

“A Program for Monetary Stability”*

by Milton Friedman

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Our subject this morning is the arrangements in the United States for monetary stability. This topic is an ancient one in the deliberations of economists, going back many centuries. However, there was a hiatus for about twenty years, from about 1935 to about 1955, when there was very little discussion or work in this area.

As you all know, the unduly high hopes which were placed in the Reserve System in the 1920s as a means of promoting a permanent new era and a high level of stability were disappointed by the Great Depression of 1929 to 1933.

The profession of economics as a whole then shifted very radically from one course to another. From a general belief that the stock of money and the changes in it are tremendously important in controlling economic affairs, the profession shifted toward the view that money has little importance and does not matter except in rather trivial ways. It shifted toward the belief that the important things to look at are the flows of investment expenditures, on the one hand, and consumer expenditures, on the other. It was said that if these are taken into account, it really does not make much difference what happens to the stock of money.

In the last five or ten years or so, there has been something of a counterrevolution with respect to these ideas, both in this country and abroad. This has been partly a result of the experience which countries had after the war with the policies which seemed to follow from the neglect of money. Those policies called for easy money, for trying to keep interest rates low. Their adoption was very widely accompanied by problems of inflation. These problems of inflation, in turn, caused renewed attention to and emphasis upon money.

At the same time, there have been developments in the world of ideas and theories which also led to a reincorporation of monetary factors into economic thought, so that by now economists are again putting a great deal of emphasis on monetary matters. They are once again concerned about the problems of how money ought to be managed, although the reasons they now give for these concerns may be somewhat different from what they were thirty or forty years ago.

It is surprising that economists, even for so short a period as several decades, should have adopted so extreme a position as they did about the unimportance of money. This is particularly surprising in the United States, it seems to me. In looking over our own historical background, it is clear that the problems of controlling the stock of money have played a major role in both political and economic affairs ever since the founding of this nation. The problem of money probably has been of greater importance in American experience than in that of many another country.

Historical Background

This problem goes back to the Revolutionary War when, as all governments do in time of war and in time of need, we resorted to the printing press. As you know, the phrase “not worth a

Continental” arose out of the Continental currency which was issued during the Revolutionary War and which came to be regarded as worthless. I should make clear that there is such a thing as progress in human affairs. The degree of inflation in the Revolutionary War was very modest, measured by modern standards. It was nothing like the German hyperinflation, or the hyperinflation in Hungary after World War II. It was of a much more moderate order of magnitude — prices increased only several thousand-fold — but this did start us off on the idea that there is some problem about money.

The Constitution assigns the responsibility to government to fix the value of money. It specifies also that the government may not emit bills of credit. This was intended to prevent the issuance of paper money by the federal government — like the Continental currency. One of the most interesting episodes related to this provision had to do with the issuance of greenbacks during the Civil War. Samuel P. Chase was Secretary of the Treasury at the time, and hence responsible for their issuance. Less than ten years later, when he was Chief Justice of the Supreme Court, he wrote a decision, concurred in by a majority of the Court, asserting that the notes he had issued were unconstitutional and illegal.

From the time of the Revolutionary War, the monetary issue has remained a major theme in politics and economics. You all know about the great bank war which raged in the 1830s and which brought together, as antagonists, Andrew Jackson and Nicholas Biddle. The issue was whether the charter of the Second Bank of the United States should be renewed in 1836. The Second Bank of the United States was a central bank; it was somewhat similar to what the Federal Reserve System has now become.

Many people will argue that the great mistake made was not to renew the charter of the Second Bank at that time. Personally, I think the mistake was made in 1816 in issuing the charter, but that is not a dispute of immediate interest. The bank war was a very important episode because it laid the groundwork for what was the greatest depression in American history prior to 1929–1933, namely, the one which was experienced from 1839 to 1843.

After the failure to renew the charter of the Second Bank of the United States, Biddle started a private bank as a continuation of the Second Bank in Pennsylvania and proceeded to use this private bank in many ways that, as a government official, he had never used the Second Bank. He tried to use it to support the price of cotton; as later episodes have shown, this is a tough thing to do. It did not work then, and it has not worked since. The result was a very severe and extreme depression, one which is interesting because the monetary aspects were almost identical with those of the 1929 to 1933 episode. The stock of money from 1839 to 1843 fell by a third, which is roughly the amount it fell from 1929 to 1933. The percentage of the banks that failed was almost the same at that time as nearly a century later, and in both cases there were long and deep depressions.

The Greenback and Silver Issues

The Civil War greenback issue and subsequent agitation for the resumption of gold payment in 1879 is the next episode that needs mention. Again money became of the greatest importance in politics and in economics. There was a great contraction from 1873 to 1879, a six-year period, as a result of the measures and the attitudes that were involved in seeking to go back on gold.

