

Money, Liquid Assets, Velocity and Monetary Policy

One of the striking developments in the U.S. economy since the end of World War II has been the decline of the money supply in relation to gross national product. Simultaneously, the economy has been rapidly accumulating liquid assets other than money. The slower growth of the money supply, traditionally defined in the U.S. to comprise private demand deposits and currency outside banks, in relation to gross national product has as a corollary an almost uninterrupted increase in the income velocity of money. As a result, while in 1946 a cash balance of fifty cents was held for each dollar of gross national product, twenty-five cents will do now.

At the same time, the role of money as a financial asset has been declining. At the beginning of the century, more than half of all liquid assets of the country consisted of demand deposits and currency; in recent years, only about one quarter. The diminishing importance of money within the pool of liquid financial assets is, indeed, a quite general concomitant of economic growth, as can be observed in countries at different stages of economic development.

These developments have attracted a good deal of attention in recent years. I need only to mention the questions raised by Professors Shaw and Gurley (1) and others concerning the significance of financial intermediaries for monetary policy. The role of financial intermediaries has been explored in recent years in numerous journal articles as well as in testimony before Congressional committees. The questionnaire addressed by the *Commis-*

(1) E. S. SHAW and J. G. GURLEY, "The Growth of Debt and Money in the United States, 1800-1950: A Suggested Interpretation", *Review of Economics and Statistics*, August 1957, and *Money in a Theory of Finance* (Washington, 1960).

sion on Money and Credit to the Federal Reserve System contained some searching questions to elicit the central bank's current views on the matter (2). The British *Radcliffe Report*, perhaps the most ambitious governmental study in the field of money since World War II, has gone so far as to suggest that the proper concern of central banking should be with liquidity, rather than with money.

The rapid postwar rise of velocity has produced a number of detailed studies of long-term trends and of sector velocity by Professor Selden (3) and others. Studies by Professor Latané and others have probed into the relationship between velocity and interest rates (4). In a recent monumental study, Professor Friedman has tried to reconcile empirical data on velocity with the "permanent income hypothesis" (5).

The significance of the rise in liquid assets in relation to GNP and of the related increase in the velocity of money and their significance for monetary policy must be viewed against the background of the broad changes which our financial environment has undergone in the last 30 years or so. In the thirties, we witnessed in the U.S. and elsewhere a serious impairment of the public's confidence in financial institutions and values. The forties produced a flood of war-generated excess liquidity. The fifties were the decade when it again became worthwhile to sort out active from idle money.

Who creates liquid assets?

Commercial banks have the unique ability to create the most liquid kind of financial assets other than the national currency — deposit money. Together with currency, checkbook money is the only universal means of payments and thus different from

(2) *The Federal Reserve and the Treasury*, Answers to Questions from the Commission on Money and Credit, New York, 1963.

(3) RICHARD T. SELDEN, "The Postwar Rise in the Velocity of Money - A Sectoral Analysis" (Occasional Paper No. 78, National Bureau of Economic Research Incorporated, 1962).

(4) HENRY ALLEN LATANÉ, "Cash Balances and the Interest Rate - A Pragmatic Approach", *The Review of Economics and Statistics*, November 1954.

(5) MILTON FRIEDMAN and ANNA J. SCHWARTZ, *A Monetary History of the United States*, Princeton University Press, 1963.

all other liquid assets which can fulfil only *one* of the several functions of money — to serve as a store of value. Recently, we have been hearing the suggestion that the concept of money should be broadened to include time deposits at commercial banks. Any attempt to extend the concept of money to include time deposits at commercial banks is likely to lead to confusion. Moreover, the proper analytical dividing line is not between deposits at commercial banks and liabilities of other financial intermediaries that issue financial assets possessing some of the qualities of money. It is between demand deposits — the dynamic part of the money supply — and *all* types of time deposits, *wherever lodged* — in commercial banks, mutual savings banks, credit unions, or (under the label of "deposit shares") in savings and loan associations. Let us not blur the distinction between money and all other liquid assets which may be bracketed as "near-money". Near-money is usually defined to include time deposits, the various money market instruments, and all other short-term obligations with an original maturity of one year or less. This conventional definition of near-money is conservative in many regards. It usually excludes, for instance, savings bonds, which most people would count among their liquid assets because they are convertible into cash on demand, at the cost of a loss of interest known in advance. It can even be argued that, on the strength of the postwar stock market performance, many holders of shares in mutual investment funds (with assets now exceeding \$28 billion) consider them to be liquid. And, certainly, the one-year original maturity dividing line is purely conventional. By and large, corporations and financial institutions consider as liquid those longer term obligations which, with the passage of time, have moved within a year or so of maturity. Moreover, repurchase agreements, widely used by corporations for the very short-term employment, of temporarily redundant funds, are frequently based on securities, with a maturity exceeding one year.

