Towards a More Perfect American Payments Union: The Civil War as a Political Economic Watershed

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1. National Market Formation and Payments System Integration

In explaining the rise of big business and, in turn, America's industrial hegemony in the late nineteenth-century, Alfred Chandler (1977) specifies two necessary conditions: the diffusion of more capital- and energy-intensive, scale-dependent industrial technologies and the formation of an integrated national market. The latter, he argued, depended on the development of centralized national networks of rail transportation, telegraphic communications, and wholesale distribution. Prior technological-organizational innovations in these sectors, he argued, dramatically lowered the costs and risks of shipping goods and transmitting information over space and so paved the way for pioneering entrepreneurs to exploit the new technologies of the second industrial revolution to expand the scale and scope of their markets and enterprises.

In his account of national market formation, Chandler surprisingly neglects the payments system. This vital spatial-economic network consists of intermediaries that process payments orders and then transfer good funds between buyers and sellers, that is, clear and settle payments instruments. The simplest network is the shipment of legal tender, in this case specie, because it bundles the steps of clearing and settlement. While simple in principle, this means of payment entails significant transactions costs (e.g., for express shipping, storage, and insurance) and risks (of theft), especially during this period of rapid economic and territorial expansion.

Alternative payments networks substitute a variety of paper claims over good funds – what contemporaries referred to as "credit instruments" – for the actual stuff of money itself. During the antebellum period the most common instruments used in long-distance transactions were bearer notes issued by state-chartered banks (state bank notes for short) and bills of exchange. State bank notes entitled the bearer to an equivalent value of specie when redeemed at the office of the issuing bank. A bill of exchange was a written order to pay the person to whom it was addressed a specified amount at a specific place (say a New York bank) and time (say 60 days hence) (Freyer 1976, p. 437). Both instruments were transferrable or negotiable and so could substitute for costly, risky shipments of specie in interregional trade (Goodfriend 1990). Their diffusion also economized on the use of potential bank reserves for transactions and so could enhance total reserves in the banking system and credit supplies. Still, as claims over specie, state bank notes and bills were subject to credit or default risk. And at some

point in time (explicitly stated in the case of bills), they were presented for redemption and so imposed transactions costs.

The potential benefits from the substitution of credit instruments for specie, then, depended on the formation of a "more perfect" payments union for paper-based or credit payments instruments. We characterize a "more perfect" or integrated payments system by the cost and predictability of the payments terms. Obviously, buyers would remit credit instruments instead of shipping specie (or its equivalent), only if they incurred lower transactions costs. Sellers also had to reckon the risk, timing, and costs of final settlement, which determined how much "money" or purchasing power the payments instrument would command in the market. These factors depended on the creditworthiness and accessibility of pivotal intermediaries in the payments network and the liquidity of payments markets at nodal locations.

By way of clarification, we distinguish between a monetary and payments system union. The former refers to the adoption of a single, national monetary standard or unit of account. Article one (sections 8 and 10) of the Constitution enshrined this power exclusively in the federal government, and in his Treasury "Report on the Public Mint," Hamilton proposed and Congress enacted a dollar standard, the value of which was set in terms of fixed amounts of gold and silver specie.[1]

Although it did not immediately displace the alternatives such as the Spanish dollar and British pound, the American dollar standard had thoroughly diffused across the territorial U.S. by 1860. Monetary unification by no means implied an integrated interregional payments system, which consisted of bills of exchange and state bank notes, varying in their size, description, and denomination. In early 1863 the Chicago Tribune estimated that the 1,395 state-chartered banks in the Union alone (southern slave states not included) had issued an estimated 8,370 different types of bank notes, not counting the 854 issues of "fraudulent broken and worthless banks" (quoted in Davis 1910, p. 25). Notes issued by banks of uncertain reputation or circulating at a distance from the issuing bank frequently passed at discounts off of their par value (see, for example, Gorton 1996). Bank note reporters like Thompson's

[1]For a debate over the formation of the U.S. monetary union, see the contributions by Grubb, Michener and Wright, Rousseau, and Sylla in the forthcoming special issue of *Financial History Review*.

and Van Court's assisted agents in mediating this chaos of payments instruments, but not all may have been well informed about the current values of different notes, much less about possible counterfeits.

According to Charles and Mary Beard, it took a Second American Revolution to forge a truly national banking and payments system (1930, pp. 110-11; see also Ransom 1989, pp. 271-76). Absent the veto power of Southern Democrats, Congress enacted in 1863 the first in a series of laws now known as the National Banking Acts. Its primary purpose was the creation of a uniform national currency and was actually called the National Currency Act. The new currency would be "uniform in every essential particular, uniform in its appearance, in its security, in its method of redemption, and in its equivalency to lawful money at all times and in all places within the territorial limits of the United States [with the exception of California initially]" (U.S. Comptroller of the Currency 1889, p. 9)

A proponent of a uniform national currency since his days as Governor of Ohio in the mid-1850's, Treasury Secretary Samuel P. Chase was the primary architect of the bill (Davis 1910, pp. 67-112). The Act was modeled on earlier free banking laws notably that of New York. It established a new form of bank organization, national banks with a federal charter. National banks, in turn, could issue a uniform currency, national bank notes, secured by U.S. government bonds. Financial exigency was a secondary motive behind the Act, as the spread of national banks would directly increase the demand for Union bonds.

In addition to presenting notes for redemption at the office of the issuing bank, the 1864 Act established a more elaborate system of 17 regional redemption centers plus a central redemption center in New York. Country banks were required to maintain a redemption agent in at least one regional center, a national bank which could also hold some of its mandated deposit reserves. New York national banks, by the same token, served as both note redemption and deposit reserve agent for regional center banks.[2] As it turns out, this hierarchical network was not really necessary to ensure the circulation of notes at par regardless of the location of the issuing bank. Sufficient conditions, it seems, were the earlier provisions that (1) national banks buy and sell the notes of other national banks at par and that (2) the federal

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[2] This redemption network is described in more detail in Redenius (2005). After the system was abolished in 1874, with redemption operations taken over by the Treasury, redemption cities became known as reserve cities, a more familiar terminology which we shall follow in the rest of this paper. New York later became known as a central reserve city.

government accept national bank notes for all domestic, but not international, transactions (Redenius 2002, pp. 35-36).

Like Hamilton's Treasury Reports, Republican proponents of banking reform emphasized the dual goals of economic and political unity. In his annual message to Congress in 1862, President Lincoln spoke of a "long-felt want of an uniform circulating medium .... [to] facilitate commerce by cheap and safe exchanges" (quoted in U.S. Comptroller of the Currency 1878, p. xxvi). In 1863 Governor Yates of Illinois observed that a uniform currency "would tend to more closely knit the States together." "Had a uniform currency existed throughout the Union previously to the breaking out of the rebellion," he further speculated, "our relations would have been so interwoven as to have rendered it difficult for the traitors to have consummated, to the extent now unfortunately existing, the secession of the revolted States" (U.S. Secretary of the Treasury 1863, p. 163; see also Davis 1910, pp. 110-112).

The National Banking Acts may have served the goal of political unification, but in and of itself did not create an integrated national payments system.[3] Its direct impact was to create a paper currency unit, the national bank note, whose value was pegged 1-for-1 to the dollar unit of account. By the late 1860s, however, all currency including national bank notes made up less than half of the U.S. money supply. More to the point, indirect evidence on the composition of deposits at national banks suggests that as early as 1881 specie and paper currency accounted for less than 10% of wholesale payments in large reserve cities and less than 20% elsewhere (Kinley 1912). According to these sources, the vast majority of the money supply and of long-distance payments instruments consisted of bank deposits and bank drafts and checks respectively.

Despite this qualification, we too see the Civil War era as a critical watershed in the formation of a more integrated payments system. While also focusing on the National Banking Acts, we emphasize its indirect impacts on the banking system, not the currency. The pyramidal structure of note redemption and deposit reserve centers, we argue, concentrated correspondent banking in New York City. As a result, a New York sight draft or check – essentially a bill of exchange issued by banks and redeemable for cash or deposits at the office of their New York correspondent – became the standard of payment for

[3]Given the protests against the National Banking Acts in peripheral regions, notably the Populist Critique of the "money trust," it is doubtful that the legislation even served this purpose.

long-distance transactions regardless of the location of buyer and seller. Moreover, because New York correspondents directly cleared and settled these payments instruments through the auspices of their clearinghouse, they were less costly and more reliable and liquid instruments.

The unintended consequences of the National Banking Acts is only part of our story. The other critical element involves the internalization of payments within the banking system. In other words, compared to the antebellum period, long-distance payments flows after the Civil War were increasingly mediated by the visible hand of banks, rather than markets, and took the form of transfers of deposits between banks via ledger entries to their correspondent accounts. Thus, New York correspondents increasingly mediated all, not just interbank, long-distance payments.

This shift was part and parcel of a broader transformation in the banking business. Instead of discounting bills of exchange which bundled a credit and payments transaction, banks increasingly supplied distinct but related credit and payments services and instruments. On the credit side, they would purchase their customers' one-name paper, often unsecured promissory notes, in exchange for currency but more often for a ledger entry to their deposit account. In turn, to make long-distance payments, customers purchased New York sight drafts or checks with their deposits.

The more fundamental causes of these banking innovations are bound up with structural economic changes – rapid territorial expansion, the shifting economic center from rural agricultural to urban industrial sectors, and the rise of big business in distribution and manufacturing. The latter two put a premium on the more rapid turnover of sales and hence the greater liquidity of payments instruments, while territorial expansion diluted the close-knit networks of intermediaries whose endorsements supported the bill market. Through their dual specialization as market-makers in liquidity and information-intensive lenders, banks were ideally suited to fill the niche.

Yet, the Civil War mattered in this case as well, more as catalyst than cause. In the wake of specie suspension, monetary policy fueled rapid inflation, the rate of which peaked at 45 percent in 1864, and eroded the value of 60- and even 30-day bills. To minimize their inflation risk, wholesalers and manufacturers offered large discounts on cash sales and so induced buyers to borrow directly from their banks. Structural conditions explain the persistence of these terms, even after the macro environment turned in a deflationary direction.

To show the impacts of Union banking and monetary policies, we document the changes in correspondent banking system and domestic exchange rates before and after the Civil War. In the next section we set the historical context by delineating the structure of the antebellum payments system and in particular the role of correspondent banking before 1860. In section three we use published balance sheet data of state banks up to 1864 and national banks from 1865 to 1869 to analyze trends in the levels of correspondent balances and their concentration in New York. Finally, with data from local newspapers section four analyzes regional domestic exchange markets where local banks bought and sold New York funds. We conclude by considering a path not taken, the bankers' acceptance, the modal payments instrument in Europe, which was explicitly prohibited to national banks.

2. The antebellum payments system

Notes, rather than deposits, were the principal form of bank liability used as means of payment in antebellum America. In 1819, for example, notes or "circulation" issued by chartered banks were 74 percent larger than their deposits (Van Fenstermaker 1965, p. 76). Even by the late 1850s, country banks – those outside of large urban centers regardless of region – continued to rely more heavily on note issues (see for example Calomiris and Schweikart 1988). As claims on a bank and not also an individual deposit account, notes could pass from hand to hand in the course of trade without requiring timely clearing and settlement.[4] They circulated at par locally, because bearers always had the option of presenting them at the issuing bank's counter for redemption in specie (Gorton 1996, p. 353).

State bank notes also mediated longer-distance transactions (e.g., Atherton 1971, p. 139; Knodell 1988; Gorton 1996).[5] There is no direct information on the extent to which bank notes circulated across states or across regions. *Van Court's Bank Note Reporter*, published in Philadelphia, for example, published quoted discounts on notes from banks in every state or territory over the 1839-1858 period save

[4]Kahn and Roberds (1999) compare the characteristics of checks versus bank notes and conclude notes to have been the superior payments vehicle precisely because they did not require immediate collection and settlement.

[5]Checks in contrast were not widely used as intercity or interregional means of payments until around the 1880's. See James and Weiman (2004).

Iowa, Minnesota, Missouri, and Texas. Gorton (1996, p. 354), relying on qualitative rather than quantitative evidence, believes antebellum interregional note flows to have been significant.

Note brokers, or "shavers," in large commercial centers mediated this payments system. They bought, sold, and/or sent out-of-town or "foreign" notes back to the issuing bank for redemption (see Hammond 1957, pp. 702-703).[6] Out-of-town notes were usually valued at a discount from par or face value because of the costs involved in returning it to the issuing bank for redemption and the risk that when it was presented at the counter the issuing bank might refuse to pay for it.[7] Their current market prices were published regularly in bank note reporters.[8]

Such foreign bank notes were more likely to have been acceptable (not being legal tender) and hence able to stay in circulation longer if more convenient provision for redemption had been made. Thus, interior banks began to hold deposits in financial center banks to facilitate note redemption (see Bodenhorn 2000, pp. 192-193, 197). The Suffolk system, lasting from the mid-1820's to the late 1850's was the first, if not most (in)famous example of such an arrangement (Bodenhorn 2002; Rolnick et al. 1998; Calomiris and Kahn 1996). It supported the circulation of bank notes at par across virtually all of New England.[9] Western banks (in Ohio and Indiana) similarly had established redemption accounts with Philadelphia and New York banks by the 1840s (Knodell 1988, p. 297).[10]

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[6]Jay Cooke, for example, got his start as the employee of a note broker (Hammond 1957, pp. 702-3).

[7]Bank of United States notes however had been redeemable at par at any branch, regardless of the city of issue. The fact that their value did not decline with distance made them the paper money of choice for long-distance payments before 1836 (Temin 1969, p. 36).

[8]Gorton and Mullineaux (1987, pp. 458-459) argue that such secondary market makers had strong incentives to monitor the quality of assets backing bank notes and in turn their price quotations revealed their information to buyers and sellers of bank notes.

[9]New York's free banking law would institutionalize these arrangements by requiring country banks to maintain a redemption agent in at least one of four urban centers including New York City (Myers 1931, p. 105; see for example New York State Banking Department 1859, Table ??). The New York law served as the model for the National Currency and Banking Acts discussed below.

[10]For more detail about antebellum note redemption arrangements, see Redenius (2005).

Bank notes were cheaper and more convenient to ship than hard money. Indeed, specie was rarely used in non-local, non-retail transactions (Colwell 1860, pp. 135, 190, 262, 447).[11] But there was an alternative to shipping cash as a means of financing non-local transactions, the use of a credit instrument such as a bill of exchange. Although it had been the primary instrument in the financing of foreign trade since early in the colonial period, it had made little inroad into the finance of domestic trade initially during the early republic. Dealings in non-local domestic or inland bills of exchange were thin to nonexistent, the province of assorted note brokers and a few state banks.

Under Nicholas Biddle's leadership, the Second Bank of the United States essentially created the domestic bill of exchange market and came to dominate this system of interregional payments in the 1820s and early 1830s (Catterall 1902, pp. 138-143; Bodenhorn 1992; Bodenhorn 2000, pp. 168- 177).[12] Branches in interior cities were instructed whenever possible to replace local promissory notes with domestic bills of exchange, "thus tying note issue at those branches to the means of redeeming them at eastern branches and preserving the liquidity of the Bank as a whole" (Knodell 1998, p.715). As a result, BUS purchases of domestic exchange rose from less than $6 million in 1820 to almost $70 million by 1833, more than enough to finance the total volume of trade passing through New Orleans from the Midwest (Bodenhorn 1992, p. 595).

