February 4, 1898, the examiner was able to report that:

> Bank has fully charged off bad and doubtful paper. Is about through with this, and I think will soon become a dividend paying institution.

Similarly hopeful evaluations followed on the examinations of August 19, 1898, and September 19, 1899. It was only after 1900 that the Holston National was able to catch up with the other, older banks.

In summary, during the transition the local banks competed aggressively for private deposits. Some were more aggressive, but all made an effort. The two most active banks, the East Tennessee National and the City National, by and large dictated the circumstances under which the other banks competed. The City National offered better terms

to its depositors than did the other banks (for which examiners' reports are available). The East Tennessee National may not have offered its depositors more than the City National did, for it could rely, in part at least, upon its age and past success to demonstrate its solvency and sound management. The Mechanics National and the Third National both seem to have been willing to let the two more aggressive banks (the East Tennessee and the City) set policy toward depositors. Both the Holston National and the State National found the financial market in Knoxville crowded, but they reacted to this condition in different ways. The State attempted to match the leaders, but failed both because of its small size and tainted history. The Holston was also much smaller than its rivals (except for the State), and it did not attempt to compete aggressively with them. Instead, it offered its depositors slightly less favorable terms (and by doing so, minimized costs) and accepted as a consequence slower growth. Once it had proved that it was capable of survival (sometime by the late nineties), the Holston's private deposits grew steadily.

The transition period marked a radical departure in the banks' relations with their depositors. In the first period, the banks made little effort to attract private deposits, but beginning in 1887, old policies were overthrown. In fact, even during the final period, 1900 to 1913, competition for private deposits never reached the level of intensity achieved in the mid-1890's. (About the time that the intensity in the competition for deposits diminished among the local banks, the competition for borrowers quickened. See the analysis of

the alterations in the local banks' loan policies, below.) After the mid-1890's, local banks differed in the terms offered to their depositors to a lesser extent than previously.

Because the East Tennessee National was so successful in acquiring private deposits, it had little reason to turn to other banks for liabilities, whereas the other local banks found that in order to obtain the desired volume of liabilities, they had to rely to a greater extent upon other banks. The East Tennessee National obtained a smaller percentage of its liabilities from other banks than did any of the other local banks or the average country bank. (See Table V-3.) The City National, on the other hand, obtained a greater portion of its liabilities from other banks than did any of the local banks or the average country bank. In fact, from 1890 to 1900, the City obtained a greater portion of its liabilities from other banks than did the average reserve city bank. Further, it is apparent that the City decided very shortly after it was founded to borrow about one-quarter of its liabilities from other banks, and after 1890, it was quite successful in meeting that target. The other local banks generally borrowed less than the City National but more than the East Tennessee. In those cases where it appears that a local bank had selected a specific percentage of its liabilities to be obtained from other banks, that target was below that of the City National. Further, most of the local banks had more difficulty in meeting their targets than did the City.

The Mechanics National appears to have decided about 1885-1886 to obtain 10 percent of its liabilities from other banks. If this was the

Table V-3

Average Ratio of Borrowed Money to All Liabilities, in Percent

Year	East Tennessee	Mechanics	Third	City	State	Holston	Central Reserve Cities	Reserve Cities	Country Banks
1887	3.1	9.4	3.4 (3)				30.7	17.3	4.6
1888	3.7	9.9	6.8	5.3			30.7	16.8	4.8
1889	1.2	11.1	6.7	15.3	23.2 (1)		33.0	18.4	5.0
1890	2.5	15.9	8.7	19.2	12.0		32.0	17.8	5.2
1891	2.4	11.0	7.9 (3)	25.5	14.9 (4)	14.1 (1)	32.2	17.3	5.0
1892	0.6	8.8	5.2	23.2	16.9	8.7 (4)	35.2	19.5	4.9
1893	3.3	11.1	6.9	20.6	27.3 (3)	10.5	30.3	17.0	5.0
1894	3.8	9.6	7.4	22.2		8.0	35.0	18.9	4.5
1895	4.0	8.5	12.0 (4)	24.9		11.9	32.8	18.3	5.0
1896	1.4	10.2	14.2	23.6		13.5	30.7	17.4	4.9
1897	1.4	10.0	12.5	20.4		10.1	36.7	20.4	5.0
1898	2.2	11.2	16.5 (4)	24.2		12.8 (3)	37.0	21.8	5.2
1899	1.2	12.2 (4)	17.6	25.5		20.7	38.2	25.0	5.1
1900	1.7	11.2	20.4	27.1		19.9	39.0	27.2	5.3

Source: Reports of Condition. See Table IV-2, page 68.

target, the Mechanics was usually successful in meeting it. The Third National does not appear to have selected a target prior to 1895. From 1887 to 1894, its ratio of borrowed funds to liabilities generally fell between 6 and 9 percent, but such a relatively low percentage was an unlikely target. It does appear that about 1895 the Third decided to increase its ratio, but whether it had a definite goal at that time is not clear. (From about 1898 to 1907, the Third's ratio was fairly close to 17.5 percent, and it may have found about 1898-1900 that 17.5 percent was a desirable target.) Neither the State National nor the Holston National had a discernible target ratio.

The local banks all paid about the same rate on bank balances: 4 percent through 1896 and 3 percent thereafter. There were, however, differences between the local banks in the rates at which they rediscounted loans and notes. The common rate through 1896 was 6 percent, but from 1897 on, the rates ranged between 3 and 6 percent, with the rate in most years between 4 and 5 percent. The City National was the most active of the local banks in borrowing through rediscounts, and it generally paid the highest rates. The examiner did not separately report the rates paid on "bills payable." (These were large certificates lent by one bank to another.) It is possible that these accounts were most likely to earn the highest rates listed for certificates of deposit. Because the City National generally paid the highest rates (among the local banks) for certificates of deposit, it is likely that it paid the highest rates for any form of loans from other banks. Because the other local banks offered lower rates to other banks, they obtained a lower

and less stable proportion of their liabilities from borrowed money. That is, borrowed money was a consistently large supplier of liabilities only for the City National.

As a general rule, shareholder investment and circulation declined in importance as sources of liabilities. United States government deposits were held by only one local bank, the East Tennessee, until 1900, and their importance was small and declining. The liabilities of the local banks grew because their private deposits and borrowings from other banks grew. Nevertheless, shareholder investment and circulation were still important, especially for some of the newer banks. For example, in 1887 better than 70 percent of the Third National's liabilities were derived from shareholder investment and circulation. By 1900 they contributed about one-third of its liabilities. (See Table V-4.)

There were few changes in capital during the transition period. The East Tennessee National had increased both its capital and surplus to $175 thousand in 1887. No further changes were made. The Mechanics, Holston, and State (after all its capital was subscribed, by early 1890) kept their capital at $100 thousand throughout the period. The Third National began operations with a capital of $175 thousand in August of 1887 and increased it to $250 thousand by December of that year. A further increase to $300 thousand by early 1889 indicates that this was probably the desired level all along. At that point, the Third was the most highly capitalized bank in Knoxville, and it remained so until 1898 when it reduced its capital to $200 thousand. The City National started with $100 thousand, but by retaining all earnings, it was able to increase its capital to $200 thousand by 1894, where it remained through 1900.

Table V-4

Average Ratio of Shareholder Investment to All Liabilities, in Percent

Year	East Tennessee	Mechanics	Third	City	State	Holston	Central Reserve Cities	Reserve Cities	Country Banks
1887	26.7	20.9	59.1 (3)				18.5	30.1	36.6
1888	32.8	24.0	54.3	37.8			18.4	29.9	36.8
1889	32.3	24.3	48.5	27.3	55.8 (1)		18.1	28.8	36.4
1890	32.1	24.4	45.8	21.8	46.4		19.9	29.5	36.4
1891	37.6	27.7	50.4 (3)	23.1	44.5 (4)	48.9 (1)	20.1	30.4	37.1
1892	31.3	25.9	46.7	23.2	34.4	43.2 (4)	18.4	27.8	35.4
1893	30.4	30.2	50.9	28.3	34.8 (3)	51.4	20.7	30.2	36.7
1894	27.7	31.9	49.3	26.7		49.5	17.8	27.7	36.5
1895	29.8	32.4	47.0 (4)	24.0		42.2	18.3	27.6	35.0
1896	28.0	33.4	43.7	22.2		37.0	19.2	28.3	35.1
1897	26.6	34.1	39.4	18.3		34.0	15.9	25.3	33.7
1898	26.6	33.5	27.7 (4)	16.3		30.7 (3)	13.2	22.9	31.0
1899	25.0	28.4 (4)	28.0	13.4		28.3	11.7	18.9	27.8
1900	23.2	26.3	25.7	13.1		25.3	13.0	18.5	26.5

Source: Reports of Condition. See Table IV-3, page 69.

During the transition, there were three increases and one decrease in capital by the local banks. The East Tennessee did not explain the reasons for its capital increase in 1887, nor did the Third explain its increase in early 1889. However, both the City National and the Third did explain the later changes in their capital. The City National wrote on September 18, 1893:

> Since commencing business in Feby. 1888, this bank has never paid a dividend. The profits of each year's work has been added to the surplus fund, or kept in the shape of undivided profits. The surplus find is now $75,000 and the undivided profits amount to $18,000. We find in a city the size of Knoxville that our capital is too small. We are called on for loans almost daily in excess of the legal limit. Allow me to trouble you with this question? Will we be allowed to convert the surplus and profits in to capital stock? In other words, can we pay out our surplus and profits to our stockholders, and allow them to subscribe with these funds for new stock? We want to increase our capital to $200,000.

Even by 1893, the City National had trouble keeping its loans within the law. At the examination of May 5, 1893, the City had granted nine overloans, the largest of which was for $38,500, even though the largest loan that the City could <u>legally</u> make was $10 thousand. Altogether, the City at that time had made four loans that were double the limit (or larger). This had been the pattern for several years, and it did not change after the City's capital increase. The City continued to grant overloans; they were now much larger. When the City's explanation of its capital increase is compared to the Third's explanation of its capital decrease, it is clear that these two banks held sharply differing views, both of their role in the community and in the opportunities available to them.

The Third explained in a letter to the Comptroller of the Currency that there were two reasons for the decrease in capital. First, a reduction in capital would reduce taxes. Second, it would leave the bank with a surplus account in excess of 20 percent of the remaining capital, and that meant that no further additions to the surplus account would be required. This in turn would permit higher dividends. The bank anticipated an increase in dividends from a 6 percent rate to an 8 percent rate. The bank also noted that

> . . . according to my judgement, owing to the number of Banks here and the sharp competition among some and the tendency to lower rates of interest on gilt-edged paper, we will never be able to place our Bank on an 8% dividend, on $300,000 capital. (Third National Bank, February 1, 1898)

This explanation can only be seen as reasonable if it is recognized that the Third was a very conservative bank, and even then, the explanation is not very satisfactory. This bank felt that it could not profitably employ its large capital at the very time that the other local banks were finding increased opportunities and reasons to grant overloans. If the Third had wanted to achieve a more highly leveraged balance sheet, it could have done so by more aggressive competition for liabilities. Instead, it achieved a more highly leveraged balance sheet by reducing its capital. Because it chose the latter course rather than the former, the Third must be understood to have been a conservative institution, and not a bank faced with a diminishing market. (The bank's expressed desire to reduce its taxes cannot be evaluated, because it did not identify the particular taxes it would avoid by reducing its capital.)

Throughout the transition period, the local banks made the minimum bond deposit required by law and no more, with one exception. In 1899 the City National increashd its deposit of bonds to secure circulation to the maximum allowed. This action was most likely taken in anticipation of the changes in the law regarding note issue made in early 1900. Because the change in the law had its major impact after 1900, it will be dealt with in the discussion of the final period. Consequently, the local banks can be said to have issued banknotes at the lowest rate allowed by law during the transition period. (See Table V-5.) (The differences in the ratios of the circulation issued to capital between the local banks reflect differences in the minimum bond deposit based on size of capital.)

In summary, the local banks competed more aggressively for liabilities during the transition period than previously. Private deposits and borrowed money grew more than shareholder investment and circulation. The growth of Knoxville's economy during this period increased the opportunities facing the local banks, but the response to these opportunities was not uniform. Some banks took the lead in seeking new and expanding sources of liabilities; others were content to follow. For each of the local banks, the cost of liabilities grew and, as will be seen, forced them to manage the use of their funds more carefully.

Employment of Assets: 1887-1900

During the transition, the local banks grew cognizant of the need to manage both the quality and quantity of their loans and other assets.

Table V-5

Average Ratio of Circulation Issued to Capital, in Percent

Year	East Tennessee	Mechanics	Third	City	State	Holston	Central Reserve Cities	Reserve Cities	Country Banks
1887	22.5	22.5	20.6 (3)				14.8	18.7	37.1
1888	25.7	22.5	18.0	20.4			12.2	13.4	33.2
1889	25.7	22.5	15.0	22.5	24.9 (1)		7.3	9.0	28.4
1890	25.7	22.5	15.0	22.5	22.5		6.3	8.7	25.7
1891	25.7	22.5	15.0 (3)	22.5	22.5 (4)	0	7.1	9.2	24.8
1892	25.7	22.5	15.0	22.5	22.5	22.4 (4)	8.4	11.8	26.3
1893	25.7	22.5	15.0	22.5	22.5 (3)	22.5	13.4	15.9	28.9
1894	25.7	22.5	15.0	22.5		22.5	15.2	17.0	30.8
1895	25.7	22.5	15.0 (4)	22.5		22.1	18.2	18.8	32.0
1896	25.7	22.5	15.0	22.5		22.1	23.4	23.7	35.1
1897	25.7	22.5	15.0	22.5		22.1	23.0	22.8	36.0
1898	25.7	22.5	22.5 (4)	22.5		22.5 (3)	24.0	21.2	36.0
1899	25.7	22.5 (4)	22.5	90.0		22.5	24.0	23.4	38.9
1900	36.6	24.0	39.9	98.0		53.5	38.6	31.4	45.9

Source: Reports of Condition. See Table IV-6, page 89.

Until this period of intense competition began, the local banks had lent only to the most creditworthy customers. However, they soon realized old policies were no longer appropriate, and that they would have to attend more carefully to the broad proportioning of assets than they had previously. As a consequence, the banks generally set somewhat lower standards for their customers to meet, and this action permitted stabilization of important asset ratios at desirable levels. Ratios of earning assets to all assets and loans to assets rose to relatively high levels, and showed much less year-to-year change. Primary reserve to assets ratios generally fell to relatively low levels, as did the ratios of secondary reserves to assets. Among primary reserves, bank deposits rose and cash fell in importance.

The East Tennessee National's ratio of earning assets to all assets had often changed a great deal from one year to the next in the first period, and it was always below that of the average country bank. But beginning in 1881, the ratio started to rise, and with one interruption, the increase continued through 1886. The following year there was a substantial increase (from 77 percent up to 85 percent), and it reached its highest level to that time. From 1888 to the end of the transition period, the East Tennessee's ratio of earning assets to all assets remained very close to 85 percent with a low of 83.9 percent and a high of 87.5 percent. (See Table V-6.) These levels were slightly below that of the average country banb in those years, but both the relatively high level (compared to earlier years), and the steadiness in the ratio (also compared to earlier years), indicate that the East Tennessee's basic policies regarding asset management were profoundly changed during

Table V-6

Average Ratio of Earning Assets to All Assets, in Percent

Year	East Tennessee	Mechanics	Third	City	State	Holston	Central Reserve Cities	Reserve Cities	Country Banks
1887	77.0	83.0	84.0 (3)				66.1	82.6	88.8
1888	85.3	83.9	83.4	85.6			68.1	82.9	89.0
1889	85.4	81.7	83.7	88.0	95.1		68.1	83.2	88.9
1890	86.5	86.3	86.4	91.9	86.9		71.0	83.5	89.1
1891	87.1	86.7	90.2 (3)	91.0	89.9 (4)	92.1 (1)	69.3	83.0	88.7
1892	87.5	87.9	90.2	90.3	85.1	91.0 (4)	70.2	82.7	88.8
1893	85.1	88.6	87.1	88.5	91.3 (3)	89.8	68.4	82.7	88.0
1894	85.0	87.2	87.0	85.8		90.2	66.8	82.9	88.2
1895	84.7	84.1	84.2 (4)	88.7		92.0	71.7	83.8	88.3
1896	84.3	85.9	82.8	88.5		90.4	71.2	83.2	87.7
1897	83.9	84.0	84.3	89.8		90.3	69.5	83.1	87.7
1898	83.8	81.9	82.7 (4)	90.0		90.9 (3)	68.0	83.3	87.9
1899	85.8	85.7 (4)	86.2	91.0		89.2	71.7	84.6	88.9
1900	85.9	88.0	86.5	90.1		91.0	71.7	84.8	89.4

Source: Reports of Condition. See Table IV-8, page 101.

the early years of the transition, when new banks were rapidly being formed.

The Mechanics National's policies directing the employment of assets also changed in the early years of the transition, although the change was not so dramatic as the East Tennessee's. After its first year, the Mechanics' ratio of earning assets to assets was very close to 80 percent, but by 1887 it had risen to 83 percent. In the following years, the ratio fell below 83 percent only twice, and was in most cases slightly above 85 percent and just under that of the average country bank. That is, from 1890 on, the Mechanics National's ratio of earning assets to assets was usually above its earlier levels, although the ratio did vary more from year to year than the East Tennessee's.

The newly formed banks generally had relatively high and stable ratios of earning assets to assets, especially after the first two or three years of operation. The Third National started with a ratio of just below 85 percent, but after three years the ratio had risen to between 85 and 90 percent, at which level it remained until the bank felt the effects of the crisis of 1893. After that crisis was past, the Third's ratio was usually closer to 85 percent. Both the City National and the Holston National generally had a higher ratio of earning assets to all assets than did the Third, and their ratios usually varied less from one year to the next. The State National's ratio was generally high, but it varied more from year to year than did the other banks' ratios. The East Tennessee, the Mechanics, and the Third usually had ratios of earning assets to assets between those of the average reserve

city bank and the average country bank. The Holston and the City generally had ratios equal to those of the average country bank. This represented a significant departure from the first period, when the local banks generally held ratios of earning assets to assets that fell between the ratios held by the two classes of city banks. (In the final period, the ratios for the local banks usually were about the same as the ratios for the average country bank.)

There were two reasons for the general rise in ratios of earning assets to all assets for the local banks during the transition period. First, the local banks lent a greater portion of their assets, and second, they held a larger portion of their reserves in bank deposits and a smaller portion of reserves in cash. The most important of these two factors was the growth in loan-asset ratios, because primary reserves to assets ratios were generally lower than before. The lower primary reserve ratios were, however, accompanied by a higher proportion of those reserves held in bank deposits.

