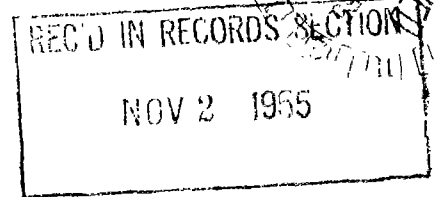


FEDERAL RESERVE BANK OF NEW YORK

NEW YORK 45, N.Y.

RECTOR 2-5700



October 10, 1955

Hon. James K. Vardaman, Jr.,
Board of Governors of the
Federal Reserve System,
Washington 25, D. C.

Dear Governor Vardaman:

Last spring a memorandum was prepared by the staff of the Board of Governors discussing the liquidity needs of the economy and suggesting that the Treasury might find it desirable, from this standpoint, to increase the supply of short-term Treasury securities. At about the same time, Treasury officials were explaining that their first task was to simplify the debt structure by reducing the volume of near-maturity obligations and by lengthening the average maturity of the outstanding debt. This difference of approach pointed to a need for some reconsideration of the ways in which changes in the debt structure induced by Treasury debt management, on the one hand, and by the System's variable influence upon liquidity and the creation of debt, on the other, might be meshed more effectively. At a meeting of the Federal Open Market Committee it was suggested that the several Federal Reserve Banks give some thought to the matter. The enclosed memorandum represents some preliminary results of our thinking on this subject at the New York Bank.

The memorandum is an attempt at an overall approach to the broad problem. It does not attempt to present final views, but suggests elements of an analysis that might be employed by the System and the Treasury to pursue the subject further. We hope that a careful study might locate some common ground on which responsible officials could stand, when debt management and credit policy responsibilities overlap or appear to conflict in this area.

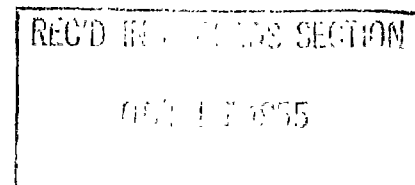
It seems to us that further study of this matter, and perhaps of other aspects of the relations between debt management and credit policy would be desirable, in an effort to approximate some general principles, rather than continuing to deal with isolated incidents as they arise. The attached memorandum might be considered a contribution to such a study.

Yours faithfully,

A handwritten signature in dark ink, appearing to read "Allan Sproul", is written over the typed name.

Allan Sproul
President

Enclosure



C O N F I D E N T I A L

Notes on Debt Management, the Structure
of the Debt, and Credit Policy

(Paper prepared at the Federal Reserve Bank of New York)

September 29, 1955

I. Statement of the Problem

Debt management and credit policy run into each other from various directions. Many of the potentialities for conflict or coordination have been studied for years, both at the Treasury and within the Federal Reserve System, but one important zone has been relatively neglected. That is the influence of the changes brought about in the debt structure by debt management, upon the fulfillment of credit policy objectives. To be sure, at the time of each Treasury offering, some consideration is given to the immediate effects of the offering upon the immediate aims of credit policy, But no concerted effort has been made by the Treasury or the System, singly or jointly, toward developing general principles for fitting together the Treasury's influence on debt structure and the System's variable influence upon liquidity and the creation of debt--principles that might exert some guiding influence over longer periods of time.

These notes are intended to make a start toward the development of such principles. They outline some of the ways in which the selection of issues and terms by debt management over the years must necessarily exert a profound influence upon credit markets, credit conditions, and the execution of credit policy, and they suggest some of the guides that might help debt management and credit policy contribute to economic growth and stability, without impairing the fundamental autonomy of the Treasury and of the System in the areas where each has prime responsibility. Essentially, this is a matter of getting both the System and the Treasury to appreciate more fully the reciprocal effects of their actions in their respective fields. The emphasis in these notes is intentionally on one side: the ways in which debt management, through its influence upon the maturity structure of marketable debt, may impinge on credit policy objectives--influencing interest rates and altering the liquidity of the banking system and of the economy at large. What credit policy may do to help or hinder the objectives of debt management is another part of the story, on which more has been said and to which, for that reason, relatively little attention is given here. Any thorough study of the integration of debt management and credit policy would, however, have to cover both sides, and include operating mechanics as well as general principles of the kind developed in these notes.