The centralization of payments through the BUS branches yielded significant economies of scale and scope, which lowered the cost and risk of transferring funds from one location to another (Knodell 1998, p. 716; 2003). At the branch level, the BUS could utilize more fully its fixed capacity and realize economies of bulk shipments. For the system as a whole, it could economize on the shipments of reserve assets between branches through multilateral rather than bilateral net settlement of payments imbalances. These advantages enabled the Bank to act as a market maker in domestic exchange, reducing and stabilizing exchange costs.

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[11]Colwell (1860, p. 5) observed, "Precious metals make up not 5 percent of operations of trade and industry in this country... All the rest are accomplished by means of credit," credit here encompassing banks notes as well as bills and promissory notes.

[12]Bodenhorn (1992, pp. 594-95; 2000, pp. 176-177) however is rather less celebratory and more skeptical of Biddle's claims in this regard than most earlier writers.

This centralization of the interregional payments system was short-lived, however. The closing of the interstate branches of the BUS in 1836 ushered in a period of financial disintermediation in interregional payments (Knodell 1998). Note brokers and private bankers, which had been overshadowed by BUS operations, became active participants in a more fragmented system of domestic exchanges (Knodell 1998, pp. 717-719; Bodenhorn 2000, pp. 177-185). Individuals needing to make payments in New York, for example, could buy bills payable there through a broker. Remittance and collection of domestic bills was again handled by private agents, now interstate networks of private bankers or exchange brokers. Jane Knodell (1998, p. 717) finds the growth in domestic exchange facilities in Cincinnati and Cleveland during this period to have been primarily in this 'unregulated' sector. Sylla (1976) estimates that by 1860 private banks accounted for almost one-third the number and one-quarter the capital invested in the banking sector, and domestic exchange operations was one of their principal activities.

Banks also mediated this more open bills market. Country banks routinely discounted their customers' bills of exchange drawn on large commercial centers like New York and established correspondent relations with city banks there to redeem the maturing bills (Hammond 1957, p. 700). Instead of repatriating the accumulating balances, banks adopted a less costly option of selling the funds (known in this case as New York exchange) to other local customers who needed to make payments there. This local market for sight drafts on New York and other centers, thus, complemented the domestic bill of exchange market and provided customers with an alternative means of making long-distance payments.[13]

The use of both payments instruments, bank notes and bills, led to accumulations of interbank balances in financial centers– either for purposes of note redemption or as a source of domestic exchange. These correspondent bank relationships between smaller country banks holding assets called "due from other banks" and larger city banks holding liabilities labeled "due to other banks" proliferated after the 1820's (Bodenhorn 2000, pp. 192-198; Redlich 1968, p. 51). Warren Weber (2003) describes the pattern of such antebellum interbank relationships using a data source which disaggregated the amounts due from other banks for Pennsylvania creditor banks over the 1850's. He finds that country banks dealt virtually entirely with banks in financial centers (Philadelphia, New York, Baltimore, or Pittsburgh), the choices of

[13]The domestic bill of exchange operations of the BUS in turn led to a thriving internal draft market as well, for example (Catterall 1902, pp. 141-42; Hammond 1957, p. 318).

which were determined by trade patterns. In addition, these relationships were highly stable ones with a single bank in a particular city.

As New York emerged as the preeminent commercial center, maintaining a New York correspondent became increasingly important for interior banks. Even in 1835 net bankers' balances held in New York amounted to $4.40 million as compared with $2.93 million in Philadelphia and $1.03 million in Boston; by 1850 that total had risen to $12.51 million vis-à-vis $2.45 million in Philadelphia and $4.17 million in Boston (Bodenhorn 2000, p. 196). By 1850 almost 600 out of 700 incorporated U.S. banks maintained New York accounts (Myers 1931, p. 115), with brokers and out-of-town individuals holding about an equal amount (over $17 million).[14] A. B. Johnson, president of the Ontario Branch Bank in Utica, New York, observed in 1857: "The selling of drafts on New York becomes ... one of the regular sources of profit to country banks, as well as of convenience to men of business; and every country bank keeps funds there..." (Johnson 1857, p. 26; quoted in Weber 2003, p. 471).

Although individual deposits as a share of banks' convertible liabilities steadily increased over the antebellum period, their circulation was almost exclusively confined to local transactions. This spatial constraint derives from the greater informational demands of checks drawn on an individual's (rather than a bank's) account. Upon receipt of a check, the payee would have to determine whether the bank upon which it was drawn would redeem it in specie at par, but also whether the payer had sufficient funds in his/her account to cover the item. Because the value of checks depended on the latter more idiosyncratic information, they had to be returned to the issuing bank for redemption rather than sold or transferred in a secondary market .[15]

Still, from their inception urban banks were primarily banks of deposit rather than banks of note issue. Extant systematic data show the value of deposits exceeding that of notes in circulation on balance

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[14]Myers (1931, pp. 103-125) describes the accumulation of interbank balances in new York in the antebellum period in some detail.

[15]Such a market was legally possible. A check, being a special form of a bill of exchange, could have been passed from endorser to endorser as bills of exchange had in earlier periods. Bills of exchange however had usually circulated among the relatively tight-knit community of merchants but for a more general circulation "the country is too extended for the knowledge requisite for this degree of confidence; hence we use more bank notes" (Klein 1911, p. 607).

sheets of urban commercial banks as early as 1803 in Boston, 1814 in Philadelphia, 1824 in Baltimore, and 1831 in New York (Van Fenstermaker 1965, p. 41). To ameliorate the risk of check transactions, banks in these cities initially deployed messengers each day to present checks to the issuing banks for collection, although they only settled accounts between themselves less frequently, on Friday mornings in the case of New York.[16] To expedite the clearing and settlement of the growing volume of check transactions, New York banks followed the London model and organized the New York Clearing House in 1853. Like the operations of the BUS, the clearinghouse centralized and internalized these interbank transactions. Each business day morning (10:00am in New York), banks swapped items for collection and then reckoned the total amounts total due from and due to other members. In the early afternoon (1:30pm in New York), they settled their accounts through a single transaction with the clearinghouse. The clearinghouse received payments from net debtor banks in gold (and later legal-tender notes or reserve deposit at the clearinghouse) and distributed the funds to creditor banks. The multilateral clearing and settlement of accounts was clearly much more efficient than the bilateral system which it replaced. Clearing houses were organized in Boston and Philadelphia later in the 1850's and subsequently spread rapidly to other cities. By 1907 there were clearinghouses in 106 cities (Cannon 1910).

3. The correspondent banking system and interbank balances before and after the Civil War

Since state bank notes circulated at par locally before the Civil War, the substitution of national bank notes for state-chartered private notes should have had little impact on making local payments. However, national bank notes were a national currency, acceptable at par anywhere, regardless of the location of the issuing bank. If state bank notes had constituted the principal means of making antebellum non-local or interregional payments, the substitution of national for privately issued currency could have had dramatic consequences for the institutional structure that had developed to intermediate payments at a distance, the correspondent banking system. To the extent that state bank notes were no longer used as a means of payment, holding correspondent balances to facilitate note redemption was no longer necessary. The tax

[16]"On that day bedlam reigned in the money market; porters with bags of gold dashed from one bank to another, settling accounts. An unfortunate by-product of this system was the possibility of running up large balances due to other banks, and lending on the basis of funds belonging to those banks until the end of the week, when the necessity of building up reserves forced the calling of demand loans and sent the rates soaring" (Myers 1931, 94-95).

on and subsequent sharp contraction in state bank notes in circulation would have undermined the *raison d'être* of the correspondent network based on note redemption. To be sure, the tiered system of reserve balances under the National Banking Act subsequently gave a new rationale for holding interbank deposits but the pattern of those interbank relationships may have been transformed significantly from the antebellum structure.

The first column of Table 1 shows the level of interbank balance holdings (due from banks) of state-chartered banks outside of New York City for the pre-1862 dates and of national banks outside of New York City for the postwar period.[17] Examining the wartime period, although potentially quite interesting, might be rather like looking through a glass darkly in view of the effects wartime inflation may have had on desired real balance holdings and of alterations in the National Banking laws before they took their final form in 1865 which affected both the numbers and operations of national banks. So, we discretely jump from the beginning to the end of the war here. The antebellum figures are a compendium of state reports based on various call dates put together by the Secretary of the Treasury. Since some state reports might come from seasons when bankers' balances were high and others when they were low, not much stock should be put in the precise levels or short-term movements which might be due to compositional effects. They are probably reasonable indicators of general magnitudes and longer trends nonetheless. The postbellum figures are consistently measured at the same time of the year (autumn call date).

All this said, we see real values of due from banks, except for some gyration around 1857/58 due to the panic and a dip in 1865 perhaps due to the still incomplete coverage of the national banking system, roughly stable in the immediate antebellum and postbellum periods in the upper $50 million range. The system of interbank balances as a whole seem to have been neither decimated nor greatly stimulated by the effects of the National Banking Acts and the war (although one should perhaps take into account the

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[17]Our data omit postwar state-chartered banks. National banks constituted the great bulk of all chartered banks after the war-- 79 percent in 1865, 85 percent in 1866, 87 percent in 1867 (White 1983, p. 12). Since the remaining state-chartered banks were generally small, shares of bank assets would be even higher. Private banks do not appear in either the antebellum or postbellum figures.

In view of the dramatic changes in the price level over the decade of the 1860's, it seemed a good idea to put value figures in real terms. We, therefore, report all values in 1914 dollars, based on the Warren-Pearson wholesale price index.

collapse of the Southern banking system which had held substantial balances in New York).[18] Interbank balances held in New York banks (due to banks), again state-chartered antebellum and national-chartered postbellum, are shown in column 2, with New York's share of total due from banks in column 3. These figures might understate New York's position in the correspondent system, because we know under the Suffolk system and its successor, the Bank of Mutual Redemption, banks all over New England held balances in Boston for note redemption (Myers 1931, p. 109). We take New York's share of due from banks held by banks outside New England therefore as an upper bound to its true position.[19] These figures are reported in columns 4 and 5. Before the Civil War New York balances accounted for around half, more (column 5) or less (column 3), of total interbank balances with the figure rising sharply in 1861/62.[20] After the war the New York share was substantially higher– over 80 percent immediately after the war in the fall of 1865, between two-thirds and three-quarters over the second half of the 1860's.[21]

To what extent was the increasing centralization on New York simply a result of the tiered reserve structure of the national banking system? We calculate the excess or discretionary holdings of bankers' balances above those which satisfied legal reserve requirements. Since bankers' balances typically paid interest while vault cash did not, it is usually assumed that country and reserve city banks would have kept the maximum possible amount of legal reserves (three-fifths for country banks, one-half for reserve

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[18] The Secretary of the Treasury (1863, p. 221) reported almost 20 percent of total due from banks held by Southern and Southwestern banks in 1860/61. Particular New York banks, notably the Phenix Bank, Merchants' Bank, and the Mechanics' Bank, were favorites of Southern depositors (Myers 1931, p. 111).

[19] To be sure, some New England balances were deposited outside New England. Vermont, for example, allowed some required reserves to have been held as New York balances, while Connecticut banks held increasing amounts of balances in New York rather than Boston. Massachusetts banks after 1858 could count New York balances as required reserves (Myers 1931, pp. 106-110).

[20] With the breakdown of Boston's Southern trade and the consequent sharp depreciation of Boston exchange many merchants were led to redeem their notes in New York rather than Boston. Massachusetts bank balances in New York increased as a result (Myers 1931, p. 110). During the early stages of the war, the invasion of Pennsylvania by southern armies also led to a shift of many balances from Philadelphia to New York (Myers 1931, p. 111).

[21] The first postwar decade or so most probably represented the high point for the direct concentration of correspondent balances in New York. Later in the nineteenth century, a more hierarchical structure developed in which country banks increasingly maintained balances in reserve-city regional financial centers and banks from those cities in turn held New York accounts. See Redenius (2002).

city banks) in the form of bankers' balances. So we take the difference between total due from banks and three-fifths or one-half respectively of required reserves as discretionary or excess bankers' balances.[22] This would have been a lower bound to the true proportion of discretionary balances since some banks might not have held bankers' balances as the maximum possible proportion of required reserves.[23] On the other, interior banks did need to maintain some balances for note redemption purposes, an offset to the lower bound of unknown magnitude.

Table 2 presents calculated discretionary balances in levels and as a percentage of total due from banks, by class (country and reserve city) in panel I and by class by region in panel II. First of all, it is clear that country banks held balances substantially in excess of those for required reserves. Country banks as a whole held at least half of total interbank balances above the maximum allowable for required reserves. Moreover, in most regions the proportion of discretionary balances was rising over time.[24] Discretionary interbank holdings of reserve city banks were much lower– until 1868 as a whole reserve city total due from banks was smaller than the one-half of legal reserves that may have been held as such; hence calculated discretionary balances were negative. This was due primarily to the low interbank balance holdings of other Eastern financial center banks– Boston, Philadelphia, and Baltimore (New England, Middle Atlantic, and Border state regions).[25] Even so, the lower proportional holdings of New

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[22] Legal reserves are calculated as three-fifths (for country banks) or one-half (for reserve city banks) of the total of national bank notes outstanding, individual and government deposits, and net due to banks (due to banks less due from banks) if the latter is positive (Myers 1931, p. 222).

[23] Alternatively, we might assume that banks put all their vault assets qualifying as lawful reserves– specie, legal tender notes, and 3 percent Treasury certificates– toward satisfying their reserve requirements with the difference made up by due from national banks holdings. Such a calculation would maximize the amount of bankers' balances held for discretionary purposes and provide an upper bound to true discretionary holdings. As it turns out, the upper bounds turned out almost always to be around or above 100 percent– all due from banks holdings were discretionary rather than for reserve purposes. This upper bound seemed to be too high to be that informative, so we limit ourselves here to just considering the lower bound figures.

[24] New England, where they were roughly stable, being one exception; the Western states, because of the anomalous 1865 observation probably due to small sample variation, being another.

[25] Weber (2003, pp. 466-468) finds that throughout the 1850's (except 1857, 1858) Philadelphia banks had virtually nothing due from banks in New York City. The low levels of New York balances held, at least initially, by Philadelphia, Boston, and Baltimore banks may therefore have reflected a persistence of antebellum practices. That said however, it is rather puzzling as to why interbank relationships between Eastern financial centers would have been so weak.

York balances (reserve city legal reserve balances could only be held in New York) is consistent with there having been economies of scale in correspondent balance holdings– larger absolute levels of interbank deposits were likely to have been more stable with inflows roughly balancing outflows, so larger banks (generally reserve city) could hold proportionally smaller correspondent balances than smaller (country) banks.[26]

Substantial proportions of discretionary correspondent balances held by interior banks must therefore have been associated with dealings in domestic exchange– purchasing bills of exchange or accepting drafts drawn on, say, New York banks and in turn selling New York funds or drafts drawn on accounts there. Even with the disappearance of its role in state bank note redemption, the correspondent banking system did not shrivel away.[27] Another way to get at the relative importance of exchange dealings in holding correspondent balances would be to compare discretionary holdings postwar with total interbank deposits prewar. Real discretionary due from bank holdings of Midwestern national banks over 1865-69 amounted to 55 percent of real due from banks holdings of Midwestern state banks over 1859-1861. Non-note redemption, primarily exchange, operations must have accounted for something over half of antebellum Midwestern banks' interbank deposits.[28] In antebellum New England under the Suffolk system note redemption was an important function of city correspondent deposits. Pursuing the same exercise there, we find rather smaller proportions for exchange balances relative to total antebellum due

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[26] When average due from banks per bank is regressed on average bank size (total assets) in the cross section (by year, across states for country banks and reserve cities) the estimated coefficient is significantly negative. In addition, the absolute value of the coefficient increases over time.

