Vol. XXXIX No. 10

*ECONOMIC EDUCATION BULLETIN*

October 1999

Published by

AMERICAN INSTITUTE *for* ECONOMIC RESEARCH

Great Barrington, Massachusetts 01230

# The Reserve-Requirements Tax

**by John H. Wood***

Commercial banks around the world are required to keep cash reserves on their premises or on deposit with their central banks. This sounds like a plausible and even beneficial regulation because institutions with liabilities payable on demand ought to be prepared to meet unpredicted withdrawals. But a little thought brings the realization that a "reserve" is not a reserve if it is required so that it cannot be used. Required reserves may not be paid out without breaking the law and incurring penalties. The only true cash reserves are those held beyond requirements. These are called "excess" reserves in the sense that they exceed legal requirements. But they do not exceed bank needs or desires.

In fact, reserve requirements are a tax, and have always been a tax. They were introduced to the national scene in the National Bank Act of 1863, which was first of all a war finance measure. Income and excise taxes had not kept up with military needs, and the contestants had resorted to large-scale borrowing and the issue of fiat legal-tender currency—called Greenbacks in the North. This money depreciated rapidly and interest on Government debt rose, problems that Secretary of the Treasury Salmon Chase proposed to alleviate through the medium of nationally chartered banks (see the box).

### *The National Banking System*

The Act of 1863 established the Comptroller of the Currency to charter and regulate "national" banks to be required to hold coin or Government currency as "reserves" and to issue their own currency on the security of Government bonds. The Act thus manufactured demands for Government currency and bonds. Reserve requirements for national banks are shown in Table 1. Under the original Act, "Country" banks were required to hold reserves of at least 15 percent of their deposits—although three-fifths might be kept with national banks in seventeen "reserve" cities. This recognized the practice by which banks in smaller communities kept deposits with urban banks. Reserve City banks had a reserve requirement of 25 percent, of which, for those outside New York City, up to half could be kept with national banks in the metropolis. All the latter's reserves had to be in "lawful money," that is, gold, silver, and Greenbacks.

Although the secession of the most ardent advocates of states' rights had improved the chances of centralization, Congress rejected Chase's initial proposals for a national banking system. He repeated them in his annual report of December 1862, and persuaded the president to include a plea for them in his annual message to Congress the same month. The fight for the bill in the Senate was led by Chairman John Sherman of the Finance Committee. After praising the economic benefits of a uniform currency, he appealed to his colleagues' patriotism:

> But, sir, there is a still higher motive for the passage of this bill. It will promote a sentiment of nationality. There can be no doubt of it. The policy of this country ought to be to make everything national as far as possible; to nationalize our country, so that we shall love our country. If we are dependent on the United States for a currency and a medium of exchange, we shall have a broader and a more generous nationality. The want of such nationality, I believe, is one of the great evils of the times. This doctrine of State rights, which substitutes a local community—for, after all, the most powerful State is but a local community—instead of the United States of America, has been the evil of the times; and it is that principle of State rights, that bad sentiment that has elevated State authority above the great national authority, that

* Dr. Wood is Reynolds Professor of Economics at Wake Forest University and an AIER Faculty Associate.

has been the main instrument by which our Government is sought to be overthrown. (U.S. Senate, February 10, 1863)

Sherman's speech should not be regarded as simply an appeal to the passions of the day. The Civil War was about more than slavery. It established the legal supremacy of the national Government, and perhaps more important for future financial arrangements, the higher morality of that Government and the greater virtue of citizens' attachments to and dependence on it than on narrower communities. But resistance was strong even in the desperate winter of 1862-63—after McClellan's dismissal in November, Burnside's disaster at Fredericksburg in December, and Grant's initial failures against Vicksburg. Almost all Democrats and several Republicans opposed the bill, and delayed its consideration for several weeks, but it passed the Senate by a vote of 23-21 and the House by 78-64 in February 1863.

