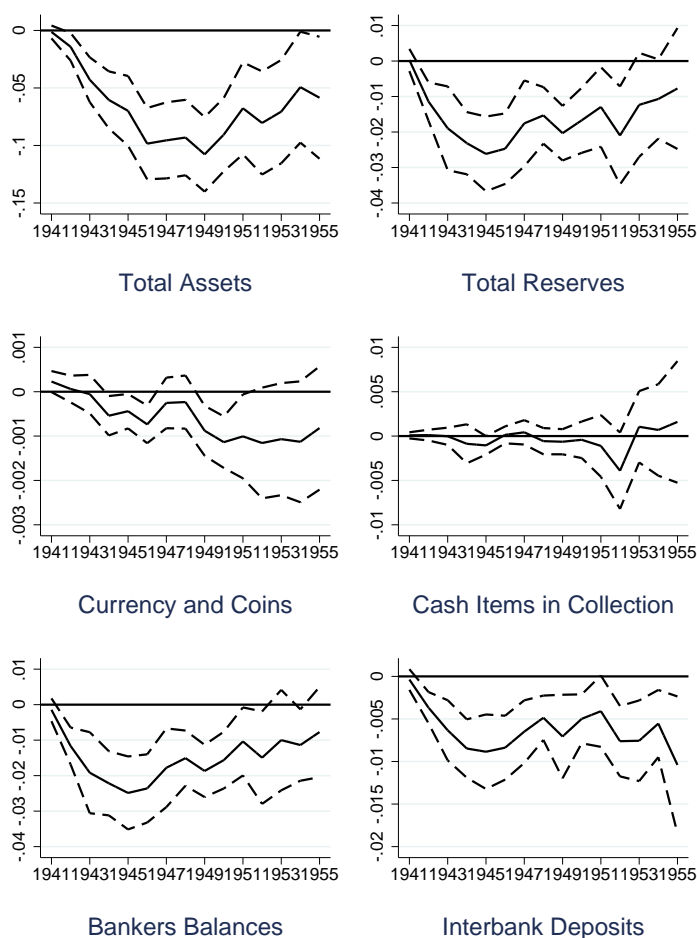


G Appendix G: The Components of Reserves

G.1 Some Additional Empirical Evidence on the Behavior of Reserves

This appendix is intended to map out the changes in reserves in response to war contracts in more detail. As is mentioned in the main paper, what I call reserves is made up of three components: total currency and coin, cash items in the process of collection and bankers balances. Figure 1 shows the response of the components of reserves. As the reader can see from the figure, slower growth in banker's balances are driving the overall response of reserves. The response of total assets is included for reference.



Dashed lines are 95% confidence intervals.

Figure 1: The Response of the of Reserve Holding in response to WWII Contract Spending

I have also included the response of interbank deposit liabilities from the main text for reference and to make one point about the response of reserves. Interbank deposits are the supply side and bankers balances are the demand side of the interbank deposit market. There is a large difference in the demand side and the supply side response to war spending. This difference is likely attributable to the fact that banks also held deposits at Federal Reserve banks¹. The total response of bankers balances is largest in 1946 at -2.4 cents per dollar of contract spending. Privately supplied interbank deposits account for less than half of the total response. What is also striking is that the decline in privately held interbank deposits is permanent in a way that the other responses of the subcomponents of reserves are not. However, this change in interbank deposits is still relatively small, accounting for only around 10% of the change in total deposits.