The use of the word, principles, is not intended to suggest that firm and fast rules of conduct can be applied at all times and under all conditions. Views as to what constitutes necessary or desirable liquidity will change with time and with the swings of credit policy objectives from ease to restraint and back again. Nor can there be any single determination of "the" pattern or level of interest rates which is most likely to promote growth and stability at any point in time--the desired direction and degree of change, if any, will be influenced not only by the state of the economy but also by the slowly changing cluster of habits and prejudices that dominate the behavior patterns of the capital markets. It is through recognition of some of these, however, and in accommodation to the particular form they may take at any given time, that debt management and credit policy can find a basis for coordinated action, to try to achieve joint objectives.

Briefly summarized, the conclusions of the present paper are:

1. The technical task of managing the debt is simplified and the latitude for effective credit policy is increased when maturities are relatively infrequent. The policies of the present Treasury administration have worked with some success toward this end. But these advantages must be weighed against the market's needs for instruments of various maturities, and debt management decisions should reflect the counter-cyclical aims of over-all economic policy in supplying these needs.
2. Debt management decisions in the past two years have had a pronounced influence on economic liquidity. But to appraise the degree of liquidity in the economy and estimated liquidity requirements, it is necessary to include all instruments that serve a liquidity purpose, including "money" and marketable, short-term private instruments, in addition to Treasury debt. Thus, Federal Reserve policy directed at banks' primary reserves can offset the liquidity effects of a reduction in short-term Treasury issues (as it did in 1954). Or, Treasury funding operations may, over time, encourage the issuance of private money market paper to service a larger part of the economy's liquidity requirements.
3. There is no uniformly adequate measure of liquidity, neither for the economy at large nor for the banking system, and there are no reliable guides to the effects that a change in liquidity might have. Liquidity can be measured in an ordinal sense of "more or less", but it would be advantageous if, in time, more nearly "standardized" concepts of liquidity could be worked out.

4. The definition of the supply of liquid instruments the economy "needs" is at least partly determined by the subjective element of what investors think they need, and this is partly a matter of what they have been accustomed to. Therefore, it might be expected that the definition of "normal" or "necessary" liquidity would change over time, and it might be necessary, from time to time, for the debt management authorities to exercise positive leadership to encourage such changes.
5. Debt management decisions also influence the structure of interest rates, the structure of the Government securities market, and the ease or difficulty of Federal Reserve operations. The reduction of the short-term debt, in the face of persistent nonbank demand for short-term Government issues, has helped to give nonbank corporations a dominant influence in the short-term Government securities market and particularly in the Treasury bill market. The Treasury bill market is no longer primarily a "bankers market", and the direct and immediate influence upon the money market of System transactions in Treasury bills has been lessened.
6. A set of principles for debt management should recognize the responsibility of the Treasury to schedule its necessary cash and refunding operations with a view to: (a) the needs of the economy and of the market for investments of various maturities, including a supply of liquid instruments consistent with prevailing economic and market conditions; (b) the technical advantages of a simplified debt structure with a relatively small floating debt and relatively widely-spaced or routine maturities; (c) the occasional need to lead the market toward different concepts of liquidity requirements when conflicts arise between (a) and (b); and (d) the consistency of debt management policies with monetary policy and with general economic policies.
7. These principles imply a joint responsibility for monetary policy and debt management. The two policies should be meshed consciously and deliberately, on the basis of continuing and focussed consideration of the areas of overlap--including compromise of particular objectives when compromise is necessary--to the end that the broad objective of economic stability and secular growth might be furthered.

II. Debt Management and Liquidity

A. Role of Liquidity

Treasury debt management decisions as they affect the maturity structure of assets held by private investors have a pervasive effect upon the liquidity of the economy. The importance of liquidity in the economic process derives from its effect upon the willingness and ability of individuals and businesses to dispose of assets for the purpose of acquiring other assets, or to incur debt for the same

purpose. A holder of cash (the most liquid asset) or short-term marketable debt instruments, which may be sold or redeemed easily and inexpensively, is able to generate a demand for goods by spending or lending. Not only is he able to, but the more of such liquid assets he holds as insurance coverage for possible, unforeseeable needs for funds, the more willing he will be to spend or lend. Thus, all else being equal, the greater the supply of liquidity--of cash and short-term, readily marketable public and private debt instruments--the greater will be the effective demand for goods.