The East Tennessee National's loan-asset ratio had been, in the first period, below 50 percent in most years. (See Table V-7.) Beginning in 1881, that ratio started to rise, and it rose steadily until 1888. For the next three years, the ratio ranged between 55 and 65 percent. After 1891, it stabilized around 55 percent. There was a sharp one-year drop in 1894 that was a reaction to the crisis of 1893, but for most of the remainder of the transition period, the loan-asset ratio for the East Tennessee was very close to 55 percent. Even though there was a slight dip in the ratio from 1899 through 1902, the transition period saw the East Tennessee National lending at significantly

Table V-7

Average Ratio of Loans to Assets, in Percent

Year	East Tennessee	Mechanics	Third	City	State	Holston	Central Reserve Cities	Reserve Cities	Country Banks
1887	56.7	58.3	56.8 (3)				54.9	61.8	60.6
1888	67.4	67.3	66.0	65.8			54.5	61.1	61.2
1889	58.3	63.3	62.7	72.9	71.0 (1)		55.5	62.2	62.1
1890	65.3	65.6	69.4	77.7	63.5		57.5	64.2	64.6
1891	63.9	69.4	73.4 (3)	78.3	69.2 (4)	69.1 (1)	56.0	63.6	64.8
1892	56.3	65.0	65.9	77.1	70.8	68.7 (4)	56.9	61.1	63.1
1893	59.3	70.5	71.4	71.3	75.0 (3)	67.8	54.6	62.0	63.6
1894	49.3	69.1	69.0	59.9		63.9	51.7	58.0	59.4
1895	55.4	63.3	68.4 (4)	65.3		66.9	55.6	60.1	59.9
1896	56.6	62.7	66.8	62.5		66.0	54.7	59.0	59.4
1897	55.0	60.9	63.8	61.2		60.5	52.7	56.0	56.4
1898	57.5	57.8	65.2 (4)	66.1		69.8 (3)	51.6	54.5	54.9
1899	53.9	53.8 (4)	66.1	63.2		67.0	53.9	53.5	53.6
1900	51.8	56.0	64.0	63.7		66.2	51.7	53.3	54.9

Source: Reports of Condition. See Table IV-9, page 103.

higher levels than previously. The East Tennessee changed its loan policy in the mid-1880's, and the change was brought about by increased competition.

The Mechanics National also altered its loan policy and increased its loan-asset ratio early in the transition period, although the change was not so dramatic as the East Tennessee's. After its first year, the Mechanics generally had a loan-asset ratio of 55 to 60 percent through the end of the first period. The Mechanics responded to the increased competition by raising its loan-asset ratio to 65 to 70 percent. This relatively high ratio was maintained through 1894, after which the ratio drifted downward toward 55 percent by the last years of the transition.

The other local banks generally held higher loan-asset ratios than either the East Tennessee or the Mechanics, and almost every year of the transition they had higher ratios than did the average country bank. (In most years, the East Tennessee and the Mechanics had ratios close to those for the average country bank.) In some years, the size of these ratios was astounding. The City National's ratio was above 70 percent from 1889 to 1893, and it peaked in 1891 above 78 percent. Ratios very close to (and occasionally above) 70 percent were common for the local banks, except the East Tennessee, through 1895. Thereafter the ratios fell, usually to 60 to 65 percent.

The decline in loan-asset ratios midway through the transition period was a reaction to the crisis of 1893. The East Tennessee and the City both had much lower loan-asset ratios in 1894 than in 1893. The Holston's ratio also fell, but not so much. The Mechanics and the

Third had loan-asset ratios that fell slightly in the same period. From 1895 on, there was a general tendency for loan-asset ratios to move lower, although that movement was occasionally interrupted.

While loan-asset ratios for the local banks were rising, their reserves were falling. (See Table V-8.) From 1873 to 1879, the East Tennessee's primary reserve to assets ratio was usually near 20 percent. In the next seven years, the ratio reached relatively high levels, compared to the average country bank. For the next fourteen years, the ratio varied within a much narrower range, 22 to 35 percent, than previously. At the same time, the primary reserve to assets ratio for the East Tennessee generally was lower than it had been for 1880 to 1886, although not always much lower, whereas it was higher than it had been for 1873 to 1879. That is, the East Tennessee National held reserves in the transition period that were not quite so conservative as they were in 1880-1886, nor quite so risky as they were from 1873 to 1879. Compared to the three classes of banks, the East Tennessee appears to have been more conservative most of the time. It held reserve ratios which were higher than those held by the average country bank throughout the transition. In fact, its reserves were on a par with those held by reserve city banks. During the transition, the East Tennessee had a more conservative preference for liquid assets than most other country banks, yet it was not quite so conservative as it had been, once it recovered from the cirsis of 1873.

The other local banks were less conservative than the East Tennessee National, and usually preferred to hold fewer liquid assets. Their primary reserve ratios generally ranged between the ratios held

Table V-8

Average Ratio of Primary Reserves to Assets, in Percent

Year	East Tennessee	Mechanics	Third	City	State	Holston	Central Reserve Cities	Reserve Cities	Country Banks
1887	33.2	27.6	24.3 (3)				36.3	26.7	18.8
1888	21.8	20.9	19.8	18.3			36.0	27.3	18.5
1889	31.7	27.5	27.0	18.1	6.4 (1)		36.5	28.1	19.5
1890	25.4	24.1	18.6	15.8	15.5		34.3	26.8	18.4
1891	25.1	19.9	14.0 (3)	15.9	12.1 (4)	15.8 (1)	35.8	27.2	18.3
1892	35.1	24.6	23.9	18.5	15.3	17.8 (4)	35.1	29.5	19.9
1893	29.7	19.5	18.1	19.3	11.8 (3)	13.6	36.3	26.8	17.9
1894	27.4	18.7	19.1	25.2		15.7	37.7	29.7	20.3
1895	23.2	20.1	17.1 (4)	20.3		17.5	32.8	27.4	19.2
1896	28.6	23.9	19.2	24.9		18.1	33.3	27.3	18.4
1897	30.6	25.8	22.1	29.8		25.6	36.0	31.1	21.5
1898	26.4	24.9	20.3 (4)	26.8		18.4 (3)	35.6	32.0	23.2
1899	30.0	30.2 (4)	18.9	21.5		21.4	34.2	32.3	24.2
1900	31.8	23.6	17.8	22.3		13.3	34.1	31.6	22.9

Source: Reports of Condition. See Table IV-10, page 108.

by the average reserve city bank and the average country bank. Until the crisis of 1893, these banks often held primary reserve ratios that were equal to or below those held by the average country bank, but the effects of that crisis persuaded them to hold somewhat higher ratios in the future. After 1893 the ratios tended to rise to levels equal to or above the ratios for the average country bank. That is, there were few dramatic shifts in preferences for liquid assets among the local banks during the transition. There were, however, fairly substantial shifts in the types of liquid assets preferred.

In the first period, the local banks had kept most of their primary reserves in cash. The East Tennessee usually held 70 percent or more of its primary reserves in cash and one-quarter (often less) in bank deposits. During the transition, these proportions were very nearly reversed. The East Tennessee's cash to primary reserve ratio began to fall at the beginning of the transition, and the fall continued throughout. There were, of course, occasional interruptions, but the trend is clear. (See Table V-9.) The Mechanics National also held high ratios of cash to primary reserves in the first period, and it too showed a tendency to reduce that ratio during the transition. The Third National generally held much higher cash to reserves ratios during the transition than did the other local banks. Its ratio tended to vary more from year to year, and it was not until the last years of the transition period that the Third demonstrated a definite commitment to lower cash reserves.

The City National started with a relatively high cash to reserves ratio, which soon declined to levels comparable with the average country

Table V-9

Average Ratio of Cash to Primary Reserves, in Percent[a]

Year	East Tennessee	Mechanics	Third	City	State	Holston	Central Reserve Cities	Reserve Cities	Country Banks
1887	60.4	43.9	48.7 (3)				49.0	40.1	37.7
1888	46.9	56.0	69.7	52.2			53.9	38.1	36.8
1889	35.0	46.8	53.1	49.6	19.5 (1)		50.3	36.7	35.1
1890	35.9	41.0	62.0	34.3	25.8		51.2	35.8	35.9
1891	39.4	45.9	58.9 (3)	33.0	29.9 (4)	17.2 (1)	50.5	38.3	37.2
1892	29.8	34.2	32.7	40.6	62.8	32.1 (4)	53.6	36.2	33.7
1893	36.0	37.6	57.8	35.8	33.4 (3)	42.1	54.3	37.6	41.0
1894	32.9	42.4	46.9	36.9		39.0	67.3	37.7	35.8
1895	37.8	38.7	53.4 (4)	28.4		28.2	60.0	36.8	36.8
1896	32.4	34.7	51.2	25.0		26.4	58.9	37.8	39.7
1897	32.5	37.4	41.4	19.2		22.0	59.8	34.5	33.8
1898	35.5	44.8	52.9 (4)	26.2		30.0 (3)	56.6	33.1	31.2
1899	23.5	24.9 (4)	35.9	24.7		30.1	54.5	30.0	26.9
1900	21.5	26.0	39.9	26.8		30.2	53.7	30.8	28.0

Source: Reports of Condition. See Table IV-12, page 111.

bank as well as the other local banks (excepting the Third). The State National never seems to have settled on a desirable relation of cash to reserves, and its ratio fluctuated a good deal from year to year, especially from 1891 to 1893. The Holston National started with ratios of cash to primary reserves that were about equal to those of the average country bank, and though there were some differences, the Holston showed no persistent tendency to vary much from the average country bank.

While cash reserves for the local banks fell, their bank deposits (as a percentage of reserves) rose. (See Table V-10.) The East Tennessee began the transition period with bank deposits making up about one-third of primary reserves. That ratio rose steadily through 1900, at which point it was about three-quarters of primary reserves. The other banks also increased bank deposits as a portion of primary reserves. The Mechanics' ratio rose from around 50 percent to above 60 percent. The Third National's ratio varied often and over a wide range, but it finally rose over 50 percent in the last years of the transition.

The City National started with a ratio that was low relative to the average country bank, but its ratio soon rose. After 1895, the City usually held a ratio of bank deposits to reserves that exceeded the average country bank's ratio. (This was especially the case in the final period.) The State National's ratio rose and fell in alternative years and showed no discernible pattern. The Holston National usually held about the same ratio of bank deposits to reserves as did the average country bank. That is, through the transition the local banks

Table V-10

Average Ratio of Bank Deposits to Primary Reserves, in Percent

Year	East Tennessee	Mechanics	Third	City	State	Holston	Central Reserve Cities	Reserve Cities	Country Banks
1887	32.9	48.9	42.6 (3)				17.1	43.9	57.7
1888	37.3	39.8	24.0	42.0			17.3	46.3	58.6
1889	57.4	44.6	44.6	45.1	77.6 (1)		18.0	48.8	60.7
1890	49.2	55.2	33.8	59.8	44.7		21.8	48.2	59.9
1891	53.0	48.3	39.1 (3)	48.8	63.0 (4)	66.7 (1)	20.3	47.9	58.4
1892	67.5	31.4	65.2	48.5	33.8	62.4 (4)	20.6	50.4	62.4
1893	61.8	57.3	38.5	55.2	62.5 (3)	52.9	19.0	46.8	54.6
1894	64.7	51.4	51.7	56.5		58.5	17.3	51.9	60.7
1895	59.3	55.1	44.4 (4)	62.6		68.4	20.5	51.5	59.7
1896	65.1	62.2	44.8	66.8		71.6	20.7	49.6	56.5
1897	65.4	58.0	55.6	72.4		74.8	21.2	54.4	62.9
1898	60.3	50.1	43.3 (4)	68.4		66.8 (3)	20.4	55.9	65.5
1899	74.2	69.2 (4)	58.9	66.1		66.7	21.8	59.0	69.3
1900	75.8	64.4	56.1	61.9		61.7	21.5	58.4	68.6

Source: Reports of Condition. See Table IV-13, page 112.

(except for the Third and the State) showed a growing preference for bank deposits over cash reserves. By the end of the transition, even the conservative Third was willing to hold a growing proportion of its reserves with other banks.

It was not until the final period that the local banks began to show a definite preference for widely distributing their bank deposits among their reserve agents, other national banks, and state banks. Most of the local banks kept most of their bank deposits with their reserve agents, not with other banks. (See Table V-11.) From 1887 to 1895, the East Tennessee National deposited a smaller proportion of its bank deposits with its reserve agents than did the average country bank, and whereas the proportion rose erratically until 1895, the proportion then started a decline that lasted throughout the final period. The proportion of bank deposits held with reserve agents by the Mechanics National in 1887 also was lower than that held by the average country bank, and the ratio fell in 1888. It then commenced to rise, and the increase continued through 1900. The Third National's ratio increased throughout the transition period. The City National followed a pattern more nearly like that of the East Tennessee. The City's ratio rose from 1888 through 1898 and then began a slow decline. As was the case with bank deposits, the State National's ratio of deposits with reserve agents to all bank deposits rose and fell in alternative years, and no pattern to its change is apparent. The Holston National's ratio rose, at least through 1897. After 1897 the Holston's ratio fell to a lower level and stabilized.

Table V-11

Average Ratio of Deposits with Reserve Agents and Clearing House Certificates of Deposit to All Bank Deposits, in Percent

Year	East Tennessee	Mechanics	Third	City	State	Holston	Reserve Cities	Country Banks
1887	60.6	59.9	51.0 (3)				55.3	68.5
1888	56.6	29.5	59.6	26.0			56.9	70.1
1889	71.9	34.0	50.1	39.2	80.6 (1)		59.7	70.5
1890	51.3	45.2	53.8	59.6	55.2		58.8	70.5
1891	41.1	49.9	50.1 (3)	39.5	61.2 (4)	39.1 (1)	58.8	71.6
1892	78.4	55.7	73.7	56.9	43.3	44.5 (4)	62.1	72.9
1893	76.0	52.1	67.0	55.9	73.4 (3)	55.4	58.2	72.9
1894	82.9	71.7	81.4	69.3		59.2	68.4	76.9
1895	84.2	57.7	79.3 (4)	71.2		61.9	62.6	73.8
1896	73.8	57.8	79.3	77.6		58.5	61.4	73.8
1897	67.3	75.4	90.0	78.3		70.3	64.8	75.2
1898	62.3	63.3	87.1 (4)	81.1		62.2 (3)	65.5	75.4
1899	62.5	70.7 (4)	86.7	71.0		67.5	62.5	75.5
1900	55.3	70.7	91.8	69.1		49.0	61.9	75.8

Source: Reports of Condition. See Table IV-14, page 115.

The overall pattern for the local banks indicate that they did not make a concerted effort until after 1900 to place their bank deposits with banks that paid the highest rates of interest. Prior to that, the marginal disadvantage (slightly lower interest rates) to deposits with reserve agents was outweighed by the advantages of such deposits counting as legal reserves. (Nonreserve agent banks sometimes paid 0.5 percent more on deposits than did reserve agent banks.) The local banks held very low reserve ratios, and the extra 0.5 percent was not sufficient to attract a very large volume of deposits away from reserve agent banks where such deposits were legal reserves.

Secondary reserves declined in importance to the local banks, with two exceptions. (See Table V-12.) First, most of the local banks increased their holdings of nongovernment securities after the crisis of 1893. A larger number of borrowers failed to repay loans, and the banks foreclosed on the securities which had been deposited to insure the repayment of loans. The second general reversal in the long-run trend came in 1900 (1899 for the City National), when banknote issue was made more attractive. As the local banks took advantage of the changes in the law, purchases of U.S. government bonds caused their secondary reserves to grow relative to their assets. With these two general exceptions noted, the trend was for secondary reserves to fall as a proportion of all assets.

The secondary reserve to assets ratio fell for the local banks because they made few increases in their capital and even fewer in their circulation. In fact, only the City National increased its circulation

Table V-12

Average Ratio of Secondary Reserves to Assets, in Percent

Year	East Tennessee	Mechanics	Third	City	State	Holston	Central Reserve Cities	Reserve Cities	Country Banks
1887	9.3	11.2	16.8 (3)				6.5	9.1	17.3
1888	9.8	8.2	12.6	12.1			7.4	9.1	16.9
1889	8.9	6.1	9.0	7.0	19.1 (1)		6.0	7.2	15.0
1890	8.3	7.5	10.8	4.7	16.5		6.1	6.4	13.4
1891	9.9	7.6	11.4 (3)	5.0	13.1 (4)	12.5 (1)	6.0	6.4	13.2
1892	7.6	7.4	8.7	4.2	9.2	11.1 (4)	6.0	6.7	13.3
1893	7.4	7.0	8.7	6.5	9.0 (3)	14.8	6.9	8.2	14.6
1894	13.6	8.4	8.1	11.7		17.1	8.6	9.5	16.4
1895	15.5	9.7	8.1 (4)	10.7		13.1	9.4	9.6	16.9
1896	9.1	8.3	7.5	9.3		11.4	9.7	10.7	17.9
1897	8.9	8.2	8.1	7.1		10.7	9.1	10.2	17.8
1898	10.3	11.6	8.7 (4)	4.1		8.8 (3)	10.9	10.9	17.8
1899	9.6	11.0 (4)	9.0	13.6		7.9	10.3	12.0	18.6
1900	13.7	16.3	12.5	12.6		16.6	12.6	13.1	18.8

Source: Reports of Condition. See Table IV-11, page 109.

between 1887 and 1900. The first of its two increases came as a result of its capital increase in 1894, which necessitated an increase in its deposit of U.S. bonds. But the circulation increase in that year simply brought the City back to the minimum required by law.

In summary, the local banks managed to control the proportioning of their assets, and by doing so, they increased the income producing portion of those assets and reduced the portion not directly productive of income. Two related strategies were employed. On the one hand, they increased their loans relative to their other assets. On the other, they reduced (slightly) their liquid assets and changed their composition by reducing cash and increasing bank deposits. The result was a higher proportion of earning assets within reserves. Of the two methods, the policy of increasing loans relative to assets contributed more towards higher earning assets than did the policy of increasing bank deposits. Increased loan-asset ratios were produced by an alteration in the banks' policies with regard to their borrowers. The banks lowered the security requirements their borrowers had to meet. At the same time, local banks became less willing to restrict their borrowers to loans beneath the legal limit. The development and changes in loan policy will be discussed in the following section.

Loan Policies: 1887-1900

Much that is known about the loan policies of the local banks is a matter of inference, which is to say that there are few explicit statements now available that were made by the local banks about the standards they set for their borrowers to meet. In their correspondence

with the Comptroller of the Currency, the local banks sometimes did spell out a portion of their overall strategy; the remainder must be determined from the records of the bank examiners. The most glaring deficiency is in the records of the East Tennessee National, for which only the correspondence with the Comptroller is available. The bank examiners' reports for this bank are not publicly available, and without them the information contained in the correspondence is not as useful in determining the precise characteristics of this bank's policy. However, because the correspondence of this bank with the Comptroller was much like that of the other banks, it is likely that the East Tennessee's policy differed from the other banks' policies only in detail.

The two key elements in loan policies were the banks' relaxation of standards and their willingness to violate the 10 percent loan limit. Of the two, the most difficult to prove is the relaxation of lending standards. Neither the banks nor their examiners made mention of their exact guidelines for granting loans. The examiners did, however, list the types of loans granted.