> It will be seen at a glance that the amount to be derived from taxation forms but a small portion of the sums required for the expenses of the war. For the rest, the reliance must be placed on loans....
>
> It affords just occasion of gratulation that under the most embarrassing circumstances of shaken credit and immense demands, loans have been effected...to the amount of one hundred and ninety-seven millions of dollars...at an average rate...of somewhat less than six and a half percent.
>
> This rate of interest is, however, higher than the United States, with their vast and accumulating resources, ought to pay....
>
> To enable the Government to obtain the necessary means for prosecuting the war to a successful issue, without unnecessary cost, is a problem which must engage the most careful attention of the legislature....
>
> The circulation of the banks of the United States, on the 1st day of January, 1861, was...$150,000,000, in round numbers. The whole of this circulation constitutes a loan without interest from the people to the banks...; and it deserves consideration whether sound policy does not require that the advantages of this loan be transferred, in part at least, from the banks, representing only the interests of the stockholders, to the Government, representing the aggregate interests of the whole people.
>
> —*Annual Report of the U.S. Treasury, 1861.*

The National Banking System got off to a disappointing start because of the easier regulations of the states, including lower reserve requirements. Existing banks preferred their state charters. So in March 1865, to eliminate the competition of the state banks in the supply of currency, Congress levied a 10-percent per annum tax on their outstanding notes. Most banks switched to national charters, and between June 1865 and June 1866, the ratio of national to state banks turned from 467/1,089 to 1,294/349.

Like many other anti-competitive regulations, the new system was advanced in the interests of "uniformity." The "uniform currency" of national bank notes secured by United States bonds was declared superior to the chaotic system of hundreds of competitive state bank currencies then prevailing. The same reason is advanced for the euro. Let us hope that this international currency monopoly will not lead to the same depreciation as its national predecessors. Preserved by the state banks for seventy years, the dollar's purchasing power has depreciated 90 percent under national control.

In fact, national bank notes never comprised the majority of the currency because the Government's Civil War Greenbacks were never retired. They reached their peak of 32 percent of the currency in 1913, when they began to be phased out in favor of Federal Reserve notes—and the "uniform currency" is now entirely the Government's. This is the currency in which bank reserve requirements must now be held.

### *The Politics and Economics of Crisis, Reform, and Regulation*

The Civil War was not the only occasion that permanent reforms/regulations were imposed under the cloak of emergency. The economy is still struggling against the New Deal banking and securities regulations adopted in the midst of the political hysteria that accompanied the Great Depression. As with all burdensome regulations, the objects of reserve requirements have worked to alleviate them by softening legislation and regulation and through evasion.

Reserve requirements are a particularly unfortunate tax. By reducing the profitability of bank deposits, they drive a wedge between saving and investment. Banks offer fewer services and lower interest rates for deposits and charge higher rates on loans. A 20-percent reserve requirement reduces the value of deposits by one-fifth. Resort to reserve requirements by developing countries because of their inability to collect other taxes has been cited as a major form of financial repression and a significant impediment to growth.[1] Reserve require-

[1] Ronald McKinnon and Donald Mathieson, "How to Manage a

ments impinge on the solvency as well as the liquidity of banks. Government interest-bearing securities would be better for their profits and capital. Being claims to cash, they are as safe as cash. But to accept interest-bearing securities as required reserves would defeat their purpose as a tax.

Table 1
**Reserve Requirements of National and Other Federal Reserve Member Banks**
(Simplified; percentages on selected dates)

| | Demand deposits | | | Time deposits | |
|---|---|---|---|---|---|
| | *Central Reserve City* | *Reserve City* | *Country* | *All banks* | |
| 1863 | 25 | 25 | 15 | Same as demand | |
| 1913 | 18 | 15 | 12 | 5 | |
| 1917 | 13 | 10 | 7 | 3 | |
| 1937 | 26 | 20 | 14 | 6 | |
| 1948 | 26 | 22 | 16 | 7.5 | |
| 1970 | 17.5 | 17.5 | 13 | 5 | |
| | *Large banks* | *Small banks* | | *Personal* | *Non-personal* |
| 1980 | 12 | 3 | | 0 | 3 |
| 1992 | 10 | 3 | | 0 | 0 |

Sources: Federal Reserve Board, Bulletin (monthly), Banking and Monetary Statistics, 1914-41, 1941-70, and Annual Statistical Digests.