A main source of liquid assets is debt creation by the various segments of the economy. The network of debt relationships which characterizes our economy involves the *direct* issuance of short-term obligations by borrowers (such as commercial or finance company paper) as well as the *transformation* of longer term into shorter-term obligations (for instance — mortgages into savings deposits) by a variety of financial intermediaries. One of the

most important categories of liquid instruments (Treasury bills) is issued by the largest single direct borrower of all — the United States Treasury. Thus, a good deal of liquidity is generated outside the banking system.

Indeed, a variety of financial intermediaries share with commercial banks the ability to provide liquid assets in exchange for longer term claims on the private and public sectors of the economy. More importantly, a considerable part of the liquid assets injected in the postwar period into the U.S. economy resulted from the accumulation of personal savings in financial intermediaries and by the absorption of Federal debt by corporations, personal trust funds, and other nonbank holders, rather than from the monetization of debt through the banking system.

The demand for the various types of financial assets offered in credit markets is influenced by the liquidity characteristics attached to them, and, more basically, by the actual cumulative experience of their holders. Consumers have a preference for claims on thrift institutions, which in turn channel savings into real investment, predominantly mortgages. Corporations, long accustomed to fund their accrued tax liabilities in U.S. Treasury bills, have also used this medium, along with other money market instruments, for investing funds accumulated for a variety of other purposes, including the temporary investment of funds for the periodic disbursement of dividends and bond interest. In addition to Treasury bills, corporations as well as individuals use a variety of short-term obligations issued by State and municipal authorities as well as by business firms (such as commercial paper) as an outlet for their idle funds.

What causes velocity to rise?

With the re-emergence of flexible monetary policy, after the "Accord" of 1951, the public began to reappraise its need for cash balances in the light of remunerative alternatives that had become available. Higher rates on U.S. Treasury bills and private money market instruments have gradually caused a large part of the excess liquidity of business inherited from the war to shift outside the banking system. The gradual shift of the bulk of liquid assets held at the end of the war in the form of demand deposits into income-yielding liquidity instruments resulted in increased velocity