The examiners divided a bank's loans into six categories: two were demand loans (loans made without a specific time limit and callable at the bank's demand), and four were time loans (loans made for a specific period of time and not callable until that time had elapsed.) Demand loans were either loans secured by endorsements or loans secured by collateral, which could be either stocks and bonds or real estate. Time loans were characterized by the type of security offered: two or

more endorsements (two-name time loans), one endorsement (one-name time loans), stock collateral, or real estate collateral.

Unfortunately, the listing in the reports of examination represents a single still-frame photograph of the various categories at a particular instant in time; it does not represent a moving image. For example, national banks were prohibited from making real estate loans, yet the local banks almost always reported some loans secured by real estate. Such loans were not <u>originally</u> real estate loans. Rather, they were loans which had initially been secured by something other than claims on real estate. Sometime before the loan matured, the bank had requested <u>additional</u> security and had been presented with a claim on some real property. All the local banks at one time or another were criticized by the Comptroller for this practice, but there is no evidence to suggest that they ever ceased. The real wonder is that they did not make more such loans than they did, for it was obviously a very easy way to avoid the prohibition against real estate loans.

Of the four categories of time loans, it is likely that <u>only</u> one-name time loans were all originally of that particular type. Some portion—exactly how much is uncertain—of the other three types was originally some other type. For example, some portion of two-name time loans had initially been one-name. Some portion of time loans on stock collateral had probably been one-name or two-name time loans. No method is available which would provide a division of loans according to their original type. Instead, the analysis will have to depend upon the types existing at the date of examination.

The six types of loans listed will be consolidated into three categories reflecting different degrees of risk to the lending bank. The categories are: demand loans, two-name time loans and other time loans. Other things being the same, demand loans are somewhat less risky than time loans because the lender can immediately demand payment at the first indication of financial trouble by the borrower. Two-name time loans clearly are less risky than one-name time loans. Time loans secured by stock collateral and time loans secured by real estate cannot be said on a priori grounds to be either more or less risky than the other types of time loans, but the examiners' reports indicate that they are best aggregated with one-name time loans. Time loans secured by real estate were listed and briefly analyzed in a separate section of the report of examination. By and large, such loans appear to have originally been one-name time loans. Loans secured by stock collateral also should be placed in the "most risky" category. The section in the report of examination detailing "other securities owned" indicates that the securities acquired by the banks "for debts previously contracted" generally did not regularly pay interest or dividends. That is, many of the securities forfeited to the bank did not produce income, and must be regarded as of doubtful quality and therefore rather risky for the banks to have taken as insurance for payment. That a bank would accept such security for a loan indicates its willingness to lend at risk.

Table V-13 presents demand loans as a percentage of all loans for the local banks at various dates of examination. (When there were two

Table V-13

Demand Loans as a Percentage of All Loans

Year	Mechanics	Third	City	State	Holston
1882	48				
1884	8				
1885	5				
1886	5				
1887	4	0			
1888	3	5	0		
1889	0	3	0		
1890	N.A.	2	0	0	
1891	9	7	0	0	0
1892	4	8	0	1	0
1893	6	5	0	0	1
1894	5-4	8-5	0-0		0.1-1
1895	0	5	1		0.6
1896	0-0	2-3	1-1		0.1-4
1897	0	5-3	0.1		0
1898	NA-0	6	1-0		1-5
1899	2-0	8-12	6-2		3-5
1900	4-0	7-11	2-4		4-5

Source: Reports of Bank Examination.

NA: Not Available.

examinations in one year, the first examination's ratio precedes the second's.) Only the conservative Third regularly made demand loans, and even then, such loans were not often of great import. Neither the City nor the Holston showed any propensity to make such loans until late in the period. Demand loans were never important for the State National. The importance of demand loans to the Mechanics National, however, varied considerably. In its first year, demand loans were about one-half of all loans, and may have existed at that level as part of that bank's transormation from a state bank into a national one. (The examination in 1882 was made shortly after the Mechanics obtained its national charter.) Within two years, the proportion for the Mechanics dropped sharply, to 8 percent, and declined further in the next four years, disappearing entirely by 1889. The examiner in 1890 did not report the Mechanics' loans by type, and therefore no figures for that year exist. However, in 1891 demand loans rose in importance, but then for the next four years again diminished. None appeared from 1895 through 1898, although a few were made in 1899 and 1900.

There is a possible explanation for the rise in demand loans in 1891 which links changes in the general level of economic activity with this bank's response to its customers' difficulties in that period. Table V-14 presents bad debts, doubtful loans, and overdue loans as a percentage of all loans for the local banks. Of the local banks, only the Mechanics National had persistently high rates, although all the local banks showed somewhat higher ratios in 1894. In the case of the Mechanics, the percentage given is almost always entirely that of

Table V-14

Bad Debts, Doubtful Loans, and Overdue Loans as a Percentage of All Loans

Year	Mechanics	Third	City	State	Holston
1887	1.4	---	---		
1888	1.1	0.2	0.2		
1889	1.6	0.1	0.2	---	
1890	---	0.4	0	6.2	
1891	11.7	1.4	0.4	38.1	4.0
1892	12.4	2.0	2.3	12.2	3.3
1893	4.1	1.0	5.0	9.5	7.6
1894	21.1	0.7	7.5		24.2
1895	18.4	1.2	4.7		9.0
1896	12.5	2.1	5.3		5.9
1897	15.6	1.7	5.7		4.6
1898	7.7	1.7	5.4		3.4
1899	11.2	3.8	3.8		3.4
1900	5.7	1.5	3.2		7.5

Source: Reports of Bank Examination.

overdue paper. The examiner rarely found bad or doubtful loans for this bank. Consequently, it would appear that the Mechanics, in the difficult period of the early 1890's, allowed its borrowers to continue their loans, but on a demand, rather than time basis. (All the local banks during this period were faced with borrowers who could not pay—or, at least who could not pay at the agreed time.)

After the second crisis in that decade (1893), the Mechanics evidently decided to allow their borrowers to continue their loans, but without revising either their character (to demand loans) or their time to maturity. On the few occasions when the examiner identified some of the overdue paper, the borrowers were firms and individuals who had been and continued to be regular borrowers. The Mechanics thus appears to have been willing to grant its customers flexibility in repaying loans, either by converting the loans to demand loans with the understanding that they would not be called, or by simply allowing an expired time loan to remain unpaid, again with the understanding that it could be renewed. Conversely, the other banks appear to have preferred to require new loans, possibly with some alterations in the collaterals or the endorsements. The Third National did not show a very large increase in demand loans following the crisis of 1893, nor did it show a large proportion of bad, doubtful, or overdue loans in 1894. The Third appears to have been unwilling to tolerate any irregularity with respect to repayment of loans. The other banks were somewhat more tolerant than the Third, but less so than the Mechanics. (Of course, the State National was a special case. Its difficulties and eventual failure is discussed in Appendix B.)

By and large, most of the loans made by the local banks were two-name time loans. With the exception of the Mechanics National, there was also a weak tendency for two-name time loans to diminish in importance during the transition period. (Year to year differences in the ratios were fairly large. See Table V-15.) From 1884 through 1889, the Mechanics National had a ratio of two-name time loans to all loans that was above 60 percent. During that same period, the Third and the City also had fairly high ratios. The report of examination for the Mechanics in 1890 is defective, but the Third and the City in that year had lower ratios. From 1891 through 1894, the Mechanics ratio was lower than it had been, but after 1894 its ratio was again back to the relatively high levels of 1884-1889. The Third and the City, however, had ratios that continued to move downward from 1889, although that movement was erratic, rising in 1893-1894, and finally falling to 50 percent or below by 1898. The Holston's ratio had risen through 1893, but then it too commenced a downward though erratic drift. The State's ratio was generally high and variable.

The two crises in the 1890's had a depressing effect on two-name time loans. In the year of each crisis and in the following year, two-name time loans usually diminished relative to other loans. This occurred despite an increase in the percentage of all loans endorsed by the principals (officers, directors, and other employees) of the local banks. (See Table V-16.) Clearly, the Mechanics National made it easier for its borrowers to obtain a second endorsement, which explains the Mechanics' relatively high ratio of two-name time loans. The other

Table V-15

Two Name Time Loans as a Percentage of All Loans

Year	Mechanics	Third	City	State	Holston
1882	41				
1883	N.A.				
1884	62				
1885	70				
1886	68				
1887	62	56			
1888	65	70	76-66		
1889	74	59	54		
1890	N.A.	51	53	68-59	
1891	52	54	47	76	50
1892	56	52	37	50	57
1893	54	60	50	63	64
1894	43-50	50-54	51-58		48-61
1895	59	52	39		46
1896	57-62	55-45	53-45		51-55
1897	58	57	59		46
1898	NA-60	51-51	62-40		17-57
1899	61-70	49-36	42-45		46-53
1900	69-66	48-48	33-44		55-45

Source: Reports of Bank Examination.

N.A.: Not Available.

Table V-16

Percentage of Loans Endorsed by Principals of the Bank

Year	Mechanics	Third	City	State	Holston
1882	0				
1883	N.A.				
1884	3				
1885	6				
1886	8				
1887	7	0			
1888	0	0	7-8		
1889	0	0	N.A.		
1890	N.A.	0	N.A.	5-0	
1891	12	1	3	0	1
1892	7	7	4	11	3
1893	7	12	9	8	9
1894	8-5	8-14	6-8		5-4
1895	6	5	5		3
1896	7-5	5-8	2-6		2-3
1897	4	9	6		2
1898	NA-7	7-8	4-2		3-4
1899	9-13	11-10	3-3		3-8
1900	12-14	11-13	5-5		11-15

Source: Reports of Bank Examination.

N.A.: Not Available.

banks also responded in this fashion, but not quite so strongly as the Mechanics.

The other banks generally responded to the crisis by an increased willingness to accept additional security for loans in the form of stock collateral or claims on real estate. (See Table V-17.) Given the prohibition against real estate loans in the law governing national banks as well as the questionable nature of much of the stock collateral that the local banks obtained for debts, the local banks clearly had responded to crises in economic activity by relaxing lending standards. Table V-18 presents the percentage of securities taken for debts previously contracted which regularly paid interest or dividends. The frequency with which <u>none</u> of the securities so taken paid interest or dividends does not mean that all such securities were worthless. It does, however, indicate a willingness by the local banks to accept collateral of questionable quality. In some cases, the securities taken had been issued by local firms which were indebted to the acquiring bank, but whether it was the firm which had defaulted or whether it was a stockholder in the firm who had defaulted on a personal debt cannot be determined. (Presumably, both occurred.) In any case, the securities taken indicate relatively lax standards for loans secured by stock collateral.

The relatively risky loans—one-name time loans, loans secured by stock collateral, and loans secured by real estate—increased relative to other loans over the length of the transition period. (See Table V-19.) The trend was interrupted during economic crises, with one-name time loans diminishing and loans on stock collateral and real estate

Table V-17

Time Loans Secured by Collaterals as a Percentage of All Loans

Year	Mechanics	Third	City	State	Holston
1887	27	46			
1888	26	15	14-17		
1889	20	20	14		
1890	N.A.	24	21	7-23	
1891	35	22	16	22	44
1892	32	21	18	33	32
1893	36	20	11	27	26
1894	45-39	24-24	16-18		36-30
1895	35	20	26		24
1896	34-30	22-26	13-21		28-29
1897	34	19	19		32
1898	29	21-18	16-18		49-29
1899	27-22	23-21	14-18		30-25
1900	19-24	14-15	21-17		21-23

Source: Reports of Bank Examination.

N.A.: Not Available.

Table V-18

Percentage of Stocks and Bonds Acquired for Debts Previously Contracted Regularly Paying Interest or Dividends

Year	Mechanics	Third	City	State	Holston
1882	None taken				
1883	N.A.				
1884	None taken				
1885	None taken				
1886	0				
1887	0	None taken			
1888	None taken	None taken	None taken		
1889	0	None taken	None taken		
1890	0	None taken	0	None taken	
1891	0	None taken	0	0	None taken
1892	37	None taken	0	None taken	0
1893	0	None taken	0	0	0
1894	0-0	None taken	0-0		0-0
1895	0	15	5		0
1896	0-22	18-0	0-11		0-0
1897	18	0	0		0
1898	0-0	63-0	13-0		0-0
1899	33-19	66-0	88-0		0-0
1900	0-0	0-0	0-0		0-0

Source: Reports of Bank Examination.

None taken means none of the securities listed under "other stocks and bonds" had been taken to secure debts previously contracted.

N.A.: Not Available.

Table V-19

One-Name Time Loans and Time Loans Secured by Collateral as a Percentage of All Loans

Year	Mechanics	Third	City	State	Holston
1882	10				
1883	N.A.				
1884	30				
1885	24				
1886	26				
1887	34	46			
1888	32	25	25-35		
1889	26	38	47		
1890	N.A.	46	47	32-41	
1891	39	39	53	25	49
1892	39	40	63	49	43
1893	50	35	50	37	34
1894	52-46	42-41	49-43		51-39
1895	41	44	60		55
1896	44-37	42-52	44-43		48-40
1897	42	40	42		55
1898	NA-40	45-41	37-50		82-38
1899	39-29	44-52	53-53		50-41
1900	27-32	44-41	66-52		42-50

Source: Reports of Bank Examination.

N.A.: Not Available.

increasing in importance. The total of the three types would increase in periods of crisis, but once the crisis was past, the total would fall. However, the subsequent fall was not quite so large as the previous increase. The local banks might have preferred to raise their lending standards, given their unpleasant experiences in 1890 and 1893, but because of the competitive environment, they did not. That is, after the crisis was past, lending standards were slightly less exacting than before.

The large and frequent variations in the types of loans made from one year to the next mean that any trend or tendency is an approximation of less than desirable certainty. Furthermore, the alterations in the security given for loans may not have been a relaxation in all, or even most, cases, because the examiners' reports only describe the securites insuring defaulted loans that the bank continued to hold. (Interest paying stocks or bonds might have been disposed of immediately.) Nevertheless, it does appear that the banks grew more willing to make loans on relatively risky security. In addition, the local banks made adjustments in existing loans during periods of economic crisis which permitted the extension of those loans and which appear to have been, for the most part, favorable to the borrower. (There was an increase in loans secured by stocks, bonds, and real estate relative to other loans. Borrowers were allowed to pledge a specific portion of their assets rather than make a general pledge of all their assets. Bank principals demonstrated a greater willingness to add their endorsements on existing loans.)

Finally, the reported interest rates charged by the local banks for loans do not show a clear tendency to decline or rise over time. (See Table V-20.) But here the reports of examination are probably defective in that the examiner reported the usual or normal rate for the majority of loans. Only for two years, 1896 and 1897, was a range of more than two percentage points listed. In most years, only a single rate was reported, yet almost certainly the local banks charged some of their borrowers more than they charged others in every year. In the final period, the range given was almost always 6 to 7 percent. Thus it appears that the rates reported were akin to current reports of the "prime" rate. If that was the case, then interest rate and trends were probably downward from the mid-1890's on, even though the reports for 1895 (the first year that interest rates on loans were reported by the examiner) indicate a usual rate of 8 percent. Interest rates paid by the local banks on demand certificates of deposits and rediscounts peaked (around 6 percent) between 1891 and 1897. In 1896 and 1897, when the range of rates charged on loans was 8 to 12 percent, the rate paid on rediscounts was 6 percent. From 1891 through 1895, when the rediscount rate was 6 percent, it is likely that the majority of loans granted by the local banks paid 8 to 12 percent, but of course, without explicit confirmation this must remain a guess. If, however, it was the case, then from the mid-1890's on, interest rates on loans did decline, thereby making it somewhat easier for the banks' customers to borrow.

The second aspect of loan policy deserving of attention has to do with the banks' willingness to grant loans in excess of the 10 percent

Table V-20

Usual Interest Rate on Loans

Year	Mechanics	Third	City	Holston
1895	8	8	8	8
1896	8-12	6-8	8	8
1897	6-8-10	6-8-12	6-8-10	6-8-10
1898	8	6-8	6-8-10	6-8-10
1899	6-8	6-8	7-8	8
1900	8	6-7-8	6-8	8

Source: Reports of Bank Examination.

of paid in capital (overloans or excessive loans). The stark differences among the local banks in their willingness to grant overloans provides about the best indicator of the differences in their attitudes towards their customers and the competitive characteristics of their market. The Third National hardly ever granted excessive loans, whereas the City National almost always did, and the other banks fell in between. By the end of the transition, the differences between the extremes diminished because overloans had become an important device for attracting and holding favored customers for all the banks. Actually, the full effect of the competitive urge to grant excessive loans appeared in the final period. (In 1906 the law regarding overloans was modified, and with stricter enforcement of the law by the Comptroller, overloans by the local banks diminished greatly. But this is a matter for the next chapter.)

Table V-21 presents the number of overloans made by the local banks. Throughout the transition, the Mechanics and the Holston made overloans occasionally, and somewhat more often toward the end of the period. For all practical purposes, the Third National made no overloans prior to its capital reduction in 1898. (The two overloans granted in 1896 were just over the limit, and in fact there is reason to question the examiner's evaluation of them being over the limit. See below.) The City National, however, employed overloans from the first as a competitive device. Table V-22 presents these excessive loans as a percentage of all loans. Again, it was not until 1898 that overloans were a significant portion of the Third's loans. Overloans were almost always a large proportion of

Table V-21

Number of Overloans

Year	Mechanics	Third	City	State	Holston
1882	0				
1883	N.A.				
1884	1				
1885	2				
1886	0				
1887	2	0			
1888	0	0	1-0		
1889	1	0	0		
1890	N.A.	0	4	0-1	
1891	1	0	8	1	0
1892	0	0	11	2(3?)	0
1893	1	0	9	2	0
1894	2-2	0-0	3-3		1-0
1895	1	0	3		1
1896	1-0	2-0	4-3		2-1
1897	1	0	3		0
1898	0-0	0-5	5-3		2-1
1899	0-0	3-3	6-9		0-3
1900	2-1	3-2	16-12		2-0

Source: Reports of Bank Examination.

N.A.: Not Available.

Table V-22

Overloans as a Percentage of All Loans

Year	Mechanics	Third	City	State	Holston
1882	0				
1883	N.A.				
1884	4				
1885	11				
1886	0				
1887	6	0			
1888	0	0	17-0		
1889	2	0	0		
1890	N.A.	0	9	0-7	
1891	10	0	30	7	0
1892	0	0	33	10(14?)	0
1893	2	0	33	9	0
1894	5-7	0-0	19-20		9-0
1895	3	0	16		7
1896	3-0	12-0	22-12		14-6
1897	5	0	15		0
1898	0-0	0-24	29-18		9-4
1899	0-0	13-14	25-35		0-17
1900	6-3	15-10	49-46		10-0

Source: Reports of Bank Examination.

N.A.: Not Available.

all loans for the City National, and the proportion grew. The Mechanics and the Holston again fell somewhere between the Third and the City.

It will be useful to compare the examiners' findings and comments on the operation of the local banks with their comments to the Comptroller with regard to same. The clearest differences are to be found between the Third and the City, although some reference to the other banks will be employed.

