

The Reserve Requirement Debacle of 1935–1938

by Richard H. Timberlake

The principal thrust of Treasury-Federal Reserve monetary policy throughout the 1920s and 1930s was by turns restrictive, contractionary, and depressive. Even as the economy was floundering helplessly in a financial environment of monetary austerity, no one in the Treasury-Fed bureaucracy seemed to understand the ongoing disequilibrium. Most economists and bankers could not grasp it either. Federal Reserve spokesmen claimed that “low” interest rates were a sign of monetary ease and plenty of credit. Since market interest rates had almost disappeared into the woodwork, “money” was supposedly plentiful. In fact, the quantity of money—the money the central bank was supposed to provide scientifically and opportunely to the economy—was suffocatingly inadequate.¹

Part of the problem was the flawed real bills doctrine that most commercial bankers and, subsequently, Federal Reserve officials embraced to fashion credit policy. If bankers and businessmen were not borrowing at the minuscule rates then current, the argument went, their enterprises were just not productive enough to warrant additional monetary resources. According to this view, the production of goods, services, and capital led to the production of money through the operation of banks and the gold standard. In fact, with the production of money in the province of human design, it was the other way around:

Richard Timberlake is a professor of economics retired from the University of Georgia. This is the last in a series.

Without *some* human provision on *some* basis for supplying money to the economy, the economic machine was derelict.

A related policy shortcoming that aggravated the Federal Reserve’s restriction of money was the official attitude toward “the” gold standard. Since 1920, the gold standard in practice had become an unwelcome nuisance to be fit into the government’s monetary-fiscal program in ways that would not interfere with the current hands-on priorities of current policy. Especially was this stance clear after 1933.

Eclectic Model

Treasury and Federal Reserve excuses for past mistakes were highly successful. Fed spokesmen then trotted out their eclectic model of the economy, which claimed that the depression was worldwide and developed from a number of independent causes. One of their favorite slogans was, “Monetary policy is like a string. You can pull with it, but you can’t push on it.” Those who had a collectivist bent were only too happy to hear that a market order based on individual property rights and the rule of law could not thwart a great depression.

Another factor that obscured a path out of the depressionary forest was the policy of raising the price of gold after all the gold had gone to Washington and been buried in the Treasury’s dungeons. Government ownership of the gold, and the actual illegality of private

ownership, left gold with no more function than ballast in the basement that would prevent the U.S. Treasury building from rocking in a windstorm.

The middle 1930s witnessed an even more astonishing event. The belated recovery, helped in part by monetary expansion from the massive gold monetization, was just beginning to show some vitality when Treasury-Fed officials decided that the continuing gold inflows were leading to the acute danger . . . *of an inflation!* Official opinion in the two agencies concluded that the proper tactic now was for the Fed to increase member-bank reserve requirements using the new power it had been granted by the Banking Act of 1935. Simultaneously, the Treasury would reinstitute the gold-sterilization procedures that the Fed had used so conspicuously in the 1920s. The Board of Governors regarded the monetary conditions of the mid-thirties as a made-to-order opportunity to experiment with its new reserve-requirement gadget.

Reserves and Reserve Ratios

Before going further, the reader might find useful an explanation of banks' reserve ratios and the central bank's authority over legal reserve requirements. A bank's reserve ratio is the fraction of the bank's effective reserves relative to its demand obligations (that is, checking deposits). It is stated either as a decimal or as a percentage. Reserves always included currencies and cash, such as gold, silver, and other legal tender. All legal tender currency is government issued or government guaranteed, and has included greenbacks, silver certificates, gold certificates, national bank notes, and Treasury notes. Since 1913, the principal currency has been Federal Reserve notes issued by the twelve Federal Reserve Banks.

Reserves also include reserve-deposits that member banks maintain in Federal Reserve Banks. These accounts are the balances that Fed Banks use to clear the demand obligations of their member banks to other banks. They are similar to the commercial bank accounts households and businesses write

checks against for conventional transactions. All these reserve items are ultimate legal satisfaction for redeeming the demand deposits (and in the nineteenth century, bank notes) that the commercial banks issue(d) as a by-product of their lending and investing operations.