The costs of reserve requirements to banks and depositors and their benefits to the Treasury are directly related to interest rates. The higher are interest rates, the greater is the loss of income from the compulsion to keep interest-free cash, and the greater are the savings to the Treasury by the substitution of currency for interest-bearing securities. The effects of changing interest rates on the efforts of banks, the Treasury, and Congress to advance their respective interests through changes in reserve requirements are described below. The inverse relationship between reserve ratios and interest rates is shown in Chart 1. It is a case study of the technical as well as the political difficulties of regulation. Taxes and regulations are harder to enforce than to pass.

### *Panics, Interest Rates, and Reserve Requirements*

The history of reserve requirements in the United States may be divided into two parts. First, there were two jumps in requirements for reasons of public policy: during the Civil War, when the Government introduced national banks to bolster the demand for Greenbacks, and 1936-37, when the Federal Reserve tried to reduce excess reserves to secure control of the money stock. In the latter instance the higher ratio was maintained through another period of large federal deficits (before and during World War II) and into the inflations following that war and accompanying the Korean War. But the longer, less dramatic, part of the story recounts reductions in reserve requirements in response to rising interest rates. These reductions were achieved in several ways: by bank lobbying of Congress for changes in the law (which met with success in the Federal Reserve Act of 1913 and the Monetary Control Act of 1980) and of the Comptroller and the Federal Reserve for lower requirements under the law and laxer enforcement of those requirements, by shifting deposits from high to low requirements (from demand to time after 1913), and by exchanging national charters for state charters with lower requirements.

The tax on state bank notes spurred the growth of deposit banking, which made the tax irrelevant and lessened the advantages of national charters. The forty years following 1873 saw a series of proposed and actual legislative and regulatory changes intended to raise the attractiveness of national charters and preserve the domain of the Comptroller of the Currency. Most of these actions closely followed the financial panics of 1873, 1884, 1893, 1901, and 1907. Each crisis featured losses of bank reserves, resort to the private manufacture of reserves in the form of clearing house certificates, and sharp increases in bank failures and interest rates.

The reserve requirement on national bank notes was reduced in 1874, and in 1887 the Comptroller was given authority to increase the numbers of "central reserve cities" and "reserve cities" to allow more urban banks to compete for the required balances of Country Banks. In 1894 a sympathetic Secretary of the Treasury proposed the repeal of reserve requirements on the ground that

> To provide for a reserve which cannot be utilized even at a time of the greatest stringency and distrust without incurring the penalties of forfeiture, affords a most striking illustration of the impolicy of legislative interference with the natural laws of trade and finance. (*Annual Report*, p. lxxx)

In 1908 the Aldrich-Vreeland Act provided for the emergency issue of notes secured by private and municipal securities and eliminated the reserve requirement on government deposits. The latter provision legalized a 1902 response of the Secretary of the Trea-

Repressed Economy," Princeton University *Essays in International Finance*, No. 145, Dec. 1981.

sury to the panic of 1901. The incidence of reserve requirements varied with the assiduousness of the regulators. Thomas Kane, a long-time official of the Comptroller's office, wrote that in 1908

> ...probably seventy-five percent of the examiners' reports, and about the same percentage of reports of condition made by the banks, disclosed violations of the law of one kind or another, making it necessary to write letters to that number of banks.[2]

Comptroller Lawrence Murray did not think these letters were necessary. He told a bankers' group in 1909 that