On its first examination (March 1, 1888), the examiner anticipated some of the problems the City National was likely to cause. First, he found one overloan to a local real estate firm, which the bank explained as a mistake. The loan was for an amount equal to 10 percent of the anticipated capital of the bank. However, not all of the subscribed capital had been actually paid in, and consequently the loan was in violation of the law. The examiner did not find the bank to be especially contrite once its error had been pointed out.

Second, he found that one director had paid the first call for capital stock with a check drawn on a Morristown bank (of which he was the president), but then had had the check returned so that he would not forfeit the interest on a time deposit against which the check was drawn and which was due to mature shortly. Instead the director had given the City his personal note for the capital subscription. The examiner then wrote:

> The Cashier seemed to think that the reason was a good one, and that the standing and financial strength of [this director] would be sufficient to exempt him from the rules applied ordinarily.

The examiner urged the Comptroller to "admonish" the bank not to do this again and to immediately get cash for the note.

Finally, the examiner included the following estimate of the City National's prospects and likely mode of operation.

> This bank was organized by some parties living in other parts of East Tenn. Not one of the officers have been citizens of Knoxville, but they are well known in the city, and the other banks tell me that they are good people and stand well in all respects. Officers of other banks also tell me that the Knoxville directors are taken from among the best business firms of the city. It is probable that this bank will do a good business. There is ample room, indeed there is need for yet more banking capital in Knoxville. The bank will have but a small capital for an active bustling city of 35,000 people and as some of its customers do quite a large business, there will be a constant tendency to make loans in excess of legal limit . . . (City National Bank, Report of Examination, March 11, 1888. The examiner's grammar is followed.)

Of all the predictions made by the examiners of the local banks about their future behavior and prospects for success or failure, this was by far the most accurate forecast.

By 1891, the City National was regularly making overloans to some of its favored customers. The examiner reported the bank's explanation for the habitual violation of the 10 percent loan limit as follows:

> . . . this institution has found it desirable to their [excessive loan customers'] business. They say they cannot keep within the limit without losing their best customers, and that this business is both profitable and absolutely safe.—I believe the loans safe. (City National Bank, Report of Examination, November 28, 1891)

That is, the bank found two reasons to justify the policy of making loans in excess of the legal limit to a few, favored customers. First,

if the bank were to refuse to grant overloans, these customers might go elsewhere. Second, granting overloans to those customers removed the need for them to borrow from several banks. If the City was the only creditor to these firms, it would have a much clearer notion of the financial position of these firms and would consequently be in a much safer position. Were any of the firms to experience serious difficulties, those problems would not be hidden by a multitude of accounts. Of course, this may or may not be a valid argument. The City thought it was, but the examiner and the Comptroller had their doubts and continued to criticize the bank for this practice. The bank in turn responded with increasingly detailed explanations of its policy. In 1893, the bank wrote:

> In regard to the loans exceeding the legal limit, which are listed in your letter, I will state that they have been reduced, and are being further reduced as they mature.
>
> These are the loans of our largest and wealthiest customers, whose deposit accounts average balances of \$3,000 to \$10,000 and whose demands for loans on account of the large business they do, require more than the legal limit, but we are familiar with the details of their business and know that their indebtedness is all, or nearly so, due to this bank, and further that they are unquestionably solvent. (City National, May 29, 1893)

In the same letter, the City also explained why it had given some rather large loans to a few of its officers and directors. The letter continued:

> As the liability of our directors, while it is large, they are wealthy solvent men, engaged in legitimate successful business, and are the largest depositing customers of the bank, and are therefore entitled to large accomodations. (City National, May 29, 1893)

In this letter the City promised no effort to reduce either the overloans or the large loans to its officers and directors. The capital

increase in early 1894 did reduce the number of overloans and their percentage of all loans, but even then, the remaining overloans and loans to the principals of the bank caused the examiner of August 4, 1894, to write: "Excessive loans and loans to directors should be reduced. Loans should be more widely distributed" (City National, Report of Examination, August 4, 1894). Tables V-21 and V-22, pages 176, 177, indicate that by 1893, a small number of the City's loans accounted for a relatively large portion of the total. Even with the capital increase in 1894, the distribution of the City's loans was questionable. The concentration of loans was questionable. The concentration of loans increased through 1900.

Similar complaints about the distribution of the City's loans and the presence of overloans appeared again and again in reports of examination. The examiner on November 18, 1896 wrote:

> Too much money is loaned to directors & enterprises in which they are interested, so it appears to me. The amounts due by [the president and one director]—the latter was formerly Cashier of the bank—both exceed the limit, and the aggregate of direct and contingent liability of the directors are about 25% of the loans & discounts. I also note a loan [to a local milling firm for] $15,200 and an individual loan to its owner of $13,200, total $28,400. [The company] is incorporated but chiefly owned by [the individual mentioned above]. These loans are now secure . . . and no loss is anticipated, but I think the bank should distribute its loans more.
>
> Management is economical but [the] bank is not making as much money as it once did. I think too much is loaned to directors & enterprises in which they are interested, and it would benefit the bank to distribute its loans among a greater number of borrowers. (City National, Report of Examination, November 18, 1896)

Overloans found by the examiner in the summer of 1897 prompted the Comptroller to write to the bank. The bank responded:

In regard to the loans to [the milling company mentioned in the report of examination of November 18, 1896], which is not a firm, but a corporation, which has not a loan over the legal limit in its corporate name, and the other paper referred to in your letter is only endorsed by this Corporation, and to secure these loans, we have deposited with our bank $66,000 of first mortgage bonds, and $70,000 fire insurance policies, regularly and properly transferred to the bank as collateral security. This company does a large and prosperous business, and we have their entire account and carry all their loans. (City National, August 5, 1897)

The next year the examiner noted that the Comptroller had written to the City several times about loans to the milling company which were over the legal limit, but with no effect. He also wrote:

[The] bank's excessive loans appear open to objection though these do not show up any losses at present. . . .

It is apparent [that the] bank is largely extending its business and is taking great risks in making these excessive loans. The loans to [the milling company] in the aggregate amounting to $125,000 exceed the capital of the company by $25,000 and is more than one half bank's capital. This would appear not only unlawful but highly imprudent, if not dangerous. (City National, Report of Examination, February 1, 1898)

On the following examination the examiner again complained that the Comptroller's letters about excessive loans, particularly those to the milling company mentioned above, had been ignored. The Comptroller again wrote to the bank and complained, and the City responded that this and "other large loans are made to them solely on account of the value of their business to our Bank, and in consideration of the fact that they do not borrow any money from any other source" (City National, September 16, 1898).

The next year the bank again explained some of its overloans:

These loans were made to good people and are intended to be temporary. Some of them have been reduced and the others will be as rapidly as it is possible to do so. (City National, March 17, 1899)

A slight variation in the standard explanation for the excessive loans appeared in a letter to the Comptroller in late 1900:

> There has been an enormous mercantile business in Knoxville since the presidential election and a great deal of money has been required by the merchants to pay for goods purchased subject to the re-election of Mr. McKinley, and as these goods are settled for, all of our bills receivable will be largely reduced. (City National, December 7, 1900)

It should be noted that the City National never promised to immediately reduce all overloans to the legal limit, nor did it ever promise to refrain from making excessive loans in the future. The City's response to criticism from the Comptroller instead was an explanation, not an apology. It usually included both a statement about the creditworthiness of the borrower and a statement about why such loans were to the City's advantage. In contrast, the Third National's comments on criticism from the Comptroller were usually apologies, accompanied by promises not to violate the law again, together with statements less indefinite than the City's, about when the loan would be reduced to the legal limit.

The Third National decided early to operate in a conservative manner and to consistently obey all the laws regulating behavior by a national bank. The examiner of November 25, 1895, wrote: "This bank is excellently managed—the best I have seen this year, I think." This was after less than four years of operation. On the examination of February 1, 1894, the examiner wrote:

> In my opinion the condition of business is satisfactory . . . if I were asked why not more profitable, I should find no reason other than over conservatism.

To find a bank examiner citing a bank for "over conservatism" is, to say the least, unusual.

On that examination, the examiner had found a relatively large loan that was mildly irregular with respect to the endorsements. The loan in question was not an overloan, but the Comptroller wrote to the bank, requesting a clarification of the loan's status. The bank replied on March 5, 1894, and included the following in its letter:

> It is not our intention to violate any of the laws governing us, but the reverse, and if at anytime we should do so, it would be by an error of the head, and not of the heart, and will gladly correct same, whenever our attention is called to it.

Two and one-half years later, the Third had continued to operate in strict compliance with the law, and the examiner on November 13, 1896, complimented the bank for its attitude. No problems appeared until the bank reduced its capital from $300 thousand to $200 thousand in early 1898. As a consequence of that reduction, several loans which had been within the old limit were now over the new limit. (This shows up both in the number of overloans and in their percentage of all loans.) The bank explained the situation to the Comptroller in a letter on May 13, 1898, and indicated that the loans would be reduced. (They were. Overloans declined in number through the end of 1900. Their percentage of all loans also declined.) Even though the capital reduction produced some overloans, it is clear these were temporary and that the bank intended to operate strictly within the law. There had been no change in the bank's policy which "made it a rule not to loan over the 10 percent limit of Capital" (Third National: March 16, 1896).

The statement of the bank's policy had been given in a letter explaining the two overloans found by the examiner during the examination of February 11, 1896. In fact, the loans in question were not overloans, but loans at the limit to which had—for some reason not specified—been added the interest due at the loans' maturity. There was no change in this bank's policy with regard to overloans until early in the final period.

Table V-23 presents the ratio of the largest loan actually made to the largest loan which could legally be made by the local banks at the various examinations. Except for the City National, the local banks generally did not violate the 10 percent loan limit by a great deal. Many of the violations were quite small, and some of the relatively large ones posed no threat to the lending bank. For example, the overloan by the Mechanics National at the second examination of 1894 (which was 3.5 times the limit) was actually two loans to the City of Knoxville. They had been made in anticipation of taxes to be received in the following spring. Likewise, the relatively large loan made by the Third National at the second examination of 1898 was also made to the City of Knoxville. On the other hand, these banks began to violate the 10 percent limit more and more frequently and by wider and wider margins in the last two years of the transition period, and this trend continued into the final period.

Table V-23 also demonstrates that the City National was never a respecter of the 10 percent loan limit, and that its low regard for that provision in the National Bank Acts fell further as the transition wore on. Furthermore, the City in this respect set the style to be

Table V-23

Ratio of the Largest Loan Made to the Largest Legal Loan

Year	Mechanics	Third	City	State	Holston
1882	N.A.				
1883	N.A.				
1884	1.29				
1885	1.99				
1886	N.A.				
1887	1.68	N.A.			
1888	N.A.	0.22	1.67-0.80		
1889	1.17	0.47	0.70		
1890	N.A.	0.78	1.45	0.50-1.00	
1891	1.02	N.A.	3.70	1.10	
1892	1.00	1.00	3.75	1.06	1.00
1893	1.20	1.00	3.85	1.25	1.00
1894	1.10-3.50	1.00-1.00	1.50-2.25		1.16-.025
1895	1.50	1.00	2.25		1.34
1896	1.06-1.00	1.07-0.83	2.25-1.42		1.72-1.30
1897	2.00	1.00	2.55		0.77
1898	N.A.-1.00	0.97-2.30	6.25-5.05		1.08-1.03
1899	1.00-1.00	1.30-2.13	5.11-8.25		1.00-1.93
1900	1.50-1.26	2.53-2.06	6.25-6.00		1.65-1.00

Source: Reports of Bank Examination.

N.A.: Not Available.

followed by the other banks in the final period. At least through 1906, excessive loans by the local banks became more frequent and grew in size, just as the City's overloans had done during the transition period.

Summary

The local banks had taken several steps in the transition period which made it easier for their customers to borrow. There was a gradual decline in demand loans and two-name time loans relative to the other types of loans. The banks were increasingly willing to assist their debtors in obtaining a second endorsement. Toward the end of the period, the local banks began to alter their policy with regard to large loans. Finally, interest rates on loans fell, at least after the mid-1890's. These actions in turn had the dual effect of increasing and eventually stabilizing loan to asset ratios. High and stable loan-asset ratios, together with a shift in reserves toward bank deposits and away from cash, tended to increase, as well as stabilize, ratios of earning assets to all assets.

The reformation in asset management during the transition period can, in part, be explained as a reaction to increasing cost of liabilities. The cost of liabilities had risen because there was increasing competition for those liabilities from the growing number of banks, both national and nonnational. Increasing competition also contributed to alterations in asset management. Competition grew because the local economy boomed following expansion of the rail lines and the eventual recovery from the Civil War. By the end of the transition period, the local national banks were no longer small, conservative,

uncompetitive country banks. They had become relatively large, highly competitive and aggressive urban financial institutions.

CHAPTER VI

THE FINAL PERIOD: 1900-1913

Introduction

The Knoxville national banks made few fundamental alterations in the proportioning of their assets and liabilities during the final period. The patterns that developed during the transition period were, for the most part, common during the last period. There were few basic changes because there were no fundamental changes either in the structure of banking in Knoxville or in Knoxville's economy. Knoxville's economy continued to grow, but it grew more slowly than before and its character did not change. The few changes that the banks made had their origin in changes in the law governing national banks. In 1900, banknote issues were made more profitable, and in 1906, the limitation on the largest loan that a bank could legally make was relaxed. Both of these changes, together with overall growth in Knoxville's economy, encouraged the local banks to make several increases in their capital. But aside from these, there were few other changes of note.

The similarity of the behavior patterns developed in the transition period to the behavior patterns common to the final period resulted from a continuation of the competitive environment of the transition into the final period, albeit at a less intense level. However, the competitive nature of the local financial market was not maintained by the entry of new banks. Instead, the competitive atmosphere was maintained by growth

in Knoxville's economy that "made room" for some of the smaller and weaker institutions that barely survived the transition. Their growth made them more effective competitors.

There were, in fact, remarkably few changes in the structure of banking from 1900 to 1913. A very small bank, the Marble City Bank, closed in 1904, but its demise can hardly have affected the competitive environment. The Mechanics National gave up its national charter in 1907 but it continued to operate with a state charter. Only one new bank was formed, the American National, in 1913. Also in 1913, one old state bank, the Union Bank, obtained a national charter. Therefore, from 1900 through 1912, there were nine banks in Knoxville, not counting the Marble City, whose presence until 1904 can be disregarded. The number rose to ten in 1913. The fact that no new banks were founded in Knoxville until 1913 was probably due to the very large number of entrants that had super-saturated the local market in the transition period. When that market was disturbed, and it was, some firms failed, and had Knoxville's economy not continued to grow, more would have failed. But Knoxville's economy did continue to grow, and therefore the smaller and weaker firms were given the opportunity to grow and become effective competitors with the larger and stronger ones, and this kept Knoxville's banking industry competitive.

As a result of the continued competitive atmosphere, national banks in Knoxville behaved more like city banks and less like country banks than they had in the past. During the final period they displayed patterns of behavior that were, in some instances, like those displayed

by reserve city banks. In some other respects, the local banks more closely followed country banks. In short, their behavior was a mixture of city and country banking.

Acquisition of Liabilities: 1900-1913

The local banks generally maintained the same proportions for their liabilities in the final period as they did during the last half of the transition period. There were deviations, of course, but these mostly occurred because of increases in capital and circulation outstanding. For example, the proportion of liabilities obtained from private deposits fell whenever one of the banks increased its capital and circulation, but within a short time, that proportion would rise to its former level. That is, the broad proportionings developed in the transition period continued to be the rule for each bank. Of course, each bank chose its own set of standards.

The East Tennessee National continued to be the most successful among the local banks in obtaining private deposits. Furthermore, it generally got a higher proportion of its liabilities from that source than did the average country bank. The other local banks were usually less successful than other country banks in attracting private deposits, but they were generally more successful than reserve city banks. The City National and the Holston National each had ratios that were close to those held by reserve city banks. The Mechanics National and the Third National (after its capital decrease in 1898) had ratios that were closer to those held by the average country bank. (See Table VI-1.)

Table VI-1

Average Ratio of Private Deposits to All Liabilities, in Percent

Year	East Tennessee	Mechanics	Third	City	Holston	Central Reserve Cities	Reserve Cities	Country Banks
1900	68.2	53.8	45.8	49.8	43.9	41.3	48.1	58.6
1901	71.1	54.7	48.8	48.7	44.8	44.0	46.5	59.6
1902	73.2	57.5	51.8	50.9	54.8	42.8	46.4	60.8
1903	71.5	64.9	53.2	49.9	55.3	38.7	45.4	60.6
1904	70.7	60.9 (4)	53.2	50.0	54.2 (3)	39.5	44.1	60.3
1905	70.1	50.1	49.0	48.4	49.6	42.5	44.7	61.4
1906	67.9	51.6 (4)	49.9	44.3	50.3	42.3	44.9	62.1
1907	64.6	50.0 (4)	51.6	43.8	46.5	37.2	43.5	61.7
1908	65.7		53.0	44.7	47.1	39.3	43.7	60.2
1909	69.0		53.2	46.1 (4)	49.9	41.4	45.4	61.8
1910	70.1		56.9	40.3	44.8	42.5	46.0	62.7
1911	68.5		54.5	42.5	45.6	39.2	45.8	63.0
1912	69.1		56.4	44.0	45.5	40.5	46.1	63.7
1913	68.8		53.7	44.3	41.2	39.5	45.9	64.9

Source: Reports of Condition. See also Table IV-1, page 67.

The local banks, as a general rule, continued to increase the proportion of their private deposits on which they paid interest, although this is not what is apparently shown by the ratios of individual deposits to private deposits. (See Table VI-2.) Clearly, the East Tennessee's ratio of individual deposits to private deposits fell, and consequently its ratio of demand certificates of deposit to private deposits rose. On the other hand, the same ratio of individual deposits to private deposits rose for both the Mechanics and the Holston. The City's ratio changed little, and the Third's ratio rose and then fell. In spite of what happened to the ratio of individual deposits to private deposits, the proportion of private deposits upon which each bank paid interest almost certainly rose because each bank (for which examiners' reports are available) paid interest on an increasing proportion of its "open accounts." That is, by the final period, the ratio of individual deposits to private deposits indicated less and less about the proportion of private deposits upon which no interest was paid than it did formerly, because such deposits (open accounts) increasingly paid interest. The examiners' reports indicate that the rates paid on open accounts were generally the same as rates paid on demand certificates throughout the final period, and that an increasing portion of all accounts paid interest. As a result, the local banks paid interest on a growing proportion of their private deposits, although that proportion grew more slowly than before.