Before governments imposed legal reserve requirements, bankers maintained their own reserve accounts. The typical banker considered a variety of circumstances to determine the fraction of reserves he should keep against the bank's demand obligations: the volatility of his lending business, his bank's geographical location—rural or urban and its proximity to financial centers, the season of the year, and the general state of business. Especially did he consider banking laws that added institutional restrictions to his other concerns. Banking laws have been especially onerous for banks, probably because all legislators know that banks somehow create money and the legislators feel that it is their duty to protect their constituents from these "predators."

Clearly, the importance of the many factors determining the volume of reserves the banker felt he needed would vary over time. The banker would then adjust the ratio by extending or diminishing his loans and accommodations to the borrowing community. Whatever his reserve position, the banker had his reserves on hand and knew he could use them to the fullest if any panic or emergency threatened.

At first blush, specification of minimal reserve requirements seems to be a logical function of government—something akin to police protection. Indeed, that was the view when Congress first considered the idea in the mid-1830s, as the U.S. Treasury deposited the money from land sales and tariffs in private banks. Congress then deliberated a plan that called for a 20 percent legal reserve minimum for all banks holding U.S. Treasury balances. At first, the proposal had a good deal of support. On reflection and "reconsideration," however, the lawmakers of the time backed away from a specific prescription. They decided to let the secretary of the treasury stipulate the reserve qualifications for banks that held government balances.²

Some state governments began specifying legal reserve requirements for banks as early as the 1840s. Then the National Bank Act passed during the Civil War included reserve requirements for all national banks. It listed three classes of banks (described last month): central-reserve-city banks, reserve-city banks, and "country" (all other) banks. Only state laws governed the reserves of non-national banks, and some states had no formal reserve requirements at all.³

Of course, no bank, regardless of state law, can operate without a contingency or providential reserve of some amount. Competition among banks for deposits and loan-making opportunities, and clearing of banks' checks through clearinghouses, force banks to maintain some level of reserves. *Legal* minimal requirements simply mandate what solvent and responsible banks would do anyway to stay in business as cost-recovering enterprises—with this exception: legal minimums are usually a fixed percentage for a wide classification of banks, and are, therefore, somewhat greater than most banks would keep if left to themselves. They are greater because a governmental regulatory agency must cover a wide spectrum of banks that have diverse exposures to risks and other reserve maintenance requirements.

Though minimum legal reserve requirements seem sensible and have become part of the conventional wisdom, their presence has proven in practice to be destabilizing to the banking and monetary system. First, the "correct" ratio is highly variable from bank to bank, depending on all the factors listed. Since it is also highly variable from season to season for the same bank, it is not a parameter that a government agency, even with perfect wisdom, can specify for banks collectively. It is another example of the synoptic regulatory delusion.

Finally, the very nature of a *legal* reserve requirement raises this unresolvable question: if a bank must keep a minimal ratio of reserves to deposits, how can it use those reserves when redemptions of its notes or deposits would bring its reserve ratio down below the legal minimum?

This dilemma has never been satisfactorily solved. Some banking laws have allowed

banks to trench on their required reserves by paying substantial penalties. Often, however, the reserve requirement was treated as an ironclad minimum, which if breached, gave banking authorities cause to shut down the offending bank. In other cases, the bad publicity banks received when their reserve ratios became deficient practically put them out of business. Under such opprobrium, the legal minimum percentage converted what would have been a cushion of usable reserves against unusual redemptions into an unusable fixture that banks only dared breach when they were at the end of their other resources.

Uncertain Effects

The potential effect on the money supply from the reserve-requirement manipulation the Banking Act of 1935 vested in the Federal Reserve Board was very uncertain. The greatly increased quantity of monetized gold had expanded bank reserves to double the dollar amounts that current requirements—7, 10, and 13 percent for the different classes of banks—specified. Banks had plenty of reserves but they were not using them to make loans and investments to households and businesses. Given that dollar reserves were double the amount legally required, the banking system, by expanding credit and deposits to the legal limit, could have doubled the quantity of demand deposits.⁴ This unused potential implied two questions: First, what was the probability of such a bank credit expansion? Second, if it happened, what would be the effect on prices?