If the money supply were constant, this process would be reflected in changes in the velocity of money. But in a system with a flexible money supply based on commercial bank credit, it may be reflected in changes in the money supply itself as banks add to or reduce their earning assets. In such a system, the proximate source of liquidity is the commercial banking system, and the liquidity of the economy at large rests upon the ability or willingness of the commercial banks to monetize debt. But this, in turn, is influenced by the liquidity of the commercial banks themselves.

In a significant sense, the Federal Reserve System is the ultimate source of liquidity for the commercial banking system and, through the banks, for the entire economy. The existence of a source of ultimate liquidity will not, of course, lead a bank to ignore liquidity considerations in its portfolio policies. In the first place, to do so would lead to censure, at least, from the bank examiners. And member banks know that while they have the privilege of borrowing from their Reserve Bank, there are reasonable limitations upon that privilege, and it may not be relied upon always and continuously as the principal source of liquidity. Also, bankers know from experience that not only is there less risk of capital loss in liquidating short-term investments than in selling long-term instruments, but also that short-term investments can more surely--in an absolute sense--be converted into cash, either at maturity or in

the broader market that exists in these instruments, than can longer investments. Therefore, if a bank is to assure itself of easier and less expensive access to funds to provide for fluctuating loan demands and deposit withdrawals, it should carry some volume of shorter-term investments. The actual investment portfolio structure in any bank at a given time will turn upon that bank's assessment of the relative importance of the larger returns that have typically been available on longer investments in recent years, as opposed to the estimated need for liquidity in the period ahead.

To the extent that debt management policies encourage bankers to hold relatively more short-term securities, the liquidity of the banking system is increased and the willingness of bankers to meet demands for credit tends to be expanded. Conversely, when debt management policies encourage bankers to hold relatively more intermediate and longer-term securities, credit availability tends to be tightened. In both cases, the "encouragement" given by debt management is through the choice of terms offered on new issues, which in turn lead to either a longer or a shorter debt structure and which are reflected in the relative rates of return on all outstanding issues and in the attractiveness of different maturities. If the central bank in the execution of its policies preempts a portion of the supply of short-term issues, the Treasury may find it necessary to adjust its policies to account for this influence.

This reasoning does not imply that Treasury debt management completely regulates the supply of marketable instruments of different maturities. Changes in the supply of private instruments may partly offset the influence of Treasury operations. But Treasury securities are such a preponderant part of all marketable debt, particularly in the "commercial bank area", that Treasury debt management decisions are pervasive influences in the total debt structure. A policy of lengthening the debt at a time when the central bank is seeking monetary restraint, or of shortening the debt when the objective is monetary ease, will

under most circumstances assist the Federal Reserve System, while the opposite policies will usually make its task more difficult.

It might be mentioned in passing that commercial banks perhaps should view all Government securities as relatively liquid, since the possibilities of capital loss are never as extreme as those involved in issues which also contain an element of credit risk, and the well developed market offers assurance of continuous and orderly trading. Nevertheless, when banks hold relatively few short-term Treasury issues they may be confronted with capital losses if they find it necessary to liquidate, and they may therefore act as though they were illiquid and be more cautious toward new credit extensions, whether in an absolute sense they are illiquid or not. This reaction on the part of commercial bankers, based partly on a reluctance to take capital losses, is one element assisting the Federal Reserve System to maintain effective control of credit availability and the money supply. What this means is that liquidity is a matter of degree. If debt management has resulted in banks holding more Governments of longer maturity, and less of the shorts, it reinforces a restrictive credit policy by reducing the liquidity of the banks, thereby limiting the readiness of the banks to use funds for other things.