[27] Another motive for country banks to hold city balances was to earn interest paid on bankers' balances with funds which otherwise may have been idle at home. A regression of the log of due from banks on a time trend and call date dummies from 1866 to 1869 shows seasonal variation of around 10 percent. Thus, even if some 10 percent of interbank deposits represented deposits of temporarily idle funds to earn interest, some 40 percent of due from banks must have been held to facilitate exchange dealings (since country bank discretionary interbank deposit holdings averaged about half of total due from banks. See Table 2).

[28] Underlying such an inference is the rather heroic assumption, among others, that the volume of interregional commercial activity, and hence the need for exchange, was comparable between the immediate prewar and postwar periods. Since we don't have output measures for the immediate postwar period, it's rather difficult to assess its validity.

from banks– 29 percent for Maine banks, 45 percent for New Hampshire banks, 20 percent for Vermont banks.

Now consider the effects on New York City banking structure. A national charter offered little to New York banks. The attraction of being able to issue national banks notes was small when in September, 1859 notes outstanding for New York chartered banks amounted to only 10.8 percent of individual deposits and 8.7 percent of total deposits (individual deposits plus due to banks). Membership in the national system depended instead primarily on how it would have affected relationships with correspondents. The original 1863 Act allowed three-fifths of legal reserves to held as balances in Boston, Providence, New York, Philadelphia, Baltimore, Cincinnati, Chicago, St. Louis, or New Orleans, while those cities in turn had to maintain 25 percent reserves in their vaults. Thus, New York would not have been able to hold reserve balances from other financial centers and the flow of balances into the city would have been limited. As a result, a report to the New York Clearing House urged New York banks not to participate in the national system, and on February 29, 1864 the Clearing House unanimously adopted a resolution to refuse exchanges in the Clearing House to all national bank notes (Gische 1979, pp. 42- 49). The resistance of New York banks in turn made national bank membership less attractive to interior banks since they would not be able to count balances held in New York banks as part of legal reserves. The concerted opposition of New York banks then was a significant obstacle to the conversion of state-chartered banks to national status over 1863 and early 1864.

In the meantime, new national banks began to be organized in New York. By November, 1863 three had been formed– the First National Bank with a capital of $200,000 organized by John Thompson, publisher of Thompson's Bank Note Detector, the Second National Bank with a capital of $300,000, and the Third National Bank with a capital of $300,000. John Austin Stevens, president of the Bank of Commerce, the largest bank in the country, had been an early supporter of Samuel Chase and softer toward the idea of a national banking system than most of his peers. However, the 1863 Act precluded the conversion of the Bank of Commerce to a national charter because it required double liability of shareholders while the Bank of Commerce charter specifically limited shareholders to single liability. As a result of Comptroller of the Currency Hugh McCulloch's influence, the 1864 Act exempted the Bank of Commerce by name from the double liability provision of the previous act. Less than a month after the Act's passage McCulloch wrote to John Austin Stevens, "Our National Banks in the country and in other

Cities are now selecting their correspondents in New York, and the longer the conversion of the Bank of Commerce is deferred, the fewer valuable accounts will it secure at the start, and the more difficult it will for it to take that controlling position in the National System of Banking, which with its large capital and the ability of its managers, it ought to assume." In addition, banks in redemption, later reserve, cities, as we have seen, were allowed to keep one-half of their 25 percent required reserves in the form of balances at New York national banks (Gische 1979, pp. 46-57).

The directors of the Bank of Commerce decided to switch to a national charter in November, 1864. This conversion led many/most other state-chartered New York banks to follow. In the first quarter of 1865 eight other city banks had gone over, while five more were in the process. The 10 percent tax on state bank notes passed in spring 1865 did not take effect until July 1, 1866 and seemed unlikely to have been a prime consideration here. Country banks in turn may have been reluctant to convert until New York banks had done so, so that they would have been able to hold their legal reserves as bankers' balances there. However, as we shall see, converted, originally state-chartered, banks later proved to have been relatively unsuccessful in attracting new correspondent deposits.

Table 3 shows changes in the real value of due to banks accounts of New York banks over the period spanning the Civil War. A rise in New York due to banks holdings after the war as well as an increase in the share of total due from banks of interior banks held in New York had been evident in Table 1. In panel I of Table 3 we see that this was not simply the result of a general expansion of the New York banking system. The ratio of due to banks relative to individual deposits and relative to total assets both rise in the postbellum period as shown in columns 2 and 3. Furthermore, these gains did not accrue to existing banks. Panel II shows the experience of banks that had existed before the war (and subsequently converted to a national charter). There seems to have been no pronounced increase in the ratio of due to banks relative to individual deposits or total assets after the war. In contrast, similar figures are shown for newly chartered national banks in panel III. First note that these banks held almost as many interbank deposits as those of individuals. Due to banks constituted around a third of total assets for these banks, while it was only something over 10 percent for banks which dated back to the antebellum period.

Interbank deposits from across the country were not just concentrated in New York relative to other financial centers, but also highly concentrated within New York banks as well. Margaret Myers (1931, pp. 116-119) traces a trend toward greater concentration in due to banks holdings from the time of the

first published reports. By 1847 six out of the fifty-four banks held 63 percent of bankers' balances in the city.[29] The business of the remaining banks was, in O.M.W. Sprague's words, "of a purely local character, having no more general significance than that of banks with an equal volume of business in Maine or Kentucky" (1910, p. 15).

The concentration of interbank balances has been traditionally associated with the payment of interest on those balances by some New York banks (it did not seem to have been a general practice at the time). Such interest payments was viewed with disapproval by most bankers and by the banking theory of the time. Drawing more "idle" balances to New York made those city banks more vulnerable to sudden and large withdrawals by interior banks, seasonally and especially during times of financial stringency. In addition, interest-paying banks had to find assets to hold which paid reasonably high returns. Most banks favored stock-exchange loans and call loans in particular, which were regarded as particularly liquid. Thus, banks holding large amounts of bankers' balances faced greater withdrawal risks on the one hand and also greater risk of negative shocks to the value of their asset portfolio through stock market fluctuations on the other.[30] In the aftermath of the Panic of 1857 the New York Clearing House considered but rejected a ban on interest payments because of the opposition of six out of the forty-six members. While not identified, it would seem a reasonable guess that they were the six banks paying interest at the time (Myers, 1931, pp. 123-124). The Comptroller of the Currency in his 1866 report (p. viii), for example, observed that New York City banks "should be the most conservative of all banks. They should not be allowed to jeopardize the funds of country banks by loaning them for speculation, and they would not, if they were not obliged to pay interest on them." He urged Congress to ban national banks paying interest on bank balances, but that did not happen.

This change in the nature of the New York bankers' balance market is reflected in Table 4 in three measures of concentration– the Gini coefficient and the shares of the total held in the top seven and top

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[29] Weber finds, interestingly, that the Philadelphia correspondent banking market in the 1850's was not highly concentrated and that entry was easy (2003, p. 466).

[30] See, for example, Sprague's treatment of the Panic of 1873 (1910, pp. 15-35) or a more modern take in Calomiris and Gorton (1991).

ten banks-- all of which show a similar pattern.[31] There is a sharp increase in concentration from the immediate prewar to the immediate postwar and then the indexes drift downward, but by the end of the decade still remain higher than antebellum levels. The national banking laws appeared to increase overall concentration levels among New York banks rather modestly.

We examine the compositional changes underlying the aggregate concentration levels in Table 5, which lists the ten banks with the largest holdings of due to banks in order at three year intervals over the 1860's. Note first of all the increasing specialization within the New York banking system. In 1860 only two of the top ten interbank-balance-holding banks had due to banks levels greater than those of deposits due individuals; by 1869, six of the top ten did. Note also that five of the top ten banks in 1866 and 1869– the First, Third, Fourth, Ninth, and Central National Banks– were newly organized national banks, all of which paid interest on deposits (Sprague, 1910, p. 15). Indeed, all of them seemed to have been designed to be bankers' banks, with due to banks holdings greater than individual deposits (except for the Fourth National Bank, for which the ratio was around two-thirds or three-fourths). A sixth bankers' bank, the Importers' and Traders', did date back to the antebellum period, but experienced a remarkable sixty-fold increase in real due to banks over the decade, presumably associated with paying interest on deposits.

The payment of deposit interest alone however does not seem to have been sufficient for success in the competition for interbank deposits. After all, the leading bankers' balance holders in 1860 all paid interest. Of those, only the leader, the Park Bank, maintained its position over the decade, and even so showed no pronounced longer-term increase in the ratio of bankers' to individual deposits (notwithstanding the blip in 1866). Other leaders of 1860, such as the American Exchange, the Mercantile, and the Mechanics' Banks, maintained more or less stable bankers'-individual deposit ratios, but found their relative position fading. Only the Metropolitan Bank experienced a dramatic decline, with the real value of its bankers' balances halving over the decade. Apparently there may have been some first-mover advantage in the bankers' balance market. Existing banks generally were able to hold on to their existing balances, but newly chartered national banks seemed to have had an advantage in the competition for country bank accounts. Between July 1863 and March 1864 ten newly-organized

[31] We choose seven as well as the more traditional ten because Sprague (1910, pp. 16-17) focuses on the seven banks with the largest due to banks holdings in his discussion of the Panic of 1873.

national banks began operations in New York. By October 1864 four of them (the First, the Fourth, the Ninth, and the Central National Banks) already had more almost $5.7 million (real) in bankers' balances. The Bank of Commerce, lured to convert to get in the competition for correspondents, did not begin operations as a national bank until January 13, 1865 (Gische 1979, p. 57), and nevertheless found its status slipping over the last half of the decade. Other state-chartered banks which converted to national status shortly thereafter also never really seemed to have been in the game for new interior banks' business even though the total number of national banks was increasing from 467 in 1864 to 1,294 in 1865 to 1,634 in 1866. And if, following Weber's observation (2003), correspondent relationships were very stable, the pattern of interbank relationships established at this time would have persisted for decades to come.

This restructuring of the New York bankers' balance market was reflected to a lesser extent in the rankings of banks by total assets appearing in Table 6. In 1866 three of the ten largest New York national banks– the Fourth, the Central, and the Ninth National Banks– were newly organized, and all of them held substantial amounts of bankers' balances. In both 1866 and 1869 three of the ten had due to banks in excess of individual deposits (as opposed to one, the Park, in 1860 and 1863). Some banks however were able to stay relatively large without participating in the interbank balance market. The Bank of New York and the Union National Bank, for example, held virtually no interbank deposits.

4. The domestic exchange market

To assess the impact of the National Banking Acts and other Civil War policies on payments system integration, we analyze the market for domestic exchange before and after the Civil War. The domestic counterpart to the foreign exchange market, the domestic exchange market furnished agents with an alternative means of making long-distance, domestic payments.[32] Instead of shipping specie or currency, they could purchase a draft (or check) drawn on their bank's correspondent account in a distant commercial center, say New York. In settling their accounts in New York, then, they would remit a payments instrument that New York sellers could readily deposit or cash at local bank.

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[32]In his manual on *Practical Banking*, for example, Albert Bolles (1888, pp. 130-36) then editor of *Bankers' Magazine* noted the parallel between the domestic and foreign exchange markets and, in fact, explained exchange rate fluctuations in terms of domestic rather than foreign exchange transactions.

The decision to purchase a draft versus ship legal tender or its equivalent depended, of course, on the relative costs and risks of each. The National Banking Act(s) directly altered this economic calculus by creating a truly national paper currency, one whose value did not decay with increasing distance from the issuing bank. Thus, like their state bank counterparts, national bank notes afforded buyers a lower cost means of remitting funds to distant commercial centers relative to specie shipments. But unlike state bank notes, they did not subject sellers at these locations to market and default risks. Thus, the NBA at least in principle greased the wheels of the long-distance payments system and hence long-distance trade.

All other things being equal, this abstract logic implies that National Banking Act should have led to the demise or at least the decline of the domestic exchange market and hence of correspondent banking. Indeed, large New York correspondents feared this outcome and, as noted above, staunchly opposed the NBA.[33] Although we lack the data on flows of interregional payments to test this hypothesis, indirect evidence suggests that domestic exchange market flourished, not faded, during the early postbellum period. Country banks continued to accumulate correspondent balances in New York, which in turn they sold customers to make long distant payments. Moreover, over time these balances would account for an increasing share of the assets of country national banks and of the liabilities of New York correspondent banks (James and Weiman 2004; Watkins 1929).

Obviously, all other things, in particular the terms of trade in the domestic exchange market, did not remain constant. Extending the parallel to the foreign exchange market, we measure the price of domestic exchange as the premium or discount on non-local funds relative to par. Consider, for example, the purchase of $1,000 of New York funds in Chicago and New Orleans in early April 1859. Because the domestic exchanges constituted a fixed exchange rate system with mint parity equal to one, the par value of New York funds was $1,000 in each city. In Chicago at this time, however, New York funds commanded a premium of 1.5% and so sold for $1,015. In New Orleans, by contrast, they were sold at a discount of 1/8% and so cost only $998.75. As in the foreign exchange market, these deviations from par were bounded by the cost of shipping specie or its equivalent, that is specie shipping points.

[33]See Gische 1979. Our preliminary research into the minutes of the New York Clearing House Association meetings affirms the resistance of incumbent banks to entry by new national banks.

Domestic exchange rates varied not only across space but also over time. At any location they depended on the prevailing conditions of supply and demand in the market for non-local (e.g., New York) funds. In commercial centers with specialized agricultural hinterlands, like Chicago and New Orleans, the price of New York funds fluctuated over the course of the year with the strong seasonal shifts in trade flows and resulting balance of payments. During the spring planting season when farm households and so local merchants stocked their shelves with goods purchased from New York jobbers, the demand for New York exchange and hence exchange rates surged. After the fall harvest season and the sale of crops via New York brokers, balances held in New York banks were replenished and were sold at lower prices, even at discounts.

Following the disruption to the domestic payments system occasioned by Jackson's veto of the Second Bank of the United States and the ensuing bank panics in 1837 and 1839, domestic exchange rates fell sharply over the late antebellum and postbellum periods. Between February 1839 (a non-suspension date) and 1850, the price of New York funds in Cincinnati declined from a premium of 2.5 to 0.70 percent. And by 1892 the average rate on New York exchange charged by Ohio national banks was a mere 0.02 percent (Elliot 1968 [1845], p. 1170; Knodell 1998, p. 720; U.S. Comptroller of the Currency 1892, p. 30). The Comptroller of the Currency noted this dramatic decline in exchange rates in 1878 and again in 1890 (U.S. Comptroller of the Currency 1878, p. xxv; 1890, p. 21). According to the latter report, the decline in exchange rates since 1859 yielded annual savings in transactions costs of over $100 million.

Despite the creation of a single national currency and the sharp fall in domestic exchange rates over the latter half of the nineteenth century, the U.S. was not a completely unified payments system, characterized by uniform terms of payment regardless of geographic location. Indeed, this condition would not be fully realized until the founding of the Federal Reserve System, which mandated "par clearing" (Weiman and James 2005, pp. 128-30; Jessup 1967). In fact, we should not really expect to see the convergence of market (rather than administered) exchange rates to par (i.e., a zero discount or premium), except under very specific conditions of trade and capital flows. For example, by the end of the century, the major centers of the Northeast constituted a par settlement region because of their dense reciprocal trade and financial interactions. By contrast, in developing regions, the combination of chronic

trade deficits and spatially segmented capital markets resulted in persistent but small premiums on New York exchange throughout the postbellum period (James 1998; James and Weiman 2004).

