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Statement of George W. Mitchell
Member, Board of Governors of the Federal Reserve System
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Joint Economic Committee
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I am pleased to have this opportunity to appear before this Committee to discuss the principles of conducting monetary policy as part of an overall economic stabilization program. My formal statement is addressed to a question that has been widely discussed in the past several years, and in which this Committee already has demonstrated an active interest: what financial variable or variables should be used as intermediate targets of monetary policy? More specifically, in assessing whether monetary policy has been tight or easy, what interpretation should be assigned to the movements in the stock of money, as against movements in other financial variables such as broader measures of liquid assets, credit flows and terms, money market conditions, or the level and structure of interest rates?

On a question as complex and as controversial as this, there are bound to be differences in views among observers--even among those whose vantage points are very similar. Consequently, I could not hope to express adequately the judgments of the Board as a whole, nor shall I try to do so. The opinions to be expressed are my own.

The central question with which I shall be dealing--the intermediate targets of policy--has been debated extensively in the professional journals, although without sufficient agreement having been reached to provide any automatic guide for monetary policy decisions. Some economists affiliate exclusively, or primarily, with changes in the rate of credit expansion, either in terms of total credit expansion or some critical segment thereof, such as bank credit. Others look principally to changes in the economy's liquid assets, either in the aggregate or in some segment

of the total, such as the money stock. Others look principally to the terms and conditions on which funds can be borrowed, regarding changes in the level and structure of interest rates as the basis for establishing the course of monetary policy.

To set forth the conclusion of my argument briefly, it seems to me that in our dynamic economy, no single variable--whether it be the money stock, money plus time deposits, bank credit, total credit, free reserves, interest rates, or what have you--always serves adequately as an exclusive guide for monetary policy and its effects on the economy. It follows from this that excessive concentration of our attention on any single variable, or even on any single group of related variables, would likely result in a potentially serious misreading of the course and intensity of monetary policy.

It may be helpful to establish the rationale for this conclusion in rather general terms first, and then appraise, in this context, the conduct of monetary policy in some recent critical periods. Monetary policies pursued by the Federal Reserve do have an important effect on the Nation's money stock. While our knowledge of the effects that reserve injections have on the time position of monetary expansion is imprecise, the Federal Reserve generally could make the money stock grow or decline in line with what was thought to be appropriate for economic stabilization purposes. But it is a mistake to assume that Federal Reserve policies are the only factor influencing the money stock. It is equally mistaken to assume that policy actions do not extend beyond the money stock to affect growth rates of other financial assets, expectations of market participants, and the terms on which borrowers in a variety of different

credit markets find funds available to finance spending plans. Failure to appreciate the potentially disturbing effects of policy actions on aspects of the monetary and credit environment other than the money stock could easily lead to serious mistakes in monetary management.

We must, and do, guide Federal Reserve policies with a careful assessment of the effects those policies have on the money stock. But in interpreting movements in the money stock over time it is essential to recall that these movements are the result of the interaction of many forces: the behavior of the nonbank public, acting in response to its desire to hold money and other financial assets; the behavior of Federal Reserve in supplying bank reserves, and in setting discount rates, reserve requirements, and ceiling rates that banks may pay on time deposits; the behavior of the commercial banks in using the reserves supplied to them by the Federal Reserve; the behavior of all financial institutions in bidding for the savings of the public. It is erroneous to interpret changes in the money stock as though they represented exclusively the result of the operation of a guidance system for the economy administered by the central bank. Variations in money holdings over any period represent the supply behavior of the central bank acting together with the demand factors existing in the private sector of the economy.

A meaningful interpretation of changes in the growth rate of the money stock must try to take into account, therefore, the factors underlying the public's demand for money and its ability to substitute

between money balances and other financial assets. It is particularly important to assess properly what is happening to growth rates of other financial assets that are likely to be close substitutes for money in the public's financial asset portfolio. Our monetary history, as I read it, does not indicate that there is any unique financial asset, or combination of financial assets, which satisfies the public's liquidity preference.

