

# Monetary Failures of the Great Depression

*By Terrance L. Chapman*

## I. INTRODUCTION

Today it seems completely natural that the Federal Reserve Bank exercises ultimate control over the money supply. Indeed citizens and policy-makers alike take comfort in the fact that Alan Greenspan and the Board of Governors actively fight inflation and stabilize the money supply by influencing interest rates, performing open market operations, changing the discount rate, or altering the reserve requirement. There was a time, however, when the domestic supply of money in the United States was not so closely controlled. One of the results of this inability to control the money supply was the downward spiral after the stock market crash of 1929, known as The Great Depression.

An analysis of the monetary policy during the period of 1929-1935 is very relevant to economic policy-makers today. Perennially, there is debate about how much monetary intervention is good for the economy. Likewise, politicians such as Jack Kemp and Steve Forbes continue to raise issues such as the need for a gold standard, which in large part contributed to the inability to control the rampant devaluation of currency and depletion of the money stock during The Depression.

Two key theories fall out of this examination of The Great Depression. The first, the spending hypothesis, postulates that an exogenous fall in the demand for goods and services caused a contractionary shift in the IS curve of the IS-LM model, resulting in a sharp decline in income coinciding with falling interest rates. The second hypothesis, known as the money hypothesis, suggests that the Federal Reserve was to blame for The Great Depression because it allowed the money supply to decrease so rapidly. This caused a contraction of the LM curve, which resulted in a decrease in income accompanied by raised interest rates (Mankiw, 1997). On the surface, observed

trends more readily support the spending hypothesis, as both GNP and market interest rates fell from 1929 to 1933. But evidence will show that the monetary hypothesis also played a large role in the severity of The Great Depression.

This paper will argue that mismanagement of the money supply substantially contributed to the economic disaster of The Great Depression. Indeed, from 1929 to the cyclical trough in 1933, the Federal Reserve allowed the money stock to fall by 33% while one-fifth of commercial banks closed and real money income fell 36% (Friedman and Schwartz, 1963). The mere size of these trends intuitively lends credence to the money hypothesis. These numbers seem staggering when one considers that the Fed performed few open market operations and even raised the discount rate in 1931 from 1.5% to 3.5% (Wheelock, 1998).

## II. LITERATURE REVIEW

Previous research provides conflicting analyses of the causes of The Great Depression. Friedman and Schwartz provide evidence that the downward plunge in the money supply during The Depression was in large part a result of failed monetary policy, arguing that while non-monetary factors played a role in the stock market crash and subsequent banking failures, a liberal expansion of the money supply would have lessened the severity of The Great Depression (1963). David Wheelock similarly argues that the Fed's policies during this period were "exceptionally contractionary" and the result of "misguided policies" (1998). Hall and Ferguson add to the discussion by pointing out the precariousness of the government's position, stemming from the adherence to the gold standard (1998). In contrast, Peter Temin argues that the fall in income was not caused by monetary factors, but rather supports the spending hypothesis on the

grounds that interest rates in fact fell (1976). Mankiw and Bruce True provide explanations to reconcile the observed behavior of interest rates with the money hypothesis (1997, 1993).

It is important to note that adherence to the gold standard and limitations on the powers of the Fed greatly contributed to the Fed's inability to stabilize the monetary decline during these years. Evidence and existing literature suggest that The Great Depression revealed the flaws of the gold standard and the need to expand the Federal Reserve System's money stabilizing role. The money supply was drastically diminished by gold and capital outflows and prices underwent a severe deflation, thereby disrupting output, debt-creditor arrangements, and lowering expectations of future improvements.

It was not until the newly elected President, Franklin D. Roosevelt, suspended the gold standard in 1933 and the Fed was given more powers through the 1932 *Glass-Steagall Act* that the Fed was able to counteract some of the debilitating trends of The Great Depression. Finally, the *Banking Act of 1935* reorganized the Federal Reserve Board of Governors into what we are familiar with today, which gave the Board more responsibility and a tighter rein over the money supply.

### III. RECONCILING THE MONEY HYPOTHESIS

In their seminal work, *A Monetary History of the United States*, Milton Friedman and Anna Schwartz argue in favor of the money hypothesis. In fact, in Friedman's video series, *Free to Choose*, he suggests that much of the severity of The Great Depression can be explained by failure of monetary policy (1963). This claim makes intuitive sense when one considers the amount of bank failures and the severe decline in the money supply. Peter Temin,

however, takes issue with Friedman and Schwartz's thesis in his book *Did Monetary Forces Cause the Great Depression?* As discussed above, Temin points out that the observed behavior of the nominal interest rates does not coincide with the predicted outcome of a monetary shift in the IS-LM model (1976). That is, rather than increasing, nominal rates actually fell.

In efforts to justify the money hypothesis, several theories attempt to explain the fall in interest rates that coincided with a massive decrease in the money supply. Bruce True, in *An Examination of the Monetary Hypothesis of the Depression*, outlines several possible explanations for this apparent contradiction (1993).