The growth of long-distance domestic trade and hence the formation of a truly national market did not require complete uniformity in the terms of payments such as par clearing or settlement. A necessary condition for what we call payments system integration is the greater standardization and predictability in the terms of payment. When buyers remitted a credit instrument such as a bank note or a sight draft rather than specie in making a long-distance payment, sellers only needed to know with reasonable certainty the value of the instrument – the credibility and accessibility of the lender, the timing of final settlement and hence float costs, and other explicit transactions costs. These criteria imply a more standardized means of payment with lower default and liquidity risks.

For evidence on the properties of and rates on domestic sight drafts before and after the Civil War, we collected data from newspaper reports in three regional centers, two in the south (Charleston and New Orleans) and one in the midwest (Chicago) for dates before and after the Civil War.[34] By way of illustration, we reproduce the daily reports from the *Charleston Courier* (for September 18, 1857) and the *New Orleans Price-Current* (for October 2, 1858) in Figures 1 and 2. As the two items clearly show, newspapers recorded this information in a more or less systematic fashion. The Charleston report simply listed the different instruments for the purchase and sale of foreign and domestic exchange and prevailing rates. In more narrative fashion, the New Orleans item describes prevailing market conditions ("The market is very plentifully supplied ...") and the range of rates on the various instruments.

A comparison of the reports before and after the Civil War establish one condition for payments system integration, namely the greater standardization of payments instruments and means of payment. Consider first the antebellum market in Charleston (see Figure 1). Before the Civil War, intermediaries could buy and sell domestic exchange in a variety of forms and locations. On the buy side, the demand for domestic exchange was limited to correspondent balances in New York. Still, agents had numerous

[34] For Chicago, we collected weekly data through 1860 and monthly data thereafter. The prewar data came from a single article that reviewed historical market data for Chicago including domestic exchange rates. It typically lists four rates per month at different days of the week for each month. The post-1860 data are for the first business day of the month. For New Orleans we collected weekly data from the Saturday morning issue. From the text of the reports, we infer that the rates are indicative of those prevailing at the end of the week. We are also collecting data from the Boston and Charleston markets and will likely expand the sample to include Cincinnati and St. Louis.

options in the form of instruments of varying maturities. They could buy a sight draft, that is a check drawn on a New York correspondent bank, which at this date sold at par. But, if they did not demand "immediacy," they could opt for what were referred to as "short" sight bills with maturities of less than a month and pay a slight discount of ⅛-⅜ %. Also, the report records the price of the standard trade credit instrument, the 60-day bill of exchange, which sold at a higher discount incorporating both exchange and interest rates.

The "supply" side lists only two generic instruments – foreign bills and domestic checks. Still, the market was characterized by heterogeneity in the spatial location of the funds. Charleston agents, it seems, had accumulated balances in several northeastern commercial centers – Boston, Philadelphia, Baltimore as well as New York – presumably through the sale of (e.g.) cotton and rice exports. In turn, they sold these balances to factors and merchants who needed the funds to make purchases in these markets. The rates, it is interesting to note, were the same regardless of the location of the funds. Thus, while banks and other intermediaries seemed to concentrate their correspondent balances in New York and hence only sold New York exchange, their New York agents would clear and settle checks drawn on banks in other northeastern cities on the same terms as New York checks.

According to the New Orleans report (see Figure 2), the domestic exchange market also supported transactions in various time and sight instruments.[35] Like in Charleston, the basic time instrument was the 60-day bill, in this case drawn "on the North" which meant "New York, Boston, etc." Although the reports infrequently mention rates on shorter maturities (30- and even 40-day bills), they most frequently quoted the prices on different qualities of the standard instrument. In particular, a bill drawn on "A.1. New-York drawers" typically sold at higher prices than those with other signatures, for example 1⅛% discount versus 1¼ to 2% discount.

The market for sight funds included bank checks but also bills of varying qualities ("banker's" versus "outside" bills) and maturities ("short sight" bills payable in 5 to 15 days). Like in Charleston, we also find evidence, albeit indirect, of two distinct but related funds markets – one directly mediated by banks

[35]Our analysis of the New Orleans market draws on reports over the entire period. We selected the report on October 2, 1858, because it contained data on a wider range of instruments transacted. Additional information and quotations are taken from reports on the following dates: January 1, 1859; April 30, 1859; and May 7, 1859.

and an open, curb ("out of door") market.[36] Reports for other weeks indicate transactions in two bank instruments – bank checks and banker's bills. The former, we are occasionally told, were sold at the bank office to meet the "counter demand." They uniformly commanded higher prices than banker's bills – that is discounts lower and premiums higher in absolute value. In the reports banker's bills were lumped together with other "outside" bills and so were also presumably sold in the open market. The evidence, in other words, suggests greater demand for and, we presume, higher quality of funds supplied directly by banks rather than in the open market.[37]

Compared to those for the late antebellum period, the reports from November 1872 show a striking convergence or standardization of the domestic exchange market along two dimensions: maturity and location. In the Charleston market (see Figure 3) transactions were confined to a single instrument, New York sight drafts. Like Charleston, the New Orleans market (see Figure 4) included sight drafts sold by "banks checking on New York," but also sight bills sold in the open or "commercial" market. Thus, consistent with other evidence on shifts in commercial practices and banks' balance sheets over the Civil War divide, we see signs of a waning, if not moribund, market for bills of exchange, or two-name paper (see section 5). Additionally, by this date New York banks – rather than other New York intermediaries (i.e., drawers or payers on bills) and banks in other commercial cities – thoroughly dominated the exchange market.

According to this qualitative evidence, the domestic exchange market in the early postbellum period satisfied a vital criterion for payments system integration. Paralleling the creation of a uniform national currency was the crystallization of New York balances as the means of long-distance payments. Balances

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[36]We do not have direct evidence on the organization of the "outside" market, but presume that it comprised note brokers and private bankers trading in bills (see Bodenhorn 2000, pp. 177-85).

[37]To illustrate, we report market quotations from January 1, 1859. Banker's and "out of door" bills sold at ¾% discount, while "Banks were sellers at 5/8% discount." Like Knodell (1998, 2004), we maintain that internalization of payments in the banking system yielded significant economies of scale and scope. The higher rates on bank-mediated transactions could also be evidence of banks' higher costs or market power (see Gorton and Mullineaux 1987; Kahn and Roberds 1999; Bodenhorn 2000, pp. 177-85). We cannot entirely reject this view. Still, applying the logic of the survivor test, we would expect to see the decline in banks' exchange business. Yet, from reports on banks' balance sheets in the Wednesday issue of the *Price Current*, their exchange assets, that is New York balances, increased from $7.0 to $8.6 million between early April 1857 to early April 1860. We view this trend as indirect evidence of an increasing, not decreasing, relative demand for bank-mediated payments services, especially as early April was a peak demand period in the exchange market (see Figure 6).

lodged with a New York correspondent had, in effect, become synonymous with "domestic exchange," and in fact contemporaries used the two terms interchangeably.

Under these conditions, sellers could expect to receive payment via a single, reliable, and liquid instrument, a bank draft backed by clearing balances held in the largest New York banks. This transformation did, however, shift the market risk onto buyers. Unlike in the antebellum period when sellers in commercial centers received payment in instruments whose market rather than par value was uncertain – non-local state bank notes and bills of exchange – now buyers had to purchase domestic exchange from banks or in the "commercial" market and so faced a similar kind of price risk. So in addition to the level of exchange rates relative to the cost of shipping national bank notes, buyers also had to gauge the degree of uncertainty in or liquidity of local domestic exchange markets.

We gauge this risk by the variation in the price of domestic exchange in two preeminent regional centers, Chicago and New Orleans. Figure 5 graphs domestic exchange rates in Chicago before and after the Civil War. The rate measures the percentage premium or discount which Chicago banks charged their retail customers for over-the-counter transactions in New York exchange. The data run weekly through 1860 and monthly thereafter. The graphs omit the extreme values during the Panic of 1857 and the onset of the Civil War, which would otherwise skew the scale.

The top graph in Figure 5 covers the entire period and shows sharp, successive declines in exchange rates. Before the war rates ranged from a premium of 1.0 to 1.5%. They rose rapidly in November 1860 after Lincoln's election and remained very high (touching 10 % several times) through the first half of 1861. They then dropped in three discrete steps of diminishing magnitude (see the bottom graph in Figure 5 for a more detailed look and Table 7). In the first and largest step rates fell in late 1861 by 75 to 80 percent to around ¼ % premium. They dropped further to around ⅛% in mid-1864 and then to only 1/10% at the end of 1865, where they stayed for the rest of the decade. So, normal (non- financial crisis) exchange rates declined by more than ten-fold from the late 1850's to the late 1860's, and the largest decline occurred during the Civil War era itself.

For New Orleans we graph weekly retail or counter rates on New York exchange for discrete periods before and after the Civil War, September 1856 through August 1860 and September 1868 through August 1873 (see Figure 6). Like in the Chicago case we truncate the graph to avoid the extreme values during the Panic of 1857. The New Orleans rates exhibit a similar but less striking downward trend.

Excluding the panic years, rates averaged a discount of around -0.09 % before the Civil War. From 1868 to 1873 New York funds commanded on average a small premium of 0.06 %.

Both markets vividly illustrate our point about trends in domestic exchange rates. While magnitudes do decline over time by over 90 percent in Chicago and 40 percent in New Orleans, they show no tendency to converge to par or a zero discount or premium. Instead, in both markets rates fluctuate seasonally between par and a 0.1% premium in Chicago and between a discount of -0.25% and a premium of 0.375 % in New Orleans.

More important for our argument, the variation in and hence uncertainty over rates declines significantly over period (see Table 7). We measure the variation in exchange rates by the standard deviation, because agents would be more concerned about level, not percentage, changes.[38] In Chicago the standard deviation in exchange rates falls from 51 to 5 basis points, or by 90 percent, between the late 1850's and late 1860's. Excluding the panic years, the variation in rates in New Orleans drops by 80 percent, from 52 to 11 basis points. These magnitudes, in fact, overstate the variability and hence uncertainty in rates, as rates in both markets fluctuated in discrete, predictable ways. In New Orleans, for example, during the spring and summer months rates remained rather constant at the seasonal peak of 0.375%. And in the winter months they fluctuated narrowly around their average seasonal low of -0.25%. Thus, despite the fluctuations in rates, merchants could accurately predict seasonal rates and so adjust their prices accordingly.

Two alternative but related hypotheses have been advanced to explain the declining variability in domestic exchange rates. Both emphasize the narrowing of the specie points in the domestic exchange market but for different reasons. Garbade and Silber (1979) emphasize exogenous technological-organizational factors that fueled rapid productivity growth in the rail transport sector. The resulting decline in railroad freight rates would lower the specie shipping points in the domestic exchange market and hence the variability of domestic exchange rates. For Philips and Swamy (1998), the passage of the National Currency and Banking Acts was the more decisive factor, as it effectively substituted paper bank

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[38]An extension of our simple example from Chicago illustrates the point. If rates increased by 10 basis points, then agents would incur an additional $1 in costs in purchasing $1000 of exchange. This change would correspond to a 7 percent increase in average rates in the late 1850's, but a 150 percent increase in the late 1860's.

notes for gold as good funds in the final settlement of transactions. Since currency shipping costs were significantly lower than those for specie, the diffusion of national bank notes would have reduced the currency shipping points (analogous to gold points) and thereby the bounds within which spot exchange rates could fluctuate.[39]

Neither explanation is entirely consistent with our evidence on the variability of Chicago and New Orleans exchange rates. Consider first the Garbade-Silber view in light of the trends in the Chicago market. The discrete drops in and exchange rate levels and variability may cast doubt on the impact of transport costs due to productivity growth. According to Fishlow's estimates, total factor productivity in the railroad sector did grow more than twice as fast in the 1860s than in the succeeding four decades, at an annual average rate of 4.5 versus 2.1 percent (1966, pp. 626-36). He attributes this rapid productivity growth mainly to greater capacity utilization because of the expansion of demand for railroad services during the Civil War era. As evidence, he notes the dramatic 50 percent drop in the capital-output ratio.

Still, his estimates of real freight rates show that these benefits were not immediately passed on to consumers. Relative to 1859 levels, average rates fell by only 15% during the 1860s versus 40 percent in the 1870s. The graphs in Figure 7 corroborate the point. They show real freight rates for three main east-west trunk lines between 1860 and 1885 (Shannon 1945, pp. 296-97). Strikingly, freight like exchange rates fell in successive steps, but the timing is off. The initial sharp drop in exchange rates preceded the decline in transport costs, which occurred between 1862 and 1864. Moreover, freight rates remained relatively stable until the end of the decade, whereas exchange rate levels and variability declined two more times (see Table 7).

The alternative view confronts the same empirical anomaly. The first sharp decline in the Chicago domestic exchange market occurred in late 1861 and so preceded by two years the passage of the National Banking Act and, *a fortiori*, the diffusion of national bank notes. As a variation on this theme, we observe that the Treasury Department issued $60 million of transferrable notes in July 1861 and an initial $150 million of legal tender notes (greenbacks) in February 1862. These monetary policy rather than

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[39] Garbade and Silber (1979, p. 15) cite an 1868 American Express circular quoting charges of $1.00 per $1,000.00 for shipping currency, while the rate for gold was $1.50. If the cost of shipping currency however was indeed only a third less than that for specie, then something of a puzzle remains in explaining the magnitude of the decline in exchange rates over the war.

banking innovations could have furnished the domestic exchange market with a more portable settlement media, especially since greenbacks were legal tender.

To explain the second drop in the New York exchange rate in mid-1864, we might consider the growth of national banking in Chicago. At the outbreak of the Civil War Chicago had no incorporated commercial banks (although some eighty-six banking offices of various kinds). It had only one national bank (the First National) at the beginning of 1864 and added seven more over the course of year (James 1938, pp. 338, 351). This innovation in the banking sector could explain the 1864 decline, if the rapid growth in national banking increased the supply and use of national bank notes in interregional shipments.

In the case of New Orleans we see a similar, but less dramatic drop in exchange rate variability over the Civil War. The standard deviation (excluding panic periods) declines from antebellum levels of 52 basis points to 30 in the September 1868 to February 1870 period (Table 7).[40] Then, in the early 1870's there is another decrease from 30 to 11 basis points (see below).

In support of their hypothesis Philips and Swamy cite the authority of the Comptroller of the Currency, who in 1890 (p. 21) attributed the sharp decline in exchange rates to the National Currency and Banking Acts. We do not entirely disagree with their view but in the end put more weight on the monetary and banking policy innovations that affected the structure of the banking system rather than the regulation of bank note issues. The spread of legal tender paper currency or its equivalent may have spurred the initial decline in exchange rate levels and variability in the Chicago market, but its inflationary effects also transformed the payments system by embedding it more directly within the banking system rather than in an open market. As promissory notes and bank drafts replaced bills of exchange as means of credit and payment, banks more directly mediated the market for short-term trade credit and corresponding payments instruments. If we can take the qualitative evidence in the weekly reports on the exchange market, then this change in New Orleans occurred abruptly in mid-February 1869. After this date the newspaper reports no longer list rates on 30- and 60-day bills of exchange and

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[40] Unlike Chicago however, the city had only two national banks over the period 1867 through 1870 (U.S. Comptroller of the Currency 1867, p. 393; 1870, p. 383). Although there was some turnover during this short horizon, the total value of outstanding local bank note issues remained roughly constant at $1.1 million.

on shorter term sight bills that were commonly traded in the more market-based antebellum payments system.