The silver issue came next. It started with the alleged crime of 1873, which was supposedly a crime in that the provision for the coining of silver was left out of an act to reform the coinage. Whether it was a crime or not, there is no doubt that when prices in general tended to decline from 1882 to about 1890, there was a widespread movement in this country to leave gold and to coin silver freely. The movement gained strength in the early 1890s. Again, this was both a major political issue and a major economic issue.

The 1890–1896 episode is one that would bear restudying in terms of our present situation, because the economic problem was in many ways exactly the problem we now face. At that time there was a fear that the United States would go off gold and onto silver. This led foreigners who held dollars in this country to fear that the dollar would not remain fixed at its then price in terms of gold. This led to capital outflows, just as now we are faced with recurring capital outflows because of doubts that the price of \$35 an ounce for gold will be maintained. These capital outflows could be kept from driving the United States off gold only by what was essentially an exceedingly tight money policy.

It is generally believed that the trouble with the silver agitation was that it produced an inflation of the money supply. That is the reverse of the truth. The trouble with the silver agitation was that it kept the money supply from growing as much as it otherwise might have grown. It did this by threatening an outflow of gold. This meant that the stock of money had to be held down in order to maintain international balance, i.e., in order to ensure the amounts we earned from abroad equaling the amounts we spent abroad.

This is exactly our situation today. The continued threat of outflow of gold is forcing on us a tight money policy, again for the same kinds of purposes: to try to hold foreign balances here, and to reassure foreigners that we are not going to change the price of gold.

The high spot of the silver agitation, in dramatic impact, was of course the great Cross of Gold speech made by William Jennings Bryan. I wonder how many of you know that it was made in Chicago, not far from the University of Chicago — at the corner of 63rd and Cottage Grove, which is now known as “Sin Corner.” It is so named, not because of Bryan’s presence, but because it happens to be the center of some unsavory aspects of Chicago life that people from the outside know more about than we do. But it was at “Sin Corner” in 1899 that William Jennings Bryan was nominated by the Democratic Convention, and it was there that he made the Cross of Gold speech that was the high spot of political agitation.

From that point on, the silver agitation declined, but not because of any decline in Bryan’s oratory. His silver voice remained as silver. The political agitation of the Democratic Party became no less effective. Silver declined because of things that were happening in other corners of the world: the discovery of the cyanide process of extracting gold from ore, plus the discovery of new gold mines.

Increase in World Gold Supply

At the very same time that the great political campaign was going on here as to whether there would be a proper expansion of the money supply with gold as the base, there was a sizable increase in the rate of growth of the world’s gold stock. From 1890 to 1896, the gold stock had

been expanding elsewhere. The growth had not reached the United States because the fear that we would leave gold drove capital out of the country, and this prevented our sharing in the world's increase in the gold stock.

From 1896 on, gold started to increase in the United States. From 1896 to 1913, gold produced the results that Bryan and his advocates wished to have silver produce. We had a gold inflation, with prices rising over a third from 1896 to 1913. Since we got what the silver advocates were really interested in, their appeal to the public disappeared and Bryan was defeated resoundingly the next time he ran. His defeat in 1896 was by a rather small margin; and if we had not had a turn-around in the production of gold, it is very likely he would have made it the next time.

Retrospective history is interesting. I am not sure but that the United States would have been better off if we had had silver from the period of 1879 to 1893. I bring this up because it illustrates a very important point I think one needs to keep in mind. What was bad about the silver agitation was not that silver would have been bad. What was bad was the lack of certainty about what the monetary standard was going to be. There was introduced into affairs a degree of uncertainty which caused capital outflows.

Let us say that in 1879 we had resumed on silver instead of gold and everybody had known we were on silver and were going to stay on silver. I think that would have been better than what actually happened. We might have had relatively stable prices, both in the United States and in the rest of the world, because silver would have enabled the stock of money to grow more rapidly than it was able to do from 1879 to 1896. Equally, if we had been on gold and everybody had been certain we were going to remain on it, there would have been no doubt about it. That would have been better than what we actually had. What was really disturbing was a lack of certainty about what the system was going to be, and consequently there was the possibility that we might move in one direction or the other.

The gold inflation solved the political agitation about the problem of money. But it brought to the fore another aspect of this general problem that had recurred before, namely, concern about banking and about the structure of the banking system.

The Panic of 1907

The United States had developed, as you know, with a unit banking system of the kind we still have — a unit fractional reserve banking system. From time to time there had been so-called banking crises and panics; the last one before World War I was the panic of 1907. Those panics arose under circumstances in which, for one reason or another, many people questioned the ability of the banks to convert their deposits into currency.

In a fractional reserve system, if a large number of people try to convert their deposits into currency they cannot succeed in doing so. There are few words in the English language which are greater misnomers than the term “deposits” for those liabilities that are on the bank's books. People think that a deposit means “you go and leave it there.” Now, we all know that the money goes in at one window and goes out at another, and that what is deposited is only a small percentage, the so-called fractional reserve. Consequently, if everybody tries to get “his” deposit, he cannot do so.