The local banks borrowed from other banks at about the same rates that they did during the last half of the transition period. The City

Table VI-2

Average Ratio of Individual Deposits to Private Deposits, in Percent

Year	East Tennessee	Mechanics	Third	City	Holston
1900	59.0	76.6	66.4	60.7	77.6
1901	59.5	76.8	66.0	54.1	67.8
1902	57.2	76.9	69.4	59.1	66.8
1903	53.6	78.1	69.3	59.6	74.0
1904	56.6	79.0 (4)	68.6	55.1	77.1 (3)
1905	57.8	77.4	66.8	59.0	81.2
1906	55.7	79.0 (4)	71.1	56.1	83.8
1907	56.2	80.0 (4)	70.8	55.4	86.5
1908	48.7		72.6	53.0	85.0
1909	40.9		64.7	57.4 (4)	76.4
1910	35.3		54.9	55.5	81.3
1911	35.2		58.4	55.7	79.8
1912	38.9		55.6	58.1	79.5
1913	43.6		62.2	66.3	83.5

Source: Reports of Condition. See Table IV-4, page 71.

National continued to obtain about one-quarter of its liabilities from other banks. The East Tennessee borrowed at a lower rate than did the average country bank. The other local banks fell between those two. (See Table VI-3.) The proportion of the local banks' liabilities obtained from other banks showed no tendency to change during the final period. Excepting the East Tennessee, the local banks borrowed at rates that were closer to the rates at which reserve city banks borrowed than they were to the rates at which the average country bank borrowed.

The most noticeable alteration in the proportioning of liabilities involved increases in circulation and shareholder investment. There were three related reasons for the banks to increase their shareholder investment. First, Knoxville's economy grew, and as it did, there was a need for more bank capital. Second, in 1900, issuance of national banknotes was made more profitable, and because banknote issues were linked to bank capital, the banks were given a stronger incentive to increase their capital. Third, by 1900 the local banks were having increasing problems with the 10 percent loan limit, and the only means at their disposal for dealing with those problems were significant increases in their capital. Of the three reasons given, the last was probably the strongest. Most of the capital increases by the local banks were begun in the years during which they had the greatest difficulty obeying the 10 percent limit, 1900 to 1906. In 1906 the law regarding the 10 percent limit was revised, and the banks then found it easier to abide by its provisions. Only one bank, the Holston National, continued to increase its capital after 1906. (See Table VI-4.)

Table VI-3

Average Ratio of Borrowed Funds to All Liabilities, in Percent

Year	East Tennessee	Mechanics	Third	City	Holston	Central Reserve Cities	Reserve Cities	Country Banks
1900	1.7	11.2	20.4	27.1	19.9	39.0	27.2	5.3
1901	1.7	9.9	17.5	27.9	12.1	37.9	29.6	5.7
1902	2.0	8.0	15.0	24.9	10.5	37.1	29.1	5.7
1903	5.2	8.3	17.4	28.3	15.5	38.1	28.8	5.8
1904	4.2	11.4 (4)	20.1	27.5	19.2 (3)	40.4	30.6	5.7
1905	3.9	12.1	19.4	24.4	16.2	38.8	31.5	5.9
1906	3.9	10.3 (4)	19.4	26.9	16.5	37.8	30.8	6.0
1907	6.1	13.7 (4)	16.6	26.3	20.5	39.8	30.6	6.2
1908	3.1		12.1	22.0	12.5	40.9	30.6	6.1
1909	1.8		13.0	23.3 (4)	11.9	40.4	31.5	6.1
1910	1.6		10.3	30.2	9.0	37.8	30.4	6.4
1911	3.1		16.1	28.2	7.9	41.0	30.9	6.2
1912	2.8		14.4	24.1	9.9	40.6	31.1	6.3
1913	3.7		16.5	22.7	14.2	40.7	30.9	6.3

Source: Reports of Condition. See Table IV-2, page 68.

Table VI-4

Average Capital per Bank, in Thousands of Dollars

Year	East Tennessee	Mechanics	Third	City	Holston	Central Reserve Cities	Reserve Cities	Country Banks
1900	175	100	200	200	100	1,394	565	112
1901	175	100	200	200	100	1,576	569	104
1902	175	100	200	200	100	1,980	594	98
1903	175	100	200	200	100	2,304	602	93
1904	190	100 (4)	200	220	100 (3)	2,403	601	90
1905	200	180	200	300	180.2	2,351	632	87
1906	400	200 (4)	200	460	200.0	2,380	665	86
1907	400	200 (4)	200	500	239.2	2,615	687	85
1908	400		200	500	250.0	2,704	694	84
1909	400		200	500 (4)	250	2,691	698	84
1910	400		200	500	400	2,917	734	85
1911	400		200	500	400	3,149	771	85
1912	400		200	500	460	3,311	801	86
1913	400		200	500	500	3,490	834	86

Source: Reports of Condition. See Table IV-7, page 91.

Each of the local banks, except the Third National, doubled (at least) its capital between 1904 and early 1906. The Mechanics and the Holston relied mostly upon the sale of additional stock. The East Tennessee and the City employed both the sale of additional stock and the reinvestment of earnings to produce their capital increases. Consequently, the Mechanics' and the Holston's ratios of shareholder investment to liabilities were more strongly affected than were the same ratios for either the East Tennessee or the City. (Conversion of surplus to capital did not affect the ratio of shareholder investment to liabilities.) (See Table VI-5.) It was for this reason that the Mechanics and the Holston had relatively high ratios of shareholder investment to all liabilities during parts of the final period. During most other years, shareholder investment contributed about as much to their liabilities, and to the liabilities of the other local banks, as to the liabilities of reserve city banks. That is, the local banks were more highly leveraged in the final period than they had been previously.

While shareholder investment contributed somewhat less than it had to the liabilities of the local banks, circulation added more. The increase in the importance of circulation as a source of liabilities was due to a change in the law made in 1900. Before that modification, the local banks generally issued the minimum amount of circulation. After the change, however, they usually issued the maximum allowed by law. (The "minimum" was determined by the minimum bond deposit.)

The Act of March 14, 1900, increased the amount of circulation that could be issued by a bank from 90 percent of the lower of either

Table VI-5

Average Ratio of Shareholder Investment to All Liabilities, in Percent

Year	East Tennessee	Mechanics	Third	City	Holston	Central Reserve Cities	Reserve Cities	Country Banks
1900	23.2	26.3	25.7	13.1	25.3	13.0	18.5	26.5
1901	20.6	24.6	24.1	13.1	23.1	12.0	17.5	24.7
1902	18.8	23.6	23.8	12.0	17.6	14.1	17.9	24.0
1903	17.9	18.4	21.3	10.7	12.8	16.9	18.6	23.7
1904	18.4	19.3 (4)	19.5	12.6	11.9 (3)	15.2	18.3	23.7
1905	17.8	28.8	18.4	16.4	17.0	14.6	17.3	22.9
1906	16.6	29.0 (4)	18.1	16.2	17.0	15.3	17.2	21.9
1907	16.0	27.6 (4)	19.2	15.5	18.4	16.7	17.4	21.5
1908	17.1		21.4	17.3	21.7	14.7	17.5	22.4
1909	16.8		20.9	16.7 (4)	21.0	14.5	16.4	21.8
1910	16.9		20.0	16.4	26.1	15.9	17.0	21.2
1911	17.4		18.2	16.3	25.0	16.3	16.9	21.1
1912	16.5		18.2	17.9	27.2	15.6	16.5	20.5
1913	16.2		17.9	17.5	24.8	16.3	16.8	20.0

Source: Reports of Condition. See Table IV-5, page 83.

the market value or the par value of bonds deposited to secure that circulation to 100 percent of the value of the bonds so deposited. That Act also provided that the maximum bond deposit for any bank be increased to equal its capital. (This repealed the old maximums created by the Act of March 3, 1865.) Furthermore, the Act of March 14, 1900, allowed banks to convert the bonds they had already deposited into bonds of a new series at favorable terms.

The actual terms at which the old bonds were to be exchanged for the new ones were not specified in the Act. One proviso of that Act read in part,

> Provided, That under regulations to be prescribed by the Secretary of the Treasury any national banking association may substitute the two per centum bonds issued under the provisions of this Act for any of the bonds deposited with the Treasurer to secure circulation.

This enabled the Secretary of the Treasury to accept the old bonds at their market value, and this was necessary because most of these bonds were trading above par and would not have been otherwise exchanged by their owners for the lower yielding new bonds if the exchange had been based on the par values of the bonds concerned. Had the Congress intended the bonds to be exchanged at par, then the proviso would have been written differently.

The result was that:

> Banks were allowed to issue notes to the amount of the paid-in capital and to one hundred per cent. of the market value of the bonds deposited, but not exceeding one hundred per cent. of their par value. The act authorized the refunding of the greater part of the funded debt into two per cent. bonds, payable after thirty years, in exchange for several former issues paying higher rates of interest but all redeemable before 1909. Upon notes secured by the new bonds the

> tax on circulation was reduced from one to one half of one per cent. For at least another generation, then, an ample basis of bonds to secure circulation was provided, and for the time being at any rate the profit to be gained from the issue of notes was slightly increased. Within less than four months after the passage of the law the note-issue, which had remained almost stationary for more than a year, rose . . . and thereafter continued to expand slowly but almost continuously until 1912. . . . (Dunbar, 1922, pp. 233-234)

The Act of March 14, 1900, significantly reduced the cost of issuing banknotes by lowering the tax on the notes issued and by increasing the amount which could be issued for a given amount of bonds deposited. At the same time, banks were given incentives to expand their circulation. Large banks, to whom the provisions of the Act of March 3, 1865, really applied, were allowed to increase their circulation to an amount equal to their capital. Perhaps more important was the substitution of old bonds for new. The banks were given the opportunity to exchange their old bonds at a premium, and they would no longer have to take into account the possibility that such bonds might, in a few years, be redeemed at par prior to their maturity. Had the Secretary of the Treasury chosen to redeem such bonds at par at the earliest opportunity, the owners of those bonds might have sustained significant losses. The Act of March 14, 1900, allowed the banks to avoid this possibility and at the same time assure themselves of having, for at least thirty years, an ample supply of bonds to secure their circulation.

The response to the Act was dramatic. (See Table VI-6.) Banks in each class increased their circulation. Within two years, central reserve city banks had doubled the rate at which they issued circulation. Reserve city banks also boosted the rate at which they issued banknotes,

Table VI-6

Average Ratio of Circulation Issued to Capital, in Percent

Year	East Tennessee	Mechanics	Third	City	Holston	Central Reserve Cities	Reserve Cities	Country Banks
1898	25.7	22.5	22.5	22.5	22.5	24.0	21.2	36.0
1899	25.7	22.5	22.5	90.0	22.5	24.4	23.4	38.9
1900	36.6	24.0	39.9	98.0	53.5	38.6	31.4	45.9
1901	42.9	45.0	50.0	100.0	100.0	48.5	38.9	53.1
1902	42.9	50.0	50.0	100.0	99.5	40.8	37.4	50.7
1903	42.9	50.0	50.0	100.0	97.9	41.7	40.2	52.9
1904	65.8	57.5 (4)	50.0	97.3	98.9 (3)	38.5	48.6	57.6
1905	100.0	50.4	100.0	100.0	98.8	45.2	54.1	61.8
1906	80.0	57.5 (4)	100.0	91.3	98.8	50.7	58.7	66.7
1907	100.0	57.5 (4)	100.0	100.0	83.6	51.0	61.7	67.5
1908	100.0		100.0	100.0	96.0	53.6	66.3	71.3
1909	98.2		100.0	100.0 (4)	100.0	50.5	66.3	74.8
1910	98.8		100.0	100.0	85.0	47.8	65.4	75.9
1911	96.9		99.4	100.0	100.0	44.1	64.2	76.6
1912	95.3		99.5	100.0	95.7	43.1	63.8	78.2
1913	95.9		100.0	100.0	100.0	42.8	62.1	78.9

Source: Reports of Condition. See Table IV-6, page 89.

although not quite so high as central reserve city banks. Country bank also responded strongly. Issue rates continued to rise and peaked for city banks in 1908. Issue rates for country banks rose steadily throughout the remaining years of the National Banking System, demonstrating that banknotes were still more important for the smaller banks than for the larger. Country bank issue rates probably continued to rise because the Act of March 14, 1900, allowed the formation of national banks with a capital of $25 thousand in places with a population below three thousand. Many such banks were formed and they tended to take full advantage of the note issue privilege. (On the last report of condition of 1899, there were 3,283 country banks with a total capital of $384 million, but by the last report for 1904, there were 5,128 country banks with a total capital of $455 million. That is, there were an additional 1,845 country banks formed and they added about $38 thousand apiece to total capital. See also Table VI-4, page 197.

The local banks also responded strongly, and by the end of the period they were all issuing circulation at, or very near to, the maximum allowed by law. The ratio of circulation issued to capital occasionally fell below 100 percent, either because of changes in accounting procedures to listing notes outstanding rather than notes issued (the East Tennessee, 1909-1913, and the Third, 1911-1912), or because there was sometimes a delay in issuing <u>additional</u> circulation once a bank's capital was increased (the Holston, often after 1906). Some of the local banks responded to the change in 1900 more quickly than did others, but all responded within a few years. Only the Mechanics National failed to

issue, at sometime, all the circulation it was allowed, although it more than doubled its issue rate. The City National seems to have anticipated the change in the law, and early in 1899 increased its circulation to the maximum it was then allowed. (There is, however, nothing that would confirm this supposition in the bank's correspondence with the Comptroller.)

Employment of Assets: 1900-1913

During the final period, the local banks managed their assets about as they had done during the transition period. For the most part, the changes in the proportioning of assets that did occur were continuations of trends which first appeared in the transition period. As with liabilities, the patterns of asset management showed similarities to those of city banks and to those of country banks. By the final period, there were smaller differences between country banks and reserve city banks in respect to the proportioning of some assets. The previous differences between reserve city and country bank loan-asset ratios and earning-asset ratios had diminished, but there were still large differences in primary and secondary reserve ratios. For this reason, it is more difficult to precisely identify a particular behavior pattern as having been representative of, for example, country banks rather than of reserve city banks. By and large, the local banks settled on patterns that were similar to those common to reserve city banks.

The local banks generally held high and stable ratios of earning assets to all assets during the final period. For the most part, their ratios were slightly higher and more stable than they had been during

most of the transition, and they more closely approximated the ratios held by the average country bank. (See Table VI-7.) The Holston National, from 1910 through 1913, had lower and declining ratios because in 1910 it began construction of a large bank building. Consequently, the portion of its assets devoted to real estate was abnormally high. However, the Holston did not appreciably alter the relations among its other assets. The local banks were able to maintain high and stable ratios of earning assets to all assets because they held stable ratios of loans to assets and because the bank deposit portion of their reserves was also stable and high. They also held high and relatively stable secondary reserves.

During the final period, loan-asset ratios were lower than they had been during the first half of the transition period, when the local banks were at their most aggressive in building the volume of their loans. In the second half of the transition, loan-asset ratios fell, and the decline continued into the final period. (See Table VI-8.) By 1903 or 1904 the local banks had reduced their loan-asset ratios to levels that were close to those of country banks (but not greatly different from ratios held by reserve city banks). Through the remainder of the final period, the local banks generally lent at the same rates as country banks. The ratios were more stable than they had been, and there were usually smaller differences among the local banks.

There were somewhat greater differences among the local banks in their ratios of primary reserves to assets. (See Table VI-9.) They held primary reserve ratios that were close to those held by reserve city banks

Table VI-7

Average Ratio of Earning Assets to All Assets, in Percent

Year	East Tennessee	Mechanics	Third	City	Holston	Central Reserve Cities	Reserve Cities	Country Banks
1900	85.9	88.0	86.5	90.1	91.0	71.7	84.8	89.4
1901	86.7	87.2	86.6	90.1	89.5	69.3	85.1	90.0
1902	87.8	88.2	86.3	93.4	89.5	70.6	85.9	90.5
1903	88.6	90.3	86.8	90.6	89.2	74.2	86.3	90.6
1904	89.9	88.9 (4)	88.6	90.2	90.9 (3)	72.3	85.9	90.7
1905	90.9	90.9	87.8	91.3	91.0	71.6	85.9	90.8
1906	89.9	89.7 (4)	87.9	92.9	92.9	69.4	85.8	91.0
1907	90.1	92.3 (4)	89.4	93.1	92.6	75.1	86.6	90.9
1908	87.8		88.3	92.0	90.4	72.0	85.1	90.3
1909	89.3		87.3	90.9 (4)	90.3	71.5	85.1	90.5
1910	88.5		90.6	89.0	88.1	71.0	85.2	90.6
1911	88.0		92.0	88.4	86.2	73.7	85.7	90.5
1912	89.1		93.1	89.0	84.4	74.1	86.1	92.7
1913	89.9		92.5	89.2	73.8	75.2	86.3	91.8

Source: Reports of Condition. See Table IV-8, page 101.

Table VI-8

Average Ratio of Loans to Assets, in Percent

Year	East Tennessee	Mechanics	Third	City	Holston	Central Reserve Cities	Reserve Cities	Country Banks
1900	51.8	56.0	64.0	63.7	66.2	51.7	53.3	54.9
1901	50.0	48.6	61.5	62.1	58.8	50.5	52.7	54.7
1902	50.8	42.2	59.8	58.9	55.7	51.1	53.6	56.4
1903	53.2	46.9	58.0	54.7	50.4	52.2	53.8	57.4
1904	53.8	46.4 (4)	62.6	53.6	56.7 (3)	52.0	51.6	56.2
1905	56.4	55.5	58.7	57.1	58.1	51.6	52.0	55.6
1906	57.1	54.0 (4)	60.2	57.5	63.1	49.6	53.3	56.7
1907	55.2	55.0 (4)	65.0	56.4	66.7	53.2	53.6	57.3
1908	54.0		57.4	55.0	62.1	51.3	50.9	55.3
1909	53.9		55.1	55.4 (4)	60.0	52.3	51.5	55.4
1910	56.5		55.8	59.0	61.8	52.2	53.4	57.7
1911	54.1		56.7	52.7	55.6	52.6	52.6	57.0
1912	53.0		62.0	56.8	55.7	53.9	52.5	56.7
1913	56.6		67.9	56.5	46.3	54.7	53.5	58.8

Source: Reports of Condition. See Table IV-9, page 103.

Table VI-9

Average Ratio of Primary Reserves to Assets, in Percent

Year	East Tennessee	Mechanics	Third	City	Holston	Central Reserve Cities	Reserve Cities	Country Banks
1900	31.8	23.6	17.8	22.3	13.3	34.1	31.6	22.9
1901	32.4	23.7	19.7	24.4	13.0	36.6	31.5	22.8
1902	26.7	27.8	21.8	25.6	20.3	35.3	30.5	21.5
1903	36.0	31.1	27.5	31.5	28.6	32.0	29.1	20.2
1904	35.4	31.4 (4)	25.0	33.2	25.4 (3)	33.7	31.1	20.5
1905	31.7	23.8	23.1	28.5	21.7	34.3	31.1	21.0
1906	28.2	26.5 (4)	22.7	26.4	17.9	36.3	29.6	20.4
1907	28.8	27.0 (4)	18.0	26.7	16.3	30.5	28.4	19.7
1908	29.0		20.4	26.1	15.6	33.1	30.5	19.7
1909	30.6		22.8	25.5 (4)	17.4	33.4	31.1	19.8
1910	27.9		15.0	22.1	12.6	34.2	30.2	18.7
1911	31.2		20.9	27.8	16.8	32.3	30.6	18.9
1912	31.6		18.6	22.7	13.4	32.2	30.5	18.8
1913	29.2		15.8	23.4	11.0	31.1	29.5	18.2

Source: Reports of Condition. See Table IV-10, page 108.

until 1904 or 1905. Thereafter, the larger established banks, especially the East Tennessee and the City, continued this practice. After 1905, the Holston, and to a lesser extent the Third, held lower ratios which were more like those held by the average country bank. This difference is accounted for by more aggressive behavior by the Holston after it survived the transition period and attempted to become one of the largest of the local banks. The Third also may have become more aggressive toward the end of the period as part of an attempt to grow larger, but if so, the two (or perhaps three) years at the end of the period, when the more aggressive posture appears, do not provide a long enough span of time to accurately judge the reality of the trend. (As will be seen, both of these banks held relatively high ratios of secondary reserves, and therefore the relatively low ratios of primary reserves do not reflect as risky an arrangement of assets as might be thought, taking account only of primary reserves.)