The internalization of payments within the banking system was a necessary but not sufficient condition for greater payments system integration. The other critical ingredient was the hierarchical organization and hence greater administrative coordination of payments flows through central reserve or correspondent banks. Here we can now see the powerful but indirect effect of the National Banking Act, which promoted the concentration of correspondent balances in New York (see Table 3 and 4). As a result, New York exchange or funds became the standard means of payment for buyers and sellers regardless of their location, as long as their banks maintained a New York correspondent which most did. And because of the increasing centralization of correspondent relations and balances among a handful of large New York banks, they could more effectively coordinate the vast flows of payments instruments and insure the greater liquidity of bankers' balances (see also James and Weiman 2004).

5. The Path Not Taken: Bankers' Acceptances

The inland bill of exchange, otherwise known as a trade acceptance, was, as we noted, primarily the creation of the Second Bank of the United States. Trade acceptances arose out of specific commercial transactions in which the drawer of the bill (payee) forwarded the bill to the payer or his/her agent who wrote "accepted" over its face and signed it. This two-name negotiable instrument was known as an "acceptance" with the payer as the "acceptor." The drawer then could take the acceptance to his/her local bank for discount, and the bank in turn would arrange collection of the bill from the drawee. After the demise of the Second Bank, in the later antebellum period, the promissory note, eclipsed by the trade acceptance under the BUS, revived. While a trade acceptance or bill was in principle rooted in a specific transaction and hence self-liquidating, promissory notes were based on the personal security of the maker, in the antebellum period usually endorsed by a second party (two-name paper) or secured by collateral.[41] Someone making an interregional payment in a commercial transaction would first secure local funds by discounting a promissory note at his/her bank and then purchase funds where the payment was due

[41] By rights, the endorser should have been the other party in a commercial transaction. But over time the suspicion grew that more and more of such loans were in reality "accommodation paper," not based on specific transactions.

through the domestic exchange market in contrast to accepting a bill, which bundled the credit and exchange functions together.

Trade acceptances did not disappear along with the Second Bank. Margaret Myers (1931, p. 203) claims that in 1846 trade acceptances were still quite popular and in about the same volume as promissory notes in New York.[42] Bodenhorn (2000, pp. 183-185, 210-211) also emphasizes the use of bills in the finance of antebellum trade and finds them in widespread use in the years before the Civil War. Trade acceptances, as well as their promissory note counterparts, double-name paper, however were casualties of the Civil War.[43] Inflation and uncertainty discouraged the more leisurely and longer-term credit arrangements of the antebellum period (see Myers 1931, pp. 52-55) and encouraged cash settlement instead.[44] Sellers, reluctant to make longer-term contracts in fixed dollar terms, reduced the length of credit terms and offered substantial discounts for cash, 13 to 18 percent per annum, while buyers, whose real debts had been in turn been reduced by inflation, were better able to pay cash (Klein 1912, pp. 44-47; Greef 1938, p. 70; Porter and Livesay 1971, pp. 126-127). The Secretary of the Treasury in his 1865 report observed, for example: "It is undoubtedly true that trade is carried on much more largely for cash than was ever the case previous to 1861, and that there is a much greater proper demand for money than there would be if sales were made, as heretofore, on credit" (p. 11).[45]

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[42] Lyman Gage, ex-Secretary of the Treasury and president of the First National Bank of Chicago, recalled however that in antebellum Chicago wholesalers and jobbers settled their accounts by both acceptances and notes, with more weight to the latter (Klein 1911, p. 528). Other writers went still further in emphasizing the relative importance of antebellum promissory notes. J. S. Gibbons, for example, in his study of the banks of New York in 1857, wrote "commerce in its broadest sense is carried on by promissory notes" (1858, p. 214). J.J. Klein cites an alleged prevalence of notes in New Orleans and sees a decline in domestic bills of exchange, displaced in payments by abundant private bank notes (1911, pp. 443, 529) .

[43] While time bills of exchange (e.g., sixty day) were typically quoted in antebellum newspapers, in the postbellum period only sight rates (New York exchange) appeared.

[44] Wesley C. Mitchell (1903, pp. 374-375) observed of the wartime period: "Men realized their inability to foresee the future and, knowing that it might bring great price fluctuations in either direction, sought protection against these changes by limiting their future pecuniary obligations as much as possible... When no one could foresee with confidence what would be the relative purchasing power of a dollar three months in advance, it was obviously risky for a merchant to accept a note due in ninety days for goods sold, or to give such a note due in ninety days for goods bought. Consequently, cash balances increased in importance and credit operations diminished."

[45] See also *Commercial and Financial Chronicle*, 1865, Vol. I, p. 325.

Even though wartime inflation was short-lived, the cash discount system which it had given rise to became, somewhat curiously as inflation gave way to deflation,[46] the established commercial practice in the postbellum era. Buyers wanting to take advantage of the cash discount would take their notes to their bank for discount. Among antebellum promissory notes, the endorsed, or two-name, form had been dominant, with some single-name paper emerging in the decade or so before the war (Greef 1938, p. 30). But such two-name endorsed paper was increasingly displaced by single-name unsecured paper.[47] The cash discount system made it more attractive for agents to borrow in anticipation of meeting their obligations, and this was more often accomplished by issuing a single-name promissory note. In 1886, the first year in which the categories were distinguished, the Comptroller of the Currency found two-name paper down to about half of New York and country national bank loan and discount portfolios, with that proportion falling to one-fifth for New York banks and one-third for country banks by 1900 (Myers 1931, pp. 322-323). A similar, but even more dramatic, decline befell the trade acceptance, which was said to have been used in no more than 3 percent of domestic credit transactions by the end of the century (Klein 1911, p. 126). Paralleling the replacement of two-name by one-name instruments was the evolution of dealer organization in which the antebellum system of note or bill brokers gave way to the commercial paper houses of the later nineteenth-century (Greef 1938, pp. 64-65).

The evolution from a commercial credit system based on financing specific transactions to one in which the provision of credit based on more generalized financial reputation or condition might be seem to have been an advance toward more a sophisticated system, but there were some downsides. Even though the commercial paper market flourished in late nineteenth-century, overall the market for

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[46] Perhaps, in view of the continual postbellum controversies about the appropriate monetary standard and price level with the Greenbackers and the Free Silver movement, substantial uncertainties still remained in peacetime for both buyers and sellers. But one would probably not have expected dramatic changes over the immediate three to six months that the older credit arrangements would have run. The reason that the *status quo ante bellum* was not restored is a bit of a puzzle.

[47] The precise timing of this shift however is unclear. Klein (1912, p. 46) found single- and double-name open-market paper to have been "about evenly divided at the end of the Civil War. But Greef (1938, p. 67) cited New York and Boston dealers to the effect that open-market paper was predominantly two-name until around 1885.

Changes in the distribution system reinforced this trend. Rather than making periodic buying trips to Eastern cities, local merchants were increasingly serviced by traveling salesmen. Purchases became smaller and more frequent, less suited to finance by bills of exchange or endorsed paper (Greef 1938, pp. 72-73).

negotiable instruments may have become less liquid. Access to the open market, since the instrument, single-name paper, was unendorsed, was essentially limited to relatively large firms with financial reputations beyond reproach. Even so, there was no secondary market in commercial paper– it almost always had to be held until maturity.[48] Bills of exchange or endorsed paper could have been resold through brokers, but there was no such market in single-name paper. As the options in turning paper into cash before maturity became much more limited for holders, so also did choices for makers in originating paper become more constricted as well. Smaller and less well known borrowers could only then discount their single-name promissory note with their local bank. As the market moved away from two-name bills and notes, financing options for the average borrower most probably became narrower. While the open market in commercial paper opened up more possibilities for larger firms in borrowing, the credit market for more average borrowers probably became more fragmented.

The road not taken in American commercial credit was the bankers' acceptance. If a bill of exchange had been accepted by a bank rather than by the payer, the instrument became known as a bankers' acceptance. Often bank customers would have in effect lines of credit under which their bank stood ready to accept their bills up to an amount agreed upon in advance. The bill then became an unconditional liability of the accepting bank and was thus backed or guaranteed by its reputation rather than just the seller's as in a commercial transaction. If the accepting bank was well known and established, as Lawrence Jacobs in his report to the National Monetary Commission noted, the result was "a practical uniformity of security" (1910, p. 5). This uniformity of security allowed the acceptance to be easily resold in a broad and active public discount market. "Through the addition of the banker's signature the question of the maker's credit is eliminated and the note, instead of being a mere evidence of an advance, is transformed into a standard investment [which] commands the broadest possible market" (Warburg 1910, p. 7). Bankers' bills underlay the discount markets of London, Paris, and Berlin, where discount rates were quite stable and funds moved freely between countries (see Warburg 1910; Jacobs 1910, pp. 6-7).

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[48] To be sure, city banks would sometimes rediscount paper of country correspondents which needed the money, but it was not until the Federal Reserve system that rediscounting become more generally practiced.

In the postbellum United States national banks were barred from accepting bills. Though not specifically prohibited by the National Banking Acts, courts ruled that national banks could not legally exercise any powers not explicitly granted, and accepting bills was not. Banks were able to lend money on personal security, but they could not lend credit (act as guarantors) on personal security (Laughlin 1912, p. 95).[49] Critics of postbellum banking institutions saw this prohibition as having profound consequences. The single-name promissory note, on which there was no "practical uniformity of security," depending instead on the reputations of various mercantile and manufacturing firms, was the principal commercial credit instrument, as we have seen. Only a relatively few firms of unquestioned financial standing could sell their notes in the open market, and, once sold, the notes had to be held to maturity, there being no rediscount market. Although European bills were readily bought and sold between countries, American commercial paper was not held abroad.[50] For liquidity, New York banks were forced to invest in the call loan market, which was notoriously volatile, while London banks could have invested in the more stable bankers' bill market. The European discount system offered stability and liquidity, while the American system based on single-name paper and call loans did not (Warburg 1910, pp. 42-43).

We of course can not be sure how the postbellum financial system would have functioned if the creation of bankers' acceptances had not prohibited to national banks, but the Federal Reserve Act made them legal (see Ferderer 2003, pp. 667-668), so an examination of the early Fed period should give us some clues. In Europe small or average borrowers, where ever located, could have had access to the acceptance market through branches of nationwide banks if there had been no strong local one. The U.S. system of unit banks however had created a structure in which most local borrowers had to rely on their local bank rather than on larger money center banks for finance, and most of those local banks in turn would not have had the financial standing to create acceptances which would have been widely accepted. We would expect only large financial center banks to have been able to participate in the acceptance

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[49] Laughlin (1912, p. 94) provides a list of the relevant court cases.

[50] Jacobs observes, "Foreign banks will not purchase it [U.S. commercial paper] because they are not acquainted with or sure of the rating of miscellaneous mercantile establishments and because such paper could not be readily disposed of in case it became necessary or profitable to withdraw funds from New York for remittance elsewhere" (1910, p. 9).

market, and that is what we observe. In 1925, 75 percent of all acceptances were created by New York banks; adding Boston and Chicago banks brings the total to around 90 percent (Ferderer 2003, p. 669). It seems unlikely that smaller interior borrowers and banks would have been able to participate in a postbellum acceptance market.

Secondly, it seems unlikely that the bankers' acceptance would have displaced the single-name promissory note in the finance of domestic trade. Their principal use rather proved to have been in foreign trade. Although the value of bankers' acceptances had risen from close to zero to over $1 billion by the close of the 1920's, those arising from the finance of domestic trade usually ran less than 20 percent of the total (at least after 1925 when we have detailed data) (James 1995, p. 235). Increased use of bankers' acceptances then primarily represented a displacement of sterling bills (i.e., drawn on sterling accounts) by dollar-denominated bills, rather than a substitution for domestic promissory notes. Although acceptances were very liquid, they did not, similarly, dislodge call loans as the preferred very liquid secondary reserve asset of New York banks, perhaps because they generally had lower yields.

Finally, several writers have emphasized the importance of a central bank for a smoothly functioning discount market. Warburg (1910, p. 31) said the two were "absolutely interdependent" with the central bank acting as an indispensable "buffer." Ferderer (2003, pp. 678), along these lines, found Federal Reserve banks playing important roles as market makers of last report in the early acceptance market. In the period after the Civil War the United States did not, of course, have a central bank. New York banks may have filled this void to some degree in a hypothetical postbellum discount market (see Garbade and Silber 1979), but the overall stability of such a market would still remain problematic.

5. Summary and Conclusion

Embodying Hamilton's recommendations, the Coinage Act of 1792 formally constituted the United States as a single monetary union. The formation of a uniform national payments system, however, would await the passage of the Federal Reserve Act of 1913. In the interim the National Banking Acts would represent an important intermediate step. By creating a uniform national currency, national bank notes which were valued at par throughout the country, they significantly reduced the cost and risk making non-local payments.

Their indirect consequences, however, proved to be more significant . The 1864 Act established a tiered system of redemption, later reserve, cities that firmly established New York as the focus of the correspondent banking system and thus of the interregional payments network. And within New York correspondent relations and balances became more concentrated among a handful of newly formed national banks, which specialized in the correspondent banking business. As a result, these large New York correspondents could directly mediate interbank payments among virtually all banks in the U.S. and hence clear and settle virtually all interregional payments. At the same time, because of Union monetary policies, banks became the pivotal nodes in the long-distance payments system and transferred funds interregionally through ledger entries to correspondent accounts, primarily in New York.

The internalization of long-distance payments in the correspondent banking system and the greater centralization of correspondent banking in New York, in turn, forged a more unified national payments system. As evidence of payments system integration, we point to the sharp declines in the levels, but especially variability of domestic exchange rates in Chicago and New Orleans. These trends imply lower costs in transferring funds across space and the greater liquidity of local markets for transferring funds across banking institutions. Consequently, buyers and sellers could more efficiently and reliably count on using New York exchange to settle their long-distance transactions.

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Table 1
New York City Banks' Share of Correspondent Balances
($1,000's)

Year	Due from banks-outside New York	Due to banks-New York banks	New York share	Due from banks-outside NYC and New England	New York share
1857/58	52,314.4	23,600.4	45.1%	40,338.5	58.5%
1858/59	74,808.8	25,816	34.5	60,270	42.8
1859/60	65,055.8	26,213.7	40.3	49,831.6	52.6
1860/61	57,710.3	27,275.1	47.3	42,308.9	64.5
1861/62	59,198.7	33,287	56.2	40,262.3	82.7
1865	49,216.5	39,516.4	80.3		
1866	59,302.3	42,663	71.9		
1867	54,274.6	38,573.7	71.1		
1868	63,279.7	43,615.5	68.9		
1869	57,311.7	42,615.3	74.4		

Notes: Prewar figures are for all state-chartered banks; postwar figures are for national banks only. Nominal values are deflated by the Warren-Pearson wholesale price index. Prewar figures are biennial averages; postwar figures are for the fourth (autumn) call date .

Sources: U.S. Secretary of the Treasury, *Annual Report on the Condition of the Banks in the United States, 1863*. Washington: Government Printing Office, 1863, pp. 220-223. U.S. Comptroller of the Currency, *Annual Report*, 1865, pp. 138-141;1866, pp. 2-31; 1867, pp. 564-601;1868, pp. 562-602; 1869, pp. 558-593.

