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THE 100 PER CENT RESERVE PLAN

SUMMARY

I. The major defects of our present monetary and banking system, 1.— II. The 100 per cent reserve plan; Professor Fisher's formulation, 4.— III. Objectives of Fisher's plan over time: reflation and retail price stabilization, 16.— IV. Summary of main criticisms of the 100 per cent proposals, 26.— V. An alternative plan; methods and objectives, 29.

I

The great depression of the last few years, which for this country we may hope is now passing into history, has focused the attention of an ever-increasing number of people on the fundamental problems of money and banking. What is "money" itself? How do we want it to behave? What should banks do and be? What variety of practical arrangement will most nearly and most easily achieve the desired results? In seeking answers to these questions some students have recently found it expedient to wipe the slate almost clean, and to start over: to propose that parts of the existing monetary and banking machinery be scrapped, to reject many of the apparently established axioms and conclusions drawn from the practical commercial banking experience of the last hundred years, and to revise or even ignore a number of the propositions of what has hitherto been more or less generally accepted theory. If the majority of practical bankers and of theorists have alike been critical and suspicious of the new proposals, that is perhaps only natural. Really new ideas, and really old ones that have been forgotten and then revived, are at first likely to seem implausible.

Nearly all of the recent proponents of drastic reforms are

agreed that the present American monetary and banking system suffers from a number of major defects, both in its manner of operation and in its fundamental character. In order to understand clearly the objectives of the proposed reforms and their motivation, it is necessary to understand these alleged defects: the recent reform plans purport to be able to correct or at least greatly alleviate all of them. The principal defects can be summarized as follows.

1. Bank failures were incredibly numerous and nearly continuous in the period 1919–33, and imposed disastrously heavy losses on the holders of the demand deposit liabilities of such banks. This is the defect that has been of chief weight with the general public, and which led to the establishment in 1933 of the Federal Deposit Insurance scheme. Bank failures also usually reduce the effective national supply of "money,"[1] and their effects are thus spread wave-like over the whole country, but there is little evidence that reductions in the supply of money due to such failures are "desirable" from the national point of view.

2. Because their demand liabilities themselves commonly serve as money, our commercial banks as a whole are in effect able to relend certain types of money or other assets deposited with them (currency, and deposit claims on the Federal Reserve Banks) as much as eight or ten times over. They thus increase the aggregate supply of effective or circulating money, and usually increase it by much more than the amount of the original deposit. Withdrawals of such currency or assets usually cause a similarly multiplied contraction. These things are not true of any receivers of such deposits other than the commercial banks. There is again little evidence to show that the wide fluctuations in the stock of money in the hands of the general public, which the present system entails, are "desirable," and much to show that they are harmful.

1. The stock of "effective" or "circulating" money may be defined roughly as the sum of all currency in circulation outside all banks and the Treasury, plus all individual and U. S. deposits subject to check. The category of "total" money, also useful for certain purposes, may be defined as circulating money plus time and savings deposits.

3. The quantity of circulating money also varies, and in short periods often on a still wider scale, with the aggregate volume of commercial bank loans and investments. But the quantity of circulating money does not vary with the loans and investments of any other type of business enterprise. Here too there is no clear evidence that variations in the stock of money which are proportioned to variations in commercial bank earning assets alone are "desirable," and much to show that they are harmful.[2] The commercial banks in effect operate — to use a phrase Professor Fisher has made familiar — like private mints, yet with rather little control over their coining and remelting of the "money substance." The uncoördinated wishes and guesses of thousands of banks, and of hundreds of thousands of sellers of assets to banks, are the principal immediate determinants of the direction and volume of current changes in the money supply.

4. The system of fractional reserves held as "backing" for demand deposit liabilities has not worked successfully. It has not regulated the total quantity of such liabilities in ways which in retrospect seem to have been desirable; and in times of stress it has frequently been unable to provide either "liquidity" or "clearance" for the banks, or assured "convertibility" or any other kind of safety for demand deposit holders.[3]

5. Taken as a whole, our present monetary and banking system has also failed to promote stability in the economic life of the country at large; and in general, except for the prevention of currency shortages in solvent member banks, it has not climbed anywhere near the high plateaus of monetary and banking perfection aspired to by the fathers of the Federal Reserve plan. On the contrary, the banking system has suffered a series of violent perturbations which, it is

2. Particularly in view of the great importance of securities in the total of bank investments and collateral loans, and of the secularly declining importance of ordinary commercial loans. On the proposition that money should vary with trade or production, see a paragraph near the end of section III, below.

3. Bank note and other paper currency holders, however, have been adequately protected since the inauguration of the National Bank system.

fairly generally agreed, have been partly effects but also partly causes of similar violent perturbations in the movement of our economic life at large.

6. Our monetary and banking system has likewise failed to show characteristics indicating that it is amenable to continuous central or other prearranged control (tho a case can be made for the view that control has never really been attempted in this country). Indeed, a growing body of students is coming to believe that the system as now constituted is fundamentally incapable of such control. They would hold that the task of the Federal Reserve Banks, for example, if conceived as being much more than the provision of a bureau for interchanging currency and deposits, of rediscount facilities, and of a limited control over the foreign exchanges, is probably impossible from the very nature of the present system itself. In particular, they would hold that with our present monetary and banking arrangements, it is virtually impossible to control the quantity of money itself continuously and with reasonable precision, in ways agreed in advance to be "desirable."[4]

II

In the last two decades or so, there have been only two principal lines of attack on the problems just outlined — problems which themselves, of course, date well back into the last century, and most of which (except the problem of bank failures) are common to all countries where commercial banking has become highly developed. One line would preserve the general form of the existing monetary and banking

4. The shift of deposits to high-reserve centers in times of expansion, and similar defects in the operation of the present system, are of minor importance compared to those listed above. These minor defects are conveniently analyzed in Lauchlin Currie, The Supply of Money in the United States, especially chap. xiii.

Some students also contend that lack of adequate control over the *quality* of bank assets is a major problem. This, however, I question. Under the present system, even with perfect assets large changes in the money supply produced by large changes in the total *quantity* of these assets would still occur, and would constitute a major defect of the system. Poor assets are not themselves the mainspring of our present difficulties.

institutions, but proposes so to modify their operation and effects that they shall yield more acceptable results in the future than they have in the past. This was the line followed by the authors of the Federal Reserve Plan and its antecedents, by Professor Fisher in his earlier scheme for stabilizing the value of money, and — tho with quite different emphases and proximate objectives — by Hawtrey, Keynes, Robertson, Hayek and other leaders in the more recent development of general monetary theory. The second line of attack begins at the other end. The various plans advanced in this country in the last two or three years offer no new suggestions with respect to the general behavior of the money stock. They would all make the total supply of money behave according to one predetermined pattern or another, each of which has been familiar for some time in the existing literature of monetary reform. But they all propose to change fundamentally the present character of "money" itself, and in the process to change fundamentally the character and functioning of our present monetary and banking arrangements.

It is with these latter plans that the present paper is concerned. They can conveniently be grouped under the general caption of "100 per cent reserve" plans, tho since the currency which is to form this reserve will itself have no backing, the term "no reserve" plans is almost equally appropriate.

