The Political Economy of the U.S. Monetary Union:

The Civil War Era as a Watershed

David F. Weiman

Department of Economics Phone- 212-854-5755

Barnard College Fax- 212-854-8947

3009 Broadway E-mail- dfw5@columbia.edu

New York, NY 10027

John A. James- corresponding author

Department of Economics Phone- 434-924-3525

University of Virginia Fax- 434-982-2904

PO Box 400182 E-mail- jaj8y@virginia.edu

Charlottesville, VA 22904-4182

Session title- Monetary Systems: Transitions and Experiments

Session chair- François Velde

The Political Economy of the U.S. Monetary Union: The Civil War Era as a Watershed

By David F. Weiman and John A. James*

Recent debates over the monetary clauses of the U.S. constitution raise the basic issue of what constitutes a monetary union. The adoption of a common dollar unit of account in 1792 may have been a necessary condition, but, as historical experience showed, its full benefits depended on a central banking-payments authority to enforce this standard (Knodell 1998). Moreover, even the creation of a common currency was not sufficient because of the increasing circulation of bank deposit money through the highly decentralized U.S. banking system (James and Weiman, 2005, 2006). What was needed was a more integrated interbank payments network or payments union. Union fiscal policies during the Civil War era paved the way for a tighter payments union by supplying banks with common and highly portable means of settlement, U.S. Treasury notes, legal tender notes (greenbacks), and bonds. By making liquid markets in these assets, New York banks spurred their diffusion and so acquired a more integral role in the interbank clearing and settlement network.

Our analysis focuses on one segment of the highly decentralized U.S. payments system, the domestic exchange market for bank drafts, that is, checks of banks drawn on their money center correspondents. Through this lens we detail the significant risks and transactions costs in making long-distance payments in the late 1850s and thus the tenuous foundation of the pre-Civil War monetary union. We then present striking evidence of monetary-payments system integration beginning in late 1861, several years before the National Banking Acts created a common bank currency.

I. Making Payments in the 1850s

Despite the common U.S. dollar standard, bank payments instruments – bearer notes and drafts – were much more frequently used than "coin" in internal trade in the 1850s (Colwell, 1860, pp. 135,190). But both were convertible on demand for a par value of specie. Their circulation, however, traced out distinct payments pathways and networks. Issued in convenient round denominations, bearer notes readily passed from hand to hand, but were eventually returned to the issuing bank's office for redemption. Drafts were a bank's check, most often drawn on a correspondent located in a distant commercial center. Like individual checks, they were more suitable and reliable payments instruments for larger value transactions. Although negotiable (or transferable), they were more often immediately deposited for clearing and settlement through the banking system.

Both instruments were regularly bought and sold in local markets, albeit in different segments and locations. Following trade patterns, the bearer notes of "country" or non-metropolitan banks gravitated to regional commercial centers and New York City, the emerging national wholesaling center. There, they were traded and priced in secondary markets, mediated by note brokers, other private bankers, and commercial banks. While initially motivated by the interregional and intertemporal arbitrage opportunities in a more open market, many financial center banks opted for an administered correspondent agreement with country banks. In exchange for a minimum reserve balance, they would redeem (i.e., buy) the notes of their customer banks at a fixed price.

These correspondent balances also supported the circulation of bank drafts, which were increasingly cleared and settled through the local clearinghouses that rapidly diffused across

commercial centers beginning in the mid-1850s. The draft market included a primary segment in which banks routinely bought and sold drafts at the counter to furnish customers with payments services. In addition banks also traded correspondent balances with each other in markets for domestic exchange to settle their clearinghouse accounts and to manage their overall portfolio of clearing reserves. Through the interbank market they converted correspondent balances into vault cash (or vice versa) and so could avoid the transactions costs and risks, including delays, in shipping specie.

II. The Domestic Exchange Market and Payments System Integration

Our analysis of the domestic exchange market draws on the obvious, direct analogy to its foreign counterpart. Consider the Chicago market for New York funds. Although both cities adhered to the same dollar standard, the price of New York funds in Chicago (money) could deviate from the mint parity of one. In agricultural regions like the Chicago area exchange rates regularly increased during the spring planting season and declined after the fall harvest. In normal times when banks honored their convertibility commitment, these fluctuations were bounded by the actual and opportunity costs of shipping specie.

We interpret the variability of domestic exchange rates as a measure of payments-monetary system integration. Wider, less predictable fluctuations in New York rates would increase the transactions costs and risks in making long distance payments and so constitute a potential barrier to interregional trade and capital flows (Garbade and Silber, 1979, pp. 7-8). Conversely, more stable rates implies the greater liquidity of New York funds, that is, greater certainty in the value and timing of payments mediated by New York banks.