While the local banks generally held higher primary reserves than did the average country bank, they also held a higher proportion of those reserves in the form of bank deposits. (See Table VI-10.) As might be expected, the local banks which held the highest primary reserves also held the highest proportion of those reserves in bank deposits. The Third and the Holston, by holding lower reserves, had to hold a higher proportion in cash, and consequently their bank deposit portion of primary reserves was lower than either the East Tennessee's or the City's. In most years, the Third and the Holston held bank deposits in relation to primary reserves that were close to the proportions held by reserve

Table VI-10

Average Ratio of Bank Deposits to Primary Reserves, in Percent

Year	East Tennessee	Mechanics	Third	City	Holston	Central Reserve Cities	Reserve Cities	Country Banks
1900	75.8	64.4	56.1	61.9	61.7	21.5	58.4	68.6
1901	76.3	66.0	62.6	74.3	61.4	19.9	58.7	69.8
1902	77.8	73.8	65.1	78.7	71.4	20.6	59.8	69.5
1903	77.5	79.0	67.4	73.3	71.9	24.7	59.9	67.9
1904	79.0	74.7	67.9	73.3	71.4	22.5	61.4	69.1
1905	79.8	74.9	62.1	73.0	66.2	21.8	62.1	70.3
1906	73.2	71.2	61.3	77.6	67.7	20.3	61.7	70.3
1907	73.9	79.8	59.0	79.5	65.7	24.2	61.8	68.7
1908	65.7		59.7	76.4	56.3	20.9	59.9	66.7
1909	71.7		59.5	78.6	68.8	20.4	60.9	68.3
1910	67.2		54.9	70.0	70.1	21.1	60.2	66.7
1911	69.5		72.0	75.2	65.0	24.8	62.7	67.6
1912	72.9		74.6	72.8	67.5	25.4	63.2	68.7
1913	73.0		66.3	74.0	59.4	26.7	62.9	67.6

Source: Reports of Condition. See Table IV-13, page 112.

city banks. The City and the East Tennessee, on the other hand, held more of their reserves in bank deposits than did the average country bank. Furthermore, the local banks usually had higher and more stable ratios than they held previously. Again, this characteristic represented the continuation of a trend begun during the last half of the transition period. As a general rule, the local banks also spread their bank deposit reserves more widely among their reserve agents, other national banks, and other banks than they had done in earlier years. (See Table VI-11.) There were sometimes large differences between the local banks in a given year, but the trend toward a wider dispersal of bank deposits was a common characteristic for each of the local banks.

The local banks generally held a lower proportion of their primary reserves in cash than did other banks. (See Table VI-12.) This pattern had been established as common for the local banks after the first half of the transition period, and it continued through the final period. The ratios common to the final period were, of course, much lower than the usual ratios of the first period.

The local banks in the final period held ratios of secondary reserves to assets that were about one-half again as high as they had been during the transition period. (See Table VI-13.) Of course, the increase in their secondary reserves occurred because they increased the volume of banknotes issued and therefore the volume of bonds deposited to secure that circulation. Furthermore, the secondary reserve ratios for the local banks did not show any strong tendency to fall during the final period, because the banks continued to make large increases in their capital and

Table VI-11

Average Ratio of Amounts Due from Reserve Agents to Bank Deposits, in Percent

Year	East Tennessee	Mechanics	Third	City	Holston	Reserve Cities	Country Banks
1900	55.3	70.7	91.8	69.1	49.0	61.9	75.8
1901	55.8	73.6	93.1	76.8	61.7	59.8	74.9
1902	43.5	69.3	94.1	73.6	55.6	57.9	74.6
1903	35.3	76.1	92.7	73.0	48.3	54.4	74.2
1904	36.6	69.5 (4)	90.2	62.6	56.1 (3)	57.3	74.8
1905	35.5	82.5	85.8	68.8	56.9	54.6	74.8
1906	42.8	55.6 (4)	83.4	45.1	60.8	51.9	74.8
1907	45.5	62.0 (4)	75.7	45.1	60.0	51.5	75.0
1908	45.3		85.6	58.3	53.7	54.9	77.2
1909	44.2		84.4	52.5 (4)	58.6	53.3	77.0
1910	39.6		80.4	44.6	63.8	49.3	76.6
1911	39.8		70.5	47.3	68.3	49.9	76.9
1912	39.9		64.9	48.6	71.2	48.7	76.7
1913	40.9		74.6	55.2	60.8	48.2	76.3

Source: Reports of Condition. See Table IV-14, page 115.

Table VI-12

Average Ratio of Cash to Primary Reserves, in Percent

Year	East Tennessee	Mechanics	Third	City	Holston	Central Reserve Cities	Reserve Cities	Country Banks
1900	21.5	26.0	39.9	26.8	30.2	53.7	30.8	28.0
1901	20.4	28.4	34.8	25.6	27.4	45.9	28.8	26.7
1902	18.5	21.6	30.9	15.8	23.5	45.5	28.5	27.0
1903	20.3	19.2	27.8	20.1	23.0	48.0	29.0	28.6
1904	17.5	19.6 (4)	28.0	16.0	23.5 (3)	51.1	28.6	27.5
1905	17.7	21.6	33.6	17.6	25.5	46.1	27.4	26.7
1906	23.7	23.2 (4)	30.3	18.8	26.2	40.1	27.6	26.3
1907	23.1	15.9 (4)	35.1	16.6	31.8	49.5	28.8	28.1
1908	31.3		36.9	21.1	38.4	53.4	31.4	30.4
1909	25.3		32.9	19.1 (4)	25.8	49.8	30.1	28.8
1910	29.3		38.1	25.0	23.6	45.8	28.8	29.8
1911	26.2		24.8	21.8	30.2	52.4	28.9	29.0
1912	22.3		23.2	23.4	27.5	51.6	28.3	28.2
1913	23.3		28.2	20.8	33.6	52.5	28.6	29.1

Source: Reports of Condition. See Table IV-12, page 111.

Table VI-13

Average Ratio of Secondary Reserves to Assets, in Percent

Year	East Tennessee	Mechanics	Third	City	Holston	Central Reserve Cities	Reserve Cities	Country Banks
1898	10.3	11.6	8.7	4.1	8.8	10.9	10.9	17.8
1899	9.6	11.0	9.0	13.6	7.9	10.3	12.0	18.6
1900	13.7	16.3	12.5	12.6	16.6	12.6	13.1	18.8
1901	11.9	23.0	12.7	12.3	22.7	11.5	14.0	19.4
1902	10.3	25.5	12.3	14.3	19.3	12.2	14.0	19.2
1903	7.5	18.8	10.3	12.8	18.1	14.1	15.1	19.6
1904	8.1	19.0 (4)	9.0	12.2	16.1 (3)	12.7	15.1	20.3
1905	9.3	17.6	14.8	13.4	18.5	12.5	14.6	20.4
1906	12.2	16.9 (4)	13.8	14.9	17.7	12.4	14.3	20.0
1907	13.6	15.7 (4)	13.8	15.6	15.2	14.5	15.4	20.1
1908	14.7		18.8	17.0	19.6	13.8	15.0	21.9
1909	13.5		18.6	15.5 (4)	18.3	12.3	14.7	21.6
1910	13.2		26.5	14.5	17.5	11.6	13.6	20.4
1911	12.3		20.3	14.7	19.7	13.2	14.0	20.7
1912	13.1		17.2	15.7	19.5	12.1	14.2	21.0
1913	12.0		14.1	15.4	21.0	12.1	14.3	20.7

Source: Reports of Condition. See Table IV-11, page 109.

circulation. The alteration in the importance of this category of their assets had a significant impact on the relative importance of their other assets. It did not, however, represent a change in preference regarding the degree of risks that the local banks were willing to accept. The increase in secondary reserves was not so much a fundamental shift in the banks' proportioning of their assets as it was a temporary rearrangement that would facilitate their long-term growth. For example, the local banks could have achieved the same ratios for earning assets, loans, and secondary reserves by reducing their loans in order to devote more of their resources to the purchase of U.S. government bonds. This might have occurred if the banks had wanted to have a less risky arrangement of their assets, and it would have represented a fundamental change in their relation to each other and to their business environment. However, this is not what they did.

The increase in secondary reserves by the local banks was, instead, part of a process leading to further growth. The process was one in which the local banks would temporarily increase one asset (or category of assets) relative to the others (usually meaning that loans would fall and secondary reserves would rise relative to other assets) in order to promote for the future both an overall increase in assets and a reestablishment of the previously existing relations. The initial effect of increases in circulation and bonds deposited to secure circulation was to increase both the amount of loans and the amount of bonds on deposit, but because the increase in the amount of loans was about equal to the increase in the amount of bonds on deposit, secondary reserves grew

relative to other categories of assets. This effect appears to have been a temporary one because the banks did not fundamentally alter the relations among other assets (assets other than secondary reserves). An analogy can be drawn between this process and a small snake swallowing a large egg. The snake's features will be temporarily distorted but its fundamental physiology will be unchanged. The Holston's new bank building also caused a similar distortion in important asset ratios.

The broad proportioning of assets by the local banks did not undergo a fundamental change in the final period. The local banking market remained a competitive one even though the competition was at a less feverish pitch than it had been in the middle years of the transition period. A similar pattern was demonstrated by the loan policies of the local banks. Some changes were made in the types of loans granted by the banks, and these changes indicate that over the length of the final period the lending standards were raised slightly.

Demand loans became more common, but they amounted to a large proportion of all loans only for the Third National. (See Table IV-14.) Two-name time loans grew relative to all loans. (See Table VI-15.) The other, more risky time loans generally fell in relative importance. (See Table VI-16.) However, the relative shifts in importance were not large and indicate that the local banks did not make their borrowers meet significantly higher standards than they had met in the transition period. In fact, the only significant change in lending policies involved the local banks' observance of the 10 percent loan limit.

Table VI-14

Demand Loans as a Percentage of All Loans

Year	Mechanics	Third	City	Holston
1900	4-2	7-11	2-4	4-5
1901	1-2	14-18	6-10	5-6
1902	1	17	4	4
1903	1-1	13-17	3-5	3-5
1904	2-1	17-19	1-4	4-7
1905	1	11-10	0-2	4
1906	1-1	13-11	3-3	5-6
1907	1-7	17-24	1-2	8-7
1908		12-14	1-1	4-5
1909		15-17	2-3	8-11
1910		16	2	8
1911		22-18	3-2	3-3
1912		16	2	3
1913		N.A.	N.A.	N.A.

Source: Reports of Examination.

N.A.: Not Available.

Table VI-15

Two-Name Time Loans as a Percentage of All Loans

Year	Mechanics	Third	City	Holston
1900	69-66	48-48	33-44	55-45
1901	70-58	46-43	42-37	44-57
1902	61	38	87	67
1903	61-66	40-38	69-46	71-54
1904	59-66	38-37	66-59	61-55
1905	39	30-35	49-65	42
1906	53-47	41-31	54-52	45-38
1907	51-49	33-25	50-52	48-51
1908		29-52	49-58	48-55
1909		27-34	50-67	53-11
1910		32	81	52
1911		37-38	62-90	52-49
1912		34	90	47
1913		N.A.	N.A.	N.A.

Source: Reports of Examination.

N.A.: Not Available.

Table VI-16

Other Time Loans as a Percentage of All Loans

Year	Mechanics	Third	City	Holston
1900	27-32	44-41	66-52	42-50
1901	28-39	39-39	52-53	50-37
1902	38	45	9	30
1903	37-33	47-46	29-49	27-42
1904	38-32	44-45	33-37	35-38
1905	61	59-55	50-33	54
1906	46-52	46-58	42-44	50-55
1907	47-44	49-51	48-47	44-42
1908		59-34	49-41	47-40
1909		57-49	49-29	39-77
1910		52	17	39
1911		42-44	35-8	44-48
1912		49	8	49
1913		N.A.	N.A.	N.A.

Source: Reports of Examination.

N.A.: Not Available.

Table VI-17 presents the ratio of the largest loan found on the various dates of examination to the largest loan that could legally be made by each bank. From 1900 through 1905, each of the local banks habitutally violated the law by making loans in excess of the legal limit. This produced a vast correspondence between the local banks, the examiners, and the Comptroller. (For brevity's sake only one item from that mammoth bulk will be cited.) The debate over this issue by the local banks and the Comptroller had become increasingly acrimonious, indicating the seriousness with which both parties viewed the problem. The law did not specify a particular penalty for banks which violated the 10 percent limit, and we shall never know what the Comptroller actually threatened to do. Section 53 of the Act of June 3, 1864, was a general provision allowing the Comptroller to place a bank in receivership if its officers or directors knowingly violated any of the other provisions of the Act. This may be what the Comptroller threatened to do, although it would seem to have been an extreme action on his part.

The City National wrote the following letter to the Comptroller on December 20, 1905:

> Sir:
>
> Your letters of recent date to the officers and directors of the three leading national banks in this city, have aroused a great deal of interest among them.
>
> While we fully recognize the existence of that section of the national banking laws limiting loans to 10% of the capital stock of each bank, we also fully recognize the fact that under present business conditions if this law is rigidly enforced, it will not only cripple the business of the banks, but of the mercantile and manufacturing corporations and firms of Knoxville to an extent that will be very harmful.
>
> There are five national banks in Knoxville, with an aggregate capital stock of $1,100,000.00, and there are many

Table VI-17

Ratio of Largest Loan Actually Made to the Largest Legal Loan

Year	Mechanics	Third	City	Holston
1900	1.50-1.26	2.53-2.06	6.25-6.00	1.65-1.00
1901	1.00-1.00	1.49-2.14	3.00-6.00	1.25-1.50
1902	1.00	2.46	2.50	4.95
1903	2.00-1.00	3.00-3.17	8.00-4.75	1.40-2.00
1904	7.00-2.00	3.00-3.00	5.75-3.00	3.00-2.53
1905	8.50	3.61-3.00	9.33-9.33	1.50
1906	4.25-0.86	1.00-0.95	2.75-1.82	1.89-1.96
1907	1.00-2.00	0.95-0.92	2.35-1.81	1.87-2.77
1908		1.00-1.04	0.98-0.96	1.90-2.42
1909		2.55-N.A.	0.83-1.33	1.45-1.73
1910		N.A.	N.A.	N.A.
1911		0.99-N.A.	1.00-0.82	0.95-0.95
1912		0.89-1.00	0.94-1.00	0.95-0.80
1913		1.00-1.00	0.82-1.00	0.78-0.78

Source: Reports of Examination.

N.A.: Not Available.

firms and corporations doing business with these banks, who, if they were to maintain loan accounts with each bank, a thing impossible for them to do, and their loans were restricted to the legal limit in each bank, their business would be brought to a standstill, their factories shut down, and their employees discharged.

It is impossible in a community like this for firms and companies to conduct their banking business and loans through more than one or two banks, and with the large number of solvent, prosperous and progressive business interests in Knoxville, to be curtailed suddenly to the legal limit of one or two of our banks, with their comparatively small capital, in obtaining loans, it would work a hardship and a disaster in business here that we would not recover from very quickly.

The directors of our bank want to comply with the national banking laws, and with this single exception of making loans exceeding the legal limit, have observed and obeyed your instructions fully and conscientiously.

The extending of these loans beyond the limit prescribed by law has been a necessity, not so much so for the benefit of the bank, as in order to promote and sustain the business interests of our customers and patrons.

If it is insisted that we are to comply with this law to the letter, it will be impossible for us to operate this bank in this community without shocking our customers and doing their business great injury, and there will be but one left for us to pursue, liquidation, and the retirement of our institution from the national bank system, and do business under a state charter.

We sincerely hope the extreme measures indicated in your letters will not be enforced against us for more reasons than one.

You can readily see that if all the banks in Knoxville were forced to reduce the loans of their customers promptly to within the legal limit prescribed by the national banking laws, a depression in our community, if not a panic, would result, doing great and lasting harm.

We respectfully call your attention to the facts as set out above, and while we know you have neither the disposition nor the authority to permit us to violate any of the provisions of the banking acts, yet we must insist that the letters you are writing to our directors, and the course you are imperatively insisting upon them pursuing will injure and will be ruinous to the business interests of this community.

The salient facts are that the local banks made excessive loans for two reasons, even though numerous other justifications could be and

were advanced. On the one hand, granting large loans was a useful device for attracting and retaining favored customers. On the other hand, the local banks had not increased their capital in proportion to the growth of economic activity in Knoxville. Between 1887 and 1900 only the City National had increased its capital. (The East Tennessee had done so in 1887.) In fact, it was only toward the end of 1904 that these two banks began to increase their capital, and even then the increases were not large.

A relaxation in the loan limitation came with the Act of June 22, 1906, which increased the maximum loan to one borrower from an amount equal to one-tenth of a bank's capital to an amount equal to one-tenth of a bank's capital and surplus, so long as the total did not exceed 30 percent of capital. At the time that this Act became law, the Comptroller served notice that he would enforce the new limitations more rigidly. That is, the banks were placed on notice that violations would not be tolerated, but they were also given a good opportunity to take the steps to avoid further violations.

From the passage of the Act of June 22, 1906, on, the banks could increase their maximum legal loan to one borrower by either increasing capital or increasing surplus. (They could do both.) Of the two, increasing the surplus account offered a bank some advantages over increasing capital, even though higher capital was preferred. A bank still had to go through a cumbersome process of obtaining the Comptroller's permission and then deciding upon the division of the new shares among the current owners (or finding purchasers for the new shares) if it were

to increase its capital. If, instead, the surplus account was increased, no such process was necessary. The local banks often found it useful to increase their surplus accounts gradually and, having once built their surplus to the desired level, they could convert the surplus to capital.