First, and perhaps the most potent criticism from supporters of Friedman and Schwartz, is that Temin focuses his analysis of the spending hypothesis on *nominal* interest rates observed during the 1930 banking crisis, whereas *real* interest

rates may be more appropriate when looking at changes in the money supply. In fact, as Table 1 shows, real *ex ante* interest rates actually rose while nominal interest rates fell due to expectations of deflation during the banking crisis (True, 1993). This suggests

that the monetary hypothesis does not violate the assumptions of the IS-LM model.

Likewise, Mankiw discusses the impact of deflation on investment expectations. He states that when there is rampant deflation, expected negative inflation enters as a new variable in the IS-LM. As expected inflation becomes negative due to deflation, the *ex ante* real interest rate, which is equal to the nominal interest rate minus expected inflation, actually rises while nominal rates fall. As Graph 1 shows, the IS curve shifts downward due to the effects of an expected deflation, reducing consumer incentive to spend or enter in debt-creditor arrangements. The shift reduces national income

**Table 1: Comparison of Interest Rates During the Banking Crisis**

Indicators:	Real GNP (Billions-- 1929 dollars)	CPI	Nominal Interest Rate	Real Interest Rate
1929	\$104.4	73.3	4.42%	4.42%
1932	\$76.4	58.4	0.78%	11.49%

Source: Wheelock, *Monetary Policy in the Great Depression and Beyond*, 1998.

and nominal rates, which coincides with the observed trends of the period.

Furthermore, as these changes did not occur in a theoretical vacuum, it is likely that other exogenous factors also reduced spending, so both the spending and the money hypothesis are partially correct. The result of such a model would be shifts in both the IS and the LM curves, making the direction of the interest rate variable indeterminate (Graph 2). As True points out, if Temin's argument is correct, he only shows that the spending hypothesis also played a role, rather than disproving the money hypothesis.

#### IV. THE GOLD STANDARD

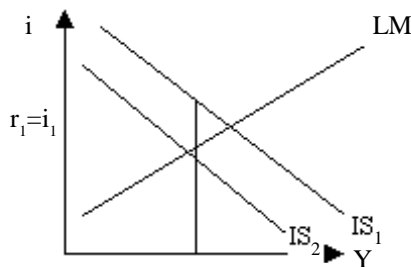
If the money hypothesis is supported, and the decline in the money supply truly contributed to the severity of the Depression, then why did the Fed act as it did and allow such a massive decline? The system and the assumptions the Fed operated under at the time go far towards explaining this disastrous trend. In short, adherence to the rules of the gold standard greatly limited the Fed's ability to respond to the growing crisis.

From 1791 to 1933, with the exception of minor adjustments, the United States of America operated under a monetary regime based on a fixed gold standard. In essence, the monetary forces fixed the price of gold and acted subsequently only to buy or sell gold in order to maintain the given price level [The consequences of such a policy are startling from the perspective of today's monetary policy]. On a fixed gold standard, once the price was set, the authorities had no control over the money supply (Hall and

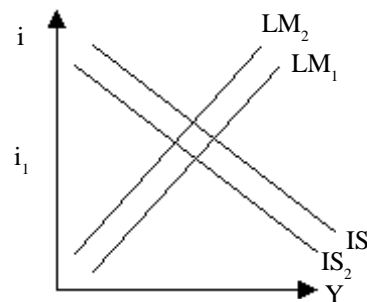
Ferguson, 1998). Changes in either the supply, possibly through the discovery of new gold deposits, or in demand, possibly through trends in other uses of gold, would affect the quantity of gold supplied at a fixed price. Graph 3 shows the effects of an increase in domestic demand for gold, while Graph 4 shows the effects of a supply shift. Notice that QS-QD determines the money supply, so an increase in domestic demand for gold for non-monetary uses, from D1 to D2 in Graph 3, actually lowers the money supply of gold used for minting. The entire world was also on a gold standard and the money supply would normally equilibrate through interaction with the exchange rate and domestic adjustments, a complete explanation of which would be more appropriate for another paper. The gold standard is relevant to this discussion as far as its limiting effects on monetary policy to stabilize the money supply when it was diminished by capital outflows, reduced output and income, and reduced spending.

Once the Depression was under way and consumer confidence in financial markets fell due to deflation and disruptions of debt-creditor arrangements, the Fed's adherence to the gold standard allowed little in the way of policy options to stem the amount of gold flowing out of the U.S. During the 1920's under the leadership of Benjamin Strong, head of the New York Federal Reserve Bank, the Fed bent the rules of the gold standard and sterilized gold inflows and outflows with open market bond operations even though the Fed had no federal authority to conduct open market operations. This kept the money supply relatively stable despite

**Graph 1: Effects of Expected Deflation**



**Graph 2: Spending and Money Hypotheses**



fluctuations in gold inflows and outflows. After Strong's death in 1928, however, the Federal Reserve Board struggled for power with the New York Bank. The New York Fed was thus prevented from using open market operations to stem gold outflow, and the decline in the money supply continued to cause deflation and lower nominal incomes. Although under normal circumstances the gold standard stabilized the money supply, it acted as a constraint on the Fed's stabilizing role during the economic uncertainty of the Depression.