The 100 per cent reserve idea, of course, is not new either as theory or as practice. The principal immediate origin of the modern English and American type of deposit banking is to be found in the operations of the goldsmiths (and of institutions such as the Bank of Amsterdam), who first accepted gold for simple storage in return for their own demand obligations on a "100 per cent" basis. Only after some time did they find that they could pyramid their own loans, usually with safety, on the gold stored with them. Some of the authors of the recent 100 per cent schemes, indeed, assert that these schemes are merely attempting to get back to the happy system alleged to have prevailed before the

moral sense of the goldsmiths became enfeebled. Various English economists of a century ago apparently advocated somewhat similar plans, and the idea has never entirely disappeared from the body of economic ideas. The general setting in which the plans suggested in this country within the last two or three years would operate, however, is so unlike that of earlier periods, and the changes in current practice which their adoption would entail are so large, that these plans can fairly be treated as virtually new proposals.

The first of the recent 100 per cent plans was drawn up in 1933 by a group of economists of the University of Chicago, who to date have issued their ideas only in mimeographed form, and who have maintained formal anonymity. A brief summary of the general argument of the group, however, was published by Professor H. C. Simons in 1934.[5] Dr. Lauchlin Currie, also in 1934, briefly outlined similar ideas arrived at independently.[6] Senator Cutting and Representative Patman introduced bills into Congress in the same year, providing for 100 per cent reserves against deposits subject to check. Finally, Professor Irving Fisher has recently taken up the cause. After circulating a mimeographed draft for nearly a year, he has now published a book with the challenging title "100% Money."[7] Since this is both the latest

5. A Positive Program for Laissez Faire (University of Chicago, Public Policy Pamphlet No. 15; 1934). Also see the penetrating article by Dr. A. G. Hart, The "Chicago Plan" of Banking Reform (The Review of Economic Studies, February, 1935).

6. The Supply and Control of Money in the United States (1934), chap. xv.

7. New York, 1935, Adelphi. The absence of either an index or even a detailed table of contents makes it somewhat difficult to handle this book. Nor are the outlines of the argument sharply defined on many important questions. Professor Fisher frequently gives explicit or merely implicit alternatives that are not really equivalents, without selecting between them, and thus leaves his own position obscure. For example, see the several proposals for meeting the costs of handling deposits (pp. 23, 141), for gauging the necessary degree of reflation (pp. 23, 89), and for controlling the quantity of money over time (pp. 23, 97); also the frequent statements (e.g. pp. 7, 9) that commercial bank deposits arise chiefly from loans, altho the bank assets to be "sold" to the new Currency Commission are to be solely or chiefly "securities"; the condemnation of creating money out of thin air (pp. 17, 130), whereas Fisher's own proposal to expand the money supply entails precisely such a creation; and the like.

and the most detailed presentation of the general scheme, it will be the chief focus of attention here.

There are three principal parts to Professor Fisher's proposals. First, in common with all the 100 per cent reserve advocates, he outlines a scheme for altering the present character of commercial bank deposits subject to check, and for making them virtually warehouse receipts against equal quantities of a new currency to be held in trust by the banks. The banks, with respect to such deposits, will merely store the currency as agents, and handle orders (checks) against it. The new currency will itself be issued and managed by a Currency Commission, and, Fisher suggests, might be called "Commission Currency." In this way the present link between the quantity of commercial bank earning assets and the quantity of effective or circulating money (deposits subject to check, plus currency outside of all banks and the Treasury) will be broken, and the banks will be prevented from effectively lending the same currency or other assets deposited with them several times over. Second, the Currency Commission will be given various other powers commonly assigned to central banks, tho the Federal Reserve Banks will also continue in operation. Third, Fisher adds the proposal — which is not intrinsic with the 100 per cent reserve plan as such — that the Currency Commission be required to vary the total quantity of money in such fashion as to keep a pre-selected retail price index stable; but before stabilizing this index, the Commission must first "reflate" until some previously designated "normal" level of prices, business activity or the like has been reached.

Fisher offers certain broad arguments in support and defense of his plan. The plan would, he says, give complete safety to the holders of deposits subject to check, and would thus end bank runs; it would largely cure or prevent depressions; and it would wipe out much of the national debt. Any scheme which seriously claims that it can achieve such far-reaching results, and especially one coming from an economist of Professor Fisher's standing, clearly deserves close attention. In addition, though Fisher does not stress

the fact, the plan clearly contains large possibilities of so-called "inflation," and will therefore appeal automatically to substantial fractions of the electorate. It can profitably be examined in detail.

The fundamental feature of all the 100 per cent proposals, and the one of greatest importance, is the proposed transformation of the character of our present currency and checking deposits. Under Professor Fisher's plan, the new Currency Commission will buy enough of the present earning assets of the Federal Reserve Banks to redeem all their demand liabilities in the new Commission Currency, and will do the same for the National Banks with respect to their notes. In addition, the Commission will buy enough of the present earning assets of the commercial banks to increase the banks' reserves (above vault cash and above their present Federal Reserve balances, which are to be converted into the new currency or covered by it) to 100 per cent of the banks' present deposits subject to check. The Commission will pay for the assets with the new currency. The banks will thereafter always be required to keep a 100 per cent currency reserve behind their deposits subject to check, which thus become merely warehouse receipts against this currency. Since the banks will not own this currency reserve themselves and therefore cannot relend it, and since the currency behind demand deposits can get into circulation only through the extinction of an equal quantity of such deposits, the issue of this new currency is not itself inflationary. The inflationary aspects of Fisher's scheme come at other points.

To simplify the accounts and to guard against abuse, Fisher holds that it would be best to transform the present checking-deposit departments of the commercial banks into legally separate Check Banks, tho perhaps operating in their present quarters; that is, to transform them into institutions serving merely to warehouse the new currency and to handle warehouse receipts (checks) against it. He makes various suggestions for compensating the commercial banks for the earnings of the assets which are to be "sold" to the Commission, of which the first and simplest is that the banks

be allowed to make service charges for handling demand deposits.[8] The Currency Commission itself, on Fisher's plan, will buy chiefly United States government securities from the banks, and the national debt will in effect be correspondingly reduced. The gold standard will be abandoned, and the price of gold for international settlements will be set by the government, as at present. The new currency itself will need no "backing" or "reserve," being merely the issue of the Currency Commission as agent of the government. The present time and savings deposits of the commercial banks will be handled much as they are now. Their lending and investment operations will also be conducted much as at present, but on a greatly reduced scale, since the banks will have "sold" to the Currency Commission roughly half of the total assets now reflecting such operations. Banks handling savings deposits alone are not affected by Fisher's plan.

Such is the scheme.[9] I shall not argue here the merits of making changes in the total quantity of circulating money

8. It is suggested alternatively (Fisher, op. cit., pp. 140–142) that the banks might merely be "lent" the new currency, repaying the loan over perhaps 10 years. But few banks could make this repayment and at the same time cover the costs of handling the demand deposits, unless service charges were allowed. On p. 142, it is alternatively suggested that the banks treat government bonds themselves as "cash," to their maturity.

9. Fisher's proposals to this point are the same in essence as the antecedent proposals of the Chicago group. In place of Fisher's new Currency Commission, the Chicago plan would utilize the existing Federal Reserve Banks, whose notes and demand deposits would be the 100 per cent reserve behind present commercial bank deposits subject to check. The commercial banks would be similarly compensated by service charges, for earnings of the assets sold to the Reserve Banks. A two year transition period is contemplated. A detailed critical examination of the Chicago plan is made by Dr. Hart, in the article referred to above.