B. Measuring Liquidity

One measure that has been used as an indication of the liquidity condition of banks is the total of their holdings of excess reserves, Government securities maturing within one year and other short-term marketable or callable instruments as a ratio to their total deposit liabilities or, alternatively, to their total loans and investments. Such a measure is presented in the attached table. It indicates that bank liquidity recently has been lower than it was for a considerable number of years. However, it is a commonplace that banks were unnecessarily liquid during most of the 1930's, and during the war and early post-war years, as a result of a large influx of gold, the financing policies of the

Government, and other sweeping economic influences of those two decades. Therefore, the recent condition of commercial bank liquidity, fostered by debt management policies and induced by credit policy, may simply have been a return to a more reasonable adjustment of bank portfolios as between the two alternatives of income and liquidity--bringing the banks more closely and continuously in contact with the effects of action taken by the System to influence credit growth. Even now there are no objective standards upon which to base a firm conclusion that commercial bank holdings of liquidity instruments, though lower than in other recent years, are so low as to reflect an "undesirably" illiquid position. This is particularly true in view of the present direction of credit policy.

The inadequacy and noncomparability of the data in the table make the construction of such a liquidity ratio extremely difficult, and there cannot be too much confidence in the results. Liquidity will vary bank by bank, depending upon the varying policies of the individual banks, and there is serious question as to how much meaning an aggregate measure can have. The liquidity ratio is an important tradition in British banking and fairly predictable effects can be induced by a change in the ratio. In a unit banking system, however, it probably will be difficult to establish a uniform standard. It might be possible, however, after careful study to establish a ratio along the lines of the attached table and to develop concepts of a range over which this ratio might be induced to move through the various phases of credit policy. Such a measure might offer hope for some quantification of liquidity measurements as a partial guide to coordinated debt management-credit policy.

C. The Responsibility for Liquidity

The Treasury has responsibility for the management of the public debt in a manner that will be most conducive to the development of sound financial markets and the maintenance of general economic stability and growth. By restructuring the debt in such a manner as to reduce the volume of short-term debt

and minimize the number of times the Treasury must come to the market to finance, the policies followed during the past two years have lessened the unstabilizing influence that debt management can have in the capital markets. Also, Federal Reserve credit policy has been able to exert a restraining effect upon bank credit availability more rapidly and with less pressure on reserve balances as a result of the reconstruction of the debt. However, it may be true, as is sometimes claimed, that debt management policies have not always given enough attention to the second responsibility, that of promoting conditions of stability in a growing economy. The attached data on liquidity might suggest that debt management has been partly responsible for lowering bank liquidity to a point that may not be consistent with the liquidity needs of the economy, even after allowance has been made for changing views as to adequate liquidity.

The Treasury has a public responsibility to maintain a debt structure that neither reduces the liquidity of the banking system below a point consistent with broad policy objectives nor adds to it beyond the point called for by policy objectives. It is necessary to recognize, however, that the Treasury's responsibility encompasses more than merely providing the securities that can be most easily sold, i.e., those which conform with the market's current evaluation of what it would like to have. If, as appears to be the case, the Treasury debt until recently was concentrated too heavily at the short end, then it was appropriate that the distorted structure should have been corrected through a policy of moving part of the short debt into longer areas. Furthermore, it is consistent with reasonable debt management principles that policy should have led the market by whittling the supply of short debt below what the market desired. That is to say, debt management has the right and responsibility to correct investment practices that are not necessary and may not be conducive to sound economic conditions, so long as such action from the point of view of those responsible for managing the debt is consistent with the objective of a more rational debt structure.

Although Treasury debt management decisions influence liquidity in the banking system and the economy at large, the primary responsibility for liquidity conditions traditionally has rested with the central bank. As mentioned earlier, the Federal Reserve System is the ultimate source of liquidity in the economy and has the power to create a desired degree of liquidity regardless of debt management policies. The liquidity effects of changes in the structure of the Treasury debt can be offset by properly graduated actions of the Federal Reserve System aimed at adjusting the banking system's supply of cash reserves, to create whatever degree of bank liquidity was sought (though perhaps with effects on the precision with which the System is able to regulate credit conditions). Alternatively, if the circumstances warranted such action, the Federal Reserve System might use maturity adjustments in the System Open Market Account as a balancing device to offset undesirable liquidity effects of Treasury debt operations, assuming that System holdings of various maturities were large enough to permit such action.