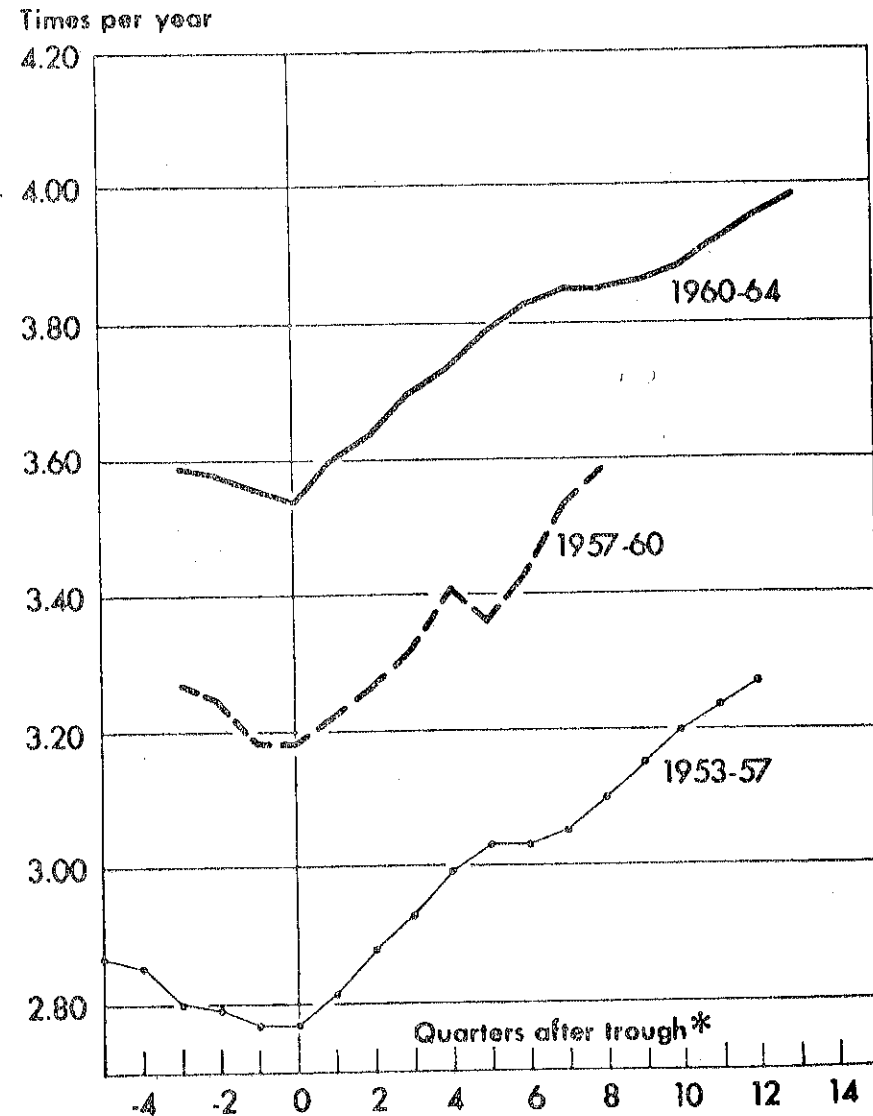
of demand deposits. As the amount of reserve and temporarily redundant funds held in the form of demand deposits shrunk, the ratio of money to the rising GNP declined. Since income velocity is nothing else than the reverse of the ratio of cash balances to the income stream, income velocity also rose. With demand deposits reduced more and more to active money, the turnover of such deposits increases. The increase in the turnover of demand deposits has been accelerated by a variety of techniques and procedures which have tended to diminish the demand for cash balances (6)

The growing confidence in the basic stability of our economic and financial system (which, incidentally, Friedman and Schwartz credit with the postwar increase in income velocity, which they measure by including commercial bank time deposits with money), fostered by the mild character of the postwar recessions and the relative ease with which they were overcome, favored long-run business financial planning. The development of corporate cash flow analysis has resulted in a better planning and control of cash flows and in reduced average working balances in relation to aggregate payments. Corporate cash balances have been more and more reduced to amounts needed to meet near-term payments, with funds accumulated to meet future obligations or for reserve purposes being channeled into income-yielding short-term assets. The greater efficiency in the use of money as a means of payment is best illustrated by the decline in the ratio of cash to receipts for nonfinancial corporations. This ratio declined from 7.9 per cent in 1946 to 3.8 per cent in 1962 (the last year for which data are available).

Similarly, individuals have been able to reduce their cash requirements in relation to payment needs, and they also have tended to transfer redundant money balances into income-yielding assets. As a result, since the end of World War II, income, as well as the closely related demand deposit velocity, increased almost continuously and so rapidly that cyclical declines in recessionary periods appeared as almost imperceptible declines, or merely as a slowing down in the long-run rate of increase. As a result, deposit velocity

(6) See my *Deposit Velocity and Its Significance*, New York, 1959, and the literature quoted therein. See also my "Structural Aspects of Money Velocity", in *The Quarterly Journal of Economics*, August 1959.

INCOME VELOCITY OF MONEY IN THREE RECENT BUSINESS CYCLES



* Troughs in general business activity: 3rd quarter 1954,
2nd quarter 1958, 1st quarter 1961.

at banks outside New York City (where it is considerably influenced by purely financial transactions) has more than doubled since 1946, and income velocity has risen similarly, reaching peak levels of the twenties (7).