Marriner Eccles, the new chairman of the Federal Reserve Board, was one of many Treasury and Fed officials who thought that the reserve overhang was dangerous. These reserves, he observed in late 1935, "could become the basis of a potential expansion of bank credit of such proportions that the Federal Reserve could lose all control or influence over the supply and cost of money."⁵ He noted, however, that the Board of Governors still saw "no evidence of overexpansion of business activity or of credit."⁶

In the next six months the continuing gold inflow raised total bank reserves to \$6 billion,

and excess reserves to \$3 billion. These numbers convinced Eccles, other Fed and Treasury officials, and much of the financial community that an increase in reserve requirements was advisable. What the policymakers especially disliked was the fact that the banks, with all their excess legal reserves, could operate outside the control of the Fed. Once the excess reserves became required, Fed policymakers would have a tight rein on the banks. "Even if the increase was as much as fifty per cent," Eccles concluded, "the remaining reserves would still be beyond current or prospective needs of business and would provide a more than adequate basis for legitimate credit expansion."⁷

The Fed Board, under the urging of the Fed Bank of New York, raised reserve requirements by 50 percent in August 1936. The increase, as far as the banks were concerned, made half—\$1.5 billion—of their existing reserves unavailable. However, they still had excess legal reserves of \$1.5 billion. So the Fed Board in early 1937 raised requirements again, effective in March and May, to "mop up" the remaining legal excess. The total volume of reserves moved from "excess" to "required" came to \$3 billion.

The magnitude of this change is understood best when it is viewed in equivalent dollar value to an open-market sale of government securities. As Friedman and Schwartz point out, \$3 billion "amounted to nearly one-quarter of total high-powered money." Since the total amount of government securities in the Fed Banks' portfolio at the time was only \$2.4 billion, the Federal Open Market Committee could not possibly have carried out such a momentous open-market sale. Neither would it have considered the idea for an instant.⁸

Raising reserve requirements had a good deal of support outside the Fed and Treasury. Benjamin M. Anderson, a conservative critic of both New Deal policies in general and monetary policy in particular, expressed a typical view. The great increase in excess reserves, Anderson noted, had had very little effect on interest rates. Therefore, decreasing reserves by raising requirements would have very little reverse effect.⁹

Anderson's arguments reflected the conventional economic reasoning of the time. Monetary policy could only influence financial and business conditions by its limited effect on interest rates. Since rates were already at rock bottom, excess bank reserves made no difference, and their elimination would do no harm.¹⁰

Contradictions in Reasoning

Both Anderson's and Eccles's comments, and also those of many other observers, were clearly contradictory. On the one hand, excess reserves did not have any monetary thrust for restoring normal levels of business activity; on the other hand, they gave rise to inflationary levels of credit expansion. Now which view was correct?

No one at the time had the energy or initiative to do so, but a simple empirical analysis can estimate the price-level potential of the excess reserves then current. The questions to be answered are: (1) How much money could the banking system have generated with all the reserves it held before the policy actions that reduced excess legal reserves to virtually nothing? (2) What were the chances that this expanded money stock would produce an inflation? (3) Finally, what was the probability that commercial bankers would expand their loan and deposit accounts to this maximum?

The table on the next page includes the monetary, employment, and price-level data of the period to suggest practical answers to the first two questions. Columns (1) and (2) show member-bank deposits and reserves for the dates listed. Column (3) shows required reserves as of those dates. The difference between columns (2) and (3), excess legal reserves, is in column (4).

If the banks had used these excess reserves at the various dates to extend their loans and investments to the limits then current, bank deposits would have increased by the values shown in column (5). Column (6) is the M2 money stock—the sum of currency and demand deposits, plus time deposits in commercial banks—for the dates shown. Therefore, the maximum money stock that could have appeared because of bank-credit expansion is column (7), "maximum money

**Deposits and Reserves of Member Banks, Various Money Stocks,
Unemployment, and Prices, 1935-1938***

Date	Member bank deposits (1)	Member bank reserves (2)	Member bank required reserves (3)	Member bank excess reserves (2)-(3) (4)	Possible increase in member bank deposits (5)	M2 money stock (6)	Maximum M2 money stock (5)+(6) (7)	Full employment money stock (8)	Inflationary potential of (7) (9)	Unemployment as percent of labor force (10)	Prices, 1929=100 (11)
1935											
Dec. 31	28.9	6.28	3.30	2.98	26.1	40.3	66.4	59.2	+12.2	18.5	80.5
1936											
June 30	31.3	6.17	3.58	2.59	22.6	43.3	65.9	62.4	+ 5.6	16.9	80.9
Dec. 31	32.2	7.33	5.28	2.05	12.5	45.0	57.5	63.5	-9.5	15.6	82.3
1937											
June 30	37.3	7.38	6.50	0.88	4.4	45.2	49.6	61.5	-19.3	14.3	83.8
Dec. 31	31.7	7.71	6.64	1.07	5.0	44.0	49.0	61.6	-20.5	16.6	83.1
1938											
June 30	31.6	8.61	5.85	2.76	14.9	44.1	59.0	64.4	-8.4	19.0	82.3

* Monetary data in \$ billions; unemployment data and prices in percentages.