When doubts arose about banks, people would tend to try to withdraw their deposits. This would have caused widespread bank failures. Such bank failures were prevented by a concerted refusal on the part of the banks to pay currency for deposits, called a suspension of payments. That term is a misnomer, too.

Those of us who remember the banking panic of 1933 are inclined to believe that early banking panics were like the one in 1933. They were not. In the early banking panics, like 1907, the banks stayed open for business despite a suspension of payments. People continued to make payments and to do business through banks. The only thing changed was that the bank would not hand currency over the counter for deposits. It would transfer checks from one account to another, but checks had to be marked payable only through the clearinghouse. What was called suspension of payments was, in fact, a restriction of convertibility of deposits into currency. The business of the country could continue, and indeed expand, until the panicky fear of bank failures was over and payments could be resumed.

Suspension of payments of this kind was a severe step, but it was a therapeutic measure which prevented the failure of a few banks from leading to the failure of a large number of other banks. However, it was widely believed that this represented a severe and serious defect in the banking system. This led to the establishment of the National Monetary Commission in 1909, and this in turn led to a series of proposals for reform which ultimately ended in the Federal Reserve Act and the establishment of the Reserve System in 1914.

Now, a major purpose in establishing this system, it is quite clear, was to prevent any such banking panic or suspension of payments by the banks to the public.

Experience under the Reserve System

The period since 1914, under the Federal Reserve System, is well known, but it is interesting nonetheless to contrast it with the prior period. The interesting thing to ask, I think, is: Comparing the period from 1914 to the present date with the preceding forty to fifty years, in which case did we have a greater degree of monetary stability?

There is no doubt about the answer. There was a greater degree of monetary stability in the period before the establishment of the Federal Reserve System than in the period after, whether measured by changes in interest rates, instability in the stock of money, instability in prices, or instability in economic activity. By any measure I know of, the period after has been more unstable than the one before.

One obvious reason is that there were two world wars after 1914. Those wars would have caused instability under any system. But omit the wars and the answer is still the same. The period since 1914 has been more unstable, in the peacetime years alone, than the period before 1914.

I hasten to add that this is an oversimplification. The great period of instability was the 20 years between the wars, 1919 to 1939. There is no other 20-year period in our history that comes anywhere close to having such great instability. That period contained three major contractions.

First there was an inflation from 1919 to 1920, then a severe contraction, then the 1929 to 1933 episode and then the 1937 to 1938 contraction. The period since the end of World War II has not been more unstable than earlier periods, but rather more stable than most.

Greater Instability Since 1914

Yet, taking as a whole the period since 1914, there is no question that it has been more unstable. Moreover, that period contains the worst banking panic in our history. The 1933 banking panic with its bank holiday, when banks were closed for a week, was incomparably severer and more sweeping than any earlier panic. Whereas the earlier panics came before banks failed and prevented them from failing, the 1933 panic came after the banks had failed and indeed closed the doors of many good banks that were open the day before the panic. The number of banks that opened their doors after the banking holiday in March 1933 was decidedly less than the number that had been open before, and a large fraction of the banks that did not reopen ultimately paid out 100% to their depositors.

So here was a system, established in 1914 for the purpose of preventing banking panics and providing monetary stability, which in practice was associated with the greatest banking panic in U. S. history and a great deal of instability of money.

Is the reason simply that the problems the System had to cope with were severer after the war, so that the earlier system, too, would have had the same problems? I cannot hope to indicate here the reasons I think the answer is in the negative, but if you were to examine in detail the successive episodes in the period after 1918, I think you would agree that that is the only conclusion justified by the evidence.

Under the earlier monetary and banking system, imperfect though it was, we would have had less of an inflation in World War I. The wartime inflation would have been there anyway, but the postwar inflation from 1918 to 1920 would not have occurred, which would have eliminated a third of the total inflation. We would not have had the drastic fall in prices in 1920 and 1921, the sharpest fall within a brief period in the whole history of the United States and perhaps of any other country. Prices fell nearly 50%, and two-thirds of the decline came in the six months from August 1920 to February 1921.

The Great Depression

Most important of all, under the earlier system we would not have had the Great Depression of 1929 to 1933. This depression had a traumatic effect upon the thinking of people and their attitude with respect to money and many other matters. It was this event that led to a shift from the belief that money is of the greatest importance to the belief that it is a minor matter which can be left to one side. It was the major event that led to a shift of emphasis from monetary policy to fiscal policy and that produced a widespread expansion in the role of government in the economy after 1933.

It has been widely taken for granted that 1929 to 1933 demonstrated the impotence of monetary control. It has been said that here we had a system which was established to prevent such a depression and which had the power, but which in fact did not prevent it. Therefore it was concluded that it must be that money is not very important. I myself think that the episode

suggests just the opposite. It suggests that money is so powerful that it needs to be controlled more closely than it was then. If you examine the 1929 to 1933 episode, you will conclude that it was a needless episode. There is no doubt that with the powers then existing in the hands of the System, a very large part of the decline could have been prevented.