Dr. Currie's plan (op. cit., chap. xv) is outlined only briefly, but is fundamentally similar to the other two. "The government" or "government agencies" would take over the necessary commercial bank assets, and issue all "money." For a stringent criticism of Currie's book, see Dr. B. M. Anderson, Jr., in an address before the New York chapter of the American Statistical Association, April 26, 1935 (reprinted). Also see Dr. Currie's reply, in the issue of this Journal for August, 1935.

(currency in outside circulation plus deposits subject to check) independent of changes in the total quantity of commercial bank loans and investments; nor of making it impossible for the commercial banks to relend deposits with them several times over. These objectives seem to me not merely desirable but probably essential to achieve, if our monetary arrangements in general are ever to be put on a reasonably intelligent and equitable basis.[1] It also seems to me clear that once the 100 per cent plan was put into full operation, bank runs by holders of deposits subject to check would cease, and that the present costly deposit insurance system could hence be abandoned. There would be no incentive to bank runs, since convertibility into currency would be assured.

The particular devices Professor Fisher proposes for achieving these objectives, however, are of such character that their practical workability must be seriously questioned. They are also likely to open the door to grave political abuses. Moreover, his conclusions concerning the reduction of the national debt are clearly misleading. Somewhat the same strictures can also be levied against the original "Chicago plan," on which Professor Fisher declares he here drew heavily.

The difficulties over the practical workability of this first and fundamental part of Professor Fisher's plan do not turn on the proposal to establish separate Check Banks, nor to treat deposits subject to check as in effect merely warehouse receipts against stored currency. These changes could be accomplished fairly easily and quickly. Likewise the propositions concerning the gold standard, and concerning the lack of necessity for any "backing" behind the new currency, are little more than restatements of what is substantially the present status.

1. The quantity of money could be left dependent on the quantity of commercial bank earning assets, as at present, provided the latter quantity were then stabilized along some such lines as those discussed in section V, below. Since it seems unlikely for practical reasons that this latter quantity can actually be stabilized, however, especially in a country with thousands of scattered and relatively small unit banks, the only available procedure is to divorce money from bank assets.

The difficulties center chiefly around the proposed purchase of assets by the new Currency Commission. In the first place, the commercial banks do not now separate their assets into those held against demand deposits and those held against time and savings deposits, and could not separate them if they would. Yet deposits subject to check are nearly half the total. Which half of the banks' assets shall be "sold" to the Currency Commission, in return for the new currency which is to build up the reserves behind such deposits to 100 per cent; and which half is to be kept by the banks? Professor Fisher makes various suggestions, but in the body of his text proposes that the banks sell United States bonds and other "eligible" assets, particularly bonds, to the Commission.[2]

If this is done, however, the commercial banks will be made to "sell" their most marketable (and much of their best) assets to the Commission. As security behind their time and savings deposits they will hence retain all or most of their short-term documents, and the less good of their long-term assets. The protection now given time and savings depositors in the commercial banks will thus be seriously reduced.[3] It seems to me most unlikely, however, that either the commercial bankers or the depositors will accept this proposed change without some effort to guard themselves. The mere rumor that such a scheme was actually impending would be likely to cause a flight from the present commercial-bank time and savings deposits into demand deposits, and even into currency. Such a flight would place severe pressure on the commercial banks to liquidate assets, and thus get money with which to pay off such deposits; and would hence cause a violent disruption in the capital and even in the short loan markets. Moreover, such a flight would greatly increase that quantity of currency in outside circulation and of deposits subject to check, for which the new Currency Commission would have to provide 100 per cent reserves at the time of the transition to the new system. The flight would

2. Fisher, op. cit., pp. 21, 138.
3. Dr. Currie also makes this point, op. cit., p. 153.

thus also increase greatly the quantity of commercial bank assets which the Commission would have to purchase; would further impair the protection for the remaining time and savings deposits in such banks; and might thus even set up a vicious spiral of effects, that would cease only when all commercial-bank time and savings deposits had disappeared.[4] There seems to be no simple device, conforming to the general pattern of Professor Fisher's scheme, which would assuredly remedy or prevent such a development. These latter difficulties alone, tho they are merely difficulties of the process of transition to the new system, hence seem likely to be a rock sufficient to founder Professor Fisher's entire bark, as it is now projected; some other system would have to be devised to avoid them. An alternative proposal Fisher makes, to have the Commission merely "lend" the new currency to the commercial banks, subject to "repayment" by them over a period of years,[5] entails the deposit of similarly selected assets as collateral, and hence runs foul of much the same problem.[6]

In the second place, and even apart from this possible flight away from the present time and savings deposits of the commercial banks, Professor Fisher seriously underestimates the total size of the asset-purchasing operations which his scheme would require, and hence fails to see a further serious difficulty. He declares that the banks could reach a level of 100 per cent reserves against their deposits subject to check by selling 10 billions of United States government

4. Even if this flight from commercial-bank time and savings deposits did not become severe the bankers themselves, as Dr. Hart has suggested (loc. cit., p. 112), would be likely to strive vehemently for a rearrangement of their portfolios, and this too would lead to serious liquidations and disturbances in the capital markets.

5. Fisher, op. cit., p. 140.

6. Dr. Hart also stresses the danger of runs on time and savings deposits *after* the new system comes into operation (loc. cit., p. 114), and the difficulty of meeting such runs. This seems to me of secondary importance; I see no reason to think that the mere introduction of 100 per cent reserves behind currency and demand deposits would itself substantially and permanently alter the habits of the people with respect to the holding of time and savings deposits. On this also see paragraph 3 in section V, below.

securities to the Currency Commission;[7] the Commission would then retire the bonds, thus effectively reducing the national debt to correspond. It is true that the investments of the commercial and the Federal Reserve Banks combined in United States securities now amount to rather more than this sum; but the sum itself is grossly inadequate for the purpose in view.[8] If we take the aggregate net demand deposits of all commercial banks (including Federal Reserve Bank demand deposit liabilities to non-bankers), and add Federal Reserve and National Bank notes in circulation outside the issuing banks, we get a figure on the order of 26 billions of dollars. This is therefore also the total quantity of assets which the Currency Commission must buy from the totality of banks, in order to raise the reserves behind our present supply of circulating money to 100 per cent. Even on an optimistic view of the quantity of United States securities actually at the disposal of the banks, the Commission will have to buy some 10 to 12 billions more of other assets, of diverse qualities and maturities, and probably many with only a local market.

The problem of administering such a miscellaneous and large collection of business assets through a governmental body, tho not insoluble, is substantial; and the problem of reinvesting the earnings of the assets and the proceeds of repayments and retirements is still more serious. With our present type of government and of political tradition, it seems almost inevitable that continuous and large investment by a government body in private business, extending over many years, will lead to charges of discrimination and manipulation; and it is at least likely that both undesirable political pressure and outright abuse will develop. These difficulties can be avoided by sinking the available funds in further retirements of the government debt, as Professor Fisher suggests at one point,[9] but further problems then

7. Fisher, op. cit., p. 138 et passim.

8. On June 30, 1934 (the last available report date for all banks), investments of commercial banks in U. S. securities were 10.9 billion dollars, and of Federal Reserve Banks 2.4 billions; total 13.3 billions.

9. Ibid., pp. 188 ff.

arise. The politicians are likely to treat the resulting decline in government outlays as an excuse for further increases in other directions, rather than for diminishing tax burdens. In addition, an awkward question also considered later must always be in the background: if a given rate of decrease in net tax burdens obtained through these devices is a good thing, why is a faster rate of decrease not still better?