Table 2
Discretionary Bankers' Balances Held by Non-New York Banks
($1,000)

Year	Due from banks	Discretionary balances	Discretionary bal/ Due from banks
I. By Class			
1. Country banks			
1865	33,409.	14,645.6	43.8%.
1866	39,936.1	18,079.7	45.3
1867	36,434.9	14,093.6	38.7
1868	44,241.7	20,596.7	46.6
1869	54,129.3	30,402.7	56.2
2. Reserve city banks			
1865	9,810.7	-2,798.0	-28.5
1866	8,791.7	-5,247.4	-59.7
1867	16,083.5	-1,417.1	-8.81
1868	23,607.6	4,525.0	19.2
1869	24,919.	7,031.2	28.2
II. By region by class			
1. Country banks			
New England country banks			
1865	10,182.1	5,506.2	54.1
1866	12,709.8	6,173.	48.6
1867	12,517.9	5,272.	42.1
1868	14,272.7	6,682.5	46.8
1869	18,269.4	10,590.2	58.0
Middle Atlantic country banks			
1865	10,677.2	4,598.9	43.1
1866	14,304.3	6,970.4	48.7
1867	13,737.4	5,778.9	42.1
1868	15,767,1	7,240.8	45.9
1869	19,215.8	10,748.9	55.9
Midwest country banks			
1865	5,945.3	1,990.4	33.5
1866	7,012.5	2,446.	34.9
1867	5,556,8	1,311,1	23.6
1868	7,626.1	3,175.	41.6
1869	8,727.1	4,254.4	48.7

Plains country banks			
1865	1,630.9	609.3	37.4
1866	1,816.4	647.1	35.6
1867	1,302.5	382.4	29.4
1868	2,857.1	1,730.7	60.6
1869	3,060.2	1,913.4	62.5
South country banks			
1865	821.	350.7	42.7
1866	1,881.4	932.3	49.6
1867	1,672.6	811.	48.5
1868	1,953.9	1,049.3	53.7
1869	2,322.9	1,450.9	62.5
Border country banks			
1865	4,088.3	1,533.8	37.5
1866	2,149.4	888.5	41.3
1867	1,476.1	487.1	33.0
1868	1,495.1	563.	37.7
1869	2,327.4	1,350.1	58.0
West country banks			
1865	64.2	56.3	87.6
1866	62.3	22.4	36.0
1867	161.6	51.1	31.6
1868	267.7	155.5	58.1
1869	206.6	94.7	45.8
2. Reserve city banks			
New England reserve city banks			
1865	4,141.7	-515.7	-12.4
1866	2,769.3	-3,028.6	-109.4
1867	5,012.7	-426.2	-8.5
1868	7,257.6	1,326.7	18.3
1869	7,679.6	2,775.5	36.1
Middle Atlantic reserve city banks			
1865	3,140.6	-2,580.2	-82.2
1866	3,393.1	-1,667.2	-49.1
1867	5,848.	-611.4	-10.5
1868	7,715.7	889.8	11.5
1869	7,736.5	910.	11.8

Midwest reserve city banks			
1865	2,528.4	297.9	11.8
1866	1,965.6	209.6	10.7
1867	3,082.5	246.4	8.0
1868	5,687.8	2,487.3	43.7
1869	6,115.8	2,861.4	46.8
Plains reserve city banks			
1867	601.2	-62.7	-10.4
1868	1,113.4	169.2	15.2
1869	1,134.7	347.8	30.7
South reserve city banks			
1867	146.1	-37.8	-25.9
1868	171.9	3.1	1.8
1869	594.4	390.6	65.7
Border reserve city banks			
1866	663.7	-761.3	-114.7
1867	1,393.	-525.5	-37.7
1868	1,661.2	-351.1	-21.1
1869	1,658.1	-254.1	-15.3

Notes: Nominal values deflated by the Warren-Pearson wholesale price index; Figures are for the third (mid-summer) call date.
New England country- ME, NH, VT, MA, RI, CN
Middle Atlantic country- NY, NJ, PA, DL
Midwest country- OH, IN, IL, MI, WI
Plains country- IA, MN, KA, NB, MO
South country- VA, NC, SC, GA, AL, MS, LA, AR, TX
Border country- MD, DC, WV, KY, TN
West country- CO, NV, MT, ID, OR
New England reserve city- Boston
Middle Atlantic reserve city- Albany, Philadelphia, Pittsburgh
Midwest reserve city- Cincinnati, Cleveland, Chicago, Detroit, Milwaukee
Plains reserve city- St. Louis, Leavenworth
South reserve city- New Orleans
Border reserve city- Baltimore, Washington, Louisville

Sources: U.S. Comptroller of the Currency, Annual Report

Table 3
New York City Banks' Interbank Deposits
($1,000's)

Year	Due to banks	Due to banks/Deposits	Due to banks/ Total assets
I. Total			
1858	15,052.2	36.34%	14.61%
1859	28,894.5	24.31	10.23
1860	20,204.7	26.17	10.03
1861	23,052.9	29.74	12.31
1862	44,137.7	33.40	16.85
1863	30,523.4	22.59	12.76
1864	17,394.5	21.01	12.32
1865	39,516.4	43.10	21.78
1866	42,663.0	38.79	19.36
1867	38,573.7	29.01	14.93
1868	43,615.5	32.09	16.36
1869	42,615.3	33.39	16.22
II. Prewar and subsequently converted banks			
1858	15,052.2	36.34%	14.61%
1859	28,894.5	24.31	10.23
1860	20,204.7	26.17	10.03
1861	23,052.9	29.74	12.31
1862	44,137.7	33.40	16.85
1863	30,523.4	22.59	12.76
1864	17,394.5	21.01	12.32
1865	26,266.2	33.64	18.69
1866	24,435.5	27.00	14.57
1867	21,504.2	19.59	10.66
1868	25,996.2	23.82	12.68
1869	25,264.1	23.21	12.06

III. New national banks

1865	13,252.2	97.42%	32.43%
1866	18,227.5	93.53	34.55
1867	17,069.6	73.48	30.11
1868	17,619.4	65.82	28.62
1869	17,351.2	92.58	32.59

Notes: Nominal values deflated by the Warren-Pearson wholesale price index; Figures are for the fourth (autumn) call date.

Sources: New York State.....; U.S. Comptroller of the Currency, Annual Reports

Table 4
Concentration in New York Bankers' Balances

Year	Gini coefficient	Share of largest seven	Share of largest ten
1858	.7183	.6063	.7259
1859	.6879	.5737	.6946
1860	.6962	.5770	.6929
1861	.7017	.6181	.7275
1862	.6801	.5887	.6956
1863	.6945	.6141	.7109
1864	.6791	.5977	.6923
1865	.7645	.7277	.7912
1866	.7251	.6639	.7566
1867	.7319	.6508	.7409
1868	.7147	.6382	.7342
1869	.7126	.6241	.7289

Notes: Indexes based on balance sheet data reported during the fourth (September/October) call date.

Table 5
Ten Largest New York Banks by Bankers' Balance Holdings
($1,000)

Name	Due to banks	Due to banks/ Deposits	Rank in total assets
		1860	
1. Park	2,832.	1.08	6
2. Bank of Commerce	2,726.5	.48	2
3. Metropolitan	2,413.3	.69	4
4. American Exchange	1,528.4	.37	3
5. Bank of America	1,430.7	.45	5
6. Mercantile	1,312.9	1.13	19
7. Merchants'	1,056.7	.31	7
8. Bank of the Republic	992.3	.28	10
9. Manhattan Co.	857.	.27	9
10. Bank of State of NY	823.6	.25	11
		1863	
1. Park	3,834.1	1.00	6
2. Bank of America	3,731.5	.83	3
3. Metropolitan	2,881.4	.75	5
4. Broadway	2,705.1	.45	10
5. Bank of Commerce	2,195.6	.41	1
6. American Exchange	1,754.9	.31	2
7. Bank of State of NY	1,642.7	.21	4
8. Mercantile	1,316.7	.88	24
9. Merchants'	889.1	.18	8
10. Manhattan Co.	749.5	.18	13
		1866	
1. National Park	8,039.9	1.99	5
2. Fourth National	6,172.7	.76	1
3. Central National	4,761.8	1.00	3
4. Ninth National	3,642.6	2. 45	9
5. Natl Bank of Commerce	2,378.4	.42	2
6. Metropolitan National	1,764.0	.76	7
7. Importers' & Traders' Natl	1,564.4	.72	15
8. American Exchange Natl	1,458.4	.30	6
9. Third National	1,319.7	.79	18
10. First National	1,176.9	1.32	27

1869

1. National Park	6,109.6	1.13	4
2. Fourth National	5,790.2	.67	1
3. Central National	4,129.3	1.30	5
4. Importers' & Traders' Natl	3,720.7	1.37	9
5. First National	2,510.1	2.29	21
6. Ninth National	2,415.0	1.78	19
7. Third National	1,921.9	1.61	22
8. Natl Bank of Commerce	1,636.7	.33	2
9. Merchants' National	1,534.0	.35	8
10. Metropolitan National	1,293.4	.32	7

Notes: Figures are for the fourth (autumn) call date; nominal values are deflated by the Warren-Pearson wholesale price index.

Table 6
Ten Largest New York Banks by Total Assets
($1,000)

Name	Total assets	Due to banks/ Deposits	Rank in due to banks
		1860	
1. Bank of Commerce	18,782.4	.48	2
2. American Exchange	11,849.1	.37	4
3. Metropolitan	11,045.1	.69	3
4. Bank of America	8,456.1	.45	5
5. Park	8,328.3	1.08	1
6. Merchants'	8,034.9	.31	7
7. Bank of New York	7,785.8	.05	26
8. Manhattan Co.	7,578.7	.27	9
9. Bank of the Republic	7,385.2	.25	8
10. Bank of State of NY	6,759.9	.25	10
		1863	
1. Bank of Commerce	17,038.3	.41	5
2. American Exchange	12,074.6	.31	6
3. Bank of America	11,573.3	.83	2
4. Bank of State of NY	11,427.	.21	7
5. Metropolitan	11,153.3	.75	3
6. Park	10,554.2	1.01	1
7. Union	8,824.5	.08	17
8. Merchants'	8,652.6	.18	9
9. Bank of New York	8,366.9	.09	20
10. Broadway	8,033.2	.45	4
		1866	
1. Fourth National	19,084.1	.76	2
2. Natl Bank of Commerce	17,800.2	.42	5
3. Central National	12,468.4	1 00	3
4. Bank of New York	11,952.1	.03	23
5. National Park	11,544.6	1.99	1
6. American Exchange Natl	10,553.4	.30	8
7. Metropolitan National	7,830.4	.76	6
8. Merchants' National	7,156.7	.33	11
9. Ninth National	6,514.1	2.45	4
10. Mechanics' National	6,490.1	.11	17

1869

1. Fourth National	20,331.5	.67	2
2. Natl Bank of Commerce	19,733.8	.33	8
3. Bank of New York	18,740.1	.05	15
4. National Park	14,595.5	1.13	1
5. Central National	10,853.6	1.30	3
6. American Exchange Natl	10,760.1	.26	11
7. Metropolitan National	10,631.3	.32	10
8. Merchants' National	9,066.6	.35	9
9. Importers' & Traders' Natl	8,346.6	1.37	4
10. Union National	7,554.4	.05	26

Notes: Figures are for the fourth (autumn) call date; nominal values are deflated by the Warren-Pearson wholesale price index.

Table 7
Domestic Exchange Rates in the Chicago and New Orleans Markets before and after the Civil War

A. Chicago Market

Date	Average[1]	Standard Deviation
1/1854-8/1857	1.09	0.324
3/1858-10/1860	1.49	0.514
10/1861-5/1864	0.13	0.135
6/1864-6/1865	0.07	0.065
7/1865-12/1869	0.07	0.048
% Change		
1858/60 to 1865/69	-95.6%	-90.7%
1858/60 to 1861/64	-91.6%	-73.8%
1861/64 to 1865/69	-47.0%	-64.5%

B. New Orleans Market

	Average		Standard Deviation
	Actual	Absolute Value[2]	
Antebellum	-0.13	0.49	0.711
Excluding panic years	-0.09	0.44	0.516
9/1868 to 2/1870	-0.05	0.25	0.301
3/1870 to 8/1873	0.11	0.28	0.107
% Change			
All years			
to 2/1870		-50.3%	-57.7%
to 8/1873		-45.2%	-85.0%
Excluding panic years			
to 2/1870		-42.9%	-41.9%
to 8/1873		-37.1%	-79.4%

Notes:
1) The mean value measures the average discount (-) or premium (+) over the period.
2) Because New Orleans rates fluctuate between discounts and premium, we measure the absolute value of the average rate. This is clearer indicator of the deviation from par.

Index for Figures 1 through 4: Weekly Exchange Reports
from the *Charleston Courier* and *New Orleans Price Current*

Figure 1 *Charleston Courier*, September 18, 1857

Figure 2 *New Orleans Price Current*, October 2, 1858

Figure 3 *Charleston Courier*, January 9, 1872

Figure 4 *New Orleans Price Current*, November 6, 1872

CHARLESTON Fri Sept 18 1857

75 @	80
@	

...al Stores and

...HARLESTON.

From Sept'ber 1, 1856, to Sept. 18, 1856.	
NAVAL STORES. Barrels.	COPPER ORE. Boxes.
......	......
......	......
......	......
......	......
......	......
......	......
......	......
......	......
......	......
......	......
90	
90	......
......	......
2,320	50
202	......
......	......
......	......
2,522	50
2,612	50

...ur and Wheat

...ESTON.

From Sept'ber 1, 1856, to Sept. 18, 1856.	
FLOUR. Barrels.	WHEAT. Bush'ls.
......	......
......	......
......	......
......	......
......	......
......	......
......	......
......	......
......	......
......	......
......	......
......	......
......	......
......	......
......	......
......	3,700
375	28,667
100	1,290
......	......
65	......
540	33,657
540	33,657

...ugh Rice and

...HARLESTON.

...1, ...7,	From Sept'r. 1, 1856, to Sept. 18, 1856.	
...t.	R. RICE bush's.	LUMBER. feet.
..	......	......
..	......	......
..	......	......
..	......	......
...82	......	......
..	......	......
..	......	......
...82	......	......
..	......	334,655
...60	......	......
..	......	......
...42	......	334,655
..	......	......
..	......	231,193
...20	......	......
...00	......	268,000
..	......	68,000
..	......	......
...20	......	567,193
...62	......	901,848

...ve Statement of Cotton and Rice, embracing

STOCK ON HAND, RECEIPTS AND EXPORTS.

...IPTS, &C. TO DATES.	1857. COTTON. S. Is'd.	1857. COTTON. Upl'd.	1857. RICE. Tierces	Same time last year. COTTON. S. Is'd.	Same time last year. COTTON. Upl'd.	Same time last year. RICE. Tierces
...September 1, 1857 / ...Sept. 10 / ...viously	2,626 / 37 / 46	3,018 / 1,020 / 1,232	1,196 / 404 / 1,393	1,034 / ...... /	2,110 / ...... /	1,023 / ...... / ......
...ts	2,709	5,270	2,993	1,109	4,756	3,431
...e Sept. 10 / ...viously	105 / 191	1,040 / 1,517	506 / 1,210	......	......	......
...s	294	2,557	1,718	106	2,435	2,325
...nufactured / ...tion since Sept. 1, '57 / not cleared	...... / ...... / 46	...... / ...... / 735	...... / ...... / 140	...... / ...... / ...	...... / ...... / 460	...... / ...... / 55
...n total Receipts	340	3,292	1,858	106	2,895	2,380
...hand Sept. 17, 1857.	2,369	1,978	1,135	1,003	1,861	1,651

Bank Rates.

FOR PURCHASING EXCHANGE.

