



Gold and the Great Depression

Walter Melnik
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Outside of war, plague, or natural disasters, the world has probably never experienced an economic downturn as severe as the Great Depression. In contrast to setbacks resulting from endogenous destruction of the factors of production, like those mentioned above, the Great Depression proves quite difficult to explain from a causal point of view. An understanding of how the world economy, in a time of peace and prosperity, could plunge so precipitously in terms of employment and output, has proved elusive, despite the dedication of myriad economists toward solving the conundrum.

Among the various hypotheses proposed to explain the Great Depression, what this paper will term the “Gold Standard Hypothesis” has gain increasing support among academic economists. Advanced most notably by Ben Bernanke, Barry Eichengreen, and Peter Temin, this theory blames the international gold standard for the “Great Contraction,” or the worldwide decrease in money and credit that occurred during the early 1930s (Bernanke 1995, pg. 2). This “Great Contraction,” and the price deflation that it effected, then caused the long decline in output, which, according to these economists, continued until the United States and major European economies abandoned the gold standard.

There are two arguments generally advanced to support the Gold Standard Hypothesis, one based upon economic theory and the other upon empirical evidence. Theoretically, champions of the Gold Standard Hypothesis will claim that the gold standard in operation in the United States and Europe restricted expansion of the money supply. Such an expansion, they claim, would have counteracted the Great Contraction, arresting price deflation and ending the Depression. Additionally, they present the empirical claim that countries which abandoned the gold standard recovered faster than those which continued its application, and assert that no country recovered which maintained the gold standard (Bernanke 1995, p. 4).

This essay will approach the Gold Standard Hypothesis in two steps. First it will investigate the historical facts. By understanding the nature and administration of the “gold standard” system in effect through the commencement and early years of the Great Depression, one can determine whether this system truly functioned as described by its critics. The second approach utilizes economic theory to analyze the historical facts, and determine whether the gold standard produced the adverse economic phenomena of contraction, deflation, and depression in the manner that its critics claim. More specifically, it will determine whether adherence to gold standard principles resulted in monetary contraction and price deflation, and whether price deflation resulted in the massive decline in output identified as the Great Depression.

As concerns the historical argument, this paper will demonstrate that the monetary system in operation during the late 1920s and early 1930s differed significantly from a true commodity money system. Indeed, one equivocates if one uses the same term for the two. This paper will describe the nature of a true commodity money gold standard, and contrast this institution with the “gold standard” in operation during the Depression years, which allowed significant manipulation of the money supply and artificial credit expansion.

In terms of the theoretical argument, the Gold Standard Hypothesis relies upon the validity of two causal claims; that adherence to a gold standard caused or at least severely exacerbated the “Great Contraction”, and that this contraction caused the massive decline in output associated with the Great Depression. This essay will investigate both alleged relationships. It will demonstrate that, in fact, adherence to a gold standard did not cause the contraction. Moreover, it will be seen that the monetary contraction and price deflation resulting from it did not cause the Depression, or even severely worsen it. Rather, this monetary contraction represented a necessary market response to credit expansion which took place

during the late 1920s. Thus, the Bernanke-Eichengreen-Temin Gold Standard Hypothesis inaccurately describes the causes of the Great Depression.

Under what this paper will call a classical or true gold standard, there is no distinction drawn between money and gold. For example, according to the United States Constitution, the Federal Government was authorized “to coin money, regulate the value thereof . . . and to fix the standard of weights and measures.” The word dollar described a unit of weight, in gold or silver (Sparks 1975, p. 82). Within the classical gold standard the only task of the state in the economic sphere, then, consists in printing coins of certain weight and alloy. This relieves the average citizen of the difficulties entailed in determining the weight and fineness of a certain amount of gold (Mises 1953, pp.66-67). If such a task were placed in the hands of private coin smiths, which it conceivable could be, there would be no place for the government in the monetary sphere.

The government’s limited role within the classical gold standard is impossible to overemphasize. Any conception of central bank management of the economy must be completely nullified within a true gold standard system (Timberlake 2005, p. 197). The classical gold standard assigns the entire operation of the monetary system to market forces.

It is widely presumed that the United States and most Western European nations adhered to a gold standard in 1929. According to a classical understanding of the gold standard, however, this was simply not the case. Under a classical gold standard, the supply of currency equals the supply of gold. This precludes government management of the money supply. The monetary institutions operating in 1929 diverged significantly from both of these parameters. Henceforward the “interwar gold standard” or “interwar monetary system” will be sharply distinguished from the “classical” or “true” gold standard.