> ...he did not intend to write them any annoying letters criticizing non-essentials in the management of their banks; and he gave directions to the office force that no letters should be written to the banks which were calculated to annoy them....
>
> As a reason for not criticizing deficiencies in reserve, Mr. Murray stated that the United States was the only country in the world that had such a foolish law, that the banks complained of its hardship, and that he did not propose to require them to observe it. (Kane, pp. 368-71)

Small-town bankers continued their resistance to national regulation, and the passage of the Federal Reserve Act depended on letting them have their way. Membership of state banks in the Federal Reserve System was made voluntary. The Act also gave national banks, whose membership was required, substantial reserve-requirement concessions—across-the-board cuts in ratios on demand deposits and a much larger cut for time deposits, which previously had the same ratios as demand deposits (see Table 1).

So the Federal Reserve Act was in part another manifestation (this time a response to the panic of 1907) of downward pressures on reserve requirements. Officials tried to minimize the Act's impact by appealing to the state banks to give up their lower state reserve requirements in favor of Federal Reserve membership. President Wilson made membership a patriotic act in time of war:

> It is manifestly imperative that there should be a complete mobilization of the banking reserves of the United States....
>
> May I not, therefore, urge upon the officers and directors of all non-member State banks and trust companies, which have the required amount of capital and surplus to make them eligible for membership, to unite with the Federal Reserve System now and thereby contribute their share to the consolidated gold reserves of the country.... I believe that cooperation on the part of the banks is a patriotic duty at this time, and that membership in the Federal Reserve System is a distinct and significant evidence of patriotism.[3]

But its high reserve requirements and other costs (such as capital requirements) made Federal Reserve membership particularly expensive in a period of high interest rates. A small-town banker told the American Bankers Association meeting in Nashville:

> I do not think it is any more necessary for me to join the Federal Reserve System to show my patriotism than it is for me to go down to one of these hotels and let them charge me three and a half dollars for a plate of soup.[4]

By June 1917, only 53 of 18,725 state banks had joined the Federal Reserve System, and the number of national banks had grown only 2 percent since June 1913, compared with 11 percent for state banks. Another cut in reserve requirements helped somewhat: the number of state member banks rose ten-fold in the 12 months following June 1917, and by June 1922 numbered 1,648, or 8 percent of all state banks. But this was the highest point before interest rates plummeted in the 1930s.

One of the greatest effects of the Federal Reserve Act on bank reserves was the incentive that it provided to substitute time for demand deposits. Several states had no reserve requirements in 1913, and several others had lower requirements for time than for demand deposits. So it is not surprising that time deposits as a percentage of total national bank deposits rose substantially between 1913 and 1929, from 23 to 43, while the comparable percentage in state banks was little changed, from 61 in 1913 to 59 in 1929. Much of this growth was a genuine response to the greater spread between interest rates on time and demand deposits owing to the increased profitability of the former. But much was due to bank evasions of the higher reserve ratios on demand deposits by simply reporting them as time deposits. This practice was a continuing concern to Federal Reserve officials, who viewed