The effect of the Act of June 22, 1906, was that the banks had both a stronger positive incentive and a stronger negative incentive to obey the loan limitation. The banks found it easier to increase their largest legal loan, and the Comptroller made it clear that he could not tolerate violations. The local banks responded by increasing their capital and surplus. In only a few cases did the typical large loan actually get reduced. (The City National, in 1905, hugely violated the 10 percent limit on loans, but after 1906, it never again lent as much to one borrower as it did in 1905. It did, however, continue to make large loans of about the same size it had made in earlier years.) The other banks generally continued to make the same size loans, but with increases in capital and surplus, such loans were no longer in violation of the law. Only the Holston National regularly violated the law after 1906, but in most cases the excessive loans appear to have been made in anticipation of a subsequent increase in capital that, when accomplished, brought the loans back within the limit.

Summary

During the final period, the national banks of Knoxville continued to demonstrate the competitive patterns of behavior that had been developed in the transition period because the fundamental conditions

that had given rise to those patterns did not change. The local banks grew and continued to improve the management of their assets. The acquisition of their liabilities was not altered in any fundamental respect, except for the change in the rates at which they issued bank-notes. By improving the management of their assets and continuing to compete aggressively for liabilities, the local banks acted more and more like city banks rather than like country banks. This is not, however, an argument that the local banks behaved exactly alike. Instead, the diversity of patterns indicates that the National Bank Act of 1864 (and subsequent amendments) permitted the local banks to choose over a wide range of options, and that local conditions led them to make choices that were more like the choices made by city banks and less like the choices made by country banks than had been the case in the first period. Consequently, the various arrangements of assets and liabilities selected by the local banks differed from one another in detail and demonstrated the banks' willingness to compete for depositors and borrowers. The transition period can be viewed as one in which the local banks tested a variety of arrangements and eventually selected patterns that they followed throughout the final period.

CHAPTER VII

CONCLUSION

The National Banking System has attracted the interest of numerous students, some of whom have focused their attention upon those characteristics of the system that were related to the periodic crises during the time it was in force. Others have concentrated their efforts upon those characteristics of the system which had an especially strong effect upon the flow of capital in a rapidly industrializing United States. There is now widespread agreement that the National Banking System was unable to respond well to crises because of its reserve structure and the absence of a lender of last resort. Because there was no agency or mechanism that would provide short term liquidity to the banks of that system, sharp increases in the demand for liquidity could not be met without sharp reductions in the amount of credit extended by the banks of that system. About this problem, this study can add little to what is already known. It can, however, add to our knowledge of how the banks of that system affected capital flows.

Richard Sylla (1975. See also the discussion in Chapter II, page 7) has developed an explanation of how the National Banking System influenced the developing capital markets in the United States during the late nineteenth century. He has argued that because the National Bank Acts contained provisions that favored the establishment of national banks in the urban areas of the northeast and discouraged their formation in the rural areas in the rest of the country, location affected performance.

Country banks that were established in rural areas were protected from competition, and therefore were able to discriminate between their local customers and other banks located in the reserve cities. The country banks could lend less at home, but still maintain an acceptable ratio of earning assets to assets by lending to other banks, especially to their reserve agents. Thus, the monopolistic structure of country banking in most of the country tended to redirect funds away from the rural regions (and therefore away from agriculture) and toward the urban areas (and therefore toward industry). The competitive structure of national banking in the urban areas—especially in reserve cities—in turn insured that industry would receive capital at favorable rates. (The interest rates at which industrial debtors borrowed would have been higher had the country bank market for capital been more competitive.) Consequently, Sylla argues that the agricultural sectors of the United States financed the expansion of industry in the urban areas. It was not until late in the period that country banks were subjected to increasing competition from state chartered banks. With the increase in competition from state chartered and private banks, national banks in rural areas ceased to behave as monopolistically as they had in earlier years.

The findings of this dissertation do not refute Sylla's thesis, but they do offer an alternative view of country bank behavior for one location. From the time when the first national bank was founded in Knoxville until the middle of the 1880's, the national banks located here were not greatly different from what would be expected from Sylla's description of country banking. The local national banks during those years could be described as monopolistic because there are some indications that they

did use their position to acquire liabilities at favorable rates. On the other hand, the management of their assets is best described as having been conservative, rather than monopolistic.

During the first period, the local national banks were not subject to persistently strong competition from state chartered and private banks, and they tended to pay interest only upon a small portion of their private deposits. Whenever interest bearing deposits rose above the usual level, the local banks appear to have been able to take action that permitted the reduction of those deposits to more normal levels. Had there been strong competition from state chartered banks, the local national banks probably would not have been able to respond in this fashion. Consequently, the local national banks can be said to have used their market power to reduce the costs of their liabilities below what it would have been, and therefore in respect to the acquisition of liabilities, the local national banks can be said to have behaved as monopolies are expected to behave.

The monopolistic pattern for the local banks during the first period did not, however, extend into their management of assets, which can best be described as having been conservative. The local banks did not show a tendency to restrict their local loans in order to lend to city banks. They did restrict their loans, but the motivation seems to have been to maintain a conservative portfolio. By limiting the volume of local loans, the local national banks were left with a relatively large amount of assets that would have been lent to city banks, but the local national banks chose instead to hold relatively high amounts of cash. That is, the local national banks did not substitute loans to

city banks for loans to local firms. They chose instead a more conservative proportioning of their assets, which had the effect of keeping their earning assets to all assets ratios below those common for other banks in their class.

The behavior of the local national banks in the first period is broadly consistent with the behavior expected of them, given Sylla's generalizations. That the local national banks did not follow his model in every respect is not unexpected. There is ample room in Sylla's model for the conservative country bank; and if a particular bank or group of banks is not thoroughly monopolistic at all times, his description is still a reasonable and useful one. However, the behavior of the local national banks from the mid-1880's to around the turn of the century was quite different from what it should have been had Sylla's model of the behavior of country banks been applicable to Knoxville.

During the second period, the behavior of the local national banks changed dramatically from what it had been in previous years. The local banks began to aggressively compete for liabilities with one another, and the management of their assets indicates that they also began to compete aggressively for customers. There was an increased willingness to pay interest to their depositors and an increased willingness to borrow from other banks. At the same time, the banks demonstrated a greater willingness to increase the volume of their local loans, to lend larger and larger amounts and thereby violate the law regarding large loans, and to relax the standards that their depositors were required to meet. This pattern is not necessarily inconsistent with Sylla's model, for he argued that country banks did eventually become more competitive. But Sylla

traced the change in behavior to an increase in competition from state chartered banks, whereas in Knoxville's case, the change in behavior came as a result of an increase in the number of national banks. State banks in Knoxville were always smaller than the nationally chartered ones, and there is no indication that the national banks regarded the state banks as particularly strong competitors. Furthermore, Sylla put the increase in state chartered banks and the increasingly competitive atmosphere for national banks as having occurred around the turn of the century. The increasingly competitive atmosphere for Knoxville's banks, however, began earlier and had a different impetus from that postulated by Sylla.

In the final period, when according to Sylla's model, country banks should have been subjected to increasing competition from state chartered banks and should themselves have acted in more competitive ways, the national banks of Knoxville were behaving somewhat less competitively than they had during the decade of the nineties. Even though the local national banks were still competitive during the final period, the intensity of competition had declined. During the transition period, the local banks had altered the proportioning of their assets and liabilities in order to become more competitive, and while there were few substantial changes in the final period, the proportions chosen indicate that the local banks were not as aggressive as they had been. On the other hand, it is clear that even though there was a less intense competitive atmosphere during the final period, the local national banks behaved much more competitively than they had done in the first period. There was not a return to the relatively conservative (or perhaps

monopolistic) arrangement of assets and liabilities, nor did the local banks significantly raise the standards which their borrowers had to meet.

The history of the local banks' profits is roughly consistent with the description of their behavior given above. The local banks had higher-than-average profits during the first period. In spite of the more intense competition, their profits remained relatively high until midway through the transition period, because the banks managed their assets more effectively. Loan-asset ratios rose to extremely high levels. (The bank deposit portion of their reserves also rose, and so did earning assets as a percentage of all assets.) The risks associated with this strategy were revealed during the cirsis of 1893, and the banks responded by reducing loan-asset ratios to more prudent levels. At the same time, their profits fell to levels that were about the same as other country banks. By the end of the transition period, the local banks profits had recovered, and in most years of the final period, their profits exceeded those of the average country bank.*

What was it that led national banks in Knoxville to become more competitive prior to the time that most other country banks did, and why was the increase in competition not related to an increase in the number

*No further comments on the local banks' profits will be presented in the text, because the estimates of their profits developed for this study are quite unreliable. The reasons for the unreliability of the profit estimates, as well as the estimates themselves, are presented in Appendix C. While the profit estimates tend to support the arguments presented in this study, their character makes their support minimal, at best.

of state chartered banks? The increase in competition among the local banks began shortly after a significant improvement in the transportation system serving Knoxville. This evidently stimulated a large increase in economic activity, particularly among the manufacturing and mining industries that were linked to the natural resources of the region. For many of these industries, transportation facilities capable of handling heavy, bulky items were a necessity. Once the transportation system was developed to the point that these items could be efficiently and cheaply handled, Knoxville boomed, and naturally the local financial sector grew also.

From the middle of the 1870's to 1900, the National Bank Acts underwent no changes that greatly increased the ease of national bank formation. There were relatively few changes in the law regarding national (or state chartered) banks during this period, and the great increase in the number of banks in Knoxville must therefore be explained by the great increase in economic activity that followed upon the improvements in that community's transportation system.

The improvements in the transportation system serving Knoxville may explain the increase in economic activity that followed, as well as the increase in the number of banks operating in Knoxville. A better transportation system cannot, however, explain why Knoxville appears to have been such an hospitable environment for national banks. As Sylla has argued, there were a number of provisions of the National Bank Acts that should have discouraged the formation of national banks here. The relatively large capital requirements, the prohibition against loans

secured by real estate, the limitation on large loans, and the banks' obligation to undergo examination and make frequent reports may have all discouraged national bank formation. Yet it is clear that the competitive response by the older national banks was produced by an increase in the number of national, and not state chartered, institutions. In Knoxville's case, modification of the law governing national banks was not the factor that stimulated the great increase in the number of national banks. There is no clear reason why Knoxville would have had more national banks than state chartered ones, but a possible explanation may be that Knoxville's experience especially during the crisis of 1873, when at least two nonnational banks failed, convinced the public that national banks were safer than other banks. The great increase in the number of national banks from 1887 to 1891 had occurred prior to the failure of any of the local national banks. From the end of the Civil War to the early 1890's, none of the local national banks had failed, whereas several of the state chartered and private banks operating in and near Knoxville had. Consequently, the public probably had greater faith in banks with national charters than they did in private banks or banks with state charters.

In addition, by the mid-1880's, the local national banks may have found that the restrictions and burdensome obligations associated with national affiliation were not as restrictive or burdensome as had once been thought. There was nothing national banks could do to avoid the statutory capital requirement or to mitigate the obligation to make periodic reports and undergo examination. The prohibition against loans secured by real estate and the limitation on large loans, however, could

be (and were) evaded by various stratagems, and therefore these restrictions ceased to be the impediments to joining the National Banking System that they had once been. The experience of the local national banks during the first period showed others that the prestige and advantages of a national charter could be enjoyed without their having to rigidly obey all the provisions of the National Bank Acts, and therefore the increase in the number of banks in Knoxville in the late 1880's and early 1890's was primarily due to an increase in the number of national banks.

The central point is that it was the characteristics of Knoxville's economy and history, and not the impediments to free entry contained in the National Bank Acts, that determined the structure, and therefore the performance, of banks in Knoxville. According to Sylla's model, the deciding factors determining national bank formation and the performance of the National Banking System were provisions in the National Bank Acts favoring the formation of national banks in some places over other places and limiting the operation of all national banks in specific ways. These two views of the National Banking System are not inconsistent with one another. There is nothing in Sylla's description that would rule out the influence of local conditions upon national bank formation and performance. On the other hand, Sylla's model does not suggest that local conditions would exert as strong an influence as they did in Knoxville's case, nor does his model suggest that there should have been as much diversity among the local national banks as there was. In large part, this is due to differences in focus. Sylla developed a broad generalization, whereas this dissertation has a much narrower focus.

Examinations of broad aggregates necessarily damp out any individual idiosyncrasies, whereas studies of individual entities necessarily heighten the role and importance of features unique to those entities. This study has argued that rapid economic growth in Knoxville was closely coupled with rapid growth in Knoxville's financial institutions. Even if this same pattern had been common for other communities in the United States, it is unlikely that aggregated data would reveal the closeness of the linkage. The United States experienced great growth in economic activity between 1880 and 1900, but that growth was not equally distributed among all regions. Some grew more rapidly than did others, and the aggregated data would average out all these differences.

The analytical advantage of segregating the individual banks, rather than aggregating them into an "average" bank, can be observed with the following example. The East Tennessee National and the City National, in the decade of the 1890's, demonstrated polar extremes among Knoxville banks in the manner in which they acquired liabilities. In a sense, the East Tennessee represented an extreme version of the average country bank, whereas the City was not very different from the average reserve city bank. Yet if these two banks were to be merged into an imaginary third bank, that bank would have had a balance sheet whose liabilities side would be almost identical to that of the average country bank. More important, this imaginary third bank would not demonstrate the divergent paths to success chosen by the two real banks. The diversity in their approaches to their market was, in a sense, a measure of the degree of competition present in Knoxville, for it indicated the willingness of the local financial institutions to tailor their services to the needs of

their customers. Product differentiation can be a powerful competitive device and in Knoxville's case, product differentiation—different behavior patterns for different banks—represented the competitive response of the banks in this market to the changing structure of the market. If, however, all the local banks were merged together into an "average Knoxville bank," their diversity would be obscured. Furthermore, the differences in the behavior patterns among the Knoxville banks illustrates an important, and sometimes overlooked, characteristic of the National Banking System: the National Bank Acts did not impose very many limitations on the activities of national banks.

A secondary theme of this dissertation has been that the National Bank Acts gave national banks much more freedom than has been recognized. Not only were there few restrictions placed upon the arrangement of a national bank's balance sheet, but there were also many fewer restrictions placed upon other aspects of its operation than is generally acknowledged. Furthermore, those restrictions often had quite different effects upon the activities of national banks than they were anticipated to have. The diversity in behavior among the national banks of Knoxville would not have been possible otherwise.

One good example of the difference between the intent of the law and its actual effects involves the issuance of national banknotes. The National Bank Acts always limited the amount of banknotes that could be issued by each bank and the limitation was linked to the amount of capital invested in the bank. Prior to 1900, the most that any bank could issue was 90 percent of its capital (and some of the largest banks had even lower limits). After 1900, all banks were allowed to issue as much

in banknotes as they had invested in capital. Clearly, the intent of the law as originally written was to keep national banks from issuing too much circulation. However, from about 1875 to 1900 this limitation had very little impact on the operation of national banks. (It did have an impact until about 1875 and after 1900, but for different reasons.) In fact, for many years preceding 1900, national banks could have chosen to expand their note issue by three or four times as much as they had issued. That is, for many years, this limitation had no effect; instead, the important limitation on bank note issues became the requirement that banks deposit a minimum amount of bonds. The minimum bond deposit, in turn, insured that banks would not issue "too little" circulation, and not that they would issue "too much." Yet, it is doubtful that the minimum bond deposit was included as part of the National Bank Acts in order to provide for a minimum circulation for each bank. The intent, instead, seems to have been to require a minimum bond deposit in order to provide a small amount of security for depositors. (There has, however, been so little discussion of this aspect of the law, and the law itself is so unclear, that it is impossible to say with certainty why a minimum was required in the first place.)

Another example illustrating the differences between the intent of the law and its actual effects, which is critical to an understanding of the behavior of the local national banks after 1890, is the 10 percent loan limit. Hacker thought that this provision of the National Bank Acts limited the size of accomodation loans to finance the capital requirements of businessmen" (1970, p. 222). This limitation and others like it had the further effect that "the national banks were hedged around with all

sorts of protective devices, many of which turned out to be limitations on imaginative banking" (Hacker, 1970, p. 223). There should be no doubt that the 10 percent limit on loans was designed as a protective device. The intent was clearly to limit the amount of credit a bank extended to a particular customer. That it limited "imaginative banking" is much more doubtful. This study has found that systematic and blatant violation of this provision of the National Bank Acts was closely related to the increasingly competitive atmosphere present in Knoxville from the late 1880's into the first decade of the twentieth century. In fact, an examination of the violations of this provision committed by the local banks shows that significant change in the magnitude, persistency, and frequency with which individual banks violated the limit is an excellent indicator of significant change in the competitive environment. Failure to perceive that there is an important difference between the actual effects and the intended effects of various provisions of the National Bank Acts severely limits our understanding of how national banks operated.

National banking in Knoxville from 1864 to 1913 clearly followed a different pattern from that of country banks viewed as a group. The major factors producing that difference had their origin in forces directly affecting Knoxville rather than national banks in general, but whether other communities (and their banks) were similarly affected is not known. Examination of the national banks in other communities may reveal that their behavior patterns were also different from other banks in their class. The patterns followed by the national banks of Knoxville indicate that there was probably a great diversity among individual banks that is not

revealed by the aggregate data. As was the case with the local national banks, other national banks in other communities should have reacted and adjusted to the restrictions embodied in the National Bank Acts in ways that also demonstrated the diversity of behavior permitted by the National Banking System.

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APPENDICES

APPENDIX A

A large portion of the research for this study was based on information taken from Reports of Condition published in the local newspapers and in the Annual Reports of the Comptroller of the Currency. Tables IV-1 through IV-14, pages 67-115, V-I through V-12, pages 123-156, and VI-1 through VI-13, pages 192-214, have as their foundation the data contained in these Reports. The Reports for each year for one bank (or class of banks) were added together and then divided by the number of Reports to form an average Report of Condition. The tables were then calculated from this average Report. This procedure was chosen because it would eliminate seasonal variations in the proportioning of assets and liabilities, and by doing so, focus attention upon long-run trends rather than upon transitory changes.

The data for the three classes of banks was taken from the Annual Reports of the Comptroller of the Currency. The Comptroller did not report totals for each class, except for the autumn Report of Condition. The remaining totals were calculated from totals for each reserve city and for each state at each call date. The method used was to round off the value of each entry to the nearest one thousand dollars, and consequently some small errors occurred. There were also some errors produced by typographical errors. None of the errors from either source were large enough to significantly affect the findings.

More errors were associated with the Reports taken from the local newspapers. A number of the earlier newspapers are missing issues, and

some of the ones that remain are in such poor condition that they cannot be read. Consequently, some errors in the Reports for the local banks exist, but they were not large enough to significantly affect the findings.

APPENDIX B

The State National and Its Failure

When the State National failed in the summer of 1893, the proximate cause was an insufficiency of cash reserves, which produced a temporary suspension of its activities that became permanent. The shortage of its cash reserves was, however, not its real problem. Many other banks had suspended in times of financial stringency but later reopened. Of course, some did not, but it is clear that suspension did not invariably lead to failure. To find the root cause of the failure of this bank requires going beyond a simple examination of its balance sheet, or for that matter, a simple reference to the competitiveness of the local market. The Holston National, after all, did manage to survive, even though it was two years younger than the State and even though it too was much smaller than the older national banks. While intense competition among the local national banks undoubtedly was a contributing factor in the State's demise, it was not the most important.