Bills on England················7½@7¾ ₩ ¢ premium·
Bills on France
Sight Checks on New York··························par·
Bills on New York, 1 to 5 days···············@¼ off·
Bills on New York, 5 to 10 days·············½@¾ off·
Bills on New York, 10 to 15 days···········½@¾ off·
Bills on New York, 30 to 40 days············¾@— off·
Bills on New York, 60 to — days···········1¼@— off·

FOR SELLING EXCHANGE.

Bills on England·························₩ ¢ premium·
Bills on France····························₩ ¢ premium·
Checks on Boston·····················½ ₩ ¢ premium·
Checks on New York··················½ ₩ ¢ premium·
Checks on Philadelphia···············½ ₩ ¢ premium·
Checks on Baltimore··················½ ₩ ¢ premium·

Comparative View of Vessels Loading in

THE UNITED STATES FOR FOREIGN PORTS.

PORTS.		1857. G't. Britain.	1857. France....	1857. Other ports.	1856. G't. Britain.	1856. France....	1856. Other ports.
New Orleans	Sept. 11	5	4	4	5	10	2
Mobile	Sept. 11	0	2	2	0	3	0
Florida		0	0	0	0	0	0
Savannah	Sept. 15	0	0	1	0	0	1
Charleston	Sept. 17	4	0	4	2	0	2
New York	Sept. 11	17	6	76	33	9	75
Other ports	Sept. 11	11	1	11	7	1	9
Total		37	13	98	47	23	89

HIDE AND LEATHER MARKET.

WHOLESALE PRICES.

REPORTED AND CORRECTED WEEKLY BY J. P. BAUM & SON

Dealers in Hides, Leather, &c.

134 MEETING-STREET, CHARLESTON, S. C.

HIDES.

Dry, Salted, City slaughtered····₩ lb··$— 19 @— 21
Green, Salted, city slaughtered·········— 6½@— 7
Green, city slaughtered··················— 5½@— 6
Dry, Southern Flint·······················— 12 @— 14
Dry, Ash cured····························— 12 @— 14
Dry, Buenos Ayres·························— 34 @ 39
Dry, Orinoco································— 31 @— 36
Horse, dry and salted··············each·— 25 @ 1 00
Tainted, murrained, or otherwise damaged····half price.

SKINS.

Deer, Western Winter··············₩ lb··$— 18 @— 20
Deer, Southern Winter····················— 16 @— 17
Deer, Florida Winter······················— 20 @— 21
Deer, Green··································— 6 @— 08
Calf, Dry·····································— 10 @— 12
Calf, city slaughtered ·············each·— 60 @ 1 00
Sheep, Kentucky····························— 75 @ 1 00
Sheep, Carolina·····························— 37 @— 50
Sheep, Shorn································— 18 @— 25
Bear, Western································1 00 @ 4 00
Bear, Southern······························— 50 @ 2 50
Lamb··— 15 @— 20
Goat···— 6 @— 10
Alligator······································— 25 @— 75

FURS.

Otter, Western Winter···········each·$1 50 @ 2 50
Otter, Southern Winter····················— 25 @ 1 75
Otter, Florida·······························— 25 @ 1 50
Beaver, Western Winter····················— 75 @ 1 25
Beaver, Southern Winter···················— 50 @ 1 00
Martin, Western Winter····················— 75 @ 1 00
Martin, Southern Winter···················— 50 @— 75
Mink, Western Winter······················— 75 @ 1 00
Mink, Southern Winter·····················— 25 @— 50
Coon, Western Winter······················— 25 @— 50
Coon, Southern Winter·····················— 6 @— 15

West, &c., wrecked Cotton, (Upl'ds)···431			
Received from Savannah—Uplands·····3,437			
Sea Islands··1,589			
Stock at Charleston Sept. 1, 1856·····3,144	16,908	307,331	405,976
NORTH CAROLINA.			
Exports—			
Coastwise··········26,311			
Stock on hand Sept. 1, 1857··············50	26,361		
Deduct—			
Stock on hand Sept. 1, '56·	150	26,211	26,118
VIRGINIA.			
Exports—			
To Foreign Ports·······200			
Coastwise and Manufactured···········23,995			
Stock on hand Sept. 1, 1857·············420	24,615		
Deduct—			
Stock on hand Sept. 1, '56·	842	23,773	20,458
Received at New York, Philadelphia and Baltimore, overland, from Memphis and Nashville, Tenn····		4,671	13,834
Total Crop of the United States·····		2,944,805	3,524,242
Decrease on last year··············Bales··			579,437
Increase on year before···········Bales··			97,189

Consumption.

Total Crop of the U. States as above·	Bales.	2,944,805
Add —		
Stock on hand at the commencement of the year, Sept. 1, 1856—		
In Southern ports········	20,014	
In Northern ports········	44,157	64,171
Makes a supply of······		3,008,976
Deduct therefrom—		
The Exports to For. ports·2,260,533		
Less Foreign included·······3,269	2,257,264	
Stock on hand Sept. 1, 1857—		
In Southern ports········23,629		
In Northern ports········25,146	48,775	
Burnt at New York and Baltimore···	798	2,306,837
Taken for home use····	·· Bales·	702,139

Quantity consumed by and in the hands of Manufacturers, North of Virginia:

1856–7·······························Bales·702,139
1855–6·······································653,512
1854–5·······································598,292
1853–4·······································610,571
1852–3·······································671,009

Comparative Statement

OF THE TOTAL RICE CROP OF SOUTH CAROLINA AND GEORGIA FOR 1856 AND 1857.

		1857	1856
SOUTH CAROLINA.			
Exported fm Charleston to For. ports·31,270			
Exported fm Charleston Coastwise··89,602			
City consumption for the year·······16,606			
Exported from Georgetown, (S. C.) to New York···········1,100			
Stock on hand Sept. 1, 1857·········1,196			
Tierces···························139,774			
Deduct—			
Received from Savannah, (Ga)···345			
Stock on hand Sept. 1, 1856····1,024	1,369	138,405	142,770
GEORGIA.			
Exported fm Savannah to For. ports··6767			
Exported fm Savannah Coastwise···20,749		27,536	29,907
Total tierces for the year········		165,941	172,677
Decrease························		6,736	Tierces

The City Consumption and Stock on hand the 1st September at Savannah are not included in the above.

Bank Shares and Stocks.

INSTITUTIONS.	Cost.	Pres't. price,	Div'd
Charleston Bank { Old	$100	108 @108½	$4·00
Charleston Bank { New	50	53 @ 54	2·00
South Carolina Bank	45	42 @ ..	1·50
State Bank	25	25 @ 25¼	75
Union Bank	50	44 @ ..	1·50
Planters' and Mechanics' Bank	25	26½@ 27	67½
S. Western R. Road Bank···$25 } South Carolina Rail Road···$100 }	125	116¼@117	5·75
Farmers' and Exchange Bank	25	27 @ 27¼	1·00
People's Bank	25	26½@ ..	1·00
Charleston Insur. and Trust Co	50	53 @ 54	5·00
South Carolina Insurance Co	25	28 @ 28½	3·00
Fireman's Insurance Company	10	10½@ 10¾	60
Gas Light Company	25	20 @ ..	....
State 6 Per Cent. Stock	100	.. @ ..	....
State 5 Per Cent. Stock	100	.. @ ..	....

...qui, and 450 Bengal; thus leaving 1,500 bales of ... to the trade.

The authorized quotations are as follow: *Fair*—B... 9½d; Mobile, 9¼d; New Orleans, 9⅜d.

The small stock here to-day, viz: 281,000 Americ... a total of all kinds of only 346,200 bales, with the l... of the new American crop, which will necessaril... the high prices at which the American season is e... to open, prevent any early and extensive shipments... to this country, appears to give holders increasing... dence, not only in the maintenance of existing, b... in the prospect of still higher prices, so soon as th... again resume active buying. Between this and the... December last year there were taken for export an... sumption 558,760 American, and a total of all k... 819,400 bales.

The change of weather has affected the Grain m... throughout the kingdom, causing more steadines... rally—several having advanced for Wheat, al... millers and dealers continue very shy operators. T... ports of the harvest from all quarters are very satisf... In Liverpool Wheat must be noted without chang... the business transacted has been to a fair extent... is unaltered in value. Indian Corn is 6d to 1s per ... dearer.

The condition of trade in the manufacturing dis... reported as satisfactory, but, with the exception ... Manchester market, there is little change in the va... any article of production. At Manchester, owing p... the continued unfavorable accounts from India, an... advanced prices of cotton in the Liverpool mark... tone of the trade has been quiet, but manufacture... quire an advance of ⅛d to ¼d ₩ lb upon all descri... of goods. Stocks have been well cleared of most d... tions. On the whole there has been a rather consi... business in Yarns, and those suitable for the Russia... kets have advanced in value. It is stated that ma... turers are, to a great extent, getting into a more ... state than ever, through the continuous rise of cott... the Woollen trade there is no alteration to report... interior markets continue steady, and a fair averag... ness has been transacted. The heavier qualities mo... a fair sale, and several shippers purchase extensiv... goods, preparing for the demand of next winter. ... raw material there is no appreciable change in valu... Lace and Hosiery trades are improving, but there is ... absence of demand. The reports from Birminghar... tion that the inquiry for Iron was well sustained, a... contracts were on hand. Copper had been in in... request at a further advance in value. The local... of Birmingham are active, and full employment is ... in all branches.

The British Funds, in the absence of any furthe... from India have been without any particular featu... as will be seen by our fluctuation table, have not ... much during the week. Yesterday the first quot... Consols for money was 90½ to ¾, and after a te... recovery to 90¾ to ⅞, they left off at 90⅝ to ¾. ... new account on the 14th of October the closing pr... 91⅛ to ¼. New Three per Cents were quoted 91... India Stock, 210 to 212, India Bonds, 20s. to 16s. d... and Exchequer Bills, 6s. to 1s. discount. To-day ... were very quiet, and closed for money and the ac... 90⅝ ½. Exchequer Bills were last quoted 5s. d... and the Three-and-a-Quarter per Cents 91⅝.

The following table will show the fluctuations in ... since the 28th ult.

	For Money. Low.	High.	Closing.	For Accou... Low.	High.
Aug. Sat. 29	90⅛	90¼	90⅛	90¼	90⅜
Mon. 31	90¼	90¾	90½	90½	90⅝
September Tues. 1	90⅜	90⅝	90⅝	90¾	90⅞
Wed. 2	90¾	91	91	90¾	90¼
Thur. 3	90½	90⅞	90¾	90⅛	91¼
Fri. 4	90⅜	90⅝	90⅝	90⅝	91¼

IMPORTS AND EXPORTS OF THE UNITED STATE... States has been furnished by the Register of the T... Department with the following interesting statistic... iting the value of foreign merchandize imported i... exported from the United States during the fis... ending June 30, 1857; also the value of domestic ... exported during the same period:

Imports—Specie·····························$1...
Free goods··································5...
Dutiable·····································29...

Total···36...

Foreign exports—Specie ·······················
Free goods ·······································
Dutiable···1...

Total···2...

Domestic exports—Specie························6...
Merchandize·······························27...

Total ··33...

Total exports—foreign and domestic·········36...

Domestic Markets.

COLUMBIA, SEPT. 16.—COTTON—We can o... what we have said for some days past, and that is ... an active demand for all Cotton that is offered at ... according to the quality of the article.

AUGUSTA, SEPT. 16, 4 P. M.—COTTON.—... bales sold to-day at prices ranging from 14¾ t... Very little new Cotton coming forward.

COLUMBUS, SEPT. 16.—COTTON.—There w... ral loads of Cotton in yesterday. The receipts a... to 73 bales, of which 6 were shipped, and 35 sol... to 14¼¢.

NEW ORLEANS, SEPTEMBER 12.—COT... limited receipts of new crop meet with ready sal... prices. About 1200 bales have been sold to-day ...

45; and $5,000 on Thursday at 45.

City Appropriation Certificates have improved, the reported sales comprising $18,500 on Wednesday at 65, 66¼, 66½, 67¼, 67½ and 68; $14,000 on Thursday at 67½ and 68; and $13,500 yesterday at 64⅞, 65, 65½ and 66⅝, the market closing at 65@67.

EXCHANGE—The offerings of Foreign have been copious and the movement has been of corresponding extent, while rates have slightly improved. The sales of Sterling embrace £48,500 on Wednesday at 121@121⅛ for bill of lading and A 1 clear and 122 for bank; £58,500 on Thursday at 121 @ 121⅛ for bill of lading and A1 clear and 121¾ for bank; and £36,500 yesterday at 121⅛@121⅛ for bill of lading and A 1 clear, and 122½ for bank.

The sales of Francs have been on a less liberal scale, embracing 150,000 on Wednesday at 4.78¾ @ 4.77½ for A 1 private and 4.76¼ for first class; none on Thursday; and 200,000 yesterday at 4.76¼ for private.

In German Marks we notice sales of 300,000 yesterday at —. The last sales previously were at 106½ for private and 109¾ for bank.

Sterling may be quoted at 121 @ 121½ for A 1 clear and 122@122½ for bank; and Francs at 4.77½@4.76¼ for private and nominal for bank.

Domestic Exchange has rallied under receipts of currency from New York, the banks checking on New York yesterday at ¼@⅜ ₱ ct discount, against ⅜ on Tuesday, and commercial ruling at ½@½ ₱ cent discount, against ¾ @ ⅞ on Tuesday.

Gold Checks on New York have sold at 1 per cent discount.

CATTLE MARKET.

CHARLESTON TUES

on carried off great thousand
the English capital during
ravages of the disease were
and always alarming. The
the city show that the yearly
om the disease during thirty-
six hundred. The observ-
cautions is inculcated with
edical journals and scientists.

FAIR.—A San Francisco dis-
ys that Mrs. LAURA D. FAIR,
deress, died in prison in that
mber 30.

ERCIAL.

arleston Markets.

RLESTON, MONDAY EVENING,
January 8, 1872.

roved character of the dispatches
on the part of factors, and the
ades improved about ¼ cent ₩
wing no change of note, the de-
e, and the market closed with a
00 bales, viz: 1 at 17, 2 at 17½, 52
18½, 222 at 18¾, 49 at 19, 30 at
9½, 40 at 19¾, 262 at 20, 9 at 20½,
We quote, Liverpool Classifica-
od Ordinary 18@19½ cents; Low
; Middling 20 cents; Strict Mid-

of this grain on the market was
s of Clean Carolina at 7 7-16 cents
ommon to Fair at 6½@7¾ cents;

-There were no sales reported.
109; selling at 110.
ling—Buying at 116¾@117½; sell-
ic—Buying—Sight Checks, at ½ ₩
lling at ¼ ₩ cent. discount.
g at ½ per cent. discount; sell-

verpool, by steam direct, nominal
l on Sea Islands; via New York,
. on Sea Islands; by sail, direct,
nominal on Sea Islands. To Havre,
oastwise—To New York, by steam,
plands; 1 cent on Sea Islands; $2
To Boston, by steam, nominal; by
lb. on Cotton. To Philadelphia, by
lb. on Cotton. To Baltimore, by
₩ lb. on Cotton.

ew York Market.

AUFMAN, No. 25 BROAD-STREET,
ESTON, S. C., January 8, 1872.

ume of the New York market is for
nuary 5th.

urities have been strong, although
on lower than earlier in the week.
amme of the Treasury is as follows:

BIDS FOR GOLD.

ry 17—One Million.
ry 25—One Million.

FFERS OF BONDS.

ry 4—One Million.
ry 18—One Million.