In the third place, all of the alternatives Professor Fisher proposes to compensate the commercial banks for the assets "sold" to the Currency Commission have serious defects. If the banks are allowed to make service charges against the holders of deposits subject to check to cover the costs of handling such deposits and to yield a net income to the banks, which is his principal suggestion, the charges will perhaps not need to be as great as the earnings of the surrendered assets, but they will certainly be large. Any such charges would in effect amount to a reimposition on deposit holders of an equal amount of that current burden of the national debt, which was ostensibly extinguished by the initial purchase of the banks' assets.[1] This effective tax on the use of money seems highly undesirable in itself, especially because it will encourage the use of uncontrolled money substitutes; and the maneuvering of the social accounts which Professor Fisher's argument involves is surely misleading.[2] If the banks, instead, are reimbursed from general tax proceeds, to that extent the ostensible reduction of the national debt is again illusory — tho this last seems in general the most acceptable of the alternatives suggested. If the banks are allowed to keep title to all their assets and the earnings

1. The average rate of interest on the national debt has now been so reduced that it is probably not greatly in excess of the total present cost of handling an equal volume of demand deposits. The considerations outlined in the text also apply to Fisher's seductive intimation that the continuous increases in the quantity of money his plan envisages will eventually be applicable directly to other Federal expenditures. Paul will be paid, but Peter will inevitably be robbed.

On the other side, Fisher thinks it would eventually pay the banks to accept the plan without any reimbursement at all (ibid., p. 141 n.). Again it is difficult to go this far with him.

2. Dr. Hart (loc. cit., p. 115) also stresses this error, into which the authors of the Chicago plan had previously fallen.

on them, but are loaned the new currency necessary to build up their reserves to 100 per cent, and are then required to repay the loan in any period of time as short as ten years,[3] they will probably all fail. They certainly could not make net additional payments totaling one and a half to two billions a year out of their present or their recent earnings.

Finally, there are legal and constitutional difficulties which Professor Fisher hardly touches. If any substantial number of banks refuse to come in under the plan at all, or if the banks as a whole find ways of evasion — for example, by making so-called time deposits serve effectively as checking deposits — the whole plan is evidently likely to fail. Professor Fisher would meet these difficulties in the orthodox American fashion, simply by passing a law; he even includes an outline of a proposed statute. Constitutional problems, however, still remain. Does the power given Congress by the Constitution to coin money and regulate its value include the power to control bank deposits in the indicated ways? These questions cannot be considered here, but they are evidently likely to be of very serious practical importance.

The particular scheme Professor Fisher proposes for separating "money" from bank loans and investments, and for installing a 100 per cent reserve system, is thus open to a series of grave objections. First, it would be likely to produce so severe a flight from commercial-bank time and savings deposits during the transition period, and consequent disturbances in the capital and short loan markets on so large a scale, that the whole scheme might well be wrecked at the very outset. Second, the sale of all United States securities now owned by the banks to the proposed new Currency Commission would still be far from adequate to provide 100 per cent reserves behind the present supply of circulating money; and if the Commission takes over any large volume of other assets serious dangers of discrimination, political pressure and abuse are almost certain to arise. Third, all the proposed methods of compensating the banks for the loss of earning assets are faulty; and they permit the quite misleading infer-

3. Ibid., pp. 140–141.

ence that the national debt burden can really be reduced by something like the volume of assets taken over. Finally, there are obvious legal and constitutional difficulties in the way of subjecting the *whole* banking system to the proposed changes and controls. In the main, these criticisms apply likewise to the original Chicago plan, and also to Dr. Currie's briefer suggestions.

III

The installation of a 100 per cent reserve system, if it could be successfully accomplished, would give full protection to the holders of the demand liabilities of the banks. Bank runs would cease, bank failures would not alter the volume of demand deposits, and changes in the total quantity of circulating money caused by the effective relending of such deposits would disappear. But if this total quantity of circulating money is still allowed to fluctuate as widely and as irrationally as it has in the past, we shall be almost as badly off as we were before. The balance of Professor Fisher's argument is therefore concerned with the question of how the supply of money should be made to behave after the inauguration of the new arrangements. Here he is on ground more peculiarly his own. Many adherents of the 100 per cent reserve principle would not subscribe to this latter part of his plan and, as he himself states, it is not essential to the 100 per cent scheme as such.

As previously indicated, Professor Fisher makes two principal proposals with respect to the future behavior of the supply of circulating money. Both of them are to be carried out through the new Currency Commission. First, the Commission must "reflate" (increase) the supply of money until some previously designated "normal" has been reached. Second, when this has been done the Commission must so manipulate the supply of money as to keep a selected index of retail prices stable, within narrow limits.[4] Neither pro-

4. The antecedent Chicago plan was willing to contemplate some degree of "reflation," but definitely rejected price stabilization as a long-run objective. It did not select any one alternative, but its authors

posal, of course, is new. The second has long been familiar in economic literature, and the first has been a favorite football of American political and economic discussion for some years past.

The proposal to "reflate" is open to criticism both because it lacks precise meaning, and because of the effects which would be likely to attend any reflation program at all. Professor Fisher does not give any one unequivocal index by which the achievement of "normality" can be gauged. At one point he suggests the retail price index itself as a measure, tho without saying how much this index must be raised to reach "normal."[5] At other points he proposes the level of the value of money at which outstanding debts have been contracted, or that level which would "restore business and industry up to, or near, normal capacity, and absorb the bulk of the unemployed, or the level at which the maladjustments in the price structure would be reduced to a minimum."[6] These indices are hardly equivalents. On any one of them, however (and granting that increasing the quantity of money would actually produce the desired

viewed favorably a fixed total quantity of money (on the whole preferred as simplest), or a fixed quantity per capita, or a uniform rate of increase, or a moderately declining price level — which is a corollary of at least the first two (also see Fisher's objections to this, op. cit., pp. 84–85). Like Fisher, they regard maintenance of the gold standard as not itself an adequate objective. With this last I agree.

The Chicago group's explanation of banking and business cycles, running chiefly in terms of "sticky" prices, seems to me inadequate, in part merely because it is too simplistic. The maladjustments referred to are important, but in themselves can hardly bear the chief burden of responsibility. As in 1922–29, serious fluctuations can occur with rather little relative price inertia.

Dr. Currie (op. cit., pp. 154–155) apparently favors price level stabilization as a long-run objective, but supports his view with arguments which do not seem to me especially cogent. In any event, the effects he discusses are independent of the numerical size of the "circular" or "income" velocity of money.

5. Op. cit., p. 23.

6. Ibid., p. 89. Professor Fisher seems to regard the last three as virtually equivalent; but none of them offers what can be called a very precise measure. Economic science would benefit if the term "normal" were proscribed for a few decades. (And see Fisher's own observations, ibid., p. 157.)

effects), the necessary addition to the present stock of circulating money would be large, certainly several billion dollars.[7]

The difficulty here is a double one. If this essentially artificial increase in the quantity of money is brought about in advance of an increase in the *demand* for money, it may fail to increase prices or business activity at all. If it does influence them, on the other hand, the effect is likely to go too far, and to be followed by another severe collapse. No time period is prescribed during which the increase is to be effected. But if it is done at all quickly, our recent experience with Federal Reserve open market operations, public works expenditures and the like makes it seem probable that at the outset most of the new money will simply pile up in idle balances, while an artificial boom will develop in the security markets. If the Commission then goes on issuing more money in the endeavor to raise commodity prices, the waters are likely to rise for a time until the dam suddenly bursts, sweeping all before it in a new speculative orgy and collapse. It seems most doubtful that the Commission will then be able to "deflate" — to reduce the supply of money — quickly enough and heavily enough to prevent this, especially if it uses so sluggish a barometer as retail prices for its guide. The economy as a whole is hence likely to be jerked first up and then down by this attempted "reflation," in massive fluctuations quite as violent and as thoroly undesirable as those from which we have suffered in the past.