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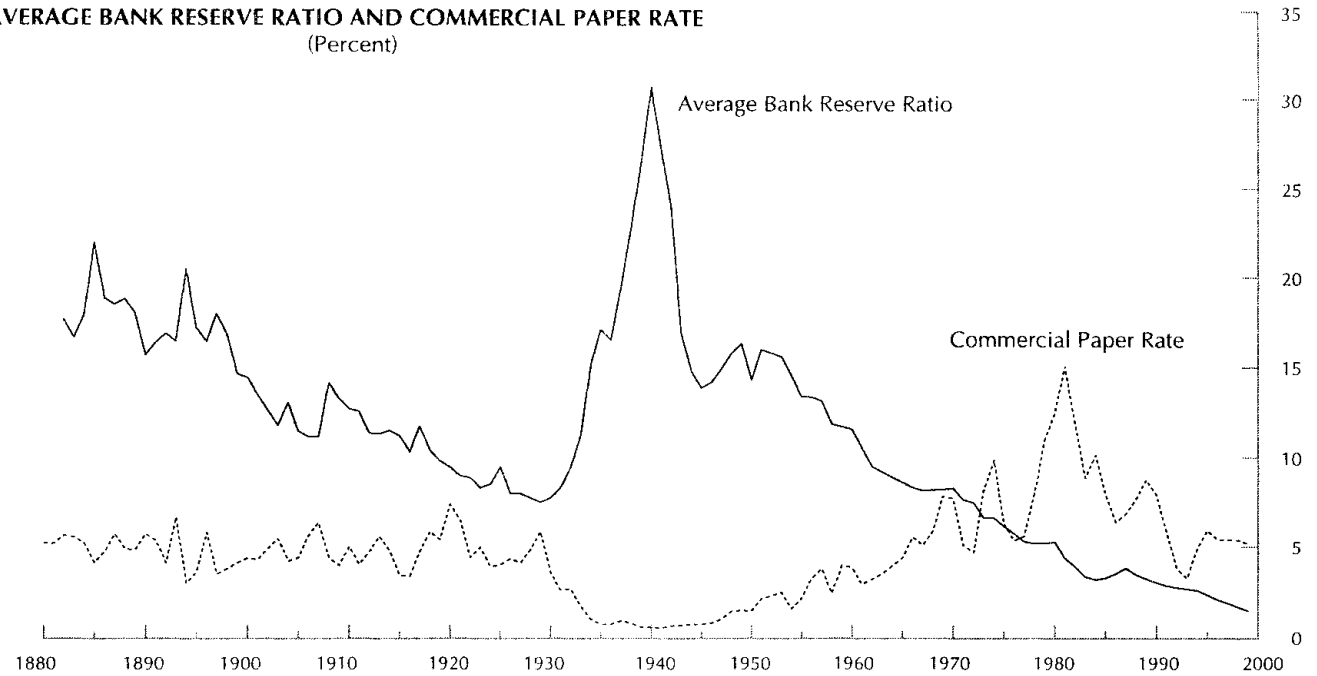
[2] Thomas Kane, *The Romance and Tragedy of Banking: Problems and Incidents of Governmental Supervision of National Banks*, New York, Bankers Publishing Co., 1922, p. 366.

[3] Letter to non-member banks, October 13, 1917; W. P. G. Harding, *The Formative Period of the Federal Reserve System*, Boston, Houghton Mifflin, 1922, pp. 83-84.

[4] Charles Tippetts, *State Banks and the Federal Reserve System*, New York, Columbia University Press, 1929, p. 118.

Chart 1
**AVERAGE BANK RESERVE RATIO AND COMMERCIAL PAPER RATE**
(Percent)




> ... with grave concern the weakening of the reserve position of the banks of the country due to the constantly growing tendency to transfer what are in effect demand deposits into so-called time certificates or savings accounts...[5]

Similar effects were achieved in the 1970s through automatic transfer services by which interest-earning time deposits were automatically "swept" into zero-interest demand deposits when the latter fell below specified levels.

Reductions in required reserves at the federal level induced competitive responses by state banking authorities. Requirements were lowered in fifteen states during 1914-15 and in twelve states between 1917 and 1928. This helped to maintain the relative importance of non-member banks throughout the 1920s—about 65 percent of banks in number and 27 percent in deposits.[6]

### *High requirements, 1936-51*

The Banking Act of 1935 gave the Federal Reserve Board powers over reserve requirements that it used vigorously until they were taken away in 1980. Requirements were doubled in 1936-37, and remained near those levels into the 1950s. The destabilizing effects of these changes have been analyzed extensively.[7] Equally interesting is their political possibility. In view of the history of banker pressures for required reserve reductions in periods of high interest rates, which as we have seen were frequently accommodated by legislators and regulators, it is not surprising that Treasury desires for high requirements were realized to their greatest extent during the period of highest federal deficits (in real terms and as a percent of GNP) and lowest interest rates in American history.