The dictum that the supply of currency must equal the supply of gold does not preclude the use of paper money under a true gold standard. As long as the paper certificates issued in lieu of money represent real gold held on reserve somewhere, the monetary base (currency in circulation or held in bank reserves) still equals the supply of gold. Per the Federal Reserve Act of 1913, however, the Federal Reserve became the only entity allowed to issue paper money in the United States (Rothbard 1963, p. 31). In addition to the only legal paper money in the nation, Federal Reserve notes became legal tender for all debts, public and private. A debtor could not flatly demand gold as payment; he was required to accept Federal Reserve notes which ostensibly represented gold (Rothbard 1983, p. 134).

The affording of these privileges to the central bank created a severe deviation from a true gold standard. Although in theory each Federal Reserve note was backed by a certain weight of gold, the amount of gold on reserve in the Federal vault did not equal the amount of paper money issued. In the United States, gold reserves accounted for only fifty-seven percent of monetary base (currency in circulation plus commercial bank reserves) in 1929 (Bernanke 1995, p. 11). This is because, in addition to gold, the money supply now included “real bills” (representing loans) which the Federal Reserve banking system had discounted. Whereas the value of gold in dollars was predetermined by law, the value of real bills depended on which loans the central bank deigned to discount (Timberlake 2005, p. 206).

According to an amendment to the Federal Reserve Act in 1917, all member banks were required to deposit their reserves at Federal Reserve Banks. The Reserve Banks, however, were only required to keep thirty-five percent reserves against their liability to these banks. The rest of these reserves could be used as the basis of loans to member banks (McManus, Nelson, and Phillips, 25). Moreover, the Fed could increase the money supply by the means of open market transactions (McManus, Nelson, and Phillips, 26). Throughout the 1920s, to combat price deflation, the Federal Reserve eagerly expanded the supply of money.

Clearly the interwar gold standard diverged vastly from a classical understanding of the gold standard, to the point that the two institutions scarcely bore any resemblance. To even use the same term to describe these distinct systems renders equivocation unavoidable.

Unfortunately, the Gold Standard Hypothesis makes little distinction between the interwar gold standard and the classical gold standard.

Blaming the interwar “gold standard” for the Great Contraction obscures the true origin of this phenomenon. Ignoring the causal role played by credit expansion, both on the part of the private banking system and the Federal Reserve, advocates of the Gold Standard Hypothesis simply address the supposed insufficiency of contemporary monetary institutions’ ability to deal with the deflation. As has been seen, in the United States, the monetization of real bills rendered expansion of the money supply beyond gold reserves quite feasible. Indeed, in 1925, the Federal Reserve embarked upon a generous credit expansion, fueled by inflows of gold from Europe and particularly Great Britain (Hayek 1932, p. 124). Aided by private credit expansion, the inflationary actions of the Federal Reserve led directly to the crisis of 1929 (Hayek 1932, p 124).

This expansion of the money supply becomes even more significant when one considers the effects of fractional reserve banking. Money which a saver deposits into a commercial bank still represents a part of the money supply. According to a classical understanding of the deposit contract, this money will reside in the bank’s reserves, out of circulation, at the discretion of the depositor who may withdraw it at any time (De Soto 2006, p. 9). Fractional reserve banks, however, reckon that only a small percentage of depositors will claim their money at any one time. In light of this, they loan many of their deposits to businesses or individuals. When these economic agents spend their money, those who receive this new cash often deposit it in commercial bank accounts, and the banks holding these accounts may loan it out again. In this manner, the money supply will increase dramatically.

In a free banking system operating under a true gold standard, fractional reserve banking would probably still be undertaken, but market forces would sharply curtail the practice. First of all, if a bank lowered its reserves below the fraction which its clients considered safe, these would seek to withdraw their gold. If the bank could not readily refund the gold, it would risk a bank run, and possible bankruptcy (Rothbard 1983, pp. 112-114). Moreover, each bank would issue its own paper currency. Thus, if a client of a certain bank received paper currency from a different bank, he would desire to convert this receipt to gold, so that he could spend it or deposit it in his own bank (Rothbard 1983, p. 116). Since there would most likely be many different banks in operation, each bank would be forced to hold a high fraction of gold on reserves for this reason as well.