The case for starting out by raising commodity prices rests, of course, on two principal grounds. One is the desirability of easing the present burden on debtors who became obligated at higher price levels, and in general of reducing the "sticky price" maladjustment. The other, perhaps largely a corollary, is the desirability of somehow restoring business activity to a higher average level and thus securing

7. Increases would be effected through open market purchases by the Currency Commission. The same difficulties as those discussed in the preceding section, however, would arise over such purchases. If U. S. securities are bought, under Fisher's scheme the reduction in the national debt is largely illusory; and if other assets are bought the danger of discrimination, manipulation and other abuse is incurred.

fuller employment of the factors of production, especially labor. It is not clear, however, that *merely* raising commodity prices will accomplish these objectives. What is after all of primary importance for most purposes is an increase in the product term, prices multiplied by quantities — quantities of sales, of output, of hours worked, and the like. But no sustained increase in the product term will necessarily result from an increase in prices alone: witness the ephemeral character of the business boom which followed our departure from gold and the attendant price rises in 1933. It is still less clear that an increase in the quantity of money alone, even if large, can itself cause a rise in commodity prices: our recent experience again suggests that, in the absence of other coöperating factors, it cannot. Rather, the increase is likely to work on only the capital and short loan markets, leaving the volume of non-financial economic activity but little changed, and meanwhile creating grave danger of a speculative explosion and collapse. My own inclination, if any "reflationary" increase in the quantity of money at all be thought desirable, would be to set up an arrangement such that the quantity of money *can* be expanded as business revives, if an expansion seems necessary to secure a substantially fuller utilization of the factors of production;[8] but not to try to force a fuller utilization by artificially increasing the supply of money in advance of the demand for it. The absolute level of prices themselves does not seem to me especially important at present. A large part of the maladjustments of prices and debt burdens existing in, say, 1932 have now been corrected in one way or another, and an attempt at further correction through a deliberate increase of the money supply would be as likely to create new maladjustments as to ameliorate the old ones.

8. Substantial increases in interest rates, while other factor prices remain low, would presumably be evidence for the need of more "money"— that is, more loanable funds, which our banking system now creates by "coining" business paper and securities. Such an increase, however, I should regard solely as a device to be used in the present still extraordinary circumstances, not as one of the standard control devices. On this also see paragraph 7 of section V, below.

After the "reflation" has been accomplished, Professor Fisher proposes to have the Currency Commission manipulate the supply of money in such fashion as to keep a selected retail price index stable within narrow limits.[9] Two questions at once arise. Can this objective actually be achieved; and is the objective itself the best one to set up?

Both questions have long been subjects of discussion and controversy among economists, and on both, I think, one must have rather serious doubts concerning Fisher's position. It is a matter of common knowledge that retail prices are among the last things in the economic universe to respond to general changes, and it can therefore be urged that action based upon them will necessarily come too late. By the time such action is taken, forces may well have gotten into operation which cannot be offset before grave perturbations in general economic activity have developed.[1] Equally serious is the question of whether retail prices actually do or will respond to changes in the quantity of money in the desired ways; and particularly of whether a situation in which retail prices alone are deliberately held substantially stable is also one which, in other respects, is desirable from the point of view of the country at large.

The familiar price and monetary statistics of the last forty years or so do not lead one to have great confidence in Professor Fisher's plan with respect to these points, whether the plan is regarded as a device for securing long-term stability of prices, or as a device for moderating or eliminating shorter-period booms and depressions. No uniform statistical relation seems to be discernible between retail prices and the quantity of money. It therefore seems *a priori* improbable that manipulating the quantity of

9. The Commission is also to have power to deal in gold and foreign exchange; and will be required to rediscount notes for the Federal Reserve Banks, but at its own price. The rôle these Banks themselves are to play is rather obscure, but they are presumably not to be important except as cogs in the machine; cf. ibid., pp. 77, 186–188.

1. The "continual corrections" in the quantity of money which Fisher's scheme will require (op. cit., p. 90) themselves also constitute a serious defect, I think. Any plan requiring frequent tinkering on a substantial scale is prima facie questionable.

money in the endeavor to stabilize merely retail prices will also stabilize other major economic factors, which are likewise greatly but variably affected by changes in this quantity of money — factors such as saving and investment and the current relation between them, or the physical volume of production, or individual incomes. For example (without going into detail), consider the implications of the facts that from 1896 to 1914 retail food prices[2] (the largest single group, and fairly representative of the aggregate of retail prices as a whole) moved with a quite steady and *accelerating* upward trend, reflecting very little of the general business perturbations of the period; and that whereas from 1896 to 1906 retail food prices increased less than one quarter and the stock of circulating money (outside currency plus deposits subject to check) about two thirds, from 1906 to 1914 circulating money and wholesale prices increased less than 10 per cent but retail food prices increased more than 30 per cent. As between these last two periods, the relation between retail food prices and the quantity of money hence reversed itself. But would a sharp absolute decline in the quantity of money in 1906–14, which Fisher's plan would have required, have conduced to a greater degree of general economic stability in those years than actually prevailed? It seems doubtful. Even in 1906–08, retail food prices rose steadily. Again, in 1922–26 retail food prices rose about 10 per cent, and circulating money nearly 20 per cent; but in 1926–29 both retail food and general wholesale prices fell appreciably, while money rose another 12 per cent. On the basis Fisher suggests, however, the 1926–29 increase in money was *too small*. Surely any control plan which would have taken us through those latter boom years without lifting a finger, except to pour in more money, is a plan we do not want. Moreover, the failure of retail food prices to rise in response to the tremendous increase in the quantity of money in 1926–29 seems to deprive retail prices in general, so far as food prices are representative of them, of much of

2. U. S. Bureau of Labor Statistics index.

their value as barometers.[3] Finally, for the period 1930–33, one would have to be sanguine indeed to contend that increases in merely the quantity of money, oriented on the decline in retail food prices, could have corrected the fall in those prices themselves, or could have restored general economic stability.

Professor Fisher's claim that under his scheme "booms and depressions would be greatly mitigated"[4] therefore seems hardly warranted. Retail prices are too sluggish to be adequate guides; in addition, their response to changes in the quantity of money seems to be far from uniform; and there is no clear evidence that control over retail prices alone would give control over other and perhaps more important factors in the general economic situation. On the contrary, as in 1926–29 and perhaps in 1906–14, it seems likely that any changes in the quantity of money which were enforced with a view to stabilizing retail prices alone would frequently aggravate other and more serious types of maladjustment and disturbance, instead of alleviating them.[5] If this be true with respect to shorter-period relations, the further contention that Fisher's plan would yield some degree of general stability with respect to long-period movements is unimportant. The fact that a trend line drawn through wide short-period fluctuations is nearly horizontal does little to ameliorate the evils produced by the fluctuations themselves.