### *Falling Requirements Since 1953*

Falling interest rates in the 1930s reduced the cost of Federal Reserve membership, and by 1941 only 54 percent of banks (with 13 percent of deposits) remained non-members. This development was helped by the greater failure rate of state banks during the Great Depression, but the percentages were still 54 and 16 in 1960. However, high interest rates in the succeeding decades raised the cost of membership, and by 1978 the number and deposits of non-member banks were 62 and 28 percent of all banks. This "membership problem" worried Federal Reserve officials, who argued that high membership was necessary to the effectiveness of monetary policy, and induced them to lower the cost of membership by reducing reserve requirements. Despite the intellectual triumph of Keynesian activism,

[5] From agenda prepared by Governor George Harrison of the Federal Reserve Bank of New York for a 1927 Conference of Federal Reserve Bank Governors; quoted by Milton Friedman and Anna Schwartz, *A Monetary History of the United States, 1867-1960*, Princeton, NJ, Princeton University Press, 1963, p. 277n. Also see the Federal Reserve Board *Annual Report*, pp. 271-74, for a discussion of the evasions occasioned by the lower reserve requirements on time deposits.

[6] Eugene White, *The Regulation and Reform of the American Banking System, 1900-1929*, Princeton, NJ, Princeton University Press, 1983, pp. 142-49.

[7] William Dewald, "Depository Institutions Hold No *Excess* Reserves," Federal Reserve Bank of St. Louis *Monetary Trends*, Feb. 1996, p. 1.

in monetary as well as fiscal policy, and the almost equal billing of variable reserve requirements with discount rates and open market operations as tools of monetary policy, only twice, in January 1968 and April 1969, were required ratios raised (and then very slightly) after 1951, that is, after interest rates had approached their pre-depression levels.

Commercial bank pressures on Congress and the Federal Reserve to lower and restructure reserve requirements have been effective. The groundwork was laid in the 1940s when bankers complained that changes in reserve requirements were an inappropriate policy tool because they placed an unfair portion of the burden of fighting inflation on banks. The First National City Bank of New York pointed out that

> The stated reason for authorizing increases in the reserve requirements at this time was "to enable the Federal Reserve System to acquire more—if necessary many more—long-term government securities to maintain the long-term yield level." In this way, Chairman McCabe of the Federal Reserve Board stated, "new reserves created by such System purchases could be absorbed through increases in reserve requirements and thus be unavailable for multiple credit expansion."
>
> By this "solution" the Federal Reserve presumably would continue to inflate their government bond holdings without predetermined limit, and in so doing facilitate increased lending by nonbank lenders. The reaction of the practical banker—if one had been called upon to testify—might well have been: "Why crack down on us so that our competitors can take the business?" [8]

Cuts in requirements since 1959 have generally followed bankers' proposals of the 1950s. The New York Clearing House Association argued that

> Any reserve requirement proposal worthy of consideration ought to be loyal to the American conception of free, competitive markets and to recognize inflationary Government outlays as the primary threat to the value of money.... Any legislation on reserve requirements should recognize that geographical differentials are, in large degree, outmoded; that vault cash and a portion of balances with correspondents might properly be restored as legal reserve balances; that total reserve needs are excessive under the existing scale of reserve requirement percentages; and that the powers to raise reserve requirements first granted in 1933 are no longer needed.[9]

In 1957 the American Bankers Association proposed that (1) the reserve ratio on demand deposits be reduced to 10 percent, (2) this ratio be applied uniformly to all member banks, eliminating geographical differences, (3) the Federal Reserve's authority to vary the ratio be restricted to a range of 8 to 12 percent, (4) the ratio on time deposits be reduced to 2 percent, and (5) vault cash be counted as legal reserves.[10] All these goals were achieved during the next quarter century.