Indeed, over the past decade--and especially in the past five or six years--there have been significant changes in the public's preference for various types of liquid assets. For example, in the late 1950's we observed that the growth rate of time deposits of commercial banks was beginning to respond to changes in monetary conditions. Monetary policies that limited the overall supply of bank reserves and bank credit tended to raise rates of interest on market securities. Because rates paid on time deposits by commercial banks were generally less flexible, these deposits became less attractive to the public, relative to market securities, and their growth rate slowed. Expansive monetary policies, contrariwise, tended to accelerate time deposit growth.

Manifestly, a given dollar increment to bank credit associated with a rise in time deposits need not be any the less expansive, in terms of its effects on spending, than if the increase in bank credit were supported by a rise in demand deposits--and hence by a growth in the stock of money. Indeed, it might be more expansive, since banks might channel funds received through time deposit growth into types of

uses more likely to stimulate economic activity. For some time, therefore, we have taken into account the growth rate of commercial bank time deposits, as well as the money stock, in trying to steer the course of monetary policy.

But the meaning to be assigned to any given growth of time deposits is not easily determined. It means one thing if rapid growth in time deposits reflects aggressive bidding for these deposits by the banking system, with the public responding to banks' efforts to obtain loanable funds through this route by reducing money balances. The meaning would be very different if the funds attracted to time deposits at commercial banks represented funds diverted from the close competitors of banks in the savings field--the mutual savings banks and savings and loan associations. Still a third meaning would be suggested if an increase in time deposits represented funds that someone would otherwise have invested in Treasury bills, while the banking system puts the funds into mortgage loans.

Thus, interpretation of the economic impact of changes in commercial bank deposits involves understanding the sources from which funds flow into these assets, and the reasons for these flows. And increasingly, it has become evident that the posture of monetary policy--as it affects yields on market securities and the desire and ability of banks to bid for funds--influences also the flows of funds to nonbank thrift institutions, and through them the supply of funds seeking long-term investment, especially in mortgages. When the effects of policy spread this pervasively through the financial structure, efforts at setting the course of policy by specifying a relatively inflexible pattern

of behavior for a single financial variable, such as the money stock, could produce seriously disequilibrating changes in economic activity.

The problems we face are not likely to be solved by concocting alternate definitions of money, in hopes that by doing so we will find the magic statistical series whose behavior tells us just what we need to know to establish the posture of monetary policy. Undoubtedly, our understanding of monetary processes is improved by expanding our vision beyond the narrowly defined money stock and its immediate determinants, but we should not expect to find a magic divining rod for monetary management. What we need is a better understanding of the meaning of changes in money and in other liquid assets, not new definitions of what money is.

Observing interest rate changes can help immeasurably in assessing the meaning of changes in money and other liquid asset holdings. Of course, given sufficient time, the impact of monetary policy on interest rates tends to disappear. Expansive monetary policies which initially lower interest rates will eventually increase spending, and the resulting rise in credit demands and income will tend to push interest rates back up again. Nonetheless, there are lags between monetary policies and their final effects on spending and incomes--and in the interim, the impact of monetary policies will be recorded in interest rates. Interest rate changes, consequently, are often of substantial value as indicators of the posture of monetary policy.

This point can perhaps be illustrated briefly by reference to the debate in the course of policy during the early 1960's, when growth in the money stock was quite moderate, but growth rates in total bank credit were relatively high. In 1962, particularly, growth of the money stock receded to only about 1-1/2 per cent, while the growth of bank credit--under the impetus of an 18 per cent rise in commercial bank time deposits--increased to almost a 9 per cent rate. Earlier in the postwar period, that high a growth rate of bank credit had been associated with strongly expansive monetary policies. The result was a critic's paradise; Federal Reserve policy could alternatively be criticized as exceptionally expansive, or unusually restrictive, depending on the point of view of the critic.