Apart from these difficulties, encountered when one tries to envisage how Professor Fisher's plan might have worked

3. Professor Fisher guards himself to some extent by proposing that the new Currency Commission watch other indices besides retail prices, and that it take action when the retail price index "threatens" to fall (ibid., pp. 97–98; when does a price index "threaten" to fall?). Any effective use of these other indices in the 1920's, however, would have had to be so extensive as to entail virtually discarding the retail price index as a guide.

4. Ibid., p. 13 and chap. vii.

5. Fisher's position is much more tenable, it seems to me, when he describes the instability of demand deposits when tied to bank loans as the "chief cause" of both booms and depressions (ibid., p. xiv and elsewhere; also cf. pp. 106 and ff.). But he offers no reconciliation between this view and the proposal for stabilizing retail prices, which would probably require marked and perhaps even wide short-period fluctuations in the quantity of money.

in recent years, the proposal to stabilize the retail price index raises another problem. In a growing country, constantly increasing its population and improving its technology, adoption of the proposal would require that the stock of money also be increased continually, on an average perhaps by 3 or 4 per cent or more compounded every year.[6] To many, so substantial a rate of average increase year in and year out will itself seem undesirable, as smacking of "inflation." There are also genuine political dangers. The politician may well declare that if a given rate of increase is a good thing, a greater rate will be still better. It is not easy to answer this contention in political terms; yet the threat to all economic stability which it contains is self-evident. Moreover, the new Currency Commission would likewise have to increase its assets continually and in corresponding degree. The difficulties suggested in the preceding section in connection with these holdings of assets would hence not disappear, but would be aggravated with the passage of time.[7]

In addition, increases in the quantity of money more than proportional to the growth of the population would compel us to obtain the benefits of technological advances in the form of higher money incomes (with stable retail prices), rather than of falling prices (with stable money incomes). This question too has long been a subject of controversy among economists. The second alternative, however, seems to me clearly preferable. It seems more likely that the benefits of technological advance will be distributed with some approach to equality if prices fall than if money incomes must be raised, tho under either alternative there may be serious lags and gaps. Moreover, any increase in the quantity of money at all, after the factors of production are fairly fully employed,[8] has the result that some current expenditures

6. Is such a rate of increase "slight"? Cf. ibid., p. 132.

7. Moreover, even if the new money were used to retire the public debt or to pay taxes, service charges on its use or the equivalent would still remain, and would make much of the apparent national gain illusory. There are few ways, if any, of really getting something for nothing.

8. Or as fully employed as our present economic organization ever permits.

are financed in the proximate sense not out of the current or past earnings of the spenders, but out of a general levy on the community at large. In particular, it is likely to mean that part of the current new investment is being financed with money "created out of thin air," not out of voluntary past or present saving. This seems highly undesirable. It in turn has the result that interest rates are kept lower than they otherwise would be, that some investment is being undertaken which cannot support itself over time or which is ill-advised in other ways, and that a subsequent painful and wasteful readjustment must take place.[9]

Professor Fisher also makes two other suggestions concerning the management of money over time. One is that changes in the quantity of money should be used to offset changes in its exchange velocity of circulation — in the number of times it changes hands per unit time period.[1] This is a proposal Professor Hayek and others have already made familiar. It would be tantamount to trying to stabilize the total money volume of transactions. In view of the wide actual fluctuations in this total even under conditions which in general are fairly "stable," however, and in view of the large and varying part of the total which is composed of purely "financial" transactions (in securities, loans and the like), I doubt if this is a desirable objective even in fairly short periods. Moreover, increasing the quantity of money when exchange velocity is falling sharply (for example) probably would serve merely to increase the size of existing "hoards" of currency or deposits. As suggested above, there is no particular reason why an increase in the quantity of money *alone* (unless on a cataclysmic scale) should make people reverse their judgment of the current situation, and

9. But the quantity of money should increase roughly with population at least (see section V, below), to prevent continuous downward pressure on money incomes. On these latter points, also see my paper in the Economic Essays in Honour of Gustav Cassel (1933).

1. Ibid., p. 91. The Chicago plan also considers this possibility, but with a keener appreciation of its practical difficulties and logical defects.

start expanding when they had previously begun to contract their economic activities.[2]

The second suggestion is a reiteration of an idea which has become so deeply imbedded in theory, banking practice and legislation that most economists have never stopped to question it. It is the familiar proposition that the quantity of money "should expand and contract as business expands and contracts"[3] — allowance being made in Fisher's scheme, presumably, for the expansion of the money stock over time already referred to. This is the doctrine, of the "elasticity" of currency and credit, which is at the heart of the Federal Reserve plan. It is a doctrine, however, which I think should be expunged once for all from the economic organon. It stands on much the same footing as the doctrine, dear to business men but long since rejected by most economists, that the banks should supply as much money as business "needs." Like the Scotchman and the tobacco, what business "needs" in good times is any given quantity — until the rising spiral brings on another boom and collapse. If the factors of production are already fully employed, increasing the quantity of money will not increase the total of "real" or non-financial economic activity; but it will stimulate speculation, and will help on undertakings which otherwise could not be initiated and which merely bid the factors of production away from other enterprises. This was suggested a few pages above. If the current utilization of the factors of production begins to decline, on the other hand, contracting the quantity of money as business activity falls will certainly not arrest the decline, and may aggravate it by compelling further liquidations; while by reducing "idle" balances, and keeping interest rates higher than they would otherwise be,

2. Fisher also asserts that in "normal" (!) times exchange velocity varies little, and that even in booms and depressions its variations, except for speculative transactions, are "much smaller than usually supposed" (loc. cit.). This is hardly accurate. In 1921–28, exchange velocity rose steadily (with substantial fluctuations within the period), even after allowance for the probable effect of security transactions, and in 1930–34 fell steadily. On this see a chapter in a volume I hope to publish shortly, probably to be entitled Studies in Money.

3. Ibid., pp. 160 and passim.

it will make the starting of the subsequent recovery correspondingly more difficult.[4] The quantity of money should vary over time with population, and perhaps with one other factor indicated in section V below, but except for these gradual variations it should be held substantially constant.[5]

IV

Professor Fisher's plan as a whole is thus a mixture of several different types of proposals, which are in large part mutually independent. Some of the proposals envisage desirable objectives, but in Fisher's particular formulation are probably confronted by insuperable practical obstacles. Others of them may be workable, but on the view presented above are not desirable; and some appear to be neither desirable nor workable. In addition, Fisher's plan as a whole is open to serious dangers both of "inflation" and of political abuse, while some of the claims he makes for it seem only partly correct or even quite wrong. Substantially the same things are true of the short-run part of the original Chicago plan and the claims for it, except that its commitment to "reflation" is less definite; its long-run objectives seem to me defensible.

I have no quarrel with the first main objective of all the 100 per cent plans: namely, to divorce the quantity of circulating money from its present dependence on the quantity of commercial bank earning assets and the solvency of the banks themselves, and to cause the quantity of money itself

4. Similar ideas are advanced on a much more elaborate scale by Professor Allan G. B. Fisher in a current article I have not yet had opportunity to examine carefully, published in the American Economic Review (June, 1935).