I do not mean to be casting blame or suggesting incompetence or lack of will or anything like that. It may be that the ablest, the most intelligent, the most public-spirited men would have made the mistakes that were made at that time.

Economists as a whole have no reason for feeling proud of their own record during that period. A year ago I read over the volumes of the Proceedings of the American Economic Association from 1929 to 1933. They are not something to make you feel proud of your profession. While the world was tumbling around the economists' ears on the outside, there was hardly a sign of it in the papers presented at those annual meetings. They dealt with strictly academic matters, even monetary and long-term banking matters. I remember one study, in 1932, of the failure of banks. It was concerned primarily with what had happened during the '20s and stressed the fact that country banks which failed had made poor mortgage loans, whereas in fact the important thing happening at the time was the widespread failure of city banks.

Great Power in a Few Hands

So I am not trying to say that the mistakes made were not understandable. What I am trying to say is that a system which could produce mistakes of that magnitude is a bad system by its very nature. It is like the cartoon in the *New Yorker* a couple of weeks ago, in which one man is sitting at a table in front of a big computer and another man is looking over his shoulder and saying, "Four thousand mathematicians in four thousand years couldn't have made a mistake like that." That is exactly the point. A mistake like that could not have been made under our earlier system or under a system which did not concentrate so much power in a few hands.

Let me spend a few minutes more in discussing the details of that episode, because it was so important in forming people's ideas. I think it is very important, in judging the episode, to distinguish the first year, from mid-1929 to the fall of 1930, from the subsequent years. We have had business recessions for several hundreds of years and we will have them for hundreds of years more. I have no doubt about that. Economic affairs move in fluctuations. The most we can hope for is that we can keep them relatively mild.

It may be that, monetary policy or no monetary policy, there would have been a recession from 1929 to 1930. There were signs of monetary tightness in that period as a result of the undue concern of the System with the stock market. In point of fact, the expansion of 1927 to 1929 is the only one I know of on record in which prices did not rise during a period of business expansion and in which the stock of money was lower at the end than it was at the beginning of the expansion. From 1929 to 1930, the stock of money fell about 3%. This was more than it had fallen in all except the severest previous depressions. Nevertheless, 1929 to 1930 can be described as an ordinary garden variety of recession — somewhat severer than most recessions, but not out of line. There were, in particular, no aspects of monetary weakness and no bank failures on any substantial scale, and no sign of any weakening of public confidence in the banking system. The ratio of deposits to currency prior to the Federal Deposit Insurance

Corporation was an infallible sign of public attitude. This ratio stayed up or went up a little over that period, so that up to September or October of 1930 there was no sign of a liquidity crisis or a banking problem.

That period must be distinguished sharply from the one that followed. It is the later period, from late 1930 to 1933, for which, it seems to me, the Reserve System or the monetary authorities bear responsibility of a real kind.

In October and November of 1930, a series of bank failures started out here in the west and spread, culminating on December 11, 1930, with the failure of the Bank of the United States in New York. That was a large bank with something like \$200 million of deposits. Its name made its failure more important than it otherwise would have been. Although it was an ordinary commercial bank, it was widely interpreted by people abroad, and also by immigrants in New York and throughout the United States, as being a government bank. Indeed, this may be one reason that it was permitted to fail. The banks in New York were very unhappy about having a bank with the name "Bank of the United States" in New York, as well as being unhappy about some of the irrelevant characteristics of the owners and managers of the bank. As a result, there was less sympathy for this bank than there would have been for many another bank. It was allowed to fail, and it precipitated a real liquidity crisis.

From this point on, the character of the contraction changed. The ratio of deposits to currency started to fall. Time and again, depositors sought to withdraw deposits; this caused a stream of bank failures, with one bank failure bringing on another. The crisis would taper off for a while and then start again.

Failure to Provide Liquidity

What did the Federal Reserve System do during this period? It behaved as impassively and inactively as you can conceive of its doing. In 1931, after six months of this kind of behavior, Federal Reserve credit outstanding was less than it had been two years earlier in the middle of 1929. There is not a single sign that the Federal Reserve engaged in extensive open-market operations or in any other way tried on its own initiative to provide banks with the liquidity which would enable them to withstand a run, although this is what it had been set up to do. Every time there is a sequence of runs, discounts rise, but only as a necessity of the banks and not because of any encouragement from the Federal Reserve System.

I may say that there were voices within the System arguing for a more appropriate policy. George Harrison, the governor of the Federal Reserve Bank of New York, pleaded for the System to engage in open-market operations, but he was vetoed as a result of an administrative change that had occurred in the Open Market Committee. It had been changed from a five-man to a twelve-man committee — hardly a change likely to facilitate vigorous action. The twelve-man committee of bank presidents continuously vetoed Harrison's proposals for open-market operations, and the Reserve System did nothing and allowed banks to fail by the score.