I argued at that time--and I would still argue now, given the benefit of hindsight--that both of these interpretations of monetary policy were inaccurate. The growth of time deposits in 1962--and more generally, throughout the early years of the 1960's--reflected partly a reduction in the public's demand for demand deposits. This reduced demand for money was a response to both the higher rates banks paid on time deposits, and the spread in the use of negotiable CD's by large corporations as a liquid investment medium. Slow growth of the money stock was thus reflecting predominantly a reduction in the public's desired money holdings relative to income. But, in part, time deposit growth also reflected an increase in the banking system's role as an

intermediary in the savings-investment process. Banks were bidding for funds that would otherwise have been channelled directly by savers to market securities, or indirectly through nonbank thrift institutions to the mortgage market. High growth rates of bank credit were in large measure a reflection of the increased intermediary role of the banks. On balance, I have always thought that the posture of monetary policy in 1962 was properly described as essentially accommodative, or perhaps moderately expansionary, rather than unusually stimulative or unusually restrictive.

The best evidence that this interpretation is the proper one stems from what was happening at that time to interest rates, and what happened subsequently to economic activity. If policy had been unusually restrictive, as the slowdown in money growth suggested, we should have expected to see a sharp rise in interest rates--followed by a subsequent marked slowing in GNP growth, or at least in those sectors of the economy most sensitive to monetary policy, such as residential construction. If policy had turned exceptionally expansive as suggested by the marked increase in bank credit growth, we should have expected to see a marked decline in interest rates, and a subsequent surge of spending, particularly in those areas most responsive to policy.

What in fact happened was neither of these. Long-term interest rates were gently declining through most of 1962, while short-term interest rates remained relatively stable throughout the year. GNP growth did slow down temporarily in late 1962 and early 1963, but this moderation

in the rate of expansion could scarcely be attributed to tight money. The homebuilding industry--a good barometer of the effects of policy on spending--experienced a generally rising level of activity during the year, made possible by relatively ample supplies of mortgage money.

Interest rates, therefore, provide potentially useful information as to the course and intensity of policy, and can never be ignored in setting the targets of policy. Of course, using changes in an interest rate or a matrix of interest rates as the sole guide for policy would be as misleading as depending solely on changes in the stock of money. For one thing, some of the important effects of monetary policy in credit markets do not show up in interest rates, but in other aspects of loan contracts--down payments, maturities, or the ability of a borrower to get credit at all. These changes in credit availability may well be as significant as interest rate movements in stimulating or restricting particular types of spending. More important, perhaps, is the fact that changes in interest rates result from changes in credit demands as well as supplies. As with the money stock, interest rate changes are partly the result of Federal Reserve policy, but they are partly a product of the behavior of the nonbank public, the commercial banks, and other financial institutions.

If we are to make use of interest rate movements as guides to policy, then, we clearly cannot assume simply that monetary policy is moving toward restraint every time interest rates rise, or conversely that falling interest rates always imply greater monetary ease. Interest

rate movements have to be interpreted in the light of accompanying changes in such financial quantities as the money stock, commercial bank time deposits, and claims against nonbank savings institutions. Similarly, interpretation of changes in financial quantities, such as in the money stock, must be made in the context of changes in the prices and yields of a wide range of financial assets among which investors may choose to hold their funds. Thus, neither financial prices nor quantities alone tell us enough of the story to permit either to serve as an exclusive guide to policy.

Moreover, at each juncture the interplay of quantities and prices in financial markets take on substantive meaning as a guide to policy only in light of developments in the real sectors of the economy. For it is only by disentangling the complex inter-relationships between financial markets and markets for real goods and services that we can hope to assess adequately the separate roles of both demand and supply factors in determining quantities and prices of financial assets.