5. The central bank may also be given a small open market fund, with which to smooth the sharper seasonal fluctuations in interest rates and the like in the central money markets. The post-war advocacy of attempts to smooth larger and longer "cyclical" fluctuations in interest rates and other magnitudes by such operations, however, seems to me definitely misdirected. Such fluctuations are the very means by which the economy at large announces and endeavors to correct its own current maladjustments. To "smooth" them out is like trying to "cure" an unset broken leg by injections of morphine.

to behave in ways agreed in advance to be "desirable." In practical terms, effecting this divorce is probably the easiest way of achieving such controlled behavior. But the methods thus far suggested for passing over to a monetary system which can attain these objectives all seem to me gravely defective. Any arrangement which proposes to deprive the commercial banks of a large part of their best earning assets seems likely both to disrupt the capital markets during the period of transition to the new system, and to start a run on the time and savings deposits of such banks. At the extreme limit, the government or its agents would then be compelled to take over *all* the present earning assets of the banks, an outcome which even the most ardent 100 per cent reservists might well view with misgiving. Moreover, even if no serious transitional disturbances developed, and the present volume of time and savings deposits hence remained substantially intact, large and increasing quantities of loans and investments in private enterprises would necessarily pass more or less permanently into the hands of government agencies, in order to establish the desired 100 per cent reserves behind demand deposits. It seems almost inevitable, with our present type of government and governmental tradition, that serious and chronic abuses would then arise.

Professor Fisher's proposal for handling the quantity of money over time also seems to me open to serious criticism. I see no ground for confidence that it would yield the results which most economists regard as desirable, or that it would be internally workable even on Fisher's own premisses: again witness the relation between retail prices and business activity in 1922–29, and also in the earlier period 1890–1914. I therefore also see no reason to think that business booms and depressions would be markedly reduced by adopting Fisher's scheme for keeping retail prices stable over time through manipulations of the quantity of money. On the contrary, they might well be aggravated. The corresponding part of the original Chicago plan is much more attractive. Keeping the quantity of money fairly stable over time, as

there proposed (constant or slowly increasing),[6] would impose a quite different and probably much stabler pattern of behavior on the economy than any we have hitherto experienced, and would certainly have greatly altered the developments of the years before and after 1929. It does not seem wholly unwarranted to believe that with some such arrangement as this in force, the 1927–29 peak and the subsequent decline would have been far less severe.

Finally, Professor Fisher's plan envisages both a big initial and deliberate increase in the quantity of money ("reflation") and quite large and continuous increases thereafter. The politician, perhaps in all good faith, may well then ask — as already remarked — why if a given rate of increase is pronounced by the economists to be a good thing, a greater rate of increase would not be still better. A political movement of this sort, once well started, might prove very difficult to counteract. If the term "inflationary" has any real meaning at all, then Professor Fisher's proposals are definitely inflationary;[7] and in view of the grave possibilities of political manipulation and abuse inherent in them, I think they can also fairly be described as extremely dangerous.[8]

Of the sweeping claims made by the 100 per cent reservists for their plans, only one can be regarded as unequivocally justified. Deposits subject to check and currency would undoubtedly become "safe" from the legal point of view, since they would be exchangeable for one another without limit but legally convertible into nothing else, and since the "insolvency" of the issuer or the debtor could not itself alter their legal status. Runs on such deposits would therefore cease, and the present costly deposit insurance system could

6. This proposal is nearly the same as some suggestions I made in an address at the end of 1932. These ideas were later published in a chapter of a volume edited by C. F. Roos and entitled Stabilization (1933), and in the article in the Cassel volume already referred to.

7. As are those of the Chicago group and of Dr. Currie, tho less so.

8. Fisher declares that economic science "has its therapeutics as truly as medical science has" (op. cit., p. 114). I do not wish to disagree; but evidently a comparison with the medical science of two or three centuries ago would be more apposite than with medical science today.

be abandoned. But the claim that the 100 per cent plans would eliminate or even greatly reduce the effective burden of the national debt is largely illusory, since either the country at large, or at least all holders of demand deposits (what would be worse because discriminatory), would still have to pay the charges for handling the growing volume of such deposits. Last of all, as just remarked, the installation of a 100 per cent system in itself gives no guarantee that booms and depressions will be terminated or even substantially reduced in magnitude, nor that the behavior of the money stock will be any more rational or otherwise "desirable" than it has been in the past. It all depends — as it does now — on how the money stock is handled. Just as bad results can be obtained with 100 per cent reserves as with the present system. Indeed, the establishment of arrangements to secure reasonable behavior of the money stock as a whole seems to me much more important than the establishment of a 100 per cent reserve system as such. The proponents of the latter system are inclined to ignore the fact that this system is only a means to an end, and is not a sufficient end in itself alone.

V

After so many strictures on the ideas of others, it is not inappropriate to venture a few suggestions on means for overcoming the difficulties outlined in previous sections.

As remarked elsewhere, I think the proposition that the quantity of circulating money should be made independent of the volume of assets and the solvency of the commercial banks can be accepted without qualification. Such a separation seems to offer the easiest practical device for obtaining real control of the quantity of money itself. I also agree that the most effective way to achieve this separation, under our present general monetary system and with our present monetary habits, is probably to convert deposits subject to check into what are virtually warehouse receipts against government-issued currency, this currency itself having no legal backing or reserve. Gold should be used

only for international settlements. These propositions are the essence of the first part of all the recent 100 per cent reserve proposals. The controversial economic problems arise over other questions: what practical objectives will best achieve these objectives, how the transition to the new system can most easily be made, and how the quantity of money and the monetary and banking system generally shall thereafter be regulated. The obvious legal and constitutional difficulties, which any attempt to solve these economic problems also encounters, must be ignored here. It will be assumed that Congress has or can be given the requisite powers.

In the preceding pages a number of practical and theoretical defects were pointed out in the current 100 per cent plans. These defects seem to me sufficiently serious to invalidate the plans themselves. I think an alternative plan can be devised, however, which will achieve the desired results and yet at the same time be free of these defects. In the present brief compass, of course, it is impossible to present this alternative plan in detail, but the main heads can be outlined as follows.

1. I agree, as just indicated, that 100 per cent reserves of United States currency or some equivalent should be established behind the present demand deposit liabilities of the commercial banks. Instead of requiring the surrender of specific assets in return for the additional currency required to establish these 100 per cent reserves, however, I propose that the commercial and Federal Reserve Banks give to the United States government a general prior lien on their *total* assets equal to the value of the new currency received. This lien will carry no interest, and will be repaid or otherwise extinguished only slowly, if at all. The banks' present demand deposit liabilities will be made liabilities of the United States government itself (to protect the deposit holders against fraud), will be administered by the banks as agents of the government, and will in effect be warehouse receipts against currency. Since the banks will not own this currency themselves, but will hold it in trust for the demand

depositors, the banks will be unable to relend it. The present link between the volume of bank assets and the volume of circulating money will thus be broken. The internal administration of the checking accounts will be conducted precisely as at present, by the same staffs; creating separate corporations within the present banks to handle such accounts may not be necessary. Complete legal safety to demand depositors will be assured by these measures.[9]

2. Analogous arrangements will be applied to the present issues of Federal Reserve and National bank notes. All the present types of note currency should be merged in a single United States issue. Subsidiary metal coins should be backed 100 per cent by new United States notes.