The next important date is September 1931, when Britain went off the gold standard. This time the Reserve System reacted to the external threat as it had not to the internal threat. Within two weeks it raised discount rates more than it had before or has since, and there was a sudden

increase in bank failures. There was a decline in the stock of money and, in the course of six months following this episode, something like 10% of the banks in the United States went out of business and deposits fell by something like 15%. But there is no sign at all of any autonomous easing action on the part of the Reserve System until the spring of 1932, when, faced by great congressional pressure and threats of congressional investigation, the System engaged in open-market operations to the tune of a billion dollars. It stopped two weeks after Congress adjourned.

The final episode was the last series of bank failures ending with the banking panic of 1933.

Cause of Decline in the Stock of Money

The main lesson I want to drive home is that the 1929–1933 period was not one in which the economic depression forced a decline in the stock of money. The decline in the stock of money was a direct consequence of the sequence of bank failures. The banking failures were not important primarily because they involved the failures of financial institutions. They were important because they forced a decline in the stock of money. They forced a decline in the stock of money because the therapeutic-device that was earlier available, the device of concerted restriction of convertibility of deposits into currency, was not available because the Reserve System had been established as a lender of last resort. However, the lender of the last resort did not perform the function of providing the liquidity in the market that would have enabled the banks to meet their obligations.

At all times the Reserve System had ample power to keep the stock of money from declining. It is literally inconceivable that if the stock of money had stayed constant instead of falling by a third, money income could have fallen by a half or that prices could have fallen by a third. I do not mean to say there would not have been a recession or contraction. It might have been a severe one, but it would have been of a wholly different order of magnitude, and not a catastrophe.

We come to the very important step that was taken: the establishment of the FDIC in 1934, which did prevent banking panics by insuring depositors, thus preventing contagion from spreading as a result of bank failures. In the latter 1930s, the Federal Reserve System was almost entirely passive. The Treasury took over the role of being the money manager.

The Fed's Postwar Performance

The Federal Reserve did not assume an active role in monetary policy again until after the Treasury-Federal Reserve accord in 1951. This postwar period is one with which you are all familiar in great detail; but nonetheless, let me comment very briefly on the last few episodes in order to suggest that the capacity to make mistakes has not been eliminated. The actual performance in the postwar period has been vastly better. This is because the performance has been within a narrower range. We have not moved very vigorously in either direction.

When we had a contraction in 1957 to 1958, the Federal Reserve System was severely criticized for having maintained what was regarded as a tight money policy for too long, for not reversing itself until late in 1957. It was widely feared that the contraction would be sharp and that the Reserve's hesitancy in reacting to it would make it sharper still. So in early 1958 the System turned around, and in late 1958 there was a very rapid expansion in the stock of money. The

increase in the rate of expansion in the stock of money coincided with economic expansion. The recession turned out to be milder than many people expected it to be. The Reserve System, in consequence, must have felt that its own position was rather supported by contrast with that of its critics. It felt that the reason it had had to be so tight from 1956 to 1957 was that it had maintained ease for a very long time before 1955.

This time it decided to have a different policy. The expansion had been underway barely six months when the Reserve System tightened up, early in 1959. The rate of change in the stock of money reached a peak during the summer of that year, and then started going down. I think this clearly was one of the major factors that produced a business cycle peak in 1960 after a very short and brief expansion. That expansion did not run its natural course; it was choked to death early. The steel strike which came at the end of 1959 made it a little difficult to see what was going on, but I think the fact of the matter was that money was tightened up unduly early and that the effect was not felt for something like a year or a year and a half. When it was felt, there was a contraction from 1960 to 1961.

Once again the Reserve System turned around and started to put on a great deal of steam, and again the contraction turned out to be relatively mild, reaching its trough in the spring of 1961. Since then we have been in an expansion, and already there are signs that exactly the same policy is being repeated. Once again we are taking monetary measures, it seems to me, that are likely to spell an early end to this expansion. In this latest episode there is more excuse because of the so-called gold problem, which if I have time I will come to for a moment at the end. Nonetheless, the main point I want to make is that we again have a series of erratic changes.

In retrospect, it seems perfectly clear that we would have been better off if we had avoided the tightening and the easing and had kept the policy of a steady, even keel instead of shoving one way and then shoving too far the other way.

The lesson I draw from this brief survey of history is that the major problem is how to avoid major mistakes, how to prevent such a concentration of power in a small number of hands that that group can make a major mistake. The great virtue of a decentralized system is that mistakes average out. If one unit does something wrong, it does not have a wide effect. If the power is centralized, there is a great deal of power to do good but, along with it, a great deal of power to do harm. The problem is how to erect a system which will have the effect of reducing the power for harm without unduly reducing the power for good, and which will provide a background of monetary stability.

The Problems of Monetary Reform

That brings me to the problems of monetary reform. These can be classified under three headings: institutional organization of the private banking system; monetary powers of the Federal Reserve and the Treasury; and criteria for controlling the stock of money.