This analysis does not lead to any obvious and simple prescription for gauging and directing the course and intensity of monetary policy. This is regrettable, not just because it maximizes the potential for disagreement among policy makers and observers evaluating the same set of facts, but also because it implies that we have found as yet no simple device for circumventing the arduous tasks involved in making judgmental decisions at every step of the game.

I would not want to pretend that our economic judgment--or that of any other economic policy-making body--is infallible. But I would argue that the procedures we do follow--blending judgment with comprehensive, quantitative analysis of current and prospective developments--have produced better results than would have been achieved by following any of the simple rules advocated by some economists. I have already described how misleading it was to have described the course of monetary policy in 1962 by relying solely on changes in the money stock. Let me turn to a more recent--and more controversial--period, the conduct of monetary policy since the middle of 1965. A frequently voiced criticism of policy in this period, as typically set forth by those who judge the posture of policy either exclusively or mainly on the basis of the growth rate of the Nation's money stock, is that monetary policy became excessively stimulative shortly after the middle of 1965, and remained so until the late spring or early summer of 1966. The high rate of growth of money balances during this period, it is contended, was a principal source of the inflationary pressures we suffered in 1966. Also, it is alleged that monetary policy became excessively restrictive in the late spring or early summer of 1966, and remained so until late in the year--as the monetary authorities characteristically over-reacted, it is said, to their earlier mistake of excessive ease. This criticism goes on to argue that monetary policy once again swung too far in 1967, producing an unusually high rate of expansion in the money stock that set the stage

for a revival of inflationary forces late in 1967 and on into the current year.

There is an alternative interpretation of monetary policy during this period, derived from a more careful and comprehensive view of developments in the real economy and in financial markets from late 1965 to date, that accords more closely with the unfolding facts of the situation. As this Committee knows well, the problems of excess demand, economic instability and inflation that have plagued us for nearly three years first made their appearance in the summer and early fall months of 1965. Our defense effort in Vietnam had just begun to be enlarged, and defense orders were pouring out in volume. At the same time, growth in the stock of money accelerated from a rate of about 3 per cent in the first half of 1965 to about 6 per cent in the final six months of that year.

Whatever one's views on the relative importance of the defense buildup, as opposed to the rise in the monetary growth rate, as factors in the ensuing increase in the growth rate of aggregate demand, hindsight points clearly to the view that prompt and more vigorous efforts should have been taken to counter the inflationary head of steam that was developing in the latter half of 1965. By imposing measures of fiscal restraint then, and adapting monetary policies to the altered environment, we might have preserved the balanced, orderly growth that we had been enjoying over the previous four years. We did not, largely because the magnitude of the defense effort that was getting underway then, and the reverberations it was having in virtually every corner of the economy,

were not fully recognized until late in 1965. Given the knowledge that we have presently--which was not then available--the course of monetary and fiscal policies in the latter half of 1965 looks inappropriate.

Once a program of monetary restriction was initiated in December of 1965, however, we moved to a posture of restraint much more quickly and decisively than the figures on the money stock alone would indicate. The accompanying chart shows the percentage changes, at annual rates, of the money stock, money plus time deposits at commercial banks, and savings accounts at major nonbank thrift institutions. (These percentage changes are calculated from 3-month averages to smooth out some of the erratic monthly movements in these series.) The chart indicates some rather critical differences in the timing of these three series in the period from mid-'65 to mid-'66. Thus, though the money stock continued to rise briskly over the early months of 1966, the growth of money and time deposits together began to decline in the late fall months of 1965. And the growth rate of nonbank savings accounts was already declining sharply by the end of 1965, as depositors of these institutions responded to the attraction of rising yields on market securities and on commercial bank time deposits.

Thus, the supply of credit represented by the growth of all these financial assets together began to decline well ahead of the downturn in the rate of expansion in money. This decline in supply, operating jointly with the heavy credit demands arising from rapid growth in current spending, underlay the marked and pervasive rise in interest rates we were experiencing in the first quarter of 1966. Monetary restraint was beginning to develop in financial markets early in 1966, even though rapid money stock growth continued.