Unfortunately, these checks are nullified by the existence of a central bank with the ability to limitlessly expand the money supply. Such a bank acts as a “lender of last resort,” vastly reducing the threat of bankruptcy. The Federal Reserve not only expanded the money supply by expanding paper currency beyond the supply of gold, it also enabled commercial banks operating on fractional reserves to expand the money supply far beyond the amount of paper currency. Per the Federal Reserve Act, banks could operate on ten percent reserves. This enabled the banking system, in theory, to expand the money supply by a factor of ten (McManus, Nelson, and Phillips, 25). Considering that the Reserve Banks were required to hold thirty-five percent reserves, the money supply could be conceivably expanded beyond the stock of gold by more than a factor of twenty-eight!

Because credit expansion represents an increase in the supply of loanable funds, it will necessarily be accompanied by a decrease in the price of loanable funds, in other words a decrease in the interest rate. Consequently, the scope for profitable investments, especially in higher order capital goods, will increase. Capital prices will increase, resulting in a stock market boom. Nominal wages will increase as well. Unfortunately, there is no demand for many of the

higher order goods produced; the artificially low interest rate created a false incentive to produce these goods. Thus, the firms which invested in higher order goods will begin to fail, and a recession or perhaps even depression will eventually result, ultimately because of the original credit expansion.

When financial difficulties and bankruptcies begin to occur among borrowers, banks begin to raise interest rates and decrease loan activity. If there is no deposit insurance, as was the circumstance during the late 1920s and early 1930s, depositors, realizing that banks may encounter difficulties in light of the failure of their creditors, begin to make withdrawals. In response, banks will restrict credit even more. As the supply of money decreases, demand for money will increase, since borrowers will liquidate assets to pay their debts and cautious businesses eschew investment (Rothbard 1963, p. 22). Hence monetary contraction and price deflation originate as necessary consequences of bank credit expansion, and naturally accompanies any recession or depression, provided that the money supply is not expanded by central bank authorities. By way of example, in 1929 the money supply in the United States (counting money in savings accounts) exceeded currency by a factor of 3.79. By 1933, the ratio had fallen to 2.5 (Bernanke 1995, p. 10), not because of federal monetary policy, but as a natural mechanism of the boom/bust cycle.

In *The Gold Standard and the Great Depression*, Eichengreen and Temin have argued that general opinion in Washington and in the branches of the Federal Reserve championed liquidation and deflation (Eichengreen and Temin 2000, p. 196). In fact, the Federal Reserve proved fully ready to inflate its way out of the Depression. In the final week of October 1929, the Federal Reserve member banks pumped \$1.6 billion into New York City banks, a monetary expansion of ten percent (Rothbard 1963, p. 191). In a speech on December 5, President Hoover extolled the Federal Reserve System for restoring confidence, and reducing interest

rates. The Federal Reserve's policy of credit expansion during the late 1920s has already been recounted.

The Gold Standard Hypothesis of the Great Depression excoriates the interwar gold standard for causing the contraction in the money supply, and corresponding deflation, that occurred worldwide during the 1930s. Quite the contrary, this contraction represented the inevitable backlash resulting from the credit expansion of the previous decades, an expansion which had nothing to do with the gold standard as such and was largely caused by central bank policies which directly affronted gold standard principles.

A symptom of the credit contraction, widespread price deflation, certainly occurred during the early 1930s. In the United States, for example, the price level decreased twenty-four percent from 1930-33 (Snowden and Vane 2005, p. 78). This decrease in price level represented one characteristic of the bust produced by the artificial credit expansion preceding the Great Depression. As such, it was a function of market processes. In spite of this fact, Bernanke and others argue that the deflation represented an obstacle to recovery, by causing a decrease in output.

Bernanke presents three arguments to show that this fall in prices effected a decrease in output. The first asserts that wage rigidity prevented nominal wages from falling, resulting in real wage increases, unemployment, and a drop in production. However, he attributes little potency to this line of reasoning, since contracts and union activity then were not as prevalent as in the present, and the severity of the depression compelled desperate laborers to accept work on very meager terms (Bernanke 1991, pp. 84-85).

The second argument involves the increase in the real interest rate which accompanies contraction of the money supply. He attributes this not to a decrease in cash balances, since, with prices falling sharply, the fall in money supply hardly affected real cash balances, which

may have even rose during the contraction. Instead, Bernanke appeals to the fact that in a scenario of expected price deflation, real interest rates include not only the nominal interest rate but also the rate of deflation (Bernanke 1991, p. 86). At this higher real interest rate investment and consumption funded by borrowing will decrease, and thus output will fall as well.