With respect to the institutional organization of the private banking system, we have had extension of governmental control over the private banking system largely because of the intimate relation of banks to the stock of money. Banks have been controlled more closely than other financial institutions for this reason primarily. It recently has been argued extensively, as

you know, that the commercial banking system has been declining relative to financial intermediaries such as savings and loan associations, mutual savings banks and so on, that in some way or other the expansion of these intermediaries limits the effectiveness of monetary management and that it would be desirable to extend control by the Federal Reserve to them.

I think this whole argument reflects a fundamental misconception of wherein the power of the Federal Reserve System lies. The detailed control of banks has almost nothing to do with the essential power of the System. The essential power of the System is the power to determine the total stock of what we call high-powered money—pieces of paper we carry around in our pockets and the reserve balances which the banks hold at the Federal Reserve Banks.

Conceive for a moment a system in which no commercial banks are members of anything called the Federal Reserve System and in which no government agency has any direct control of banks. Let there be no legal reserve requirements for banks at all. Let there be, however, an agency which has an exclusive monopoly of the printing of pieces of paper that can be used for hand-to-hand currency or for vault cash by banks to meet their obligations.

I submit to you that such a system retains all the essential power which the Federal Reserve System now has and that all the rest is trimming. Legal reserve requirements of banks, the ability of the Federal Reserve System to alter these requirements, the requirements that banks keep their reserves as deposits with the Federal Reserve System, the supervision by the Federal Reserve System over day-to-day operations of banks, the clearing of checks by the System — these are all trimmings. You could strip them away and you would not destroy the Reserve System's power.

On the other hand, set up an alternate agency that can print the green paper stuff available for hand-to-hand currency or for vault cash by banks, and the power of the System is destroyed. In consequence, I really think that there is no justification for extending control to financial intermediaries.

Controlling Interest on Deposits

What we want to do along these lines is to reduce the degree of control which the System exercises over commercial banks. The most obvious way in which the degree of control could be reduced is in minor respects. The present ceilings on interest rates and the present law that makes it illegal to pay interest on demand deposits could and should both be abolished. Their potential for harm has been demonstrated very clearly in recent months.

The prohibition of interest on demand deposits makes for a greater degree of instability in the relationship between demand deposits and time deposits than would otherwise prevail. When interest rates in general go up, the interest rate that commercial banks pay on time deposits tends to go up also, and this tends to increase time deposits in relation to demand deposits. If interest were paid on demand deposits, it could go up, too, and offset the rise in interest on time deposits. Because of the interest ceiling on time deposits, every now and then a still greater degree of instability is introduced into the banking situation because of the arbitrary movement in the fixed price.

In December 1956, the price that banks could pay on time deposits was raised. There was a period, prior to that, of a very slow rise, in commercial bank time deposits, and then a very rapid rise. In December 1961, the rate of interest that could be paid by banks was raised again. There has been an extraordinarily rapid rise in time deposits since then, which has made it very difficult to read the monetary figures and to know what they are saying and what is going on.

This instability has nothing to do with the nature of the system. It is introduced entirely by arbitrary regulations of prices; and a very minor, but not negligible, reform would be obtained by either of two devices. The Reserve System could inaugurate one of these on its own. It could set the maximum that the commercial banks could pay on time deposits at 20%; that would keep the regulation from being a source of difficulty. Or, preferably, Congress could pass a law repealing the provision that the banks may not pay interest on demand deposits and repealing any price fixing on time deposits. Either of these would be a minor reform, but worthwhile.

Banking under 100% Reserves

To go much further in reforming the institutional organization of the banking system, it would be necessary to go in the radical direction of eliminating controls over individual banks, in the direction of 100% reserve banking. This move would tend to eliminate all control over the lending and investing activities of banks and would separate out the two functions of banking. On the one hand, we would have banks as depository institutions, safe-keeping money and arranging for the services of transferring liabilities by check. They would be 100% reserve banks, pure depository institutions. Their assets would be government liabilities — either pieces of paper or deposits to the credit of the bank on the books of a reserve bank or its equivalent. I would favor the government's paying interest on those liabilities just as it now pays interest on its general government debts. Under a 100% reserve bank, it would be desirable to do this in part because it would provide such banks with an appropriate source of income to enable them to compete on the right level with other banks for funds. Even if we did not go this far, it would be desirable, under present law, to have the government pay interest on its liabilities to commercial banks, namely, on commercial bank demand deposits with the reserve system.

If 100% banking were established, our present banks would be sliced off into other branches operating like small-scale investment trusts. They would be lending and investment agencies in which private individuals would invest funds as they now do in investment trusts and other firms, and these funds would be used to make loans. Such organizations could be completely exempt from the kind of detailed control over financial activities that banks now are subject to.

So much for the institutional organization of the private banking system, which I am skipping over very hastily because I want to turn to matters that perhaps are more important, namely, the monetary powers of the Federal Reserve System and the Treasury.