G.2 Historical Evolution of Interbank deposits and Treasury Holdings

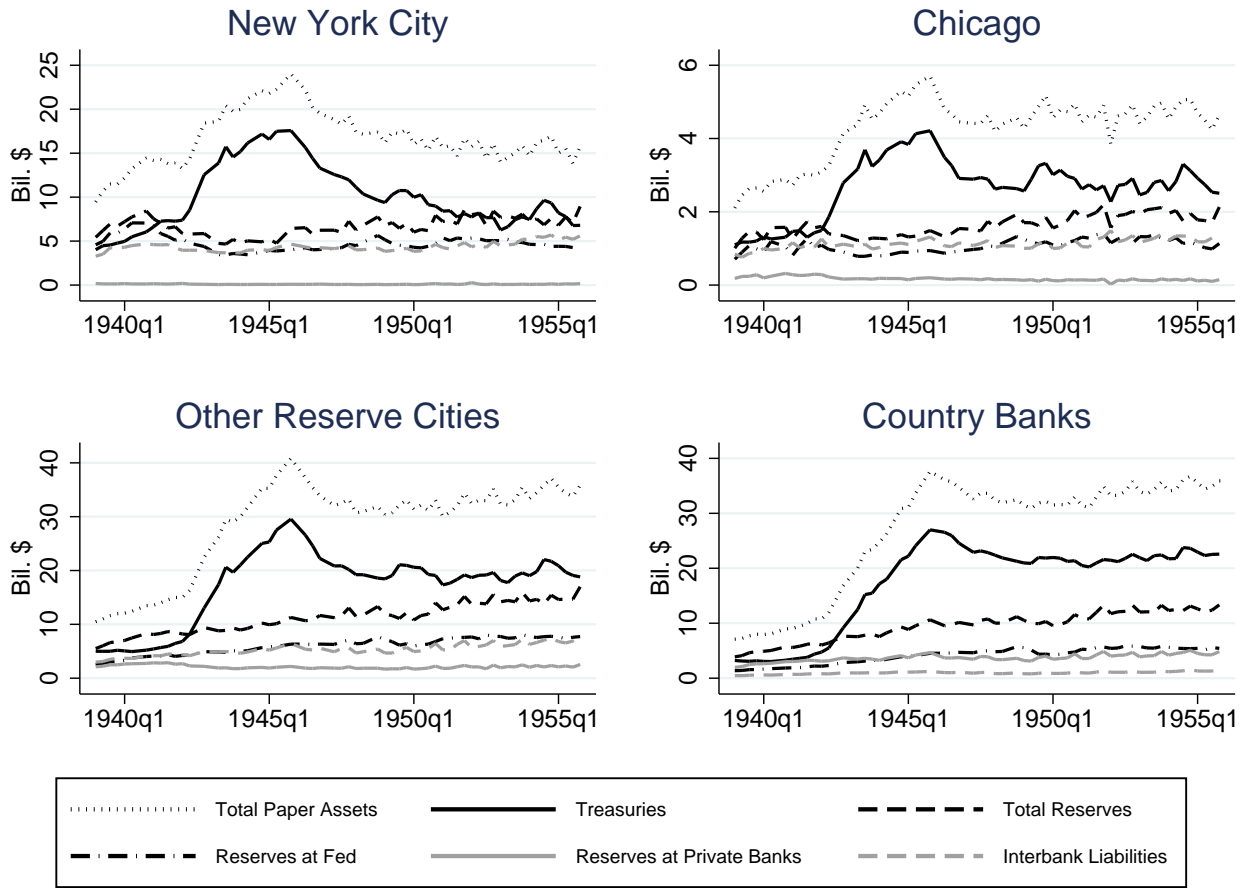
Figure 2 shows the evolution of paper assets for member banks from 1939Q1 to 1955Q4, by class of bank. It is plausible that the large influx of Treasury Bonds—sold to bond dealers primarily based in New York—would reinforce traditional correspondent relationships. More broadly, since reserve cities are likely to also be manufacturing centers the interaction between bond demand and interbank deposit relationships could be a potential source of endogeneity.

As Figure 2 shows, however, there seems to be very little relationship between interbank deposits and Treasury purchases for all classes of national banks. Once the government began large scale borrowing in mid 1942 all classes of member banks absorbed Treasury debt at a rapid rate. Relative to the large increase in Treasury holdings between 1942 and 1945 interbank deposit liabilities, reserve assets held in other private banks and reserves held at Federal Reserve Banks changes little.

This is a function of two main, reinforcing phenomenon. First, the 1933 prohibition on interest rates paid on demand deposits sprung directly—though misguidedly—from a desire to suppress interbank deposits (Cox, 1967). While interest rates on Treasury bonds were capped during the war, their interest rate was still higher than zero. Banks availed themselves of longer term bonds (Meltzer, 2003) because the rate cap of 2.5% also meant that holders were protected from interest rate risk, adding to long term bond’s liquidity. Time deposits, another type of interbank funds that paid interest rates were likely more competitive, but lacked the liquidity of Treasury bonds. At any rate, interbank time deposits held by member banks, a small portion of overall interbank deposits generally, begin to shrink in absolute

¹These are not recorded separately in the source data

%captionsetupjustification=centering



Source: Supplement to Banking and Monetary Statistics. Section 2, Table 1-5

Figure 2: Selected Paper Assets and Interbank Liabilities of Member Banks 1939-1955

size from 1940 to 1949².

The second reason for the likely relative decline in importance of bankers balances as a source of liquid assets is that Treasury bond markets were fully national in scope. The government, both the Treasury and Fed, dealt directly with a small group of bond dealers in New York City. However, these firms had national networks of branch offices and regional dealers. The telegraph and telephone were the underlying technology that allowed these networks to form and WWI provided the market for such an expansion (Garbade, 2012). This network sprang into action in support of the Second World War. The Federal Reserve system was also a relatively decentralized network for the distribution of Treasury Bonds. Banks, of course, also bought and held bonds through traditional correspondent networks,

²See Figure 2 for source.

but these networks competed with other ways for banks to acquire or unload Treasury debt (Garbade, 2016).

The historical record points to the fact that interbank holdings of Treasury bonds do not play a significant role in determining reserve and deposit holdings. The historical record also points to the fact that measured state level Treasury holdings are, generally, direct holdings. Most convincingly, the prohibition of interest on demand deposits likely drove banks to minimize interbank deposits generally in the face of a glut of an alternative highly liquid but interest bearing asset. The reduction in importance of traditional banking relationships due to the parallel national market in Treasury bonds likely reinforced this phenomenon.

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