Sources: Philip Cagan, *Determinants and Effects of Changes in the Stock of Money, 1875-1960*, National Bureau of Economic Research (New York: Columbia University Press, 1965), table F-8, p. 350; Board of Governors of the Federal Reserve System, *Banking and Monetary Statistics* (Washington, D.C., 1943), pp. 396-97; Friedman and Schwartz, *Monetary History of the United States, 1867-1960*, table A-1, pp. 714-15.

stock," the sum of columns (5) and (6).

Column (8), the "full employment money stock," is a constructive estimate of how much common money (M2) the U.S. economy would have required to achieve full employment on the dates shown. It is based on two conceptual adjustments to the existing money stocks. First, a greater quantity of money would have been necessary to transact the increased volume of goods and services that a fully employed labor force would have produced. Second, an additional quantity of money would have been necessary to get the price level back to the value it had in 1929, the last time at which the economy enjoyed substantially full employment.¹¹ In a market economy suffering from severe unemployment, increases in the money stock simultaneously stimulate both revived output and higher prices. (In technical terms, the aggregate supply function is neither perfectly elastic nor perfectly inelastic.)

Column (9) is the percentage excess (+) or deficiency (-) of the money stock for the date. It is a measure of potential inflation calculated by dividing (8) into (7) and subtracting 1 in

order to state the excess (or deficiency) as a percentage. On these terms, column (9) estimates the inflation that the banking system *could* have generated given the institutional constants then present. Columns (10) and (11) are the data for unemployment and prices as conventionally measured by the Bureau of Labor Statistics. For simplicity, the price index value for 1929 is given as 100.

As Column (9) shows, the maximum potential inflation in the system was only 5.6 percent in June 1936, just before the first massive increase in reserve requirements of August 1936. After the increase, the inflationary potential became negative (-9.5 percent) implying that the economy could no longer reach full employment under the conditions then prevailing, no matter how prodigally commercial banks expanded their accounts.

On the basis of well-intentioned ignorance, the first increase in reserve requirements could be forgiven. It undid part of the immense increase in gold monetization that Roosevelt's inexcusable increase in the price of gold had induced. The second round of increases in March and May 1937, however,

turned what had been an ongoing recovery into another cyclical disaster. “Inflationary” potential came down to -20.5 percent, and all the leading indicators of business activity turned negative. By September the recession was unmistakable. Both the Treasury and the Fed undid some small part of their restrictive measures in mid-1938, but a state of healthy economic activity did not appear again until the wartime monetary increases of 1941–1942. So, to answer the first question posed above: No inflation of any size could have occurred between 1937 and 1941. What did appear as a result of Fed-Treasury policies was a sharp *recession* that further undermined confidence in the market system.

The third question—What was the probability that commercial bankers would expand their loan and deposit accounts to this maximum?—cannot be answered with monetary data. To answer this question, the observer must imagine the mindset of a typical banker of the time who has survived the Great Contraction, many unsavory New Deal shenanigans, and now the extraordinary reserve requirement increases.

Cautious Bankers

Bankers, to begin with, are not by occupation very radical. They operate institutions that have only fractional reserves with which to meet liquidity demands. Assume this bank has survived eight years of monetary turmoil, and now finds its legally required reserves doubled in less than a year. Four to six years earlier it had perhaps sought accommodation from its regional Fed Bank, as anxious depositors filled its lobby during one of the banking crises in the early 1930s. To extend his reserves and satisfy his clients, the banker may have taken some of his “eligible paper” to his regional Fed Bank for discount. The Fed Bank loan committee might well have replied in “shaggy dog” terms that his bank’s paper “was not eligible enough,” and refused the loan application.