Supervisory and Monetary Powers

In addition to its monetary powers, the Federal Reserve System currently has supervisory and examination responsibilities with respect to member banks. In practice, the actual examination is done by an examiner employed by the Comptroller of Currency, by the FDIC or by a state banking commission, so that each bank is not in fact examined by the three agencies that

technically have supervisory responsibilities. It seems to me that it would be desirable to go further along these lines. Even if nothing more is done now in the way of extensive reform, supervisory power should be concentrated in one of the other agencies, such as the FDIC, rather than in the Reserve System; and the Reserve System should be relieved of any technical supervisory responsibility and its role legally concentrated on exercising monetary powers.

The more important problem is these monetary powers of the Reserve System. As you know, they consist primarily of three items: (1) the power to change reserve requirements of member banks; (2) the power to rediscount for member banks; and (3) the power to engage in open-market operations.

Of these three powers, the first two are, I think, inefficient and poorly designed tools of monetary management. In making this judgment, I am assuming that our present system is in all respects unchanged, that the institutional organization of the banking system is what it is and that the criteria for controlling the stock of money are whatever they now are. My purpose in doing this is to separate issues: whatever the criteria are, there remains the question whether present powers are efficient tools for achieving them.

What changes in the present powers of the System would make it more efficient? There seems to be a very strong case for streamlining these powers by eliminating the power of the System to change reserve requirements and to rediscount, and by requiring it to limit its activities to open-market operations. It really is not true that three tools are necessarily better than one, if they can go in opposite directions or if they get in one another's way. That is the case here. To change the metaphor, it is easier to juggle one ball than three.

Suggested Changes in Present Powers

The power to change reserve requirements is a poor tool because it is discontinuous. Changes in reserve requirements tend to be by one percentage point or half a percentage point. If they were by 1/100 of a percentage point it might not be so bad, but a change of 1% in reserves is a very large change. In order to offset the effect, the Reserve System does two things at once. If it makes a one percentage point decrease in reserve requirements with the one hand, with the other hand it pulls out the reserves released; similarly, if it increases the required reserve ratio, it provides additional reserves by open-market operations. This is what it must do if it is going to smooth the effect of reserve requirement changes and prevent them from becoming a serious source of difficulty. But because it is hard to predict the effect of a reserve requirement change, the offset is never accurate and the whole operation becomes simply an unnecessary source of disturbance. Anything that can be done with reserve requirement changes can be done with open-market operations.

Hence, the power to vary reserve requirements ought to be abolished.

So far as rediscounting is concerned, it no longer serves the function of providing a lender of last resort. It was introduced originally for the purpose of enabling banks to have an additional source of liquidity in time of need. That function is now performed indirectly by the FDIC, whose existence helps to prevent banks from getting into a position where there may be a run on them or, if there is a run on one bank, prevents that run from spreading to other banks.

As a tool of monetary management, rediscounting is unsatisfactory. It tends to lead the Reserve System to do things at times that it has no intention of doing. How tight a particular discount rate is depends on market conditions. Suppose market rates are falling, for whatever reason, as in late 1959, while the Federal Reserve rediscount rate is stable. The same rate then becomes tighter than it was before. The willingness of banks to borrow depends upon the relation between the discount rate and the market rate. If the market rate is high compared to the discount rate, banks have an incentive to borrow. If it is low, they have an incentive to get out of debt to the Reserve Banks, which is the situation now.

The fall of 1959 is a good example. The discount rate was held stable. Market rates moved from a level above the discount rate to below. I am oversimplifying, but the result was that Federal Reserve credit outstanding declined, but not because of any desire on the part of the System to make it decline. The stock of money fell, but not because of any explicit design on the part of the System to make it fall. The System did not deliberately intend to produce a decline in the stock of money from 1959 to 1960; this happened in spite of the System's behavior and, in that particular case, largely because the rediscount rate, being fixed, led to this result. I could give many other examples, but I think this one illustrates my point that the rediscount rate gets the System into trouble.

One way to prevent the discount rate from being a source of trouble would be to fix it at 20%. That would solve the problem. As an alternative, the power of the System to engage in rediscounting could be abolished by law. That would leave available only open-market operations, which are by all odds the most effective way to control the stock of money.

With respect to open-market operations, I should add, however, that there are two agencies now operating. The Federal Reserve and the Treasury both engage in open-market operations.

Role of Treasury in Open Market

The Treasury's operations illustrate the general principle that the problem is to keep people from making mistakes. The Treasury's debt operations could promote stability, but in fact they have been highly irregular and a source of uncertainty in the market. The best thing to do would be to eliminate the effect. Technically, the best way to do it would be to put all debt management in the hands of the Federal Reserve; it does not make any sense to have two independent agencies in debt management. There would, however, be great political objections to consolidating debt management in the Federal Reserve System.