Present operating policies of the Federal Open Market Committee would not, of course, permit the latter operation. However, if the banking system is presently or should become too illiquid in the sense that it holds too few short-term Government securities, and if the principle is accepted of the primacy of Federal Reserve responsibility in liquidity matters, then the Federal Reserve System might at some time wish to employ the System Open Market Account for purposes of liquidity adjustment. The importance of improved control of the liquidity of commercial banks' secondary reserves would in each instance have to be weighed against any disadvantages that might be associated with recognition of a broader function for open market operations.

III. Interest Rates and Market Practices

Treasury debt management decisions have a direct influence upon the structure of market rates of interest. When debt management is pushing toward longer maturities the interest curve may tend to become steeper, all other things being equal, and when operations are centered in the short-term area it may tend to become flatter. Policies of the past two years have, therefore, generally tended to widen the spread between shorter and longer rates or, more accurately, to limit the squeezing together that would have been made more striking if debt-lengthening had not been pursued so actively. Two questions emerge: first, is there any particular shape or kind of rate curve that is, per se, "best" in the sense that it is most conducive to secular growth and cyclical stability; second, how important is it from the point of view of credit conditions that debt operations be varied counter-cyclically?

On the first question, there is certainly no single shape or level for the rate curve that is "best" under all conditions. Since steady expansion of productive facilities is necessary in a secularly expanding economy, the thesis is sometimes advanced that policy should press constantly for relatively low longer-term rates of interest. But this ignores the fact that marginal returns on capital investment fluctuate with the business cycle. An anchored long-term rate would provide greater incentive for borrowing in booms and less in recession, an economically unstabilizing pattern. Cyclical stability is promoted by fluctuating rates. There may be influences upon the shape or level of the curve that will be better than others, and much can be done to further credit policy by influences that cause changes within the "curve" without any pronounced change in level at all--but these are matters of degree and of emphasis--not "pinpointing".

It is usually assumed that the level of rates on long-term funds has a greater influence upon the demand for credit than does the level of rates in the

short-term market. If this reasoning is accepted, and if it is granted that a principal objective of economic stabilization policy is to encourage investment at times of declining business activity and discourage excessively heavy or speculative investment at times of boom, then it follows that a well coordinated approach for debt management and credit policy will have the effect of causing long-term rates to move over a relatively wide range during the business cycle. Short-term rates will usually be moving in the same direction, though perhaps with less regularity, and typically short rates may move further, so that the rate curve might become flatter under restrictive credit policies and steeper under easy credit policies. However, there may be changes in the level of the whole rate curve, with shifts over so relatively wide a range that the question of the slope of the curve (i.e. steeper or flatter) may be academic. To recognize the great variety of possibilities is not to imply that there must be perpetual bewilderment. The point is that, at any time, some of these kinds of changes will be detrimental, others helpful. And both debt management and credit policy should see the need to appraise, and to act, on the same side-- rather than as opposites.

On the second question, concerning the importance of contra-cyclical debt management, the answer must depend partly, of course, upon the extent to which credit policy does what debt management might do. That is to say, for example, if the Federal Reserve System for over-riding reasons is unable to act directly to force long-term rates higher in a boom, or to ease them lower in a recession, it becomes more important that debt management be used to accomplish some effect of this kind. To bring about lower rates in recession, for example, the Treasury could avoid financing in the long market and even provide attractive conversion options if necessary; in boom periods, directly opposite policies would presumably be called for. If pursued very far, however, such policies might not only become costly to the Treasury--by causing it to lose opportunities for

funding at lower (depression) rates, and by placing its main funding effort in boom periods of high rates--but it would also raise questions as to where the real locus for credit policy had come to be.

In appraising the respective roles of debt management and credit policy in influencing interest rate patterns, an important consideration is the greater flexibility of Federal Reserve action as contrasted with Treasury action in both timing and amount. Another practical consideration is the difficulty of managing a debt that automatically moves closer to maturity with the passage of time. It requires almost constant effort by the debt managers to prevent the average maturity of the debt from shortening and to avoid excessive bunching in the short-term area. To slacken the efforts to float intermediate and long-term issues during recessions would lead to periodic massive movements of debt into the short-term area, which would need to be followed later by equally massive movements out, just at the times when it would be most difficult. The disturbing effects on the market of such large alterations in the debt structure seem clear, and must greatly modify the possible theoretical conclusion that the Treasury should vary its debt operations countercyclically. It seems more likely that the Treasury will tend toward the issuance of longer rather than shorter maturities, in all phases of the business cycle, just because of the "passage of time" problem. Given this premise, however, it would be possible to achieve a synchronized relationship with credit policy by pressing relatively less energetically in recessions and relatively more energetically in booms.