The greater efficiency in check collection has reduced the volume of mail and bank float. An important contributing development has been the use of air mail and air freight for the collection of checks. As a result, maximum deferment schedules of the Federal Reserve System (the lapse of time after which credit is automatically given to commercial banks that collect checks through the facilities of the System) have been reduced to two days, in comparison with eight days in the early twenties, and deferment schedules used by commercial banks have been shortened correspondingly. The post office lock-box system (8), developed in the last decade, has reduced mail float (which, in recent years, may have accounted for as much as one-third of the amount of demand balance shown in bank ledgers) (9) considerably by intercepting checks as close as possible to their point of origin. Through the private, nationwide bank wire system, inaugurated since the war, funds can be transferred to distant points almost instantaneously. At the same time, various new types of clearing arrangements have arisen to reduce the need for money payments. Such arrangements cover a wide range of payments, in addition to the well-known clearing of payments arising from stock exchange trading. For instance, the major airlines clear interline payments through arrangements maintained by a New York bank, and several banks clear payments between major trucking lines, which in the U.S. play a considerable role in moving freight.

Similar, although less spectacular, developments have reduced the need for individuals to hold cash balances. One important development has been the establishment and broadening of the Social Security System and of various private insurance and welfare programs, such as the Blue Cross plan, which have reduced the

(7) The movements of income velocity and of deposit velocity are closely related. The advantage of using deposit velocity for short-term analysis lies in the fact that such data are available monthly, about two weeks after the close of the month. Income velocity data are available only quarterly and with a longer lag.

(8) See my *Deposit Velocity and Its Significance*, p. 66.

(9) See my "The Float in Flow-of-Funds Accounts", *Studies in Income and Wealth*, Vol. 26, Princeton, 1962.

need for holding liquid reserves to meet emergencies. A second factor has been the improved credit standing of large segments of the population as a result of rising income and favorable credit experience with consumer loans. This has given an increasing number of people easy access to credit at banks, retail stores, and finance companies, while the much wider use of credit cards has made the task of obtaining credit simple and convenient. As a result, the need for keeping cash on hand or in the bank has been reduced. As various means of making purchases without immediate payment came to be widely used, and more contingencies could be met without requiring immediate use of cash, the need for individuals to keep cash reserves declined.

These and similar developments during the postwar period have tended to increase the efficiency of working balances. Business firms, municipalities, and individuals learned to distribute their holdings of liquid assets in such a way as to balance their income from such assets against possible losses and against inconveniences arising from their conversion into cash. When interest rates rise in a period of business expansion, it becomes more attractive to invest temporarily redundant cash in money market instruments and other income-earning assets possessing a high degree of liquidity. One of the outstanding developments since the war has been the growth of market instruments and of arrangements available for investing what is commonly referred to as "idle cash".

The attractiveness of income-earning liquid assets easily convertible into money at virtually no risk or loss rises with the level of interest rates. Once acquainted with these media and possibilities, however, many business firms and governmental units, as well as individuals, have continued to use them even after interest rates have declined. Thus, the increasing tendency to invest idle cash in money market instruments has contributed to the postwar upward drift in velocity. At the same time, the rise in transactions in U.S. Treasury securities and in other money market instruments has tended to offset the relative decline of financial payments originating in connection with stock exchange trading (10).

(10) In 1963, the volume of reported transactions in U.S. Government securities amounted to \$429 billion and of Federal Agency securities to \$24 billion. Stock sales on all U.S. stock exchanges in the same year totaled approximately \$64 billion.

Is there a velocity ceiling?

The question is sometimes asked whether the postwar increase in velocity is likely to continue, or whether velocity will soon approach a ceiling. Clearly, since a time element is involved in the mailing and collecting of checks, and since ownership of accounts and the use of credit usually requires maintaining minimum or compensating balances, there are technical limits on velocity. But has the progress in economizing balances reached its limit?

Almost seven years ago, Professors Shaw and Gurley expressed the view that "in a country as financially developed as the United States... structural changes (affecting the demand for transactions balances) are largely a matter of the past" (11). Since this was written, velocity has risen further, roughly by one-third. In a more recent detailed study of velocity, Professor Selden concluded that "... it seems unlikely that aggregate velocity will long continue to rise at anywhere near its recent rate, and a resumption of the prewar secular decline would be not at all surprising" (12).

It is, however, quite unlikely that the United States has already reached a stage where no further improvement in the payments process or in the management of cash balances should be envisaged. Improvements in efficient management of money are likely to continue, although further large and rapid gains are probably not in prospect.