An alternative that would be just about as good would be to have the Treasury Department adopt a policy that would be stable and predictable. One component of such a policy would be for it to sell no further securities except by auction. To do so it would have to alter the present system of auctioning, which cannot be used in this way for long-term bonds because it is a system in which people pay the price they bid. It is a discriminatory pricing system. The Treasury ought to sell all securities by a method of auction under which all actual purchases are made at the same price. A second component of such a policy would be to reduce the sale of securities to only two kinds or at most a small number of securities, perhaps a very short-term bill and a long-term bond. A third component would be that it should offer them for sale at regular intervals and in stated amounts, so that the public would know six months or a year ahead of time that every week, say, there is

going to be an auction for a specified amount of bills and every month for a specified amount of the longer bonds. Further manipulations of the amounts outstanding could be left to the Federal Reserve in connection with its policy for open-market operations.

These changes would provide a streamlined system in which, on the one hand, the Federal Reserve has a simple and efficient tool — open-market operations — and, on the other hand, the Treasury no longer messes up the monetary situation by its erratic debt issues — by its experiments first with one long-term bond and then another, first with advance refunding and then some other “gimmick.”

Criteria for Controlling the Stock of Money

What should this streamlined machinery be used for? What should be the criteria for deciding how to change the stock of money? With an old professorial habit, I have let myself talk so long that all I can do on this subject is to make a few dogmatic remarks. I apologize for the dogmatism, but exigencies of the clock leave me no alternative.

As I see it, there are only three kinds of criteria for controlling the stock of money.

One is the kind of automatic criterion that is provided by a commodity standard, a gold standard in which we do not have discretionary management of the system but in which the amount of money in the system is determined entirely by external affairs. I think such a system is neither desirable nor feasible in the United States today. It is not desirable because of the cost involved in getting people to dig up the gold in one part of the world in order to bury it in another part of the world. It is not feasible because we cannot do it on our own; it depends on the willingness of nations all over the world to engage in an international gold standard, and this, I believe, they are not willing to do. It also is not feasible because we are not willing at home to obey its discipline; we are not willing to subordinate domestic stability to the necessities of the external balance of payments.

I should qualify this last statement. Nobody will say he is willing to sacrifice domestic stability to the balance of payments, yet our present policy is one in which we are doing it. Precisely because we are not willing to face the issue clearly, I think we are doing in practice what nobody will say explicitly he is willing to do. Mr. Lerner will have more to say on that, I suspect, in his talk.

So I do not believe that a “real” gold standard is feasible or possible.

The second alternative is to have discretionary management of money on the part of a group of managers. I have gone at great lengths into our historical record to show the kinds of results discretionary management yields. I do not believe that we have learned so much more than our predecessors that it now is safe to trust these powerful tools in the hands of discretionary managers. The conclusion I have reached on the basis of both the past and recent records is that money is too important to be left to central bankers, if you will permit me to paraphrase Clemenceau.

I come to the conclusion that there is only one other alternative. That is to adopt some kind of rule which will guide our monetary managers, the Reserve System, or anybody that controls the

stock of money. Many economists have been in favor of the rule that the System be instructed to keep a price level stable. I myself think it is not a good rule. I think the relation between the stock of money and the price level, while close, is too loose, in short intervals and over short periods, for that rule to specify precisely what the Federal Reserve System or any other governmental authorities should do. It still leaves a dispersal of responsibility and the possibility of major mistakes being made.

Steady Rate of Growth Desirable

So I am led to suggest as a rule the simple rule of a steady rate of growth in the stock of money: that the Reserve System be instructed to keep the stock of money growing at a fixed rate, $\frac{1}{3}$ of 1% per month or $\frac{1}{12}$ of 1% per week, or such and such a percentage per day. We instruct it that day after day and week after week it has one thing, and one thing only, to do and that is to keep the stock of money moving at a steady, predictable, defined rate in time.

This is not, under our present System, an easy thing to do. It involves a great many technical difficulties and there will be some deviations from it. If the other changes I suggested were made in the System, it would make the task easier; but even without those changes, it could be done under the present System. While this is by no means necessarily an ideal gadget, it seems, in looking at the record, that it would work pretty well. It would have worked far better, as far as I can see, over the last fifty years than what we actually had, and I think it would continue to work well in the future. I think we do not really know enough under present circumstances to do much better — and this has nothing to do with the particular people who are in control.

I do not believe anybody here, including myself, knows enough to do any better. Almost everyone is in favor of countercyclical monetary policy. However, when you ask each one what he means by that policy, you find that Mr. Jones's policy is anathema to Mr. Smith, and Mr. Smith's to Mr. Robinson. In point of fact, there is agreement only on the glittering generalities that the Reserve System should do the right thing in the right way at the right time. There is no agreement on how you know the right time and the right thing to do. The appearance of agreement dissolves, once you put it to the test.

Thank you.

Notes

* Proceedings of the Fifth Annual Conference, 1962, pp. 12–32.

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