3. Time and savings deposits in commercial banks will remain liabilities of the individual banks, but will be converted into negotiable interest-bearing time obligations maturing serially, say not more than 20 per cent within three months nor more than 40 per cent within a year (the interest rate can of course vary with the maturity). These time obligations will be issued, if desired, in small denominations. They will be backed by the totality of the banks' present assets, subject only to the general United States lien (which will not be exercised in any near future). The effective current protection given such time obligations, in terms of the volume of assets currently available for possible liquidation, will hence be much greater than that now given time and savings deposits (under Fisher's plan it would be *decreased*). The attractiveness of holding such obligations will also be greatly

9. One variant of the Chicago plan proposes that all checking accounts be transferred to and administered by the Post Office or some similar body, debentures being issued by the commercial banks in the amount of the accounts transferred. This resembles the prior lien above proposed, but would also entail complete disruption of all the existing arrangements for handling checking accounts. The plan now advocated leaves the present machinery undisturbed.

If an agent bank becomes insolvent, its remaining assets should be transferred to other institutions, subject to a United States lien of appropriate size; the demand deposits it had administered will be paid off in full in currency. A bookkeeping "loss" to the United States may be entailed, but this is immaterial.

increased. There is hence no reason to anticipate a run by the present time and savings depositors at the time of transition to the new system, nor any material disruption in the capital and short loan markets.[1] The present holders of such deposits in commercial banks should be given an adequate period, however, say a year, to decide. If they elect to convert them into demand deposits or new currency instead of into time obligations, new United States currency should be issued for this purpose, and the prior lien which the debtor banks give the United States government will be correspondingly increased; this is preferable to compelling the banks to sell assets, during the transition period, in order to get the funds necessary for the conversion.[2]

4. Each commercial bank administering demand deposits as agent for the government will pay in to a common pool, annually or semi-annually, a proportion of its total earnings equal to the ratio between the original United States lien on its total assets and the value of those assets (as established by some predetermined procedure) at the date of the particular payment; and will receive back from the pool a sum proportioned to the fraction of the national total of demand deposits which it administered in the previous

1. The transition to the new system will not itself alter the money-holding and money-using habits of the people. Part of the present time deposits in commercial banks doubtless really represent circulating money held temporarily idle, and would be converted into demand deposits. But part of the present demand deposits are effectively hoards held for protection against the recent actual and anticipated emergencies, and granted greater safety would be invested in the proposed new time obligations. The two sets of conversions, from time deposits to demand and conversely, should be roughly offsetting. As to the banks, there is no reason why they should attempt to shift their present portfolios greatly.

2. This provision should itself prevent any panic flight from the present time and savings deposits in commercial banks: their convertibility during the transition period will be assured. Also, as just indicated, there are other grounds for expecting little net increase in the present quantity of circulating money as the result of conversions of time deposits. Conversely, however, if demand deposits are converted to time obligations, the quantity of money should not be *decreased* except so far as previously increased by the opposite conversion. Three per cent reserves against time obligations should be retained, at least for a time – chiefly for their psychological effect.

accounting period (and perhaps proportioned also to debits). This will recompense the banks on a reasonable basis for their services as administering agents, while at the same time avoiding charges to depositors. Interbank shifts of demand deposits will affect each bank's receipts from the common pool, but not its payments thereto, and will not alter the United States lien on its assets. Part of any earnings above some stated per cent should probably be applied to reducing the United States lien.[3]

5. The present lending and investing operations of the commercial banks will continue substantially as at present,[4] as will the clearing and collection of checks. Interbank and interregional movements of funds, however, will produce only a one-for-one effect (not a multiplied effect, as often at present) on the supply of money in the regions concerned. Enduring interbank shifts of demand deposits will be followed at intervals by roughly equal interbank transfers of the United States currency held in warehouse behind such deposits.

6. Gold and silver will be used only for settling international balances. Their price in terms of currency will be varied only narrowly within periods of say a year. Inflows or outflows will be offset, within specified limits, by open market operations. If an outflow drains the country of specie the exchanges will thereafter depreciate (if the adverse pressure continues), but this is less disadvantageous than forcing the domestic economic structure into conformity with the current balance of international payments and the accidents of current conditions in other countries. Purchases of specie should cease when some predetermined maximum

3. Such payments, presumably to the Reserve Banks as agents of the government, should be reinvested at once in, say, U. S. securities, to leave the supply of circulating money unchanged.

4. If a bank loan is repaid in currency or with a demand deposit in another bank, these will become the property of the creditor bank. If it is repaid with a deposit administered by the creditor bank itself, the deposit will *not* (as at present) be extinguished, unless the creditor bank prefers to hold currency; if not extinguished, the bank will become the owner of a deposit, backed by 100 per cent currency and ultimately the liability of the U. S. government, administered by its own checking department.

holding is reached (preferably not much above the present figure), to prevent "inflation."

7. The total stock of currency, whether in outside circulation or warehoused against demand deposits, will be varied with the estimated secular growth of the population; and perhaps also, inversely, with the apparently gradual secular changes in the circular velocity of money.[5] In 1920 30, the two factors together would have entailed an increase in the stock of money of less than 1.5 per cent a year (perhaps an average for the decade of $350 millions a year). The increases should be frequent, and each hence small, to smooth their effects. They will be brought about through open market purchases of United States securities by the Reserve Banks; these purchases, however, will evidently be relatively unimportant. The Reserve Banks will also be given a *small* open market fund, perhaps $200 to $300 millions, with which to offset short-run pressures in the central money markets. Apart from these gradual secular changes and small short-period fluctuations,[6] the stock of currency will be held constant.

The principal working features of this proposed plan are hence, first, the conversion of the present demand deposit liabilities of the commercial banks into similar liabilities of the United States, but backed 100 per cent by currency and administered by the commercial banks as agents; second, the grant to the United States of a lien on the commercial banks' assets equal to the liabilities thus taken over; third, the conversion of the present time and savings deposits of the commercial banks into negotiable serial obligations of varying maturities; and fourth, the virtual stabilization (apart from a relatively slow secular shift) of the total supply of circulating money. Despite the extensive changes in legal relations involved, these proposals require rather little alteration in the actual operation of our present monetary and banking

5. On this last proposal see my article, referred to above, in the Cassel volume.

6. And also with the possible exception of the initial "reflationary" increase, discussed near the beginning of section III, above.

arrangements. In particular, they require in themselves no transfer of existing bank assets to the United States, no forced sales of such assets, no liquidations of existing banking institutions, and no large changes in banking staffs or even in day-to-day banking procedures.

The adoption of these proposals will, I believe, achieve the fundamental objectives at which the 100 per cent plans examined in previous sections all aim. They will make currency and demand deposits completely "safe" in the legal sense, will end the present dependence of the quantity of money on the volume of bank assets, and will permit a rational control of the total size of the stock of money itself. At the same time, they avoid the practical and logical difficulties apparently inherent in these other plans. The plan just outlined gives no invitation to political abuse; it is certainly not inflationary; there is no reason to fear that its adoption would be attended by serious disturbances during the transition period; and it sets up a simple procedure for the management of the money supply over time which, I believe, would yield substantially better results than the others examined above. It would not, of course, eliminate business cycles and other major economic fluctuations. The roots of these fluctuations are numerous and widespread, and many of them reach far beyond the workings of the monetary system as such. But by removing much of the reciprocally aggravating effects which are characteristic of the present relations between business activity and the stock of money in periods when the two are changing in the same direction, this plan would greatly reduce the amplitude and severity of the fluctuations themselves. The plan would thus go far toward making money really "safe," both against an evaporation of the money holder's nominal claim (as in the case of bank failures), and against sudden large changes in its value. It would thus also go far toward making economic activity reasonably stable. This last, it seems to me, should be the principal ultimate goal of all broad proposals for monetary and banking reform.

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