Finally, Bernanke considers the effect which a decrease in money supply will cause upon the financial system. Price deflation distributes wealth to creditors from borrowers, who experience a decline in net worth. Borrowers often have access to investment opportunities, or at least an ability to undertake such opportunities at a lower cost than the rest of society (Bernanke 1995, p. 18). However, due to this loss of net worth, which may even result in bankruptcy, these entrepreneurs will be unable to invest in production processes which would raise output and provide a net gain to society.

The deflationary effect upon debt will severely impact banks as well. Banks assets, in the form of loans to businesses and homeowners, will increase in real value, since the dollars in which they are measured now have increased purchasing power. Unfortunately, many of the banks debtors will default on their loans. Therefore credit will be replaced by collateral, which, given the fall in the general price level which accompanies a decrease in the money supply, has probably decreased in real value. Disaster accumulates as bank liabilities, in the form of debt, increase in real value due to the deflation. Banks lose net worth at both ends. Depositors will withdraw their funds, and banks will be forced to increase liquidity and direct funds away from more risky investments which may have proved profitable in a non-deflationary scenario (Bernanke 1995, p. 18).

Ironically, the first of these arguments, to which Bernanke ascribes the least compulsion, assumes a solid economic and historical foundation. Concerted activity by businesses and the Federal government ensured that wages remained high relative to prices. Businessmen

believed that lowering wage rates would decrease purchasing power and worsen the Depression (Rothbard 1963, p. 45). Of course, this policy considerably exacerbated the unemployment problem (Rothbard 1963, p. 236).

However, any claim that such unemployment results from price deflation must be deemed spurious. Unemployment was caused not by deflation per se but by artificial support of high wage rates. After all, a wage is simply the price of labor; if prices fall, wages fall concomitantly, unless wage supports prevent this adjustment. If wages had been allowed to adjust downward, full employment could have been achieved. Certainly the artificial maintenance of high wages seems to have increased the severity of the Great Depression. However, wage supports, and the real wage rate increase that they caused, spring from a different source than price deflation.

Concerning Bernanke's claim that a falling price level will effect rising real interest rates, certainly a fall in prices would lower nominal interest rates. The nominal interest rate, after all, includes the expected rate of change in prices, which by the early 1930s had become negative. Conversely, the real interest rate equals the nominal interest rate without this change in price. In this sense, the real interest rate might be considered as the nominal interest rate minus an expected negative change in prices, and thus would rise relative to the nominal interest rate. However, the claim that a drop in prices causes the real interest rate to rise errs disastrously inasmuch as it fails to account for the real cause of a change in the real interest rate.

The real rate of interest is the price of present money in terms of future money, determined by supply and demand in the loanable funds market. A change in the value of money, or price level, has no direct effect on this process. Bernanke's argument implies that the real interest rate adjusts to changes in the nominal interest rate, actually the reverse of what

happens in the loanable funds market. In truth the real interest rate, plus expected changes in price, determines the nominal interest rate.

In regard to Bernanke's argument founded upon the effects of price deflation on debt, it is true that in a situation of price deflation wealth would transfer from borrowers to creditors. After all, the nominal interest rate negotiated when the purchasing power of money was lower will now be relatively high in real terms. However, Bernanke's claim that borrowers have unique access to investment opportunities assumes that these borrowers are productive entrepreneurs. The very fact that these borrowers are defaulting on their loans belies that assumption. It might more reasonably be posited that the transfer of wealth from failing borrowers back to the lenders results into a more profitable allocation of this wealth, which will be taken out of failing projects and invested into undertakings that the lenders believe will yield a profit.

Bernanke is right to claim that fractional reserve banks will suffer losses in a scenario of generally falling prices; these banks will also, surely, hesitate to extend credit to riskier borrowers. This is, after all, a part of the corrective market mechanism which liquidates mal-investment and restores the efficiency of the production structure. Banks which expanded credit, disregarding the implicit risks, will be forced to be more careful.

Deflation of prices did not represent the fundamental cause of depression. After all, economic expansion can occur, and has occurred, in spite of falling prices (Hayek 1932, p. 123). Indeed, a scenario of sustainable economic growth, stimulated by an increase of real savings, will be characterized by falling prices of consumer goods (De Soto 2006, p. 336). The boom/bust cycle entails price deflation, but ultimately, this is not the source of decreasing output.