If any doubt existed that monetary restraint was beginning to pinch before it became evident in the banking figures, those doubts should have been laid to rest by what happened to the volume of home-building during 1966. It is widely recognized that monetary policy affects spending for goods and services only with a variable and often a rather considerable lag, and that it has a larger impact on housing than on any other sector of the economy. In 1966, however, housing starts leveled out in the first quarter and then began to drop abruptly in the second, reaching a trough in October. This timing of the response of housing starts to financial restraint can be explained, I believe, only by recognizing that the principal indicators of monetary restraint in early 1966 were not recorded in the money stock, but in the steep decline in the inflows of funds to nonbank financial institutions. Had we guided policies solely by the money stock in early 1966, we could easily have overlooked altogether the strong effects on housing that monetary restraint was in fact producing.

But as the year 1966 progressed, an increasing intensity of monetary restraint was signaled by almost every indicator of monetary policy customarily observed. Growth in the money stock was halted for a period of 7 to 8 months and the expansion in commercial bank time deposits declined markedly after midyear. Large banks, particularly, were put under severe strain, as the maintenance of ceilings on large CD's at 5-1/2 per cent--while yields on competing financial assets were rising rapidly--led nonfinancial corporations and other large investors to shift their funds out of the CD market. Inflows of funds to nonbank

intermediaries, meanwhile, continued at low levels through the summer and early fall months. These signs of monetary restraint in the quantities were also reflected in interest rates, which rose rapidly during the summer of 1966 to the highest levels in about four decades.

Perhaps a case could be made for the argument that some of the financial indicators in the summer and early fall of 1966 overestimated the degree of monetary restraint generated by policy actions. Some of the financial pressure suggested by the declining growth rate of commercial bank deposits, for example, was being cushioned by large inflows of funds from abroad--in the form of increased liabilities of our banks to foreign branches. But the relief to the banking system as a whole was relatively limited. The fact of the matter is, I believe, that monetary restraint became quite severe in the summer and early fall of 1966, a conclusion that would have been drawn from a wide variety of indicators of monetary policy.

As noted earlier, some critics of Federal Reserve policy have concluded that monetary policy became excessively tight during this period and point to the slowing of real growth in output late in 1966 and on through the first half of 1967 as confirmation of their point of view. I would not question that some of the restrictive effects on spending of earlier tight monetary policies were still being recorded in the first half of 1967--although it may be noted that outlays for residential construction began to rise as early as the first quarter of that year. What I would question is the contention that the inventory adjustment of early 1967 was entirely, or even primarily, caused by tight money in 1966.

The undesired buildup of inventories that occurred in the last quarter of 1966 reflected mainly the inability of business to foresee the slowdown in final sales that resulted when consumers began to exercise more cautious buying attitudes. Personal consumption expenditures had been rising at a rate of about \$8 to \$9 billion per quarter in the year ended with the third quarter of 1966--and so far as anyone knew at that time, they might well have continued to do so. But consumer buying slowed materially in the fourth quarter, as a major increase occurred in the personal savings rate, and consumers continued to exercise caution in their buying habits throughout 1967. At best, this behavior of consumers can be attributed only in small measure to tight money in the summer and fall months of 1966. Many other factors were undoubtedly of fundamental importance--including a reaction to the rapid income growth and the buildup of stocks of durable assets in the immediately preceding years, resistance to rising prices, and the general uncertainties emanating from our involvement in Vietnam.

But whatever its origin, the economic slowdown of early 1967 did require compensating adjustments in monetary policy to keep the economy from slipping into recessionary conditions. Fortunately, the inventory correction of early 1967 was anticipated in time to take the initial steps toward monetary ease in the fall of 1966, and this helped to bolster residential construction through the first half of 1967. With fiscal policy also turning expansive

and helping to bolster final sales substantially during the first half of 1967, excess inventories were worked off relatively quickly, and by July industrial production had begun to turn up again.