The attempt to reconstruct the debt toward a relatively smaller supply of short-term securities and more orderly spacing in the longer areas has had several discernible effects upon the market for Government securities. It would appear that even if the Treasury may not have gone too far in its debt lengthening program, it has perhaps at times gone too fast. The short-term market, which ordinarily is most fluid, has at times during the past year developed "knots", perhaps partly

because of an inadequate supply of shorter instruments to meet demand at going rates, despite the tighter credit conditions and the massive unloading of short-term securities by banks that tighter credit has occasioned. That is to say, there have developed elements of administrative rationing rather than price rationing in the short-term market as dealers have declined to make markets in large amounts rather than assume the risks involved in lowering yield quotations to what they believed were unrealistically low levels at the time. To the extent that this has happened, it is indicative of a situation in which realistic prices on these issues in terms of existing credit conditions were not equilibrium prices in terms of equating supply and demand. That is, at times the limited supply of Treasury bills, for example, would have resulted in a price so high (yield so low) that the market simply would not "take" such an adjustment in the face of large, but brief, demands.

This situation may reflect unreasonable notions of investors as to what is a necessary short-term portfolio for liquidity purposes, and it reflects the high and rising tax liabilities of corporations during the business recovery which have been a source of insistent demand draining these securities from the banks. (It might be noted that on present tax schedules the latter process moves with the cycle and may be of some influence in helping to adjust bank portfolios in a manner consistent with the objectives of System policy.) And, in any event, it is difficult and logically questionable in a market of freely moving prices, although recognizing that price distortions do appear, to judge that supply is "too large" or "too small". But the fact remains that the factor of "what the market has grown used to" should be included as one of the determinants of what is an adequate supply of short debt and of a desirable degree of liquidity. And there have been the signs, mentioned above, that the short-term market has been

functioning imperfectly at the present level of short debt. Therefore, it may be true--with all the necessary qualifications--that at times recently there has "not been enough" of at least one particular type of short-term debt.

As banks have liquidated their holdings of short-term Government securities under the various pressures of attractive refunding opportunities into longer maturities, restrictive Federal Reserve credit policies, and a voracious nonbank demand for short-term Governments, the balance in the market has shifted to the point where commercial bank participation is now much less important than formerly. The nonbank corporations have become the principal participants in the bill market. In a real sense, the bill market no longer lies at the heart of the money market since the bulk of commercial bank reserve adjustments are no longer made there. To the extent that this is true, Federal Reserve operations in bills are not directly centered in the area of the market where money market adjustments are being made and their effect upon the money market is, therefore, more indirect. But it probably lies in the hands of the Treasury to correct that situation, if its other debt management considerations could permit that to be done. That is, more Treasury bills would eventually sate the demand and leave something over for bank reserve adjustments.

IV. Conclusions

Study and discussion should be able to broaden the area of common understanding, as between the Treasury and the System, on the interrelationships of debt management and credit policy. As a first approximation, it might be suggested that the Treasury's responsibility is, in a sense, a negative one. It is the responsibility to establish and maintain a debt structure that neither goes too far toward funding the debt and toward creating illiquid conditions in the banking system and other financial institutions, nor too far toward creating excessive liquidity (perhaps by always following the easy course of selling what

the market will most readily absorb). One implication of this approach would be that the Treasury should plan to increase the supply of short-term issues as time goes on if the steady growth of the economy seems to require a larger stock of secondary reserve assets. Rather than driving steadily toward debt lengthening, the Treasury might at some point stabilize the supply of bills and certificates, automatically rolling over the maturing certificates into new one-year issues in the same way bills are now rolled over and adding to the total supply of bills and certificates only to meet the secular growth requirements of the economy. The relatively infrequent note and bond maturities could then be handled in such a way that debt management would be pushing strongly toward longer maturities (less liquidity) when credit policy was restrictive and less aggressively toward longer maturities when credit policy was easy. The term "pushing toward" is important since the practical market situation will, of course, set limits to what can be done. But, if debt management and credit policy are working hand in hand, even an offering of 3-year notes in a period of restraint--if that is the longest issue the market will take in volume--will exert more pressure on liquidity than an offering of a somewhat longer issue in a period of ease, if that issue is substantially shorter than might have been sold.