Commercial bank competition for savings deposits and idle cash

Since the end of the war, commercial banks have been able to enlarge their role as a conduit for channeling the country's savings into investment. A considerable part of the growth of consumer liquidity has taken the form of a spectacular growth in commercial bank time deposits, in part because in recent years banks have been willing to compete actively by offering higher rates, or otherwise, for the savings dollar. The ability of commercial banks to compete with other thrift institutions was increased by

(11) *op. cit.*, p. 250.

(12) *op. cit.*, p. 533.

the rise in the maximum permissible rate on savings deposits (for member banks, under Regulation Q) to 3 per cent at the beginning of 1957 (the first rise in 21 years) and the further rise to 4 per cent (for deposits left on deposit one year or longer) five years later. More recently, commercial banks in leading cities have made a determined bid to recapture some of the liquid and otherwise temporarily redundant funds of corporations which, for rate reasons, had been channeled into Treasury bills, finance paper, and other money market instruments. At the beginning of 1961, New York City banks began to issue negotiable certificates of deposit to corporations. This change of policy was almost immediately followed by the development of a secondary market for such instruments and the active bidding for time deposits by large banks throughout the country. The volume of such certificates outstanding has risen rapidly as banks throughout the country began to issue them, and currently, such certificates issued to corporations, foreign authorities, municipalities, and other holders of large balances exceed the impressive figure of \$12 billion.

This gradual change in the structure of commercial bank liabilities was accompanied by a related change in bank assets. One of its important facets has been the increased importance of lending to consumers. In recent years, loans to individuals for the purchase of cars, appliances, and for financing a variety of personal expenditures such as education and travel, and mortgage loans to finance the acquisition of houses accounted for about one-third or more of all credit extended by commercial banks to the private sector of the economy. It would lead us too far afield to explore here the various aspects of the resulting changes in the structure of bank assets. The changes in the composition of bank assets (one important fact being the fact that mortgage loans are amortized, and a large portion of them insured or guaranteed by a Government agency) is clearly important in interpreting recent changes in bank liquidity, another area in which structural changes require caution in making historical comparisons.

The growth of time deposits lodged with commercial banks raises a number of interesting questions with regard to bank policy and the process of monetary control. It has not, however, in any way changed the uniqueness of money as the only means of payment and the basis on which the entire liquidity structure rests. This recent growth of time deposits has broadened the role

of commercial banks as financial intermediaries, which they increasingly fulfil along with their primary function as the medium through which the money-creating powers of the central bank become effective.

The significance of the postwar rise in nonbank liquidity

The aggregate volume of liquid assets in the economy (consumers, business, and farm sectors combined), as measured by the flow-of-funds accounts (13), has nearly doubled since the end of the war. How is liquidity related to economic growth? In which precise way does liquidity determine spending in the various sectors of the economy? What is the relationship between the growth of liquidity and the growth of debt? What is, for each economic sector, the optimum relationship between liquidity and spending? How much aggregate nonbank liquidity is too much?

The state of monetary theory and of empirical knowledge concerning the relationship of liquidity to economic growth and stability cry out for more research. It is likely that much significant progress can be made through sectoral analysis (14). Indeed, the significance of liquidity for consumer spending is not the same as for corporate spending. A significant part of such assets held by corporations is earmarked for the payment of taxes, being, in effect, tax reserves. Funds accumulated periodically for the payment of interest and dividends are also typically held in the form of liquid assets. Econometric and other studies identify a variety of factors that determine U.S. business spending for plant and equipment or for inventories — not necessarily the same — but corporate liquidity (as contrasted with cash flows) does not seem to be among the leading determinants of such spending. And, indeed, the ability of the Federal Government, as well as of the lower units of Government, to spend derives from their taxing power and their

(13) Board of Governors of the Federal Reserve System, *Flow of Funds Accounts 1945-62* (1963 Supplement).

(14) This task is now greatly facilitated by the statistics produced by the flow-of-funds project of the Federal Reserve Board and by RAYMOND W. GOLDSMITH, *Financial Intermediaries in the American Economy Since 1900*, National Bureau of Economic Research, 1958, and R. G. GOLDSMITH and R. E. LIPSEY, *Studies in the National Balance Sheet of the United States*, NBER, 1963.

ability to borrow; it is not likely to be influenced in any material way by their liquidity position.