This simple framework captures only the quantitative dimension of market integration. In brokering more complex far-flung transactions, U.S. banks in the 1850s confronted myriad local monetary standards, the flip side of the country's localized bank currencies. In a typical example drawn from a contemporary accounting text, a Cleveland bank buys (or discounts) a 90-day note payable in Chicago (funds) and issues the proceeds via a draft drawn on its New York correspondent. To accomplish this, the hypothetical bank conducted successive exchange transactions (converting the Chicago note into Cleveland funds and then Cleveland into New York funds) and so incurred additional transactions costs and compounded exchange rate risks.

Such considerations suggest the quantitative and qualitative criteria for payments system integration. We measure the quantitative by the decreased variability of domestic exchange rates, due to real transport-communications or financial innovations that reduce the costs of remitting good funds over space. Qualitative integration implies the adoption of a common money and hence monetary standard for interregional transactions, that is a national payments instrument and means of payment. In contrast to the textbook notion of a *numéraire*, this criterion corresponds to a formative historical process like the diffusion of a uniform railroad gauge or other standards in a complex spatial-economic network.

III. The Civil War as a Political Economic Watershed

Our main sources on domestic exchange markets are newspaper reports from six commercial centers: Boston, New York, Charleston, New Orleans, Cincinnati and Chicago. They indicate the highly fragmented nature of the U.S. payments system and hence monetary union before the Civil War. As evidenced by the array of quotations, agents could have made or received

payments in instruments of varying maturities, payable in various locations. The most common instrument, or at least most frequently quoted, was a check or draft, issued by a commercial bank and payable on demand by its correspondent in an "Eastern" commercial center. Agents, however, could also buy and sell the checks of private bankers and bills of exchange with maturities ranging from sight (demand), through 1 to 5 days, 5 to 10 days, 10 to 15 days, 30 to 40 days, up to 60 days.

The spatial dimension of domestic exchange markets mirrored each city's wholesale trade connections. In the midwestern and southern cities bank checks or drafts were payable in the major commercial centers along the northeastern seaboard. The *Charleston Courier* quoted rates on New York, Boston, Philadelphia and Baltimore funds. The *Cincinnati Daily Gazette*, by contrast, lumped them together until the Panic of 1857, when rates on these four cities diverged sharply and so were quoted separately. The Cincinnati newspapers also quoted New Orleans rates because of the city's significant southern trade along the Ohio and Mississippi River routes. In the reverse direction, the *Boston Courier* listed rates on New York, Philadelphia, Baltimore, Richmond, North Carolina, Charleston, Savannah, Augusta, Mobile, New Orleans, Cincinnati, and St. Louis exchange, while the *New York Shipping and Commercial List* embraced bank drafts and sight bills payable in virtually every large U.S. commercial center.

To show the variability of pre-Civil War domestic exchange rates, we plot the weekly percentage premium or discount on eastern (or New York) funds in the Cincinnati, Chicago, and New Orleans markets from the late 1850s to the mid-1860s in Figure 1. Even ignoring the Panic of 1857 and the aftermath of Lincoln's election, weekly rates in the three cities fluctuated widely before the Civil War. Given its location on the "prairie frontier," Chicago's fledgling market

exhibited the most extreme variability (as well as vulnerability to these economic and political shocks). Still, in the more established Cincinnati and New Orleans markets, rates could swing by 25 or more basis points from week to week and by 1/2 percentage point and more over the course of the year. The agricultural cycle accounts for some of this variation, especially in the New Orleans market. Nevertheless after controlling for recurrent seasonal patterns, the residual variability in exchange rates was ranged from 17 basis points in the Cincinnati to around 40 basis points in the Chicago and New Orleans markets, which could translate into potentially large losses to agents from mediating domestic exchange transactions over longer time periods and in more complex triangular trades (such as the purchase by Cincinnati agents of New York bills in the New Orleans market).

By both of our criteria the Civil War era constituted a watershed in the formation of a more integrated payments system and monetary union. Beginning in the early 1860s we observe an increasing standardization in the payments instruments used in long-distance transactions. Over the next decade in every city save Cincinnati this process would converge on a single standard, a sight draft payable in New York. In other words, New York drafts would become a truly national payments instrument, and New York balances, a national means of payment. The Cincinnati reports continued to quote rates on all northeastern money centers through the early 1870s, but as discussed below it only detailed the complex transactions between Cincinnati banks and their New York correspondents.

Even more striking is the dramatic decline in the levels and variability of exchange rates in the Cincinnati and Chicago markets by the second half of 1861 (see Figure 1). Average rates on eastern exchange in Chicago fell by almost 90 percent after mid-1861 and then again by 2/3 after

mid-1864. The timing and magnitude of the decline in the Cincinnati market are roughly similar. The maximum sell rates dropped from around 1/2 percent before the Civil War to 1/4 percent in August 1861 and to only 1/10 percent by 1864. We illustrate this point through regression analysis based on the weekly data. Controlling for seasonality (via monthly dummy variables) and excluding the panic periods, we find that the "unpredictable" variation in exchange rates diminished by 56 percent in Cincinnati and over 75 percent in Chicago and New Orleans.