With debt management setting the general framework, the Federal Reserve System might then have the responsibility for making the necessary period-to-period adjustments that could not easily be made with the cumbersome debt management mechanism. If economic conditions called for an increase in liquidity, the Treasury would not be able to bring about rapid shortening of the outstanding Treasury debt, or to make the change with appropriate diffusion among various shorter and longer maturities within a brief period of time, and the Federal Reserve System would be responsible for the needed adjustments. These operations by the System should, of course, be integrated with operations aimed at influencing reserves.

A final note should be included on the influence that general budgetary developments can have upon debt management-credit policy relationships. A Treasury deficit in a period of full employment or a surplus in a period of recession, of course, have broad effects on income and on bank credit that run counter to the economic stability objectives of credit policy. In addition these developments, particularly a Treasury deficit during a boom, create the need for debt operations that will frequently make the meshing of debt management and credit policy more difficult. Particularly when the Federal Reserve System is attempting to maintain a carefully regulated degree of restraint on money and credit, the more frequent financings (during which the System may be more-or-less immobilized) and the sledge-hammer effect on the market of any sizable cash operation can seriously hamper the adaptability and effectiveness of credit policy. The apparent results of the Treasury's cash operations in the second quarter of 1953 are a case in point. Compensatory fiscal policy, with budget deficits and surpluses occurring contracyclically, clearly would provide the best environment for successful integration of debt management and credit policy.

It is neither necessary nor would it be appropriate to attempt to spell out in detail the precise areas of responsibility under the sort of coordinated debt management-credit policy outlined above. It would appear that in defining functions and responsibilities, and in the interest of the most efficient working out of controls, a sharing of responsibilities along the general lines described may offer hope for more effective economic policy. What it is important to recognize is that credit policy and debt management are not independent and should, within rather broad boundaries, be consciously coordinated for maximum effectiveness--not necessarily as to precise details, but as to the direction and emphasis that will help to make one reinforce the other, at each phase of economic activity.

Liquidity Ratios of Member Banks
1928-1954, End of Year data

(Amounts in millions of dollars, ratios in per cent)