### V. DESTABILIZING EFFECTS OF DEFLATION

Thus the money supply spiraled in and out of control downward plunge, diminishing by over a third in less than four years (Friedman and Schwartz, 1963). A normal period of slight deflation may actually increase consumer confidence by increasing real money balances, therefore boosting spending (Mankiw, 1997). However, during a period of drastic and unexpected deflation, the economy is essentially debilitated by the falling prices.

As Friedman and Schwartz point out, the velocity of money fell by nearly one-third from 1929 to 1933. This drastic decline in the amount of transactions is indicative of the effects of deflation. During deflation, debt-creditor arrangements are disrupted and debtors, in effect, have to pay more than expected for the money they borrowed. Borrowing becomes a less attractive option, as consumers begin to hold on to their money in hopes that it will be worth more tomorrow than it is today.

Coinciding with this trend, bank failures

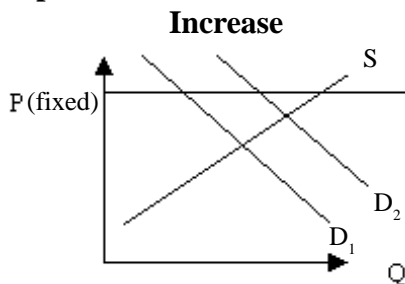
reduced public confidence in financial institutions. As Friedman points out in *Free to Choose*, the Fed failed to provide emergency reserves for these banks, failing in its capacity as a lender of last resort. The public was less likely to spend, less likely to hold their money in the bank, and less likely to borrow money due to the fears caused by falling prices. As mentioned earlier, negative expected inflation drives down the IS curve, reducing income and lowering nominal interest rates while real rates rise. Mankiw takes note of the significance of this phenomenon, stating that it is likely that the contraction of the money supply and accompanying deflation led to the observed falling income and nominal interest rates, even if real money balances increase as a result (1997). This explanation sheds light on the responsibility of the Fed; deflation caused by the monetary contraction not only lowered income directly but also reduced spending by causing uncertainty and depressing investment.

### VI. INSTITUTIONAL CORRECTIONS AND CONCLUSION

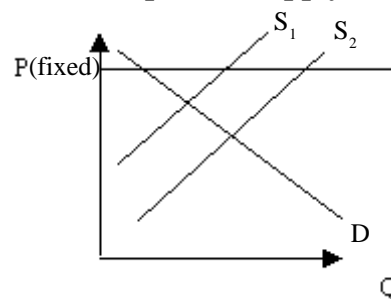
Fortunately, the government instituted several much needed reforms beginning in 1932 with the election of Franklin Roosevelt. These and subsequent changes revamped the Federal Reserve system into what we observe today.

First among these corrections was the Glass-Steagall Act of 1932, which expanded the Federal Reserve's abilities to back its note issues. When Roosevelt assumed office in 1933, he followed on March 6 by suspending the international gold standard, thus allowing the Fed to act unimpeded in its money stabilizing role. Also in 1933, the

**Graph 3 Domestic Demand for Gold**



**Graph 4: A Supply Shift**



Thomas Amendment gave the Fed power to alter reserve requirements and expanded the President's role by giving him the power to require open market purchases and to set the gold and silver dollar weights. The last alteration of the year, the Banking Act of 1933, witnessed the first change to the Fed's organization by limiting the power of individual Federal Reserve Banks (Wheelock, 1998). The Banking Act of 1935 finally reorganized the Fed's Open Market Committee and improved the Board of Governors authority *vis a vis* the member banks. These acts attempted to strengthen the role of the Federal Reserve as a security against the threat of another Great Depression. By 1939, real GNP had recovered to \$209.4 billion and the money supply was back to \$34.2 billion, both larger than the 1929 figures. The next decade would see a World War that would unify the country and boost spending, but the circumstances of the 1920s left a powerful legacy on the regulatory functions of the government and the Federal Reserve's role in the economy.

The Great Depression revealed the weaknesses of monetary policy and prompted necessary institutional reforms. The modern behaviors of the Fed can be traced to lessons learned from its ineptitude during The Great Depression. For one, the U.S. never returned to the gold standard domestically, and later abandoned the international gold standard in 1973. Implications for today's gold standard proponents should be clear: a hands-off approach of fixed gold weights results in uncertainty regarding undesirable monetary fluctuations. In addition, Alan Greenspan and the Fed maintain a "hawkish" eye on fluctuations in the price level in order to preserve stable economic growth. It is evident that The Great Depression redefined the monetary policy and catalyzed the evolution of the Federal Reserve System.

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