The authors of the Gold Standard Hypothesis would argue that the money supply should be expanded by the central bank to counteract the falling prices. Such an artificial credit

expansion, besides causing income redistribution and other problems, entails a decrease in the interest rate. This will result in malinvestment, inevitably culminating in the collapse of these malinvestments and a fall in productivity. Rather than allowing liquidation of the bad investment produced by artificial bank credit expansion, central bank expansion of credit would encourage more bad investment, inevitably fueling another boom bust cycle. Indeed, Hayek indicated that the unusually severity of the Depression was due largely not only to credit expansion during the late 1920s, but also credit expansion designed to combat falling prices in the early 1930s (Hayek 1933, p. 22).

In the end, the interwar gold standard was abandoned or devalued, in Britain (1931) and the United States (1933). By 1936 the rest of the major European economies had abandoned gold. Bernanke, Eichengreen, and Temin credit the eventual recovery of these economies to the abandonment of the interwar gold standard. Bernanke, in his 1995 paper "Macroeconomics of the Great Depression," presents some interesting empirical data to back this claim. For example, nations on the gold standard experienced an average drop in manufacturing of roughly twenty-seven percent from 1931-32; for nations which did not adhere to the standard the manufacturing decreased sixteen and one half percent. From 1933-35, in nations off the gold standard, manufacturing increased thirty percent, while in gold standard nations the average increase amounted to only nine percent (Bernanke 1995, p. 14). Similar statistics demonstrate the correlation between the gold standard and lower levels of employment.

The claim by Bernanke that no nation experienced significant recovery until it had abandoned the gold standard receives less empirical support. In both France and Poland, for example, recovery began before the gold standard had been abandoned or devalued (Snowden and Vane, p. 12). Moreover, it must be debated whether fiat money expansion could have pulled the world out of the Great Depression when in fact such monetary expansion had been

undertaken in the United States in the 1920s and early 1930s, neither preventing recession nor curing it.

Bernanke and Eichengreen would claim that such inflationary policy was limited by the connection between gold reserves and the money supply, and that many of the policies which the Fed utilized to manage the money supply (such as open market transactions) were prohibited or restricted in European nations (Bernanke 1991, p. 76). It has been seen, however, that the Federal Reserve possessed and exercised great ability to expand the money supply. Furthermore, if the activities undertaken by the Federal Reserve failed to recover the American economy, the assertion that such actions would have counteracted depression in nations where they were prohibited seems dubious. Thus while there is some statistical correlation between monetary expansion and recovery from the depression, the empirical case proves from compelling in the light of other historical data.

Ultimately, the Gold Standard Hypothesis fails as an explanatory theory of the Great Depression, for three main reasons. First of all, in spite of its appeal to empirical data, it fails to accord with the historical facts. The main theoretical justification of the Gold Standard Hypothesis claims that the interwar gold standard restricted expansion of the money supply. On the contrary, it has been demonstrated here that under the interwar gold standard system, at least in the United States, significant manipulation of the money supply could be undertaken. Indeed, the Federal Reserve Banks did expand the money supply to combat deflation both before and after the crisis.

Secondly, adherence to true gold standard principles did not cause the monetary contraction. Unlike a true gold standard, the interwar gold standard allowed massive credit expansion by federal and commercial banks. The Great Contraction and the price deflation that

accompanied it represented the market response to this credit expansion. Thus, the monetary contraction may be more correctly blamed on deviation from a true gold standard.

Finally, Bernanke fails to prove that the Great Contraction, through price deflation, caused or severely exacerbated the Great Depression. The fall in prices may rather be seen as a concurrent effect of the boom-bust cycle, accompanying the Depression but certainly not causing it (Hayek 1933, 19). The massive decrease in productivity resulted not from the falling price level, but from the elimination of malinvestments in the production structure, themselves caused by artificially low interest rates.

Therefore, it is incorrect to claim that the gold standard caused the Great Depression. On the contrary, the processes which led to this catastrophe commenced because of policies which ran perfectly counter to a classical understanding of commodity money. It would be more correct to cite deviation from the classical gold standard, beginning with the establishment of the Federal Reserve, as the cause of the disaster. By facilitating an irresponsible expansion of credit, the abandonment of the classical gold standard established the preconditions for the crisis.

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