This response surely would have conditioned the banker not to rely on the Fed Bank to save him from liquidity shortages. Milton Friedman, who reviewed this episode in minute detail, remarked: “Bitter experience

during the years from 1929 to 1933 had taught banks that it was not enough to keep . . . only the minimum amount [of reserves] required by law; legally required reserves could not be drawn on to meet emergency demands without the banks being liable to closure [by order of governmental banking authorities]. . . . Little wonder that the survivors of the holocaust felt it necessary to provide their own protection against unexpected demands. [Bank] deposits in excess of required legal reserves were essentially uncovered [bank] liabilities for which only the *excess* of high-powered money over required reserves provided an effective reserve.”¹²

The experience of having survived the banking crises of the times because he had been more conservative in lending operations than his fellows would have added to the banker’s conservatism. Now the Federal Reserve Board suddenly *doubles* his reserve obligations before his bank has recovered any significant fraction of its pre-depression income. In addition, the Supreme Court has just upheld abrogation of the gold clauses in government contracts, labor unions are showing increased virulence, and Social Security taxes have appeared. What are his profitable lending prospects at this point? What problem can he next expect from the “lender of last resort,” who is supposed to be his protector?

Required reserves are not just numerical artifacts, and paradoxically they fail in practice to protect bank obligations. However, they have very important side effects on banker behavior. Since the horrendous blunders in their implementation during the 1930s, the Federal Reserve has used them less and less for monetary control purposes. Today, the Fed relies almost exclusively on open-market operations to manage the economy’s money stock. Even if not used, however, legal reserve requirements should be abolished completely so that the Federal Reserve Board could not blunder again into the monetary catastrophe it fostered in the 1930s. Banks would manage their own reserves, and reserves would once again fulfill their traditional purpose. □

1. This article draws heavily from the outstanding and exhaustive account of the Great Contraction and Great Depression carefully detailed and analyzed by Milton Friedman and Anna J. Schwartz in their monumental *A Monetary History of the United States, 1867–1960* (Princeton, N.J.: National Bureau of Economic Research and Princeton University Press, 1963). I have supplemented their account with some material from my *Monetary Policy in the United States: An Intellectual and Institutional History* (Chicago: University of Chicago Press, 1993).

2. See *Monetary Policy in the United States*, chapters 4 and 5, for an explanation of this episode.

3. The state of Illinois, for example, required no legal reserves of banks chartered by that state until the Monetary Control Act of 1980 made legal reserve requirements mandatory for all banks regardless of the states in which they were chartered. Practically no other country in the world imposes reserve requirements on its commercial banks.

4. It is important to emphasize here that the commercial banking system could not carry out such an expansion deliberately and purposefully. Any expansion that banks undertook necessarily would be a result of decisions made by individual banks, and their intent would be to earn profits from successful financial operations. In short, commercial banks could not (and cannot) make monetary policy. Only the central bank can do that.

5. Marriner Eccles, *Beckoning Frontiers* (New York: Alfred Knopf, 1951), p. 287.

6. *Ibid.*

7. *Ibid.*, pp. 288–89.

8. Friedman and Schwartz, *A Monetary History of the United States*, p. 532. The authors discuss the political and intra-government power factors behind the policy. The scenario they document reveals how important noneconomic causes were and are in the actions of an agency supposed to be devoted completely to the good stewardship of the monetary system and the economy.

9. Benjamin M. Anderson, *Economics and the Public Welfare: A Financial and Economic History of the United States, 1914–1946* (Indianapolis: Liberty Press, 1979 [1949]), p. 405.

10. *Ibid.*, pp. 432–33.

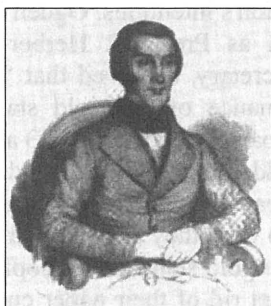
11. These adjustments do not include a possible change in the velocity of money. Cyclical experiences of monetary velocity confirm that it changes only sluggishly and belatedly. For a more detailed analysis of the “full employment money stock,” see *Monetary Policy in the United States*, pp. 292–94. If the dollar price structure were perfectly flexible downward, “full employment” could result at any level of prices. In the real world of the 1930s, however, prices were no longer flexible downward as they had already gone through the floor. More to the point, government programs had actively worked against money price declines for almost ten years.

12. Milton Friedman, *A Program for Monetary Stability* (New York: Fordham University Press, 1960), p. 46; emphasis added. In their *Monetary History*, Friedman and Schwartz comment similarly on page 348. Every bank panic that occurred in the presence of governmentally mandated reserve requirements bore witness to this paradox: Set up a system of legally required reserves for banks, and the reserves will not be used for their intended function.

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