LIQUID ASSETS,¹ BY SECTOR, SELECTED YEARS
(End of year - billions of dollars)

Sector	1945	1953	1963
Consumer ²	153.6	205.5	368.0
Corporate Nonfinancial Business	30.2	41.4	60.7
Including all U.S. Government securities ³	43.2	52.5	65.4
Total Liquid Assets	183.8	246.9	428.7
Including all U.S. Government securities held by corporations ³	196.8	258.0	433.4

¹ Includes deposits at commercial banks; mutual savings bank deposits; savings and loan association shares; credit union shares; open market paper; U.S. Government securities maturing within one year; savings bonds; and Postal Savings System deposits.

² Includes also personal trust funds and nonprofit, religious and welfare organizations.

³ Includes, in addition to the assets enumerated in footnote 1, all other U.S. Government securities on the grounds that corporate directors usually authorize only holdings of securities with relatively short maturities.

The most spectacular increase in liquid assets occurred in the consumer sector. Indeed, the postwar increase in liquidity shows some striking differences. Liquid assets held by nonfinancial corporations, for instance, have grown only moderately since the war, more or less in line with total corporate sales. In the last ten years (1953-63), total liquid assets in the consumer sector have risen roughly 79 per cent (and in absolute terms, considerably more than during World War II), while they rose less than 25 per cent in the corporate sector (considering all Government securities held by this sector to be liquid; less than 47 per cent when Government securities with remaining maturity of one year or less are included). It is an open question to what extent consumer preference for specific categories of assets should be explained largely by liquidity characteristics of these assets rather than by convenience, or the limited flow of new equity securities, or limited opportunities for direct investment in business assets or mortgages. In other words, do individuals channel a large part of their savings into savings accounts because of the liquidity characteristics of such deposits or because commercial banks and savings institutions provide convenient depositories and

pay rates which considerably reduce the inducement to seek other, but less convenient investment media for personal savings? There is some question of whether the postwar rise in liquid assets held by consumers is significant primarily because of its liquidity aspects or because of its wealth aspect.

Another important question is that of the relationship between the growth of financial assets and financial liabilities. To what extent is the effect of the growth of consumer liquid assets offset or neutralized by the increase in the individual's indebtedness, in particular in the form of consumer and mortgage debt? All types of consumer debt combined have risen at a more rapid rate than their liquid assets. How confidently can we operate on the assumption that an increase in consumer liquidity tends by itself to increase spending? The relative stability of the savings ratio for the U.S. population as a whole, at a time when family median income has been rising almost uninterruptedly and when consumer liquid assets have been rising strongly, raises a number of intriguing questions. Here is certainly another fruitful field for empirical research. Any model of consumer behavior that takes into account liquid assets other than money should logically also introduce nonliquid assets and liabilities. In the broadest sense, this approach involves looking at the complete balance sheet.

Does the decline of the relative importance of money within the entire structure of liquidity reduce the "reach" of monetary policy?

It is sometimes contended that the growth (relative to money balances) of financial assets possessing a high degree of liquidity has weakened the ability of monetary authorities to influence effectively the liquidity of the economy and aggregate spending. It has been said that variations in velocity tend to offset, at least in part, changes in the money supply brought about by the monetary authorities, and that such changes in velocity constitute an "escape hatch" from the pressures the monetary authorities are trying to exert. Credit restraint, it is argued, causes a rise in interest rates; this, in turn, leads to shifts of some idle balances into the hands of active users, which in turn increases velocity, and thus aggregate spending, to an extent that tends to frustrate the intent of the monetary authorities.

On the surface, an increase in velocity in response to more restrictive Federal Reserve policies, which normally are accompanied by rising short-term rates, may appear to be an avoidance of the impact of monetary policy actions. In fact, such increases are part of the process through which the effect of such actions travels beyond the confines of the banking system. The result — in line with the intent of monetary authorities — is a rearrangement of liquid asset holdings that maximizes the use of the existing stock of money and thus speeds the effects of restraint throughout the economy.