There was considerable opposition in Congress to cutting reserve requirements. A Joint Economic Committee staff study argued that if instead of lowering reserve requirements, monetary growth had been facilitated by open market purchases, "the Federal Reserve could have earned interest on the securities purchases, and this would have benefited the Treasury and taxpayers since the Reserve System turns over its net earnings to the Treasury." Harvard Professor Alvin Hansen opposed the reduction with the amazing argument that the absence of a tax constitutes a subsidy: "The bankers are, in effect, asking Congress to hand them on a silver platter $9.8 billions of earning assets in place of an equivalent amount of unearning cash assets which they are now required to hold as reserves."[11] A qualification to the 1959 bill authorizing the inclusion of vault cash as legal reserves stated that "it is not the intent of this legislation to encourage or cause the Federal Open Market Committee to reduce the Federal Reserve System's holdings of Government securities."[12]

Reserve requirements continued to fall, but so did Fed membership, and this contributed to the fall in the overall reserve ratio by more than one-half between 1951 and 1971. There was another series of cuts in requirements between 1972 and 1976, and in 1980 the ABA's program was accomplished by the Monetary Control Act. In addition to the end of geographic distinctions between reserve requirements (in 1966) and the eligibility of vault cash for required reserves (1960), in the early 1980s, in the midst of the highest interest rates in American history, the average required reserve ratio for demand deposits (counting the concession to small banks) was lowered to less than 12 percent and for time deposits to less than 2 percent. These reduc-

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[8] *Monthly Letter*, Sept. 1948, p. 101; in Daniel Ahearn, *Federal Reserve Policy Reappraised, 1951-59*, New York, Columbia University Press, 1963, pp. 159-60.

[9] *The Federal Reserve Re-examined*, New York, 1953, pp. 115-16.

[10] ABA Economic Policy Commission, *A Plan for Member Bank Reserve Requirements*.

[11] "Bankers and Subsidies," *Review of Economics and Statistics*, Feb. 1958, pp. 50-51.

[12] Senate-House Conference Report, *Member Bank Reserve Requirements*, House Report No. 651, 86th Cong., 1st sess, 1959, p. 5. (See Ahearn, *op. cit.*, p. 159)

tions were part of a package that included the extension of Federal Reserve control to all banks, including the application of the same requirements to non-member and member banks. Henry Reuss of the House Banking Committee explained concessions on reserve requirements in the Monetary Control Act to an interviewer as follows:

> "We had to placate the small banks and the regional banks and the money-center banks—all of them," Reuss explained. The Federal Reserve, he added, was simultaneously trying to protect its own interest while also looking out for the banks. "Axilrod [of the Fed's staff] would throw new formulas into the hopper," Reuss said. "Volcker, under Axilrod's guidance, was always trying to get something more for the banks."[13]

Table 1 and Chart 1 show that the fall in reserve requirements has continued into the 1990s. The burdens of the tax produced reactions resulting in its virtual disappearance. But the story is not ended. Any significant expansion of federal expenditures will bring renewed pressures for increases in this and other taxes.

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[13] William Greider, *Secrets of the Temple*, Simon and Schuster, New York, 1987, p. 161.

***Economic Education Bulletin*** (ISSN 0424-2769) (USPS 167-360) is published once a month at Great Barrington, Massachusetts, by American Institute for Economic Research, a scientific and educational organization with no stockholders, chartered under Chapter 180 of the General Laws of Massachusetts. Periodical postage paid at Great Barrington, Massachusetts. Printed in the United States of America. Subscription: $25 per year. POSTMASTER: Send address changes to ***Economic Education Bulletin***, American Institute for Economic Research, Great Barrington, Massachusetts 01230.

**ECONOMIC EDUCATION BULLETIN**

AMERICAN INSTITUTE FOR ECONOMIC RESEARCH
Great Barrington, Massachusetts 01230

Periodical postage paid at
Great Barrington, Massachusetts