| Year | (1) Open market paper | (2) Short-term Gov'ts | | (3) Vault cash | (4) Free reserves | (5) Loans to brokers and dealers | (6) Total liquid assets (col 1 to 5) | (7) Net demand deposits | (8) Liquidity ratio (col 6 ÷ col 7) |
|------|--------------------------------|-----------------------------------|---|----------------------|-------------------------|--|---|----------------------------------|---|
| | | Bills and certif- icates | Total Gov'ts maturing in less than 1 yr. | | | | | | |
| 1928 | 602 | 554 | n.a. | 564 | -1,085 | 3,531 | 4,166 | 19,944 | 20.9 |
| 1929 | 582 | 249 | n.a. | 558 | - 704 | 2,463 | 3,148 | 19,797 | 15.9 |
| 1930 | 736 | 369 | n.a. | 593 | - 155 | 2,173 | 3,716 | 18,969 | 19.6 |
| 1931 | 443 | 679 | n.a. | 523 | - 660 | 966 | 1,951 | 16,067 | 12.1 |
| 1932 | 723 | 795 | n.a. | 423 | 342 | 598 | 2,881 | 15,193 | 19.0 |
| 1933 | 604 | 927 | n.a. | 471 | 762 | 1,006 | 3,770 | 14,821 | 25.4 |
| 1934 | 752 | 1,030 | n.a. | 609 | 1,807 | 1,030 | 5,228 | 18,851 | 27.7 |
| 1935 | 651 | 1,192 | n.a. | 665 | 2,840 | 1,243 | 6,591 | 22,169 | 29.7 |
| 1936 | 634 | 1,053 | n.a. | 697 | 1,981 | 1,410 | 5,775 | 25,450 | 22.7 |
| 1937 | 642 | 662 | n.a. | 589 | 1,202 | 950 | 4,045 | 23,741 | 17.0 |
| 1938 | 442 | 286 | n.a. | 746 | 3,201 | 973 | 5,648 | 25,983 | 21.7 |
| 1939 | 455 | 563 | n.a. | 841 | 5,207 | 790 | 7,856 | 30,326 | 25.9 |
| 1940 | 456 | 652 | n.a. | 991 | 6,613 | 642 | 9,354 | 35,262 | 26.5 |
| 1941 | 607 | 971 | n.a. | 1,087 | 3,082 | 594 | 6,341 | 39,708 | 16.0 |
| 1942 | n.a. | 10,648 | n.a. | 1,019 | 1,985 | 934 | 14,586 | 55,326 | 26.4 |
| 1943 | n.a. | | 19,979 | 1,132 | 1,231 | 1,398 | 23,740 | 57,990 | 40.9 |
| 1944 | n.a. | | 21,858 | 1,271 | 1,545 | 2,249 | 26,923 | 63,088 | 42.7 |
| 1945 | n.a. | | 29,275 | 1,438 | 1,269 | 3,133 | 35,115 | 70,918 | 49.5 |
| 1946 | n.a. | | 15,489 | 1,576 | 546 | 1,506 | 19,117 | 76,540 | 25.0 |
| 1947 | n.a. | | 15,643 | 1,672 | 1,464 | 811 | 19,590 | 80,822 | 24.2 |
| 1948 | n.a. | | 16,360 | 1,486 | 1,169 | 1,324 | 20,339 | 80,210 | 25.4 |
| 1949 | n.a. | | 22,664 | 1,521 | 1,010 | 1,737 | 26,932 | 81,263 | 33.1 |
| 1950 | n.a. | | 18,998 | 1,643 | 1,105 | 1,770 | 23,516 | 87,160 | 27.0 |
| 1951 | n.a. | | 28,882 | 2,062 | 370 | 1,551 | 32,865 | 92,770 | 35.4 |
| 1952 | n.a. | | 27,153 | 2,081 | - 697 | 2,032 | 30,569 | 96,786 | 31.6 |
| 1953 | n.a. | | 23,493 | 1,870 | 750 | 2,321 | 28,434 | 96,507 | 29.5 |
| 1954 | n.a. | | 14,648 | 1,843 | 248 | 2,881 | 19,620 | 100,477 | 19.5 |

n.a. - Not available.

(See notes on following page)

Explanatory Footnotes

1. Open market paper

Statistics on the amount of open market paper held by member banks are available only from 1928 through 1941 inclusive. Open market paper was so important a part of total liquid holdings during the period in which it was reported that it should, nonetheless, be included.

2. Short-term Government securities

Data on holdings of Treasury bills and certificates are available from 1928 to the present but data on holdings of Treasury securities maturing in less than one year are available only since 1943. Series for securities maturing in less than one year are used in the totals when available.

3. Vault cash

Data on vault cash are available from 1914 through the present and are included throughout.

4. Free reserves

A case might be made for including excess reserves in place of free reserves. However, a bank which has excess reserves only because of borrowing is currently less liquid than one which has such an excess without borrowing, and free reserves are therefore included in the series.

5. Loans to brokers and dealers

Loans to brokers and dealers have been included though this procedure might be debated. There are other short-term loans which could claim equal right to be regarded as highly liquid assets. The argument for including loans to brokers and dealers lies partly in the fact that data on other very short-term loans are not available and partly on the fact that liquidity ratios, particularly in the earlier years, suggest that banks must have regarded these loans as a significant part of their secondary reserves. The liquidity ratio excluding these loans gyrated widely and at times fell very low from 1928 through 1930, whereas the liquidity ratio including these loans was much more stable.

6. Balances with banks

Balances with banks have been excluded since these assets probably should be offset against the current liabilities of the banks holding the deposits. This again introduces the problem of implicit deduction of short-term liabilities from liquid asset holdings, but it seems the best procedure.

7. Net demand deposits have been used as the base for the liquidity ratio since these represent the major liability subject to immediate payment, but inter-bank deposits and items in process of collection have been excluded and both are likewise omitted from the asset side of the liquidity ratio.