It is now quite generally agreed that the central bank is concerned with the entire credit and liquidity structure of the economy, not merely with the size and behavior of the money supply. In determining its policy, the Federal Reserve System takes into account the entire structure of liquidity erected on the basis of the money supply and not merely changes in the money supply or in bank credit.

The liquidity of each holder of short-term assets depends on the ability of financial markets to convert "near-moneys" into money at little or no sacrifice. The money market is the place where cash is converted into short-term income-producing assets and where, at the same time, other holders are converting their assets into cash. As, over the years, this market has grown in size and efficiency, the major participants have become more and more sensitive to slight changes in rates, and the availability of cash or liquid instruments that those rates reflect.

Holders of financial assets continuously appraise the relative attractiveness of the various "near-moneys", assessing yields in relation to liquidity and the risk of capital losses (or possibility of gains) at conversion into money. Since the distribution of the public's holdings of liquid assets is strongly influenced by the available yields, the monetary authorities can, by acting on interest rates, exercise a powerful influence on the distribution of nonbank liquidity between money and its closest substitutes.

As more spending became sensitive to interest rates, whether as lenders or borrowers, the stimulative effects of declining rates, and the restrictive effects of rising rates, have extended the reach of monetary policy to the entire liquidity structure. The basic fact remains that the willingness to put temporarily redundant or reserve funds where they can earn a return rests on a conviction, suppor-

ted by continuous experience, that they always can be put back into money, if suddenly needed.

With regard to possible complications for monetary policy that may arise from sudden and substantial shifts in the public's desire to convert liquid assets into money, the experience of recent years gives us reason for confidence. While individual holders frequently shift the distribution of their liquid assets between money and money substitutes (including time deposits at the same bank), the historical record shows a great degree of long-run and cyclical regularity in such shifts. Throughout the postwar period, shifts between money and near-money have been gradual, rather than sudden. We have experienced in recent years a whole series of shocks and crises, of external as well as internal origin, but none of them has produced marked changes in holders' preferences for the various types of liquid assets, and in no case has a rush into cash developed.

It is now widely recognized that in countries with a developed money market the money supply has two dimensions: size and velocity. The central bank can influence only the supply, but not the composition or use of money. Changes in velocity thus become a mirror in which changes in the liquidity position of the various sectors of the economy are reflected. They reflect reactions to past actions of the monetary authorities, as well as set the stage for the determination of subsequent policy moves. Changes in velocity are merely one of the numerous factors which the formulation of monetary policy must take into account. On the other hand, changes in velocity are one of the best observable evidences of effects of monetary policy actions.

In acting upon the money supply, the central bank leaves it to the market to distribute credit to various sectors and uses. At the same time, greater or less degrees of credit stringency cause changes in the technical efficiency of money use. In a way, changes in velocity signal to the monetary authorities how impersonal actions on their part have actually affected the liquidity position of the economy as a whole, after the initial reactions to the change in monetary policy have been worked out by the various sectors and in money-using processes.

Far from being inimical to the execution of monetary policy, changes in velocity are actually another aspect of the system of checks and balances which characterize the operations of our economic system. At times, the monetary authorities can take actions

only in doses that are sufficiently massive to create temporary disturbances at their initial points of impact. It usually takes time before policy actions in the open market or changes in the discount rate or in reserve requirements permeate the entire credit structure. In such a situation, velocity acts as a shock absorber and helps to cushion and diffuse the initial effects of policy actions. So long as monetary authorities are aware of the nature, extent, and possible range of these chain reactions, changes in velocity can be taken into account when determining the magnitude and timing of the required policy actions.

Now, more than a decade after the "Accord", despite the enormous expansion of financial intermediaries and the evolution of new forms of liquid assets, the Federal Reserve need not fear that it has lost any significant degree of its power to influence money and credit, or the important role they play in the economy. The rapid growth of financial institutions other than commercial banks has produced a need for nonbankers to scrutinize closely what the central bank is doing, because their ability to shift to and from cash at the least risk of loss or other expense depends on their knowledge of money market trends. And the Federal Reserve, which has always brought its influence to bear at precisely this point in the financial structure, now finds the pressure point more responsive than ever.

New York.

GEORGE GARVY