An obvious explanation for the diminished variability in exchange rates is an equally dramatic decline in the cost of shipping funds to and from eastern markets. Reports in the Cincinnati paper corroborate this hypothesis, but identify a novel cause tied directly to Union fiscal policies. According to this source, in the late 1850s the cost of shipping and "assorting" the vast array of country banks currencies was around 3/8 percent and constrained banks' domestic exchange transactions in distant markets. By January 1862 if not earlier, banks had found a simpler, cheaper means to transfer funds across space, buying and shipping U.S. government obligations and, later, legal tender notes. Shipping Treasury notes, the *Cincinnati Daily Gazette* (January 10, 1862) reports, "costs one-tenth [of one percent] only," or only around 25 percent of the pre-Civil War level. "Under the present currency system," the article observes, "exchange cannot go much below par. Some heavy remittances of Treasury notes will regulate that part of the business." Likewise, in September 18, 1863 the report asserts that the "National currency ... regulates the price of exchange. If we had no such currency, exchange would be much higher than it is at present."

This rich source also helps to explain the greater centrality of a New York correspondent and New York domestic exchange at the very onset of the Civil War. Unlike banks in Philadelphia

and especially Boston, only New York correspondents (and the "sub-Treasury") readily accepted "demand Treasury notes, without regard to the place of payment" and so rendered these notes a more liquid instrument for settling interbank claims (January 3, 10 and February 28, 1862). Several years later its daily report observes that local banks had found an alternative, even more lucrative reserve asset, "7-30s" Treasury bonds. They yielded higher interest rates than correspondent balances (5 instead of only 4 percent) but could also be "turned into cash at short notice" (March 16, 1866; June 5, 1868). As the articles also make clear, Cincinnati banks' securities transactions were exclusively mediated by their New York correspondents, as New York banks had acquired the vast majority of U.S. bonds and formed a more liquid market in Treasury securities.

IV. Conclusion

As the current conditions in the Eurozone illustrate, the full benefits of a monetary union depend critically on the formation of a seamless payments system (The Economist, 2006). In the U.S. case this complementary payments union would await the direct intervention by the Federal Reserve in 1918. Nevertheless substantial progress toward a more perfect payments union was made in the nineteenth-century United States without explicit private or public coordination. This earlier stage of payments system integration illustrates the importance not only of a common currency like the Euro, but also of complementary fiscal policies which created a common means of interbank settlement and a secure secondary reserve asset. It also shows the integral role of money center banks, in this case in New York, in forging a more integrated, liquid money market.

REFERENCES

Colwell, Stephen. 1860. *The Ways and Means of Payment: A Full Analysis of the Credit System, with its Various Modes of Adjustment*. Philadelphia: J.B. Lippincott & Co.

The Economist. 2006. "Stick Beats Carrot," February 2.

Garbade, Kenneth D., and William L. Silber. 1979. "The Payments System and Domestic Exchange Rates: Technological versus Institutional Change." *Journal of Monetary Economics*, 5(1): 1-22.

James, John A., and David F. Weiman. 2006. "From Drafts to Checks: The Evolution of Correspondent Banking Networks and the Transformation of the U.S. Payments System." Unpublished.

James, John A., and David F. Weiman. 2005. "Towards a More Perfect Payments Union: The Civil War as a Second American Revolution." Unpublished.

Knodell, Jane. 1998. "The Demise of Central Banking and the Domestic Exchanges: Evidence from Antebellum Ohio." *Journal of Economic History*, 58(3): 714-730.

FOOTNOTES

* Weiman: Department of Economics, Barnard College, 3009 Broadway, New York, NY 10027 (e-mail: dfw5@columbia.edu); James: Department of Economics, University of Virginia, PO Box 400182, Charlottesville, VA 22904 (e-mail: jaj8y@virginia.edu).

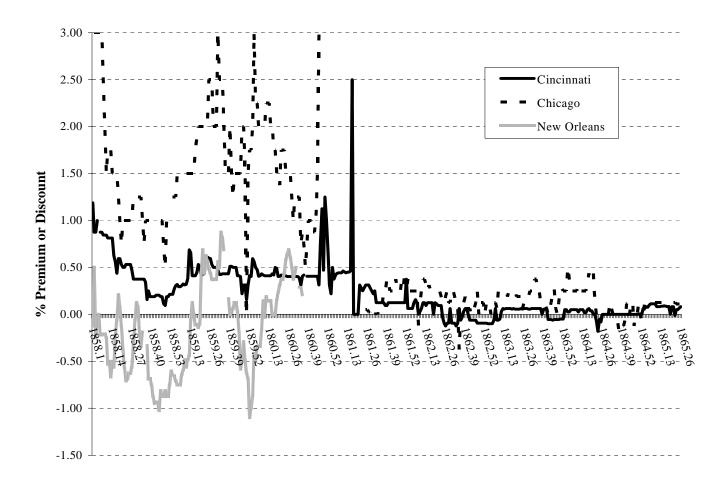


Figure 1: Domestic Exchange Rates in Chicago, Cincinnati, and New Orleans, 1858 through June 1865