Securities have been devoid of any
uring the past week; sales noticed
s, old 60, new 63¾@63½; Virginia
do. Consolidated 56@57@58½@55;
Missouri Sixes 98½@95½@95; South
50; do. new, January and July, 25
5⅞; do. April and October, 22

t has been strong during the past
a the slightest degree by the stir-
though probably one of the chief
gencies in the activity, and bouy-
market and the changing of loans
pon.
rket has been stringent, and there
enquiry for funds. Borrowers are
bonus in addition to interest.

SECURITIES IN CHARLESTON, S. C.

Corrected Semi-Weekly by A. C. Kaufman, No. 25 Broad-street.

☞ Dealer in UNCURRENT MONEY, BONDS, STOCKS, LAND WARRANTS, GOLD, SILVER AND EXCHANGE.

☞ Collections of COMMERCIAL PAPER, DIVIDENDS, COUPONS &c., on all points in the United States made upon the most favorable terms.

JANUARY 9, 1872.

Names of Securities.	Rate of Interest.	Offered.	Asked.
STATE SECURITIES.			
North Carolina, old	6	..	92
North Carolina, new	6	..	13
South Carolina, old	6	..	..
South Carolina, new	6	..	..
South Carolina, regist'd stock	6	..	..
Georgia, new, (gold)	7	..	..
Georgia, new	7	..	..
Georgia	6	..	..
Tennessee, old	6	..	63
Tennessee, new	6	..	63
Alabama	8	..	95
Alabama	5	..	68
CITY SECURITIES.			
Atlanta, Ga., Bonds	8	..	83
Atlanta, Ga., Bonds	7	..	73
Augusta, Ga., Bonds	7	..	83
Charleston, S. C., Stock	6	..	56
Charleston, S. C., Fire Loan Bonds	7	..	72
Columbia, S. C., Bonds	6	..	60
Columbus, Ga., Bonds	7	..	70
Macon, Ga., Bonds	7	..	73
Mobile, Ala	8	..	80
Mobile, Ala	5	..	58
Montgomery Ala	8	..	82
Memphis, Tenn., Bds. (old)	6	52	..
Memphis, Tenn., Bds. (new)	6	50	..
Memphis Tennessee, Bds. (endorsed)	6	57	..
Nashville, Tenn	6	..	62
Savannah, Ga., Bonds	7	..	86
Wilmington, N. C	8	..	76
Wilmington, N. C., (gold bond)	6	..	72½
RAIL ROAD BONDS.			
Atlantic and Gulf	7	..	80
Blue Ridge (first mortgage)	7	..	50
Central Georgia	7	95	..
Charleston and Savannah	6	..	85
Charlotte, Columbia and Augusta	7	..	82
Cheraw and Darlington	8	..	90
Cheraw and Darlington (2d mort.)	7	..	72
Chesapeake and Ohio (gold)	6	..	94
East Tennessee and Virginia (end'd.)	6	..	68
East Tennessee and Georgia (end'd)	6	..	65
Georgia Rail Road	7	95	..
Greenville and Columbia (1st mort.)	7	..	95
Greenville and Columbia (State guar.)	7	..	58
Greenville and Columbia (2d mort.)	7	..	47
Laurens	7	..	50
Macon & Augusta (1st mort.)	7	..	85
Macon & Augusta (1st mort, guaranteed by Georgia Rail Road)	7	..	92
Macon and Brunswick, guaranteed by State of Georgia	7	..	65
Memphis and Charleston	7	80	85
Mississippi Central (1st mort.)	7	..	85
Mississippi Central (2d mort.)	8	70	75
Mississippi and Tennessee (1st mort.)	7	..	85
Mississippi and Tennessee (consol'd)	8	..	75
Mobile and Girard (1st mort.)	8	88	..
Mobile and Montgomery (gold, 1st mortgage endorsed)	8	..	95
Montgomery and West Point (1st mortgage)	8	85	..
Muscogee (Ga.)	7	85	..
Nashville and Chattanooga (end'd.)	6	..	72
Northeastern, (1st mortgage)	8	..	91
Northeastern (2d mortgage)	8	..	83
Pensacola and Georgia (1st mort.)	7	..	40
Savannah and Charleston (1st mort.)	7	..	73
Savannah and Charleston (State guarantee)	7	..	70
Savannah and Charleston (2d mort.)	8	..	70
South Carolina (1st mortgage)	7	..	85
South Carolina	7	..	67
South Carolina	6	..	67
Spartanburg and Union	7	..	..
Western Alabama (2d mort. end'd)	8	..	93
RAIL ROAD STOCKS.	Par.		
Atlantic and Gulf	100	..	25
Augusta and Savannah	100	..	85
Central Georgia	100	..	110
Charlotte, Columbia and Augusta	100	..	40
[illegible]	100	97	..
Savannah and Charleston	100	..	20
S. Carolina R. R. Company Shares	100	..	34
S. C. Rail Road and Bank Shares	125	..	34
Southwestern Georgia	100	90	..
BANK STOCKS.			
People's National Bank of Charleston	*Capital.* $1,000,000	100	.. 103
First National Bank of Charleston	500,000	100	.. 125
S. C. Loan & Trust Co.		100	.. 100
Carolina National Bank of Columbia	200,000	100	100 ..
Central National Bank of Columbia	$150,000	100	100 ..
National Bank of Chester	100,000	..	.. 105
National Bank of Newberry	100,000	..	.. ..
National Bank of Spartanburg	60,000	..	.. ..
S. C. Bank & Trust Co.	200,000	100	100
Bank of Charleston, S. C.		..	.. 21
Union Bank of South Carolina		50	.. 50
People's Bank of South Carolina		..	.. 4
Planters' and Mechanics' Bank of South Carolina		25	.. 25
Bank of Newberry S. C.		25	.. ..
Bank of Camden S. C.		50	.. ..
Other South Carolina Bank Stocks worthless		..	.. ..
MISCELLANEOUS SECURITIES.			
Charleston Gas Light Company Stock	25	..	20
Charleston City Railway Stock	50	..	54
Graniteville Manufacturing Company Stock	100	114	..
Greenville and Columbia Rail Road Certificate of Indebtedness		..	.. 64
Northeastern Rail Road Certificate of Indebtedness		..	.. 65
Mount Pleasant and Sullivan's Island Ferry Company	100	..	par.
Virginia State Coupons		..	40 ..
Tennessee State Coupons		..	50 ..
City of Murfreesboro Coupons		..	80 ..
City of Nashville Coupons		..	80 ..
City of Charleston Certificate of Indebtedness		..	.. par.
City of Memphis Coupons		..	75 ..
Northeastern Rail Road Preferred Stock		..	.. 38
Spartanburg and Union Rail Road past due coupons		..	.. ..
Charleston & Savannah Rail Road past due Coupons		..	40 ..
EXCHANGE, ETC.			
New York Sight		..	½ off par.
Gold		..	108½ 109½
Silver		..	103 ..
SOUTH CAROLINA BANK BILLS.			
*Bank of Charleston		..	.. ..
Bank of Camden		..	15 ..
Bank of Georgetown		..	1 ..
Bank of South Carolina		..	2 ..
Bank of Chester		..	13 ..
Bank of Hamburg		..	17 ..
Bank of Newberry		..	10 ..
Bank of State of South Carolina, prior to 1861		..	.. ..
Bank of State of South Carolina, issue 1861 and 1862		..	.. ..
*Planters' and Mechanics' Bank of Charleston		..	.. ..
*People's Bank of Charleston		..	.. ..
*Union Bank of Charleston		..	.. ..
*Southwestern Rail Road Bank of Charleston (old)		..	.. ..
*Southwestern Rail Road Bank of Charleston (new)		..	.. ..
State Bank of Charleston		..	8 ..
Farmers' and Exchange Bank of Charleston		..	1 ..
Exchange Bank of Columbia		..	3 ..
Commercial Bank of Columbia		..	3 ..

45; and $5,000 on Thursday at 45.

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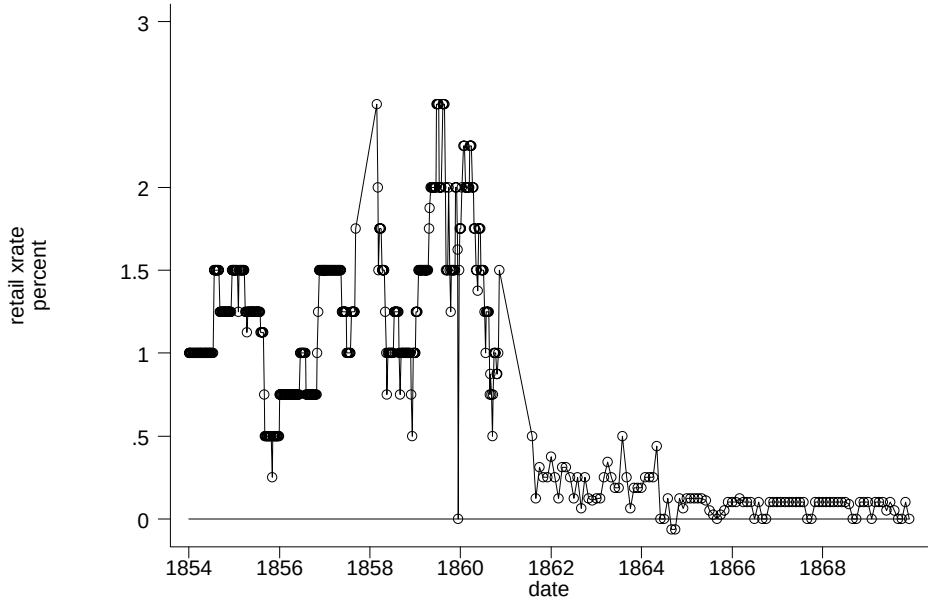
CATTLE MARKET.

Figure 5
Chicago Domestic Exchange Rate



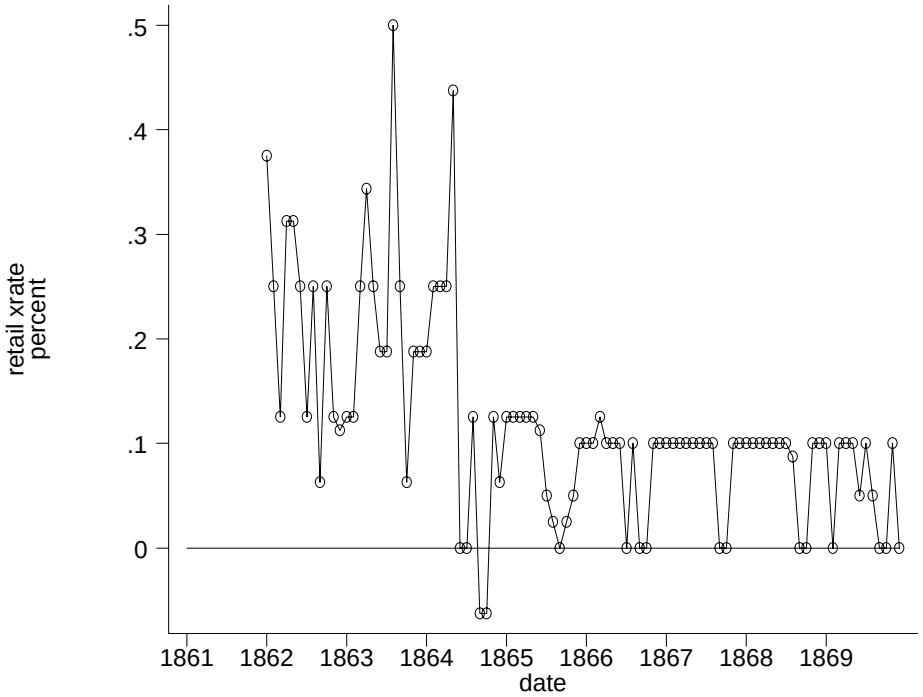


Figure 6
New Orleans Domestic Exchange, 9/1856-8/1860 and 9/1868-8/1873

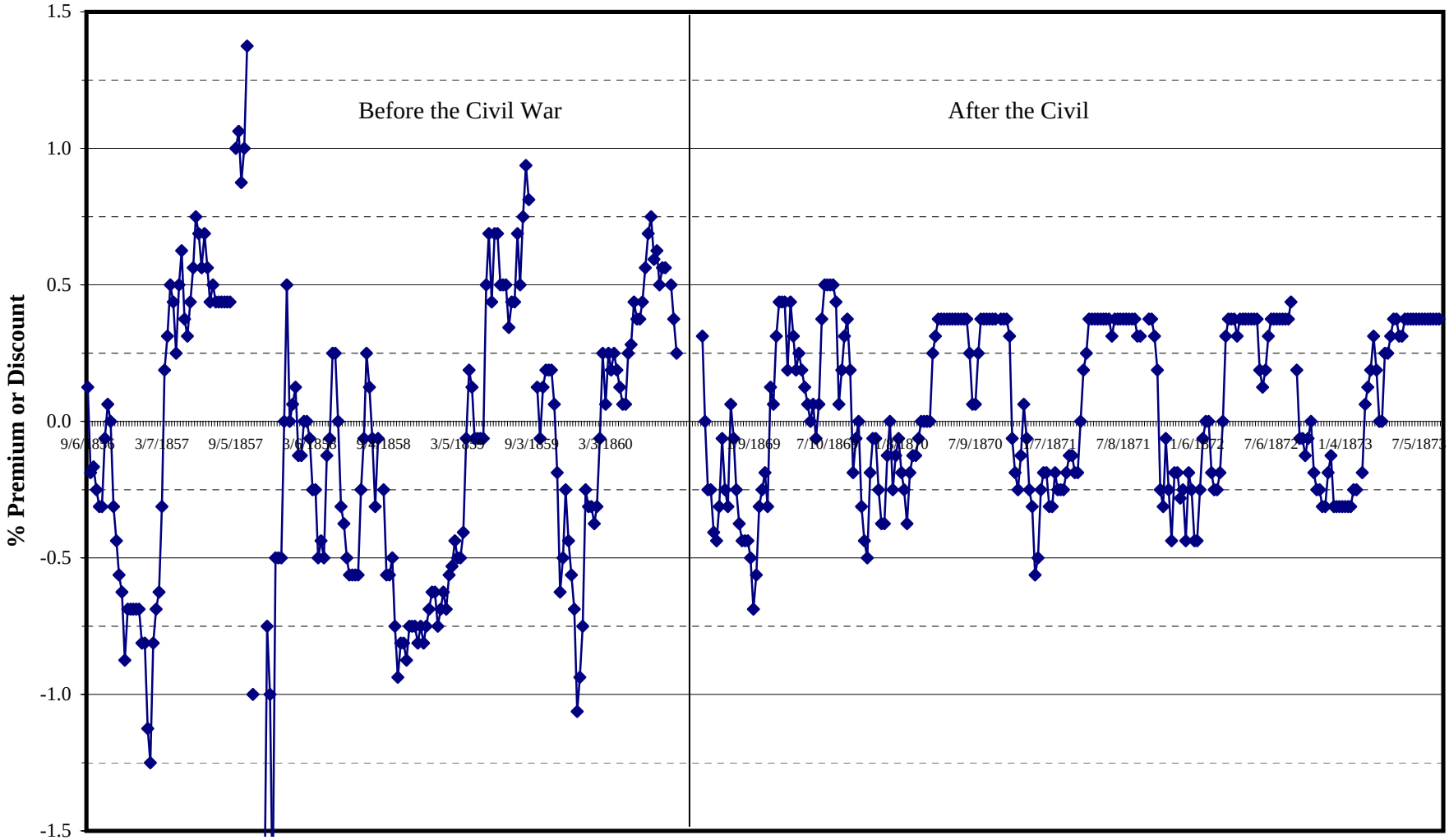


Figure 7
Railroad Freight Rates, 1860-1885