The pickup in business activity after midyear 1967 was foreseen by a number of forecasters, including our own staff at the Federal Reserve Board. Why, then, did monetary policy not take earlier and more decisive steps to reduce the rate of expansion in the money stock and in bank credit during the latter half of the year? There are two parts to the answer to that question.

First, the high rate of expansion in the money stock during the final 6 months of last year greatly overstates the actual degree of monetary ease promoted by monetary policy. What it represented was the supplying of funds through monetary policy to permit the satisfaction of a sharp increase in liquidity preference on the part of nonfinancial corporations. Their desires to rebuild liquid asset holdings stemmed only in part from the experience with tight credit policies in '66. Of more fundamental importance were the trends in corporate liquid asset management over the previous several years, together with the heavy toll on corporate liquidity resulting from the acceleration of tax payments that began in 1966.

In the years immediately prior to 1966, businesses in the aggregate had little need to concern themselves with their liquidity positions or with the availability of bank loans or other sources of funds to meet their credit needs. Partly as a consequence of this,

additions to liquid asset holdings were relatively modest. Thus, increases in liquid asset holdings of nonfinancial corporations were less than \$1 billion in each of the years 1964 and 1965.

Businesses entered the period of accelerated tax payments, therefore, with little preparation for meeting a heavy excess of tax payments over accruals for nonfinancial corporations, payments exceeded accruing liabilities by about \$2 billion in the second quarter of 1966 and by about \$5 billion in the second quarter of 1967. With credit markets taut during a large part of this period, liquid asset holdings were run down by nearly \$3 billion in the year ended in mid-1967, in reflection of the heavy needs for funds for accelerated payments of taxes and other purposes.

Many businesses, consequently, took the opportunity afforded by more ample credit availability in 1967 to do something about their liquidity positions. Corporate long-term security issues began to rise rapidly in reflection of these increased liquidity demands during the spring of 1967, and they remained at exceptionally high levels until late in the year. Observers close to financial markets reported that an unusual increase in liquidity preference was responsible. The demand for money had thus risen for reasons not associated with intentions to spend for goods and services. This is the kind of increase in demand for money which monetary policy can meet, by permitting an increase in the supply, without inflationary consequences.

The behavior of interest rates during the latter half of 1967 provided the confirmation needed that this interpretation was on the right track. Interest rates on longer-term securities had begun rising in the spring months in response to the rapidly growing supply of corporate long-term borrowing. Short-term rates, however, continued to decline until shortly before midyear. After midyear, however, interest rates began to rise drastically across the range of maturities, and the increases were much too rapid to be explained by the effects of rising incomes and economic activity generating increased demands for credit. They were reflecting increased demands for quick assets to restore balance sheet liquidity--demands that were not being fully satisfied by the rate of growth in money and time deposits permitted by monetary policy. It seems evident that monetary policy was much less expansive in 1967 than the high rate of monetary growth, taken by itself, might seem to imply.

Nevertheless, had it been known that timely fiscal restraint was not going to be forthcoming, monetary policy would have been less expansive over the summer and fall of 1967, in order to achieve a posture more consistent with a return to price stability. Earlier adoption of a program of monetary restraint would have been difficult, in light of the turbulent state of domestic and international financial markets, but it would not have been impossible. Such a program was not adopted earlier, I believe, largely because those of us responsible

for making monetary decisions found it almost inconceivable that this Nation would once again, following the painful experience of 1966, choose to rely exclusively on monetary policy to moderate the growth in aggregate demand and slow inflationary pressures. Let us fervently hope that the brightening prospects for fiscal restraint we presently see on the horizon provide justification for that expectation.

FINANCIAL ASSETS -- Annual Growth Rates

PER CENT