There were two related factors which so weakened the State that it could not survive a serious financial and economic disturbance. First, the State's original management was corrupt. Second, even when the corrupt administration was replaced with an honest one, the new management did not have the foresight nor the cold-blooded character to completely sever its connections with the bank's former management. That is, the new administration was honest but not highly competent. The new management

took over a bank severely weakened by its former owners, but it did not take the steps necessary to remove forever the causes of that weakness.

The first hint of trouble came with the examination of January 13, 1890. The new examiner included in his report the following:

> Bank elected new board today (14th) and new cashier. The new management is composed of prudent and experienced business men. The former cashier . . . was reckless in his management and caused bank drafts to be protested by issuing them to assist his personal "Kiting." Other parties bought out his interests Dec. 31, 1889. His successor is a man of integrity and experience and the bank now has good prospects of success and usefulness. (State National, <u>Report of Examination</u>, January 13, 1890)

Few other details were given, and it was not until the bank wrote to the Comptroller later that spring, requesting that an examination be ordered, especially in regard to some transactions made by the former administration, that the real story was revealed (State National, April 25, 1890). Appended to the examination of May 19, 1890, was the following letter to the Comptroller.

> Under your instructions I arrived here last night and this morning visited the State National Bank. The great trouble is from a contest for control of the Bank. The Bank is in good condition, present management has confidence of the community and, if not for the to-do and scandal growing out of this contest the Bank would be prospering. There is no doubt that great irregularities took place under management of [the former cashier], but all of these had been arranged when he retired (so far as here then known). [He] when he retired owed the Bank Ten Thousand Dollars (10,000^{00}) which was secured by a note of 15,000^{00} considered by the new officers perfectly good, and I think now it is a safe collateral. There was no money in this, but on maturity of [his] paper, the contest having commenced, he enjoined the Bank from realizing on his collateral, on the grounds, so far as I can learn, that when he gave the collateral . . . the then President gave him a verbal promise that the paper could be renewed at maturity. The great irregularity which caused [the new president] to call for an examiner was the issuing by [the former cashier and president] of a certificate of stock for 15,000^{00} to [a director] on a

subscription of 25,000^{00} when only 15,000^{00} had been paid in. This certificate was taken from near the back of certificate book, being no. 248 date Oct 17, 1889. The stock was also torn out. This stock was at once hypothecated with the 4th Nat'l Louisville and no doubt proceeds were used to pay for other stock of [the former cashier and the director]. The matter was discovered by the new cashier when he was issuing full certificates after all the stock was paid in full. It is probable this would never have been heard from, if the [former cashier's] party were not attempting to get control again, as this irregular certificate was taken up under present administration and regular certificates issued in lieu of same. In sending for an examiner, [the new president's] idea was with a view to a criminal prosecution of the former cashier , but as the matter was settled up at the time when discovered and accepted by present administration, the stock paid . . . I knew that no jury in this Section would find [him] guilty of crime. . . .

P.S. From what I discovered of [the former cashier's] methods in business on my visit in Jan'y last, I am satisfied it will be injurious to the bank for his friends and him to get control but if they own the stock I do not see how it can be prevented. (State National, Report of Examination, May 19, 1890)

On the actual report, the examiner included the following.

[The $10,000 note from the former cashier is] secured by collateral note of 15,000. All of above [overdue loans from the former cashier's party] are in hands of atty. and some in suit. [The former cashier] has enjoined the Bank from realizing on his collateral. . . . In my opinion [his paper is] being resisted simply to give trouble to present management on account of contest for control of the Bank. . . . The bank is now under careful, honest, and good management and if left alone will become useful prosperous, but if it falls into the hands of the former managers, I fear it will soon come to grief. (State National, Report of Examination, May 19, 1890)

The matter dragged on, however, without a clear resolution. Two of the directors closely allied with the former administration were not disqualified and removed from office until December of that year (State National, December 13, 1890). The following summer, the new president wrote the Comptroller about the bank's reorganization in January of that year:

> Prior to the reorganization of the Bank January 14, 1891—a loan of ten thousand dollars had been made to [the former cashier] on collateral that after a thorough investigation I felt certain was not safe. In order to secure it beyond the shadow of doubt I renewed it for nine months taking a mortgage on City property to secure the $10,000.00. I took his note for the [interest of] $1,171.66 secured with a $14,000.00 note which was the former collateral on the $10,000.00. (State National, June 17, 1891)

On the examination of November 27, 1891, the examiner found the loan, which was by then over the legal limit, to the former cashier still on the books. At the same time he found that the bank had made a loan of $8,000 to an individual of questionable character. The examiner wrote:

> [This individual] was President of the Knoxville Southern Railroad and is involved in litigation with the Railroad Company and its creditors. The Bank claims some sort of lien which I do not understand. I know this, that [he] is as big a scamp as ever robbed a bank. . . . It will be observed that I do not deduct for probable loss on the $8,000 due from [him]: while it is admitted on all sides that he is a man of bad character, the opinion of some versed in the law is that his claim on the Railroad Company is already established, and if so, his indebtedness to this bank will be good by reason of . . . a lien the bank holds. (State National, Report of Examination, November 27, 1891)

This loan was still on the books on the examination of June 10, 1892, but it had either been paid off or written off by the examination of May 10, 1893. The examiner did not say which. That the bank would have lent to an individual with this man's reputation is puzzling, given the examiner's evaluation of the new president of the bank and his character. The examiner wrote:

> The president is not an experienced banker, but a very sensible, prudent, painstaking officer of fine character who will "bring the bank out" of its troubles. . . . The

> former management came near to wrecking this institution, and it will require time and prudence to recover its lost ground. I believe [he] can do it. (State National, Report of Examination, November 27, 1891)

Evidently, the new president's inexperience led him to grant a loan to "as big a scamp as ever robbed a bank."

The examiner of June 10, 1892, was more hopeful about the bank's prospects, in spite of the continued presence of the large loan to the former cashier. He wrote: "From present outlook, the bank will be in good condition by 1st of February with good prospects of a paying business" (State National, Report of Examination, June 10, 1892). However, while the State had managed to hang on, its business was not prosperous. The examiner of May 10, 1893, had been encouraged enough to write: "I believe the general condition of this bank to be fairly prosperous. The management is largely interested in [its] stock and is considered safe" (State National, Report of Examination, May 10, 1893). Just over two months later the State National suspended, on July 22, 1893.

Why the examiner should have been hopeful is not clear. On that examination, he had found an overloan to a local firm. The bank explained to the Comptroller that the loan was a mistake, and that the bank did not know of or had forgotten a prior loan to the same firm. When a second loan was granted to that firm, the two totaled more than the limit. Furthermore, the president admitted that he did not know that the directors were required to give their approval for the rediscounting of loans (State National, June 8, 1893). Three weeks later, the bank wrote the Comptroller and again discussed the mistaken overloan, as

well as the overloan to the former cashier, which was still on the books (State National, June 28, 1893).

To sum up, the State National had lent money to a former employee who it knew to be dishonest, and his loan was continually renewed, often at an amount that was in violation of the 10 percent loan limit. The bank also demonstrated that it would lend to others of bad reputation. The bank admitted that it forgot a previous loan to a local firm and that it was ignorant of the requirement that directors approve rediscounts. Had it not been for the continued references to the honesty of the new administration by the examiner, one might be justified in suspecting the new management of malfeasance. However, since it appears that the new management was honest—the new cashier went to another local bank when the State failed, did well there, and in time founded a successful business of his own—it must be concluded that the president was just a poor choice to direct a bank. In retrospect, it appears that the State National should have immediately called the loans to the members of the former administration. Had it done so, some loss would certainly have occurred, but at least the bank could have started fresh. Because the loans were continued and renewed, they were a running sore on the bank, sapping its strength, and endangering its ability to survive. Because the new management seemed to have been unable to bring itself to take this drastic but necessary step, it is likely that the bank allowed other loans of poor quality to be continued. The crisis of 1893 put enough extra pressure on the bank's condition to force it to suspend, and the poor quality of its loans prevented it from resumption of business.

APPENDIX C

Profits

Profit estimates for the local banks and for the three classes of banks were calculated by dividing net income by average net worth. Net worth was, for all banks, the sum of capital, surplus, undivided profits, and unpaid dividends less current expenses and taxes. Average net worth for a given year was the sum of net worth from each Report of Condition divided by the number of available Reports for that year. The result was the average shareholder investment in the bank over the entire year.

Net income was calculated from two different sources. The Annual Reports of the Comptroller of the Currency published net income for the banks in each reserve city and state for two six-month periods. This information was used to find net income for the three classes of banks. From 1869 to 1906, the six-month periods were March 1 to September 1 and September 1 to March 1. For a given year, net income was determined by the sum of one-third of net income from September 1 of the previous year to March 1 of that year, net income from March 1 to September 1 of that year, and two-thirds of net income from September 1 to March 1 of the following year. After 1906, the six-month periods were January 1 to July 1 and July 1 to January 1. Net income for those years was the sum of net income of the two periods. There will obviously be some difference between the estimates of net income and true net income for the years 1869 to 1906 because of the averaging procedure, but these

The semiannual reports of profits made by the local banks no longer exist, and therefore a different method was used to estimate their profits. Net income for the local banks was the sum of the change in net worth from January 1 to December 31 plus the dividends paid during the year. That is, estimates were required for dividends and January 1 net worth for each local bank for each year. For all of the local banks, except the East Tennessee National, a dividend record was available in the Reports of Examination. For the East Tennessee, several sources provided information. From 1872 through the first six months of 1879, dividends and net income were listed on a form which was retained in the bank's correspondence file in the National Archives. For the remaining years, the dividends of the East Tennessee were estimated from the difference between actual and expected changes in net worth between Reports of Condition immediately preceding and following dividend payments. For each dividend payment, net worth on four consecutive Reports was found. The four dates (for the Reports) were chosen so that the dividend to be estimated was paid sometime between the second and the third Reports. The next step was to estimate what net worth on the third Report would have been had no dividend been paid. This involved finding the change in net worth between the first and second Reports and between the third and fourth Reports, and using these collectively and individually to form estimates of the change in net worth between the second and third Reports, assuming no dividends paid. The difference between the estimated and actual net worth on the third Report represented estimated dividends.

The estimates of dividends paid would have been relatively useless (the estimates for one dividend were often quite different from one another) if the local banks had changed their dividend rate frequently. However, they did not change their dividend rate often. Furthermore, they fixed their dividend rate on the basis of some "full" or "even" percentage of capital. Dividends were usually 5, 6, 7, 8, or 9 percent of capital. An additional check involved examining changes in the amount of dividends declared, but unpaid, between the second and third Reports. If, for example, unpaid dividends rose between those two reports by $18 (a not infrequent occurrence), the dividend rate could have been 1, 2, 3, 6, 9, or 18 percent. Most banks paid more than 4 percent but less than 10 percent, and therefore the most likely rates were 6 and 9 percent. The actual choice of 6 or 9 percent would be based on the previous rate as well as on the estimates based on changes in net worth.

Once the dividend estimates were compiled, they were subjected to an additional test. The East Tennessee placed an advertisement in the April 2, 1904, edition of the Knoxville Sentinel, which stated that the bank had paid $587,500 in dividends since its founding in 1872. The total for the estimated dividends for the East Tennessee from 1872 to 1904 was slightly below the advertisement's total and indicates that the estimates were approximately correct.

January 1 net worth for the First National from 1864 through 1869 was assumed to be the net worth at the first Report of Condition. (The first Report in those years fell on the first Monday in January.) For the First National after 1869 and for the other local banks, January 1

net worth was estimated by finding the change in net worth from the last Report of the previous year to the first Report of the year in question. That difference was then apportioned on the basis of the time from the last Report of the previous year to the first Report of the current year, where the January 1 date lies between the two report dates. The yearly change in net worth was then calculated, and to that figure was added the dividends paid during the year. The result was net income. Net income divided by average net worth was the rate of return on shareholder investment. The results are presented in Table C-1.

Are these estimates of net income for the local banks accurate? They are probably a reasonable approximation of net income reported to the Comptroller, but they are almost certainly not accurate estimates of the banks' actual net income. The reason why actual and reported net income for these banks should be different is that there was no generally accepted, uniform set of accounting procedures. Standards varied widely, but there was one common characteristic with a bearing on the problem at hand: the local banks were quite reluctant to write off bad debts and other losses. In fact, they made every effort not to do so, despite the admonitions of the examiners and the Comptroller. This was not a matter of fraud on the banks' part nor was it a matter of their recklessness. It was, rather, a matter of the state of the accounting arts.

Currently, banks are required to make an explicit provision for loan losses on each Report of Condition. Furthermore, they are required to report capital gains (or losses) separately from other income. Banks which operated under the National Banking System were not required to do either, and because they did not, their profits often may have been

Table C-1

Net Income as a Percentage of Average Shareholder Investment.[a]

Year	First	East Tennessee	Mechanics	Third	City	State	Holston	Central Reserve Cities	Reserve Cities	Country Banks
1864								--	--	--
1865	21.9							--	--	--
1866	6.5							--	--	--
1867	13.5							--	--	--
1868	3.2							--	--	--
1869	13.6							9.1	10.7	11.4
1870	14.3							8.0	9.5	10.6
1871	9.2							7.8	8.8	10.0
1872	16.9							8.1	9.5	10.4
1873		12.9						8.2	9.5	10.2
1874		13.2						7.7	8.7	9.3
1875		12.7						3.9	7.9	8.8
1876		10.7						2.1	5.7	7.2
1877		4.8						3.0	4.6	5.8
1878		10.5						3.9	3.7	5.2
1879 }		18.8						7.5	5.2	5.8
1880								9.7	7.1	7.3
1881		17.7						10.1	8.2	8.5
1882		0.8	12.7					8.3	7.2	8.2
1883		13.7	18.5					7.4	7.2	8.2
1884		11.6	13.2					4.5	6.2	7.2
1885		10.2	12.9					6.1	5.6	6.9
1886		14.8	14.3					8.9	6.7	7.8
1887		10.6	14.6	9.2				9.8	7.0	8.1
1888		9.9	21.5	7.4	10.6			9.2	6.8	8.1
1889		8.9	15.3	6.8	12.2			8.6	5.9	8.5
1890		10.8	7.6	6.5	16.7	-1.7		9.4	6.6	8.2
1891		6.2	6.9	8.3	11.9	0.1		8.9	6.1	7.4

Table C-1 (Cont'd)

Year	First	East Tennessee	Mechanics	Third	City	State	Holston	Central Reserve Cities	Reserve Cities	Country Banks
1892		5.4	6.3	3.6	10.1	6.0		7.4	5.6	6.9
1893		2.3	4.7	5.3	8.3	2.4	4.8	6.0	5.0	5.8
1894		2.0	6.9	5.8	10.0		3.1	4.2	4.2	4.5
1895		6.6	7.6	3.1	10.1		5.2	4.4	4.6	5.0
1896		5.6	6.8	5.8	6.5		-0.1	4.9	4.6	5.1
1897		2.3	3.1	5.9	11.8		6.4	4.9	4.6	4.6
1898		5.3	0.3	3.8	10.8		-2.1	6.4	4.5	5.1
1899		8.6	6.3	5.3	17.1		8.0	9.2	5.6	6.6
1900		8.6	3.7	6.0	9.2		3.8	11.5	7.8	8.1
1901		4.3	3.9	5.1	10.1		-4.2	12.8	7.6	7.8
1902		10.5	4.9	5.9	16.4		7.0	10.4	8.5	8.9
1903		11.4	7.7	9.0	15.5		6.7	10.9	7.9	8.5
1904		13.7	9.9	6.3	14.5		11.9	8.3	7.2	8.2
1905		5.9	8.6	7.4	5.4		12.4	7.7	7.3	8.3
1906		10.0	5.9	9.1	10.7		9.3	12.4	10.0	10.7
1907		16.6	7.2	6.1	3.1		5.0	8.1	9.0	9.1
1908		15.9		6.4	7.1		7.7	9.9	6.0	7.9
1909		13.5		5.9	8.3		16.8	8.6	7.2	8.2
1910		16.8		6.9	4.8		9.7	10.6	8.2	8.6
1911		10.7		5.2	5.6		7.8	7.7	6.7	8.0
1912		3.7		2.7	7.6		11.5	7.6	7.0	8.3
1913		20.9		1.6	8.9		3.3	7.6	7.3	8.4

[a]Source: Sources and procedures used to estimate net income and shareholder investment are discussed in the text.

[b]The percentage given for the East Tennessee National for 1879 and 1880 is the average for those two years. Missing Reports of Condition made it impossible to calculate net income for those two years separately.

greatly overstated. Losses delayed are losses denied, and by denying losses, a bank could report profits. When bad loans are not written off, but instead treated as if they were good loans, then the figures for profits are enhanced by an amount equal to the eventual loss. Furthermore, a similar procedure affects some of the other accounts of the national banks. The banks were reluctant to depreciate their banking houses and their furniture and fixtures, nor did they have a systematic and periodic schedule for writing off the premiums they had paid for U.S. government bonds or other securities. Therefore, their profits were overstated by the amounts of losses which they failed to write off, whatever the source of the losses.

Did these practices represent a significant misstatement of true earnings? After all, the piper does have to be paid, doesn't he? Well, yes, but in the meantime, bad loans can be treated as if they were good, furniture and fixtures may not be depreciated, and premiums may not be written off. Consequently, the profits of the local banks were inflated beyond their true value. For example, the estimates of profits developed for this study appear to indicate that the State National was a profitable bank in three of its last four years. The State National, however, was almost certainly a money losing bank in every year, with 1892 a possible exception. It appeared to be a profitable bank because it avoided acknowledging its losses.

In the case of a bad loan, banks could avoid writing off their losses by waiting until the issue was settled in court, and even then the matter sometimes was unresolved for many years. The banks sometimes took possession of securities which had been pledged as collateral for loans.

When that happened, the securities would be carried on the books at a value equal to the unpaid debt. The banks generally claimed, according to the Reports of Examination, that such securities had a value equal to or in excess of their book value, but whether or not this was an accurate appraisal is open to question. Many of the securities taken for debts previously contracted did not pay interest or dividends, and their worth is questionable. The banks could hold these securities until the issuing firm closed down before finally writing off their losses, and thereby delay for many years an accurate accounting of their profits.

Finally, national banks were not required to place a market value on the securities they owned, or to report that value in their Report of Condition. Had they been required to make such a report, calculation of their actual profits would be much more certain.

Unfortunately, there is, to my knowledge, no analysis of the accounting practices followed by national banks which would indicate whether or not the practices followed by the national banks of Knoxville were typical. The temptation is, of course, to suggest that all banks used similar accounting methods, and therefore their profits can be compared. This study would suggest that it would be best to reject the temptation until such time as the accuracy of the profit data in the Comptroller's Annual Report can be ascertained. The research presented here has indicated that the Knoxville banks behaved differently than the other national banks in many important respects, and distrust of their profit data would certainly be consistent with those findings. Therefore, the estimates of the local banks' profits have been presented, but they have not been heavily weighed in forming conclusions about those banks.

VITA

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